

# BUS SAFETY

---

---

## HEARING

BEFORE THE

SUBCOMMITTEE ON SURFACE TRANSPORTATION  
AND MERCHANT MARINE INFRASTRUCTURE,  
SAFETY, AND SECURITY

OF THE

COMMITTEE ON COMMERCE,  
SCIENCE, AND TRANSPORTATION  
UNITED STATES SENATE

ONE HUNDRED TENTH CONGRESS

SECOND SESSION

SEPTEMBER 18, 2008

Printed for the use of the Committee on Commerce, Science, and Transportation



U.S. GOVERNMENT PRINTING OFFICE

80-274 PDF

WASHINGTON : 2013

---

For sale by the Superintendent of Documents, U.S. Government Printing Office  
Internet: [bookstore.gpo.gov](http://bookstore.gpo.gov) Phone: toll free (866) 512-1800; DC area (202) 512-1800  
Fax: (202) 512-2104 Mail: Stop IDCC, Washington, DC 20402-0001

SENATE COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION

ONE HUNDRED TENTH CONGRESS

SECOND SESSION

DANIEL K. INOUE, Hawaii, *Chairman*

JOHN D. ROCKEFELLER IV, West Virginia	KAY BAILEY HUTCHISON, Texas, <i>Ranking</i>
JOHN F. KERRY, Massachusetts	TED STEVENS, Alaska
BYRON L. DORGAN, North Dakota	JOHN McCAIN, Arizona
BARBARA BOXER, California	OLYMPIA J. SNOWE, Maine
BILL NELSON, Florida	GORDON H. SMITH, Oregon
MARIA CANTWELL, Washington	JOHN ENSIGN, Nevada
FRANK R. LAUTENBERG, New Jersey	JOHN E. SUNUNU, New Hampshire
MARK PRYOR, Arkansas	JIM DEMINT, South Carolina
THOMAS R. CARPER, Delaware	DAVID VITTER, Louisiana
CLAIRE McCASKILL, Missouri	JOHN THUNE, South Dakota
AMY KLOBUCHAR, Minnesota	ROGER F. WICKER, Mississippi

MARGARET L. CUMMISKY, *Democratic Staff Director and Chief Counsel*

LILA HARPER HELMS, *Democratic Deputy Staff Director and Policy Director*

CHRISTINE D. KURTH, *Republican Staff Director and General Counsel*

PAUL NAGLE, *Republican Chief Counsel*

---

SUBCOMMITTEE ON SURFACE TRANSPORTATION AND MERCHANT  
MARINE INFRASTRUCTURE, SAFETY, AND SECURITY

FRANK R. LAUTENBERG, New Jersey, <i>Chairman</i>	GORDON H. SMITH, Oregon, <i>Ranking</i>
JOHN D. ROCKEFELLER IV, West Virginia	JOHN McCAIN, Arizona
JOHN F. KERRY, Massachusetts	KAY BAILEY HUTCHISON, Texas
BYRON L. DORGAN, North Dakota	OLYMPIA J. SNOWE, Maine
MARIA CANTWELL, Washington	JIM DEMINT, South Carolina
MARK PRYOR, Arkansas	DAVID VITTER, Louisiana
THOMAS R. CARPER, Delaware	JOHN THUNE, South Dakota
CLAIRE McCASKILL, Missouri	ROGER F. WICKER, Mississippi
AMY KLOBUCHAR, Minnesota	

## CONTENTS

---

	Page
Hearing held on September 18, 2008 .....	1
Statement of Senator Hutchison .....	3
Statement of Senator Lautenberg .....	1

### WITNESSES

Betts, John, Motorcoach Safety Now .....	66
Prepared statement .....	68
Brown, Hon. Sherrod, U.S. Senator from Ohio .....	4
Forman, Stephen, West Brook Bus Crash Families, Beaumont, Texas .....	61
Prepared statement .....	64
Gillan, Jacqueline S., Vice President, Advocates for Highway and Auto Safety .....	40
Prepared statement .....	41
Hill, Hon. John, Administrator, Federal Motor Carrier Safety Administration .....	6
Prepared statement .....	7
Kelly, David, Acting Administrator, National Highway Traffic Safety Administration .....	24
Prepared statement .....	25
Pantuso, Peter J., President and CEO, American Bus Association .....	34
Prepared statement .....	35
Rosenker, Hon. Mark V., Acting Chairman, National Transportation Safety Board .....	12
Prepared statement .....	13

### APPENDIX

Letter, dated February 18, 2008, from Peter T. Dishart, President, Enhanced Protective Glass Automotive Association (EPGAA), to the Hon. Kay Bailey Hutchison .....	80
Letter, dated September 15, 2008, from Yen-Chi Le, Ph.D., to Chairman Inouye of the Senate Commerce, Science, and Transportation Committee .....	81
Letter, dated September 18, 2008 from Barry A. Mesley to the Senate Subcommittee on Surface Transportation and Marine Infrastructure, Safety, and Security and the Committee on Commerce, Science, and Transportation .....	83
Letter, dated September 18, 2008 from Lynn Mesley to the Senate Subcommittee on Surface Transportation and Marine Infrastructure, Safety, and Security and the Committee on Commerce, Science, and Transportation .....	82
Response to written questions submitted by Hon. Frank R. Lautenberg to: Jacqueline S. Gillan .....	84
Hon. John Hill .....	83
United Motorcoach Association, prepared statement .....	79



## **BUS SAFETY**

---

**THURSDAY, SEPTEMBER 18, 2008**

U.S. SENATE,  
SUBCOMMITTEE ON SURFACE TRANSPORTATION AND  
MERCHANT MARINE INFRASTRUCTURE, SAFETY, AND SECURITY,  
COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION,  
*Washington, DC.*

The Subcommittee met, pursuant to notice, at 2:39 p.m., in room SR-253, Russell Senate Office Building, Hon. Frank R. Lautenberg, Chairman of the Subcommittee, presiding.

### **OPENING STATEMENT OF HON. FRANK R. LAUTENBERG, U.S. SENATOR FROM NEW JERSEY**

Senator LAUTENBERG. The hearing will come to order, and I welcome everyone here to today's discussion on the safety of our nation's buses and the passengers who ride in them. This is a hearing of the Surface Transportation, Merchant Marine Infrastructure, Safety, and Security Subcommittee.

Our goal is to examine the current laws and safety practices that govern motorcoaches, known as the "over-the-road" buses, and how we can improve them.

Buses play a critical role in our nation's transportation network. They connect cities and communities that are often without access to trains or commercial airlines. They take school sports teams to games, tourist groups sightseeing all over our Nation and help evacuate populations being threatened by hurricanes or other natural disasters. And we saw just this last week during Hurricane Ike when buses were shuttling evacuees to safety.

In 2006, 631 million passenger trips were taken on a fleet of almost 40,000 motorcoaches in the United States. More of these vehicles are operated out of my state of New Jersey than in any other state in the country. So it is very important for us, as it is to me and everyone on this Subcommittee, that these buses are safe.

Unfortunately, there have been some serious crashes. Over the last decade, an average of 16 motorcoach passengers and drivers have been killed in crashes each year. And just last month in New Jersey, two tour buses collided, sending one down a 50-foot ravine. Fortunately, nobody was killed, but many were injured.

And I know that we are joined today by many of the victims and their families of the West Brook High School and Bluffton University bus crashes. So I thank you for being here. Your work will help prevent a tragedy like the ones that you have experienced from happening again.

And like these victims and their families, my concern is that we are not doing enough to regulate bus companies and protect riders from injury or even death. We have a picture here that is really shocking. This is evidence that more safety oversight is needed. This is a picture received by my office of a bus wheel. The bus belongs to a curbside operator right here in Washington, and the photo was taken as the bus pulled up to start loading passengers. Now, this is a hanger here, in case you cannot see it, and that is what is used to hold this brake pad together here. Now, these companies, you know, do not use bus depots, but they pick passengers up and drop them off at the curb. And this was spotted by a police officer, and that is how this picture was taken. But is that not a disgraceful thing, put together with a coat hanger? It is unbelievable.

One safety expert who saw the picture commented that this is typical for curbside operators who have very little oversight. The reason that we need better laws and oversight is the carelessness with human life that this picture demonstrates.

Two months ago, Congress passed the Over-the-Road Transportation Accessibility Act, which was an important step to put in place common sense regulation for approving new bus operators. Now, thanks to that bill, the Federal Motor Carrier Safety Administration now requires that bus companies meet disability access laws as intended by the Americans with Disabilities Act. So I am pleased that this subcommittee acted to make sure that that bill became law.

But there is still work to do to make buses safer for their travelers and drivers, as well as for passengers of other vehicles on the road. Buses still lack many critical safety features that can save lives. Most school buses lack seat belts, for instance, and there are no standards for roof strength, which is critical when a bus rolls over. And unfit and fatigued drivers continue to be able to get behind the wheel.

So we should be making safety improvements to the vehicles themselves, as well as completing work in the comprehensive medical oversight program to prevent unfit drivers from operating commercial vehicles, as required by the SAFETEA-LU legislation.

Many of the improvements that we need to make buses safer are similar to those that we also need in big trucks. For instance, we know that fatigue is a problem for both bus and truck drivers alike, and requiring electronic on-board recorders can make sure that both are ready to be on the road. The vehicle may look different, but many of the safety problems and inadequate oversight are the same.

And as we look to reauthorize the Federal surface transportation programs during the next Congress, we need to thoroughly revamp both our bus and truck safety programs.

Now, Senators Brown and Hutchison have introduced legislation to begin that process, and as the families and victims who are here with us today know all too well, we must act to improve the safety of our buses and the men, women, and children who ride them.

So I look forward to hearing from today's witnesses as we continue that effort.

Now I would like to turn to Senator Hutchison for any statement that she would like to make, and then we will call on Senator Brown.

**STATEMENT OF HON. KAY BAILEY HUTCHISON,  
U.S. SENATOR FROM TEXAS**

Senator HUTCHISON. Well, thank you very much, Mr. Chairman. I appreciate our having this hearing because it is this hearing that will allow us to mark up a bill that will send this bill to the floor, and I look forward to having your input and those of other members of our Committee in order to do that.

Let me just say that we do have here many of the families and victims of bus accidents who have taken their time to come and try to assure that other families will not have to go through what they have had to. And Senator Brown and I just had a press conference outside in front of a bus to show some of the things that can be done, and we are so appreciative of the families who came to testify. And I am very pleased that we are going to have some of the experts here also testify about what our bill would do and what other things need to be done for bus safety.

The fact of the matter is, we have had just in August in this country major bus accidents that caused fatalities in Texas, Nevada, Mississippi, and New Jersey. The Texas one has representatives here, and I would like to ask the group from Houston who have family members and victims from the bus accident in Sherman to please stand.

They were out at the press conference. So I am sure that they will be coming in.

And then we have from West Brook High School in Beaumont victims and families of the accident that was held to the soccer team there. Yes, thank you very much.

And I know that Senator Brown has constituents here from the bus accident with the Bluffton baseball team. And if they would stand. Yes, thank you.

This just shows, I think, Mr. Chairman, how deeply these families feel that they are continuing to try to do something that will allow this to become a safer country for bus passengers.

Let me just say a couple of things about the bill that Senator Brown and I have introduced. It has two points.

One is we have technology now that can prevent the accident itself. The stabilization control technology has now been developed. Mr. Hill, who will testify later, told me about how that technology has improved. Collision avoidance systems are also available now that can keep an accident from happening. And we can upgrade our standards for certification and for tracing when a bus company is decertified and then goes in under another name and keeps the same unfit buses. We can do more in the area of requirements for inspections. All of these things would help in the prevention of the crash itself.

But accidents will happen. So the other part of our bill will deal with survivability of an accident, and that means seat belts on buses. This is something that we believe will make a big difference and something that is very easy to be done in buses because we know it has been done in other countries.

In addition to that, we can put glazing on the windows that will keep people from being ejected, which is a major cause of fatality and injury.

And looking at the way that we can reinforce roofs because many of these buses have glass tops so that you can look out, but we could also reinforce those, again, with new technology. And we want to have the ability to study how we can better reinforce those roofs.

So we have two parts of our bill: prevention and survivability. And that is what we want to move forward, Mr. Chairman. We thank you for having this hearing so that we will be able to move forward. I hope it will be this year. If it not this year, we are looking forward to at least early next year having this bill come out with Committee input to be able to do something for the future travelers in our states and throughout our country. And I think that all of us know that we can do it.

Thank you very much.

Senator LAUTENBERG. Congratulations to you and to Senator Brown. I join with you in terms of the concerns and want to get things done.

We now call on Senator Brown. Pleased to have you here with us.

**STATEMENT OF HON. SHERROD BROWN,  
U.S. SENATOR FROM OHIO**

Senator BROWN. Thank you, Mr. Chairman. I really appreciate it, and Senator Hutchison, thank you for being here certainly and for your terrific work in moving this forward.

I would like to thank all the witnesses who are joining us today, especially John Betts. John and Joy lost their son David, a member of Ohio's Bluffton University baseball team, in March 2007. They were on a trip to Florida for a baseball tournament when the bus lost control on a poorly marked exit ramp just outside Atlanta and toppled from an overpass. Five players died. The bus driver and his wife died, and several players were pretty badly injured in that accident.

Since that day, Joy and John, joined by Barry and Lynn Mesley, also here today, who lost their son also from the Bluffton baseball team, have been courageous and vocal advocates for motorcoach safety. And it takes special people who are willing to work through their grief and fight for sort of the next group of people so they do not have to have the grief that so many people behind me have had to endure in the last several years.

The final report from the Bluffton motorcoach accident released this spring echoes the recommendations that NTSB has been publishing for years and aligns itself with the safety improvements incorporated in the legislation that Senator Hutchison and I have been working on for some time. Specifically, NTSB underscored some major safety shortfalls from that accident that must be addressed such as better protection systems for occupants, stronger passenger safety standards, improved safety equipment and devices, and the need for on-board recorders with the capability to collect crash data. These technologies are not exotic. Many have

been around for a long time, but since they are not required, they simply have not been installed in American motorcoaches.

Jackie Gillan, who is the Vice President of Advocates for Highway and Auto Safety, who perhaps has done more than anybody in this city or anywhere else on vehicle safety and highway safety, recounts through history, through the last 40 years of history, how all the major motor vehicle safety measures that have happened have happened because Congress passed them, and Federal and State agencies do not do it. It really is up to the U.S. Senate and the House of Representatives, as it was with seat belts and air bags and all the kinds of things that many people—and you, I know, Mr. Chairman, have been so supportive of all of those.

As a father of four, I find it particularly disturbing to know students are still driving and riding in vehicles without even the option of buckling up. Seat belts, window glazings, fire extinguishers—as I said, those are not new technologies. They are common sense safety features that are widely used that are not highly expensive to do, especially when the bus is actually being manufactured. Yet, mandating them, as recommended by NTSB, has been languishing for years.

Last month was yet another fatal month for motorcoach passengers, as family members of victims of the Sherman, Texas crash, who are here today, show. There is no question that with stronger safety regulations, the tragedies and fatalities in motorcoach accidents can, in fact, be minimized. If the technology to save lives and reduce injuries exists—and it certainly does—we must make every effort to put that technology to use, and since the bus companies and motorcoach companies have not done it on their own, it is up to us to make it happen.

It is my hope that in the future, parents will not have to endure the anguish and the grief that the Mesleys and the Bettses and Ms. Lee, who is here on behalf of her mother who died, and the Formans—Steve Forman here with his daughter who was injured. That just should not happen anymore.

I thank the Chairman for his interest.

Senator LAUTENBERG. Thank you very much, Senator Brown.

Senator HUTCHISON, do you have anything else that you want to add?

Senator HUTCHISON. No, Mr. Chairman.

Senator LAUTENBERG. Then I would thank you very much for being with us, Senator Brown.

Now I would like to welcome today's first panel of witnesses to discuss their ideas and their plans on how to improve the safety of motorcoaches and the passengers who use them.

First, John Hill is the Administrator of the Federal Motor Carrier Safety Administration at the Department of Transportation. His agency is responsible for bus and truck safety, and he is in charge of several programs to address the safety challenges that we are discussing today.

Mr. David Kelly, Acting Administrator at the National Highway Traffic Safety Administration. His agency sets safety standards for every new motorcoach sold in our country.

And Mark Rosenker is the Acting Chairman of the National Transportation Safety Board. There are several recommendations on the NTSB's most wanted safety improvement list for buses.

I thank all of you for coming today and lending your expertise to this hearing. Mr. Hill, I would call on you first. Please recognize that we have a 5-minute time limit. We would ask you to try to stay within that timeframe.

**STATEMENT OF HON. JOHN HILL, ADMINISTRATOR,  
FEDERAL MOTOR CARRIER SAFETY ADMINISTRATION**

Mr. HILL. Yes, Mr. Chairman. Thank you. It is a pleasure to be with you today, and Members of the Subcommittee; Senator Hutchison, thank you for appearing today as well.

As announced by Secretary Mary Peters, the total number of fatalities on the Nation's highways declined 3.9 percent in 2007, the lowest level since 1994. 2007 had the lowest fatal bus crashes since 2004, down 8.6 percent from 2006.

During my tenure as Administrator, I have redirected the agency's resources and engaged our state partners to prioritize motorcoach programs by expediting safety audits and complete more compliance reviews and inspections, by requiring each state to establish a motorcoach safety program.

The devastation of the August 8 crash in Sherman, Texas, is a solemn reminder of the need for rigorous oversight and strong penalties for unsafe bus carriers. Due to the illegal behavior of the motor carrier involved, 17 people lost their lives and 15 others were injured. The carrier involved in this tragic crash was operating illegally and was a reincarnation of another unsafe motorcoach company that FMCSA had placed out of service in June. Both companies were owned and operated by the same individual, and the newly created carrier involved in the crash was placed out of service the day following the crash.

Although the National Transportation Safety Board's investigation is continuing, at this time FMCSA has discovered at least four deficiencies with the motor carrier and the equipment involved in the crash. First, the motor carrier did not have the authority to operate as a for-hire motor carrier. Second, the tire that blew was a recap/retread tire installed in the front steering axle, which is impermissible under our regulations. Third, the carrier did not ensure that the driver was medically qualified, and last, the carrier was not conducting pre-employment drug testing.

While investigating, FMCSA determined that the motor carrier was operating motorcoaches that were being used by a third passenger carrier. The agency immediately dispatched investigators and issued an imminent hazard out-of-service order on this third carrier, shutting down any operations involving the carriers implicated in the crash.

The bus involved in the Sherman crash had been inspected as recently as July 31 and did not have a retread tire at that time. The vehicle and driver deficiencies permitted by this carrier demonstrate how far some motor carriers will go to defy existing laws and regulations.

Fortunately, the majority of the industry, nearly 3,900 active passenger carriers, operates properly and delivers its passengers safely.

In 2007, FMCSA and our State partners more than doubled the number of compliance reviews, referred to as the CR's, to 1,300 from 600 in 2006. This represents a 185 percent increase over the number of compliance reviews in 1985. To date in 2008, the agency has completed 1,257 compliance reviews on motorcoach companies.

We also have a safe stat system which identifies high-risk motor carriers in need of agency oversight. Consistent with NTSB recommendations, we revised that system to identify additional passenger carriers that will receive compliance reviews.

FMCSA and its State partners completed approximately 148,000 bus inspections in Fiscal Year 2007, 160 percent higher than were conducted in 2005, and to date, we have conducted over 140,000 of these inspections. And especially noteworthy is the increasing number of bus inspections, even though the SAFETEA-LU reauthorization bill instituted a prohibition of en route bus inspections unless an egregious safety defect exists.

We continue to recognize the importance of strong safety data. Therefore, we are working to establish a bus fire database that will give us more information about bus fires and allow us to better have a handle on what is going on in the industry regarding these tragic fires.

The agency established a goal to complete new entrant safety audits for motor carriers within 9 months, rather than the 18 months as required by statute. Rather than taking 9 months, on average we are getting to the audits of these companies within 5 months.

FMCSA has responded to a number of NTSB motorcoach recommendations. Several of these relate to the medical certification requirements final rule and national registry of certified medical examiners notice of proposed rulemaking currently under review at the Office of Management and Budget, and we will plan to publish these rules later this year.

FMCSA partnered with the motorcoach industry to develop and distribute a booklet on motorcoach brake systems and safety technologies. Recently we requested closure of three other recommendations relating to the publishing of pre-trip safety guidance and outreach materials.

Mr. Chairman, sadly the owner of the company involved in the Sherman crash chose to ignore passenger safety by disregarding the rules intended to protect them. Our agency is dedicated to finding and stopping such operators before they commit these atrocious acts.

I would be happy to respond to your questions. Thank you.

[The prepared statement of Mr. Hill follows:]

PREPARED STATEMENT OF HON. JOHN HILL, ADMINISTRATOR,  
FEDERAL MOTOR CARRIER SAFETY ADMINISTRATION

Chairman Lautenberg, Ranking Member Smith, and Members of the Subcommittee, thank you for inviting me today to discuss the Federal Motor Carrier Safety Administration's (FMCSA) programs related to bus operations. I am pleased to have the opportunity to discuss how FMCSA's important programs improve bus safety and make the Nation's highways safer. As recently announced by Transportation Secretary Mary Peters, the total number of fatalities on the Nation's high-

ways declined 3.9 percent in 2007 to the lowest level since 1994. For the bus industry, 2007 had the fewest fatal bus crashes since 2004, down 8.6 percent from 2006. The number of fatalities in bus crashes was also 4.5 percent lower than in 2006. The Agency recognizes, however, that every life lost is one too many, and understands fully the risk of multiple injuries and fatalities in a bus crash. As a result, we continue to place a high priority on our passenger carrier programs.

The industry has seen many recent market changes. For example, the economy and rising fuel prices have contributed to increased ridership and new bus companies. FMCSA monitors the industry, remaining agile and adjusting as needed to offset the risks that these changes introduce.

FMCSA remains dedicated to developing and implementing strong safety programs to reduce crashes of buses and large trucks. Over the past 8½ years, the Agency has implemented new regulations, grant requirements, processes, and penalties to make the industry safer. During my tenure as Administrator, I have redirected FMCSA's resources and engaged our State partners actively to complete more compliance reviews (CRs), inspections, and nationwide strike forces. Within the last year, I visited the National Highway Traffic Safety Administration's (NHTSA) Vehicle Research and Test Center in East Liberty, Ohio, and witnessed a motorcoach crash test to gain additional information and insight into passenger carrier safety issues. Additionally, I rode two curbside buses to New York, NY, from Washington, D.C., to understand how this emerging business model employs safety practices in its operations.

#### **Sherman, Texas Motorcoach Crash**

Seeing the devastation of the August 8, 2008, crash in Sherman, Texas, is a solemn reminder of the need for rigorous oversight and strong penalties for unsafe carriers. Due to the alleged unsafe behavior of the motor carrier involved, 17 people on a religious pilgrimage lost their lives and 15 others were injured. The families and communities of these victims will suffer the repercussions for a long time.

The carrier involved in this tragic crash, Igualea Busmex, did not have proper authority to operate and was actually a reincarnation of another unsafe motorcoach company, Angel Tours, Inc., that FMCSA had placed out-of-service in June after declaring it unsatisfactory and unfit to operate. Both of these companies were owned and operated by the same individual, Angel De La Torre. Although the National Transportation Safety Board's (NTSB's) investigation is proceeding, FMCSA discovered at least three deficiencies with Igualea Busmex when the crash occurred, in addition to its not having operating authority.

First, the tire that deflated was a recap/retread tire that had been installed on the right front steering axle, in violation of the Federal Motor Carrier Safety Regulations. While such tires are permitted on axles at the rear of a bus, having them on a front or steering axle is prohibited by Federal regulations. Second, the carrier did not ensure that the driver was certified as meeting our medical standards. The driver had an expired medical certificate in his possession at the time of the crash. Third, the carrier was not conducting preemployment drug testing.

Further, while investigating, FMCSA determined that the motor carrier was operating motorcoaches that were being used by two different motor carriers, Igualea Busmex, Inc. and Liberty Charters and Tours. Following the discovery of this information, FMCSA dispatched additional investigators.

FMCSA discovered that Angel De La Torre was involved in managing at least some aspects of Liberty Charters and Tours. Based on these findings, FMCSA issued an imminent hazard out-of-service order on August 12 prohibiting Liberty Charters and Tours from using drivers or vehicles that were under the control or employ of Angel Tours, Igualea Busmex, or Angel De La Torre. The Agency issues imminent hazard out-of-service orders when continued operation of the company increases substantially the likelihood of serious injury or death.

The bus involved in the Sherman crash had been inspected as recently as July 31, and did not have a retread tire at that time. However, FMCSA's continuing investigations demonstrate the extent to which some motor carriers go to defy laws and regulations. They represent the most egregious carriers with which we must contend. Fortunately, these carriers represent the minority of the industry. Most of the 3,938 active interstate motorcoach carriers operating 33,250 vehicles operate properly and deliver their passengers safely.

#### **Update on FMCSA's National Bus Safety Program**

When I testified before your House colleagues in March 2007, I explained that FMCSA's National Motorcoach Safety Program emphasizes six areas: (1) increasing the number of motorcoach CRs; (2) ensuring passenger carriers have a higher priority within FMCSA's CR prioritization system, known as SafeStat; (3) establishing

formal bus inspection programs within all States; (4) improving the collection and analysis of safety data; (5) reducing motorcoach fires; and (6) expediting safety audits of new entrant passenger carriers. Over the past 14 months, FMCSA has made considerable progress in each of these areas.

#### *Motorcoach Compliance Reviews*

In Fiscal Year 2005, FMCSA and its State partners completed CRs on 457 motorcoach companies. FMCSA increased this number to more than 600 in FY 2006. I am pleased to report that this was more than doubled in 2007 to 1,304. In FY 2008, the Agency has completed 1,257 motorcoach CRs to date. FMCSA continues to adjust its resources and goals to reach more motorcoach carriers. I would like to take this opportunity to commend FMCSA's State partners and the Commercial Vehicle Safety Alliance (CVSA), who have been instrumental in helping exceed these goals.

#### *Passenger Carrier Enhancements to the SafeStat System*

Directly related to FMCSA's CR program is the Agency's modification of the algorithm used in the SafeStat system. FMCSA and State enforcement inspectors use the SafeStat system to identify high risk motor carriers in need of Agency oversight. The Agency recognizes that bus companies should receive the utmost program attention and enforcement resources. As a result, FMCSA has revised its SafeStat CR prioritization system to address the additional risks associated with passenger transportation by applying more stringent safety standards for passenger carriers. Under the revised system, FMCSA has identified additional groups of passenger carriers as its highest priorities for CRs. These groups include passenger carriers with less than satisfactory ratings, those with operational data showing violations, and passenger carriers that have not been reviewed in the last 5 years.

Prior to the implementation of this new algorithm, 101 passenger carriers were on the prioritized CR list. Under the new system, FMCSA will now be reviewing 889 passenger carriers on the priority list, nearly double the number of passenger carrier CRs in FY 2005.

#### *Bus Inspections*

For the past two Fiscal Years, FMCSA's State partners have been required to include a bus inspection program in their Commercial Vehicle Safety Plan (CVSP) in order to receive funding under the Motor Carrier Safety Assistance Program. As a result, 147,686 bus inspections were completed in FY 2007, which is 160 percent higher than the 56,084 bus inspections conducted in FY 2005. In FY 2008, 140,448 inspections have been conducted to date.

The FMCSA has continued to augment its program with bus strike forces to focus attention on passenger carrier safety. The most recent strike force was conducted August 4–16 and spanned all 50 states and the District of Columbia. Federal and State personnel from numerous law enforcement agencies participated in the strike force, completing approximately 12,000 safety inspections on vehicles and drivers. As a result, 1,200 buses were placed out of service.

#### *Improved Safety Data*

The results of these increased efforts remove unsafe drivers and vehicles from the road and give the Agency additional data on passenger carriers that can be used to further research, program initiatives, and risk assessment on carriers and drivers.

FMCSA is currently completing a Bus Crash Causation Study. Based on the data analysis to date, it appears that, like the Large Truck Crash Causation Study (LTCCS) issued in November 2005, other vehicles and drivers were responsible for the crashes in more than half of the cases (20 out of 39). In addition, where the critical reason for the crash was assigned to the bus driver, the crash was the result of driver errors including inadequate surveillance, inattention, and following too closely. Only four crashes were related to vehicle malfunctions. In two cases, brakes failed and in the other two there were fires. The Agency will continue its efforts to increase focus on both commercial motor vehicle (CMV) and nonCMV drivers.

#### *Bus Fires*

On July 24, 2007, FMCSA published a *Federal Register* notice to advise that fires must be treated as crashes concerning reporting requirements. Motor carriers must now include fires on their accident register and law enforcement agencies should capture the information on their State Accident Reporting System. The additional data from this change improves significantly FMCSA's fire data collection and analysis efforts.

The FMCSA, through the Department's Volpe National Transportation Systems Center, developed a national motorcoach fire database and completed a fire safety

analysis. This study reviewed more than 500 fire incidents over the last 10 years using information from FMCSA's Motor Carrier Management Information System, the Department of Homeland Security's National Fire Incident Reporting System, and individual state accident reporting data. The study recommended focusing on improving the effectiveness of State and Federal motorcoach inspection practices to identify mechanical conditions that can cause fires. With this information, FMCSA worked with the CVSA to change the out-of-service criteria to include oil leaks in wheel hubs and frayed or damaged wiring on bus electrical systems.

The FMCSA is expanding the original study to include newly available fire information from 2004 to 2008. This will allow the Agency to examine newer motorcoaches that may be equipped with automatic fire detection and suppression systems and evaluate the efficacy of such safety devices. Recently, FMCSA entered into a partnership with NHTSA's Special Crash Investigation unit to evaluate fire incidents on motorcoaches and conduct detailed engineering root cause analysis. A team of NHTSA technical experts will travel to motorcoach fires to perform an engineering analysis to determine whether root cause engineering data can be obtained that will indicate why the fire occurred and whether a primary contributing factor can be identified.

#### *New Entrant Passenger Carriers*

As reported in July 2007, FMCSA established an internal goal to complete the new entrant safety audits for passenger carriers within 9 months, rather than the 18 months provided in the originating statute. In FY 2007, FMCSA completed 86.6 percent within 9 months and 94.7 percent within 18 months. For FY 2008, to date, the percentages are 83.5 percent and 94.8 percent, respectively. On average, a safety audit is conducted on a new motorcoach carrier within 4.5 months.

The Agency expects publication of the final rule on the New Entrant Safety Assurance Process later this year. At present, the rule is in the final stages of Departmental review. The notice of proposed rulemaking published on December 21, 2006, recommended strengthening the standards for all motor carriers and requiring verification and education about the requirements of the Americans with Disabilities Act (ADA) during the safety audit. Changes in this program will contribute significantly to starting new carriers off right and will enable FMCSA and its State partners to identify unsafe carriers and ensure the early correction of unsafe practices.

#### **Current and Future Authorities**

While these six National Motorcoach Safety Program initiatives have resulted in significant enhancements to our safety programs, FMCSA continues to use its current authority and looks for additional authority that would eliminate loopholes, identify more unsafe carriers, and make the industry safer. Recently, FMCSA received additional direction through the Over-the-Road Bus Transportation Accessibility Act of 2007 (P.L. 110-291), signed into law by President Bush on July 30. This legislation clarifies the Agency's role in considering ADA compliance before operating authority is granted and authorizes the Agency to revoke operating authority based on willful noncompliance with DOT's ADA regulations.

I am pleased to report that FMCSA met the requirement of the Act to "take necessary actions to implement the changes required" within 30 days. To that end, the Agency has provided staff with the needed procedures and direction for implementation. In addition, we have initiated the development of the Memorandum of Understanding (MOU) with the Department of Justice, as required by the statute, and are on target to complete the MOU by the 6-month statutory deadline.

The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) established the Motor Carrier Safety Advisory Committee (MCSAC) to provide advice and recommendations on motor carrier safety programs and motor carrier safety regulations. The MCSAC recently recommended several reauthorization proposals to the Agency for consideration. We are now reviewing the advisory committee's recommendations. The Agency's next reauthorization will be critical in providing the tools and resources needed by FMCSA to create an even more robust safety program.

To ensure that noncompliant carriers are not attempting to evade detection by creating new motor carriers, the Agency has implemented a vetting process for new passenger carrier operating authority applicants. This process compares available applicant information to existing carrier information. FMCSA's algorithm identifies common characteristics such as names, addresses, phone numbers, e-mail addresses, vehicles, drivers, and insurance policy information. If similarities are detected, FMCSA investigates further.

The application is vetted by FMCSA and with the appropriate State agency. If an affiliation with a carrier with an unsafe record is detected through this vetting process, the applicant is required to provide additional documentation. FMCSA will deny authority to any unsafe carrier attempting to reestablish itself as a new carrier.

#### **Driver Issues**

The FMCSA continues to monitor other areas of concern including driver health, driver fatigue, and the impacts of non-CMV's around large trucks and buses. In April 2008, FMCSA began a 24-month research study specific to motorcoach driver fatigue. This research will gather empirical data on motorcoach driver schedules to help bus companies better manage fatigue in their driver operations.

The Agency continues to focus on driver information available through our existing systems. FMCSA developed the Driver Information Resource (DIR) in response to SAFETEA-LU. The DIR is a Web-based tool that allows a user to search by driver for a driver's crash and inspection history, regardless of a driver's employment history. FMCSA and State enforcement staff continue to use this tool to access driver-specific data. The Agency expects to make this information available to the motor carrier industry as a part of the preemployment verification process. Approved companies would distribute the information to inquiring motor carriers with the driver's approval. The system is to be accessible by motor carriers in 2009. This will result in bus and truck companies hiring safer drivers or risking consequences for employing unsafe operators.

Additionally, FMCSA's Comprehensive Safety Analysis 2010 (CSA 2010) program will address driver-specific issues. CSA 2010 will collect and manage driver specific data and target drivers and carriers based on these data.

