

EXAMINING THE FEDERAL ROLE IN IMPROVING SCHOOLBUS SAFETY

(116–29)

HEARING
BEFORE THE
SUBCOMMITTEE ON
HIGHWAYS AND TRANSIT
OF THE
COMMITTEE ON
TRANSPORTATION AND
INFRASTRUCTURE
HOUSE OF REPRESENTATIVES
ONE HUNDRED SIXTEENTH CONGRESS

FIRST SESSION

JULY 25, 2019

Printed for the use of the
Committee on Transportation and Infrastructure



Available online at: [https://www.govinfo.gov/committee/house-transportation?path=/
browsecommittee/chamber/house/committee/transportation](https://www.govinfo.gov/committee/house-transportation?path=/browsecommittee/chamber/house/committee/transportation)

U.S. GOVERNMENT PUBLISHING OFFICE

40–797 PDF

WASHINGTON : 2020

COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE

PETER A. DEFAZIO, Oregon, *Chair*

ELEANOR HOLMES NORTON, District of Columbia	SAM GRAVES, Missouri
EDDIE BERNICE JOHNSON, Texas	DON YOUNG, Alaska
ELIJAH E. CUMMINGS, Maryland	ERIC A. "RICK" CRAWFORD, Arkansas
RICK LARSEN, Washington	BOB GIBBS, Ohio
GRACE F. NAPOLITANO, California	DANIEL WEBSTER, Florida
DANIEL LIPINSKI, Illinois	THOMAS MASSIE, Kentucky
STEVE COHEN, Tennessee	MARK MEADOWS, North Carolina
ALBIO SIRES, New Jersey	SCOTT PERRY, Pennsylvania
JOHN GARAMENDI, California	RODNEY DAVIS, Illinois
HENRY C. "HANK" JOHNSON, JR., Georgia	ROB WOODALL, Georgia
ANDRÉ CARSON, Indiana	JOHN KATKO, New York
DINA TITUS, Nevada	BRIAN BABIN, Texas
SEAN PATRICK MALONEY, New York	GARRET GRAVES, Louisiana
JARED HUFFMAN, California	DAVID ROUZER, North Carolina
JULIA BROWNLEY, California	MIKE BOST, Illinois
FREDERICA S. WILSON, Florida	RANDY K. WEBER, Sr., Texas
DONALD M. PAYNE, JR., New Jersey	DOUG LAMALFA, California
ALAN S. LOWENTHAL, California	BRUCE WESTERMAN, Arkansas
MARK DeSAULNIER, California	LLOYD SMUCKER, Pennsylvania
STACEY E. PLASKETT, Virgin Islands	PAUL MITCHELL, Michigan
STEPHEN F. LYNCH, Massachusetts	BRIAN J. MAST, Florida
SALUD O. CARBAJAL, California, <i>Vice Chair</i>	MIKE GALLAGHER, Wisconsin
ANTHONY G. BROWN, Maryland	GARY J. PALMER, Alabama
ADRIANO ESPAILLAT, New York	BRIAN K. FITZPATRICK, Pennsylvania
TOM MALINOWSKI, New Jersey	JENNIFFER GONZALEZ-COLON, Puerto Rico
GREG STANTON, Arizona	TROY BALDERSON, Ohio
DEBBIE MUCARSEL-POWELL, Florida	ROSS SPANO, Florida
LIZZIE FLETCHER, Texas	PETE STAUBER, Minnesota
COLIN Z. ALLRED, Texas	CAROL D. MILLER, West Virginia
SHARICE DAVIDS, Kansas	GREG PENCE, Indiana
ABBY FINKENAUER, Iowa	
JESÚS G. "CHUY" GARCÍA, Illinois	
ANTONIO DELGADO, New York	
CHRIS PAPPAS, New Hampshire	
ANGIE CRAIG, Minnesota	
HARLEY ROUDA, California	

SUBCOMMITTEE ON HIGHWAYS AND TRANSIT

ELEANOR HOLMES NORTON, District of Columbia, *Chair*

EDDIE BERNICE JOHNSON, Texas	RODNEY DAVIS, Illinois
STEVE COHEN, Tennessee	DON YOUNG, Alaska
JOHN GARAMENDI, California	ERIC A. "RICK" CRAWFORD, Arkansas
HENRY C. "HANK" JOHNSON, JR., Georgia	BOB GIBBS, Ohio
JARED HUFFMAN, California	DANIEL WEBSTER, Florida
JULIA BROWNLEY, California	THOMAS MASSIE, Kentucky
FREDERICA S. WILSON, Florida	MARK MEADOWS, North Carolina
ALAN S. LOWENTHAL, California	ROB WOODALL, Georgia
MARK DeSAULNIER, California	JOHN KATKO, New York
SALUD O. CARBAJAL, California	BRIAN BABIN, Texas
ANTHONY G. BROWN, Maryland	DAVID ROUZER, North Carolina
ADRIANO ESPAILLAT, New York	MIKE BOST, Illinois
TOM MALINOWSKI, New Jersey	DOUG LAMALFA, California
GREG STANTON, Arizona	BRUCE WESTERMAN, Arkansas
COLIN Z. ALLRED, Texas	LLOYD SMUCKER, Pennsylvania
SHARICE DAVIDS, Kansas	PAUL MITCHELL, Michigan
ABBY FINKENAUER, Iowa, <i>Vice Chair</i>	MIKE GALLAGHER, Wisconsin
JESÚS G. "CHUY" GARCÍA, Illinois	GARY J. PALMER, Alabama
ANTONIO DELGADO, New York	BRIAN K. FITZPATRICK, Pennsylvania
CHRIS PAPPAS, New Hampshire	TROY BALDERSON, Ohio
ANGIE CRAIG, Minnesota	ROSS SPANO, Florida
HARLEY ROUDA, California	PETE STAUBER, Minnesota
GRACE F. NAPOLITANO, California	CAROL D. MILLER, West Virginia
ALBIO SIRES, New Jersey	GREG PENCE, Indiana
SEAN PATRICK MALONEY, New York	SAM GRAVES, Missouri (<i>Ex Officio</i>)
DONALD M. PAYNE, JR., New Jersey	
DANIEL LIPINSKI, Illinois	
DINA TITUS, Nevada	
STACEY E. PLASKETT, Virgin Islands	
PETER A. DeFAZIO, Oregon (<i>Ex Officio</i>)	

CONTENTS

	Page
Summary of Subject Matter	vii
STATEMENTS OF MEMBERS OF THE COMMITTEE	
Hon. Eleanor Holmes Norton, a Delegate in Congress from the District of Columbia, and Chairwoman, Subcommittee on Highways and Transit:	
Opening statement	1
Prepared statement	2
Hon. Rodney Davis, a Representative in Congress from the State of Illinois, and Ranking Member, Subcommittee on Highways and Transit:	
Opening statement	2
Prepared statement	3
Hon. Peter A. DeFazio, a Representative in Congress from the State of Oregon, and Chairman, Committee on Transportation and Infrastructure:	
Opening statement	3
Prepared statement	4
Hon. Eddie Bernice Johnson, a Representative in Congress from the State of Texas, prepared statement	69
WITNESSES	
Hon. Andrew J. McLean, House Chairman, Joint Standing Committee on Transportation, Maine State Legislature, on behalf of the National Conference of State Legislatures:	
Oral statement	7
Prepared statement	9
Hon. Sue Fulton, Chief Administrator, New Jersey Motor Vehicle Commission:	
Oral statement	13
Prepared statement	15
Kristin Poland, Ph.D., Deputy Director, Office of Highway Safety, National Transportation Safety Board:	
Oral statement	16
Prepared statement	17
John Benish, Jr., President and Chief Operating Officer, Cook-Illinois Corporation, on behalf of the National School Transportation Association:	
Oral statement	24
Prepared statement	26
Anne Ferro, President and Chief Executive Officer, American Association of Motor Vehicle Administrators:	
Oral statement	31
Prepared statement	31
Matthew Condron, Secretary-Treasurer, Teamsters Local 384, Norristown, Pennsylvania:	
Oral statement	34
Prepared statement	36
SUBMISSIONS FOR THE RECORD	
Report, "State of the Air 2019—20th Anniversary," by the American Lung Association, Submitted for the Record by Hon. Jesús G. "Chuy" García	43
Statement of Hon. Jackie Walorski, a Representative in Congress from the State of Indiana	69
"Illegal Passing Video, Student Injury—New Jersey," Submitted for the Record by Hon. Eleanor Holmes Norton	25

VI

	Page
Statement of the National Safety Council, Submitted for the Record by Hon. Eleanor Holmes Norton	70
Report, "A Continuous Video Recording System on a Lap-Belt Equipped School Bus: Real-World Occupant Kinematics and Injuries During a Severe Side Impact Crash," by Kristin Poland et al., Submitted for the Record by Hon. Eleanor Holmes Norton	71

APPENDIX

Questions from Hon. Henry C. "Hank" Johnson, Jr. to Hon. Andrew J. McLean, House Chairman, Joint Standing Committee on Transportation, Maine State Legislature, on behalf of the National Conference of State Legislatures	83
Questions from Hon. Henry C. "Hank" Johnson, Jr. to Hon. Sue Fulton, Chief Administrator, New Jersey Motor Vehicle Commission	88
Question from Hon. Peter A. DeFazio to Kristin Poland, Ph.D., Deputy Director, Office of Highway Safety, National Transportation Safety Board	88
Question from Hon. Eleanor Holmes Norton to Kristin Poland, Ph.D., Deputy Director, Office of Highway Safety, National Transportation Safety Board ...	89
Questions from Hon. Henry C. "Hank" Johnson, Jr. to Kristin Poland, Ph.D., Deputy Director, Office of Highway Safety, National Transportation Safety Board	89
Questions from Hon. Doug LaMalfa to Kristin Poland, Ph.D., Deputy Director, Office of Highway Safety, National Transportation Safety Board	90
Questions from Hon. Gary J. Palmer to Kristin Poland, Ph.D., Deputy Director, Office of Highway Safety, National Transportation Safety Board	90
Questions from Hon. Henry C. "Hank" Johnson, Jr. to John Benish, Jr., President and Chief Operating Officer, Cook-Illinois Corporation, on behalf of the National School Transportation Association	93
Questions from Hon. Gary J. Palmer to John Benish, Jr., President and Chief Operating Officer, Cook-Illinois Corporation, on behalf of the National School Transportation Association	95
Question from Hon. Peter A. DeFazio to Anne Ferro, President and Chief Executive Officer, American Association of Motor Vehicle Administrators ...	96
Question from Hon. Eleanor Holmes Norton to Anne Ferro, President and Chief Executive Officer, American Association of Motor Vehicle Administrators	97



Committee on Transportation and Infrastructure
U.S. House of Representatives
Washington, DC 20515

Peter A. DeFazio
Chairman

Katherine W. Dedrick, Staff Director

Sam Graves
Ranking Member

Paul J. Sass, Republican Staff Director

JULY 25, 2019

SUMMARY OF SUBJECT MATTER

TO: Members, Subcommittee on Highways and Transit
FROM: Staff, Subcommittee on Highways and Transit
RE: Subcommittee Hearing on “Examining the Federal Role in Improving School Bus Safety”

PURPOSE

The Subcommittee on Highways and Transit will meet on Thursday, July 25, 2019, at 2:00 p.m. in 2167 Rayburn House Office Building to receive testimony related to “Examining the Federal Role in Improving School Bus Safety.” The purpose of this hearing is to evaluate current school bus safety measures and to consider whether additional Federal safety requirements are warranted. The Subcommittee will hear from representatives of the National Conference of State Legislatures (NCSL), the New Jersey Motor Vehicle Commission, the National School Transportation Association (NSTA), the Teamsters, the American Association of Motor Vehicle Administrators (AAMVA), and the National Transportation Safety Board (NTSB).

