



# The Limits of Compartmentalization Protection



In 1977 compartmentalization was first introduced to protect our children on school buses. Now more than 37 years later, it's time to better protect children by using lap-shoulder belts, the current safety standard in all other vehicles.

## MISINFORMATION

**Compartmentalization is enough**

**FACT** Testing shows that compartmentalization offers protection in frontal and in rear crashes if children are properly seated, but offers virtually no protection in rollovers or side impacts (1999 NTSB Special Investigation Report).



The concept of compartmentalization requires closely spaced, energy absorbing high-back padded seats. In a frontal crash, or even in some sudden stops, children impact the seat in front of them. That impact, which can resort in everything from bruises to concussions, could be avoided if children are wearing lap-shoulder belts.

Research by NHTSA, the National Highway Traffic Safety Administration, indicates that lap-shoulder belts, in every vehicle they have ever been introduced, reduce injuries and fatalities by 45%.

## MISINFORMATION

**Seat belts slow evacuations**

**FACT** A properly restrained child is less likely to be injured and can evacuate quickly. An unbelted child is more likely to be injured or rendered unconscious, slowing down their ability to evacuate.

Buckles are designed to meet federal motor vehicle safety standards (FMVSS). That means they are thoroughly tested to easily unlatch with just the push of a button,



even in the event of a rollover, which could leave the child hanging upside down.

## MISINFORMATION

**Seat belts reduce capacity**

**FACT** The capacity issue has been resolved by the SafeGuard FlexSeat®. The FlexSeat offers lap-shoulder seat belt protection



and transports 3 elementary age children or 2 high school age children on a standard seat. No additional buses are required, and fleet capacity is unchanged.



# The Limits of Compartmentalization Protection On School Buses

## MISINFORMATION

Seat belts will be used  
as weapons

**FACT** SafeGuard lap-shoulder belts use a lightweight design with a retractable system. The buckle is attached to the seat with a short piece of webbing, making

it nearly impossible to swing and use it as a weapon.



With more than 700,000 children

protected in SafeGuard seats daily, there have been zero reports of any SafeGuard lap-shoulder belts being used as weapons.

## MISINFORMATION

Seat belts  
are too expensive

**FACT** Lap-shoulder belts ARE an affordable option. The average life of a school bus is 12 – 17 years. Current industry prices add to the total cost of the bus by approximately \$7000 - \$10,000, depending on the number of seats and their features. That breaks down to less than 10 cents per day per passenger for most buses. In fact, the cost per passenger has been reduced by 53% since 2003.



## MISINFORMATION

NHTSA hasn't  
approved seat belts

**FACT** The National Highway Traffic Safety Administration (NHTSA) has crash tested seats with lap-shoulder belts and has found that they provide the best protection for students in school buses. NHTSA first performed research comparing lap-shoulder belts versus lap belts and compartmentalization in 1998. In April, 2002, they reported to Congress, "The lap-shoulder belt restraint system performed best overall."<sup>1</sup>

In 2007, NHTSA stated in its proposed ruling for lap-shoulder belts, "We would recommend that pupil transportation providers consider installing lap-shoulder belts on large school buses because of the enhancements that lap-shoulder belts could make to school buses."<sup>2</sup>

Had NHTSA found any fault with lap-shoulder belts, they never would have proceeded with the proposed regulation allowing for their use on school buses or stated any benefits associated with their use.

<sup>1</sup> NHTSA Report to Congress, School Bus Safety: Crashworthiness Research, April 2002, p.46

<sup>2</sup> NHTSA 49 CFR Part 571 Docket No. NHTSA - 2007-0014, p. 21

## MISINFORMATION

Students won't  
wear them

**FACT** Children are taught to buckle up from the day they leave the hospital and expect to have belts available in any moving vehicle. Having a school bus without seat belts contradicts this lifelong safety habit.



School districts with lap-shoulder belts should establish usage requirements as part of their school bus riding policies. Districts that have issued enforceable usage policies report over 90% compliance. More importantly, they report significant improvements in student behavior based on driver observations and decreased write-ups. Lap-shoulder belts also reduce the potential for bullying and provide all students with a safer environment on their bus. Students not wearing their belts are usually easily identified by their movement from their seat position.

Discipline improvement also results in less driver distraction, a major cause for any type of crash. Even minor crashes can easily result in costs that exceed the expense of equipping a bus with lap-shoulder belts.