#### **NTSB Recommendations**

FMCSA has been responding to a number of NTSB motorcoach recommendations. Several of these recommendations relate to two FMCSA rulemakings: "Medical Certification Requirements as Part of the Commercial Driver's License" and "National Registry of Certified Medical Examiners." The Medical Certification final rule and the National Registry notice of proposed rulemaking are currently under review. We anticipate publishing both of these rules later this fall.

In addition, in response to a NTSB recommendation, FMCSA partnered with the American Bus Association (ABA), the United Motorcoach Association (UMA), and the CVSA to develop and distribute a booklet entitled, "Motorcoach Brake Systems and Safety Technologies." More than 4,000 copies were distributed and the document is accessible on the FMCSA website.

FMCSA has developed a new algorithm to change the prioritization of motorcoaches in the SafeStat system. As a result, FMCSA has requested that the NTSB close the related recommendation.

Additionally, FMCSA recently requested closure of three other recommendations related to the publishing of pre-trip safety guidance in the Federal Register and development and publication of outreach materials. 30,000 brochures, 20,000 audio CDs, and 6,000 posters have been distributed. In addition, these materials were posted on FMCSA's website. The Agency continues to target non-traditional motorcoach users and operators, such as church and school groups.

Finally, another recommendation relates to developing a national bus fire database and studying the causes, frequency, and severity of bus and motorcoach fires. As I explained earlier in my statement, FMCSA has engaged the Volpe Center and NHTSA to provide assistance in this effort.

#### **Partnerships**

It must be noted that FMCSA could not have made these accomplishments without our partnerships with other DOT agencies such as NHTSA and the Federal Transit Administration, other Federal agencies, State and local law enforcement agencies, and organizations such as the American Bus Association, the United Motorcoach Association, and the Commercial Vehicle Safety Alliance. These critically important relationships help to bring issues to light and strengthen the industry.

#### **Conclusion**

Mr. Chairman, I would like to reiterate FMCSA's dedication to bus safety. Our agency works each day to ensure that every passenger arrives home safely to loved ones from every trip. In the history of CMV enforcement and regulatory oversight, we now have more inspections, more CRs and timelier new entrant audits, and greater outreach and education than ever. In advance of the Sherman tragedy, FMCSA took strong steps to ensure the safety of our highways. We identified a carrier as unsafe, conducted a thorough investigation, and determined the carrier to be unfit, placing it out of service. Sadly, the owner of the company that had been

placed out of service chose to ignore his passengers' safety by disregarding the rules intended to protect them. This willful negligence has no place in the future of American transportation. Our agency is dedicated to finding and stopping such operators before they commit these atrocious acts.

While we are seeing a reduction in the total number of fatalities each year, FMCSA recognizes that much work remains. Please be assured of my continued personal commitment to reducing these fatalities further and making our nation's highways even safer. Thank you for the opportunity to testify before you today about this important issue. I also commend the Subcommittee for continuing to focus on bus safety to increase protection of the American people. I would be happy to respond to any questions you may have.

Senator LAUTENBERG. Thank you very much.  
Now Mr. Rosenker.

**STATEMENT OF HON. MARK V. ROSENKER, ACTING  
CHAIRMAN, NATIONAL TRANSPORTATION SAFETY BOARD**

Mr. ROSENKER. Thank you very much, Mr. Chairman. Chairman Lautenberg, Senator Hutchison, my name is Mark Rosenker, and I am the Acting Chairman of the National Transportation Safety Board. I would like to take this opportunity to thank you for inviting me to testify today on motorcoach safety.

As you know, the Safety Board is charged with investigating accidents in all modes of transportation, including highways. We determine the probable cause and make recommendations to prevent similar accidents from happening again.

Motorcoach travel is one of the safest modes of transportation. However, when accidents do occur, they typically involve substantial numbers of people traveling in a single vehicle, and it is often carrying students or elderly persons who rely on motorcoach travel and have placed their safety in the hands of a professional motorcoach operator. Therefore, the public demands that motorcoaches meet the highest level of safety.

Today I would like to discuss three areas where improvements can be made to make motorcoach travel even safer. They involve motorcoach vehicle improvements, oversight improvements, and technology improvements.

First, I would like to talk about vehicle improvements. For decades, the Safety Board has been concerned with motorcoach occupant protection and the fatalities and injuries caused when passengers are thrown from their seats or ejected. In fact, we just revisited this issue in the Bluffton University accident in Atlanta where 12 occupants were ejected from the motorcoach.

The Board's recommendations to NHTSA included: develop standards for a motorcoach occupant protection system that protects passengers in all crash scenarios; revise window glazing requirements to prevent occupant ejections, yet still allows passenger egress; and make motorcoach roofs stronger. These improvements would go a long way in protecting passengers during a crash.

Motor coach fires are also a concern. Even though deaths and injuries have historically been rare, the Board discovered after the tragic motorcoach fire near Dallas, Texas in 2005 that the consequences can be devastating. As a result, the Board made recommendations to NHTSA to require enhanced fire protection of fuel systems and fire-hardened materials in motorcoaches; develop

fire detection systems; and establish acceptable passenger egress times for motorcoaches.

The Board has asked NHTSA to require that motorcoaches be equipped with event data recorders which can be used to collect crash data and evaluate crash pulses and occupant protection issues when crashes do occur. The Board recently reiterated this recommendation in July, following the Bluffton accident.

For decades, the Board has been concerned with the safety provided by motorcoach operators and the oversight provided by local, State, and Federal agencies. We have made the following recommendations to FMCSA.

Elevate the importance of driver and vehicle safety rule violations in order to take more unfit carriers off the road. This recommendation was originally made in 1999 and most recently reiterated following the motorcoach fire near Dallas.

Implement our eight recommendations that call for a comprehensive medical oversight program for commercial drivers. This recommendation was originally made in 2001, following the tragic Mother's Day crash in New Orleans and was placed on the Board's most wanted list in 2003.

Implement technology that would prevent commercial drivers from falsifying their log books and make it easier for motor carriers, law enforcement agencies, and the FMCSA to monitor drivers' hours by requiring electronic on-board recorders for hours of service. This device would go a long way in helping prevent fatigue-related accidents.

And finally, prohibit cellular telephone use by commercial drivers on motorcoaches.

The Board also believes that developing and installing new technologies such as adaptive cruise control, collision warning systems, active braking and electronic stability control hold great promise in reducing accidents. The Board has made recommendations to NHTSA to study and implement these and other technologies and has recently added this topic to the Board's most wanted list.

In summary, the NTSB believes that although the motorcoach is still one of the safest modes of transportation, there are many, many improvements that can be made to make it even safer.

Mr. Chairman, I would be available to respond to any questions. [The prepared statement of Mr. Rosenker follows:]

PREPARED STATEMENT OF HON. MARK V. ROSENKER, ACTING CHAIRMAN,  
NATIONAL TRANSPORTATION SAFETY BOARD

Good morning Chairman Lautenberg, Ranking Member Smith, and Members of the Subcommittee. My name is Mark Rosenker, Acting Chairman of the National Transportation Safety Board. I would like to take this opportunity to thank you and the Members of the Subcommittee for inviting me to testify today on motorcoach safety and for your continued interest in furthering the safety of our Nation's highways.

As you know, the Safety Board is charged with investigating accidents in all the modes of transportation, including highways, to determine their probable cause, and make recommendations to prevent similar accidents from happening again. Over the years the Board has done important work in virtually all aspects of highway safety including highway or vehicle design; roadway environment; occupant protection; driver performance; driver training; emergency response; roadway, bridge, and tunnel construction; and oversight by regulatory agencies at the local, state, and Federal levels.

Today, I would like to discuss the Safety Board recommendations in areas regarding several important issues that the Board believes will make a difference in motorcoach safety.

As you know, intercity motorcoach travel is one of the safest modes of transportation, with approximately 17 occupant fatalities in an average year. It is also one of the most popular forms of travel—transporting more passengers than either commercial air or rail travel, according to industry estimates. However, when accidents occur, they typically involve substantial numbers of people traveling in a single vehicle.

These passengers are often students or elderly persons who rely on motorcoach travel and have placed their safety in the hands of a professional motorcoach operator. That factor demands that motorcoaches meet the highest level of safety.

When tragic accidents occur, the public turns to the Safety Board for answers. Because the Board ultimately determines the probable cause and makes safety recommendations to prevent future accidents from occurring again, the public's confidence is reassured.

My discussions today include 3 areas: motorcoach vehicle improvements, motorcoach oversight improvements, and motorcoach technology improvements.

### **Motorcoach Vehicle Improvements**

For decades, the Safety Board has been concerned with injury causation mechanisms with regard to the occupants in motorcoach accidents. These areas include motorcoach passenger protection, event data recorders, and motorcoach fire protection.

#### *Motorcoach Passenger Protection*

One of the primary causes of passenger injury in motorcoach buses is passengers being thrown from their seats. An accident and the overall injury risk to occupants can be significantly reduced during an accident by keeping occupants in the seating compartment throughout the collision. In addition, we found that equipping motorcoach side windows with advanced glazing may decrease the number of ejections of unrestrained passengers and decrease the risk of serious injuries to restrained passengers during motorcoach accidents.

In the Bluffton University accident in Atlanta, 7 of the 35 motorcoach occupants were killed. Twelve occupants were ejected from the motorcoach and 2 more occupants were partially ejected.

From 2000 through 2006, 43 motorcoach accidents occurred in which at least one occupant was fatally injured. In these motorcoach accidents, which resulted in 122 total fatalities, 41 occupants were partially or fully ejected from the motorcoach. In 15 of the 43 accidents, the motorcoach rolled over and 38 ejected fatalities occurred during the rollovers.

The Federal Motor Vehicle Safety Standards (FMVSS) contain 22 crashworthiness standards. Most of these standards exempt motorcoaches with a gross vehicle weight over 10,000 pounds, and no Federal regulations require that motorcoaches in the United States be equipped with an occupant protection system. Although motorcoaches must comply with both FMVSS 217, which establishes minimum requirements for motorcoach window retention and release, and with FMVSS 302, which establish standards for the flammability of interior materials, they do not have to comply with the host of other FMVSS occupant protection standards that apply to school buses and passenger cars.

A well-designed vehicle will manage the energy of a crash through its structure and minimize that energy transfer to passengers through an occupant protection system (compartmentalization), which functions to restrain the passengers within the seating compartment throughout the accident sequence and minimize the risk of injury. One example of compartmentalization has been studied, tested, and required in school buses but not in motorcoaches.

Between 1968 and 1973, the Safety Board issued a series of recommendations to the Federal Highway Administration (FHA) and the National Highway Traffic Safety Administration (NHTSA) on occupant protection. Additionally, in 1999, the Safety Board published two special investigation reports that addressed motorcoach occupant protection. The recommendations included the following to NHTSA. The first two were also added to the Board's Most Wanted List of Transportation Safety Improvements (Most Wanted) in 2000:

- In 2 years, develop performance standards for motorcoach occupant protection systems that account for frontal impact collisions, side impact collisions, and rollovers. H-99-47
- Once pertinent standards have been developed for motorcoach occupant protection systems, require newly manufactured motorcoaches to have an occupant

crash protection system that meets the newly developed performance standards and restrains passengers, including those in child safety restraint systems, within the seating compartment throughout the accident sequence for all accident scenarios. H-99-48

- Expand your research on current advanced glazing to include its applicability to motorcoach occupant ejection prevention, and revise window-glazing requirements for newly manufactured motorcoaches based on the results of this research. H-99-49

NHTSA's initial response indicated that work had begun to develop a research plan to accomplish these recommendations. Two years later, NHTSA reported forming the Bus Manufacturer's Council and in 2002, the agency held a public forum on motorcoach safety with Transport Canada. In 2004, the Safety Board was informed that NHTSA was focusing on roof crush and window retention technology to keep occupants in the vehicle and had initiated a joint study with Transport Canada.

In 2001, these recommendations were reiterated following a 1999 motorcoach accident in New Orleans in which 22 occupants were killed. Since 1998, the Safety Board has investigated 33 more motorcoach crashes involving 255 ejections and 123 fatalities. The majority of these rollover crashes clearly shows that passengers who remain in their seating compartments sustain fewer injuries and that ejected passengers are the most likely to be killed.

Unfortunately today, 9 years after the Safety Board concluded its bus crashworthiness special investigation, no Federal regulations or standards require that motorcoaches operated in the United States be equipped with occupant protection systems. Consequently, these motorcoach occupant protection recommendations were again reiterated in the Bluffton University accident in Atlanta.

However, NHTSA is making some progress. In December 2007, NHTSA performed a frontal motorcoach crash test and in February 2008, they performed two tests on motorcoach roof strength and occupant survivable space by the MGA Research Corporation, under contract to NHTSA, both of which were observed by Safety Board staff. The Board will carefully follow the analysis of those test results.

Another critical aspect of surviving a motorcoach accident is the ability of passengers to exit the vehicle in a timely manner. In the Safety Board's 1999 special crashworthiness report, we found that the emergency window exits need to be easily opened and that they need to remain open during an emergency evacuation. Consequently, the Board recommended that NHTSA:

- revise the Federal Motor Vehicle Safety Standard 217, "Bus Window Retention and Release," to require that other than floor-level emergency exits can be easily opened and remain open during an emergency evacuation when a motorcoach is upright or at unusual attitudes (H-99-9).

This recommendation was added to the Most Wanted list in 2000.

Motorcoaches must be strong enough to retain adequate survivable space for passengers during typical accident scenarios, and especially important regarding roof strength during rollovers. The recommendation to NHTSA in our 1999 special report was to develop performance standards within 2 years for motorcoach roof strength that provide maximum survival space for all seating positions and that take into account current typical motorcoach window dimensions (H-99-50). This recommendation was added to the Most Wanted list in 2000.

Finally, the Safety Board made recommendations to NHTSA as a result of the motorcoach accident investigation in Wilmer, Texas. These include:

- evaluate current emergency evacuation designs of motorcoaches and buses by conducting simulation studies and evacuation drills that take into account, at a minimum, acceptable egress times for various post-accident environments, including fire and smoke; unavailable exit situations; and the current above-ground height and design of window exits to be used in emergencies by all potential vehicle occupants (H-07-08), and
- require motorcoach operators to provide passengers with pretrip safety information (H-99-8).

Some progress has been made on these recommendations. In 2002, NHTSA met separately with motorcoach manufacturers and operators to address the issue of bus window retention and release; however, no research plan was agreed upon at those meetings. In the fall of 2004, NHTSA signed a Memorandum of Understanding with Transport Canada to carry out research in the areas of roof crush and window retention technology, with a goal of keeping occupants in the vehicle, because most motorcoach fatalities occur when passengers are ejected from the vehicle. NHTSA's

research shows that in most accidents, the bus only rolls  $\frac{1}{4}$  turn and comes to rest on its side; therefore installation of roof exits to serve as an alternate to window exits as a means of rapid emergency egress for bus passengers was also being examined.

On August 6, 2007, NHTSA issued their “Approach to Motorcoach Safety,” which is a comprehensive review of motorcoach safety issues and the course of action that NHTSA will pursue to address them. In the course of its research, NHTSA will study its own regulations (such as FMVSS 217) which establishes minimum requirements for bus window retention and release to reduce the likelihood of passenger ejection in crashes—as well as international standards to determine the best way to proceed with the establishment of new requirements to better protect motorcoach passengers.

#### *Event Data Recorders*

Since motorcoach accidents are relatively rare events and motorcoach crash testing is prohibitively expensive, one way to collect crash data, evaluate crash pulses, and occupant protection issues is to equip motorcoaches with event data recorders. An event data recorder is a device or function that records a vehicle’s dynamic, time-series data just before a crash (vehicle speed versus time) or during a crash (change in velocity versus time). Intended for retrieval after the crash event, EDR data can provide critical safety system performance information. To enhance crash testing with real-world data, it is important that data from motorcoach crashes be used for post-accident analysis, forensics, and design evaluation. At a recent SAE International symposium on highway EDRs, industry representatives presented the status of standards work, current system operating experience, and evidence that many operators currently use vehicle data recorders to improve operational control, to support insurance rates and claims, and to respond to litigation. The Board would like to see these devices on all motorcoaches.

Although crash forces can sometimes be estimated by comparing the accident vehicle’s physical damage to instrumented crash test data, this method is not always reliable—particularly when crash test data are substantially limited as they are for motorcoaches, and when the accident involves a barrier collision or a collision with a hard paved surface. The ability to estimate crash pulses was also limited by the fact that some surfaces of the motorcoach may have undergone multiple collisions.

As a result of its 1996 safety study on child restraint systems and subsequent 1997 air bag forum, the Safety Board recommended that NHTSA address the on-board recording of crash data. About that time, the National Aeronautics and Space Administration and the Jet Propulsion Laboratory also recommended that NHTSA study the feasibility of obtaining crash data for safety analysis by installing crash recorders on vehicles. In response, NHTSA organized the EDR Working Group in October 1998. In 1999, the Board held a symposium on transportation recorders. Later that year, as a result of its special investigation on bus crashworthiness, the Safety Board made the following two EDR-related recommendations to NHTSA:

- require that all school buses and motorcoaches manufactured after January 1, 2003, be equipped with on-board recording systems that record vehicle parameters, including, at minimum, lateral acceleration, longitudinal acceleration, vertical acceleration, heading, vehicle speed, engine speed, driver’s seat belt status, braking input, steering input, gear selection, turn signal status (left/right), brake light status (on/off), head/tail light status (on/off), passenger door status (open/closed), emergency door status (open/closed), hazard light status (on/off), brake system status (normal/warning), and flashing red light status (on/off) (school buses only). For those buses so equipped, the following should also be recorded: status of additional seat belts, airbag deployment criteria, airbag deployment time, and airbag deployment energy. The on-board recording system should record data at a sampling rate that is sufficient to define vehicle dynamics and should be capable of preserving data in the event of a vehicle crash or an electrical power loss. In addition, the on-board recording system should be mounted to the bus body, not the chassis, to ensure that the data necessary for defining bus body motion are recorded (H-99-53), and
- develop and implement, in cooperation with other government agencies and industry, standards for on-board recording of bus crash data that address, at a minimum, parameters to be recorded, data sampling rates, duration of recording, interface configurations, data storage format, incorporation of fleet management tools, fluid immersion survivability, impact shock survivability, crush and penetration survivability, fire survivability, independent power supply, and ability to accommodate future requirements and technological advances (H-99-54).

In October 2000, NHTSA organized the Truck and Bus Event Data Recorder Working Group to focus on data elements, survivability, and event definitions related to trucks, school buses, and motorcoaches. The group's results and findings were published in May 2002. In 2004, the NCHRP completed a project that examined current U.S. and international methods and practices for the collection, retrieval, archiving, and analysis of EDR data for roadside and vehicle safety. Both the IEEE and SAE have published voluntary industry motor vehicle EDR standards. A second SAE standards committee, J2728—Commercial Vehicle Event Data Recorders—is specifically addressing data elements for medium- and heavy-duty trucks. Industry initiatives in standards development include the American Trucking Association's Technology and Maintenance Council's publication of a recommended practice to define the collection of event-related data on board commercial vehicles. The recommended practice outlines data elements, storage methodology, and the retrieval approach for event data recording on commercial vehicles.

In the meantime, the FMCSA's "Commercial Vehicle Safety Technology Diagnostics and Performance Enhancement Program" (also known as the "CV Sensor Study") has worked to define driver and vehicle assistance products and systems and, in particular, advanced sensor and signal processors in trucks and tractor-trailers, with an emphasis on on-board diagnostic and improved safety-related products. The program involves developing EDR requirements for the analysis of accident data from the FMCSA's Large Truck Crash Causation Study, with the goal of developing EDR functional specifications for both complete accident reconstruction and crash analyses. To date, this project has developed requirements for EDR components, hardware, software, sensors, and data bases and has completed a cost-effectiveness analysis.

In recent years, NHTSA has made progress in developing EDR data standards for light vehicles, which include passenger cars, multipurpose passenger vehicles, light trucks, and vans with a gross vehicle weight rating of 3,855 kilograms (8,500 pounds) or less. In August 2006, NHTSA published a final rule that standardizes the information EDRs collect, but was amended in January 14, 2008, in response to numerous petitions for reconsideration. Based on this revised rule, compliance dates have been changed to September 1, 2012, for most light vehicles and to September 1, 2013, for vehicles manufactured in two or more stages. The new rule, however, does not address vehicles over 8,500 pounds and thus would not apply to buses or motorcoaches.

In its August 2007 "Approach to Motorcoach Safety," NHTSA included a discussion of EDRs, stating that the agency has recently defined mandatory data elements for the voluntary installation of EDRs in light passenger vehicles. However, crash characteristics and relevant measurements for motorcoaches are different, as supported by the 2001 NHTSA EDR Working Group final report's "Summary of Findings."

The EDR Working Group's final report also noted the following:

- EDRs can improve highway safety for all vehicle classes by providing more accurate data for accident reconstructions, and
- U.S. and European studies have shown that the number and severity of crashes is reduced when drivers know that an on-board EDR is in operation.

However, NHTSA's "Approach to Motorcoach Safety" also makes the seemingly contradictory statement that Safety Recommendations H-99-53 and -54 concerning EDRs do not specifically relate to changes that would have a direct or quantifiable safety benefit for motorcoach occupants. The Safety Board believes the lack of useful event data associated with accident motorcoaches represents a missed opportunity to better understand crash forces, ejection dynamics, and crashworthiness. The Board concludes that event data recorders would provide the accurate and detailed event data necessary to better understand crash causation and to establish design requirements for motorcoach crashworthiness and occupant protection systems. The need for such information is particularly significant as EDRs become more widely used in the truck and transit industry, as evidenced at the September 2007 EDR symposium sponsored by SAE. During the symposium, representatives from industry noted that EDR applications are being more widely used for motor carrier analysis of accidents and to support more accurate insurance underwriting and risk analysis.

Also in its "Approach to Motorcoach Safety," NHTSA states "Upon completion of SAE J2728, consideration of a requirement for heavy vehicle EDR installation into motorcoaches would be appropriate."

The Safety Board recognizes NHTSA's progress in developing EDR standards for light vehicles. Establishing EDR performance standards for motorcoaches and buses is necessary for the timely and efficient implementation of EDRs, which will provide

the data needed to develop effective occupant protection systems. The Board urges NHTSA to actively push to complete standards work and require EDRs on all new motorcoaches. As a result, in July of 2008 the Board reiterated Safety Recommendations H-99-53 and -54 in its report on the Bluffton University accident in Atlanta.

#### *Motorcoach Fire Protection*

On September 23, 2005, a fire engulfed a motorcoach carrying elderly evacuees away from the predicted path of Hurricane Rita near Dallas, Texas. The 44 passengers were from an assisted-living facility in Bellaire, Texas; many needed to be carried or assisted onto the motorcoach by firefighters or nursing staff, and required almost 2 hours to board. When the fire occurred, 23 elderly passengers were unable to escape the blaze and perished. I would like to note that this accident involved very unusual circumstances, and many of the decisions to evacuate and the means to evacuate were made in the context of the devastation caused by Hurricane Katrina that occurred just 1 month earlier.

Fires on motorcoaches are not an unusual occurrence. In fact, some industry experts estimate that there is close to one motorcoach fire per day. However, to date, injuries and fatalities related to motorcoach fires are an extremely rare event. Still, this accident shows the potential for catastrophe when passengers are unable to exit a burning motorcoach quickly.

As a result of its investigation, the NTSB made the following recommendations:

- NHTSA should develop a standard to provide enhanced fire protection of the fuel systems in areas of the motorcoaches and buses where the system may be exposed to the effects of a fire. In addition we asked that fire-hardened materials be used in areas, such as those around wheel wells, to limit the potential for flame spread into motorcoach or bus passenger compartments. In the interim, while standards are being developed, we asked the motorcoach manufacturers to use currently available materials and designs for fuel system components that are known to provide fire protection for the system,
- Since wheel well fires are so difficult to extinguish, we asked that NHTSA develop detection systems to monitor the temperature of wheel well compartments in motorcoaches and buses to provide early warning of malfunctions that could lead to fires so that passengers might have time to escape, and
- FMCSA continues to gather and evaluate information on the causes, frequency, and severity of bus and motorcoach fires, and conduct ongoing analysis of the fire data to measure the effectiveness of the fire prevention and mitigation techniques identified and instituted as a result of the Volpe National Transportation Systems Center fire safety analysis study.

#### **Motorcoach Oversight Improvements**

For decades the Board has been concerned with the safety of motorcoach operators and the oversight provided by local, state, and Federal agencies. These areas include:

- Oversight of the Compliance Review Process,
- Oversight of Driver Medical Conditions,
- Electronic Onboard Recorders for Hours of Service (fatigue), and
- Cell Phone Use by Bus Drivers.

#### *Oversight of the Compliance Review Process*

The Wilmer, Texas motorcoach fire is an illustration of the potential consequences of poor oversight of motorcoach operations, especially concerning the vehicle. The fire in this accident would not have occurred had the motorcoach been properly maintained.

The Safety Board determined that the cause of the fire was insufficient lubrication in the right-side tag axle wheel bearing assembly of the motorcoach, which resulted in increased temperatures and subsequent failed wheel bearings. The high temperatures resulting from the friction led to the ignition of the tire and a catastrophic fire. This occurred because the motorcoach operator, Global Limo, Inc., failed to maintain their vehicles and FMCSA failed to provide proper oversight of the motor carrier through its compliance review process.

Unfortunately, FMCSA is only able to conduct compliance reviews for a small fraction of the almost 911,000 motor carriers in this country. However, in this particular accident, numerous driver and vehicle safety violations were uncovered in a review performed by the Texas Department of Public Safety (DPS) in April 2002. At the time, the Texas DPS had no authority to force Global to cease operations. In February 2004, FMCSA conducted a compliance review of Global in which it

found similar violations pertaining to drivers and vehicles. However, FMCSA rated Global as “satisfactory.” Nineteen months later, after the bus fire near Dallas, FMCSA went back to Global and conducted another compliance review in September 2005. In this review, FMCSA found many of the same violations as in its previous compliance review; however, this time FMCSA gave Global a safety rating of “unsatisfactory” and declared that Global’s operations created an “imminent hazard” to public safety. FMCSA issued an order for Global to cease operations.

Concerned that motor carriers with significant regulatory violations for drivers and vehicles are still receiving satisfactory ratings, the Safety Board once more focused on Federal standards for determining the safety fitness of carriers. As we have done in several accident investigations over the past 8 years, the Board again concluded that the current FMCSA compliance review process does not effectively identify unsafe motor carriers and prevent them from operating, especially when violations are found in the areas of driver and vehicle safety. As a result, we reiterated our long-standing recommendation to FMCSA to change the safety fitness rating methodology so that adverse vehicle or driver performance-based data alone are sufficient to result in an overall unsatisfactory rating for a carrier (H-99-6). This recommendation was added to the Board’s Most Wanted list in 2000.

The Safety Board originally issued this recommendation in 1999 in a Special Study on Selective Motorcoach Issues. We reiterated the recommendation in 2002 in our Mountainburg, Arkansas truck/school bus accident report and again in 2007. Our goal is to prevent motor carriers from putting vehicles with mechanical problems on the road and unqualified drivers behind the wheel.

The Motor Carrier Safety Act of 1984 directed the Department of Transportation (DOT) to establish a procedure to determine how safely motor carriers operate. Currently, the DOT, through the FMCSA, uses a system for determining how safely a motor carrier operates that does not place sufficient emphasis on driver or vehicle qualifications. Motor carriers are given safety ratings based on compliance reviews conducted by the FMCSA. Carriers are rated on six safety fitness factors:

1. General—including financial responsibility, insurance coverage, drug and alcohol programs,
2. Driver—including qualifications and training,
3. Operations—including management controls, scheduling practices, allowing violations of rules, false reports, failing to maintain records,
4. Vehicle—including maintenance,
5. Hazardous materials—including failure to follow regulations, and
6. Accident rate.

A motor carrier can receive an unsatisfactory overall rating if two elements are rated unsatisfactory. An overall unsatisfactory rating can lead to a carrier being ordered to cease operations.

The Safety Board’s investigations have demonstrated that the two most important factors in safe motor carrier operations are the operational condition of the vehicles and the performance of the drivers who drive them. The Board believes that if the carrier receives an adverse rating (conditional or unsatisfactory) for either the vehicle or driver factor, the overall rating should be unsatisfactory. Since this recommendation was originally issued and later reiterated in two accident reports, the FMCSA has planned or carried out a variety of efforts to address our concerns. However, the same system is still in place and the recommendation has not yet been satisfied.

For the safety of all highway users, the Safety Board believes that a motor carrier that does not ensure either the safe operation of its vehicles or drivers should receive an overall unsatisfactory safety rating.

In June 2007, the FMCSA briefed the Safety Board on their “Comprehensive Safety Analysis (CSA) 2010 Initiative” which they indicated would include a complete evaluation of the compliance review process leading to the development of a new performance-based operational model for determining motor carrier safety, emphasizing preventative measures and early detection for unsafe driver and carrier conditions. Under CSA 2010, the FMCSA plans to decouple the safety fitness rating from the compliance review. They have started the process of developing a new safety fitness rating methodology that would be based on an objective measure of a driver’s or carrier’s safety performance data. These safety ratings would be issued to all drivers and carriers. FMCSA began pilot testing the new rating system in 2008.

The Safety Board believes FMCSA’s current efforts represent a comprehensive review of the process of determining the safety of commercial motor carriers. Still, the Board continues to monitor FMCSA’s actions and is concerned that accidents continue to occur involving motor carriers with poor oversight of their drivers and vehi-

cles. Recognizing the importance of this issue to motor carrier safety, the Board added this recommendation to the Most Wanted list in 2000.

Related to this issue is the fact that, although FMCSA collects data on numerous safety violations when it conducts compliance reviews of motor carriers, approximately 85 percent of those violations are not included in the calculations of the motor carriers' rating. By not recognizing these violations in its calculations, FMCSA is allowing potentially unsafe carriers to continue to operate without consequence. Therefore the Safety Board recommended that FMCSA:

- issue an Interim Rule to include all Federal Motor Carrier Safety Regulations in the current compliance review process so that all violations of regulations are reflected in the calculation of a carrier's final rating (H-07-03) and
- revise the Federal Motor Carrier Safety Regulations to prohibit a commercial vehicle from operating with wheel seal or other hub lubrication leaks (H-07-02).

#### *Oversight of Driver Medical Conditions*

On May 9, 1999, on Mother's Day in New Orleans, a commercial driver lost consciousness while driving a motorcoach on an interstate highway, left the roadway, and crashed into an embankment, killing 22 passengers, and seriously injuring the driver and 15 additional passengers. The driver was found to have had multiple known serious medical conditions, including kidney failure and congestive heart failure and was receiving intravenous therapy for 3-4 hours a day, 6 days a week.

The Safety Board has investigated many other accidents involving commercial drivers with serious preexisting medical conditions that had not been adequately evaluated. These include:

- a nearly blind school bus driver in Montana who apparently did not see an oncoming train that struck the bus and killed 2 students,
- a New York City transit bus driver with a seizure history who experienced a seizure while driving the bus, seriously injuring a cyclist and killing a pedestrian,
- a tractor-trailer driver with unevaluated sleep apnea and untreated thyroid disease who ran over and killed a Tennessee State Trooper driving in his highway patrol vehicle with lights flashing; and
- an alcohol-dependent tractor-trailer driver whose excessive speed resulted in a load breaking free and striking a school activity bus in North Carolina, killing the school bus driver and a child.

It is unusual in our accident investigations to find a commercial driver for whom there are not at least some questions regarding medical certification. This is not to say that a driver's conditions always cause the accident, but finding these undocumented and unevaluated conditions in commercial drivers is concerning and often alarming. In many cases, these conditions are manageable if they are appropriately evaluated, treated, and monitored. Unfortunately, for a variety of reasons, no such evaluation, treatment, or monitoring occurred in many of the cases we investigated.

As a result of observing serious deficiencies in the oversight of commercial driver medical certification in several of our investigations including the New Orleans accident, the Safety Board issued recommendations to the FMCSA in 2001 to develop a comprehensive medical oversight program for interstate commercial drivers. The Board suggested that such a program include qualified and properly educated examiners, updated and available regulatory and non-regulatory guidance, review and tracking of medical exams, improved enforcement of certification requirements, and appropriate mechanisms for reporting unfit drivers. The Board's recommendations specify a comprehensive oversight program, because we feel that only by addressing this issue in a systematic fashion can a truly effective program of oversight be developed. A piecemeal approach to the problem may result in gaping deficiencies that will continue to permit unqualified drivers to operate on the Nation's highways. The specific recommendations are as follows:

- develop a comprehensive medical oversight program for interstate commercial drivers that contain the following program elements: individuals performing medical examinations for drivers are qualified to do so and are educated about occupational issues for drivers (H-01-17),
- develop a comprehensive medical oversight program for interstate commercial drivers that contain the following program elements: a tracking mechanism is established that ensures that every prior application by an individual for medical certification is recorded and reviewed (H-01-18),

- develop a comprehensive medical oversight program for interstate commercial drivers that contain the following program elements: medical certification regulations are updated periodically to permit trained examiners to clearly determine whether drivers with common medical conditions should be issued a medical certificate (H-01-19),
- develop a comprehensive medical oversight program for interstate commercial drivers that contain the following program elements: individuals performing examinations have specific guidance and a readily identifiable source of information for questions on such examinations (H-01-20),
- develop a comprehensive medical oversight program for interstate commercial drivers that contain the following program elements: the review process prevents, or identifies and corrects, the inappropriate issuance of medical certification (H-01-21),
- develop a comprehensive medical oversight program for interstate commercial drivers that contain the following program elements: enforcement authorities can identify invalid medical certification during safety inspections and routine stops (H-01-22),
- develop a comprehensive medical oversight program for interstate commercial drivers that contain the following program elements: enforcement authorities can prevent an uncertified driver from driving until an appropriate medical examination takes place (H-01-23), and
- develop a comprehensive medical oversight program for interstate commercial drivers that contains the following program elements: mechanisms for reporting medical conditions to the medical certification and reviewing authority and for evaluating these conditions between medical certification exams are in place; individuals, health care providers, and employers are aware of these mechanisms (H-01-24).