BACKGROUND

According to the NTSB and the National Highway Traffic Safety Administration (NHTSA), nearly 475,000 school buses transport over 26.7 million children to and from school each day.¹ The American School Bus Council estimates that students are 70 times more likely to get to school safely when taking a bus instead of traveling by car, making school buses one of the safest vehicles on the road.² Because of their unique design and stringent standards, school buses have a strong safety record. However, when a fatal crash involving a school bus does occur, it revives the long-standing debate over school bus safety.

SCHOOL BUS SAFETY DATA

According to NHTSA estimates from 2008 to 2017, school bus crashes account for approximately 0.4 percent of all fatal traffic crashes each year.³ Approximately 52 percent of school bus crashes occur in rural communities.⁴ NHTSA data estimates that between four and six schoolage children⁵ are killed in school transportation vehicles each year.⁶ Between 2008 and 2017, 264 school-age children died in crashes involving a school bus: 100 were occupants of other vehicles, 97 were pedestrians, and 61 were occupants of the school bus.⁷

ROLES AND RESPONSIBILITIES

School transportation safety is overseen by Federal, State, and local agencies. At the Federal level, NHTSA sets Federal Motor Vehicle Safety Standards for school

¹ <https://www.nts.gov/safety/pages/schoolbuses.aspx>

² <http://schoolbusfacts.com/wp-content/uploads/2017/01/SafetyFeatures.pdf>

³ NHTSA, School-Transportation-Related Crashes, June 2019. <https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812712>

⁴ *Id.*

⁵ NHTSA defines “school age” children as children 18 years old and younger.

⁶ *Supra* note 3.

⁷ *Id.*

vehicle safety features,⁸ such as brakes and emergency exits. NHTSA has also developed in-service training to school bus drivers and conducts public awareness campaigns. The Federal Motor Carrier Safety Administration (FMCSA) establishes rules for commercial driver licensing, including requiring school bus drivers to receive a school bus endorsement. While FMCSA is responsible for setting and enforcing Federal safety regulations that apply to large commercial truck and bus operators, these regulations do not apply to home-to-school and school-to-home transportation. In addition, the NTSB has the authority to investigate crashes involving school buses and make recommendations to increase safety.

States build upon these standards by implementing state-specific requirements, including additional driver training and qualifications, vehicle inspections, and other operational rules. The Government Accountability Office (GAO) has reported that all 50 States require school bus inspections and most require additional training for school bus drivers beyond Federal minimum standards.⁹ At the local level, school districts are responsible for implementing and supervising school bus operations.

Federal funding is not available for school transportation vehicles and operations. Funding for school bus service comes from the State and local level. School districts can employ their own drivers, purchase their own buses, and operate their own transportation service, or they can contract with a private company to provide school bus service. Approximately one-third of the nation's school transportation is operated by private school bus providers, according to the NSTA.¹⁰

SCHOOL BUS ISSUES FOR CONSIDERATION

SEAT BELTS

In 2009, NHTSA implemented a final rule requiring small school buses (under 10,000 lb. gross vehicle weight) manufactured on or after October 21, 2011, to have lap/shoulder belts installed.¹¹ However, Federal regulations do not require full size school buses to be equipped with lap or shoulder belts.¹² Instead, NHTSA maintains that occupant protection in a large school bus is best served by "compartmentalization." School bus seats are made with an energy-absorbing steel inner structure and high, padded seat backs secured to the bus floor. NHTSA research has concluded that this provides a suitable passive form of occupant protection (versus an active system such as a seat belt) by keeping the student protected within the seat. Large school buses are heavier and distribute crash forces differently than passenger cars, meaning that, in the event of an accident, a child on a school bus experiences much less crash force than would be present in a passenger car. School buses are also required to meet stringent manufacturing standards, including high body joint standards to prevent splitting, steel cage-encased fuel tanks to prevent fires, and stringent rollover protection features.¹³

Some safety advocates have called for NHTSA to require seat belts on large school buses as they do for smaller ones. Proponents of belts on these school buses contend that compartmentalization is designed to mitigate injuries and fatalities resulting from front and rear-end crashes, but it does not offer adequate protection for side-impact and rollover collisions. Supporters of using seat belts on school buses also believe this will help prevent bullying, reduce distracting student behavior for the driver, and lower the number of injuries from students sticking their head or arms out of the bus's windows. They further assert it will help students adopt a consistent practice of always wearing their seat belt, even when not on the bus.

Opponents of requiring seat belts on large buses most often cite cost as a concern. In 2008, NHTSA estimated that the incremental cost of adding seat belts on large school buses at \$5,485 to \$7,345, while some State officials have estimated it costs upwards of \$10,000.¹⁴ The Congressional Research Service (CRS) has estimated the cost of equipping the roughly 31,000 new large school buses sold annually with lap/shoulder belts would result in capital costs of between \$250 million and \$465 million.¹⁵

⁸ 49 U.S.C. 30125

⁹ GAO-17-209, "School Bus Safety: Crash Data Trends and Federal and State Requirements". January 2017.

¹⁰ <https://s3-us-west-2.amazonaws.com/nsta/6571/Yellow-School-Bus-Industry-White-Paper.pdf>

¹¹ 49 C.F.R. Part 571; Federal Motor Vehicle Safety Standards No. 222

¹² 73 Fed. Reg. 62744 (2008); 76 Fed. Reg. 53102 (2011)

¹³ 49 C.F.R. Part 571

¹⁴ *Supra* note 12.

¹⁵ Peterman, David Randall. "Seat Belts on School Buses: Overview of the Issue." CRS. August 31, 2007

In 2011, NHTSA denied a petition for rulemaking from the Center for Auto Safety and 21 other petitioners asking that NHTSA mandate the installation of three-point seat belts for all seating positions on all school buses.¹⁶ Building on a rulemaking in 2008, which did not mandate the installation of seat belts on large school buses, NHTSA concluded that “we have not found a safety problem supporting a Federal requirement for lap/shoulder belts on large school buses, which are already very safe.” The agency concluded that the decision to install seat belts on school buses should be left to State and local jurisdictions.¹⁷ Additionally, NHTSA found that an increase in costs to purchase and operate large school buses could reduce school bus service, thereby reducing school bus ridership and causing more students to use alternative, less safe means of school transportation and increase the risk of injury. Further, NHTSA has reported that installing lap/shoulder belts would significantly reduce the seating capacity on buses. CRS estimates that lap/shoulder buses would decrease seating capacity for elementary school children by an average of 16 to 33 percent.

After investigating dozens of fatal school bus-related crashes, the NTSB in 2018 determined that compartmentalization is not enough to prevent all injuries, particularly in side impact and rollover crashes. The NTSB now recommends that States enact laws to require the use of three-point seat belts (covering the lap and shoulder as opposed to just the lap) for maximum occupant protection on school buses. Their investigations of crashes involving school buses equipped with seat belts found that belt use significantly reduced injuries and helped prevent fatalities.

State Laws

At least 32 states have considered legislation to require belts on school buses since 2007.¹⁸ Several States have enacted laws requiring seat belts on school buses, including Arkansas, California, Florida, Louisiana, Nevada, New Jersey, New York, and Texas.

New York was the first state to pass a law requiring lap belts on large school buses in 1987. However, use of seat belts is not required unless the local school district mandates it. Although California law does not require school districts to provide bus service to students, if a jurisdiction provides this service, California requires large school buses purchased on July 1, 2005, or later to be equipped with lap/shoulder belts. In 2018, California passed a law requiring all large buses to be equipped with lap/shoulder belts by 2035. California estimates that new buses with seat belts cost approximately \$300,000 per vehicle.

In Louisiana, school buses purchased after June 30, 2004, are required to be equipped with occupant restraint systems, subject to available state funding. To date, Louisiana has not appropriated any funding. Arkansas allows for voters in a local school district to petition the district to install lap/shoulder belts on buses, but requires voters to also approve a property tax equivalent to the cost of installing seat belts. Arkansas voters have not approved the tax increase.

BUS STOP SAFETY

According to NHTSA, the greatest risk to school children is not riding the bus, but getting on or off a school bus. Every school bus is required to have specific safety features that indicate to motorists that children are loading or unloading, such as yellow and red flashing lights and a red stop-arm. State laws require traffic in both directions to stop and remain stopped until all children are off the roadway, the red lights stop flashing, the red stop arm is withdrawn, and the bus begins moving again.¹⁹

While it is illegal in all 50 states to pass a stopped school bus with red lights flashing, referred to as “stop-arm violation,” it is a common occurrence. In a 2018 survey by the National Association of State Directors of Pupil Transportation Services, school bus drivers in 38 States and the District of Columbia reported that 83,944 vehicles passed their buses illegally on a single day during the 2017–18 school year. In a 180-day school year, the Association found that these sample results point to more than 15 million stop-arm violations.²⁰ Stop-arm violations can result in crashes that cause significant injuries or fatalities. For example, on October 30, 2018, in Rochester, Indiana, a motorist did not obey the red stop-arm and

¹⁶ 76 Fed. Reg. 53102

¹⁷ *Id.*

¹⁸ <http://www.ncsl.org/research/transportation/should-school-buses-have-seat-belts.aspx>

¹⁹ <https://www.nhtsa.gov/school-bus-safety/reducing-illegal-passing-school-buses>

²⁰ <http://www.nasdpts.org/stoparm/2018/index.html>

struck four children who were crossing the road, killing three children, and injuring the fourth child.

SCHOOL BUS DRIVERS

School bus drivers must have a valid Commercial Driver License (CDL), which requires a driving record check, drug and alcohol testing, and passing a knowledge and skills tests.²¹ Drivers must also obtain a school bus endorsement to their CDL which involves additional knowledge and skills tests specific to school buses. Most states mandate additional training or qualifications for school bus drivers as well.²²

Medical Qualifications

Federal law requires a CDL applicant to obtain a valid medical examiners certificate indicating fitness to drive, which must be renewed every two years on average. This requirement applies to privately employed school bus drivers who transport students in capacities other than home-to-school and school-to-home, such as field trips. The medical certification rules do not apply to school bus drivers employed by a public entity, such as the State or school district, or who operate in intrastate transportation. However, individual state laws may still require medical certification for school bus drivers who are publicly employed or who operate intrastate.

