BEST PRACTICE: CHILD PASSENGER SAFETY SECUREMENT RECOMMENDATIONS FOR PRE-SCHOOL AND SCHOOL AGE CHILDREN ON SCHOOL BUSES

FOR OPTIMAL PROTECTION, USE A CHILD'S CSRS UNTIL HE/SHE REACHES THE MAXIMUM HEIGHT OR WEIGHT ALLOWED BY THE INSTRUCTIONS.

Selection Priority	Child Characteristics	Best Practice Transportation Guideline	Guideline Explanation[1]	Child Characteristic Row Rationale [2]
1	Child age: ≤1 and/or Child weight: ≤ 20 lbs.	Use an FMVSS 213-compliant rear-facing (RF) child safety restraint system (CSRS)[3].	Pre-school children[6] with either of the child characteristics described must comply with the rear-facing requirement because it is extremely dangerous for children in this age/weight range to ride forward facing (FF). Whether in a passenger vehicle or school bus, serious injury or death from crash forces can be prevented by having the child ride rear facing. While this best-practice guideline is well established by NHTSA and the AAP, it is often unaddressed in state laws or policies.	This row defines a period in which there is an absolute securement requirement. Children who are less than 1 year old or less than 20 pounds MUST be secured in a rear-facing (RF) child safety restraint system in any motor vehicle. Alternative CSRS devices are not acceptable if the child matches either the age or weight characteristic. In addition, note that there are no FMVSS 213-compliant CSRS that allow FF use by children who are this age or size.
2	Child age: >1 and Child height/weight: < CSRS RF height and weight limits	Use an FMVSS 213-compliant RF CSRS[3] (the largest type that can be properly installed in an available school bus seating compartment) for as long as possible. (Ideally, keep child RF to age 2 or more.)	Pre-school children[6] are safer riding rear facing as long as possible, provided they meet the height and weight maximums of the CSRS. Therefore, a rear-facing convertible CSRS that fits the child and the bus's row-spacing limitations should be used. Only after a CSRS's height or weight limit has been reached should a child begin riding in a FF CSRS [4].	This row is provided to direct transporters to keep children RF as long as possible, even beyond age 1 and 20 pounds, if the limits for the CSRS continue to be met. The limit for a child to be secured in a RF CSRS is dictated by the weight and height maximums of the largest available RF CSRS that will properly fit in the school bus seating compartment. Only when one of these limits is met should the child begin riding FF in a CSRS. Note: If a child's IEP/IFSP specifies RF transport, a larger RF CSRS and/or different vehicle may be needed once a child has reached the limit of his/her current RF CSRS.

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Selection Priority	Child Characteristics	Best Practice Transportation Guideline	Guideline Explanation[1]	Child Characteristic Row Rationale [2]
3	Child age: >1 and Child height/weight: > CSRS RF height or weight limit and < CSRS FF height and weight limits	Use an FMVSS 213-compliant FF CSRS [4] for as long as possible (following the manufacturer's stated FF height and weight limits).	According to NHTSA's guideline, pre-school[6] children cannot be protected by compartmentalization alone, so these students should ride in a properly used CSRS. AAP policy states that students who fit their FF CSRS should continue to ride that way. Riding in a FF CSRS may also provide better protection for other, non-pre-school students who meet these child characteristics, such as small primary-grade students and older students with certain special needs.	This row is provided to direct transporters to secure a child in a FF CSRS once he or she outgrows a RF CSRS. Ideally, the child should remain secured in an FF CSRS as long as possible, regardless of age and school grade. Since only a few state and local laws require transporters to follow the stated best-practice guidelines, the communication of these guidelines are all the more essential in order to ensure that children are as safe as possible. Riding in a FF CSRS is especially protective and necessary for pre-schoolers and smaller students who meet these child characteristics. Although riding in this manner continues to be protective, it may not be practical for older/larger school-age children who still match this row's characteristics.
4	Child age: ≥4	Use a lap-shoulder belt (preferred) or lap-only belt[5] if an available FMVSS 213-compliant FF CSRS [4] can no longer be used per the manufacturer's stated FF height or weight limit.	Like other young children, nearly all 4-year-olds are too small to be adequately protected by compartmentalization alone. According to NHTSA's guideline, a properly fitted CSRS should be used until the child is larger. If considering the alternative use of seat belts for these children, check to ensure proper belt fit before discontinuing use of a CSRS. Note: Unlike in passenger vehicles, a booster seat should not be used to position school-bus seat belts on a child since children who are too small to fit the belts provided for students on buses should ride in a CSRS.[5]	This row is provided especially for states and local entities in which turning age 4 ends a child's status as a "pre-schooler" and begins the "school age" designation. In such jurisdictions, it's common for 4-year-olds to inappropriately begin using occupant-protection systems meant for older children (compartmentalization, lap-only belts). This row clarifies that, for transportation purposes, a child of this age should continue to be transported following the advice provided for pre-schoolers[6].