In 2003, because of the critical importance of this issue and the lack of substantive progress on the recommendations, this issue was placed on the Safety Board's Most Wanted list. Although the FMCSA has put in place a Medical Review Board and taken certain other preliminary actions in response to Congressional mandates, there are still areas in which absolutely no measurable progress has been made. In general, most of our safety recommendations remain in an open—unacceptable response. The FMCSA does seem to be making limited progress toward the type of comprehensive oversight system envisioned by the Board, but it remains questionable whether such a system will in fact be completely developed.

*Electronic Onboard Recorders for Hours of Service (Fatigue)*

Paper logbooks offer many opportunities to play fast and loose with the hours of service rules. In our investigations, we repeatedly find that some drivers falsify their books or keep two sets of books and some motor carriers do not closely monitor their drivers' compliance with the rules. Recognizing this lack of accountability with paper logbooks, the Safety Board has advocated the use of on-board data recorders for the past 30 years.

In 1977, the Safety Board issued its first recommendation on the use of on-board recording devices for hours of service compliance by asking the FHA to explore the merits of tachographs on reducing commercial vehicle accidents. Although the FHWA studied the issue, they did not make any changes.

During the 1980s, the technology for on-board recorders for hours of service improved dramatically and the European community began requiring tachographs and other similar devices. In 1990, as part of a study on heavy truck crashes, the Safety Board recommended that FHWA and the states require the use of automated/tamper-proof on-board recording devices. This recommendation was not acted upon by the FHWA. In 1995, the Board reiterated this same recommendation to the FHWA and the states. Both failed to act.

In 1998, the Safety Board tried a different approach, and made recommendations directly to industry, asking them to equip their commercial vehicle fleets with automated and tamper-proof on-board recording devices. This recommendation was opposed by the industry.

In 2001, when the FMCSA issued a Notice of Proposed Rulemaking on hours of service of drivers, the Safety Board reiterated its position that FMCSA strongly consider mandatory use of electronic onboard recorders by all motor carriers. FMCSA did not incorporate this suggestion into the NPRM. Finally, in 2007 the FMCSA issued a proposed rulemaking on on-board recorders; however, there are 2 primary reasons why the Board felt the NPRM fell short of its intended target.

First, the rule does not require EOBRs for hours of service for all commercial vehicles, but rather promotes voluntary installation and only requires installation for pattern violators. The Safety Board is concerned that pattern violators will be very difficult to identify without this technology and is convinced that the only effective way in which on-board recorders can help stem hours of service violations is to mandate their use by all operators.

Second, the Safety Board would like to see damage resistance and data survivability included in the standards for recorder hardware.

In summary, fatigue-related accidents continue to plague our Nations highways because, unlike alcohol or drugs, fatigue is extremely difficult to detect. In fact, fatigue is probably the most underreported causal factor in highway accidents. Electronic on-board recorders for hours of service hold the potential to efficiently and accurately collect and verify the hours of service for all drivers. They will also establish the proper incentives and create a level playing field for compliance with hours of service rules that will ultimately make our highways safer for all drivers.

#### *Cell Phone Use by Bus Drivers*

On November 14, 2004, during daylight hours, a 44-year-old bus driver was operating a motorcoach in the southbound right lane of the George Washington Memorial Parkway in Alexandria, Virginia, taking 27 high school students and a chaperone to Mount Vernon. This vehicle was the second one of a two-bus team. The motorcoach was traveling approximately 46 miles per hour as it approached the stone arched Alexandria Avenue overpass bridge, which passes over the GW Parkway. The bus driver passed warning signs indicating that the right lane had only a 10-foot, 2-inch clearance, while the center lane had a 13-foot 4-inch clearance. The bus was 12 feet tall. The lead bus moved into the center lane, but the accident bus driver remained in the right lane and drove the bus into the underside of the bridge. Witnesses and the bus driver reported he was talking on a hands-free cellular telephone at the time of the accident. Of the 27 student passengers, 10 received minor injuries and 1 sustained serious injuries. The bus driver and chaperone were uninjured. The bus's roof was destroyed.

The Safety Board determined that the probable cause of this accident was the bus driver's failure to notice and respond to posted low-clearance warning signs and to the bridge itself due to cognitive distraction resulting from conversing on a hands-free cellular telephone while driving.

As a result of this accident, the Safety Board made the following recommendations:

- FMCSA would publish regulations prohibiting cellular telephone use by commercial driver's license holders with a passenger-carrying or school bus endorsement, while driving under the authority of that endorsement, except in emergencies,
- the 50 states and the District of Columbia would enact legislation to accomplish the same result at the state level,
- the motorcoach associations, school bus organizations, and unions would develop formal policies prohibiting cellular telephone use by commercial driver's license holders with a passenger-carrying or school bus endorsement, while driving under the authority of that endorsement, except in emergencies,
- a previously issued safety recommendation, reiterated to the Safety Board, to 20 states to modify their traffic accident investigation forms to include driver distraction codes, including codes for interactive wireless communication device use.

#### **Motorcoach Technology Improvements**

The Safety Board believes that developing and installing new technologies—such as adaptive cruise control and collision warning systems in commercial trucks, buses, and passenger vehicles, will substantially reduce accidents. This assessment comes from numerous Board investigations. In a 2-year period, the Board investigated 9 rear-end collisions in which 20 people died and 181 were injured. Three of the accidents involved buses and one accident involved 24 vehicles. Common to all nine accidents was the rear-following vehicle driver's degraded perception of traffic conditions ahead before striking other vehicles. These accidents did not involve the use of drugs, alcohol, or vehicle mechanical defects. The investigation showed that sun glare, fog, smoke, fatigue, distractions, and work zones interfered with a driver's ability to detect slow-moving or stopped traffic ahead and resulted in rear-end collisions. According to the DOT, preliminary analyses have shown that 1,836,000 police-reported crashes, or about 48 percent of accidents, could be pre-

vented by rear-end or run-off-the-road and lane change collision warning systems (CWS).

In 1995, the Board first made recommendations concerning collision-warning systems as part of its Special Investigation of Collision Warning Technology. The following recommendation was made to both the DOT and to the Intelligent Transportation Society of America:

- in cooperation with the Intelligent Transportation Society of America, sponsor fleet testing of collision warning technology through partnership projects with the commercial carrier industry. Incorporate testing results into demonstration and training programs to educate the potential end-users of the systems (H-95-44).

In 1999, the Safety Board held a public hearing on Advanced Safety Technologies for Commercial Vehicle Applications to discuss and highlight new and emerging technologies such as collision warning systems among others. In 2001, the Board issued the following recommendation to NHTSA as part of its 2001 Special Investigation On Technology To Prevention Rear-End Collisions.

- complete rulemaking on adaptive cruise control and collision warning system performance standards for new commercial vehicles. At a minimum, these standards should address obstacle detection distance, timing of alerts, and human factors guidelines, such as the mode and type of warning (H-01-6).

In 2007 this recommendation was added to the Board's Most Wanted list.

In 2001, the DOT established an Intelligent Vehicle Initiative (IVI)—the goal of which was to improve the safety and efficiency of motor vehicle operations by reducing the probability of motor vehicle crashes—as a major component of the Intelligent Transportation System (ITS) program. As part of the IVI, NHTSA evaluated the performance of CWS and adaptive cruise control (ACC) by participating in field operational tests of vehicles equipped with advanced safety systems. In May 2005, NHTSA released the results of its passenger vehicle testing, Automotive Collision Avoidance System Field Operational Test Final Program Report, showing potential to reduce rear-end crashes by 10 percent and reporting positive user reaction to the systems. The final report on the commercial vehicle field-testing conducted for the DOT by Battelle and Volvo Trucks North America, Inc., was released in January 2007. The preliminary findings of the report indicate that a combined CWS and ACC bundled safety system account for a statistically significant reduction in rear-end crashes through reduced exposure to safety-critical driving scenarios.

NHTSA, along with the FHWA, the FMCSA, and RITA, appears to be working consistently on this important technological safety issue. The preliminary results of the testing on advanced safety systems are encouraging, but rulemaking is needed to ensure uniformity of system performance standards, such as obstacle detection, timing of alerts, and human factors guidelines, on new passenger and commercial vehicles.

Additionally, the Safety Board has made recommendations on electronic stability control to improve a vehicle's handling, particularly at the limits where the driver might lose control of the vehicle. In concert with ABS brakes, ESC senses when a vehicle is about to slide or yaw, and applies brakes to the proper wheels to regain control. The Board first made recommendations on this technology back when it was called "traction control" following a 1997 accident in Slinger, WI involving commercial vehicles operating under icy conditions. Eight fatalities occurred when a truck lost control, crossed a median and struck a van. In its report the Board made the following recommendations to NHTSA:

- work, together with FHWA, the American Trucking Associations, the International Brotherhood of Teamsters, and the Motor Freight Carrier Association to conduct laboratory and truck fleet testing to assess the safety benefits of adding traction control devices to anti-lock brake systems and report your findings to the NTSB (H-98-015),
- work, together with the FHWA, the American Trucking Association, the International Brotherhood of Teamsters, and the Motor Freight Carrier Association to encourage the trucking industry to gain experience with traction control devices through fleet tests (H-98-016).

To illustrate some successes the Safety Board has had in the passenger car area concerning electronic stability control, the Board made recommendations in its 2003 Largo, Maryland accident report for NHTSA to expand its current evaluation of electronic stability control systems and determine their potential for assisting drivers in maintaining control of passenger cars, light trucks, sport utility vehicles, and

vans. Included in this evaluation was an accident data analysis of electronic stability control-equipped vehicles in the U.S. fleet (H-03-06).

In April 2007, NHTSA announced that it would require ESC on all new cars and light trucks sold in the U.S. by September 1, 2011. Unfortunately, this rule only applies to passenger cars, multipurpose vehicles, trucks, and buses with a gross vehicle weight rating of 10,000 pounds or less.

In summary, the Safety Board believes that, although motorcoach travel is one of the safest modes of transportation, there are still many improvements that can be made to make it even safer.

Mr. Chairman, this completes my statement, and I will be happy to respond to any questions you may have.

Senator LAUTENBERG. Thank you, Mr. Rosenker.  
Mr. Kelly?

**STATEMENT OF DAVID KELLY, ACTING ADMINISTRATOR,  
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION**

Mr. KELLY. Thank you, Chairman Lautenberg, Senator Hutchison. I appreciate the opportunity to appear before you today to discuss the important issue of motorcoach safety.

Every death and serious injury that occurs on our roads is a tragedy. Myself and all of the NHTSA employees who dedicate our careers to saving lives share the same feelings of concern and empathy for the individuals and families who have been tragically affected by these crashes, especially when our most valuable resource, children, are involved. We know that one death is too many, and I extend my deepest condolences to each of them. They also have our commitment that we will continue to work to make sure fewer families will have to suffer their same pain.

Over the past several years, NHTSA has been very focused in our efforts to improve motorcoach safety. In April 2002, we began a joint research program with Transport Canada that was an outreach of a public hearing that we had, again with Transport Canada, to look at window glazing. With input from that meeting and from further study, we then moved on in 2006 to look at other occupant restraint and protection devices. We reexamined our priorities and we also developed NHTSA's approach for motorcoach safety. That was released in August 2007, and in that report, we focused our efforts on four priorities: safety belts, roof strength, emergency evacuation, and fire protection. I am pleased to say we are making progress in each of those areas.

Just last December, we conducted our first-ever motorcoach crash test. This test was a full frontal barrier crash at 30 miles per hour with 22 crash chest dummies aboard in a variety of seat designs, seating configurations and restraint use. We expect to have the analysis from this crash completed in December.

Additionally, we know that maintaining the integrity of roof structure is important. We conducted tests on four motorcoaches this February and are now assessing those results to determine our next steps. Our plan is to make a decision on roof strength next spring.

Further, when a crash does occur, getting passengers out quickly must be a priority. We are currently conducting human evacuation studies and simulations that take into consideration various emergency exit scenarios and the special needs of young and elderly passengers.

Finally, NHTSA has contracted with the National Institute for Standards and Technology to conduct fire safety research. This study is designed to review existing motorcoach flammability standards and procedures and determine which might be the most effective way to improve motorcoach safety.

Mr. Chairman, thank you for your consideration and the Subcommittee's ongoing efforts to improve highway safety. I would be pleased to answer any questions.

[The prepared statement of Mr. Kelly follows:]

PREPARED STATEMENT OF DAVID KELLY, ACTING ADMINISTRATOR,  
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION

Mr. Chairman, I am David Kelly, Acting Administrator for the National Highway Traffic Safety Administration. I appreciate the opportunity to appear before the Subcommittee to discuss the important issue of bus safety, and particularly motorcoach safety.

Every death and serious injury that occurs on our roads is a tragedy. I share the same feelings of concern and empathy for the individuals and families who have been tragically affected by these crashes, especially when our most valuable resource, children, are involved. I extend my deepest condolences to each of them.

Over the past several years, NHTSA has been very focused in our efforts to improve motorcoach occupant protection. In April 2002, NHTSA sponsored a joint public meeting with Transport Canada to hear the views and comments from motorcoach manufacturers, operators, users, and the public at large in order to be better informed of their specific needs, and to help us determine what improvements in motorcoach passenger crash protection standards were most warranted. With input from that meeting, NHTSA and Transport Canada entered into a joint program in April 2003 that was completed in September 2006.

The joint program with Transport Canada focused on improving glazing and structural integrity on motorcoaches to prevent ejections through the use of modified window glazing materials and bonding techniques. There were several reasons the program was focused in this way:

1. Both Transport Canada and NHTSA had observed ejections through windows in motorcoach crashes.
2. Several NTSB safety recommendations have been concerned with glazing, window exits, structural integrity, roof strength, and survival space.
3. Focusing the joint program on this area seemed the best way to address a broad array of the issues that had been raised by NTSB, and improve occupant protection for all crash conditions.

The joint study concluded that considerably more effort would be needed to develop performance requirements that would have a reasonable possibility of being effective.

Completion of the joint study with Transport Canada coincided with completion of an internal NHTSA review of emergency egress and flammability requirements that are applicable to motorcoaches, as well as the NTSB hearing on the tragic motorcoach fire that occurred in Wilmer, TX during the evacuation for Hurricane Rita. The testimony from the Wilmer NTSB hearing, in addition to the Transport Canada and internal agency reviews, caused NHTSA to reexamine our priorities for improving motorcoach safety. After completing a comprehensive review, we developed NHTSA's Approach to Motorcoach Safety, which was made public in August 2007. Our objectives in developing the safety plan were to review motorcoach safety issues and develop approaches directed to the areas that have the greatest potential for achieving improved motorcoach safety most quickly. NHTSA is making significant progress in our major research effort into passenger protection for motorcoaches in crashes. Four strategies the agency is pursuing on a priority basis are seat belts, roof strength, emergency evacuation, and fire safety protection.

We have been conducting various crash and related tests to determine the best strategies for enhancing passenger safety, especially ways to prevent passenger ejections in crashes, such as through the use of seat belts. In December 2007, the first motorcoach crash test ever conducted by the agency was completed. The test was a full frontal barrier crash at 30 miles per hour with 22 crash test dummies aboard in a variety of seat designs, seating configurations, and restraint usage. Using the crash information from this test, additional sled tests were conducted during this

past summer to determine the forces transmitted through the seat and seat anchorages under this full frontal crash condition, as well as experienced under different crash velocities, impact angles, and restraint conditions. Component tests are now underway to assess the feasibility of developing a performance procedure. Once those tests are completed this fall, and if the test data indicate feasibility, initiation of rulemaking proceedings could then occur.

In the area of roof strength, we conducted tests on four motorcoaches in February. Those tests were designed to bracket motorcoach body styles (*i.e.*, short vs. long window spacing) for a comparison of U.S. school bus and European roof strength procedures to determine the relative stringency and practicability of those differing requirements in applicability to motorcoaches. We are now assessing those results to determine our next steps.

Emergency evacuation studies are underway to identify studies from other transportation modes and countries and then determine applicability to motorcoaches. This involves conducting human evacuation studies and simulations under various emergency exit scenarios. Another aspect of this effort is to examine the minimum strength requirements necessary to open emergency exits, with special consideration for young and elderly occupants and the need to balance rapid emergency egress with containment requirements to prevent ejection.

Finally, NHTSA has contracted with the National Institutes for Standards and Technology to conduct the fire safety aspects of our motorcoach safety effort. This study is designed to review existing flammability standards and procedures and determine which might be most applicable to improve motorcoach safety. Research on motorcoach fire propagation properties will examine the U.S. vs. European procedures for vehicle interior materials. Wheel well mockup studies will be conducted on the tires, fuel and HVAC lines, external body panels, insulation, and wiring. Those tests will measure flame temperatures, heat release, fire resistance of components, and propagation to the passenger compartment. Countermeasure assessments will also be examined for fire hardening, fire detection, and fire suppression strategies.

Mr. Chairman, thank you for your consideration and this Subcommittee's ongoing efforts to improve highway safety. I would be pleased to answer any questions.

Senator LAUTENBERG. Thank you all very much.

Mr. Hill, after you discovered in the Sherman, Texas crash this summer, in which it appears an operator whose license had been revoked simply got a new registration number—how does this happen? And what do we have to do to prevent this from happening again?

Mr. HILL. Mr. Chairman, thank you for the question. I would just point out that even though they had a USDOT number, they were not legally prepared to operate. They had not fulfilled their licensing requirement. One of the things that we have in our current computer system is that people can apply for USDOT numbers, but they also have to have operating authority, and until they complete the operating authority process, they are not permitted to conduct interstate commerce.

Senator LAUTENBERG. How intense is the review for operating authority permission? What do you do to satisfy that this is someone who is qualified to operate a bus service?

Mr. HILL. Every motor carrier coming into the business has to show, first of all, that they have the financial wherewithal to engage in that business to protect the people that they are carrying. So they are required to file \$5 million worth of insurance with the agency before they are ever allowed to operate.

Second, they have to disclose to us information through an application process that will allow us to verify information that they are providing has not been falsified or is in any way recreating themselves as a new carrier. One of the things that we have instituted as a result of ongoing evaluation of our process is to make sure that we vet these a lot more carefully on the front end.

Even though it would not have stopped the Sherman crash—this person was intent on running anyway—we believe that we can prevent future crashes by lengthening the time of review that allows for us to properly investigate each one of the passenger carrier applications. There are about 875 of them a year.

Senator LAUTENBERG. Well, does that review involve a physical visit to the home location? I recognize that with a very small operation that—these applications come in fairly frequently. But how do you be certain that there are not violations of law in the application itself. But do people from your office physically visit these folks? Are they asked to come in and have a conversation?

Mr. HILL. Yes, Mr. Chairman. Let me point to two things.

First of all, in the vetting process to evaluate fitness for operating authority, we are looking at not only the application process, but we are sending the information to our field offices because they have routine contact with carriers that are trying to evade enforcement activities or compliance. So they would be familiar with names or carriers that are already in operation. So we require them or the State enforcement people to look at the application, give us any information they might have about the applicant. That is the first step.

And then we run them against our data bases for any kind of addresses, telephone numbers, or anything that would be an identifier that would indicate that this newly created carrier is trying to evade an out-of-service order or any kind of enforcement case penalty that has previously been issued to them. So that is the one side of the authority vetting process.

The other side is that we are also doing new entrant safety audits, and the law requires us to do those within 18 months, as I said in my statement. We are going to these carriers within 5 months after we get notice that they are applying. We are visiting their place of business. We physically go. We interview the owner or the safety manager responsible for that company and we take information from them.

Senator LAUTENBERG. Well, in most states, cars capable of carrying only five people must pass a government inspection to be legally registered and driven. This is an automobile. Your agency, however, allows bus companies to annually inspect their vehicles themselves, and they carry up to 56 passengers.

Now, we learned a lesson with the airlines that when it comes to the safety of the traveling public, you cannot simply trust the companies to self-certify that important safety tests have been done correctly.

You have 40,000 annual inspections that are being done by 4,000 U.S. motorcoach companies. How do you know they are being done properly?

Mr. HILL. Well, that is why we have a roadside inspection program, Mr. Chairman. We have increased our roadside inspection activities significantly in the last 3 years.

Senator LAUTENBERG. How many of those inspections do you conduct in a year?

Mr. HILL. Well, this year so far we have done 140,000 inspections on buses in this country, and previously—

Senator LAUTENBERG. With how many people?

Mr. HILL. Well, there are approximately 9,000—

Senator LAUTENBERG. No, no. In your organization.

Mr. HILL. We only do a small percentage of the inspections along the southern border. Primarily, we do bus inspections with about 270 people. I think we do 30,000 to 35,000 inspections along the southern border. But nationally the numbers that I am giving you of 140,000—those are representative of State inspections as well.

Senator LAUTENBERG. Can they be thorough with that number of people and those number inspections required?

Mr. HILL. Well, these inspections require about 30 to 45 minutes to go through them. I personally used to be certified in the process. It requires checking of 32 different items on a motorcoach or a bus. And yes, they are very thorough and they do find violations regularly.

Senator LAUTENBERG. I will take a minute more. Senator Hutchison, when you choose, we will give you the time you need.

Mr. Rosenker, how do we know that an annual inspection is adequate at all given the number of miles some of these buses put on in a particular year, and should they be done more frequently? And from your standpoint, are these thorough enough?

Mr. ROSENKER. Mr. Chairman, we have been concerned about two particular elements of motorcoach safety and oversight by FMCSA. One area of concern is, specifically, the driver himself. Is he qualified? Is he medically fit? Does he have a performance record that enables him to drive safely? And on the other side, the maintenance and mechanics of the vehicle itself. In addition, we have made recommendations to FMCSA and they have made progress on those, but we continue to see that more needs to be done in the area of oversight as it relates to maintenance.

Senator LAUTENBERG. Is that numbers of inspections or more detail in the inspection?

Mr. ROSENKER. Both, sir.

Senator LAUTENBERG. Mr. Hill, just a month after the tragic Bluffton University chartered motorcoach crash, your agency gave the bus company involved a satisfactory safety rating. According to the NTSB in its July 2008 report on the crash, the safety audit performed found several serious safety violations. Does that not tell you that there is a problem with the rating system when a company like this is allowed to keep going?

Mr. HILL. Mr. Chairman, one of the issues that we have been working to resolve is an open recommendation with the National Transportation Safety Board on the evaluation of safety fitness for motor carriers. We inaugurated a study and a program change into the way we are going to be implementing safety fitness in the future. It is called the Comprehensive Safety Analysis 2010. We are expecting a rulemaking to be published in early 2009 that would begin to start the safety rating process review. So instead of rating carriers with only acute and critical violations, as you referred to in your comments about the Bluffton company, we will be rating companies based upon violations that are found at the roadside, as well as what are found in terms of the compliance review process. We will have a much more comprehensive review and safety rating methodology, and, it will include driver fitness factors, not just equipment factors and company factors.

Senator LAUTENBERG. So that suggests that at this point in time that we are lacking some part of a proper review. You talk about 2010.

Mr. HILL. We have observed a deficiency in our safety rating process, and we believe that it needed to be reformed and that is why we took the action to do that. It started several years ago, and my predecessor and I have been quite diligent to ensure that that is not going to slip in time lines, and we are going to get it implemented.

Senator LAUTENBERG. So there perhaps is a risk that we endure until we have a chance to bring up the standards as you would like to see them?

Mr. HILL. Well, actually I do not think that I would characterize it as enduring. We are already doing a pilot program in the state of New Jersey as one state to test this safety fitness. So we are actually working the safety fitness process right now with four states in the country, and we are going to roll that out even further as we move along.

Senator LAUTENBERG. And I will close with asking Mr. Kelly a question. Since a number of injuries and fatalities involved passengers being ejected from the bus—it seems everyone agrees with that, and the legislation proposed by Senator Hutchison focuses on that as well—why does your agency not require seat belts to be made available on buses for passengers?

Mr. KELLY. Thank you, Senator Lautenberg.

We have been looking at the issue of seat belts on motorcoaches, especially as a result of the crash test that we did last December where we got over 4 million data points from that one crash alone. We had every configuration that you could think of about belted and unbelted passengers. We had unbelted passengers behind a belted passenger. And I have some video that I would like to submit to the record at some point of the crash test.\* And you can see in the crash the unbelted passengers, obviously, fared much worse than the belted passengers.

What we need to do with that data is develop recommendations and finish analyzing it. If we are going to move forward with the rulemaking process, we are going to have to develop a standard, a performance evaluation for the seat belts to meet. And that is what we are doing right now, and that is what we intend to have done in December.

Senator LAUTENBERG. So we know about the importance of them, and we just have to get to that. Thank you.

Senator Hutchison?

Senator HUTCHISON. Thank you.

I would just like to follow up on that. You have said in your testimony that you have been studying this for quite a while, starting with your—well, you have been looking at it even before your meeting with the Canadian officials. But my question is, from the data that you have gotten, you said you expect to have exactly what done in December? The standards set and that you would be able to go out with a rulemaking, or what is your time line for a process

---

\*This video is retained in Committee files.

to go forward on seat belts if you think you are going to make that decision?

Mr. KELLY. Thank you, Senator.

What we plan to do is to take the data from the test, from the crash test, and not only the data that we got from that test, but also subsequent sled testing and component testing that we did throughout this past year, and take that data and come up with really a performance standard by which, if we are going to move forward, that is what we would do in a rulemaking process. That is what we would set so manufacturers know what they would need to manufacture toward.

But there is all of that data that we are analyzing. That 4 million data points that I mentioned before is 300 times more data than we get in any one single crash test that we do with a regular car. So the volume of data there is extensive for us to be evaluating and moving forward on.

Senator HUTCHISON. That was done in—when was—

Mr. KELLY. That was done in December 2007, 10 months ago.

Senator HUTCHISON. And that seems like a reasonable time to look at the data and make that determination?

Mr. KELLY. With that much data and with the subsequent testing that we did with the sled tests and the component testing that we have been doing over the spring and early summer, yes. We think that is a quick turnaround on the data actually.

Senator HUTCHISON. Have you made a decision about whether you would do a rulemaking on providing safety belts?

Mr. KELLY. We have not made that decision as to whether we would move forward with a rulemaking. We are still looking at the performance standard. Moving forward with a rulemaking process is a cumbersome process. What we need to first do is determine what the data tells us, and we are still evaluating that data.

Senator HUTCHISON. If we were to pass the legislation that Senator Brown and I have introduced, you could use the data that you already have in place for the implementation of a rulemaking. Is that correct?

Mr. KELLY. Absolutely.

Senator HUTCHISON. Let me ask you. Have all three of you looked at my legislation? I would like to ask each of you to tell us what you think is good about the bill and if you have concerns of any part of the bill.

Mr. ROSENKER. I have looked at the legislation. I have seen a number of drafts. I am not in full knowledge of exactly what each and every one of the provision is ultimately going to be look like.

But I can tell you that the body of this legislation basically incorporates a great deal of what the NTSB has been recommending both to my colleague at the FMCSA and also my colleague at the National Highway Traffic Safety Administration. If we can get this legislation passed, I genuinely believe we will be taking—not one step, but many, many, many steps toward either preventing accidents from happening because of the technological aspects of the provisions or mitigating accidents that we cannot prevent.

So I personally and my colleagues at the Board are quite supportive of the provisions and the concepts which have been developed so far in this legislation. We applaud your work, and we also

applaud Senator Brown's work. We would encourage a quick passage of this legislation because it will begin the process of accident elimination and mitigation.

Senator HUTCHISON. Thank you very much.

Mr. KELLY. Senator Hutchison, we have also been looking at the bill and also working with your staff and Committee staff on the bill and also applaud the intentions of the bill. We think that it provides additional safety for motorcoach passengers.

We have also gone through various drafts of the bill, and I am not exactly sure which version we are talking about at this point. But we have shared with your staff some of the concerns that we had which were more technical in nature, time lines, performance standards, and things like that. As a whole, I think that the bill is a step in the right direction about providing additional benefits and I think is something that we are more than willing to continue to work with you and your staff with.

Senator HUTCHISON. Let me ask you this, and then I do want to hear from Mr. Hill. But let ask you. Seat belts. I think we are in general agreement that—you have seen results that show a major improvement. I do not want to put words in your mouth, but you have seen from your tests that there is a major improvement between passengers that are restrained and those that are not. So I think we can agree that seat belts will improve safety and you have to get the right standards and all of that.

Integrity of windows, the window glazing. Is that something that you also see as a potential lifesaver in the data that you have seen or in the NTSB reports that you have seen?

Mr. KELLY. We do not see as much benefit out of the window glazing for the side windows as we do for occupant protection. And one of the reasons is because in the testing that we have done and that we have seen in the work that we did with Transport Canada, it was not as much of an issue where the window was breaking or shattering, it was an issue of where the entire windowpane was popping out and you would still have the hole in the side for the ejection. And glazing was not helping. It is sort of like an ice cube tray with ice cubes when you start wiggling the sides and they all pop out. I think that there are greater benefits to be had with window retention as opposed to glazing.

Senator HUTCHISON. OK.

Mr. Rosenker, are you in agreement on window integrity so that they would not pop out as a larger goal over glazing?

Mr. ROSENKER. Our position for close to a decade is that we take a systems approach to mitigating the results of a terrible crash or a rollover where potentially people can be ejected. While Mr. Kelly talks about making sure that the window stays in place, we want to make sure that if the window stays in place, it has the integrity that is needed so that the passenger does not go through the window. So we stand by our position in glazing.

But we also talk about the need for an appropriate occupant protection system; a combination of things which would potentially include a number of design improvements. We like, as you have even talked about in your legislation, strengthening the roof so that it cannot be crushed into the compartment area. It has got to be a

scientifically designed system that incorporates all of the latest technology in occupant protection.

We applaud the work that is being done in this effort, and we would hope that this could be done in an expeditious manner. We do know that these technologies exist not only in the United States, but also in Europe.

Senator HUTCHISON. Mr. Hill, I know your area is a little different, and what you and I have talked about, the stabilization technology—so if you would talk about, from your standpoint, what you think is helpful in the bill and if there are any concerns that you have.

Mr. HILL. Well, first of all, Senator Hutchison, thank you for taking the initiative to think about motorcoach safety. I know your state has experienced tragedy in this area, but I applaud you for moving ahead with this.

I would just say that we support many of the provisions of this bill and we have been working with your staff and will continue to provide specific information. Let me just point out a couple things.

We are moving forward with the medical certification rule that would merge the CDL process, the licensing process, with the medical process. That will be a final rule and it will be issued later this year.

We are issuing a notice of proposed rulemaking later this year on the registry of medical examiners, and so that will give us a database that will allow us to track who is doing medical exams, and if they are doing them correctly. The examiners will be certified or accredited in order to perform those exams.

So those are two main provisions that I think your bill addresses.

One of the things that your bill also does is it deals with electronic on-board recorders, and we are going to be publishing a final rule this year. And I would just say that if you want to mandate, that would go beyond what our rule eventually does, then that would be something that we would have to take into consideration and issue interim guidance on.

Senator HUTCHISON. So you are going to be doing something in that area at the end of this year?

Mr. HILL. Yes, ma'am, the final rule.

Senator HUTCHISON. Final rule or NPRM?

Mr. HILL. Final rule, electronic on-board recorders.

Senator HUTCHISON. Oh, good.

Mr. HILL. The chairman held a hearing earlier about this and admonished us to move that along.

Senator HUTCHISON. Good.

Mr. HILL. And then I would just say the one provision of the bill that we would want to make sure that we can finesse and work together is our Comprehensive Safety Analysis 2010, redesign of our safety fitness program the Chairman was just questioning me about. We would want to make sure that the contents of this bill allow us to continue with that modernization of our safety fitness and not have two different kinds of rating systems that would be in place. But I am sure that we could discuss that and come to some resolution. But we applaud the Committee for moving ahead.

Senator HUTCHISON. All right. Well, those were the major things that I have.

Mr. Chairman, I have to step out. We are trying to finish this tax extender negotiation for some of our people here, our victims of Hurricane Ike. And I am trying to get some disaster protection. So I am going to have to step out.

But I thank you very much. I am going to try to step back in, but I really appreciate that what I am hearing is that all three of you believe that we can take some major steps forward with the legislation. And if you all can beat us to the punch with a rule-making, it is good, but if you cannot, whatever status you are in will make the time table more doable. So I think that we are all going to work together here to enhance safety and that is a good thing. So thank you very much.

Senator LAUTENBERG. Thank you, Senator Hutchison. The legislation sounds like it has a real good purpose and will make bus riding safer, and that is a perfect objective for legislation.

Senator HUTCHISON. I will look forward to working with you, Mr. Chairman.

Senator LAUTENBERG. And good luck with the tax extenders. Go, please.

[Applause.]

Senator LAUTENBERG. Now I thank you very much, members of the panel.

And we will now invite the members of the second panel to come to the witness table. They bring a combination of policy expertise and personal experience to the issue, and we look forward to hearing from them.

Mr. Peter Pantuso, the President and CEO of the American Bus Association. Mr. Pantuso will share with us the industry's plan for improving our Federal motorcoach safety programs.

Ms. Jackie Gillan, Vice President of Advocates for Highway and Auto Safety. She is a longtime fighter for more safety on the road. We know each other from our work for safety and protection of the people in transportation and for cars, trucks, buses alike, and we welcome your ideas.

And we have Mr. Steve Forman. Is Mr. Forman here? Well, the one that has your name on it is the one you are choosing if you are Mr. Forman. And we are happy to have your testimony. We know that your daughter was injured last year when the school bus that her team was riding rolled over in Devers, Texas.

And Mr. John Betts will testify about the Bluffton University baseball accident. Mr. Betts' son David died when the bus carrying the Bluffton baseball team drove off a highway overpass in Atlanta, Georgia.

And I express to all of you who had a family member, a friend who was injured or was killed—we appreciate the fact that you are willing to be here today and do not want to see any other family suffer the loss and anguish that you experienced. I thank all of you for being here.

Mr. Pantuso, if you would, you may begin. We have a 5-minute limit. I am usually fairly generous, but not too much so. So red means put on the brakes. Thank you and please give us your testimony.