In 2005, Congress mandated that FMCSA create a registry of certified medical examiners eligible to conduct physicals that follow U.S. Department of Transportation (DOT) standards. This mandate stemmed from reports of fraud and the ease of falsifying medical certificates, and was in response to several NTSB recommendations. Commercial drivers may only receive a valid medical certificate from an examiner listed on the National Registry of Certified Medical Examiners (Registry). In order to be listed in the Registry, medical examiners must apply, complete training, and pass a test on physical qualification standards.

There are certain conditions and medications that preclude a driver from receiving a medical certificate. Disqualifying conditions include: certain types of heart disease, respiratory dysfunction, high blood pressure, rheumatic or arthritic conditions, epilepsy, mental or psychiatric disorder, and hearing loss not corrected by a hearing aid. Drivers cannot receive a medical certificate if they use any Schedule I drugs—such as opiates, depressants, stimulants, and marijuana—or amphetamines. Other drugs can be permitted as long as they are prescribed by a physician and reviewed by the medical examiner as safe for driving.

Medical examiners assess drivers for all of the above conditions and more to determine whether or not they will interfere with the drivers' ability to safely operate a vehicle. Medical examiners have broad authority to determine a driver's fitness, as long as the driver passes a Skill Performance Evaluation to demonstrate the ability to drive a commercial vehicle safely. For instance, drivers with impaired or missing limbs can still receive a medical certificate, and drivers with vision impairment can apply for a waiver, which is often granted. In addition, drivers with insulin-treated diabetes may still receive a medical certificate, but are required to have it updated more frequently.

Drug & Alcohol Testing

Commercial drivers who hold a CDL must comply with random drug and alcohol testing and under several conditions: pre-employment, post-accident, reasonable suspicion, return-to-duty and follow-up (after a positive test).²³ In 2012, under the Moving Ahead for Progress in the 21st Century Act (MAP-21; P.L. 112-141), Congress mandated FMCSA create a national drug and alcohol clearinghouse, in response to concerns that drivers could easily “job-hop,” or change employers without disclosing past positive drug test results, particularly on pre-employment tests.²⁴ FMCSA published a final rule establishing the clearinghouse in December 2016, with a compliance date of January 6, 2020.²⁵

Employer Notification

Federal regulations require CDL holders to notify their employers of any traffic violation they incur (besides parking) within 30 days of conviction, regardless of what type of vehicle they were driving at the time. If their license is suspended, revoked, canceled, or otherwise disqualified, drivers must notify their employer

²¹ 49 C.F.R. Part 383

²² GAO-17-209, “School Bus Safety: Crash Data Trends and Federal and State Requirements”. January 2017.

²³ 49 C.F.R. Part 382

²⁴ Section 32402, P.L. 112-141

²⁵ 81 Fed. Reg. 87686

within one business day. Employers who knowingly use a driver with a suspended license are liable for civil or criminal penalties.

Under current regulations, employers are required to check their employees' driving history record on an annual basis. In the event an employee does not self-report, he or she could continue to drive until the disqualification is discovered in an annual check. According to estimates from the American Association of Motor Vehicle Administrators (AAMVA), only 50 to 80 percent of commercial drivers actually self-report violations to their employers.²⁶

In an effort to ensure disqualified drivers do not remain on the road, some States have established Employer Notification Systems (ENS) to facilitate real time notification of traffic violations or other changes in driver status to employers. There were 16 States who reported having some variation of an ENS in 2016.²⁷

In MAP-21, Congress required FMCSA to develop recommendations and a plan for the development and implementation of a national driver record notification system (NDRNS).²⁸ FMCSA submitted their report to Congress in 2015, which contained a plan for the NDRNS and best practices.²⁹ Additionally, AAMVA received funding from FMCSA to establish a working group and AAMVA released a report outlining ENS best practices and design recommendations for a national system which leverages existing commercial driver databases.

GAO REVIEW

In 2015, Congress enacted the Fixing America's Surface Transportation Act (FAST Act; P.L. 114-94), which included a provision directing the Government Accountability Office (GAO) to study and report to Congress on specific school bus safety topics, including a comparison of regulations that apply to public and private school bus operations and expert recommendations on best practices for safe and reliable school bus transportation.³⁰ GAO issued a report in January 2017 that analyzed fatal school bus crash data from 2000 to 2014, reviewed federal laws and regulations, and summarized state laws and regulations on school-bus inspections, driver training, and maximum vehicle age and capacity in all 50 states. As part of the report, GAO "surveyed states to determine whether they track the type of school bus operator in crash data, or other state data such as inspection or funding data, since information states collect on school bus crashes and operations differs." The report did not assess the correlation between public or private school bus fleet operators involved in an accident and safety inspection results, age of the bus, or violation of State and Federal laws.³¹

RECENT SCHOOL BUS CRASHES AND NTSB INVESTIGATIONS

Several high-profile crashes in recent years, some that have been investigated by the NTSB, have provided additional public focus on school bus and driver safety standards.

NTSB investigated two fatal school bus crashes that occurred in November 2016 in Baltimore, Maryland and Chattanooga, Tennessee. In 2018 NTSB issued an investigative report on these crashes and found that poor driver oversight by school districts and contracted motor carriers resulted in unsafe operation of the school buses and issued a series of safety recommendations.³² NTSB focused on a number of safety issues, including: poor management of unsafe school bus drivers by the motor carriers and school districts; medically unfit school bus drivers; commercial driver license fraud; occupant protection in large school buses; and the benefits of electronic stability control, automatic emergency braking, and event data recorders. Additionally, in one of its safety recommendations, NTSB recommended that States enact laws to require that all new large school buses be equipped with three-point seat belts (covering the lap and shoulder as opposed to just the lap) for maximum occupant protection on school buses.³³ Based on these and other investigations of

²⁶ <https://www.fmcsa.dot.gov/sites/fmcsa.dot.gov/files/docs/registration/commercial-drivers-license/396341/aamvaens-design-and-best-practices-recommendations-ver-102.pdf>

²⁷ <https://www.fmcsa.dot.gov/sites/fmcsa.dot.gov/files/docs/registration/commercial-drivers-license/396341/aamvaens-design-and-best-practices-recommendations-ver-102.pdf>

²⁸ Section 32303, P.L. 112-141

²⁹ The National Driver Record Notification System Report to Congress, September 2015, <https://www.fmcsa.dot.gov/sites/fmcsa.dot.gov/files/docs/National%20Driver%20Record%20Notification%20System%20Report%20Enclosure%20FINAL%20September%202015.pdf>

³⁰ Section 5511, P.L. 114-94

³¹ GAO-17-209

³² NTSB/SIR-18/02

³³ *Id.*

numerous school bus crashes, NTSB has made a number of recommendations to NHTSA and states to improve school bus safety.³⁴

On May 17, 2018, a school bus crash on I-80 in New Jersey killed one student and one teacher on board. The driver of the bus had his license suspended 14 times between 1975 and 2017, including six months before the crash, again raising questions about driver fitness. NTSB did not investigate this crash.

WITNESS LIST

- The Honorable Andrew J. McLean, Chair, Committee on Transportation, Maine House of Representatives, *on behalf of the* National Conference of State Legislatures
- The Honorable Brenda Sue Fulton, Chair and Chief Administrator, New Jersey Motor Vehicle Commission
- Ms. Kristin Poland, Ph.D., Deputy Director, Office of Highway Safety, National Transportation Safety Board
- Mr. John Benish, Jr., President and COO, Cook-Illinois Corporation, *on behalf of the* National School Transportation Association
- Ms. Anne Ferro, President & CEO, American Association of Motor Vehicle Administrators
- Mr. Matthew Condron, Secretary-Treasurer, Teamsters Local 384, Norristown, Pennsylvania

³⁴ <https://www.nts.gov/safety/pages/schoolbuses.aspx>

EXAMINING THE FEDERAL ROLE IN IMPROVING SCHOOLBUS SAFETY

THURSDAY, JULY 25, 2019

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON HIGHWAYS AND TRANSIT,
COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE,
Washington, DC.

The subcommittee met, pursuant to notice, at 10 a.m., in room 2167, Rayburn House Office Building, Hon. Eleanor Holmes Norton (Chairwoman of the subcommittee) presiding.

Ms. NORTON. Welcome to today's hearing on schoolbus safety. It is a timely hearing, with children out of school, to see what needs to be done to keep them safe.

And I am interested in keeping them safe not only on schoolbuses and as they get off of schoolbuses, but I am interested in keeping them safe in the streets as they go to school.

It is true that schoolbuses have a relatively safe safety record. It is also true that children are injured every year in bus-related crashes.

More than I believe in most accidents, we owe it to our children, to these students to examine why these fatalities occur and what can be done to prevent them.

There are some schoolbuses in my own district, but most take other modes of transportation, including walking, biking, or riding in a car, going on public transportation.

Children are often at greater risk outside the schoolbus than inside it. We have figures showing 264 students who died in school transportation-related accidents in the last 10 years. Ninety-seven were struck by a vehicle while walking near the bus.

We are going to hear today what Congress can do to stop violations by drivers who illegally pass schoolbuses loading or unloading passengers and to reduce fatalities and injuries as a result of these crashes. But as I indicated, I am interested in what we can do about children whether or not they are on or off buses.

The burden of providing school transportation, we are aware, of course, falls on the States and local districts. Some States are ahead of others in improving schoolbus safety, such as the State of New Jersey, which I am pleased is represented here today, and I look forward to hearing what Congress can do to help ensure that we have safe vehicles.

I want to thank each of the witnesses for appearing today. We will listen very attentively in what the Congress can do, recognizing how much responsibility falls on the States.

[Ms. Norton's prepared statement follows:]

Prepared Statement of Hon. Eleanor Holmes Norton, a Delegate in Congress from the District of Columbia, and Chairwoman, Subcommittee on Highways and Transit

Welcome to today's hearing on school bus safety. School buses have a historically strong safety record, but we still lose children every year to school-bus-related crashes. We owe it to our students to examine why these fatalities occur and what more can be done to ensure they get to school safely.

For most of the students in my district, riding a yellow school bus isn't an option. Instead, they're forced to take other, more dangerous modes such as walking, biking, or riding in a car. Children are often at greater risk outside the bus than inside of it. Of the 264 students who died in school transportation-related accidents in the last 10 years, 97 were children struck by a vehicle while walking near the bus. We will hear today about what Congress can do to stop violations by drivers who illegally pass school buses loading or unloading passengers and reduce fatalities and injuries as a result of these crashes.

The burden of providing school transportation falls on States and local school districts, many of whom struggle to fund education as it is. Yet some States are ahead of the game in improving school bus safety, such as New Jersey which I am pleased to have represented here today. I look forward to hearing what Congress can do to help States ensure we have the safest drivers and vehicles possible for our students.

