



Strengthen Occupant Protection

What is the problem?

Motor vehicle crashes are a leading cause of death for all Americans. Although child car seat and seat belt use laws exist in every state, too many vehicle occupants are still dying or getting seriously injured in crashes because they simply didn't buckle up. Seat belts reduce the risk of injury and death to vehicle drivers and passengers in the event of a crash.

All states except New Hampshire require that front-seat passengers wear seat belts. Only 29 states and the District of Columbia have laws that cover both rear- and front-seat occupants.

When law enforcement officers are given the authority to ticket a driver or passenger for not wearing a seat belt, independent of any other traffic offense taking place (otherwise known as "primary enforcement"), drivers and passengers wear their seat belts more, potentially reducing the number of deaths and injuries on the roads. Yet, only 34 states and the District of Columbia allow primary enforcement of mandatory seat belt laws.

Although the daytime seat belt use rate for front-seat occupants in the U.S. is 90 percent, seat belt use is significantly lower in states without primary enforcement laws or laws addressing rear-seat passengers.

The widespread availability of seat belts in passenger vehicles, as well as state efforts to enforce seat belt laws, has led to an increased seat belt use in these types of vehicles nationwide. However, we remain concerned about the limited availability and use of seat belts in commercial vehicles, such as motorcoaches and school buses. Although seat belts are increasingly being incorporated into some new larger vehicles, lap/shoulder belts are needed—and passengers need to be advised to use them. In 2016,

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The ratio of unbelted to belted passengers who die in vehicle crashes each year

Source: NHTSA

Unbelted rear-seat occupants are nearly 8 times as likely to sustain serious injury in a crash as belted rear-seat occupants

Source: IIHS



On March 29, 2017, a pickup truck struck a medium-size bus in Concan, Texas, killing 13. Contributing to the severity of the injuries was the insufficient occupant protection provided by the lap belts in the bus. Source: Texas Department of Public Safety

following urging from the NTSB, the National Highway Traffic Safety Administration mandated that newly manufactured motorcoaches include lap/shoulder belts for all passenger seating positions. There remains a category of medium-size buses, however, that does not require lap/shoulder belts, and, in 2018, we made recommendations to address that omission.

A small number of states require seat belts in school buses, but we believe that requirement needs to extend to all U.S. school buses. Seat belts should be properly worn on every trip, in every vehicle.

Related reports:

SIR-18/02: Highway Special Investigation Report: Selective Issues in School Bus Transportation Safety: Crashes in Baltimore, Maryland, and Chattanooga, Tennessee; Adopted May 22, 2018

HAR-18/02: Pickup Truck Centerline Crossover Collision With Medium-Size Bus on US Highway 83; Concan, Texas; March 29, 2017; Accident ID HWY17MH011

HAR-18/03: Motorcoach Run-Off-the-Road and Overturn US Highway 83; Laredo, Texas; May 14, 2016; Accident ID HWY16MH011

HAR-15/03: Truck-Tractor Semitrailer Median Crossover Collision With Medium-Size Bus on Interstate 35; Davis, Oklahoma; September 26, 2014; Accident ID HWY14MH014

For detailed investigation reports, visit www.nts.gov

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What can be done?

All passenger vehicles must be equipped with lap/shoulder belts. To increase seat belt and child restraint use in motor vehicles, we must take a three-pronged approach that includes legislation, enforcement, and education. Strong belt use laws are critical. Primary enforcement sends a message to motorists that seat belt use is important for passenger safety in all seating positions in a vehicle. And without proper education on the benefits of seat belts, behaviors won't change.

To increase seat belt use, the following actions should be taken:

Industry/Operators

- › New buses of all sizes need to be built with lap/shoulder belts for all passengers.
- › For larger passenger vehicles, pretrip briefings and training on the proper use of available restraints and evacuation routes are vital.

States

- › Enact laws that allow for the primary enforcement of seat belt laws that apply to all vehicle occupants in all seating positions.
- › Enact laws that require school buses to be equipped with lap/shoulder belts at all passenger seating positions.
- › Use and support high-visibility enforcement campaigns to effectively increase seat belt use.
- › Promote education campaigns about the benefits of seat belt and child restraint use to enhance understanding of these issues and encourage proper use in all vehicles.

The risk of fatal injury is reduced by

45%

if a seat belt is properly worn in the front seat

Source: NHTSA



On September 26, 2014, a Peterbilt truck-tractor in combination with a semitrailer was traveling north on Interstate 35, near Davis, Oklahoma, when it crossed the median and entered the southbound lanes, colliding with a medium-size bus. Four passengers on the bus were fully or partially ejected and died, and both drivers and the remaining passengers were injured. Contributing to the severity of injuries were the lack of restraint use by the bus passengers and the lack of appropriate crashworthiness standards for medium-size buses. Pictured above is an image from an NTSB 3D scan of the 32-passenger medium-size bus.

Public (Drivers/Passengers)

- › To minimize deaths and injuries, we need to see increased use of lap/shoulder belts, child car seats, and booster seats. For children, correctly using a child restraint system can mean the difference between life and death. When used correctly, child safety seats can reduce fatal injury by 71 percent for infants (under 1 year old) and by 54 percent for children (1 to 4 years old). In crashes, booster seats reduce the risk of injury to children 4 to 8 years old by 45 percent when compared to the effectiveness of seat belts alone.
- › Whether you are in the front seat or the back seat, in a passenger car or on a bus, properly wear lap/shoulder belts to reduce your risk of injury.

MWL
MOST WANTED LIST

Critical changes needed to reduce transportation accidents, injuries, and fatalities

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NTSB National Transportation Safety Board

The NTSB **MOST WANTED LIST** highlights safety issues identified from the NTSB's accident investigations to increase awareness about the issues and promote recommended safety solutions.

For more information visit www.nts.gov/mostwanted or contact SafetyAdvocacy@ntsb.gov

The NTSB is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant accidents in other modes of transportation—railroad, highway, marine, and pipeline. The NTSB determines the probable cause of the accidents and issues safety recommendations aimed at preventing future accidents. In addition, the NTSB carries out special studies concerning transportation safety and coordinates the resources of the federal government and other organizations to provide assistance to victims and their family members impacted by major transportation disasters.

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