**STATEMENT OF PETER J. PANTUSO, PRESIDENT AND CEO,  
AMERICAN BUS ASSOCIATION**

Mr. PANTUSO. Mr. Chairman, thank you very much for your leadership in convening this hearing. The American Bus Association represents 800 bus companies who operate nearly two-thirds of all the motorcoaches on the road. The motorcoach industry is diverse and its bedrock is small businesses. In fact, a typical company has fewer than five coaches. Collectively these companies, though, provide more than 700 million passenger trips annually, as many as provided by the airlines.

Mr. Chairman, let me be very clear. The bus industry does not oppose seat belts. What we do favor is rigorous scientific research before arriving at any conclusions. And what we do oppose is a rush to judgment.

Safety is our number one priority and always has been. It is not just enough that Government statistics show the bus is the safest way to travel, as was reaffirmed earlier by Administrator Hill and Chairman Rosenker. We want to be even safer. However, recent bus crashes illustrate that there are bus companies that should never have been allowed to be on the road.

ABA promotes safety through its Bus Industry Safety Council comprised on safety experts, associations, engineers, and government agencies, including NHTSA, NTSB, and FMCSA. ABA is a member of FMCSA's Safety Advisory Committee and has recommended stepped-up inspections.

The heart of this issue is unsafe operators, combined with a lack of enforcement, lack of cooperation between Federal and State agencies. Today a new bus company need only file an application, pay a \$300 fee, and provide temporary proof of insurance to be granted Federal operating authority. An inspection of a carrier's equipment and personnel and records can take up to 18 months after authority is granted. It is difficult to imagine the FAA granting an application for an airline without prior review of its fitness to operate.

Following the horrific crash by an illegal operator in Sherman, Texas, Administrator Hill froze applications for new bus companies' operating authority, a critical first step. But more must be done.

The record shows that some of the most serious bus accidents were a result of carriers who were operating illegally or had a record of safety violations. Earlier this week, the ABA proposed a plan to enhance bus safety by getting illegal, unsafe operators off the road and increasing enforcement of existing laws. And I ask that plan be attributed to my testimony and appended to my testimony.

Elements of the plan include that FMCSA must ensure that the \$300 million going to states for inspections include buses, not just trucks. A State-by-State patchwork quilt of enforcement is completely unacceptable. Therefore, FMCSA and State law enforcement officials must work together and share information so that another Sherman, Texas crash never happens. Illegal and unsafe operators involved in fatal crashes should be charged with Federal crimes and prosecuted to the maximum extent of the law.

ABA is eager to work with Congress to make bus transportation safer. The late Congressman Paul Gillmor from Ohio started us on

a road to a bipartisan bill for bus safety. Congressman Bill Shuster and other House members came together and introduced H.R. 4690 which provides NHTSA with time and resources to research safety issues and develop new standards. It also provides a phase-in period for manufacturers and operators to meet the new standards, as well as an investment of Federal funds so that buses can be retrofitted in a very timely fashion. During this period, states should be also prevented from imposing new regulations so that bus operators are not subject to inconsistent or contradictory standards across the country.

But that is just the beginning, Mr. Chairman. Bus safety requires a holistic approach. Safety equipment cannot be bolted onto a vehicle. It must be engineered into the vehicle's architecture.

NHTSA finally began bus research last year, after a decade of prompting by the bus industry, the first time they have moved on this issue in history. Now they need the time to complete their work. One cannot rush safety research or put a time table on science. Safety is just too important to be left to intuition, to chance, or even to educated guesses. Safety demands rigorous testing.

We welcome the opportunity to work with you, Mr. Chairman, and the Committee for a safer bus industry. We appreciate the opportunity to be here.

[The prepared statement of Mr. Pantuso follows:]

PREPARED STATEMENT OF PETER J. PANTUSO, PRESIDENT AND CEO,  
AMERICAN BUS ASSOCIATION

### **Introduction**

Mr. Chairman and members of the Subcommittee, my name is Peter J. Pantuso and I serve as the President and Chief Executive Officer of the American Bus Association (ABA). The ABA and its 3800 members would like to thank you, Mr. Chairman for your leadership in convening this hearing. The ABA appreciates the opportunity to testify on the issue of bus and motor carrier safety and to work with you, the Committee and the Congress on the reauthorization of the Nation's transportation programs in the coming year.

We also come before you today representing the interests of the entire industry including the National Tour Association and the United Motorcoach Association. Both organizations are equally concerned about safe motorcoach travel and each represents significant motorcoach companies. For its part the ABA is the national trade association for the independent, private over-the-road bus industry. ABA is a voluntary organization comprised of companies that operate buses and provide related services to the motorcoach industry. Our bus operator members, of which there are 850, operate 40 to 45 foot touring coaches with baggage bays under a passenger compartment. These operators also represent nearly sixty-five percent of all motorcoaches on the road today in North America. Nearly all of these operator members provide charter and tour service (like Coach America located in Texas) commuter service (like Academy Bus Lines in New Jersey) and some 100 ABA member companies provide regular route scheduled service like Trailways and Greyhound. The American motorcoach industry is diverse but its bedrock is small business men and women. ABA's average member has eight motorcoaches or fewer. Our operator members provide local, regional and national services. Together ABA members provide all manner of bus services and provide in excess of seven hundred million passenger trips annually, a number which approximates the number of passengers carried by U.S. airlines in any given year. In addition, we move more passengers in 2 weeks than Amtrak does in a year.

Chief among our duties is providing charter and tour services to the Nation. We bring families, school groups and senior citizens together for tours, family reunions, festivals, sporting events, fairs and to see the beauty of our country. ABA members will provide these services safely. We do so because it is a part of ABA's mission, *i.e.*, to provide safe trips to all our passengers and because our families, neighbors

and friends ride with us every day. ABA believes that there is no margin for error in safety; we must be safe and even one accident tarnishes the industry. The problem today is that there has been a spate of accidents by bus companies that should not have been on the road.

#### **ABA and Bus Safety**

ABA promotes safety in the industry in several ways. First, ABA long ago established the Bus Industry Safety Council (BISC). This organization is composed of the safety directors of bus companies and key representatives from bus industry suppliers, and state and Federal Government agencies. BISC meets at least twice a year to discuss and provide guidance and best practices on industry safety issues. At BISC's July meeting there were discussions and panels led by or participated in by the Federal Motor Carrier Safety Administration (FMCSA), National Highway Traffic Safety Administration (NHTSA) and the National Transportation Safety Board (NTSB). It is important to note that BISC is open to all bus operators and all those interested in bus safety whether or not they are members of the ABA.

ABA's commitment to safety goes beyond BISC. ABA led the fight against dangerous roadside inspections which required buses to unload their passengers by the side of the road in traffic while buses were inspected. The fact of youngsters and senior citizens along the road while cars and trucks passed by at 70 miles per hour was an accident waiting to happen. Earlier this summer, ABA was instrumental in securing the passage of H.R. 3985 (P.L. 110-219) which requires FMCSA to certify the willingness and ability of motor carriers to abide by the Americans with Disabilities Act (ADA) before the agency grants that carrier authority to operate. And we advanced that legislation in the face of some opposition within the bus industry. Indeed, before drafting that legislation, ABA sued the FMCSA seeking to enforce the ADA, a suit the FMCSA and the Department of Transportation vigorously opposed.

In addition, through the ABA, the independent, private bus industry is a member of FMCSA's Motor Carrier Safety Advisory Committee (MCSAC). This Federal advisory committee meets each quarter to evaluate and provide recommendations to the FMCSA Administrator on safety issues. Moreover, the MCSAC engages in determining how best to extend the agency's resources to advance safe bus and truck operations. ABA participates in the MCSAC with the American Trucking Associations, the Advocates for Highway and Auto Safety, Road Safe America and several state law enforcement agencies. Several ABA recommendations to FMCSA, for example, increasing bus inspections, have been included in the FMCSA's list of recommendations for the reauthorization of the Nation's transportation programs scheduled for next year. Reauthorization looms large in ABA's plans for safer buses and safer operators and in ABA's view enforcement of current bus safety standards is key to safe bus operators.

#### **Enforcement is Critical**

ABA believes strongly that the heart of the problem of accidents and fatalities are unsafe operators and the lack of FMCSA's and state enforcement officials' attention to a motor carriers' safety fitness prior to granting authority to operate. There is also a lack of cooperation between the Federal Government and the states in getting unfit bus companies off of the nation's highways. It is difficult to see the FAA granting an application for an air carrier without a prior review of its fitness to operate but that is essentially what happens to bus applicants.

Today, a person seeking authority to operate need only file an application, pay a fee of three hundred dollars and provide proof of insurance (five million dollars); an applicant gains operating authority before it can be shown that he or she is a safe operator. Any inspection of a carrier's equipment, personnel or records can take up to 18 months after authority is granted, a regulatory scheme that puts the cart before the horse and opens the public to unsafe operators.

FMCSA has released statistics which reveal that in 2007 the number of applications for new and expanded regular route authority amounted to almost 50 percent of the industry. And still there is no investigation of fitness before authority is granted. Recently, following the horrific accident in Texas, FMCSA Administrator Hill froze the processing of all applications for passenger carrier authority while he addresses the issues surrounding the unprecedented number of applications. We applaud Administrator Hill for taking this bold step. This demonstrates that FMCSA itself has focused on the need to address the entry issue.

How important is it to certify a carrier's safety fitness prior to granting authority? ABA has determined that over the last decade each of the most serious bus accidents were the product of carriers who were either operating illegally or had serious pre-existing safety issues. Inspecting a carrier before it begins operations and requiring periodic inspections thereafter would help reduce this toll of lives and acci-

dents. ABA believes that any examination of a carrier's safety fitness must include a review of the operator's safety management program and a physical inspection of the operator's vehicles. Our proposed inspection process is virtually identical to the process now used by the Department of Defense (DOD) to vet motor carriers which seek to transport military personnel. The DOD contracts with third party inspectors to carry out these inspections, something we have long advocated to FMCSA.

Second, FMCSA must implement the authority given it in SAFETEA-LU to deny authority to individuals who startup new bus companies after already developing bad safety records at prior companies. It appears that the most recent accident was the product of this type of operator.

Third, Congress should require that states enforce any interstate shutdown orders from FMCSA and cancel any intrastate operating authority issued to bus companies whose interstate operating authority is terminated by FMCSA or whose interstate application is denied on fitness grounds. This is a particular problem in states with extensive intrastate operations. The states must become more aggressive in confiscating the license plates and vehicle registrations for non-compliant carriers.

Fourth, Congress should require that FMCSA and the states ensure that carriers applying for private charter authority do not use that authority to provide common carrier, scheduled or fixed route service open to the general public. This is a particular problem in the Border States. Even though cross-border, fixed route bus authority grants are frozen under NAFTA, charter applications are not. Thus, carriers on both sides of the border get charter authority from FMCSA and then run fixed route service with no effort to prevent these illegal operations.

Fifth, the Motor Carrier Safety Assistance Program (MCSAP) provides the states with Federal dollars to support a bus inspection program. In ABA's view only a handful of states have an effective bus inspection program. The states must demonstrate that they have effective bus inspection programs. States are provided funds through the Motor Carrier Safety Assistance Program (MCSAP), to provide these programs. Last year Federal MCSAP grants exceeded two hundred million dollars.

Lastly, for many years ABA has supported a provision that would require FMCSA to establish a medical registry. Such a registry would provide bus operators with an approved list of qualified medical providers who will not certify a driver's fitness for duty if the driver is unfit. Currently, a driver could "shop" for a medical professional who knows little about transportation or those medical conditions that bear upon safe operations. As a result, a medically unqualified driver would be certified fit for duty.

### **Reauthorization Legislation**

As this Committee moves toward reauthorization, please keep in mind that ABA is eager to work with you on all manner of transportation issues. We are available to anyone who calls with a request for help in making buses safer. It was such a call from the late Congressman Paul Gillmor (R-Ohio) which started us on the road to H.R. 4690, a bipartisan bill that provides a comprehensive plan for bus safety. The industry, ABA, Greyhound Lines, the unions and the United Motorcoach Association (UMA), and others worked for several months to craft this bill. After the death of Congressman Gillmor, Congressman Bill Shuster and Congresswoman Eddie Bernice Johnson came together in a bipartisan effort to introduce the bill that is now H.R. 4690. Other House members have joined this coalition and ABA continues to support this bill. The bill provides time for NHTSA to research safety issues, time for any new standards to be implemented by the industry, including the bus manufacturers who would have to retool and perhaps reengineer their process and it provides funds so that bus companies can retrofit their buses in a timely fashion.

But H.R. 4690 is neither our only legislative effort nor did our safety initiatives begin 2 years ago. ABA also actively supports H.R. 3820, a bill to provide tax credits to motor carriers which install advanced safety equipment (*e.g.*, lane departure warning, electronic stability controls) in their buses. ABA believes that proper bus safety legislation will materially aid our goal for safer bus operators and operations and we commend these bills for your consideration as we move into the reauthorization process.

One thing is certain. While bus safety is vital, the issue is also complicated. The safety of any vehicle is dependent on many issues. This is no less true of motorcoaches. Several factors must be weighed before any person, agency or organization can pronounce a bus safe or unsafe or say with certainty that any one change will make the bus safer. I have already noted that the skill, ability, resources and willingness of the driver and bus company are of prime importance. Likewise, the type, make and model of the motorcoach are issues that must be considered. Obviously, newer motorcoaches are built differently than older models and may have

more safety features. The type of crash a bus is involved in is also important. For example, seat belts may help passengers in so-called "roll over" crashes but in other type of crashes a combination of compartmentalization and other safety improvements may be just as effective.

Bus window design may also be a factor. Bus engineers have noted that fatalities in bus crashes began largely with the advent of larger bus windows, hence the need for NHTSA to study advanced window glazing techniques. In considering fire suppression one issue is where to place any additional fire suppression gear on a motorcoach and at what cost to other bus safety systems?

Reauthorization provides this Committee with a rare opportunity to craft a comprehensive bus safety bill that all parties and transportation stakeholders can support. And here ABA would like to commend Committee Ranking Member Senator Hutchison for her efforts in fostering such a bill. In the Committee's continued efforts on behalf of this goal, ABA asks you to keep my testimony and concerns in mind regarding any bus safety legislation. Those concerns may be grouped around three issues: implementation, retrofit standards and liability.

First, any bill that requires NHTSA to promulgate standards for seatbelts, advanced window glazing and improved firefighting equipment should require that NHTSA research and test for these issues prior to promulgating standards for these buses. Further, there must be sufficient time for bus manufacturers, operators and maintenance professionals to meet the new standards.

Clearly, new NHTSA requirements must be based on what research and testing determines is appropriate, and NHTSA should have 3 years to do the testing and initiate and complete the rulemaking. Then NHTSA must be required to develop standards for each of these items and their installation on both new and retrofitted buses. The new and retrofit standards are likely to be quite different, given the vast array of existing over-the-road buses. Retrofit standards will be complicated by the various motorcoach makes, model and manufacturers and the fact that a motorcoach normally has a 25 year life cycle. NHTSA will also have to take into account different flooring, anchors and seat construction. One size retrofit standards will not fit all buses. The complicated issue of retrofitting buses also points up the need for Federal financial assistance in order to retrofit buses. Unlike the transit industry our buses are not federally funded or maintained with Federal money. We are an industry composed of small businesses and the imposition of a seatbelt mandate for every bus will be a heavy one. It will be impossible to fulfill without Federal funds.

In addition, a too brief implementation phase-in time for all buses is unreasonable and unworkable. First, in one year, the four major world bus manufacturers (only one is a domestic company) produce a combined total of nearly 2000 motorcoaches for the U.S. market. Currently, there are 40,000 motorcoaches on the U.S. highways. The bus manufacturers will probably need more than a year just to retool and re-engineer their product to comply with the new law. Thus, the vast majority of buses would have to be retrofitted. This will be an extremely expensive and burdensome undertaking. Ironically, an unreasonably tight time-frame could also mean less safe buses overall since it would divert resources from new bus purchases, which may be safer than older buses.

Installing seat belts is not just a matter of bolting a belt to a seat. It may be, depending on the type of belt and bus, a matter of redesigning the seat, strengthening the bus floor or changing the seat configuration. Safety cannot simply be added on to any equipment, it must be engineered into that equipment. In H.R. 4690, bus manufacturers were given 3 years to retool their plants and redesign their products to meet the new standards. The operator phase-in period is that mandated by Congress in the implementation of the bus provisions of the Americans with Disabilities Act. That is, that bus fleets be 50 percent compliant within 6 years and fully compliant within 12 years. We believe that these timeframes are appropriate for the private bus industry.

One other concern ABA and its members have about any bus safety legislation is that of liability protection for bus operators and manufacturers. H.R. 4690 addresses this issue by providing liability protection for bus operators and bus makers during the law's phase in period. Without such protection bus operators and manufacturers would be sued for not having seatbelts even though the law would not yet require the buses to be so equipped. Moreover, during the phase-in period of the Federal regulations it is important that bus manufacturers be protected from states imposing their own regulations. Without such protection, interstate motor carriers could be subjected to inconsistent or even contradictory standards concerning all manner of safety equipment. When Congress mandated the use of air bags in passenger vehicles it provided just such protection for automobile manufacturers; that is, during the phase in period, manufacturers or owners could not be sued for not

having air bags or be subject to inconsistent state requirements. That is exactly what ABA seeks with any new legislation.

#### **NHTSA Bus Crash Testing Program**

ABA's efforts to prevent bus crashes and to lessen the damage from such accidents began with the NTSB's Bus Crashworthiness hearing in 1998. Since then ABA has asked NHTSA to apply to Congress for authority and funds to begin a bus crash testing program. Then, as now, ABA wants to determine the safety of the buses we operate and how to discover ways to make them safer. After years of dis-taining such a program because of the industry's low number of fatalities, an average of 22 a year, late last year NHTSA finally began such a program, the first in its history. The program, studying the need for new regulations on fire prevention and suppression, emergency egress, roof strength standards and occupant protection is a step in the right direction. In fact, ABA would wish the program be more rigorous. However, ABA and its members are in partnership with the agency in this effort. We provide resources, including technical expertise and equipment for the program. Our experts are in regular contact with the NHTSA staff. ABA hopes for a timely analysis of the reams of data that just one crash test produced and that the industry will get answers to the questions of whether, and if so, how the buses we depend on can be made safer.

Now that NHTSA has begun its research and testing program, ABA believes that it needs time to complete its work before it can provide scientifically correct conclusions as to the future safety needs of buses. One cannot rush safety research and one must look at all the evidence. For example, recent bus crashes involved equipment in which seatbelts were provided, yet the injuries and fatalities seem (and the evidence is yet unclear) to be as bad as those crashes with buses not equipped with seat belts. This question raises other questions, for example, the responsibility for ensuring seat belt use. None of us know the answers to these questions because the testing is ongoing, the data still unclear. It is not a question for ABA alone. Last year, Texas passed a law requiring seat belts on all buses which carry students from Kindergarten to Grade 12. According to news reports, there is now an effort in the legislature to re-look at that law in part because there is no science or testing to support the law's conclusion that seat belts are necessary or at least not harmful in all accidents.

#### **Conclusion**

Hopefully in addition to providing the Committee with the facts it needs to legislate bus safety during reauthorization, my testimony will also dispel a myth about the industry's promotion of and interest in safety. That myth of "if the industry really wanted to do it, it would have done so already." Nothing could be further from the truth. What standards would the industry use for installing, for example, seat belts? What type of belts and on what type of equipment? And what if the Federal agencies then determine that the standards used were incorrect? Since 1966, it is the Federal Government's role to set these standards. Heretofore, it has chosen not to act. How can any one say that the industry should have acted in the government's stead?

ABA's view is that safety is too important to be left to intuition, chance or even educated guesses. Safety demands rigorous testing and specific answers to the questions surrounding the development, installation, and use of any safety equipment in a variety of circumstances. Safety also demands rigorous enforcement of the regulatory tools available and the development of new tools as needed. But those answers and those new tools cannot be rushed solely because we wish to have them sooner. It is for these reasons that we work with NHTSA on the bus crash testing program, we work with FMCSA on demanding ADA accessible transportation and upgrading the skills of bus operators, and we work with NTSB at every bus accident investigation. It is safe to say that ABA will work with anyone who calls and has an idea for safer buses, operations and educating the public on how to pick a safe bus operator. For those reasons and, as I stated at the beginning of my testimony, for the simple reason that our families, friends and colleagues ride with us every day, we are happy to work with you Mr. Chairman and with the Committee and with the Congress for a safer bus industry.

Once again, on behalf of the 700 million passengers who ride with us every year and the 3800 ABA member companies and organizations, I thank you for allowing us to testify and I am happy to answer any questions.

Senator LAUTENBERG. Thank you very much.  
Ms. Gillan, we welcome and invite you to give your testimony.

**STATEMENT OF JACQUELINE S. GILLAN, VICE PRESIDENT,  
ADVOCATES FOR HIGHWAY AND AUTO SAFETY**

Ms. GILLAN. Thank you, Senator Lautenberg.

Good afternoon. My name is Jackie Gillan. I appreciate the opportunity to testify on such an important safety issue on behalf of Advocates for Highway and Auto Safety.

Motorcoach safety is a serious concern for anyone who uses this growing and affordable mode of transportation. Every day millions of Americans are boarding buses at risk because of chronic and continuing failures to upgrade the safety design of motorcoaches, to provide adequate safety oversight of the industry, and to give consumers the essential information they need about the safety record of motorcoach companies.

Motorcoaches are really the over-the-road commuter airlines without the strong Federal safety standards that protect you and your family when flying. According to DOT data, a total of 571 people died in 400 motorcoach crashes in the last 11 years, including motorcoach occupants, people in other vehicles, and pedestrians. And in fact, I have attached to my testimony a chart describing over 100 motor crashes from around the country.

We know what to do to protect passengers and prevent motorcoach crashes. However, the Department of Transportation just does not seem to want to do it. For more than 40 years, the National Transportation Safety Board has been investigating motorcoach crashes and issuing recommendations to improve occupant safety and operations. These lifesaving recommendations have largely been ignored or rejected at DOT.

For example, 40 years ago, NTSB recommended to DOT that they consider seat belts on motorcoaches, and they have repeated that recommendation throughout the years. Australia has required three-point seat belts on motorcoaches for over 14 years. During that time, no one who was wearing a seat belt has died or suffered any injury in a motorcoach crash. Seat belts on motorcoaches are also now required in the European Union and Japan.

Other NTSB safety recommendations continue to take a back seat at DOT. It is clear that Congress needs to pass Senate bill 2326, the Motor Coach Enhanced Safety Act. This bill directs DOT to act within reasonable deadlines on safety improvements recommended in NTSB investigation, Inspector General reports, and a host of GAO studies that have languished for decades.

Clearly, when Congress acts, DOT reacts. And I need to be more specific on that. When the Senate Commerce Committee acts, DOT reacts. It took Federal legislation to require air bags in passenger vehicles, to direct Federal upgrades in tire safety after the Firestone fiasco, and to mandate long overdue vehicle safety standards and SAFETEA-LU to reduce the number of rollover crashes that continue to kill and injure thousands annually. Once again, this kind of Congressional leadership and legislation is urgently needed.

S. 2326 requires DOT to issue safety standards that would result in lap and shoulder belts, a stronger roof, and advanced window glazing to protect occupants from ejection, and the use of readily available crash avoidance technologies, such as electronic stability control and adaptive cruise control. It would also prevent deadly motorcoach fires by increasing the fire resistance of interior mate-

rials, requiring automatic fire suppression systems, as well as improving passenger evacuation in an emergency.

The bill also mandates additional reforms to keep unsafe drivers and companies off of our highways like required training of motorcoach drivers, increased Federal and State oversight and enforcement, and an issue that you have taken a leadership role on, the installation of electronic on-board recorders to help enforce Federal hours-of-service rules and keep fatigued drivers off the road.

FMCSA has also failed to give consumers essential information about the safety of motorcoach operators. A random review of the safety ratings of motorcoach companies in New Jersey and Texas were found to be incomplete, out of date, misleading, or simply not available. Some safety ratings were 20 years old, Senator. Only a handful of companies in either state had ratings that were current or complete.

When motorcoaches are stopped and inspected, the results are also discouraging. For 2005, more than 1 out of 10 motorcoaches were placed out of service, a rate that has not changed significantly over several years. Similarly, inspections found that one out of five commercial drivers of passenger-carrying motor carriers were placed out of service for failing to keep updated log books on their driving hours.

In conclusion, Senator, every passenger on every motorcoach trip in every state deserves to be safe. Too many lives are at stake, and too few safety measures are being advanced at DOT, and we cannot wait any longer. Advocates strongly recommends that Congress enact S. 2326.

I also have with me, which I would like to submit for the record, letters from nearly every single major highway and auto and consumer safety group, as well as the supplier industry of advanced glazing, showing their strong support for moving quickly on this legislation.

Thank you very much.

[The prepared statement of Ms. Gillan follows:]

PREPARED STATEMENT OF JACQUELINE S. GILLAN, VICE PRESIDENT,  
ADVOCATES FOR HIGHWAY AND AUTO SAFETY

Good afternoon. My name is Jacqueline Gillan and I am Vice President of Advocates for Highway and Auto Safety (Advocates), a coalition of consumer, health, safety, medical organizations and insurers working together to advance Federal and state programs and policies that prevent deaths and injuries on our neighborhood streets and highways. I commend the Subcommittee for holding hearings on the safety of motorcoach operations.

This hearing today is another in a long series of oversight hearings held by the Subcommittee because of its concern over the quality of motor carrier safety. The Subcommittee held a hearing in May 1, 2007, to receive testimony on the value of Electronic On-Board Recorders (EOBRs) and their important contribution to reducing commercial driver fatigue. That hearing was extraordinarily important because it showed how members of the motor carrier community have found that EOBRs are not only valuable for keeping commercial drivers within the limits of Federal hours of service regulations, but also help to expedite freight delivery and conserve fuel, keep big trucks from using illegal routes, and track motorcoaches in real-time to help ensure passenger safety.

Motorcoach safety is a serious concern for anyone who relies on and uses this growing and affordable mode of transportation. Unfortunately, when it comes to choosing a safe motorcoach, consumers have been forced to travel wearing a blindfold. Many of us in this hearing room have put our excited children on charter buses for out-of-town school field trips and team sporting events, boarded motorcoaches to

take part in church and community outings, or waved goodbye to retired parents who traveled by tour coach to vacation destinations. Some have even taken advantage of low cost fares to travel between Washington, D.C., New York or Boston on “curbside” buses that leave from downtown locations rather than bus terminals.

Motorcoaches make 630 million passenger trips a year, and transport hundreds of thousands of passengers each day, often carrying more passengers—55 to 59 people when fully loaded—than most commuter airline flights. Yet, motorcoach safety is not being held to the same high safety standards as passenger aviation even though motorcoaches operate on much more congested and less safe highways. Motorcoach drivers are not required to meet the rigorous medical and safety requirements of airline pilots; most of the vehicle safety design and performance standards for passenger vehicles, especially for occupant protection, are not required for motorcoaches; and motorcoach companies are governed by the same weak, ineffectual safety oversight and enforcement regime that is used for trucking freight.

Despite the widespread use of motorcoach transportation in our everyday lives, the public is almost completely in the dark about the safety of motorcoach transportation because of chronic and continuing failures by the Federal Motor Carrier Safety Administration (FMCSA) to exercise its legal authority to regulate the safety of this industry, and the failure of the National Highway Traffic Safety Administration (NHTSA) to require the same basic safety improvements required for smaller passenger vehicles to ensure the crash avoidance and crashworthiness of buses and motorcoaches.<sup>1</sup> These failures have contributed to numerous tragic motorcoach crashes in just the last few years, including several just last month, in August 2008.

My testimony today will address the safety problems and the documented need to improve motorcoach safety; the means available to provide improved occupant protection in motorcoach crashes and other emergencies, such as fires; enhanced crash avoidance capabilities, and the importance of strengthening Federal oversight of motorcoach operations to ensure that unsafe motorcoach companies and drivers are detected before they can do harm and are kept off the road.

#### **Motorcoach Crashes Are Frequent and Deadly**

Over the past four decades, the National Transportation Safety Board (NTSB) has investigated nearly 70 motorcoach crashes and fires that resulted in several hundred passenger deaths and many hundreds of severe injuries. NTSB’s motorcoach crash investigations over just the last decade, 1998–2007, involved the deaths of 255 passengers and more than one thousand injuries.<sup>2</sup> In some of these incidents more than 20 people on board were killed in a single crash or fire. Not all motorcoach crashes resulting in death and injury are investigated by NTSB or any other agency at the Federal level. I have attached to my testimony a list of the motorcoach crashes that Advocates has compiled from the NTSB investigation reports and reliable newspaper and wire service reports found on the Internet. But even this list, containing over 100 motorcoach crashes and fires in the past 40 years, is far from complete.

According to NHTSA data, there were 400 fatal motorcoach crashes from 1994 through 2005 in which 571 people died.<sup>3</sup> Of that total of fatal crashes and associated deaths, 2005 was an especially tragic year—70 motorcoach occupants died in crashes, the highest total ever recorded. Data covering a much longer period of time, 1975 through 2005, shows 1,107 fatal crashes involving 1,117 motorcoaches and resulting in 1,486 deaths to passengers in motorcoaches, people in other vehicles and pedestrians.<sup>4</sup>

Motorcoach crashes kill and injure occupants inside the motorcoaches and people outside as well. That is why it is crucially important to have a comprehensive, multi-faceted approach to motorcoach safety that emphasizes major safety countermeasures for motorcoach occupant protection, as well as dramatic improvements in motorcoach crash avoidance capabilities that will ensure that these big, heavy vehicles provide crash protection to the motorcoach occupants while also reducing both the number and the severity of collisions with other highway users.

#### **Recent Motorcoach Crashes Illustrate Severe Safety Risks**

In just the past 3 years there have been constant reminders of the safety perils in motorcoach travel. Moreover, three severe motorcoach crashes occurred over a span of less than 3 days only a few weeks ago.

- *Sherman, Texas*

On August 8, 2008, a motorcoach with 54 passengers, operated by a company, Angel Tours, Inc. restarted its motorcoach business under a different name, Iguala Busmex, only 3 days after it had been judged an “imminent hazard” by FMCSA and prohibited from providing transportation services. In a catastrophic crash, the Iguala Busmex motorcoach broke through a guardrail in rural Grayson County,

Texas and plummeted from an overpass into a dry creek bed in a rollover crash that resulted in 17 people dead and 38 injured. Angel Tours, Inc., had been stopped by FMCSA from operating only 6 weeks earlier, on June 23, 2008. The new business named Iguala Busmex, according to preliminary information in media reports, had no insurance and had no Federal interstate operating authority.

By the time the crash occurred, the owner of Angel Tours had changed the company name to Iguala Busmex and continued to operate illegally. The new company even used the same business address to restart operations. FMCSA was unaware that Angel Tours, Inc., had transformed into the rogue motorcoach company, Iguala Busmex. In fact, the company had no legal authority to provide motorcoach transportation services for compensation even within the state of Texas. In far too many cases, motor carriers both of passengers and of freight are ordered to stop operations for safety reasons, but then restart their businesses under different company names, leaving law enforcement officials with the task of identifying and proving which companies are conducting illegal operations. Sometimes, as in the Sherman, Texas crash, Federal authorities find this out only after a tragic crash, when deaths and severe injuries have already occurred.

The motorcoach in the Sherman, Texas, crash was operated by a driver who had no valid medical certificate. FMCSA had also determined prior to its "cease operations" order that Angel Tours was using a driver without the company having received a pre-employment report, a Federal requirement. Angel Tours also failed to require drivers to prepare vehicle inspection reports. In addition, the motorcoach was fitted with retreaded tires on the front steer axle, another Federal regulatory violation. It appears that this illegal tire suddenly failed and destabilized the motorcoach, making it difficult to control and facilitating its crash into the overpass guardrail.

- *Tunica, Mississippi*

On August 10, 2008, a casino motorcoach operated by Harrah's Entertainment packed with 43 tourists rolled over in a highway intersection in northwestern Mississippi. The roof of the motorcoach collapsed and its windows were shattered. Three passengers died and 27 were injured, one in critical condition.

- *Primm, Nevada*

Another casino motorcoach crash occurred on I-15 near Primm, Nevada, on August 10, 2008, the same day that the Harrah motorcoach rolled over. Luckily, no one died in this crash, but 29 people of the 30 people on board were injured, three of them critically. This was the second motorcoach crash involving casino workers between Las Vegas and Primm. Previously, a crash injured at least 25 people before the motorcoach burst into flames and was destroyed on January 17, 2008. Once again, it appears that there may have been a problem of tire tread separation that could have triggered the rollover crash.

These cases, even without the benefit of a thorough crash investigation, point out two serious safety problems. First, in the Sherman, Texas crash, the illegal operation of the company is an extremely serious issue, especially in light of the company history of safety problems. Unfortunately, FMCSA currently has authority only to impose fines for such conduct. Criminal penalties are not available for such illegal operation but are clearly appropriate where the company owners and officers neglect safety and take such intentional actions in defiance of legal orders.

Second, although there are many safety issues and factors in these crashes that will be investigated, it appears that tire tread separation may have been a major contributing factor to both the Angel Tours and Primm, Nevada, crashes. Although retreaded tires are allowed by FMCSA on the other, non-steering axles of motorcoaches, and on tractor-trailer rigs and straight (single-unit) trucks operated in interstate commerce, there are no Federal standards administered by NHTSA specifying the quality and safety performance of retreaded tires on commercial motor vehicles. At the present time, there are only voluntary industry standards. Advocates asked the agency more than a decade ago to adopt such standards to ensure that retreaded, recapped, and regrooved commercial motor vehicle tires met the same safety performance requirements as new tires. However, NHTSA has failed to put forward any proposal to adopt a performance standard for retreaded tires on motorcoaches and other commercial vehicles.