Finally, more than one Member of this Committee has lost a constituent as the result of a school bus crash in their district. While it may seem like a small problem overall, there's no excuse for a child's life to be cut short in a school bus crash when more could have been done to prevent it.

Thank you to each of our witnesses for being here today and providing your perspective on this important issue. I look forward to your testimony.

Ms. NORTON. I am pleased to recognize Mr. Davis, our ranking member.

Mr. DAVIS. Thank you very much, Madam Chair.

And I want to welcome everyone to today's hearing.

Today the subcommittee will focus on schoolbus safety as part of our ongoing work to reauthorize Federal surface transportation programs and policies.

With nearly 500,000 schoolbuses transporting more than 25 million school-age children to and from school each day, schoolbus safety is an important part of this discussion.

Statistics show that the schoolbus is the safest and most regulated vehicle on the road. In fact, according to the American School Bus Council, children are 70 times more likely to get to school safely when taking a bus when compared to walking, biking, or even traveling by car.

With that said, NHTSA's most recent estimates indicate that schoolbus crashes account for approximately 0.4 percent of all traffic fatalities, and that is on a nationwide basis.

No matter how safe the statistics show schoolbuses are, we unfortunately see approximately 4 to 6 school-age children die each year on the schoolbus and another 10 to 15 die as a result of cars illegally passing schoolbuses.

Each fatality resulting from a schoolbus crash is more than a statistic, and just this last December in my congressional district outside of Bloomington-Normal, we saw a tragic accident where a truck collided with a schoolbus transporting a local basketball team home from a game. Two adults lost their lives in that accident. Nine others were injured, including eight students.

As we work to reauthorize surface transportation programs and policies, it is my hope that we can address schoolbus safety in a

bipartisan manner that prevents such instances from occurring in the future.

In looking at that work, this subcommittee has jurisdiction over two agencies that play an important role in schoolbus safety, NHTSA and FMCSA.

NHTSA sets the Federal motor safety standards for schoolbus safety features, provides in-service training for busdrivers, and develops public awareness programs related to schoolbus safety.

The other, FMCSA, establishes rules for commercial driver's licensing and requires schoolbus drivers to have a CDL with a special schoolbus endorsement.

I look forward to hearing from our witnesses about ways that we can make our school-age children safer as they wait for, load and unload, and ride a schoolbus.

And with that, I want to thank our witnesses for being with us this morning, and I look forward to hearing their testimony.

[Mr. Davis' prepared statement follows:]

Prepared Statement of Hon. Rodney Davis, a Representative in Congress from the State of Illinois, and Ranking Member, Subcommittee on Highways and Transit

Today, the Subcommittee will focus on school bus safety as part of our ongoing work to reauthorize federal surface transportation programs and policies. With nearly 500,000 school buses transporting more than 25 million school-aged children to and from school each day, school bus safety is an important part of this discussion.

Statistics show that the school bus is the safest and most regulated vehicle on the road. In fact, according to the American School Bus Council, children are 70 times more likely to get to school safely when taking a bus when compared to walking, biking, or traveling by car.

With that said, the National Highway Traffic Safety Administration's (NHTSA) most recent estimates indicate that school bus crashes account for approximately 0.4 percent of all traffic fatalities nationwide. No matter how safe the statistics show school buses are, we unfortunately see approximately four to six school-aged children die each year on the school bus, and another 10 to 15 die as a result of cars illegally passing stopped school buses.

Each fatality resulting from a school bus crash is more than a statistic. Just this last December, in my congressional district outside of Bloomington-Normal, we saw a tragic accident where a truck collided with a school bus transporting a local basketball team home from a game. Two adults lost their lives in the accident, and nine others were injured, including eight students. As we work to reauthorize surface transportation programs and policies, it's my hope we can address school bus safety in a bipartisan manner that prevents such instances from occurring in the future.

Looking at that work, this subcommittee has jurisdiction over two agencies that play an important role in school bus safety—NHTSA and the Federal Motor Carrier Safety Administration (FMCSA).

NHTSA sets the Federal Motor Vehicle Safety Standards for school bus safety features, provides in-service training for bus drivers, and develops public awareness campaigns related to school bus safety. The other, FMCSA, establishes rules for commercial driver licensing and requires school bus drivers to have a CDL with a special school bus endorsement.

I look forward to hearing from our witnesses about ways that we can make our school-aged children safer as they wait for, load and unload, and ride a school bus.

Mr. DAVIS. And I yield back to the chair.

Ms. NORTON. I am pleased to recognize the ranking member, Mr. DeFazio, and ask if he has an opening statement?

Mr. DEFazio. Well, I think I became chair, but thank you.

You know, this is our second safety hearing of the year leading up to reauthorization. In the first hearing, we heard testimony

about highway fatalities—100 people dying every day in motor vehicle accidents. That is a life every 15 minutes, 37,133 in 2017, and we need to look at ways to reduce those fatalities.

Obviously, we are doing a lot better with the transportation of our precious kids on their way to and from school on schoolbuses, but it is not perfect.

We will hear some conflicting testimony today, and I would hope that members of the panel might depart from their prepared remarks and respond to someone who speaks earlier, for instance. Mr. Benish from the NSTA is going to come out quite strongly against any Federal mandate on schoolbuses for seatbelts, and yet the NTSB is going to talk about what they see and have felt for some time as a need for lap and shoulder belts, and then we are going to hear from Chief Administrator Fulton about how New Jersey is doing what others say is not possible because of seat configuration, size of children, and the like.

That will be an interesting contrast. I think there is much more substantial agreement on finding ways to better identify the bad apples out there, those who have had poor driving records, those who have had significant health issues, and other things.

There have been States that have moved forward with much more prompt notification. New Jersey, I think, is on a daily basis checking for any violations by schoolbus drivers, and so looking at the National CDL Registry and other things that the Federal Government does control might provide some benefit in those areas.

So I look forward to the testimony, and this will help instruct us on whether or not we need to include any new provisions in the surface transportation reauthorization, which I expect to have done hopefully by early next year.

[Mr. DeFazio's prepared statement follows:]

Prepared Statement of Hon. Peter A. DeFazio, a Representative in Congress from the State of Oregon, and Chairman, Committee on Transportation and Infrastructure

Thank you, Madam Chair, for holding this important hearing. Ensuring the safe transportation of passengers is a critical responsibility of the Transportation and Infrastructure Committee. I can't think of a more prominent reminder of why we must raise the bar on safety than protecting school children.

Earlier this year, the Subcommittee held a highway safety hearing, and the statistics I cited bear repeating. More than 100 people die every day in motor vehicle accidents—that's one life lost every fifteen minutes. In 2017, 37,133 people were killed on our roadways—the equivalent of about 218 fully loaded airplanes falling out of the sky in a single year.

The Nation's 26 million children who travel to and from school in a yellow bus are afforded the safest form of transportation on our roads. While school buses are involved in only a tiny fraction of all fatal crashes, this is still unacceptable given the level of overall carnage on our roads. Between 2008 and 2017, 264 school-age children died in crashes involving a school bus. We can and must do more to save children's lives.

Protecting students on the bus is step one. This means transporting as many students as possible on school buses, and ensuring those children have the strongest occupant protection measures. As we will hear in witness testimony today, several States have grappled with how to strike this balance of stronger occupant protection through seat belts with the realities of tight local and state education budgets. My home State of Oregon does not require seat belts on school buses, but mandates that if they are installed, they must be three-point belts.

A school bus is only as safe as the person controlling it. Well-qualified and medically fit drivers are a critical factor in ensuring the safe carriage of children. In four

recent fatal school bus crashes, driver fitness and certification issues played a significant role.

A 2016 crash in Baltimore, Maryland, killed six people when a school bus, thankfully not carrying children, collided with a transit bus when the driver had a seizure. This driver had a history of seizures and over five years had been involved in at least 12 crashes or incidents while operating a school bus or personal vehicle. In one of these prior incidents, according to the National Transportation Safety Board (NTSB) investigation, the driver struck multiple poles and a parked car after he “passed out” while driving a school bus. Yet he was put back behind the wheel.

In a 2016 crash in Chattanooga, Tennessee, six elementary school children died in a school bus crash caused by the driver’s excessive speed and cell phone use at the time of the crash. The 24-year-old driver had only been driving for about 5 months, during which the school district received over a dozen complaints from parents, students, and the school principal about the driver’s erratic driving and speeding. The NTSB report found that the lack of driver oversight by the school district was a causal factor.

In a 2017 crash in Oakland, Iowa, a school bus driver and his only student passenger—the first one to be picked up on the route—died when the driver backed into a ditch and the engine caught fire. According to the NTSB report, the same student had complained three times to the school prior to the accident that the driver “backed into things and ran stop signs.” The driver had significant medical problems including a spinal condition that inhibited his ability to walk, and his ability to sit for more than 30 minutes. The NTSB report cites that it is “extremely concerning” that the driver was not able to extricate himself and his passenger during the fire emergency when there was no physical barrier to escape the fire.

In 2018 a crash near Mount Olive, New Jersey killed a student and teacher because the driver was attempting an illegal U-turn on Interstate 80 and collided with a dump truck. The driver had received eight speeding tickets and had his license suspended 14 times in his 40 year driving career.

All of these tragedies could have been prevented with better oversight of these drivers by their employers. Congress has taken significant steps to ensure that drivers who hold Commercial Drivers’ Licenses (CDL) are medically qualified, subject to drug and alcohol testing, and adequately trained. We need to ensure that existing protections extend to drivers who carry our most precious cargo, school children. We must also look at additional measures to ensure that employers are notified immediately of a change in a driver’s CDL status, such as license suspension, so that children are not knowingly placed in harm’s way.

I thank our witnesses for being here today and look forward to your testimony on ways we can strengthen school bus safety.

Mr. DEFAZIO. With that, I yield back the balance of my time.

Ms. NORTON. Thank you, Chairman DeFazio.

And I note that the majority leader says that he will give priority to infrastructure, and maybe this hearing will provide us with information that could be included in any new bill.

I did not use all of my time, and I am pleased to yield my remaining time, 2.5 minutes, to Mr. Cohen, who has had an experience that I think is the best way to lead off this hearing.

I yield my good friend from Tennessee 2½ minutes.

Mr. COHEN. Thank you, Madam Chair.

In 2016, there were unfortunately two schoolbus crashes that were most notable in the country. One was in Baltimore, and one was in Chattanooga, my home State. A total of 12 children were killed. In Chattanooga, there were 6 children killed and 20 injured.

After those crashes, the National Transportation Safety Board issued a series of safety recommendations to the National Highway Traffic Safety Administration, and that was great, and they issued them to the administration and to the States to improve schoolbus safety.

One of the recommendations included that States should enact laws to have all new large schoolbuses equipped with three-point seatbelts. Other recommendations included safety measures, such

as inclusion of collision avoidance systems and automatic emergency braking technology.

