


Are your school buses safe?

How do you answer the public when they ask this question?

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OSBA leads the way to educational excellence by serving Ohio's public school board members and the diverse districts they represent through superior service, unwavering advocacy and creative solutions.



You can't answer, unless you have some answers . . .

- Data review
- Risks by modality
- Governmental studies
- What we have in place
- The counter points
- Identifying the real risk


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Regulatory controls

- School transportation is the most highly regulated passenger transport industry
- Federal standards – vehicles and drivers
- State standards – vehicles, drivers, and operations
- School district local standards


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Very little is left to chance

- Constant ongoing review of operations, equipment, practices, and regulations
- All designed to ensure student safety
- Very careful scrutiny of mishaps, including causative factors and immediate action to eliminate further recurrence

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Vehicle Safety Records


(National Data from FARS)
Data represents school age students during school travel hours

Children 5-18 killed in crashes by type

• Passenger cars	3,113
• Light Truck/Van	1,425
• Pedestrians	573
• Bicyclists	264
• Motorcyclists	134
• Total	5,509
• School Bus Passengers	3

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7




The risk assessment:

- The school bus is the only mode of transportation which has been reducing accidents, injuries, and fatalities—while increasing mileage, size, and passenger load
- Ohio has one of the better student safety records in the country

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8



Vehicle construction

- Multiple layers of standards
 - Industry, Federal, state, local
- Significant federal motor vehicle safety standards
 - Examples:
 - Rollover protection, side impact, joint integrity, floor strength, fire retardancy, seating crashworthiness, glass retention, emergency exits

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The bottom line. . .

School buses are the safest place for a child to be during transportation

That said,
there are still accidents . . .

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10



Single Vehicle Incidents . . .



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10/24/16 11



Crashes . . .



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Fires . . .




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High speed collisions



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Body separation



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Numerous studies and attention

- Here in the US:
 - 1967, 1972, 1973, 1976, 1989, 1997, 2000
- Regular findings:
 - Students are safer in a school bus than in any other type of vehicle

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**Most recent NHTSA
Crash Testing Program - 2000**

- NHTSA performs a new set of crash tests – completed here in Ohio
- Full scale tests
 - Frontal
 - Side
- Sled tests

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Restraint Systems Evaluated

- Compartmentalization
- Lap belts
- Lap/shoulder belts
- High Seat Backs
- New systems

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2002

- NHTSA report is released
- NAS report is released
- Questions arise about lap verses lap & shoulder belt
- It is clear that compartmentalization is still a key concept

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The critical elements in design:

- High back seats
- Padded envelopes
 - Padding integrity, not necessarily thickness
- The only problem:
 - Seat cushion attachment
 - Missing or loose clips

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Not everyone concurs

- NTSB- has school bus passenger safety on their 10 most wanted list
 - Current NHTSA administrator was on staff at NTSB – and holds this same belief
- Other safety groups, including the American Academy of Pediatrics advocate for passenger restraints


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American Academy of Pediatrics

- Studied emergency room records
- Cataloged by source of contact
- 17,000 per year from school bus
- This number does not surprise us-
 - Typically all children in a school bus crash are taken to a hospital as a precaution


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Look closely at the numbers

- 1/3 of injuries were strains and sprains
- 97% of all children were not admitted
 - They were examined and released
- If 97% of 17,000 were released,
 - Only 510 injuries per year are significant


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Perspective

- Numbers in the total study show that:
 - Just 4 percent of all injuries to children each year in motor vehicle crashes are bus related
 - The same study shows 200,000 students per year injured on playground


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What does the study really say?


- 23 million children transported per year
- Buses travel 4.3 billion miles
- Injury rate is 1 in every 8 million miles
- No other mode of transportation comes close to this level of safety

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School children, quite simply, belong on a school bus


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And parents?

- Many do not understand the extensive study and design that has gone into the protections that are in place
- Others are concerned with the inconsistency of belts in cars but not in buses
 - NHTSA has studied this among students and found that the students understand the difference in the vehicles


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So why not add belts?

- Cost per bus
 - \$7,000-10,000 per vehicle
- Capacity issues in some buses
- Compliance issues – will the students buckle up?
- What will the results be – will this save children's lives?


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The rest of the story . . .

- Where is the most significant risk to our students before and after school?
 - outside the bus
 - At the bus stop
 - As pedestrians
- Nationwide the annual school bus loading and unloading zone accident report bears this out – year after year


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Consider our options

- Spend \$105 million dollars to equip Ohio's buses with belts over the next 12 years
 - How many children can we save?
- Invest and spend money on training and equipment to protect children when they are outside the bus
 - How many children can we save?

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So with all that said . . .

- How do we answer the question:

–Are the buses safe?

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Yes, our children are very safe!

- The simple points:
 - Children are in padded compartments
 - The protection is passive – they do not have to do anything to make it work except stay seated
 - The buses are built to rigid standards
 - The controls and oversight in this business are extensive
 - The professionals that provide the service are mostly all parents who are vested stakeholders

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Compartmentalization

- A passive protection concept – in lieu of seat belts
- Entrapment in a padded envelope
- Patient movement upon impact is forward, into a padded barrier

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Sometimes, a picture is easier:



Compartmentalization is not really an unfamiliar concept!

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What can we do to make them safer?

- Work together as a team
 - Parents, staff, drivers, administrators
 - Focus on good practices, good training
- Educate our communities
 - Traffic rules around buses and stops
 - School zones
 - Safe walking practices
- Consider new technologies that may help us where the children are most at risk

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The biggest risk:

- Motorists passing stopped school buses
- Surveys of our districts tell us that this happens 1000's of times every day our buses are on the road – 180 days each school year

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