- *Bluffton University Motorcoach Crash*

On March 2, 2007, a motorcoach hired to transport the Bluffton University baseball team from Ohio to Georgia vaulted a bridge parapet after taking a left exit ramp that led to a perpendicular entrance to an overpass above I-75 in Atlanta, Georgia. The vehicle struck the bridge parapet at right angles and plunged to the roadway below the ramp. Of the 35 passengers and a driver on board, seven were

killed and several others, including the coach of the school's baseball team, were transported to the hospital with severe injuries. Twelve of the motorcoach's occupants were ejected, four through the windshield or left front side windows even before the motorcoach left the roadway, and six passengers were ejected through the left side windows when the vehicle slammed into I-75, the impact that stopped its fall.

None of the occupants on-board had three-point safety belts available to restrain them. Of the 59 seats on board, only the driver's seat, the "jump seat," and the first row of two passenger seats immediately behind the driver had two-point lap belts. The driver and his wife, both of whom had fastened their lap belts, died.

The company that operated the over-the-road bus, Executive Coach, received a Satisfactory safety rating from FMCSA on April 4, 2007, only a month following crash. However, NTSB's findings and recommendations produced by its investigation listed several major deficiencies in motorcoach operating safety.<sup>5</sup> The vehicle issues identified by NTSB included the lack of interior occupant impact protection; the ease with which unrestrained passengers were ejected through large side windows; and FMCSA's inadequate motor carrier driver oversight. The driver issues included the fact that the motorcoach driver's medical certification had expired, the driver's logbook clearly had been falsified, and that the driver had medical conditions and had taken medications that may have impaired his ability to drive. Also, the company that operated the motorcoach had no formal driver training program, no written policies on driver procedures such as an emergency response protocol for evacuation and other passenger safety needs, and the company's alcohol and drug testing program did not comply with Federal requirements.<sup>6</sup>

It should be pointed out that motorcoaches in foreign countries equip their vehicles with safety protection features not provided for passengers in the United States. For example, the motorcoach that was involved in the Atlanta, Georgia, crash only had a few lap belts in the front seating positions and was not equipped with three-point lap/shoulder belts. The same motorcoach built in Australia comes equipped with three-point lap/shoulder seat belts at every seating position and with seats and their floor anchors tested for maximum crash resistance.

- *Hurricane Rita Nursing Home Motorcoach Crash*

On September 23, 2005, a motorcoach operated by Global Limo, Inc., carrying assisted living and nursing home residents fleeing the imminent landfall of Hurricane Rita caught fire and exploded, initially killing 24 of the 44 people on board who were residents and employees of a Dallas-area home for seniors. Most of the residents of the senior living facility had moderate to severe disabilities and were not able to evacuate the motorcoach during the fire without assistance. Evacuation involved concerted efforts by the nursing staff, rescue personnel, and bystanders who were able to help the residents exit the motorcoach.

NTSB found that the motorcoach was operated in an unsafe manner and that FMCSA oversight of motorcoach safety was lax. The major safety issues identified through the NTSB investigation included poor fire reporting information and inconsistent data in Federal crash data bases; FMCSA's ineffective compliance review program; lack of adequate emergency exits from motorcoaches; lack of fire resistant motorcoach materials and designs; inadequate manufacturer maintenance information on wheel bearing components; transportation of highly flammable, pressurized aluminum cylinders; and poor safety procedures for the emergency transportation of persons with special needs.<sup>7</sup>

While the driver of the Global Tours motorcoach possessed a Mexican commercial driver's license, the Licencia Federal de Conductor (LFC), he had not obtained a Texas-issued commercial driver's license (CDL), even though the driver had been in the U.S. since at least February 2005. Drivers are required to apply for a Texas-issued CDL within 30 days after taking up residence in Texas. This means that the driver had no legal CDL or federally-required commercial driver medical certificate, nor had he complied with requirements to prove his identity, provide a social security number, supply documentation of vehicle registration and liability insurance, and surrender his LFC. These are legal requirements for drivers that the company should have ensured were being met. Also, the driver was unable to communicate in English, relying on an interpreter for his post-crash interviews, another violation of FMCSA regulations.<sup>8</sup> According to NTSB, the driver may have been fatigued at the time of the motorcoach fire. The driver had violated multiple requirements of the FMCSA hours of service regulations (HOS), including having failed to take a minimum of 8 consecutive hours off-duty before working or driving, and driving for over 15 consecutive hours starting at 3 PM on September 22, 2005, until the fire began at about 6 AM on September 23, 2005.

FMCSA conducted a compliance review (CR), the agency's method of assessing the safety of a motor carrier,<sup>9</sup> of the company on February 6, 2004, and found seven violations of the Federal Motor Carrier Safety Regulations (FMCSR). Nevertheless, FMCSA issued a Satisfactory safety rating to the motor carrier just 6 days later, even though the company had multiple Out of Service (OOS) violations prior to the CR and more driver OOS violations prior to the September 23, 2005, motorcoach fire. An Unsatisfactory safety rating cannot be triggered unless violations have occurred in both driver and vehicle categories.

According to NTSB in its report, the motorcoach itself was evidently inadequately maintained. Inadequate lubrication of an axle on the vehicle led to "frozen" bearings that generated extreme heat that, in turn, triggered the fire. Fires on motorcoaches are started from various sources, such as engine compartments, electrical wiring and batteries, auxiliary heaters, and underinflated or failed tires. Motorcoach fires consume many of the materials from which the vehicles are manufactured, and are evidently a chronic problem, as admitted by the former Administrator of FMCSA before the House Committee on Transportation and Infrastructure, Subcommittee on Highways, Transit, and Pipelines on March 2, 2006.<sup>10</sup> In fact, motorcoach floors are usually made of sheets of plywood.

### **Comprehensive Motorcoach Safety Improvements Are Stalled at DOT Despite Urgency**

From this brief review of just a few motorcoach crashes and fires, it should be evident that motorcoach safety has not been a primary focus of Federal agencies and is in dire need of regulatory action to improve safety. The NTSB has been issuing safety recommendations to the motorcoach industry and the U.S. Department of Transportation (DOT) and its agencies for decades, but those recommendations essentially have been ignored. Unfortunately, very few NTSB recommendations have been implemented by NHTSA and FMCSA, and certainly not in the complete and effective manner that NTSB recommended.

In the Bluffton University Motorcoach Crash Report, NTSB reviewed the 40-year history of its frustrated attempts at achieving agency action in accordance with multiple recommendations for motorcoach drivers, passengers, vehicles, and operations. NTSB asserted that "motorcoaches transport a substantial number of people traveling in a single vehicle with a high exposure to crash risk," with other special safety requirements, and that "[t]hese factors demand that motorcoaches meet the highest level of safety."<sup>11</sup> NTSB also stated in its findings and recommendations that NHTSA had unacceptably delayed defining and acting on regulations for motorcoach occupant protection safety performance standards, emphasizing that the traveling public in motorcoach trips were inadequately protected during collisions, especially in rollovers.<sup>12</sup>

For example, NTSB has repeatedly asked NHTSA to require stronger seats and to mandate seat belt assemblies at every designated seating position in motorcoaches. But NTSB finally had to close out these recommendations with notations of "Unsatisfactory Action" because NHTSA continually deflected NTSB's recommendations on requiring stronger seats and mandating seat belts.<sup>13</sup>

But NTSB did not give up, despite NHTSA's endless inaction. Over and over it beat the drum in support of occupant restraints with successive reports on horrific motorcoach crashes where restraints would have saved many lives. For decades NHTSA deflected every one of those recommendations. There are many other examples of critical motorcoach safety recommendations sent to NHTSA since 1968 that were ignored—and the result was more deaths and injuries that could have been prevented.

Similarly, the Federal Highway Administration (FHWA), and its successor agency, FMCSA, have also rebuffed many NTSB recommendations over the years, despite evidence showing the need for major safety countermeasures for existing passenger motor carriers and for improvements in FMCSA enforcement. NTSB was frustrated with FMCSA's enforcement scheme for motor carrier safety violations because the agency would provide Satisfactory ratings to motor carriers even if they had several serious driver or vehicle violations. FMCSA's policy is that there must be violations in *both* areas to trigger an Unsatisfactory rating that could result in a company ordered to stop operations. But NTSB recommended that serious violations in *either* area should be enough to trigger imposition of an Unsatisfactory rating. (Note that Angel Tours before the Sherman, Texas crash had a Satisfactory rating because FMCSA had recorded several driver violations, but no vehicle violations for the company. Accordingly, FMCSA had no basis for threatening the company with an Unsatisfactory safety rating.)

FMCSA has repeatedly avoided acting on this recommendation, even after several U.S. DOT Office of the Inspector General and Government Accountability Office re-

ports demonstrating multiple weaknesses in FMCSA enforcement regimes and actions.<sup>14</sup>

Since FMCSA itself has admitted that its current safety rating system, and the safety scoring system used to support it, is inadequate, the question arises of what the agency intends to do in the interim to ensure that dangerous motor carriers are detected and stopped from operating before more lives are lost. The agency cannot wait until its new safety rating system, Comprehensive Safety Analysis 2010, is complete and ready for action. In the meantime, unsafe motorcoach companies will receive ratings that do not represent a valid safety profile, and the public will be left in the dark on how to choose a safety motorcoach business for personal transportation.

**Federal Legislation Is Needed to Direct DOT to Implement Comprehensive Motorcoach Safety Reforms and Comply with NTSB Recommendations**

It is time for Congress to step in and ensure that the safety improvements NTSB has recommended for decades are adopted by the agencies with the authority to issue motor vehicle and motor carrier regulations. Experience has shown that when Congress requires safety action, the agencies find the ways and means to meet the challenge. Several years ago, the Senate Commerce Committee took a leadership role in addressing deadly rollover crashes and other major motor vehicle safety issues. In the Safe, Accountable, Flexible, Efficient Transportation Equity Act of 2005—A Legacy for Users (SAFETEA-LU),<sup>15</sup> Congress required NHTSA to issue regulations on safety problems that had languished for years without agency action. NHTSA is in the process of complying with those vehicle safety rulemaking requirements. More recently, the Cameron Gulbransen Kids Transportation Safety Act of 2007,<sup>16</sup> requires NHTSA to issue rules on safety problems to protect children from dangers in vehicles that the agency had previously refused to address.

There is absolutely no doubt that when Congress sets the safety agenda, the Federal agencies respond quickly by developing action plans, conducting tests, and issuing rules that improve transportation safety. This is the model that Congress should follow for motorcoach safety.

The right vehicle to accomplish this approach has already been introduced in Congress—The Motorcoach Enhanced Safety Act of 2007. This pending legislation, S. 2326, introduced on November 8, 2007, by Senators Sherrod Brown (D-OH) and Kay Bailey Hutchinson (R-TX), and its companion bill in the House, H.R. 6747, introduced by Representative John Lewis (D-GA) and co-sponsored by Representative Ted Poe (R-TX), sets a reasonable and achievable regulatory safety agenda for reforming motorcoach safety. The Motorcoach Enhanced Safety Act deals with each of the major aspects of motorcoach safety: vehicle design and performance, operating safety and inspection, and driver safety, including training and medical certification.

The bills respond to virtually every major safety recommendation made over the past 40 years by the NTSB. The Motorcoach Enhanced Safety Act addresses almost all NTSB safety issues in a comprehensive manner, including crash protection of occupants, such as seat belts and windows that prevent occupant ejection in crashes; protection against roof crush, especially catastrophic single-vehicle events involving rollovers; improved fire protection and the need to use materials and technology to assist in fire resistance and suppression; better methods to facilitate passenger evacuation in emergency conditions; crash avoidance technology, such as adaptive cruise control and electronic stability control to prevent crashes; vehicle maintenance and inspection needs; and operator qualifications, including driver skills and medical certification. Finally, the Motorcoach Enhanced Safety Act sets reasonable timelines for DOT, NHTSA and FMCSA to review the safety problems, complete testing, conduct rulemaking and issue safety rules to implement those recommendations so that lives can be saved and injuries prevented as soon as possible.

S. 2326, the Senate-introduced version of the Motorcoach Enhanced Safety Act, is supported by parents and relatives of victims and survivors of motorcoach crashes. Many family members who lost relatives in motorcoach crashes have traveled to Capitol Hill for today's hearing. S. 2326 is also strongly supported by Advocates and safety groups, including Public Citizen, Center for Auto Safety, Citizens for Reliable and Safe Highways (CRASH), Consumers for Auto Reliability and Safety, the Trauma Foundation, the Consumer Federation of America and the Enhanced Protective Glass Automotive Association.

The DOT agencies with responsibility for motorcoach safety, NHTSA and FMCSA, have failed to fulfill their safety missions. Although NHTSA has not moved quickly to adopt NTSB recommendations for crash protection and crash avoidance, the agency has in recent years developed a motorcoach safety research and testing program and has begun to examine many of the safety issues raised by NTSB and safety organizations. However, without a Congressional directive to actually issue safety

standards, there is no assurance that the agency will address all the safety issues in the NTSB recommendations, much less establish stringent safety standards that adopt those recommendations in a timely manner.

FMCSA, in contrast, has been entirely delinquent in its role as the Federal administrator of safe motorcoach operations. As with its duties to improve general motor carrier safety, FMCSA has failed to issue or properly enforce even the most basic safety requirements and has shown no inclination to be proactive regarding the adoption of safety standards and regulations to improve public safety on motorcoaches. FMCSA only acts when compelled by explicit Congressional legislation, and even then it fails frequently to comply with either the clear letter of the law or to meet legislated deadlines. The safety community has had to repeatedly sue FMCSA to compel the agency to comply with Congressional mandates and issue effective regulations to improve key areas of motor carrier safety.

While our testimony cannot survey all the safety provisions addressed in these comprehensive bills, the remainder of this testimony highlights the major gaps in motorcoach safety and how key provisions of S. 2326 and H.R. 6747 will save lives, prevent injuries, and reduce other motorcoach crash losses.

### **Motorcoach Occupant Protection is Inadequate and Contributes to Deaths and Injuries**

There are serious deficiencies with the crashworthiness features of motorcoaches for protecting occupants against severe and fatal injuries. In the 2007 Bluffton University motorcoach crash in Atlanta, GA, and in many others investigated in the last several years by NTSB, occupants were ejected through side windows and the windshield. Serious injuries and deaths in motorcoach rollover crashes are highly predictable when these vehicles do not have three-point seat belts and fail to have the kind of windows that could withstand a crash and prevent ejection. These severe occupant safety defects have been documented time and again in NTSB investigations and reports.

While NHTSA has established 22 separate standards for vehicle crashworthiness as part of the Federal Motor Vehicle Safety Standards (FMVSS) administered by the agency, nearly all of these are for light motor vehicles (mainly passenger vehicles that weigh less than 10,000 pounds). Most of these standards exempt motorcoaches with gross vehicle weight ratings of over 10,000 pounds. For example, no NHTSA safety regulation requires that motorcoaches in the U.S. have any occupant protection systems of any kind, including seat belts, seat mounting retention, seatback strength, whiplash protection, or upper and lower vehicle interior occupant impact protection. Although motorcoaches are required to comply with FMVSS No. 217 specifying motorcoach window retention and release for evacuation, and FMVSS No. 302 governing the flammability of interior materials, motorcoaches do not have to comply with many safety standards required for other types of buses, including school buses, and for passenger vehicles. As a result, motorcoach passengers are not afforded the same basic safety features and types of protection required for passengers in other vehicles.

Among the important safety shortcomings that need to be improved in motorcoaches, the Motorcoach Enhancement Safety Act would require:

- *Seat belts:* Three-point lap/shoulder belt systems have been required for passenger vehicles for decades and are required on smaller buses and on big passenger vans, yet are not required in motorcoaches. Lap/shoulder belt restraint systems, not just lap belts, are essential for keeping motorcoach occupants in their seats to avoid injuries sustained within the compartment in all crash modes.
- *Rollover:* Motorcoaches are very top heavy, with high centers of gravity especially when fully laden with passengers, so their rollover propensity is much higher than for passenger vehicles. Crash avoidance technology such as electronic stability control and adaptive cruise control can also help to keep motorcoaches out of crashes in the first place. But when rollovers still occur, a strong roof crush resistance safety standard needs to be adopted to ensure the structural integrity of the roof in a rollover crash that preserves occupant survival space and prevents infliction of severe occupant trauma.
- *Ejection:* A major safety issue in motorcoaches is preventing occupants from being ejected during a crash, especially in a rollover. According to NHTSA, more than half of the deaths in motorcoach crashes are the result of occupant ejections. More than one-third of all deaths of motorcoach occupants in motorcoach crashes occur in rollovers, and occupant ejection is the reason for 70 percent of occupant deaths in motorcoach rollovers.<sup>17</sup> Advanced window glazing that can survive crash impacts will prevent occupant ejection and save lives. There are

other possible countermeasures, which, in combination with three-point seat belts and advanced glazing, can further reduce the chances of passenger ejection.

The major topics of occupant restraint within the motorcoach passenger compartment and the additional prevention of ejection in catastrophic events have been engaged by both the European Economic Community<sup>18</sup> and Australia.<sup>19</sup> Three-point belts restraining motorcoach occupants became mandatory in Australia 14 years ago, the European Union has just mandated that passengers must wear safety belts in motorcoaches beginning in May 2008, and anyone traveling by motorcoach in Japan must use their safety belts beginning June 2008. It is obvious that keeping motorcoach occupants safely in their seats is desperately needed so that passengers do not impact each other, strike unforgiving interior surfaces and equipment in motorcoaches, and are prevented from being thrown from the vehicle. Three-point lap/shoulder belt restraints initially are the best way to accomplish keeping each passenger in their seat. The rest of the world is moving on to higher levels of crash protection for motorcoach occupants while U.S. safety regulators fail to take action.

The Motorcoach Enhanced Safety Act bill contains the provisions necessary to direct NHTSA to dramatically improve motorcoach crashworthiness in all crash modes, including rollovers, as well as in side and frontal impacts. Without congressional directives requiring the issuance of new and improved safety standards by specific dates, NHTSA will intermittently study the safety issues over many years without addressing the major motorcoach crashworthiness and crash avoidance safety issues that NTSB long ago recommended should be adopted. NHTSA has proven over and over that it will delay major safety standards that can save lives and prevent injuries, not only for years, but also for decades, unless Congress gives it a mandate in no uncertain terms and firm deadlines for action.

#### **Effective Motorcoach Operation Safety Oversight and Enforcement is Lacking**

According to figures from FMCSA,<sup>20</sup> there are about 3,700 U.S. passenger-carrying companies conducting interstate operations employing 100,000 drivers to operate about 34,000 to perhaps 40,000 motorcoaches.<sup>21</sup> Many of the Federal motor carrier safety regulations, FMCSRs, that govern commercial motor carriers, vehicles, and drivers generally, also apply to motor carriers of passengers. Despite the relative small numbers of motorcoaches and motorcoach companies, FMCSA is failing in its stewardship responsibilities for motorcoaches as badly as it is for large trucks.

Almost all of NTSB's 40 years of investigated motorcoach crashes have resulted in findings that encompass vehicle performance, maintenance, inspection, driver qualifications, and motor carrier company safety management. The examples of recent motorcoach crashes provided earlier in this testimony confirm that multiple safety problems afflict all aspects of interstate motorcoach operations. Although severe motorcoach crashes often appear at first glance to be the result of an isolated problem, in fact digging deeper almost always reveals multiple problems involving vehicle maintenance, driver qualifications and performance capabilities, and company safety management. NTSB has confirmed this multifactorial nature of motorcoach crashes to be true in numerous crash investigations.

FMCSA has not only failed to adopt NTSB's safety recommendations, the agency has also failed to issue other safety regulations needed to improve motor carrier and motorcoach safety. As a result, major areas of driver training and certification, motorcoach safety inspection, data quality and systems for identifying potentially dangerous motorcoach companies, and agency oversight and enforcement of the FMCSRs are undeniably inadequate and have been documented repeatedly by the U.S. DOT's OIG and by GAO. Key rulemaking actions to address these and other issues languish year after year without action. The Motorcoach Enhanced Safety Act directs FMCSA to address major deficiencies in its regulations governing driver qualifications, vehicle safety condition, and motor carrier safety management.

Motor carrier safety issues that directly impact motorcoach operating safety include:

- *Weak Federal and State Requirements for Motorcoach Driver Training*

Among the many areas in the Motorcoach Enhanced Safety Act aimed at improving motorcoach operational safety are provisions intended to substantially strengthen motorcoach driver CDL testing and training requirements. Motorcoach drivers are required to have CDLs with a passenger endorsement added on the basis of another knowledge and skills test. However, there are no substantive training requirements in Federal law and regulation for entry-level commercial motor vehicle drivers, and there are none for the additional endorsements for operating hazardous ma-

terials vehicles, school buses, or motorcoaches. In short, there is no specific Federal training requirement for an interstate commercial driver transporting passengers.

Federal safety agencies spent over 20 years studying commercial driver training issues, producing a Model Curriculum for training both drivers and instructors and conducting rulemaking pursuant to Section 4007(a) of the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA).<sup>22</sup> Despite this long background of deep involvement in the needs of commercial driver training, FMCSA did an abrupt about-face in May 2004 and issued a final rule that avoided adopting any basic knowledge and skills training requirements, including behind-the-wheel driving instruction, for entry-level commercial drivers.<sup>23</sup> Instead, the agency published a regulation that only required drivers to gain familiarity with four ancillary areas of CMV operation—driver qualifications, hours of service requirements, driver health issues, and whistleblower protection. Not only did FMCSA not require driver training as a prerequisite for a candidate seeking an entry-level CDL, the agency rule excused almost all novice drivers from even being considered entry-level commercial drivers. This rulemaking outcome was a complete reversal from earlier agency statements that the majority of new commercial drivers were not receiving adequate training.

Since the FMCSA action reversed its own previous findings that basic knowledge and skills entry-level driver training was inadequate and should be required, Advocates filed suit against the agency. In a unanimous decision, the U.S. Court of Appeals for the District of Columbia found that the final rule was arbitrary, capricious, an abuse of agency discretion, and remanded the rule to FMCSA. *Advocates for Highway and Auto Safety v. FMCSA*<sup>24</sup> (Entry-Level Driver Training Decision). In its opinion, the appellate court stated that the rule “focuses on areas unrelated to the practical demands of operating a commercial motor vehicle” and that the rule was “so at odds with the record assembled by DOT that the action cannot stand.”<sup>25</sup>

Incredibly, when FMCSA reopened rulemaking on commercial driver training requirements in response to the adverse court decision on its final rule, the agency did not propose a training curriculum specifically designed for motorcoach operators.<sup>26</sup> The curricula content of the proposed rule is entirely oriented toward the operation of trucks of different weights and configurations. The proposed rule has no specific requirements anywhere just for motorcoach operators.

Further, in the December 2007 FMCSA proposed rule, the *minimum* number of hours of training time for entry-level student drivers of motorcoaches plummets to 120 hours for students wanting to operate motorcoaches and other large commercial motor vehicles with “Class B” CDLs.<sup>27</sup> There is no explanation anywhere in the preamble of the proposed rule or in the appendix of why this specific number of instructional hours was selected, nor why the amount of training was severely abbreviated from the 320 or more hours recommended in the 1985 Model Curriculum.

Advocates regards FMCSA’s entry-level driver training requirements for motorcoach drivers to be unspecific to the special tasks that motorcoach operation imposes, as perfunctory in its requirements and its safety impact, and as falling well short of what is needed. The proposed rule does not fulfill either the Court of Appeals’ expectations or the agency’s legislated responsibilities. Substantively, the proposed curriculum fails to ensure that motorcoach operators will be properly trained in the multiple, significant safety responsibilities the job demands. To add insult to injury, the proposed rule also would impose a 3-year moratorium on requiring compliance with training requirements for new CDL applicants.<sup>28</sup> This action would exclude tens of thousands of new CDL applicants from badly needed knowledge and skills training requirements.

- *Tougher Enforcement Needed: Compliance Reviews and Roadside Inspections Do Not Remove Dangerous Motorcoach Companies From the Road*

A central problem undermining agency effectiveness in overseeing motor carrier safety and reducing FMCSR violations is the annually low numbers and percentage of both roadside inspections and CRs. For example, the Bluffton University Motorcoach Crash that took seven lives and inflicted severe injuries involved a motorcoach company that had a Satisfactory safety rating assigned 6 years earlier, in January 2001. Similarly, the company that operated the motorcoach that crashed in Sherman, Texas last month killing 17 people, was awarded a Satisfactory safety rating despite the fact that the company had received repeated driver OOS orders. The truth is that a Satisfactory safety rating is no assurance of contemporary operating safety fitness.

The implementing regulations for conducting CRs specify criteria for assigning one of three safety rating categories to a motor carrier: Satisfactory, Conditional, Unsatisfactory.<sup>29</sup> FMCSA is required by law to issue a safety rating to all motor carriers.<sup>30</sup> However, the agency basically decided long ago that it would no longer at-

tempt to fulfill the statutory requirement.<sup>31</sup> Even without attempting to assign safety ratings to all motor carriers, FMCSA conducts CRs on only a tiny percentage of carriers. Barely 1 percent of motor carriers receive a CR each year, and only a tiny part of 1 percent of all registered motor carriers are given Unsatisfactory ratings. On its face, it is improbable that assigning Unsatisfactory safety ratings to so few registered interstate carriers has any deterrent effect.

Other organizations and agencies have for many years called for improvements to the safety rating process. For example, NTSB's current list of the Most Wanted Transportation Safety Improvements—Federal Issues<sup>32</sup> argues that the entire safety fitness regime operates too leniently with criteria that do not result frequently enough in motor carriers being shut down or drivers having their licenses revoked.

In testimony delivered before the House Committee on Transportation and Infrastructure, Subcommittee on Highways, Transit, and Pipelines, March 20, 2007, the FMCSA Administrator boasted that FMCSA had dramatically increased the number of motorcoach CRs over the preceding 2 years. However, based on Advocates' sampling of states on FMCSA's website, many of the motorcoach companies receiving recent CRs are provided Satisfactory safety ratings even though they lack any safety rating scores in one or more of the four Safety Evaluation Areas (SEAs) that form part of the arcane system the agency uses to identify high safety risk motor carriers. In fact, some motorcoach companies in the past have been awarded Satisfactory safety ratings with no safety scores for any of the four categories. In addition, high percentages of unrated motorcoaches are still listed for many states on FMCSA motorcoach website.<sup>33</sup>

- *Consumers Denied Essential, Lifesaving Information on Motorcoach Safety*

FMCSA's passenger motor carrier website claims that it provides information on motorcoach companies so that consumers can be confident that they are choosing safe motorcoach companies. How does that claim hold up under close examination?

A review of the current status of safety ratings of motorcoaches registered in Texas is not very encouraging. There are 197 motorcoach companies with FMCSA interstate operating numbers. Of those, 117, or 59 percent, have Satisfactory ratings. All the rest of the companies have either Conditional ratings, are Unrated (64), or, in one instance, one company has an Unsatisfactory rating (Angel Tours/Iguala Bismex). But one company's Satisfactory rating was awarded back in 1988—20 years ago. Furthermore, of the 117 Satisfactory companies, only 17, or 14.5 percent, have safety scores in all four major areas of safety. And it should be stressed that a Satisfactory rating for FMCSA only means that a motorcoach company minimally complies with the Federal safety standards for motor carriers—it is not a mark of superior safety.

Similarly, consumers in New Jersey have little to choose from in selecting a motorcoach company with the best safety credentials for long-distance trips. There are 167 companies headquartered in New Jersey that are registered with FMCSA for interstate transportation of passengers. However, 57 of these businesses—34 percent or fully one-third—have no safety ratings at all. Eight companies are operating with Conditional safety ratings. No companies have Unsatisfactory ratings.

One hundred and one (101) New Jersey motorcoach companies carry Satisfactory safety ratings. But one company received its Satisfactory rating back in 1988, two got theirs in 1991, and there are several others with Satisfactory ratings assigned during the 1990s. It is important to recognize that a safety rating, even a Satisfactory rating, is just a snapshot of a company. A company's safety practices can quickly deteriorate so that a Satisfactory rating can become meaningless in a short amount of time. Many companies can come into compliance to achieve a Satisfactory safety rating only to lapse in its compliance with major motorcoach safety regulatory areas such as driver qualifications and certification, vehicle safety maintenance, and company safety management quality.

Of the 101 New Jersey motorcoach companies with Satisfactory ratings, only 11 have scores in all four major safety scoring areas (driver, vehicle, crash, safety management). Therefore, if a consumer in New Jersey wants to apply a high standard for choosing a company, it would be best to use a motorcoach company that has a Satisfactory rating in all four safety scoring categories. But only 11 companies—or a little over 6.5 percent—of motorcoach operations in the state qualify. Based on Advocates' sampling of states on FMCSA's website, this is the case with most states—the listing of active motorcoach companies provided by FMCSA for each state, if rigorously evaluated by a consumer, is dramatically reduced oftentimes to only a handful of companies to choose from.

When motorcoaches are stopped and inspected, the results are equally discouraging. For 2005, 12 percent of the motor carriers of passengers were placed OOS, a figure that has not changed over several years. Similarly, driver safety is a serious

concern—driver inspections in 2005 placed 21 percent of U.S. drivers of interstate motor carriers of passengers OOS for failing to retain the driver's previous 7 day logbook showing the driver's record of duty. In the same vein, 20 percent of those drivers—one in five—were found to have no record of duty status logbook. These aggregate figures are frightening, especially for patrons of interstate motorcoach companies, and they show essentially no progress in substantially improving motorcoach safety on a nationwide basis.

• *Unknown Status and Effectiveness of State Annual Bus Safety Inspection Programs*

The Secretary of Transportation is required to prescribe standards for annual, or more frequent, inspection of commercial motor vehicles, including motorcoaches, or approve equally effective state inspection programs.<sup>34</sup> Nine years ago last month, the Federal Highway Administration (FHWA) issued a notice on the status of state bus inspection programs<sup>35</sup> and subsequently listed 25 of 50 states with approved, equivalent periodic inspection programs.<sup>36</sup>

It should be stressed here that the minimum period for the required vehicle inspection is only once a year.<sup>37</sup> Since it is well known that inspection of CMVs, including motorcoaches, needs to be much more intensive and frequent than for personal or light motor vehicles, a once-a-year inspection regime is clearly no guarantee of safe motorcoaches. Many companies even in states that have bus inspection programs can come into compliance just for an annual inspection, only to allow major safety features of their motorcoaches to fall into disrepair or become inoperative soon after passing the annual inspection. Moreover, Advocates could find no information from FMCSA's website on the effectiveness of state motorcoach inspection programs to detect safety problems or how well or for how long state motorcoach inspection programs ensure compliance with all Federal motor carrier safety requirements.

Several provisions in the Motorcoach Enhanced Safety Act directly address the issue of timely, accurate motorcoach and bus safety inspections, including both FMCSA and state actions that are necessary, and how FMCSA must administer the state inspection programs in connection with the Motor Carrier Safety Assistance Program (MCSAP).

**Electronic On-Board Recorders Are Long Overdue on Motorcoaches and All Motor Carriers**

Electronic On-Board Recorders (EOBRs) or Automatic On-Board Recording Devices (AOBRDs) have been increasingly used on large trucks and motorcoaches for a variety of purposes, including monitoring the drivers' hours of service (HOS) driving, working, and off-duty time of commercial drivers, and ensuring compliance with current HOS regulations. Many countries around the world now require the use of EOBRs to ensure that truck drivers comply with the limits of each nation's HOS. Currently, all European Union countries, along with Turkey, Israel, Japan, South Korea, Brazil, Venezuela, and Singapore, require automated recording devices to monitor driver hours of service compliance.

EOBRs can automatically record the hours that commercial operators drive trucks and motorcoaches in interstate commerce. EOBRs can also link with engines, transmissions, and global positioning system (GPS) devices to record the distance and speed a commercial motor vehicle has traveled and whether it has used an illegal route or traversed a weight-posted bridge. Motor carriers that have voluntarily installed EOBRs are still only a small percentage of commercial motor vehicles, but motor carriers that use EOBRs praise the advantages they provide in terms of safety and efficiency since they eliminate the need for paper logbooks. This was stressed by a motor carrier industry witness in last year's hearing on EOBRs conducted by this Subcommittee.<sup>38</sup>

Commercial driver fatigue is a major safety problem for both motorcoach operators and truck drivers. EOBRs are especially crucial to raising the level of motorcoach safety by ensuring that well-rested, alert drivers are in charge of the safety and lives of up to 58 passengers onboard. EOBRs can ensure that drivers do not exceed maximum shift driving time and that they take the required off-duty rest time to restore their performance at the wheel. Moreover, EOBRs on interstate motorcoaches permit real-time monitoring of the routing and location of a motorcoach so that, in the event of a serious event such as a crash or fire, expeditious response by emergency medical personnel and enforcement authorities can make a substantial difference in the number of deaths and severe, disabling injuries that result from these serious incidents.

However, despite widespread, chronic violation of HOS limits by commercial drivers, FMCSA in early 2007 proposed a very weak regulation that will require vir-

tually no motor carriers to install EOBRs on big trucks and buses.<sup>39</sup> The proposed rule would use EOBRs as a punishment for motor carriers that fail two consecutive CRs. In fact, only a minute number of companies—less than *one-tenth of one percent*—would be required to install EOBRs if that proposal is adopted. It is clear that FMCSA is openly avoiding the need to ensure that commercial drivers adhere to current HOS regulations limiting driving and working time, and ensuring minimum off-duty rest periods.

The Motorcoach Enhanced Safety Act includes a provision to require EOBRs. Without a specific direction from Congress to FMCSA, the agency will not require EOBRs on all interstate commercial motor vehicles, to the detriment of safety.

### Conclusion and Recommendations

Passenger transportation safety by over-the-road motorcoaches is not held to the high safety standards of commercial passenger aviation. Motorcoach crashes can take many lives in a single event and inflict severe injuries on numerous passengers. NTSB's studies and crash reports document the deadly outcome of a catastrophic motorcoach crash, and its safety recommendations provide solutions that will dramatically improve motorcoach safety. Because DOT and the safety agencies have not implemented recommended safety countermeasures, despite having had ample opportunity to do so and reams of supporting evidence, Congress must take action to increase the level of motorcoach safety and improve the quality of Federal and state oversight.