Sadly and unfortunately and kind of unfathomably, the National Highway Transportation Safety Administration has not initiated the process to enshrine any of these life-saving measures in the Federal regulation, and I have no idea why they shouldn't. They should have acted before this.

Today I introduced H.R. 3959, the School Bus Safety Act, with Senator Tammy Duckworth, which implements those recommendations to make schoolbuses safer by ensuring that all seatbelts be at every seat and buses equipped with stability control and automatic braking systems. It will also include fire protection standards, such as requiring schoolbuses to be equipped with fire suppression systems to address engine fires.

Additionally, the bill would create a grant program to help school districts modify schoolbuses to meet these safety modifications. I am hopeful Congress will work to enact these long overdue measures.

There is no more precious cargo than our children and our schoolchildren whenever there is an accident.

I have been trying to do this since I was a State senator. I know it is difficult to get beyond the industries, but it is something we need to do, and safety belts will save lives.

So I yield back and thank the chairwoman for her time.

Ms. NORTON. I thank the gentleman from Tennessee.

I ask unanimous consent that the chair be authorized to declare recesses during today's hearing.

Without objection, so ordered.

I also ask unanimous consent that members not on the subcommittee be permitted to sit with the subcommittee at today's hearing and ask questions.

I am going to introduce the panel of witnesses, but before I introduce them all, I am going to yield to Mr. Davis to introduce Mr. John Benish.

Mr. DAVIS. Thank you, Madam Chair.

I am pleased to introduce John Benish, Jr., the president of the National School Transportation Association, and a resident of the great State of Illinois.

John, Mr. Benish, thanks for testifying today, and thank you for all of the commendable work you and the other bus operators do in keeping our kids safe.

The overwhelming number of kids that travel safely back and forth to our schools every day on your schoolbuses ought to also be commended.

We ought to address the issues in transportation safety regarding schoolbuses and other modes of transportation, but let's not ever forget the fact that there is an overwhelming amount of students, the overwhelming majority, that arrive safely and go home safely and do it again the next day until they graduate high school like my kids did this year.

So no more schoolbuses for me for a while, but thanks for your service, and thanks for being here today.

Ms. NORTON. Well, thank you, Mr. Davis.

I am simply going to run down the names of the witnesses and then call on the first witness.

We are pleased to welcome the Honorable Andrew J. McLean, House chairman, Joint Standing Committee on Transportation, Maine State Legislature, who is here on behalf of the National Conference of State Legislatures.

In addition, the Honorable Brenda Sue Fulton, chief administrator, New Jersey Motor Vehicle Commission.

Also, Dr. Kristin Poland, Deputy Director, Office of Highway Safety, National Transportation Safety Board.

Ms. Anne Ferro, the president and CEO of the American Association of Motor Vehicle Administrators.

And finally, Mr. Matthew Condron, secretary-treasurer, Teamsters Local 384, Norristown, Pennsylvania.

Forgive my coughing cold, but welcome all of you, and we are going to proceed left to right.

Try to give your testimony within 5 minutes, your opening statements, rather, within 5 minutes.

I would like to welcome and ask first to speak Mr. McLean, who is speaking for the National Conference of State Legislatures.

You may proceed. Turn on your microphone.

TESTIMONY OF HON. ANDREW J. McLEAN, HOUSE CHAIRMAN, JOINT STANDING COMMITTEE ON TRANSPORTATION, MAINE STATE LEGISLATURE, ON BEHALF OF THE NATIONAL CONFERENCE OF STATE LEGISLATURES; HON. SUE FULTON, CHIEF ADMINISTRATOR, NEW JERSEY MOTOR VEHICLE COMMISSION; KRISTIN POLAND, Ph.D., DEPUTY DIRECTOR, OFFICE OF HIGHWAY SAFETY, NATIONAL TRANSPORTATION SAFETY BOARD; JOHN BENISH, Jr., PRESIDENT AND CHIEF OPERATING OFFICER, COOK-ILLINOIS CORPORATION, ON BEHALF OF THE NATIONAL SCHOOL TRANSPORTATION ASSOCIATION; ANNE FERRO, PRESIDENT AND CHIEF EXECUTIVE OFFICER, AMERICAN ASSOCIATION OF MOTOR VEHICLE ADMINISTRATORS; AND MATTHEW CONDRON, SECRETARY-TREASURER, TEAMSTERS LOCAL 384, NORRISTOWN, PENNSYLVANIA

Mr. McLEAN. Thank you very much.

Chairwoman Holmes Norton, Ranking Member Davis, and distinguished members of the House Subcommittee on Highways and Transit, my name is Andrew McLean. I am House chair of the Maine Joint Standing Committee on Transportation and cochair of the National Conference of State Legislatures, National Resources and Infrastructure Committee.

I appear before you today on behalf of NCSL, a bipartisan organization representing the 50 State legislatures and legislatures of our Nation's Commonwealths, Territories, possessions, and District of Columbia.

Every schoolday more than 25 million children climb into 485,000 buses across the country that take them to and from school-related activities. Thankfully, schoolbuses are statistically the safest way to transport schoolchildren.

However, 61 children who were schoolbus occupants died in crashes between 2008 and 2017, and this is 61 children too many.

States across the Nation have responded to these tragedies with laws that NCSL has determined fall into three distinct categories: laws requiring seatbelts on schoolbuses; laws authorizing cameras mounted on stop-arms to cite drivers that illegally pass a stopped schoolbus; and laws making changes to requirements for schoolbus drivers.

Overall, 35 States have debated more than 250 school safety bills in 2018 and 33 States have considered more than 200 bills in 2019 thus far. Compare this only to 132 bills in 2014 and 173 bills in 2015. You can see that there has been an uptick in legislative interest in schoolbus safety.

Schoolbuses are designed to protect riders through compartmentalization using structural safety features, such as high, energy-absorbing seat backs and closely spaced seats so children are kept snug.

However, these features do not necessarily protect children the way seatbelts do during side-impact crashes or high-speed rollovers when passengers can be thrown from their seats.

In May of 2018, a schoolbus crash took the life of one student and one teacher in Paramus, New Jersey. In response, New Jersey enacted legislation requiring lap/shoulder seatbelts instead of solely lapbelts.

In addition to New Jersey, seven other States require seatbelts on schoolbuses.

In 2018, more than 108,000 schoolbus drivers observed almost 84,000 vehicles illegally passing schoolbuses in 1 single day. Thankfully, most State laws require vehicles on both sides of the road without a median to stop and remain stopped while a schoolbus stop-arms and flashing red lights are deployed.

In 2014, Wyoming became the first State to require all schoolbuses to be equipped with a camera system to capture images of motorists illegally passing stopped schoolbuses. States have also added language to address privacy concerns.

Alabama's law requires that images or videos not include the face of a driver or passengers and be destroyed within 90 days if there is no violation.

Overall, 21 States explicitly allow local governments or school districts to use cameras to capture images and issue tickets for drivers who illegally pass stopped schoolbuses. States have also moved to increase penalties for illegally passing a stopped schoolbus.

Illinois now requires the revocation of a driver's license when someone illegally passes a schoolbus and the violation leads to a motor vehicle crash resulting in death.

Finally, I would like to highlight how States have strengthened their requirements for schoolbus drivers. For example, New York enacted a bill that requires all schoolbus drivers to take preemployment alcohol and drug testing, as well as be subject to random testing, with all drivers required to be included in the random testing pool.

States have also increased schoolbus driver training requirements. Rhode Island, for example, enacted a law requiring that annual training for schoolbus drivers include NHTSA's schoolbus driver in-service training series.

This is my fourth term serving as State legislator in the Maine House of Representatives and my third term chairing our Transportation Committee, and I can say that this past session was the most active in terms of legislation addressing schoolbus safety.

Just over a month ago, in mid-June, Maine passed two specific bills focused on schoolbus safety. LD19 will now require schoolbuses purchased after this year to be equipped with a schoolbus crossing arm, and LD166 addressed the issue of cars passing schoolbuses.

Initially there was simply interest in increasing fines for violators, but we know that simply increasing the penalties does not actually solve the problem. We engaged stakeholders, including community members and local and State police, and this working group identified that enforcement of existing laws is the challenge because there is no way to identify a vehicle when the busdriver is the only person to have witnessed the violation.

Thus, the working group recommended allowing the use of a traffic surveillance camera mounted on a schoolbus in conjunction with a lighted traffic control device to improve or enforce a violation in order to identify the violator. This bill was very controversial, given our State's high regard for privacy.

However, the testimony from grieving parents and community members was powerful and convincing. Too many kids are being hurt or killed while they are near a schoolbus.

Madam Chairman, I thank you for this opportunity to testify before the subcommittee on this important topic, and I look forward to the subcommittee's questions.

[Mr. McLean's prepared statement follows:]

Prepared Statement of Hon. Andrew J. McLean, House Chairman, Joint Standing Committee on Transportation, Maine State Legislature, on behalf of the National Conference of State Legislatures

Chairman Holmes Norton, Ranking Member Davis, and distinguished members of the House Subcommittee on Highways and Transit, my name is Andrew McLean, House chairman of the Maine Joint Committee Transportation and co-chair of the National Conference of State Legislatures (NCSL) Natural Resources and Infrastructure Committee. I appear before you today on behalf of NCSL, a bi-partisan organization representing the 50 state legislatures and the legislatures of our nation's commonwealths, territories, possessions, and the District of Columbia.

Madam Chairman, I would like to take this opportunity to thank you and the committee for your leadership on this important issue. Every school day, more than 25 million children climb into 485,000 buses around the country that take them to and from school and related activities, according to the National Association for Pupil Transportation. Thankfully, school buses are statistically the safest way to transport school children, as school transportation-related fatalities between 2008 and 2017 made up less than half a percent of all fatal crashes. However, 61 children who were school bus occupants died in crashes between 2008 and 2017 and this is 61 children too many.

States across the nation have responded to these tragedies with laws that NCSL has determined fall into three distinct categories:

- laws requiring seatbelts on school buses;
- laws authorizing cameras mounted on stop-arms to cite drivers that illegally pass a stopped school bus; and
- laws making changes to requirements for school bus drivers.

Overall, 35 states debated more than 250 school safety bills in 2018, and 33 states have considered more than 200 bills in 2019, thus far. Contrast this to only 132 bills in 2014 and 173 bills in 2015 and you can see there has been an increase in interest to legislate school bus safety.

SEATBELTS ON SCHOOL BUSES

School buses are designed to protect riders through compartmentalization, using structural safety features such as high, energy-absorbing seat backs and closely spaced seats so children are kept snug. However, these features don't necessarily protect children the way seatbelts do during side-impact crashes or high-speed roll-overs, when passengers can be thrown from their seats.

