PART 1: Pre-K Transportation
Learn who rides on school buses
What are appropriate child restraints
Recent advances

PART 2: Lap-Shoulder Belts
Current Compartmentalization Protection
Why Lap Shoulder Belts on School Buses
Where we are today

Advancing Passenger Protection in School Buses for Pre-K Students
Who Rides the Bus?

Elementary and Older-Age Children...

- Head Start and Early Head Start (from 6 weeks)
- Teen Parent High School Programs
- Children of Bus Drivers

Who Rides the Bus?

And, YES, these kids too...

- INFANTS
- TODDLERS
- PRE-SCHOOLERS

On a bus, CPS has 3 stages...

- STAGE #1: Rear facing in a CSRS with a harness
- STAGE #2: Forward facing in a CSRS with a harness
- STAGE #3: Riding on a school bus seat, with a seat belt whenever available.
Baseline Occupant Protection

**COMPARTMENTALIZATION**

Compartmentalization designed for elementary through high school
Never Intended For Pre-K Student Protection!

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Child Safety Restraint System (CSRS)

**CSRS**

Devices used on school buses to provide child protection beyond basic compartmentalization, other than lap-only or lap-shoulder belts. These must meet the requirements specified in FMVSS 213.

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Stage 1: Rear Facing CSRS

**STAGE #1**

Rear facing in a CSRS with a harness

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Stage 2: Forward-Facing CSRS

Add-On CSRS Just for Buses
Attach Using a “Cam Wrap”

Cam Wraps
Webbing Wrapped Around Bus Seating That’s Used to Secure a CSRS.

IMPORTANT LIMITATIONS
NHTSA requires that when a child is secured using a cam wrap attached restraint, the seat behind must be unoccupied or used by a restrained passenger.
More schools have pre-k programs
Head Start & Child Care growing
Trained staff limited or leaving
Limited training opportunities

State of CPS in School Buses

• First state to require child restraints in ALL school buses
• Effective January 1, 2018, every Pre-K in a school bus must be in a child restraint
• Training programs for proper equipment selection and usage needed

Pre-K School Transportation
EVERY state require the use of a CSRS for the transportation of all Pre-K children on school buses.

EVERY state adopt a minimum standard of training for all responsible for Pre-K transportation.

Material available to all at no cost.
Want to Learn More

- 8-Hour training course: CPS Restraint Systems on School Buses
  National Training (NHTSA)
- School Bus Safety Handbook
  (Safe Ride News, www.saferidenews.com)
- National Child Passenger Safety Board
  www.cpsboard.org
- NHTSA Online training videos (6)
  www.nhtsa.gov

What You Can Do

- Work with your District
  To require the use of a 213 compliant CSRS for every pre-k transported student
- To adopt a minimum training standard for all involved with pre-k transportation

YOU CAN MAKE A DIFFERENCE!
Advancing Passenger Protection in School Buses with Lap-Shoulder Belts

Crashes Do Happen

Minor Moderat Serious

In Pennsylvania
Protection of Children in School Buses

How do we protect our traveling student passengers?

Current protection

Compartmentalization 1977
Passive protection for UNBELTED passengers

Seat backs absorb passenger crash energy
Passengers remain in compartment between seats

Current protection
Play Video:
2 Compartmentalization Sled Test.mp4

Current protection

17,000 Injuries Each Year
- Lacerations
- Chipped teeth
- Broken noses
- Concussions

Objectives:
1. Compare belted and unbelted passengers.
2. Study motions of out of position passengers.
3. Provide school transportation leaders with insights to seat belt issue.

Bus Crash Demonstration | August 8, 2013
- 100 guests
- 1998 Type C school bus
- 25 mph frontal crash
Play Video:
3 Bus Barrier Crash Test.mp4

Rows 5-6
Out of position students

Preschooler - Spt
Unbelted

Rows 5-6
Out of position students

Preschooler - Spt
Unbelted
Play Video:
4 Rows 5-6.mp4

Rows 5-6
Out of position students

Bus Crash Demonstration | November 13, 2013

2001 Type D front engine
78 Passenger
30 mph frontal crash

Objectives:
1. Test at standard 30 mph crash speed.
2. Use high back seats.
3. Compare belted and unbelted passengers.
4. Study additional out of position passenger motions.
Play Video:
5 Rows 7-8.mp4

Row 7-8
Out of position
Row 7
Teenager
Half on/half off seat
10 year old unbelted
Row 8
Adult
Standing and leaning over seat

Row 7-8
Out of position
Row 7
Teenager
Half on/half off seat
10 year old unbelted
Row 8
Adult
Standing and leaning over seat
Ohio School Bus Rollover
Pickaway County Schools | Circleville, Ohio | 2003

Play Video:
8 Ohio Rollover.mp4

Side Impact School Bus Crashes
August 22, 2017 Side Impact Crash Demonstration

Class 8 Truck  
33,000 lbs.  
34 mph

2001 Thomas FS  
Type C Bus  
66 passenger

4 Unbelted  
6 L/S Belted

GUESTS
- NTSB
- State Legislatures
- School Boards
- School Transportation
- First Responders
- ABC News
Compartmentalization is Incomplete

Injury protection is limited by

Compartmentalization Limitations

1. Type of crash
2. Interior Surroundings
3. Proper Seating Position
BETTER BEHAVIOR

Play Video:
11 Better Behavior.mp4

August 22, 2017  Discussion Panel
HISTORICAL ANNOUNCEMENT

Washington DC | November 2015

NHTSA:
“School buses should have seat belts.
PERIOD.”

Mark Rosekind
NHTSA Administrator
11-8-2015

HISTORICAL ANNOUNCEMENT - 2

Washington DC | May 2018
NTSB: “Our recommendation to the state of Pennsylvania that all school buses be equipped with lap and shoulder belts.”

Washington DC | May 2018

Robert Sumwalt, Chairman
National Traffic Safety Board
May 22, 2018

CURRENT STATUS

PENNSYLVANIA

• 2019 PA legislature introduced HB 799 for lap shoulder belt installation on school buses transporting students age 12 and younger. Bill in House Transportation Committee. Minimal chance for success since bill implies retrofit.
• Little known district activity ordering I-s belts across state
• No state response to June 2018 NTSB recommendation to Governor Wolf
• School Bus crashes occurring and will occur in PA resulting in unnecessary injuries.
What has been your response to Administrator Rosekind’s and Chairman Sumwalt’s call for lap-shoulder belts on school buses?

If this were YOUR child in a crash

Which protection would YOU choose?

School Buses Protection for All

MORE INFO

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safeguard4kids.com
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