Advocates recommends that the Subcommittee embrace the Motorcoach Enhanced Safety Act of 2007, S. 2326. This legislation will jumpstart motorcoach safety by putting numerous safety improvements on reasonable timelines for U.S. DOT rule-making action. The outcome in just several years would be fewer motorcoach crashes with fewer injuries and deaths.

We further recommend, however, that additional provisions be added to S. 2326 to address the need for the imposition of criminal penalties for persons who illegally continue to operate a motor carrier after having been ordered to cease operations, to establish a performance standard for retreaded tires used on commercial motor vehicles, and to require event data recorders (EDRs) on motorcoaches to assist crash investigators in reconstructing how and why each motorcoach crash occurs. NTSB has repeatedly called for EDRs as critically important to passenger transportation safety.<sup>40</sup>

Thank you for the opportunity to provide this information to the Subcommittee on a major safety problem. We at Advocates look forward to working with the Subcommittee and the full Committee on these issues, and I am prepared to respond to any questions you may have.

### Endnotes

<sup>1</sup> Although Advocates' testimony centers on over-the-road motorcoaches, much of our critique of motorcoach safety design, operating safety, and agency oversight also applies to other types of buses and to some passenger-carrying vans that fall under the jurisdiction of both FMCSA and NHTSA.

<sup>2</sup> *Motorcoach Override of Elevated Exit Ramp Interstate 75, Atlanta, Georgia, March 2, 2007*, Appendix C, National Transportation Safety Board Accident Report HTSB/HAR-08/01, July 8, 2008 (Bluffton University Motorcoach Crash Report).

<sup>3</sup> Data supplied in special data run performed by the National Highway Traffic Safety Administration's (NHTSA) National Center for Statistics and Analysis (NCSA).

<sup>4</sup> *Id.*

<sup>5</sup> Bluffton University Motorcoach Crash Report.

<sup>6</sup> Title 49 CFR § 382.305.

<sup>7</sup> *Motorcoach Fire On Interstate 45 During Hurricane Rita Evacuation Near Wilmer Texas*, September 23, 2005.

<sup>8</sup> Title 49 CFR § 391.11(b)(2).

<sup>9</sup> See, 49 CFR Pt. 385 for a description of FMCSA's safety rating process.

<sup>10</sup> <http://testimony.ost.dot.gov/test/Sandberg1.htm>, May 2, 2006.

<sup>11</sup> Bluffton University Motorcoach Crash Report at 52.

<sup>12</sup> *Id.* at 54.

<sup>13</sup> For example, see NTSB's recommendation H-71-35 that was closed out on October 29, 1975.

<sup>14</sup> See, e.g., *Commercial Motor Vehicles: Effectiveness of Actions Being Taken to Improve Motor Carrier Safety Is Unknown*. Report to the Chairman, Subcommittee on Transportation and Relative Agencies, Committee on Appropriations, House of Representatives, GAO/RCED-001-89 (July 2000); *Significant Improvements in Motor Carrier Safety Program Since 1999 Act but Loopholes for Repeat Violators Need Closing*, OIG Report Number MH-006-046, April 21, 2006; *Improvements Needed in Motor Carrier Safety Status Measurement System*, OIG Report Number MH-2004-034, (Feb. 2004); *A Statistical Approach Will Better Identify Commercial Carriers That Pose High Crash Risks Than Does the Current Federal Approach*, GAO-07-585 (June 2007); *Motor Carrier Safety: Federal Safety Agency Identifies Many High-Risk Carriers but Does Not Assess Maximum Fines as Often as Required by Law*, GOA-07-584 (Aug. 2007).

<sup>15</sup> Safe, Accountable, Flexible, Efficient Transportation Equity for the Twenty-First Century: A Legacy for Users, Pub. L. 109–59 (Aug. 10, 2005).

<sup>16</sup> Cameron Gulbransen Kids Transportation Safety Act of 2007, Pub. L. 110–189 (Feb. 28, 2008).

<sup>17</sup> *NHTSA's Approach to Motorcoach Safety*, Aug. 6, 2007.

<sup>18</sup> E. Mayrhofer, H. Steffan, H. Hoschopf, *Enhanced Coach and Bus Occupant Safety*, Paper 05–0351, Graz University of Technology Vehicle Safety Institute, Austria, 2005.

<sup>19</sup> M. Griffiths, M. Paine, R. Moore, *Three Point Seat Belts on Coaches—The First Decade in Australia*, Queensland Transport, Australia, Abstract ID –5–0017, 2005. The authors report that, since 1994 when 3-point belts were required in motorcoaches, several serious crashes have occurred, no belted coach occupant has received either fatal or disabling injuries.

<sup>20</sup> <http://www.fmcsa.dot.gov/facts-research/facts-figures/analysis-statistics/cmvfacts.htm>.

There are no separate figures for motorcoaches provided, but the United Motorcoach Association estimates that there are probably about 45,000 to 50,000 commercial over-the-road motorcoaches in the U.S. There is, in addition, an unknown number of “private” motorcoaches such as those used for schools, church groups, and other organizations, some of which are interstate and must conform to most Federal Motor Carrier Safety Regulations. It is difficult to reconcile these figures with those from FMCSA (see, the text and footnote below) and the figures provided by the American Bus Association in its *Motorcoach Census 2005: Second Benchmarking Study of the Motorcoach Industry in the United States and Canada*, September 2006, in which it is stated that in 2004 the industry consisted of 3,500 companies operating nearly 40,000 motorcoaches.

<sup>21</sup> See, Statement of John Hill, Administrator, Federal Motor Carrier Safety Administration, before the House Committee on Transportation and Infrastructure, Subcommittee on Highways, Transit, and Pipelines, March 20, 2007. Also, see, <http://ai.fmcsa.dot.gov/International/border.asp?dvar+3&cvar=pass&redirect=HistoricalOverview.asp&p=1>. However, there are substantial discrepancies throughout FMCSA’s website on the number of passenger carriers. For example, one page providing figures states that there were 5,211 passenger carriers registered with the agency as of 2006. <http://www.fmcsa.dot.gov/facts-research/facts-figures/analysis-statistics/cmvfacts.htm>. There is no explanation of what kinds of passenger carriers this includes.

<sup>22</sup> Pub. L. 102–240, 105 Stat. 1914 (Dec. 18, 1991).

<sup>23</sup> 69 FR 29384 *et seq.*, May 21, 2004.

<sup>24</sup> 429 F.3d 1136 (D.C. Cir. 2005).

<sup>25</sup> *Id.* at 3–4.

<sup>26</sup> 72 FR 73226 (Dec. 26, 2007).

<sup>27</sup> 72 FR 73227–73228.

<sup>28</sup> *Id.* at 73231–73232.

<sup>29</sup> The most recent statement of the governing regulations for determining safety fitness is the FMCSA final rule of August 22, 2000 (65 FR 50919), which was a response to the increased stringency of safety fitness requirements enacted in Section 4009 of TEA–21 that amended 49 U.S.C. § 31144, originally enacted by Section 215 of the Motor Carrier Safety Act of 1984 (Pub. L. 98–554). This final rule amended the regulations for safety fitness determinations in 49 CFR Pts. 385 and 386. Pt. 385 contains the controlling criteria for making safety fitness determinations and Pt. 386 contains the rules of practice for the agency controlling the issuance of CR ratings, petitions, hearings, orders, and other administrative machinery for conducting the oversight and enforcement programs of FMCSA. It should also be noted that FMCSA recognizes that its administrative selection of the three rating categories of safety fitness, Satisfactory, Conditional, and Unsatisfactory, has been legislatively enshrined through explicit mention and use of the three ratings in Section 15(b) of the Motor Carrier Safety Act of 1990. 49 U.S.C. § 31144.

<sup>30</sup> Section 215 of the Motor Carrier Safety Act of 1984 requires the Secretary to maintain, by regulation, a procedure for determining the safety fitness of an owner or operator of commercial motor vehicles. 49 U.S.C. § 31144.

<sup>31</sup> *Motor Carrier Safety Program*, DOT Office of Inspector General, Report Number AS–FH–7–006, March 26, 1997. The goal of assigning safety ratings to all motor carriers by September 30, 1992, was a self-imposed target by FHWA that could not be attained, as pointed out in the GAO report of January 1991, *Truck Safety: Improvements Needed in FHWA's Motor Carrier Safety Program*, Report No. GAO/RCED–91–30. At the time of GAO’s preparation of this report, FHWA had not rated about 60 percent of interstate motor carriers. As GAO points out in this report, the agency decided that its safety oversight resources would be better spent than attempting to safety rate all motor carriers in accordance with legislative requirements. On October 1, 1994, FHWA discontinued safety reviews to assess unrated motor carriers.

<sup>32</sup> See, [http://www.nts.gov/Recs/mostwanted/truck\\_safety.htm](http://www.nts.gov/Recs/mostwanted/truck_safety.htm). As previously mentioned, NTSB recommends that if a carrier receives an Unsatisfactory rating for either the vehicle factor or the driver factor, that alone should trigger a pending Unsatisfactory rating. According to NTSB, this recommendation has been reissued annually since 199, but FMCSA does not plan full implementation of any changes to its safety rating system and other oversight processes until 2010 at the earliest.

<sup>33</sup> [http://ai.fmcsa.dot.gov/Passenger/find\\_carrier.asp](http://ai.fmcsa.dot.gov/Passenger/find_carrier.asp).

<sup>34</sup> Title 49 Code of Federal Regulation (CFR) Part 396; Sec. 210 of the Motor Carrier Safety Act of 1984 (49 U.S.C. § 31142).

<sup>35</sup> 63 FR 8516 *et seq.*, February 19, 1998.

<sup>36</sup> 66 FR 32863 (June 18, 2001).

<sup>37</sup> Section 210, Motor Carrier Safety Act of 1984, *op. cit.*, codified at 49 U.S.C. § 31142.

<sup>38</sup> “Electronic On-Board Recorders (EOBRs) and Truck Driver Fatigue Reduction,” Committee on Transportation and Infrastructure, Subcommittee on Surface Transportation and Merchant Marine Infrastructure, Safety, and Security, U.S. Senate, May 1, 2007.

<sup>39</sup> 72 FR 2340 (Jan. 18, 2007).

<sup>40</sup> See, NTSB Recommendation H–99–53, reissued as one of the NTSB recommendations in the recently published report on the motorcoach crash of the Bluffton University baseball team,

“Motorcoach Override of Elevated Exit Ramp Interstate 75, Atlanta, Georgia, March 2, 2007,”  
*op. cit.*

---

APPENDIX

**Motorcoach Crashes**

*September 2008*

This list contains 101 motorcoach crashes including many incidents investigated by the National Transportation Safety Board (NTSB) and examples of other serious motorcoach crashes that have been publicly reported in the national media. In some cases specific dates are not available. NHTSA data reflects that 1,117 motorcoaches have been involved in crashes between 1975 and 2005, but specific information is not available for each individual crash.

Date of Crash	Location	Description
August 10, 2008	Primm, NV	Motorcoach rolled off the road after experiencing tire failure. 29 passengers were injured.
August 10, 2008	Tunica, MS	Motorcoach overturned on a median, killing 3 passengers. The roof partially collapsed in the rollover. No cause determined as of yet.
August 8, 2008	Sherman, TX	Motorcoach carrying 55 passengers crashed after blowing a tire and skidding off of the highway, hitting a guardrail and coming to rest on its side. 14 people were killed, and 40 were injured. NTSB is investigating. The blowout contributed to the crash. The Sherman PD released a report that also claimed that faulty evasive action at the time of the blowout contributed to the crash.
January 17, 2008	Primm, NV	Motorcoach ran off the highway, struck a guardrail, and overturned. The fuel tanks were breached, and the bus caught on fire. No fatalities, 25 passengers were injured. No cause determined as of yet.
January 7, 2008	Mexican Hat, UT	Motorcoach carrying 51 passengers ran off a curvy road, rolled several times, and the roof was split open. The tires were stripped off. Passengers were thrown from the bus, and 9 were killed. The contributing factor was the driver's negotiation of the turn.
January 2, 2008	Victoria, TX	Motorcoach carrying passengers from Mexico ran off the road, overcorrected and rolled over, killing one passenger. Driver fatigue could be a factor in the crash.
January 2, 2008	Henderson, NC	Motorcoach collided with a tractor-trailer when it failed to slow down when the truck was making a left turn. The bus ran off the road, down an embankment and onto its side. 50 passengers were injured.
June 25, 2007	Bowling Green, KY	Motorcoach veered off the road and hit an overpass, killing two passengers and injuring 66. The driver apparently dozed off while driving.
March 2, 2007	Atlanta, GA	Motorcoach carrying Bluffton University baseball team crashed through an overpass bridge wall and fell 19 feet onto Interstate 75 landing on its side. Seven motorcoach occupants were killed and 21 injured. NTSB found that the lack of an adequate occupant protection system contributed to the severity of the crash.
May 20, 2007	Clearfield, PA	NTSB investigation. Rollover crash: 2 passengers killed, 25 injured.
Sept. 6, 2006	Auburn, MA	NTSB investigation. Rollover crash: 34 passengers injured.
August 28, 2006	Westport, NY	NTSB investigation. Rollover crash: 4 passengers killed, 48 injured.

Date of Crash	Location	Description
March 30, 2006	Houston, TX	Motorcoach carrying girls' soccer team was trying to avoid debris falling from a tractor-trailer when it lost control on slippery pavement and overturned. Two passengers were killed. The Texas Department of Public Safety cited the tractor-trailer driver for improperly securing the load and the bus driver for faulty evasive action. NTSB found that passenger restraints and strengthened glass windows on the bus could have prevented some injuries.
October 25, 2005	San Antonio, TX	Motorcoach crashed into two 18-wheelers after its tire was blown. The driver was killed, and two passengers and a truck driver sustained injuries.
October 16, 2005	Osseo, WI	NTSB investigation. Frontal impact crash: 4 passengers killed, 35 injured.
Sept. 23, 2005	Wilmer, TX	Motorcoach carrying 44 assisted living facility residents and nursing staff as part of the evacuation in anticipation of Hurricane Rita caught fire. 23 passengers were fatally injured. Of the 21 passengers who escaped, 2 were seriously injured and 19 received minor injuries, including the motorcoach driver. NTSB found that insufficient lubrication in the right-side tag axle wheel-bearing assembly of the motorcoach, resulting in increased temperatures and subsequent failed wheel bearings, led to the catastrophic fire. Lack of fire-retardant construction materials and failure to conduct routine maintenance were contributing factors in the severity of the crash.
July 25, 2005	Baltimore, MD	NTSB investigation. Rollover crash: 33 passengers killed.
January 29, 2005	Geneseo, NY	NTSB investigation. Frontal impact crash: 3 passengers killed, 20 injured.
Nov. 14, 2004	Alexandria, VA	Motorcoach was transporting 27 high school students to Mount Vernon, Virginia when it collided with an overpass. 10 passengers received minor injuries and another sustained serious injury. NTSB found that the bus driver's failure to notice and respond to posted low-clearance warning signs and driver distraction resulting from talking on his hands-free cellular telephone while driving were the causes of the crash.
October 9, 2004	Turrell, AR	NTSB investigation. Rollover crash: 14 passengers killed, 15 injured.
August 6, 2004	Jackson, TN	NTSB investigation. Frontal impact crash: 2 passengers killed, 18 injured.
May 24, 2004	Anahuac, TX	Motorcoach collided with a tractor-trailer, killing one passenger.
Feb. 22, 2004	North Hudson, NY	NTSB investigation. Frontal impact crash: 47 passengers injured.
2004	Phoenix, AZ	NTSB investigation. Frontal impact crash: 1 passenger killed, 38 injured.
October 13, 2003	Tallulah, LA	Motorcoach carrying 14 passengers struck a tractor-trailer. 8 passengers were killed, the driver and 6 other passengers sustained minor injuries, and the driver of the tractor-trailer was uninjured. NTSB determined that the cause was the driver's reduced alertness caused by fatigue as a result of his chronic insomnia and poor quality sleep. Also contributing was the failure of the motorcoach seat anchorages.

Date of Crash	Location	Description
Feb. 14, 2003	Hewitt, TX	Motorcoach transporting 34 passengers crashed through a median and into oncoming traffic, colliding with a sport utility vehicle and a pickup truck. The driver and passenger of the SUV and 5 motorcoach passengers sustained fatal injuries. Motorcoach driver sustained serious injuries; remaining passengers sustained minor to serious injuries. NTSB found probable cause of the crash was state authorities decision to set a speed limit that did not take into account the roadway's limited sight distance or its poor conditions in wet weather was. The lack of a median barrier and an occupant protection system contributed to the severity of the crash.
2003	Apache Co., AZ	NTSB investigation. Rollover crash: 44 passengers injured.
October 1, 2002	Nephi, UT	NTSB investigation. Rollover crash: 6 passengers killed, 20 injured.
June 23, 2002	Victor, NY	Motorcoach carrying 47 passengers crashed through the grassy area between an exit ramp and entrance ramp, dragging a guardrail and coming to rest on its right side. The guardrail hit three cars. 5 passengers were killed, 41 passengers and the driver sustained minor injuries, and the vehicle passengers had minor injuries. NTSB found that the cause of the crash was due to the driver falling asleep at the wheel. A contributing factor was the lack of proper restraints for the motorcoach passengers.
June 9, 2002	Loraine, TX	Motorcoach carrying 37 passengers collided with the back of a tractor-trailer that entered the highway from an entrance ramp. Three passengers in the front of the motorcoach were killed, 5 passengers and the driver were seriously injured, 24 passengers sustained minor injuries. NTSB found that the unnecessarily slow acceleration by tractor-trailer was the cause of the crash. The driver of the tractor-trailer was also impaired by cocaine.
April 24, 2002	Kinder, LA	Motorcoach drove into telephone pole, killing the driver and 4 passengers. Driver was found medically incapacitated.
October 3, 2001	Manchester, TN	NTSB investigation. Rollover crash: 6 passengers killed, unknown injuries.
August 19, 2001	Pleasant View, TN	Motorcoach carrying 47 passengers drifted off the roadway and crashed onto its right side. One passenger was killed, 38 had minor-to-serious injuries. NTSB found that driver fatigue was the contributing factor to the crash.
January 2, 2001	San Miguel, CA	Motorcoach carrying 5 passengers ran off the right side of the highway, struck a guardrail, and went over a bridge rail, plunging 23 feet. It came to rest on its side after rolling over at the pavement below. 2 passengers were ejected and killed, 3 passengers were injured. NTSB found that the cause of the crash was driver fatigue.
2001	Allamuchy, NJ	NTSB investigation. Rollover crash: 39 passengers injured.
2001	Bay St. Louis, MO	NTSB investigation. Frontal impact crash: 16 passengers injured.
2001	Fairplay, CO	NTSB investigation. Rollover crash: 45 passengers injured.
August 27, 2000	Eureka, MO	NTSB investigation. Frontal impact crash: 25 passengers injured.
Dec. 21, 1999	Canon City, CO	Motorcoach carrying 59 passengers lost control on a curve, rolled at least once down an embankment, and came to rest on the roof. The driver and two passengers were killed, 33 passengers had serious injuries, and 24 had minor injuries. NTSB found the driver was at fault for not maintaining control of the vehicle in icy conditions. The reason the driver did not slow down the vehicle before the crash was not determined.

Date of Crash	Location	Description
May 9, 1999	New Orleans, LA	Motorcoach carrying 43 passengers crashed when it departed the highway onto a shoulder, struck a guardrail, vaulted over a golf cart path, and into a dirt embankment. 22 passengers were killed, 15 passengers had serious injuries, and 6 passengers had minor injuries. NTSB found the crash was caused by the driver's incapacitation due to a severe medical condition, in addition to the driver's fatigue and marijuana use.
April 30, 1999	Braidwood, IL	NTSB investigation. Rollover crash: 1 passenger killed, 23 injured.
March 2, 1999	Sante Fe Ski Basin, New Mexico	Motorcoach carrying 36 passengers crashed when the driver lost control on a downward-sloping portion of a mountainous road and crashed into a rock embankment. 2 passengers were killed, and 35 others injured. NTSB found that the cause of the crash was the poor condition of the motorcoach brakes due to the lack of an effective motor carrier vehicle maintenance and inspection program.
December 24, 1998	Old Bridge, NJ	NTSB investigation. Rollover crash: 8 passengers killed, 14 injured.
June 20, 1998	Burnt Cabins, PA	Motorcoach carrying 23 passengers crashed when it drifted onto the right shoulder of the road into an emergency parking area, and into a parked tractor-trailer that struck another parked tractor-trailer. 6 passengers and the bus driver were killed, and 16 passengers were injured. NTSB found that the cause of the crash was reduced driver alertness due to taking a sedating antihistamine and driver fatigue due to irregular work-rest periods.
Sept. 13, 1997	Jonesboro, AR	Motorcoach failed to stop at a T intersection and continued through a ditch and earthen levee. 1 passenger was killed, 6 injured.
July 29, 1997	Stony Creek, VA	Motorcoach left the roadway on the right, vaulted through small trees and came to rest on its side in a river. 1 passenger was killed, 32 injured.
June 11, 1997	Normandy, MO	Motorcoach collided with pedestrians after a routine stop by a driver trainee. The driver claimed he could not stop the vehicle. 4 pedestrians were killed, and 3 others injured. NTSB found that the cause of the crash was insufficient pedestrian protection and the need for positive separation between the roadway and pedestrian areas.
June 6, 1997	Albuquerque, NM	Motorcoach drifted off the roadway, rode up and over a guardrail and hit a cement wall. Driver was fatigued. 1 passenger was killed, 35 passengers injured.
August 2, 1996	Roanoke Rapids, NC	Motorcoach driver was fatigued. 19 passengers injured.
October 14, 1995	Indianapolis, IN	Motorcoach entered an exit at high speeds and overturned. 2 passengers were killed, 38 injured.
July 23, 1995	Bolton Landing, NY	Motorcoach lost control on a steep downward slope, and overturned. 1 passenger was killed, 30 injured.
April 24, 1994	Chestertown, NY	Motorcoach drifted off the road and rolled over. Driver was fatigued. 1 passenger was killed, 20 passengers injured.
Feb. 22, 1994	North Hudson, NY	Motorcoach carrying 47 passengers collided with tractor-trailer that was stopped in traffic. Driver said he didn't see any brake lights on the trailer. 8 passengers injured.
January 29, 1994	Pueblo, CA	Motorcoach slid out of control on icy pavement and rolled over. 1 passenger was killed, 8 injured.
Sept. 17, 1993	Winslow Township, NJ	A truck drifted into the lane of the motorcoach, causing a head-on collision. 6 passengers were killed, 8 injured.

Date of Crash	Location	Description
Sept. 10, 1993	Phoenix, AZ	Motorcoach ran off the road and overcorrected, then overturned. Driver was fatigued. 33 passengers were injured.
June 26, 1993	Springfield, MO	Motorcoach collided with a passenger vehicle head on, then left the roadway and turned over on its side. 1 passenger was killed, 46 injured.
July 26, 1992	Vernon, NJ	Motorcoach carrying 37 passengers lost control on a steep hill, crashing into two cars, overturning, and coming to rest upright. 12 passengers were ejected from the bus, 6 of whom were killed. NTSB found that the driver's inability to maintain the bus adequately and choosing to operate a bus with known brake deficiencies caused the crash.
April 11, 1992	Schroon Lake, NY	Motorcoach lost control, rolling over several times. 2 passengers were killed, 29 injured.
January 24, 1992	South Bend, IN	Motorcoach lost control on a snowy road when a passenger vehicle stopped in front of it. Witnesses say there was no vehicle ahead. 2 passengers were killed, 34 injured.
June 26, 1991	Donegal, PA	Motorcoach ran off the right side of the road and overturned. One passenger was killed and 14 passengers injured. NTSB found that the cause of the crash was the failure of Greyhound Lines, Inc., to ensure that the bus driver had adequate training and experience to operate intercity buses safely, resulting in his inability to control the vehicle, which ran off the road and overturned.
August 3, 1991	Caroline, NY	Motorcoach ran off the right side of the road and overturned. 33 passengers were injured, and 5 were uninjured. NTSB found that the cause of the crash was the failure of Greyhound Lines, Inc., to ensure that the bus drivers had adequate training and experience to operate intercity buses safely, resulting in their inability to control their vehicles, which ran off the road and overturned.
February 2, 1991	Joliett, PA	Motorcoach swerved to the right when the driver was reaching for a water bottle. The driver corrected and veered off the other side of the roadway. 2 passengers were killed, 44 injured.
May 18, 1990	Big Pine, CA	Motorcoach ran off the road and hit a rock and earthen slope. 2 passengers were killed, 43 injured.
Feb. 18, 1989	Falfurrias, TX	Motorcoach skidded on wet pavement, lost control and overturned onto an embankment. 4 passengers were killed, 19 injured.
Nov. 29, 1988	Tinton Falls, NJ	The bus driver lost control of the bus and it overturned. Passengers injured. NTSB found that the cause of the crash was the bus driver's inattention that resulted in the loss of control of his vehicle.
Nov. 19, 1988	Nashville, TN	Motorcoach carrying 45 passengers lost control in a steering maneuver and overturned. 38 passengers were injured. NTSB found the cause of the crash to be the driver's excessive speed, which was above the regulatory limit, and excessive due to weather conditions.
July 24, 1988	Camden, AL	Motorcoach lost control and rolled over. 1 passenger was killed, 30 injured.
July 23, 1988	Little Egg Harbor Township, NJ	Motorcoach lost control and ran off of the highway. Passengers injured. NTSB found that the crash was caused by the bus driver's impairment from the recent use of cocaine while on duty which resulted in the loss of control of the vehicle.
Sept. 6, 1987	Middletown Township, NJ	Motorcoach ran off the road and overturned. Driver and one passenger were killed, 32 passengers injured. NTSB found that the cause of the crash was the bus driver's lack of vigilance due to fatigue, which resulted in his failure to perceive that the vehicle was leaving the roadway.

Date of Crash	Location	Description
May 4, 1987	Beaumont, TX	A tractor-trailer jackknifed on an interstate, crashing into an intercity bus. Driver and 5 motorcoach passengers killed, 17 passengers were injured. NTSB found that the driver of tractor-trailer was operating at excessive speed for the weather conditions.
April 4, 1987	Alexandria, VA	Motorcoach carrying 65 passengers struck an arched stone overpass, shearing off the roof. 33 passengers sustained injuries, 1 person died 10 hours later from injuries in the crash.
October 9, 1986	North Bergen, NJ	Motorcoach veered into an adjacent lane, struck a passenger vehicle, then struck another transit bus. One person on the other bus was killed, and 26 other passengers were injured from both buses. NTSB found the cause of the crash was the distraction of the bus driver from his driving duties while assisting a bus passenger.
Sept. 29, 1986	Carney's Point, NJ	Motorcoach crashed into the back of a slower moving tractor-trailer. Passengers injured. NTSB found the cause of the crash to be the bus driver's inattention to his driving task and his misjudgment of the closing speed between the bus and the truck in front of him.
July 14, 1986	Brinkley, AR	Motorcoach carrying 28 passengers crashed into the rear of a tractor-trailer, then left the pavement and overturned. Injuries and fatalities not known. NTSB found that the cause of the crash was that the tractor-trailer had made an illegal U-Turn, and the bus was traveling at an excessive speed that did not permit adequate time and distance to slow or stop the bus to avoid the collision.
May 30, 1986	Walker, CA	Motorcoach carrying 40 passengers lost control in an S curve, and came to rest in a river. 21 passengers were killed, 19 passengers and the driver were injured. NTSB found that the cause of the crash was excessive speed, failure of the driver to comply with advisory speed signs and to reduce the bus speed sufficiently to negotiate the S curve safely.
October 9, 1986	North Bergen, NJ	Motorcoach veered into an adjacent lane and struck a passenger vehicle; then it struck another motorcoach. 1 passenger was killed, 27 injured.
Sept. 13, 1985	Eureka Springs, AR	Motorcoach lost control and rolled over. Driver and 3 passengers killed, 16 injured.
August 25, 1985	Frederick, MD	Motorcoach lost control on wet pavement and crashed, coming to rest on a bridge over the Monocacy River. Passengers were ejected in the crash sequence. The bus driver and 5 passengers were killed, and 11 passengers had injuries. NTSB found that the loss of control and excessive speed contributed to the crash, as did the lack of an operative speedometer and highway signs warning of road conditions.
June 20, 1985	Ackerly, TX	Motorcoach lost control on wet pavement, rolled over and came to rest on its roof. 4 passengers were killed, 27 injured.
July 18, 1984	Cheyenne, WY	Motorcoach ran into the rear of a tractor-trailer. Driver was fatigued. 1 passenger was killed, 10 injured.
Nov. 30, 1983	Livingston, TX	Motorcoach carrying 11 passengers struck the back of a tractor-trailer that had just entered the highway. The truck crashed through a bridge guardrail and vaulted into a creek bank. 6 passengers were killed, and 5 passengers and the bus driver had injuries. NTSB found that the cause of the crash was the driver's lack of alertness, probably due to fatigue. Excessive speed was a contributing factor.
April 7, 1982	Oakland, CA	Motorcoach collided with passenger vehicle; involved in multi-vehicle collision. There were no passengers.

Date of Crash	Location	Description
June 15, 1981	Mt. McKinley National Park, AK	Motorcoach carrying 32 passengers ran off the right side of the road and rolled over, sliding down a hill. 5 passengers were killed, 26 passengers injured. NTSB found that the cause of the crash was driver lack of training and experience.
April 20, 1981	Beltsville, MD	Motorcoach carrying 43 passengers failed to stop as traffic ahead slowed and crashed into a passenger vehicle, causing a 4-car pile-up and a fire. Three passenger vehicle occupants were killed. The bus passengers and driver had minor injuries. NTSB found that the cause of the crash was due to the failure of the driver to maintain a safe stopping distance between the bus and traffic ahead.
Feb. 18, 1981	Triangle, VA	Motorcoach veered off the roadway and overrode a guardrail, into a bridge, and landing in 2 feet of water on its side. 10 passengers and the driver were killed. NTSB found that those least injured were the ones who left their seats and crouched between the seats or lay on the floor.
Nov. 16, 1980	Luling, TX	Motorcoach lost control on wet pavement, skidding, rotating and coming to rest on its side across the roadway. 2 passengers were killed after they had been ejected from the bus in the crash.
June 5, 1980	Jasper, AR	Motorcoach carrying 32 passengers lost control in a left curve on a steep downgrade crashed into a drainage channel and was vaulted down an embankment. 20 passengers and the driver were killed, and 13 passengers were injured. NTSB found that driver fatigue, reduced fuel flow from a nonstandard fuel pump that adversely affected the bus driver's ability to downshift, and the improperly maintained airbrake system all contributed to the crash.
May 21, 1976	Martinez, CA	Motorcoach carrying 52 passengers mounted a section of the bridge rail system, rolled off the top of the rail and landed on its roof. 29 passengers were killed and the others sustained injuries. NTSB found that the failure of the driver, who was unfamiliar with the bus, to correctly monitor the service brake air pressure gauge, recognize the loss of air, and take appropriate action caused the crash.
June 6, 1975	Hamilton, GA	A tractor-trailer collided with a motorcoach carrying 20 passengers. The truck driver and bus driver were killed. Most of the passengers were injured. NTSB found that the failure of the truck driver to operate at a proper speed for safe driving was the cause of the crash.
Nov. 3, 1973	Sacramento, CA	Motorcoach ran off the road, overrode a guardrail and collided with a bridge column. The driver and 12 passengers were killed, 33 passengers were injured. NTSB found that there should have been a better evacuation system.
Sept. 21, 1972	New Jersey Turnpike, Exit 8, NJ	A tractor-trailer carrying propylene sideswiped a motorcoach, carrying no passengers. NTSB found that the cause of the crash was the evasive steering and skidding of the bus into the tractor-trailer.
Sept. 3, 1972	Richmond, VA	Motorcoach traveled straight through a right curve, crashed into a median barrier rail, rotated across opposite lanes and vaulted off of the highway. Motorcoach driver was fatigued. 3 passengers were killed, 39 injured. NTSB found that if all passengers used restraints the number of passengers ejected from the bus would have been reduced.
May 13, 1972	Bean Station, TN	Motorcoach carrying 27 passengers hit a truck head-on as the bus attempted to pass a vehicle on a two-lane highway. The truck driver, bus driver and 12 passengers were killed, and 14 passengers injured. 9 passengers had been ejected. NTSB found that the cause of this crash was the bus driver attempting to pass without unobstructed clear-sight distance ahead, and the bus driver's failure to avoid the truck, for unknown reasons.

Date of Crash	Location	Description
October 10, 1971	Marshfield, MO	Motorcoach carrying 37 passengers hit the left side of a station wagon in oncoming traffic and rolled over, coming to rest on its side. 4 passengers were killed, including one who had been ejected, and two others where the roof had collapsed. NTSB found that the crash was caused by the unlawful maneuvering of the station wagon on a limited-access highway by a driver under the influence of alcohol, and the delayed action by the bus driver.
July 15, 1970	New Smithville, PA	Motorcoach started to slide on a wet highway and went into a 180-degree turn, through a guardrail and down an embankment where it overturned. 18 people were ejected and 6 of them pinned under the bus. 7 passengers were killed. NTSB found that hydroplaning of the front wheels of the bus that initiated a skid from which the driver could not recover was the cause of the crash.
June 9, 1970	Dulles Airport Access Road, VA	Sedan driven by a driver who was under the influence of alcohol, driving on the wrong side of the highway, struck motorcoach. The bus went into a skid, and finally rested on the median. One passenger died 20 days after the crash due to crash-related injuries. The driver of the sedan was killed. NTSB found that the driver going the wrong way and driving under the influence of alcohol was the cause of the crash.
Nov. 24, 1969	Petersburg, IN	Motorcoach carrying 27 passengers struck a passenger vehicle that he thought was entering the highway at a different area. There was heavy fog. The bus skidded and rolled, coming to rest on an embankment. One infant passenger of the bus was killed, and only three passengers had injuries. NTSB found that the bus driver misjudged the location of the passenger vehicle in the fog, and excessive speed of the bus were causes of the crash.
Dec. 26, 1968	Beaver Falls, PA	Motorcoach ran off the road to the right, overcorrected on the left, went off the road again on the right and another correction made the bus vault and roll over onto its roof. Then it slid down a drainage gully. 3 passengers died, and others sustained injuries. NTSB found that if occupant restraints had been used, it would have reduced the number and severity of injuries.
March 7, 1968	Baker, CA	Motorcoach was hit head-on by a passenger vehicle driven by an intoxicated driver. The bus overturned and then caught on fire. 19 passengers died. NTSB recommended that all passengers and drivers on buses use restraints.