In May of 2018, a school bus crash took the life of one student and one teacher in Paramus, N.J. In response, New Jersey enacted legislation (HB 4110) requiring lap-shoulder seatbelts instead of solely lap belts. The new requirement applies to buses manufactured beginning 180 days after the bill signing. In addition to New Jersey, seven other states require seatbelts on school buses. These states include Arkansas, California, Florida, Nevada, and Texas which require lap and shoulder belt and Louisiana and New York require lap. However, the requirements in Arkansas, Louisiana, and Texas are subject to appropriations or approval or denial by local jurisdictions. Additionally, Iowa's Board of Education is pursuing an internal rule [<https://stnonline.com/news/iowa-preliminary-approval-lap-shoulder-seatbelts-school-buses/>] and has approved a preliminary requirement for lap/shoulder seatbelts to be included in the purchase of all new school buses.

ILLEGALLY PASSING SCHOOL BUSES

Students boarding and exiting school buses are at risk of being hit by motorists passing and failing to yield to stopped school buses. The National Highway Traffic Safety Administration (NHTSA) found that 97 pedestrians under the age of 18 were killed in school transportation-related crashes between 2008 and 2017. Further, according to a survey [<https://www.schoolbusfleet.com/news/730974/national-stop-arm-survey-counts-over-80k-illegal-passes-of-school-buses>] by the National Association of State Directors of Pupil Transportation Services, in 2018, more than 108,000 school bus drivers observed almost 84,000 vehicles illegally passing school buses in a single day. Thankfully, most state laws require vehicles on both sides of a road without a median to stop, and remain stopped, while school bus stop arms and flashing red lights are deployed.

In 2014, Wyoming became the first state to require all school buses (approximately 1,500) to be equipped with a camera system to capture images of motorists illegally passing stopped school buses. Wyoming HB 5 required all school buses to be equipped with cameras by the 2016–2017 school year and appropriated \$5 million to pay for installation. After feedback from law enforcement that some authorities were reluctant to cite drivers for violations unless both the license plate and driver's face could be clearly seen, Wyoming tweaked their law in 2019 to clarify that a recording of images produced by a video system equipped on a school bus shall be prima facie evidence of the facts contained in it. Further, Wyoming clarified that a recorded image evidencing a violation shall be admissible in a judicial or administrative proceeding to adjudicate liability for the violation and that if the identity of the driver of a vehicle that violates this section is unknown, the registered owner of the vehicle recorded by a video system as provided in this subsection shall be fined \$195. Wyoming also added language to address privacy concerns, including stipulating that recordings or images made from a video system shall be destroyed within one year of the recording date.

Further, state laws concerning school bus stop arm cameras also address how any revenue from violations is allocated while safeguarding privacy. Illinois' law requires that proceeds from fines be divided between a school district and municipality or county. It also states that "the compensation paid for an automated traffic law enforcement system must be based on the value of the equipment or the services provided and may not be based on the number of traffic citations issued or the revenue generated by the system." In Virginia, the fine revenue is allocated to the local school division where the violation occurred. Washington directs fine revenue to school districts for school zone and school bus safety projects, minus administrative and operational costs. In Pennsylvania, violators are subject to a fine of \$250, plus a surcharge of \$35. The surcharge must be deposited in the school bus safety grant program account and the Pennsylvania Department of Transportation must develop a competitive grant program using the funds to increase school bus safety, education, and training in the state.

To help protect the privacy of drivers, Alabama's law requires that images or video not include the face of the driver or passengers and be destroyed within 90 days if there was no violation. Rhode Island's law stipulates that images must be destroyed within 24 hours if no violation is identified and within one year if there was a violation.

Overall, 21 states, including five enacted just this year—Alabama, Arkansas, Connecticut, Georgia, Illinois, Indiana, Maine, Maryland, Mississippi, New York, North Carolina, Oklahoma, Pennsylvania, Rhode Island, South Carolina, Tennessee, Utah, Virginia, Washington, West Virginia, and Wyoming—explicitly allow local governments or school districts to use cameras to capture images and issue tickets for drivers who illegally pass stopped school buses. The laws in five states—Indiana, Maine, New York, Tennessee, and Oklahoma—were enacted in 2019.

In addition to making it illegal to pass a stopped school bus, states have also moved to increase penalties for illegally passing a stopped school bus.

Illinois now requires the revocation of a driver's license when a driver illegally passes a school bus and the violation leads to a motor vehicle crash resulting in death. Florida recently passed legislation to allow a court to mandate that a driver who causes serious bodily injury or death when passing a stopped school bus serve 120 hours of community service in a trauma center or hospital that regularly treats victims of vehicle crashes and to participate in a victims' impact panel or attend a driver-improvement course relating to the rights of vulnerable road users. It also sets the penalty at \$1,500 for causing serious bodily injury or death by illegally passing a school bus and increases it to a six-point offense. Maryland increased the penalty for illegally passing a school bus from \$250 to \$500. The law also requires that Montgomery County report to the legislature the number of violations recorded by school bus monitoring cameras after the effective date of the new penalty legislation.

In the fall of 2018, three northern Indiana children died, and another was injured while crossing a rural highway to board their school bus. Indiana enacted a bill in 2019 allowing the installation of school bus stop-arm cameras. Indiana also took several comprehensive steps to try and ensure the placement of school bus stops is safe including:

- Except when within the boundary of a city or town, when a school bus is operated on a: (1) U.S. route or state route, the driver may not load or unload a student at a location that requires the student to cross a roadway unless no other safe alternatives are available; and (2) when a school bus is operated on a street or highway other than a U.S. route or state route, the driver shall load and unload a student as close to the right-hand curb or edge of the roadway as practicable.
- On or before Sept. 1, 2019, and each Sept. 1 thereafter, each school corporation, charter school, and accredited nonpublic school that provides transportation for students must review the school's school bus routes and school bus safety policies to improve the safety for students and adults.
- The state school bus committee, in consultation with the department of education, shall develop and post on the department's website, school bus safety guidelines or best practices. The guidelines or best practices must include procedures to be taken to ensure that students do not enter a roadway until approaching traffic has come to a complete stop.
- The department of education, in consultation with the department of transportation, shall include on the department's website, information on how an individual or school may petition to reduce maximum speed limits in areas necessary to ensure that students are safely loaded onto or unloaded from a school bus.

SCHOOL BUS DRIVERS

Finally, I'd like to highlight how states have strengthened their requirements for school bus driver testing, training, and penalties for unsafe driving, failing a drug or alcohol test, or moving violations.

For example, New York enacted a bill (AB 208) that requires all school bus drivers to take pre-employment drug and alcohol testing, as well as be subject to random testing, with all drivers required to be included in the random testing pool. The bill also extended the time limit for consuming alcohol before operating a school bus from six to eight hours for school bus operators. Connecticut recently increased the penalty for DUI when driving a school bus, making this a new offense. The new law includes longer mandatory prison terms, increased maximum fines, and a 45-day license suspension.

States have also increased school bus driver training requirements. Virginia recently changed (SB 557/HB 810) their requirements for training school bus drivers. The training program for applicants without a commercial driver's license must include: a minimum of 24 hours of classroom training and 6 hours of behind-the-wheel training on a school bus that contains no pupil passengers. For applicants with a commercial driver's license, they must receive a minimum of 4 hours of classroom

training and 3 hours of behind-the-wheel training on a school bus that contains no pupil passengers. Behind-the-wheel training shall be administered under the direct on-board supervision of a designated school bus driver trainer. Rhode Island passed a law requiring that annual training for school bus drivers include NHTSA's school bus driver in-service training series. Indiana now allows a driver's certificate of completion of the school bus driver safety education to be revoked in certain instances, including when the driver endangers the safe transportation of students.

And of course, states have also sought to ensure school bus drivers are not distracted when driving. Georgia recently modified the ban on cell phone use by school bus drivers to specify that phone use is permitted if the phone is used in a way similar to a two-way radio in order to communicate with school or public safety officials. Tennessee expanded the state's prohibition of cell phone use by school bus drivers, applying the ban to a wider range of portable electronic devices beyond simply cell phones.

SCHOOL BUS SAFETY IN MAINE

I'd like to take a quick minute and take off my NCSL hat and put on my Maine transportation chairman hat. This is my fourth term serving as state legislator in the Maine House of Representatives, and third term chairing our Transportation Committee, and I can say that this past session was the most active in terms of legislation addressing school bus safety.

Just over a month ago, in mid-June, Maine entertained nearly a dozen bills and passed two bills specifically focused on school bus safety. LD 19 will now require school buses purchased after this year to be equipped with a school bus crossing arm and LD 166 addressed the issue of cars passing school busses.

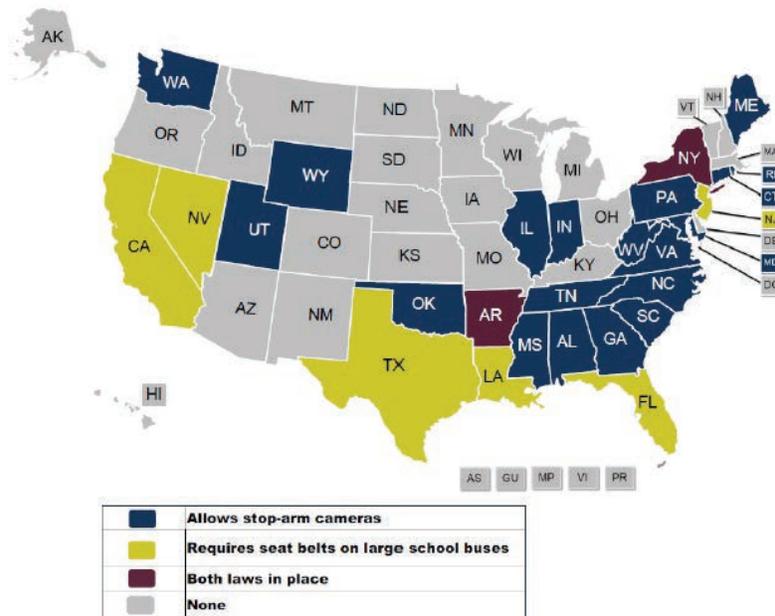
Initially, there was interest in simply increasing fines for violators, but we know that simply increasing the penalties does not actually solve the problem. We engaged stakeholders, including community members, and local and state police. The working group identified that enforcement of existing laws is the challenge because there is no way to identify a vehicle when the bus driver is the only person to have witnessed the violation. Thus, the working group recommended allowing the use of a traffic surveillance camera mounted on a school bus in conjunction with a lighted traffic control device to prove or enforce a violation in order to identify the violator. This bill was very controversial given our state's high regard for privacy. However, the testimony from grieving parents and community members was powerful and convincing: too many kids are being hurt or killed while on or near a school bus.

NEXT STEPS

Finally, I'd like to end by noting that NCSL supports a continued federal role in helping to set national performance and safety goals with federal safety programs being expanded to incorporate emerging safety issues, while respecting state sovereignty. However, NCSL strongly opposes the use of federal sanctions or redirection penalties to enforce federal safety standards as well as the use of federal mandates that are enforced using "reprogramming" sanctions. States stand ready to work with our federal partners to ensure that school buses remain the safest way to transport school children.