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Selection Priority	Child Characteristics	Best Practice Transportation Guideline	Guideline Explanation[1]	Child Characteristic Row Rationale [2]
5	Child is school age (K-12)	Use a lap-shoulder belt (preferred) or lap belt, whenever available. Some smaller children may continue to be best protected by using a FF CSRS. [4][5] (Most conveniently, check to see if the school bus has seating with integrated CSRS for these students. A booster seat is not an appropriate solution for these students.)	All children who are older than pre-school,[3] who have outgrown a CSRS, and who do not have the use of a CSRS specified in an IEP are best protected by wearing a seat belt on a school bus (whenever belts are available), even if there is no state requirement to do so. Due to the design of school bus seating and belt systems, a booster seat should not be used on a school bus[5].	This row is provided because most states have no requirement for children of any age to use safety restraints or seat belts on school buses. It describes the safest way for all transporters, including childcare agencies, to transport kindergarten and older school-age children on school buses, after they've exceeded the weight or height limit of a CSRS[5].

FOOTNOTES

(1) This column establishes the authority of best practice guidelines. The guidance is provided by the NHTSA Child Passenger Safety (CPS) Restraints on School Buses National Curriculum and supported by American Academy of Pediatrics (AAP) policy. It mirrors best-practice selection guidelines of the National CPS Technician Certification Training curriculum, with certain school-bus-specific modifications. State laws, regulations, and policies must also be considered, as well as the transport stipulations of a child's IEP or IFSP.

(2) This column explains why each selection-priority row (1-5) was created, as well as why best practice is based on the stated child-characteristic groupings. Only when a child has been excluded from the characteristics defined in the second column of all earlier rows should the succeeding row be considered. If the characteristics of more than one row apply, it is best practice to follow guidance of the earlier selection-priority number. The intent for each row is to recognize real world school bus use and what is known as best practice of securement for the given child characteristics. NOTE: The child-characteristic groupings align with best-practice transportation stages of typically developing children. For children with special transportation needs, the proper type of CSRS and other transportation details should be identified in the transportation plan of the child's IEP/IFSP document.

(3) RF CSRS options include: RF-only CSRS and convertible/all-in-one CSRS used in RF mode. These are both conventional CSRS types that are made primarily for use in passenger vehicles. Those selecting RF CSRS for school buses must take extra effort to ensure that the model will fit within the school bus's compartmentalized seat spacing. Suitable model options may be limited, especially when purchasing larger CSRS for RF use, such as convertible and all-in-one models.

(4) FF CSRS options include: Conventional FF CSRS (convertible/all-in-one CSRS in FF mode and combination CSRS), school bus-specific add-on CSRS, safety vest systems, lap-belt conversion securements, and school bus seats with integrated (built-in) CSRS. (Types made specifically for school buses are defined in the glossary.)

(5) Lap-shoulder belts on school buses have built-in shoulder-height adjusters that properly align the belt at the shoulder of small children. In addition, the shallow cushions of bus seats are scaled to be appropriate for school-age children. Therefore, a booster seat (a high-back or backless device that is used to properly position the adult lap-shoulder belts of a passenger vehicle on a child) is not appropriate for use with a bus's lap-shoulder belts. If a child is too small to properly fit a lap-shoulder belt on a school bus, the child should ride in a CSRS until he or she is tall enough to fit the belt properly. (Note: A booster seat may never be used with a lap-only belt in any vehicle.)