Senator LAUTENBERG. They will be put in the record. Thank you.  
Ms. GILLAN. Thank you.  
Senator LAUTENBERG. Mr. Forman?

**STATEMENT OF STEPHEN FORMAN,  
WEST BROOK BUS CRASH FAMILIES, BEAUMONT, TEXAS**

Mr. FORMAN. Good afternoon, Senator, and I appreciate the opportunity to be able to speak on behalf of parents and victims this morning. I am here on behalf of the West Brook Bus Crash Families. I am the father of Allison Forman who was severely injured in the crash.

Today I want to share with you what I call the reality of unsafe motorcoaches. It is a reality that has been known but ignored for too long. It is a reality that has resulted in needless deaths and injuries, millions of dollars in losses. It is a reality that the lack of seat belts and basic occupant protection in these motorcoaches killed our daughters, maimed and injured our daughters.

I want to share a little bit about our reality, the reality that both our children and our families faced, and then I would like to, hopefully within the time limit, just show you graphically—graphically—what they faced because we now have pictures of exactly what our children and every other passenger faces in a motorcoach accident.

My hope is that you and the other Members of Congress will say enough is enough. We waited too long. I want to try to convince you to create a new reality and that is safe motorcoaches.

Our reality began March 29, 2006. The motorcoach bus that was transporting 23 of our daughters and their two coaches to a playoff game in Houston, Texas overturned, killing two of our children, maiming and injuring the others. Alicia and Ashley were ejected from the motorcoach and crushed. There were no seat belts on the bus. There was no glazed windows keeping them or retaining them within the bus. When they came out of their seats and were thrown from their seats because of lack of seat belts, there was no glass. The bus had turned on its side.

Devon and Allison were also ejected violently from their seats. Their left arms—and Devon and Allison are here—as their bodies were ejected out the bus when the bus turned over on its side, were dragged under the bus, dragged along the pavement until the bus ended up in a ditch. And there they were trapped under the bus for over an hour. My daughter was upside down in a headstand. Devon was in a fire ant bed. Still alive, they were pinned under the bus. It took rescuers over an hour to free them.

Young Sarah's ear was torn from her head, her head violently gashed. Shoulders, ribs, knees cracked, glass shards the size of fists literally, because I saw them as they were surgically removed, were removed from their backs and their legs. Their beautiful young faces will be scarred forever.

In the immediate aftermath, some girls attempted to revive their dead teammates. Others tried to free Allison and Devon and comfort them in their pain. Still others tried to lead the wounded to rescue. Blood and tears mixed with mud and raindrops. As a parent, I frankly shudder from the horror of that scene.

We buried our precious Ashley and Alicia. Of the 21 survivors, all received medical treatment of some kind. The more seriously injured spent a combined total of 86 days in the hospital, including intensive care. Four of the girls have endured a combined 18 surgeries to save and in some way rebuild their maimed bodies. Over 8 months of school instructional days were missed prior to the close of that school year. Literally millions of dollars in medical expenses have been expended, and those costs continue.

Chairman, I would like to, if I can,—this idea that we need to study more is hollow to parents. We know what the risk is. NHTSA knows what the risk is. It is a killer combination. It is the high risk of rollover and frontal collision that throws you out of your seat and the lack of basic occupant protections to keep you in your seat. It is not rocket science. I was shocked when we got into this and saw the NHTSA statistics from 1996 to 2005. They have known these statistics. 65 percent single vehicle accidents. 70 percent of all fatality crashes, rollover or roadside where the bus just

runs off the road and hits something. 70 percent of the fatalities in rollover crashes by ejection. We have known this.

I want to show you this video, and this is in a school bus. When we first saw this video, this is what happens when a bus rolls over without seat belts. Those are our children. Our children told us that as they were flying—when the bus rolled over on its side, the glass shattered and exploded, and the glass shards were coming up as they were falling down toward the pavement. And the glass collided with faces, with bodies. My daughter was on the bottom of that pile. Those two girls that were killed would have been on the bottom of that pile.

Parents ask me what can I do to keep my child safe when they have to get on a motorcoach. I say ride in the aisle seat because at least you will have a body underneath you. I hate to say that.

Let me show you one other. They talked about the NHTSA crash testing. Again, it is not rocket science. I love it when I go on NHTSA's website and I find a NHTSA flyer from 2001 that says a body that is in motion continues in motion until acted upon by another body that is stopped. If that is the dashboard, if that is your dashboard, then that is what is going to stop you.

I want you to see what their own crash testing showed. The ones in the seat in front are in the three-point lap belt seat belt. The ones obviously not belted fly out. That is a frontal crash. Imagine taking that, combining it with the rollover. Why do you think there are so many deaths caused by ejection?

This shocked me. This is the aftermath of their own testing. That is what it looks like inside of the bus on a 30 mile an hour frontal crash. Now put the faces of our children on those crash dummies.

Obviously, we know the result. The remedy is this bill. As parents, I find that this is a comprehensive bill.

Yes, there is an oversight issue, and I would like to quickly address that. Our carrier was in full compliance with DOT motorcoach provisions and, in fact, signed an affidavit that they met all DOT provisions to our school when our school hired it. What they did not tell our school was that they did not meet the standards that are designed to carry children because they do not have to tell our school district that. They do not have to meet the requirements that Congress enacted in 1974 to protect school children. And I think that is just a misrepresentation by the industry that has as a keynote speaker at their latest conference targeting school districts how to increase your market share.

Of course, we do not have to wait for any more studies. NHTSA has been doing this study since 2002. A 70 percent reduction in fatalities estimated, and that is what they apply to all crashes. They have been doing it since 2002—crash fatalities with respect to rollovers. 45 to 51 percent in frontal crash. So why we have to have all this additional testing is beyond me. It has been scientifically proven.

Of course, I love this from a NHTSA presentation just this summer. Dummies stay in their seat. Every parent knows that. That is why we buckle up our children every day of the year.

Senator I just call for a new reality. I call for the Congress to have the political courage to make this a new reality. I call for the industry to stand behind their product and do something. I would

dare say that if the industry would build these safety protections into their buses, parents would buy that operator's bus as opposed to the ones that were not.

But we cannot wait on the industry. We have to protect our children now. The standards are there. We do not have to create new standards. We have FMV210. We have FMV220. The people from NHTSA know what I am talking about. They need to adjust those for motorcoaches, and Congress needs to require these occupant protections to save our children now.

Thank you, Senator.

[Applause.]

[The prepared statement of Mr. Forman follows:]

PREPARED STATEMENT OF STEPHEN FORMAN,  
WEST BROOK BUS CRASH FAMILIES, BEAUMONT, TEXAS

*Our Reality:* We are the families of the Beaumont West Brook High School girls' soccer team. On the afternoon of March 29, 2006, the motorcoach bus transporting 23 of our daughters and their two coaches to a playoff game in Houston overturned, killing two of our children and maiming and injuring the others.

The motorcoach that carried our daughters did not have seatbelts of any kind. The oversized windows, making up approximately 50 percent of the side area of the bus, were not impact resistant, had no "glazing" and were merely glued to the outside of the bus as opposed to being installed in a framework. When, according to the preliminary DPS report, the bus driver took "faulty evasive action," the bus rolled over on its left side and 25 passengers were thrown from their seats. The windows shattered into shards of glass. Bodies, equipment, books, purses, even seats flew through the air landing on each other in a tumult of glass and asphalt. As the bus slid toward the ditch, our children were pummeled as if they were in a washing machine spin cycle.

Ashley and Alicia were ejected from the motorcoach and crushed, their bodies coming to rest under the debris. Devin and Allison were ejected, their left arms sucked under the frame of the bus and their bodies dragged beneath the bus as it skidded, mangling each of their left arms and causing serious head injuries. Still alive, both girls were pinned underneath the bus. Devin was trapped in a bed of fire ants. Allison was pinned upside down in a headstand. It took rescuers over an hour to free them. Sarah's ear was torn from her head, her head violently gashed. Shoulders, ribs and knees cracked, glass shards the size of fists lodged in backs and legs, the beautiful faces of youth shredded on the pavement.

In the immediate aftermath, some girls attempted to revive their dead teammates. Others tried to free their trapped friends and comfort them in their pain. Still others tried to lead the wounded to rescue. Blood and tears mixed with mud and raindrops. As parents, we shudder at the horror of the scene.

We buried our precious Ashley and Alicia. Of the 21 survivors, all received medical treatment of some kind. The more seriously injured spent a combined total of 86 days in the hospital including intensive care. Four of the girls have endured a combined 16 surgeries to save and in some way rebuild bodies maimed by the accident. Over 8 months of school instructional days were missed prior to the close of the school year. Literally millions of dollars in medical expenses have been expended and those costs continue.

Devin's arm was amputated. For Allison, her left elbow was crushed and is useless. She has minimal use of her left hand. There were multiple head injuries, some requiring plastic surgery and stitches. For some, the "road rash," pieces of glass and asphalt imbedded in flesh, was so severe that it had to be removed by surgery or by a special hydraulic procedure under anesthesia. There have been hours of physical therapy, thousands of stitches, bandages, crutches and wheelchairs. And there has been pain—lots of pain—both physical and emotional. The girls, their families and coaches have spent hours in counseling and therapy sessions. As one can expect, both the physical and emotional scars of the tragedy will last a lifetime.

*The Risk:* After the crash, we learned that charter buses hired by schools (often under pressure from parents, coaches and teachers) do not meet "crashworthiness" standards required by Congress for school buses. Those standards, which became law in 1977, added structural frame, roof and seat requirements "to protect our most precious cargo, the children of our future." The structural requirements forced school bus windows to be small and rigidly framed offering less chance of ejection.

Seatbelts in school buses was debated, but because of money and technology issues, never implemented. *It was never contemplated that charters would transport school children like they do today.*

Unfortunately, times have changed, but the law has not. Nor has the bus industry voluntarily. The NTSB has recommended, on several occasions since 1977, that crash protections be required of motorcoaches including body and roof structural support, safety windows and seatbelts. In 1999, the NTSB made the addition of safety belts and roof crush protections part of their “Most Wanted” safety improvement list. NTSB reiterated recommendations in their July 8, 2008 report on Atlanta Bluffton Baseball Team crash stating<sup>1</sup> “Contributing to the severity of the accident was the motorcoach’s lack of an adequate occupant protection system.”

But still, almost 10 years after becoming “Most Wanted”, powerful industry lobbies have successfully kept these protections from being added to motorcoaches. At the same time, the industry continues to “target” school districts, churches and other youth organizations. (At the 2007 Motorcoach Expo one seminar was entitled “Targeting School Districts, How to Increase Your Market Share.”)

Sadly, structural protections, safer windows, even lap-shoulder seatbelts, are readily available for motorcoaches, *but bus manufacturers and operators in the U.S. don’t install them to save money.* (Buses in European Union and Australia have had these protections for 10 years!) As an expert for the Texas Association of Pupil Transportation recently testified before the Texas House Transportation Committee, “these buses [chartered motorcoaches] are designed for comfort, *not safety.*” Charter buses look massive and have an appearance of safety, but don’t be fooled.

Motorcoach operators do not inform schools (or parents) that their buses lack crash protection. Yet, they sell their buses for long distance, highway speed travel—the maximum accident risk! And forget about recourse. Even though charters carry 55 to 60 persons at a time, operators are only required to carry insurance limits of \$5 million, nowhere near adequate liability should a crash occur.

The bus industry attempts to justify their conduct with a good (thankfully) accident-per-miles-driven safety record. What they won’t share is the *high* injury/death-per-accident result. Charter bus accidents can and will continue to happen, especially given our ever more dangerous and complex highways. When they do, the result is catastrophic. Our accident is case-in-point.

*The Remedy:* The Brown-Hutchison Bill (S. 2326) and Lewis House Companion (H.R. 6747) (*Action, not delays through testing as found in H.R. 4690*) provide the needed impetus to require NHTSA to mandate these need safety reforms. Congress has allowed this inaction to continue long enough. No more adults and children should die or be injured as a result of the motorcoaches failure to implement these basic safety standard. The Bill:

- Applies to new buses purchased with exceptions
- Regulations w/in 1 year
  - Safety belts (retrofit in 2–5 years depending on hardship)
  - Advanced window glazing to prevent ejection
  - Firefighting Equipment (retrofit in 2–5 years )
- Regulations w/in 2 years
  - Compartmentalization and Impact protection
  - Stability control
  - Roof Strength—Crush Resistance
  - Enhanced Conspicuity
  - Smoke and Fire Suppression (retrofit in 2–5 years)
  - Improved Passenger Evacuation/Lighting
- Regulations w/in 3 years
  - Adaptive Cruise Control/Collision Warnings
  - Automatic Fire Suppression
- Test Reports
- Improved Carrier Oversight
- Stricter Driver Training/Licensing/Requirements
- Better Bus Inspection Programs
- Financial Incentive for Small Operator Compliance (H.R. 6747)

<sup>1</sup>See <http://www.nts.gov/Publictn/2008/HAR0801.htm>

The provisions of the Bill are strong and reasonable. The Bill says “Enough is enough”. It is obvious that neither industry nor the DOT will take action without Congressional mandate. Congress must act before more are killed and injured. As advocates for safer student transportation, we also ask Congress to close the “non-conforming” loophole that allows motorcoaches to be used for school “activities” (as opposed to school commutes) until they meet the same safety requirements that Congress enacted for our school children in 1974.

No more parents, students, passengers should face the risk that became our horrible reality. The risk is real, the result is real, and the remedy is available and reasonable. It is time for Congress to have the political courage to make a new reality—a reality of safe motorcoaches for all.

Senator LAUTENBERG. Thank you very much, Mr. Forman. Your testimony reveals so much of the sadness, the anguish that any of us who are a parent or know young people and treasure their lives so much. When I listened to your recounting of what happened that fateful day, it is something that we have to respect and get on with.

You heard my question before, you know, why do we have to wait until 2010 for things that we know can make a difference? And we will talk to Mr. Pantuso about this.

Mr. BETTS. Thank you again, Mr. Forman. Mr. Betts, please.

#### **STATEMENT OF JOHN BETTS, MOTORCOACH SAFETY NOW**

Mr. BETTS. Yes, Mr. Chairman. Thank you for this opportunity. We, the families of those who have needlessly died or have suffered serious and permanent injuries, are here to thank the Senate Surface Transportation and Merchant Marine Infrastructure, Safety, and Security Subcommittee for holding this oversight hearing on motorcoach safety and the need to pass Senate bill 2326, a critical piece of motorcoach safety legislation.

I am John Betts, father to David Betts, who died March 2, 2007 in a motorcoach crash on North Side Drive in Atlanta, along with Zachary Arend, Scott Harmon, Cody Holp, Tyler Williams, and the bus driver and his wife. The motorcoach was traveling to Florida for the Bluffton University baseball spring trip. Many of the players and coaches were and still are seriously and permanently disabled.

David was a 20-year-old sophomore honor student who loved to play and compete. Though David was academically, musically, and athletically gifted, his greatest attribute was his heart.

David had not made the university baseball traveling team his freshman year, so he did not travel with the team to Florida in 2006. He was determined to not only make the traveling team his sophomore year, but to be the starting second baseman. The day before they left for Florida in the spring of 2007, he was told he would be the starting second baseman. David never told us he would be starting. He wanted to surprise his family.

I tell you this story not only as a testimony to David’s determination but to illustrate the excitement and anticipation he felt. I was also happily anticipating seeing David play with the passion he had for the game he loved. That eager anticipation turned into the darkest day of my life.

While waiting in the Dayton airport, I looked up at a TV monitor and saw a motorcoach on its side. It had been identified as a bus with Little League players that had crashed in Atlanta. The sense

of dread I felt was confirmed when I arrived in Charlotte and discovered it was the Bluffton baseball team. At least six were confirmed dead, and many were seriously injured.

As I rerouted my flight and arrived in to Atlanta, I rushed to the hospital trying to find David. I was told that he might be one of the dead, and I would need to go to the morgue to identify his body. There I found my son with swollen, discolored eyes and multiple lacerations and bruises.

I returned to the hospital and made a promise to the surviving boys that because David was so good, something good would come out of this tragedy. Later I amended to include all those who died.

Bluffton is but one of many such motorcoach tragedies.

We believe 2326 is the good we seek. We believe this legislation will drastically decrease the possibility of future death and serious injury due to lack of basic lifesaving occupant safety features on motorcoaches. The apathy toward these changes is a true tragedy. As the apathy continues and the motorcoach industry grows, so will and has the death and serious injury toll.

The motorcoach industry is now transporting over 630 million passengers per year which rivals the airline industry. There are over 3,700 motorcoach companies and over 34,000 motorcoaches operating on our highways. Yet, the United States Department of Transportation does not require that motorcoaches have the same occupant safety protection features that are routinely designed and required in most other major modes of transportation.

An average motorcoach is approximately 50 feet long, 12 feet high, 8 feet wide, and 24 tons. It is made up of about one-third of non-safety glass and travels the vast majority of the time at 65 to 75 miles an hour carrying our most fragile cargo, such as young people and senior citizens. The size of a motorcoach gives you a sense of security, but motorcoaches are heavy, unstable, fast-moving projectiles.

Though crashes may never be 100 percent preventable, we can drastically reduce death and serious injury by having the standard occupancy protection devices called for in 2326.

Both Europe and Australia are decades ahead on this issue. A 10-year study was just completed that found Australia has not had one motorcoach death from anyone wearing a three-point restraint, which is a standard requirement in their motorcoaches.

Our own National Transportation Safety Board has been making recommendations to no avail for at least the past decade, the occupant safety features included in 2326.

I ask you how you would feel if 1 week after you buried your son, you read the NTSB's 1999 bus crash worthiness report, which called for the very occupant safety features that could have saved your son's life. And 2 weeks after that, you found out that the very motorcoach he was riding on was manufactured by a company in Europe that has made motorcoaches with those same safety features.

And now I learn today from Mr. Kelly that this can be accomplished in a 2-year period. That means in 2001 those safety belts could have been on that motorcoach that my son was on, and he would be here today. And I appreciate his testimony to that fact.

There is no need to perpetuate the pain of having a loved one killed or permanently disabled in such an easily preventable manner. This country needs to pass 2326 to direct the Department of Transportation to implement the NTSB recommendations that have been ignored far too long to the detriment of public safety.

As the legislative process unfolds, you may see opposition to this common sense legislation. Let me briefly address what I believe may be the arguments against the bill.

First, there are those who believe the U.S. Department of Transportation should drive the change in motorcoach safety improvements which could lead to redundant studies and waste more time at the expense of life.

And second, there is no need to act because motorcoach transportation is one of the safest modes of transportation, which is no reason not to strive to make motorcoach travel even safer.

On first appearance, these seem like reasonable arguments, but a closer review is needed. Due to time constraints, I will need to direct you to my written statement to address these issues in more detail.

Please help us to enact 2326 for the motorcoach occupant safety features that are long overdue. It is literally a matter of life and death.

Thank you for the opportunity to testify. I am happy to answer any questions and look forward to working with this Committee on advancing legislation.

[The prepared statement of Mr. Betts follows:]

PREPARED STATEMENT OF JOHN BETTS, MOTORCOACH SAFETY NOW

We, the families of those who have needlessly died or have suffered serious and permanent injuries are here to thank the Senate Surface Transportation and Merchant Marine Infrastructure, Safety, and Security Subcommittee for holding this oversight hearing on Motorcoach safety and the need to pass Senate Bill 2326, a critical piece of motorcoach safety legislation.

I am John Betts, father to David Betts who died March 2, 2007, in a motorcoach crash on Northside Drive, in Atlanta, Georgia along with Zachary Arend, Scott Harmon, Cody Holp, Tyler Williams, and the bus driver and his wife. The motorcoach was traveling to Florida for the Bluffton University Baseball spring trip. Many of the players and coaches were, and still are, seriously and permanently disabled.

David was a 20-year-old sophomore honors student who loved to play and compete. Though David was academically, musically, and, athletically gifted his greatest attribute was his heart.

David had not made the University's baseball traveling team his freshman year so he did not travel with the team to Florida in 2006. He was determined to not only make the traveling team his sophomore year but to be the starting second baseman.

The day before they left for Florida in the spring of 2007 he was told he would be the starting second baseman. David never told us he would be starting; he wanted to surprise his family.

I tell you this story not only as a testimony to David's determination but to illustrate the excitement and anticipation he felt. I was also happily anticipating seeing David play with the passion he had for the game he loved. That eager anticipation turned into the darkest day of my life.

While waiting in the Dayton airport I looked up at a TV monitor and saw a motorcoach on its side; it had been identified as a bus with little league players that had crashed in Atlanta.

The sense of dread I felt was confirmed when I arrived in Charlotte and discovered it was the Bluffton baseball team. At least six were confirmed dead and many were seriously injured.

As I re-routed my flight and arrived in to Atlanta, I rushed to the hospital trying to find David. I was told he might be one of the dead and I would need to go to

the morgue to identify his body. There I found my son with swollen, discolored eyes and multiple lacerations and bruises.

I returned to the hospital and made a promise to the surviving boys that because David was so good something good would come out of this tragedy. Later I amended that to include all those who died.

Bluffton is but one of many such motorcoach tragedies.

We believe S. 2326 is the good we seek; we believe this legislation will drastically decrease the possibility of future death and serious injury due to lack of basic, life-saving occupant safety features on motorcoaches. The apathy toward these changes is the true tragedy. As the apathy continues and the motorcoach industry grows so will, and has, the death and serious injury toll.

The motorcoach industry is now transporting over 630 million passengers per year, which rivals the airline industry. There are over 3,700 motorcoach companies and over 34,000 motorcoaches operating on our highways. Yet, the U.S. Department of Transportation does not require that motorcoaches have the same occupant protection safety features that are routinely designed and required in most other major modes of transportation.

An average motorcoach is approximately 50 feet long, 12 feet high, 8 feet wide, and 24 tons. It is made up of 1/3 non-safety glass, and travels the vast majority of the time at 65 to 75 mph carrying our most fragile cargo, such as young people and senior citizens. The size of a motorcoach gives you a sense of security, but motorcoaches are heavy, unstable, fast moving projectiles.

Though crashes may never be 100 percent preventable we can drastically reduce death and serious injury by having the standard occupancy protection devices called for in S. 2326. Both Europe and Australia are decades ahead on this issue; a 10-year study was just completed that found Australia has not had one motorcoach death from anyone wearing a three-point restraint, which is a standard requirement in their motorcoaches.

Our own National Transportation and Safety Board (NTSB) has been recommending, to no avail, for at least the past decade the occupant safety features included in S. 2326. These recommendations include crash avoidance technologies to prevent rollovers; ejection prevention safety features such as seatbelts, advanced window glazing and increased roof strength; fire protection advancements; more easily accessible passenger evacuation routes; and driver training and other operational updates that ensure motorcoach operator compliance.

I ask you, how would you feel if 1 week after you buried your son you read the NTSB's 1999 bus crashworthiness report which called for the very occupant safety features that could have saved your son's life? Then, 2 weeks after that, you found out that the very motorcoach he was riding was manufactured by a company in Europe that has made motorcoaches with those same features for years?

There is no need to perpetuate the pain of having a loved one killed or permanently disabled in such an easily preventable manner; this country needs to pass S. 2326 to direct the Department of Transportation to implement the NTSB recommendations that have been ignored far too long to the detriment of public safety.

The Senate Commerce, Science, and Transportation Committee has a long and proud history of supporting bi-partisan safety solutions to protect the American public. As the legislative process unfolds you may see opposition to this commonsense legislation. Let me briefly address what I believe to be the major arguments against the bill.

First, there are those who believe that the U.S. DOT should drive the change in motorcoach safety improvements and second, there is no need to act because motorcoach transportation is one of the safest modes of transportation.

On first appearance these seem like reasonable arguments but a closer review is needed, especially from the perspective of a father who has lost a child.

Motorcoach transportation may be one of the safest modes when you look at statistics of lives lost per miles traveled compared to other modes of transportation. However, as family members here today representing those who had a loved one die in such a crash, our first response is that such statistics are not comforting. As a father, am I to disregard David's death as his being one of the unlucky few? As NTSB recommendations languish here in the United States, Europe and Australia have already required basic occupant safety protection measures such as seat belts. Many of us flew here today in a plane that had a seat belt, all passenger vehicles are equipped with seat belts and we must ask why has the government and industry delayed in making seat belts available on motorcoaches? The U.S. ought to be leading the world in motorcoach safety, not following.

My second response is that you need to differentiate the crash from the outcome; that is, driver error and highway design contributed to our son's death. However, the lack of basic occupant restraints led to his and many other ejections that re-

sulted in death and serious injuries from being tossed around like they were in a washing machine.

My third response is that motorcoach travel could be and should be even safer. Last year and this year thus far, there were no commercial airline crashes in the United States but that doesn't mean we don't continue to strive for the highest level of safety for the traveling public. This increase in occupant safety technologies is a win-win. That is, it would lead to fewer deaths and injuries and decrease the motor carriers' insurance premiums.

It is not necessary to study the problem further; indeed, we cannot afford to study the problem any longer. It is time to move forward with legislation giving the U.S. Department of Transportation direction and a timetable for action.

The NTSB has forty years of field reviews of motorcoach accidents and NHTSA has recently (12/07) performed simulated motorcoach crash and rollover tests indicating the need for three point restraints.

Senate Bill 2326 also gives reasonable timeframes for addressing safety improvements.

We must be cautious about the motives of those who request more study on that which we already have data. Otherwise, a never-ending data gathering game will occur that unnecessarily increases timeframes and places more lives in jeopardy.

This past 18 months a nationwide Internet poll has found a 75 percent positive response to S. 2326. I have obtained well over 3,000 signed petitions from U.S. voters wanting this bill to pass.

I would like to conclude by quoting one grieving mother whose son died in a motorcoach crash in Utah on January 6, 2008. I believe she speaks for all of us who have lost loved ones in motorcoach crashes. "Had there been seat belts on that bus my son would have had one on. In all probability he would still be alive. I am very passionate about this cause."

Please help us to enact S. 2326 for the motorcoach occupant safety features that are long overdue, it is literally a matter of life and death.

Thank you for the opportunity to testify. I am happy to answer any questions and look forward to working with this Committee on advancing the legislation.

Senator LAUTENBERG. Mr. Betts—

[Applause.]

Senator LAUTENBERG.—anything by way of a longer statement that you would like to make we will make some time.

Mr. BETTS. Oh, well, that was very nice of you. One of the biggest concerns I had was my verbosity and the time—

Senator LAUTENBERG. It is not verbosity at all.

Mr. BETTS. Well, thank you. I was very happy that that timer was on outside of my sight. I took that as a presumption that I did not have to attend to that.

Senator LAUTENBERG. Your testimony, like Mr. Forman's, was very moving.

Some of the things that we do here mystify us because some things are as obvious as, to use the expression, the nose on your face, and yet there are these delays and procrastinations—they do not get done. I mean, seat belts? You would not think of permitting your child, your loved one, your friend to get in your car and not urge them to wear a seatbelt. If the buzzer does not go off, the bell does not go off in your car, you remind them out of just your conscience.

We have all seen accidents where a seat belt was not worn and the consequence. A very distinguished attorney that was a good friend of mine in New Jersey went just a couple blocks from his office, failed to put on his seat belt, and wound up in an accident that crippled him for the remainder. He is still alive, but his life is quite different as a result of being crippled. And all of his motor function is impaired.

So we thank you for your willingness to air your very personal views and recognize that what you are doing is contributing to somebody you do not even know, some family that you have never met. I know that Senator Hutchison feels as I do. We have to get on with these things. Thank you.

Mr. Pantuso, you have heard this testimony and obviously are moved, as all of us are, as our friends at the table are, and the response of those in the audience who saw this up front and personal in their own lives.

What are the top safety priorities that you believe that we have got to meet minimally—minimally? What can be done to hasten the actions necessary to save lives and reduce injuries and ultimately, but secondarily, reduce costs? And I am not talking about the personal costs. There is nothing that can redeem that expenditure. You cannot replace a loved one or make them well again when they have been so seriously injured.

What would you say ought to be—and I know that you care about the passengers you carry. What would you say ought to be the first things done that are minimally, in terms of time and availability? What do you think we ought to do?

Mr. PANTUSO. Mr. Chairman, thank you. Yes, we are very moved not only by the testimony, but by any accident, certainly any fatality that happens.

The motorcoach industry is an industry, as I said earlier, made up of small mom and pop companies. They are in virtually every community. The people they carry are their neighbors, their friends.

What we have seen over the years has been a failure of Government to act. Plain and simple. I have been in this chair at the American Bus Association as their CEO for more than a decade, and for more than a decade, virtually every time there is a serious accident, ABA and other motorcoach associations have gone to NHTSA and said, please, please, do the testing necessary to answer the question, how do we protect the occupants on board. And that has not happened until just last year.

We are very, very grateful that it is going on now. We are glad that NHTSA is in the testing mode. We are glad that they are looking at roof strength, at rollover, at occupant protection, that they have done the crash test, they are doing the sled tests and that they are analyzing the millions of data points. And that is all that we can ask, but we have asked for it for a decade and it has taken that long to happen.

I think that the real critical issue that can be dealt with immediately are some of the steps that were outlined by Administrator Hill and again that we have asked for for more than a decade. I remember the Mother's Day crash in 1998 in New Orleans when more than 20 individuals, who were on their way to a casino, perished because of an illegal operation and an illegal driver. That to me is step number one.

Senator LAUTENBERG. What can we do in the quickest fashion to offer more protection than we do? Collision avoidance is a great thing. It is technology. The buses have to be equipped and all kinds of things have to happen. But would seat belts not be something

fairly easy to install and get on feeling better about ourselves and our obligations?

Mr. PANTUSO. Well, step number one, Mr. Chairman, is getting the bad operators off the road. That has got to be first and foremost. That can be done tomorrow by this administration and by the State enforcement officials.

Certainly step number two is finding what the occupant protection system is that is going to work. Again, for more than a decade, we have said the most important part is to keep the people in the coach, keep them compartmentalized in the seat, make sure that the windows do not open up and allow the individuals to go out, make sure that there are proper windows, whether it is glazing or whether it is a new technology, so that the windows do not break and the passengers—

Senator LAUTENBERG. I hear you, but these things require major change. Am I wrong to suggest that if we could get seat belts in vehicles that we could avoid some of the tragedy that involves, let us say, that inevitable action that could come along? Would that not be a good first move and put a plea out there to your members, to others on the basis of their costs of operation? I mean, insurance costs, I am sure, would go down and so forth.

Mr. PANTUSO. Mr. Chairman, I do not think that you are wrong. I mean, I have a seat belt in my car, as we all do. I buckle up. I am flying later today. There is a seat belt on the plane.

The question is to what standard and how to put the seat belts in. Again, with small mom and pop businesses and no standard to adhere to and no way of knowing with the variety of coaches that exist out there, with every make and model as many as 20 or 30 years old and different seat designs, how to put that seat belt in and to do it in a way that is going to protect people and not further injure them.

Senator LAUTENBERG. How many new motorcoaches are brought into service a year in America? Do you know?

Mr. PANTUSO. In round numbers, between 2,000 and 2,500. And again, that is out of a fleet of 35,000 to 40,000 coaches.

Senator LAUTENBERG. How many seats in the average bus?

Mr. PANTUSO. Typically 50 or a little more, but typically 50 on average.

Senator LAUTENBERG. That is a lot of people. A lot of people. And if it was possible to initiate a program at least doing that much, I think it is a cost that could very well be saved on the financial side. We cannot guarantee that something still terrible would not happen, but it would be unlikely that deaths would not go down.

Mr. PANTUSO. Mr. Chairman, I have never heard cost as an issue in the motorcoach industry, never had an operator question that as an issue. Again, the only question we have had is how do we do it, and that is where we look to NHTSA.

Senator LAUTENBERG. There is nobody in the industry that said, to your knowledge, that listen, we ought to get on with this, you know, why do we have to wait for more tests? As you said yourself, when you get in a car, you get in an airplane, you buckle up. It is second nature.

[Applause.]

Senator LAUTENBERG. Ms. Gillan, which of the safety issues that need improvement in the bus industry—also, I think this is a little diversionary. It is a question about the trucking industry. I am going to pass and we will submit it to you in writing.

Ms. GILLAN. OK.

Senator LAUTENBERG. Because there is a lot that has to be done there, but it is not the same sensitivity, even though there are far more terrible accidents involving trucks. But I do not know how much of that can be avoided, but there are things that we can do and they may take a little bit longer time. But we ought to get on with it.

Mr. FORMAN OR MR. Betts, I do not have to ask how you feel about the bus companies and the manufacturers. You have both expressed frustration at not having had the opportunity to make a difference in your lives by lack of attention to the safety issues. I think it is redundant to ask you how you feel about these companies that carry passengers without something.

Do you think we ought to kind of rush into some device that might improve things? How do you feel about waiting for standards to be developed?

Mr. FORMAN. Mr. Chairman, what I do not understand—what rang hollow to me—the standards exist. We have FMV210 which sets the performance standards for safety belts. If you are going to put them in, that is the standard you have to do. They have anchorage standards. They have standards for lap-shoulder seat belts. In 2002, NHTSA did sled testing for seat belts in school buses. The physics is not any different. So they have the standard.

As I understand from my industry contacts, the only difference is are you going to adopt a 13G seat belt versus a 7G seat belt which is a European standard, and most people in the American industry—the makers of these restraint systems—want a 13G which is an FMV210 standard.