Madam Chairman, I thank you for this opportunity to testify before the subcommittee on this important topic. If you or your staff have any additional questions, please contact NCSL staff Ben Husch and Doug Shinkle. We look forward to working with you and the members of the subcommittee on this increasingly important safety issue.

SCHOOL BUS SAFETY LAWS



Ms. NORTON. Thank you very much, Mr. McLean.

Next, the chief administrator of the New Jersey Motor Vehicle Commission, Brenda Sue Fulton.

Ms. FULTON. Thank you and good afternoon, Chair Norton, Ranking Member Davis, members of the subcommittee.

I am here representing the New Jersey Motor Vehicle Commission and Governor Murphy, and we are grateful for the opportunity to speak on such an important topic.

Last year, as you heard, a schoolbus crash in Mount Olive, New Jersey, tragically took the lives of East Brook Middle School fifth-grader Miranda Vargas, and Paramus social studies teacher, Jennifer Williamson, and injured dozens of children. This crash broke our hearts and caused us to take a hard look at how we keep our kids safe.

New Jersey is second to none in ensuring that children who ride our schoolbuses are safe. Every one of our 23,000 schoolbuses are inspected at least twice a year with a review of driver qualifications as well as vehicle safety.

Our Governor's School Bus Safety Task Force conducts an additional 100 unannounced inspections. Unannounced inspections have been particularly critical to help identify private operators who have unlicensed or otherwise unqualified drivers operating their schoolbuses.

We started requiring lapbelts on all schoolbuses in 1992, and we remain one of only seven States that require belts on all schoolbuses.

In 1996, we started requiring every bus to be equipped with a crossing arm that swings out and prevents children from passing directly in front of the bus. This was modeled after Betsy's Law in Washington State.

In 2017, with the passing of Abigail's Law, all New Jersey schoolbuses were required to have sensors in front and in back to detect an object or small child below the field of view.

Every work night, the Motor Vehicle Commission generates a report of any schoolbus driver whose license has been suspended and transmits that report directly to the New Jersey Department of Education for action.

But after the devastating loss of Jennifer Williamson and 10-year-old Miranda, we resolved to do even more. In the first 2 years of his administration, Governor Murphy signed eight laws aimed at improving the safety of schoolbuses, drivers, and supervisors. These laws now require the following:

One, all newly purchased schoolbuses must have three-point belts;

Two, in the past, schoolbus drivers who accumulated 12 or more points were scheduled for suspension. Under recently enacted legislation, they are now scheduled for suspension if they receive three or more moving violations in a 3-year period or six or more points, and they must complete a defensive driving course before being restored.

Three, local boards of education or the bus contractor that provides the pupil transportation services are notified by the department of education of suspensions within 1 working day and must confirm within 1 business day that the suspended driver is no longer operating a schoolbus.

Four, in addition to the commercial driver license requirement for medical certification from a Federal medical examiner every 2 years, schoolbus drivers age 70 to 74 must provide evidence of a medical exam every year, and drivers age 75 and over must provide evidence of an exam every 6 months.

Five, the State is conducting a study of schoolbus passenger safety.

And six, finally, at the local level schoolbus drivers and schoolbus aides must now complete training biannually and school district transportation supervisors must complete an approved certification program at an institute of higher education.

In some respects, we are fortunate that our Governor, education commissioner, State legislators, and Members of Congress have all pulled together to enact measures to make our kids safer. But it has not escaped anyone's notice that too many of these laws have names: Betsy, Abigail, Miranda. Too many tragedies, too much loss.

If I could convey any message to our sister States and to you, members of this committee, it would be this: do not wait for another child to die before you take action.

I welcome your questions. Thank you for the opportunity to testify.

[Ms. Fulton's prepared statement follows:]

**Prepared Statement of Hon. Sue Fulton, Chief Administrator, New Jersey
Motor Vehicle Commission**

Good afternoon, Chair DeFazio, Ranking Member Graves, Chair Norton, Ranking Member Davis, and members of the Subcommittee.

I'm here representing the New Jersey Motor Vehicle Commission and Governor Murphy, and we're grateful for the opportunity to speak on such an important topic.

Last year, a school bus crash in Mount Olive, New Jersey, tragically took the lives of East Brook Middle School fifth-grader Miranda Vargas, and Paramus Social Studies teacher Jennifer Williamson, and injured dozens of children.

This crash broke our hearts—and caused us to take a hard look at how we keep our kids safe.

NEW JERSEY'S HISTORY OF SCHOOL BUS SAFETY

New Jersey is second to none in ensuring that children who ride our school buses are safe.

Every one of our 23,000 school buses is inspected at least twice a year, with a review of driver qualifications as well as vehicle safety. Our Governor's School Bus Safety Task Force conducts an additional 100 unannounced inspections. Unannounced inspections have been particularly crucial to help identify private operators who have unlicensed or otherwise unqualified drivers operating their school buses.

We started requiring lap belts on all school buses in 1992, and we remain one of only seven states that require belts on all school buses.

In 1996, we started requiring every bus to be equipped with a crossing arm, that swings out and prevents children from passing directly in front of the bus. This was modeled after Betsy's Law in Washington State.

In 2017, with the passing of Abigail's Law, all New Jersey school buses were required to have sensors in front and in back to detect an object or small child below the field of view.

Every work night, the Motor Vehicle Commission generates a report of any school bus driver whose license has been suspended and transmits that report directly to the New Jersey Department of Education for action.

But after the devastating loss of beloved teacher Jennifer Williamson and 10-year-old Miranda, we resolved to do even more in New Jersey.

NEW MEASURES

In the first two years of his administration, Governor Murphy signed eight laws aimed at improving the safety of school buses, drivers, and supervisors. These laws now require the following:

1. All newly-purchased school buses must have 3-point belts.
2. In the past, school bus drivers who accumulated 12 or more points were scheduled for suspension. Under recently enacted legislation, they are now scheduled for suspension if they receive 3 or more moving violations in 3 years or 6 or more points, and they must complete a defensive driving course before being restored.
3. Local boards of education, or the bus contractor that provides pupil transportation services for a local board of education, are notified by the NJDOE of suspensions within one working day and must confirm within one business day that the suspended driver is no longer operating a school bus.
4. In addition to the Commercial Driver License requirement for medical certification from a federal medical examiner every two years, school bus drivers age 70–74 must provide evidence of an annual medical exam, and drivers age 75 and over must have an exam every six months.
5. The State will conduct a study of school bus passenger safety.
6. And finally, at the local level, school bus drivers and school bus aides must now complete trainings biannually and school district transportation supervisors must complete an approved certification program at an institution of higher education.

CONCLUSION

In some respects, we are fortunate that our Governor, Education Commissioner, state legislators, and members of Congress have all pulled together to enact measures to make our kids safer.

But it hasn't escaped anyone's notice that too many laws have names. *Betsy. Abigail. Miranda.*

Too many tragedies. Too much loss.

If I could convey any message to our sister states, and to you, members of this Committee, it would be this: Don't wait for a child to die to take action; do it now. I welcome your questions.

Ms. NORTON. I appreciate that moving testimony.

Dr. Poland, Deputy Director, Office of Highway Safety, National Transportation Safety Board.

Ms. POLAND. Good afternoon, Chairwoman Norton, Ranking Member Davis, and the members of the subcommittee.

Thank you for inviting the NTSB to testify today regarding schoolbus safety.

Schoolbus travel, as you have heard, is one of the safest forms of transportation on our roads today. Children are safer traveling in schoolbuses than in any other vehicle, but still, improvements can be made.

Today I will focus my remarks on NTSB recommended improvements related to occupant protection, driver oversight, fire protection, and the safety of children in the schoolbus loading zone.

Compartmentalization, the current form of occupant protection on large schoolbuses, is a passive system that performs well in frontal collisions. Unfortunately, in side-impact collisions and rollovers, compartmentalization is incomplete and provides insufficient protection.

Twenty years ago, we recommended that NHTSA develop performance standards for schoolbus occupant protection systems that account for all types of collisions and rollovers. In 2008, NHTSA published a final rule that established standards for both lap and lap/shoulder belts if voluntarily installed on large schoolbuses.

With the Federal regulation in place, some jurisdictions are now equipping buses with this safety improvement. However, there still is no Federal requirement for large schoolbuses to be equipped with passenger lap/shoulder belts.

Additionally, more recent schoolbus crashes have emphasized the need for change. Last year, following the catastrophic schoolbus crash in Chattanooga, Tennessee, the NTSB recommended that each State require passenger lap/shoulder belts to be installed in new large schoolbuses.

Poor driver oversight resulted in unsafe schoolbus operations in both the Chattanooga crash and another 2016 crash in Baltimore, Maryland. In each case, the drivers continued to operate schoolbuses unsafely with no remedial action being taken even in the face of known driver safety issues.

Improving driver oversight can prevent crashes. In the Chattanooga crash, the busdriver had about 5 months of schoolbus driving experience during which he had accumulated numerous complaints about his driving performance. There was no systematic method for recording, tracking, or investigating complaints of driver behavior.

In the Baltimore crash, the driver had a longstanding seizure disorder, yet was allowed to continue driving the schoolbus. We concluded that the driver understood his diagnosis of epilepsy and intentionally hid this during his medical examination.

Further, although Baltimore City Public Schools was responsible for driver oversight, it failed to identify the busdriver as high risk.

The NTSB has investigated several bus fires dating back to the 1988 bus collision near Carrollton, Kentucky, that resulted in 27 deaths.

More recently, in December 2017, a fire ignited in the engine compartment of a schoolbus in Oakland, Iowa, and spread into the bus' passenger compartment resulting in two deaths. The bus was not equipped with an automatic fire suppression system that would have delivered a fire suppressant inside the vehicle's engine compartment, increasing the time to evacuate.

We issued recommendations to NHTSA to require the installation of fire suppression systems in schoolbuses. We also addressed similar recommendations directly to the schoolbus manufacturers.

In addition, we recommended that NHTSA update the requirements for flammability of schoolbus interior materials.

We know that more children are injured or killed in the schoolbus loading zone than on the bus itself. Following our investigation of a 2016 collision in which a child was fatally struck while crossing the roadway to board his schoolbus in Thief River Falls, Minnesota, the Board recommended that NHTSA assess and update the guidelines on pupil transportation safety to address pedestrian issues related to conspicuity and route selection.

We are now investigating three additional loading zone crashes in Indiana, Georgia, and Mississippi in order to identify countermeasures for preventing or mitigating future injuries and fatalities in the schoolbus loading zone.

Thank you for the opportunity to provide our recommendations for improving schoolbus safety. I would be pleased to answer any questions you have.