(6) Pre-schooler is defined as an infant, toddler, or older student who is in a grade level prior to kindergarten. A pre-school child may be a student or a non-student rider (i.e., a child served by a childcare agency, enrolled in an after-school program, attending summer camp, or riding along with a driver or teen parent). Check state laws or childcare regulations for additional definitions and defined requirements associated with pre-school and school-age children in your county or state.

GLOSSARY

American Academy of Pediatrics (AAP): The mission of the American Academy of Pediatrics is to attain optimal physical, mental, and social health and well-being for all infants, children, adolescents and young adults.

Booster seat: A high-back or backless seating device (without a five-point harness system) that positions a child on a vehicle seat so that a passenger vehicle's adult-sized lap-shoulder belts will cross the child's body properly. A booster must be used with a lap-shoulder belt, never a lap-only belt. A booster seat is not appropriate for use on a school bus because a bus's lap-shoulder belts have built-in adjusters and are scaled to properly fit children without additional positioners. Children who are too small to fit a bus's lap-shoulder belts should continue to ride in a CSRS.

Cam wrap: A webbing strap that is wrapped vertically around a school bus seatback to install any of a variety of child safety restraint systems. May be part of the CSRS or a separate part (onto which the CSRS is attached). A school bus is the only vehicle type on which a cam wrap is allowed for CSRS installation.

Child Safety Restraint System (CSRS). The term used in the school-transportation industry for regulated devices that provide additional occupant protection (beyond what's provided by compartmentalization and seat belts) for small occupants and students with special needs. Includes conventional CSRS (car seats with internal harnesses used in passenger vehicles) and additional types made exclusively for school buses. (See listings in footnotes 3 and 4.)

Federal Motor Vehicle Safety Standard (FMVSS) 213: The federal standard that regulates child restraints made for use by children who weigh up to 80 pounds. All CSRS types listed in footnotes 3 and 4 must be FMVSS 213-compliant. Lap-shoulder and lap-only belts are not restraint types covered by FMVSS 213.

Individualized Education Program (IEP): A legal document under United States law that is developed for each public school child in the U.S., ages 3–21, who is entitled to special education per the Individuals with Disabilities Education Act (IDEA). Developed by a team of educators, healthcare providers, and others; a transportation representative should participate when a child's special needs affect transportation.

Individualized Family Support Plan (IFSP): Similar to an IEP, but for children and families who have been identified as needing early intervention from pre-birth to age 3.

Lap-belt conversion securement: A CSRS that adds upper-body restraint to a bus's lap-only belts. The device has shoulder straps affixed to either a tether or (more often) a cam wrap that's attached around the bus's seatback. Loops at the bottom of the shoulder straps connect to a properly worn lap-only belt to create a 4-point or, if a crotch strap is provided, 5-point safety restraint for the occupant.

Lap-only belt: A two-point seat belt that crosses the lap; place on a child occupant so it touches the thigh. A lap-only belt provides no upper body protection, but is effective at preventing ejection from a vehicle. May be used for installation of certain CSRS.

Lap-shoulder belt: A three-point seat belt that crosses the lap, torso, and one shoulder. This type of belt system provides superior protection for occupants compared to a lap-only belt. May be used for installation of certain CSRS.

National Highway Traffic Safety Administration (NHTSA): The regulatory agency within the U.S. Department of Transportation that provides education, enforcement, regulations/standards, compliance testing parameters and research to promote traffic safety for Americans of all ages.

School-bus-specific add-on CSRS: A CSRS that attaches to a school bus seat by means of a cam wrap. It includes a 5-point restraint for child securement and may also have a structural base for the child to sit on, but no plastic shell.

Safety vest system: A CSRS made of webbing that wraps around the child's torso. When used on a school bus, safety vests typically attach at the shoulders and hips to corresponding points on an installed cam wrap.

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