So this idea that we have got 4 million points of data and we have got to go back and analyze them, that is just absolutely a delay tactic and hollow. So it rings hollow. And people use them.

You know, our children in the school transportation, they did not have a choice. In other words, if they were going to participate on the baseball team or on the soccer team or on the band, they were going to ride that bus. I could not, as a parent, take them off that bus because it did not have seat belts.

So those standards exist. We know that. They ought to be applied to motorcoaches now.

Senator LAUTENBERG. Mr. Betts, do you want to—

Mr. BETTS. Yes. As it relates to the question of rushing in, I would agree with Mr. Pantuso. I do not think you rush in. In the same light, in the Shuster bill, I do not think it needs to take 18 years.

And I believe based on the information at least that I am seeing from the bus crash test that was done in December 2007 and based on the motorcoach that is sitting outside here that we saw, we tend to know already that that motorcoach, based on its ability to absorb force, is such that it will hold—the seat anchorage system will hold. So in my opinion—I agree with Mr. Forman—we do have not

only the technology, we now have the data. And I believe we need to go forward.

What I really would not like seeing—and I am sure you have picked up very quickly I am not politically oriented nor, quite frankly, driven. But if it is going to take 2 years of writing up and going back and forth in the House and Congress and this kind of stuff, that would irritate me considerably because all I do is see more people dying and more people being permanently injured that do not need to be when we already have the data. We have the science. If there is some piece of science that we do not need, I am open to listening to that.

But I believe what Mr. Forman—I do not want to put words in his mouth, but I will tell you what is coming out of mine. I am 56 years of age. I have been in administration for 34 years, and I have seen a lot of smoke and I have seen some fire. And I believe what you do is you ferret out and differentiate that smoke from fire. So I am certainly willing to listen if there is some science that is needed. I just do not, at this point in time, have that.

The second comment I would make to that is, you know, even on a retrofit of a bus that would not be able to maybe totally withstand, my son—I know Mr. Forman mentioned about getting in an aisle seat and my wife probably cringed. My son was in 4C, which is an aisle seat. He was propelled out of his seat at 55 miles an hour. It is the physics of the—whatever. He was propelled out of his seat very fast and stopped very hard in the front of the bus.

I will tell you what. You take me back in time. You put some mom and pop three-point seat restraint on that, and I am going to be more happy, at least seeing an opportunity not to be flying. He died of a basal skull fracture from ear to ear. I am thinking if he is in his seat, we are probably not going to have that. Could there be other things? Mr. Pantuso, other people could say that. He could have died of other kinds of things. Perhaps, perhaps. I would just as soon take my chance—prefer to take my chance on a retrofit so that at least I have that opportunity not to go flying at an extremely high rate of speed and stop at an extremely quick deceleration rate, to the extent that he also had an aortic tear.

I am not doing this for emotion. I am here to—if I was, I would cry like I did about 10 minutes ago. But I am doing this to show that what is happening is when he stopped quickly, his heart went forward and went this way and ripped the aorta. I have talked with a number of cardiac surgeons. They said that quite frankly, as soon as that occurred, had we been right there with full nurse and fully equipment, we could not have saved his life.

So I am thinking, geez, you know, the seats in the Bluffton bus crash were all intact. I am thinking my son is in his seat. The probability of him being intact is higher than him not being in that seat. So I would just as soon have a retrofit on something that maybe was not perfect, and on the new buses look at getting more of the seat anchorage system, et cetera, because I think at least it will decrease that amount.

And I really appreciate your comment, Mr. Chairman, as it relates to the other issue on the business side because I do not think the motorcoach industry is the evil empire. They are a business that is trying to operate. And in my opinion, the insurance rates

are something that are fairly important as well that can go down with these safety features that are added. So it is not just a matter of decreasing death and serious injury. It is also a matter of assisting them with their current insurance premiums.

Senator LAUTENBERG. Thank you very much.

Senator Hutchison, my apologies for running over, but you heard what I heard.

Senator HUTCHISON. Yes, and I appreciate it.

Senator LAUTENBERG. As painful as it is to our friends, it is painful to hear as well. Please.

Senator HUTCHISON. Let me just ask. I just want to ask Mr. Forman for the record, because I want this in the record. Because of his determination and efforts, we do have a law in Texas that does protect our school children, and I would like for you to tell us because it was your efforts really that I think spearheaded this movement, exactly what you did in Texas that does assure that our young people, using school activity buses, will have seat belts.

Mr. FORMAN. Thank you, Senator, and it is not my effort. Our girls were a team and the parents are a team too. So it is a lot of hard work from a lot of parents that are involved in this.

Yes, for the record, in 2007, Governor Perry signed Ashley and Alicia's Law in Texas, which requires all school buses to have lap-shoulder seat belts—all newly purchased school buses to have lap-shoulder seat belts beginning in 2010, September 2010, and all charter motorcoaches that carry students to have lap-shoulder seat belts by 2011. The legislature saw that the technology was available. And with respect to both school buses and motorcoaches, that technology is available.

There was a lead time given the industries to begin putting those in. What we found with school buses, that is going to be phased over a 10- to 12-year period with new buses because of the economics. However, for the motorcoach industry, that economics—that is a profit-driven industry. That is not public funds. There is absolutely no reason why our children and our schools are being subjected to this risk.

I think we were two votes short in the House of being unanimous and we had a unanimous Senate vote in Texas. Once they saw the videos, once they saw the data that was already there, the standards that were already there, they said this is what we want for our State. We have a duty to protect our children, and NHTSA has finally said the most optimum protection is a lap-shoulder seat belt. As the State legislature, they said this is what we need to do for our children. This is what we need to give peace of mind to our parents.

If I could add just briefly, Senator, the only place today that a child learns not to wear a seat belt is at school. Now, when you think about it, because parents today—we have all grown up with seat belts. We train our children from the minute they get in a car to have a restraint on. And the first time they ever get on any vehicle that does not have a restraint is when they go to school. NHTSA spends millions of taxpayer dollars trying to educate children to put on seat belts, and then the bell rings and they walk outside on a school bus or a motorcoach and it has no seat belt.

We talked to a legislative aide in Texas. It was great because the young aides—and I speak to the staffers behind you—whose children are just entering school. The first grader came home and said, Mommy—you know, the first day of school came home and said, yes, I rode the bus home but it was really strange because where is the seat belt. Where is the seat belt?

We know now that the lowest percentage—demographic wearing seat belts is teens. That is about 10 or 15 points below national average of seat belt usage. Now, where did those teens learn not to wear a seat belt? Riding school buses and motorcoaches. That is the only place they could have learned.

Something has got to get done.

Senator LAUTENBERG. It defies logic.

Senator HUTCHISON. Did you have something to add?

Ms. GILLAN. Senator, can I just add something too? I would really like to dispel the notion that DOT is starting with a blank slate. A lot of the occupant protection technologies are already underway, are being studied at NHTSA. This Committee's leadership resulted in SAFETEA-LU. They are looking at advanced window glazing for passenger vehicles, and stronger roofs. They are doing research on crash avoidance technologies for large trucks. As many of us mentioned, Australia has had three-point seat belts for 14 years.

So it is not as though nothing has been done and none of these technologies have been looked at. What we need and what S. 2326 does is it gives the agencies deadlines for moving forward with this. So I think to say, well, they just started last year gives a misimpression that nothing has been done when, in fact, there is a lot of work that has been done that has direct application to motorcoach safety.

Thank you.

Senator HUTCHISON. Thank you.

Mr. Chairman, I just want to add one thing and that is that the people who have come here are all affected by Hurricane Ike. Beaumont was hit and so was, of course, the Houston area. And yet, these people who mostly do not have power in their homes to go back to felt so strongly about this that they kept their commitment.

And I was asked by the Secretary of Homeland Security to go with him to Houston and Galveston today and Beaumont and Port Arthur and Orange, but I knew if I did not come here, that we would not have the same kind of impetus and momentum that we just had to have. So I really appreciate your doing this.

I am going to go to Beaumont and Port Arthur on Monday and Orange to try to take care of that. And as you know, I have been working to try to get the tax relief, which we are going to get for the bill that was already in place. But we have added Ike to it.

So I just want to say that a lot of people are so committed to this that we want to move it forward, and I hope that we can get a markup on this bill and at the earliest moment we will be able to pass it. And if there are legitimate debates or amendments, we want to be open for that, but we can move. There are some basics here that can be done.

So I thank all of you and I thank you, Mr. Chairman.

[Applause.]

Senator LAUTENBERG. Thank you. I like millions of people have seen the devastation that hit Texas, and you shake your head in wonderment. How do people recover? We are not talking about this versus life or anything like that. But when your home is destroyed, the memorabilia, all of the history of a family is destroyed, it is very painful. We wish you and the people in Texas a sturdy recovery.

Senator HUTCHISON. Thank you very much.

Senator LAUTENBERG. Thank you.

This Committee meeting is adjourned.

[Whereupon, at 4:32 p.m., the hearing was adjourned.]



## A P P E N D I X

### PREPARED STATEMENT OF THE UNITED MOTORCOACH ASSOCIATION

#### **Introduction**

The United Motorcoach Association (UMA), a thriving association of North American bus and motorcoach companies, appreciates the opportunity to provide testimony today at this important hearing. Founded in 1971, our 1,300 plus members range in size from small independent family businesses with a few units to large corporate operations with diverse fleets and services. Our members are the Nation's charter, tour, sightseeing and scheduled service operations and are vital to many communities offering recreation, travel and tourism opportunities. The industry provides over 600 million passenger trips annually.

#### **Our Industry**

Of the nearly 3,600 bus companies in the United States representing nearly 40,000 buses, 90 percent of those companies are small businesses. The average company employs 46 individuals with each bus and motorcoach representing an industry average of 4.23 employees. 75 percent of the industry consists of fleets of fewer than 100 units and nearly 50 percent of the industry consists of fleets 24 units or fewer.

#### **Our Regulatory Environment**

The bus and motorcoach industry operates under the oversight of the U.S. Department of Transportation and authority granted by the Federal Motor Carrier Safety Administration (FMCSA). The FMCSA conducts periodic Compliance Reviews of safety management programs, random safety inspections and maintains information regarding passenger carriers' fiduciary responsibilities, such as insurance. A Compliance Review is an on-site examination of a motor carrier's records and operations to determine whether the carrier meets FMCSA safety fitness standards, *i.e.*, are adequate safety management controls in place to ensure acceptable compliance with applicable safety requirements to reduce risk. Additionally, our buses and motorcoaches are routinely inspected at operators' facilities and at popular destinations such as amusement parks, casinos, special events, etc. UMA strongly supports stronger enforcement activity by FMCSA to get unsafe operators off the road and implement stricter new entrant requirements as the best and most expedient way to improve motorcoach safety. Every bus and motorcoach operating legally on our Nation's roads and highways must also conform to the Federal Motor Vehicle Safety Standards established by the National Highway Traffic Safety Administration (NHTSA).

#### **Our Industry's Safety Record**

The bus and motorcoach industry has a remarkable safety record. In the past decade, our industry has experienced an average of fewer than 23 fatalities annually, despite operating in an environment, our Nation's highways and roads, which experiences over 40,000 fatalities annually in vehicular accidents. This strong safety record results from a combination of significant Federal regulatory oversight and an industry that treats safety as our economic lifeblood. Each accident, loss of life and injury, no matter how statistically low, is always one too many and UMA partners with the National Transportation Safety Board (NTSB), FMCSA and others to study measures that will prevent similar accidents from reoccurring and convey those results to our members.

UMA offers a number of services to operators and the public to maximize the safety aspect of our operations. UMA offers the public a detailed online "Consumer Guide to Purchasing Motorcoach Services" and a "Student's Guide" in an effort to aid the consumer in the selection of a safe and reliable bus and motorcoach operator. UMA offers routine safety related assistance and seminars at our annual conventions and hosts an annual Safety Management Seminar held at the National Transportation Safety Board Academy in Ashburn, VA. UMA launched the Bus and Motorcoach Academy last year, the first of its kind in the industry. This online

Academy provides a curriculum of basic operational knowledge for owners, management and our industry's most valuable asset—our drivers. UMA also works closely with the Bus Industry Safety Council and the Commercial Vehicle Safety Alliance in continuing efforts to develop and propagate safe operating practices.

#### **Current Safety Issues and Legislation**

UMA worked closely with the late Congressman Paul Gillmor (R-OH) and subsequently Congressman Bill Shuster (R-PA) and Congresswoman Eddie Bernice Johnson (D-TX) to develop H.R. 4690, comprehensive legislation rooted in research and testing, and is consistent with the recommendations of the NTSB regarding motorcoach occupant protection. UMA has also joined in a coalition with many other entities to support H.R. 3820 introduced by Congressman Mike Thompson (D-CA) and its companion measure, S. 3428, introduced by Senator Debbie Stabenow (D-MI). "The Commercial Motor Vehicle Advanced Technology Tax Act" would provide an incentive approach to some proven new safety technologies. UMA commends both of these bills to the Committee's consideration as you move forward with the reauthorization process next year.

Recently, NHTSA launched a new motorcoach crashworthiness study and associated testing. UMA supports this effort and eagerly awaits their conclusions as we strongly believe any new safety mandates on the industry should be based on comprehensive science, research and testing. It is important to note however, that most safety enhancements are "engineered in", not "added on". Much consideration must be afforded so as to avoid compromising one area of safety for another. Whatever standards NHTSA may develop from this study and testing, UMA believes strongly that it should develop those standards for their installation on both new and retrofitted buses.

#### **Conclusion**

The bus and motorcoach industry stands proudly by our safety record but we never rest in the diligent pursuit of improving that record. Our very survival hinges on those pursuits. UMA stands ready to assist the Committee, Congress and our regulating agencies in the further development and implementation of safe operating practices, equipment and new technologies grounded in sound science and testing to further improve the safety for our customers. Thank you for the opportunity to provide testimony to the Committee.

---

ENHANCED PROTECTIVE GLASS AUTOMOTIVE ASSOCIATION (EPGAA)  
*February 18, 2008*

Hon. KAY BAILEY HUTCHISON  
Washington, DC.

Dear Senator Hutchison:

I am writing on behalf of the Enhanced Protective Glass Automotive Association (EPGAA) to express support for legislation you recently introduced, the *Motorcoach Enhanced Safety Act of 2007* (S. 2326).

The EPGAA is comprised of companies that manufacture laminated glass and the laminating interlayer. Its purpose is to provide information and education on the development of laminated glass for added vehicle safety, security, and occupant comfort. EPGAA members include DuPont Automotive; Guardian Industries Corp.; PPG Industries, Inc.; Sekisui S-Lec America, LLC; and Solutia Inc.

The EPGAA recognizes that safety is a function of overall vehicle design. It is the EPGAA's view that the measures mandated in S. 2326 will help protect the more than 630 million passengers currently using motorcoaches for travel. The National Highway Traffic Safety Administration (NHTSA) has determined that more than one-third of the deaths resulting from motorcoach crashes occur in rollovers. According to NHTSA, more than half the deaths in motorcoach crashes are the result of occupant ejection. S. 2326 would require manufacturers to use advanced glazing as a safety countermeasure.

Despite several recommendations issued by the National Transportation Safety Board since 1973, safety features such as safety belts and occupant ejection prevention countermeasures (e.g., advanced glazing on windows other than windshields) have yet to be required by the United States Department of Transportation. Advanced glazing has been the standard for windshield applications for more than 70 years, and is increasingly being used voluntarily for other window openings. Advanced glazing can be particularly important in motorcoaches as part of a total safety system because the windows are large and could become large openings during rollover events.

We at the EPGAA know that you are concerned for the safety of the millions of Americans that take advantage of motorcoach travel and applaud your sponsorship of the Motorcoach Enhanced Safety Act of 2007.

Please feel free to contact me for any additional information that may be helpful.  
Sincerely,

PETER T. DISHART,  
*President.*

---

*Houston, TX, September 15, 2008*

Senate Commerce, Science, and Transportation Committee,  
Washington, DC.

SUBJECT: SENATE COMMERCE, SCIENCE AND TRANSPORTATION COMMITTEE BILL  
S. 2326 AND OVERSIGHT HEARING ON BUS SAFETY

Dear Chairman Inouye and esteemed Committee Members:

I am writing you on a very personal matter that requires your help. Please consider supporting Bill S. 2326, The Motorcoach Enhanced Safety Act. I am speaking to you today as a constituent and as a person who has been personally affected by the current regulations governing bus safety.

Let me give you a little background on me. After graduating with a Ph.D. in psychology from University of Hawaii, I moved back to Texas on July 12, 2008, to be closer to my mother. A few weeks after I came home, my mom told me that she was going on a church pilgrimage trip to Carthage, Missouri. Every year, thousands of Vietnamese Catholics travel from all over the United States to Carthage for an annual celebration of the Virgin Mary. On the morning of Thursday, August 7, I gave my mom a hug and wished her a good trip before I left for work. I reminded her to call me when she got back on Sunday so I could pick her up and then my brother and I would take her to dinner for her 63rd birthday. But we did not have that opportunity because my mom's bus crashed outside of Sherman, Texas at 12:45 a.m. on Friday, August 8, 2008. My mother, Catherine Tuong Lam, was one of the 17 victims who died in the Sherman bus accident. Catherine worked as a social worker for the Texas Department of Human Services in Houston, TX for almost 30 years. In addition to serving her community, one of her greatest achievements in life was raising her children to be strong, successful adults on her own after my father passed away in 1985. She was vibrant and healthy and I have lost her. She will never see me or my brother get married. She will never meet her future grandchildren. Why? Because she had the misfortune of traveling on a bus that did not have the safety measures recommended by the National Transportation Safety Board (NTSB).

Although my grief is very profound, some of my community members have suffered even greater losses. The day after my brother and I buried our mother, my brother went to a joint funeral for six of my mom's friends and I went to a joint funeral for five of my mom's friends. Our community is distraught over the loss of so many loved ones. My friend, Michael Tan Le, lost his father, mother, and mother-in-law in the Sherman Bus Accident while two other family members suffered serious injuries. Mrs. Vivica Nguyen who would have celebrated her 30th birthday in a few days leaves two children under the age of 10 behind, in the care of her husband Scott Tran, who has broken ribs and can hardly stand straight as a result of his injuries sustained in the Sherman bus accident. My mother's good friend, Mr. Khiem Nguyen leaves behind a wife of 44 years, several children, and many grandchildren.

Parents have lost their children. Children have lost their parents. Brothers have lost their sisters. I was shocked and devastated to lose my mother so suddenly. Now that I have had some time to grieve, I wonder what you and I can do together to ensure that other families do not have to experience a tragedy like this. The National Transportation Safety Board (NTSB) is currently investigating the cause(s) of the Sherman Bus Accident. The investigation may take a couple of years to complete, but it is already evident that seatbelts and glazing on the bus windows would have minimized the large number of fatalities and serious injuries that happened in our accident. I can attest to this because not only did we lose our mother, we lost many of our friends. The current Federal Motor Carrier Safety Administration (FMCSA) regulations governing bus safety are inadequate. Federal regulations cannot stop bus accidents from occurring; however, regulations can mandate increased safety measures that would minimize the devastating number of serious injuries and fatalities that result from current bus standards.

Just days ago, Hurricane Ike caused severe damage in the Houston/Galveston area. My office at UTMB hospital on Galveston Island is ruined and my house in Houston has sustained severe damages. Even though I have lost my home and my workplace, those losses are nothing compared to the loss of my mother. And that is why I am here in front of all of you, because I believe in the importance of passing this bill now. How many more lives must be crippled or lost before the cost/benefit analyses show that the benefits of saving lives far exceeds the costs of increased safety measures? NTSB has issued numerous recommendations for motorcoach safety belts since 1968 and for improved safety glazing since 1973. How many further research studies are needed to replicate the current findings that show how loss of life can be prevented simply with the installation of seatbelts and glazing on windows in motorcoaches? The time to act is now. More time is not needed to show that current bus safety standards are not enough. We cannot leave the fate of our fellow Americans to the motorcoach industries. We must take a strong stand. The time to act is now.

NTSB safety recommendations for motorcoach operations have languished for years and Congressional hearings have identified numerous oversight and enforcement failings of the FMCSA. The NTSB recommendations address needed Federal Government actions to improve the safety of the vehicle and protect its occupants, to establish minimal training requirements for motorcoach operators, and to require better operational procedures. Again, I urge you that the time to act is now.

*On behalf of my mother, Catherine Tuong Lam, and the other Sherman Bus Accident victims, I implore you to consider supporting The Motorcoach Safety Bill (S. 2326) sponsored by Senators Kay Bailey Hutchison and Sherrod Brown.* Legislation is absolutely needed to correct deadly motorcoach safety problems. Please help prevent other families from going through what my brother and I have been through in dealing with my beloved mother's loss now.

Respectfully,

YEN-CHI LE, Ph.D.

September 18, 2008

Senate Subcommittee on Surface Transportation and Marine Infrastructure, Safety,  
and Security  
Commerce, Science, and Transportation Committee

Dear Senators,

I am writing this letter in support of Senate Bill 2326, because I believe that is a critical piece of motorcoach safety legislation that is long overdue. It is a vital piece of legislation needed to prevent any further injuries or deaths like the ones that affected the families of Bluffton University.

I am Lynn Mesley, the mother of James Hausman, survivor of the Bluffton University Bus Crash that occurred on March 2, 2007. The crash occurred on Northside Side, in Atlanta, Georgia and James lost five of his teammates that morning on the highway as a result of that crash.

My son James is currently a senior at Bluffton, majoring in Mathematics and considering a career in law. He is doing well academically and athletically at school and is very strong-willed and independent. He has handled the after effects of the accident with the courage, strength and dignity lacking in much older men. The last 18 months have forced James and all of the surviving players to deal with issues that they should not be faced with until much later in life.

My son was seated in the fifth row of the motorcoach on the driver's side. The final report from the NTSB and the story relayed from our son the day of the accident shows that the fatalities from the crash all occurred from the same area that he was sitting in. Only by the Grace of God were we able to talk to and take our son home with us from Atlanta after the crash.

Unfortunately, the Bluffton incident is only one of many such tragedies.

I believe S. 2326 is the needed step to decrease the possibility of future deaths and injuries due to the lack of basic safety measures such as safety belts and safety glass.

My husband and I are both firefighter/paramedics by trade and we see firsthand frequently the differences that safety belts make in automobiles. We have seen people survive automobile accidents that they should have been killed in and we have also seen the reverse. We have seen people killed in minor crashes as a result of the failure to wear a safety belt.

The NTSB has been recommending for years, (at least the last ten—minimum), to improve safety features in the motorcoach industry. These recommendations in-

clude: crash avoidance technologies to prevent rollovers, ejection prevention features such as—safety belts, advanced window glazing and increased roof strength to prevent/decrease roof crush, fire protection improvements, improved driver education and medical certifications and more accessible passenger evacuation routes.

Unfortunately, this was not a topic that I was familiar with until March 2, 2007, at 5:40 a.m. when my son called me after crawling through the windshield of a crashed motorcoach in the middle of I-75 in Atlanta, GA. I did make a promise to my son standing in the hospital that morning that we would do everything in our power to make sure that the appropriate safety changes would be enacted.

S. 2326 will be the legislation that will finally enact the recommendations that the NTSB has been heralding since at least 1999.

I urge you to pass S. 2326 so that no other families have to endure what the families of Bluffton University and many other families have had to endure. I am very dedicated to this cause and am determined to see it through its fruition.

Thank you for your consideration,

LYNN MESLEY.

Honorable Senators,

I am here today in support of Senate Bill 2326. Unfortunately I have a personal experience relating to this bill. My son was a member of the Bluffton baseball team that left the overpass in Atlanta last year. We were lucky that he survived the accident; however we lost five of his teammates during this tragedy. As you know, morbidity and mortality cost this country millions each year. Prevention is the venue to prevent unnecessary grief and loss from accidents like these. Commercial bus safety measures instituted in a timely manner as legislated in this bill will reduce the continued loss of life associated with bus accidents.

I am a professional firefighter paramedic and a member of FEMA USAR with Ohio Task Force 1. I have been in this field since 1974 and I have been witness to the changes occurring in our transportation system. I have seen that seat belts saved many lives which would have otherwise been lost. I have witnessed the value of vehicle compartmentalization on newer cars. Air bags, roll over roof reinforcements, fuel cut of valves, and crumple zones to absorb the kinetic energy of impacts are just a few of the safety features found in the transportation industry. Even my fire truck has seat belts installed and mandated they be used while responding to an emergency. I have trained and practiced cutting apart school buses. They are built like tanks to protect our children from harm. I also have witnessed what happens in motor vehicle accident when the occupants do not wear seat belts and are ejected. The outcome is usually fatal. Because of my background, I am a strong supporter for increased safety requirements for the motorcoach industry. These requirements need to be in place as soon as possible.

Unfortunately it takes a tragedy and public outcry to legislate needed changes that should have been implemented years ago. The NTSB has recommended these changes and their voice has gone unheard. How many more of our sons, daughter, and relatives will be lost before we heed the warning and make the necessary safety requirements law. The motorcoach industry will continue to resist changes that affect their profit margins. We must act in the public's behalf and enforce change in the industry. We the families of motorcoach victims have united to see this bill enacted as is without change.

Thank you for your attention to this important piece of legislation. I am sure it will save many lives once it becomes law.

Sincerely,

BARRY A. MESLEY,  
*Ohio.*

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. FRANK R. LAUTENBERG TO  
HON. JOHN HILL

*Question 1.* Why did your agency give operating authority to bus companies without first verifying that the buses they intend to use are safe to carry passengers? Do you need more resources or authority to conduct these on-site inspections of new entrants before they hit the road?

*Answer.* The current legal requirement for a motor carrier to obtain operating authority is finding the applicant to be "willing and able to perform the operations and to comply with all applicable statutory and regulatory provisions." To be considered fit, an applicant needs to show compliance with the applicable financial responsi-

bility and safety fitness requirements. In the past, unless an application was opposed on the grounds of the applicant not being fit, the authority was granted. FMCSA depended solely upon protests filed by the public to identify unfit applicants. This was mostly because during the application stage, there is little information available to assess whether a carrier can comply with the regulations. In fact, a carrier may decide not to purchase or lease vehicles for an operation until after it is granted authority—wishing to delay investments until it has the ability to enter the business.

However, the Agency found relying on protests to be insufficient in identifying passenger carrier applicants that may be unfit. In August 2008, the Agency implemented a more rigorous administrative review process for new motorcoach operating authority applicants which compares available applicant information to existing carrier information to determine if the Agency has any information that indicates the new carrier may be connected with previous or existing carriers the Agency has identified as unsafe. An unsafe carrier is one for which FMCSA has data outlining poor performance during inspections, a less than satisfactory safety rating, or having been subject to civil penalties or out-of-service orders from the Agency.

In addition, the application is vetted by FMCSA at the local level and with the appropriate State agency. If an affiliation with a motorcoach carrier with an unsafe record is detected through this vetting process, the applicant is required to provide additional documentation. The FMCSA will deny authority to any motorcoach carrier attempting to reestablish itself as a new carrier if it is determined that it has a previous unsafe record.

The Agency's new entrant safety assurance regulations require all new motor carriers be subjected to safety monitoring for an 18 month period following the commencement of operations. As a part of this safety monitoring, all new motor carriers are subjected to an onsite safety audit within their first 18 months of operations. In order to determine if the carrier has established sound safety management processes, it is necessary for the carrier to generate safety performance data in the form of roadside inspections, crash reports, etc., so they need to be operating for a period of time before the safety audit is scheduled. However, due to the Agency's concern about passenger carriers, the FMCSA established an internal policy to complete the new entrant safety audits of passenger carriers within 9 months, rather than the 18 months provided in the originating statute. In practice, the safety audit of a new motorcoach carrier is conducted within 4.5 months.

The Agency is also in the process of finalizing revisions to the New Entrant process in a rule, New Entrant Safety Assurance Process, which would raise the level of compliance required to pass the safety audit. The FMCSA expects the final rule to be published the week of December 15, 2008.

*Question 2.* The FMCSA began work on a Bus Crash Causation Study in 2004 to analyze different bus crashes and evaluate the factors that caused them. This study was expected to be completed in 2007; now your agency is saying November 2008. Has this study been completed yet, and why is it taking so long to produce?

*Answer.* The original plan for the Bus Crash Causation Study was to collect data on 50 to 100 serious bus crashes in the state of New Jersey in 2005. However, the number of bus crashes was fewer than expected, so FMCSA extended data collection through 2006. Even then, there were only 39 crashes in the 2-year period. The Agency expects to deliver a final report on the study by early 2009.

---

RESPONSE TO WRITTEN QUESTION SUBMITTED BY HON. FRANK R. LAUTENBERG TO  
JACQUELINE S. GILLAN

*Question.* Which of the safety issues that need improvement in the bus industry also need to be visited in the trucking industry?

*Answer.* Almost all safety issues involving the crash protection of occupants in motorcoach safety that are proposed in the Motorcoach Enhanced Safety Act of 2008 (the Act) are also needed for large trucks. For example, insufficient attention has been paid to preventing truck driver ejection in rollover crashes. A high percentage of truck drivers who die in rollover crashes are the result of ejection through open door and shattered glazing, especially side windows. These ejection deaths can be dramatically reduced through the use of advanced, anti-ejection glazing and fail-safe latch designs that prevent door openings in rollover crashes.

Truck drivers are also prone to serious injury from impacts with dangerous interior surfaces in both straight (single-unit) trucks and in tractor cabs. Currently, the only safety design feature in large trucks to protect the truck driver are seat belts, which have a substantially lower use rate compared to passenger motor vehicles. Impact mitigation for truck drivers through the use of supplementary, passive sys-

tems such as upper and lower interior air bags has essentially been ignored by the National Highway Traffic Safety Administration, although the use of these safety systems in addition to active restraints (seat belts) would substantially reduce truck driver injuries with interior surfaces and components.

The Act also provides for required installation of collision avoidance technologies to reduce motorcoach rollover crashes that result from driver loss of control. These include electronic stability control and roll stability control which strongly counteract a motorcoach's loss of tire adhesion and the driver losing steering and braking control over the vehicle. These crash avoidance countermeasures are just as crucially important for large trucks, especially combination trucks pulling trailers that are highly prone to rollover and loss of control crashes. Preventing both straight and tractor-trailer large trucks from loss-of-control events will result in substantial reductions in rollover crashes, as well as departures from travel lanes into adjacent lanes, resulting in multiple deaths to occupants of other vehicles, or into dangerous roadside environments where the probability of a rollover crash is dramatically increased. Overall, reducing large truck loss-of-control crashes can substantially reduce the death toll resulting from large truck collisions with small passenger motor vehicles. Currently, the overwhelming majority of those motor vehicle occupants who die in large truck-passenger motor vehicles are the occupants of the small vehicles. For example, when a single truck has a fatal crash with a single small passenger motor vehicle, 98 percent of those who die are in the car, van, or pickup truck.

Large trucks also are inadequately regulated at the present time for the strict oversight needed to ensure that only the safest motor carriers and drivers operate them. Recent regulations issued by the Federal Motor Carrier Safety Administration (FMCSA) have rejected calls from both the safety and state enforcement communities for more stringent oversight of commercial driver physical qualifications and the prevention of medical certificate fraud. FMCSA has also issued a final rule rejecting the safety community's recommendations that new motor carrier entrants, including trucking companies, undergo both proficiency testing and pre-authorization safety audits before beginning operations in order to ensure that motor carrier management is familiar with and will comply with all Federal Motor Carrier Safety Regulations and the Hazardous Materials Regulations.

In addition, commercial drivers of all types of commercial motor vehicles should be required to undergo rigorous driver training programs. Unfortunately, FMCSA issued a final rule a few months ago that requires only a weak, inadequate training for both motorcoach and truck drivers.

Currently, truck drivers under the recent final hours of service regulation issued in November 2008 by FMCSA are allowed to drive 28 percent more hours and work 40 percent more total hours than allowed under the pre-2003 hours of service regulation. All truck drivers can accrue 98 hours of work and 88 hours of driving over 8 consecutive calendar days, and some truck drivers can legally accrue more than 100 hours of work over this period of time. This regulation exposes drivers to much more crash risk than under the old regulation while also promoting more fatigue that will result in reduced alertness and safe driving performance for truck drivers. The regulation has twice been overturned in Federal appellate court and remanded to FMCSA, yet the agency defiantly has re-issued the same regulation again despite court rulings rejecting the agency's basis for the rule. This rule is a serious blow to motor carrier safety and must be decisively and finally overturned.

It is crucially important to have real-time monitoring and recordation both of commercial driver hours of service and truck and motorcoach location and routing. Truck drivers currently falsify their logbooks on a regular basis to conceal hours of service violations that amount to dangerous, illegal driving and working hours that cheat on crucial rest and recovery time needed to restore safe driving performance. Electronic on-board recorders (EOBRs) must be required on all motorcoaches and large trucks. EOBRs must be linked with engine and transmission functions and also incorporate Global Positioning Systems (GPS) that track driver and vehicle location in real time to ensure rapid responses to emergency events involving motorcoach passengers and truck crashes, especially truck incidents involving actual or potential release of placarded amounts of hazardous materials, and to prevent trucks using illegal routes to transport overweight loads and prohibited hazardous materials.

Large trucks and motorcoaches also should be required to undergo annual state inspections that demonstrate for the record the condition of these vehicles and whether they conform to all safety requirements established by NHTSA and by FMCSA. Currently, motor carriers can self-inspect their equipment, and the quality of those inspections to ensure safe operation of trucks and motorcoaches is unknown because FMCSA does not audit these self-inspections to determine their adequacy.

Generally speaking, all occupant protection, collision avoidance, driver oversight, and enforcement requirements for motorcoaches, apart from those that are unique to these large passenger-carrying buses (such as passenger evacuation countermeasures), are equally necessary for large truck safety enhancement. However, both NHTSA and FMCSA have either delayed or rejected progressive safety regulations that would reduce both the frequency and severity of large truck crashes and, in turn, reduce the annual death toll from large truck crashes, which averages nearly 5,000 fatalities each year.