[Dr. Poland's prepared statement follows:]

Prepared Statement of Kristin Poland, Ph.D., Deputy Director, Office of Highway Safety, National Transportation Safety Board

Good morning, Chairwoman Norton, Ranking Member Davis, Chairman DeFazio, Ranking Member Graves, and Members of the Subcommittee. Thank you for inviting the National Transportation Safety Board (NTSB) to testify before you today regarding our investigations and safety recommendations on school bus safety.

In 1967, Congress established the NTSB as an independent agency within the United States Department of Transportation (USDOT) with a clearly defined mission to promote a higher level of safety in the transportation system. In 1974, Congress reestablished the NTSB as a separate entity outside of the USDOT, reasoning that "no federal agency can properly perform such (investigatory) functions unless it is totally separate and independent from any other ... agency of the United States."¹ Because the USDOT has broad operational and regulatory responsibilities that affect the safety, adequacy, and efficiency of the transportation system, and transportation accidents may suggest deficiencies in that system, the NTSB's independence was deemed necessary for proper oversight.

The NTSB is charged by Congress with investigating every civil aviation accident in the United States and significant accidents in other modes of transportation—highway, rail, marine, and pipeline. We determine the probable cause of the accidents we investigate, and we issue recommendations to federal, state, and local agencies, and other entities, aimed at improving safety, preventing future accidents and injuries, and saving lives. The NTSB is not a regulatory agency—we do not promulgate operating standards and do not certificate organizations and individuals. The goal of our work is to foster safety improvements, through safety alerts, reports, and formal safety recommendations, for the traveling public.

¹ Independent Safety Board Act of 1974 § 302, Pub. L. 93-633, 88 Stat. 2166-2173 (1975).

School bus travel is one of the safest forms of transportation in the United States. Every day, nearly 600,000 buses carry more than 25 million students to and from school and activities. Children are safer traveling in school buses than in any other vehicle.²

The NTSB has a long history of investigating school bus crashes and making recommendations to improve the safety of the system. However, we continue to investigate school bus crashes that result in preventable fatalities and injuries. In 2018, we completed a special investigation report regarding selective issues in school bus transportation safety following crashes in Baltimore, Maryland, and Chattanooga, Tennessee.³ We also recently completed the investigation of a December 12, 2017, school bus fire in Oakland, Iowa.⁴ We have made recommendations regarding improving occupant protection, enhancing driver oversight, and increasing pedestrian safety, as well as emphasizing the need for crash-prevention technologies, fire-resistant materials, and fire suppression systems on school buses.

LAP/SHOULDER BELTS ON SCHOOL BUSES

School buses are one of the safest modes of transportation because of their robust design and unique operating environment. School buses are designed with a passive form of occupant protection, termed “compartmentalization,” which requires no action by the passenger and functions by forming a compartment fore and aft of the bus occupant. Compartmentalization is designed to contain passengers within their seating compartments during frontal and rear-impact collisions, while the seatback is designed to absorb impact energy and reduce occupant injury. A key aspect of this occupant protection system is that passengers remain within the compartment prior to and during an impact so that they benefit from the energy-absorbing seat design. However, for many years, we have recommended enhancements to school bus occupant protection systems, particularly to address side-impact collisions and rollovers in which compartmentalization is incomplete and provides insufficient protection for occupants.

In 1999, we released a special investigation report regarding bus crashworthiness.⁵ In this report, we issued two recommendations requesting that the National Highway Traffic Safety Administration (NHTSA) develop performance standards for school bus occupant protection systems that account for frontal, side-, and rear-impact collisions and rollovers, then require that newly manufactured school buses install systems to retain passengers within the seating compartments throughout the crash sequence for all accident scenarios.⁶

In 2008, NHTSA published a final rule (with an effective date of October 21, 2011) that upgraded the school bus occupant protection requirements of various Federal Motor Vehicle Safety Standards (FMVSSs), including the requirement for lap and shoulder belts (rather than lap-only belts) for all passenger seating positions on school buses with a gross vehicle weight rating (GVWR) equal to or less than 10,000 pounds; and the establishment of performance standards for seat belts voluntarily installed by states or school districts on school buses with a GVWR greater than 10,000 pounds (these vehicles are referred to as “large school buses”).⁷

Now that there is a federal regulation defining performance standards for large school bus passenger lap/shoulder belts, school bus and seat manufacturers are designing large school buses with this safety improvement. In addition, design improvements—such as flexible seating systems—have reduced the impediments to equipping large school buses with this key safety feature. States and local school

² See the NHTSA road safety webpage on school bus safety [<https://www.nhtsa.gov/road-safety/school-bus-safety>], accessed July 10, 2019.

³ NTSB. *Selective Issues in School Bus Transportation Safety: Crashes in Baltimore, Maryland, and Chattanooga, Tennessee* [<https://www.nts.gov/investigations/AccidentReports/Reports/SIR1802.pdf>]. NTSB/SIR-18/02. Washington, DC: NTSB.

⁴ NTSB. *School Bus Run-Off-Road and Fire* [<https://www.nts.gov/investigations/AccidentReports/Reports/HAR1901.pdf>]. NTSB/HAR-19/01. Washington, DC: NTSB.

⁵ NTSB. *Bus Crashworthiness* [<https://www.nts.gov/safety/safety-studies/Documents/SIR9904.pdf>]. NTSB/SIR-99/04. Washington, DC: NTSB.

⁶ NTSB. *Safety Recommendations H-99-45* [https://www.nts.gov/investigations/AccidentReports/_layouts/nts.gov/recsearch/Recommendation.aspx?Rec=H-99-045] and -46 [https://www.nts.gov/investigations/AccidentReports/_layouts/nts.gov/recsearch/Recommendation.aspx?Rec=H-99-046].

⁷ (a) See Title 49 *Code of Federal Regulations* (CFR) Part 571, “Federal Motor Vehicle Safety Standards, Seating Systems, Occupant Crash Protection, Seat Belt Assembly Anchorages, School Bus Passenger Seating and Crash Protection, Final Rule.” (b) The final rule developed performance standards for both lap belts and lap/shoulder belts on large school buses if the belts were voluntarily installed. The rule requires higher seatbacks for all school buses, but does not require that passenger lap or lap/shoulder belts be installed in large school buses.

districts that have required or installed lap/shoulder belts in large school buses report additional improvements beyond occupant protection, including reduced driver distraction and improved student behavior. However, to date, there is no federal requirement for large school buses to be equipped with lap/shoulder belts, and most states do not require them. For large school buses, NHTSA has continued to maintain that compartmentalization, rather than lap/shoulder belts, is the best way to provide crash protection.⁸

In February 2012, a school bus transporting students to Chesterfield Elementary School in Chesterfield, New Jersey, was struck at an intersection by a Mack roll-off truck with a fully loaded dump container, resulting in 1 bus passenger fatality, 5 serious passenger injuries, and 11 minor passenger injuries. After being struck by the truck, the bus rotated nearly 180 degrees and subsequently struck a traffic beacon support pole. The fatally and severely injured passengers were seated in the back half of the school bus, in the area of higher impact forces and accelerations. The bus was equipped with lap belts, but some students on the school bus wore them improperly or not at all.

Although compartmentalization makes school buses extremely safe, precrash, lateral, and rollover motions still expose unbelted passengers to injury-producing components within the vehicle, intrusion, movement out of the seating compartment, and ejection. Lap belts can be beneficial in some circumstances, but injuries may still result from upper-body flailing. As a result of our investigation of the Chesterfield crash, we concluded that, in severe side-impact crashes, properly worn lap/shoulder belts reduce injuries related to upper-body flailing that are commonly seen with lap-only belts and, therefore, provide the best protection for school bus passengers. Further, better student, parent, and school district education and training may increase the use and proper fit of passenger seat belts in school buses. Thus, we recommended that school districts provide improved information to parents and students regarding the importance of properly using seat belts on school buses.

Another large school bus crash that we investigated demonstrated the safety benefit of lap/shoulder belts in protecting bus passengers. On November 27, 2017, a school bus in Helena, Montana, was struck at an intersection by a pickup truck towing a trailer.⁹ Following the collision, the school bus departed the roadway, struck an electrical equipment box, and overturned 90 degrees onto its right side. The bus was occupied by the driver, an adult aide, and two student passengers. All of the bus passengers were wearing lap/shoulder belts, and there were only minor injuries as a result of the crash. We concluded that the passenger lap/shoulder belts mitigated injuries in this side-impact and rollover crash.

In the Chattanooga, Tennessee, bus crash that occurred on November 21, 2016, 6 students died and more than 20 others were injured when the bus struck a utility pole, rolled onto its right side, and collided with a tree. The Chattanooga school bus passengers were at risk due to the precrash vehicle motions that threw them from their seating compartments prior to the bus striking the utility pole. This rendered compartmentalization ineffective during the rollover sequence. Therefore, we have recommended that each state that has not already done so require that passenger lap/shoulder belts be installed in all new large school buses to provide the best protection for all their occupants.¹⁰

FIRE PROTECTION ON SCHOOL BUSES

We have investigated several bus fires and identified safety issues regarding flammability, fire suppression, and emergency evacuation.

In 1988, a school bus operating as a church activity bus was struck head-on by a pickup truck on Interstate 71 near Carrollton, Kentucky.¹¹ The bus's fuel tank was punctured during the collision and a fire ensued, engulfing the bus. The bus driver and 26 passengers were fatally injured, 34 bus passengers sustained minor to serious injuries, and 6 passengers were uninjured. During our investigation, we

⁸ See the NHTSA road safety webpage on school bus safety [<https://www.nhtsa.gov/road-safety/school-bus-safety>], accessed July 10, 2019.

⁹ NTSB. *Intersection Collision and Rollover Involving School Bus and Pickup Truck* [<https://www.nts.gov/investigations/AccidentReports/Reports/HAB1902.pdf>]. NTSB/HAB-19/02. Washington, DC: NTSB.

¹⁰ NTSB. *Safety Recommendations H-18-9* [https://www.nts.gov/investigations/AccidentReports/_layouts/nts.recsearch/Recommendation.aspx?Rec=H-18-009] and -10 [https://www.nts.gov/investigations/AccidentReports/_layouts/nts.recsearch/Recommendation.aspx?Rec=H-18-010].

¹¹ NTSB. *Pickup Truck/Church Activity Bus Head-on Collision and Fire* [<https://www.nts.gov/investigations/AccidentReports/Reports/HAR8901.pdf>]. NTSB/HAR-89/01. Washington, DC: NTSB.

identified safety issues with, among other things, the federal safety standards used in school bus manufacture, the flammability and toxicity of school bus seating materials, and emergency egress on school buses.

All school buses in the United States are required to meet FMVSS 302 (flammability of interior materials), established by NHTSA, specifying the fire-resistance requirements for materials used in the occupant compartments of motor vehicles.¹² Since its adoption in 1971, FMVSS 302 has remained essentially the same. All 27 fatalities in the Carrollton crash resulted from smoke injuries, not from the collision with the pickup truck. Thirty years later, we are still addressing the adequacy of FMVSS 302 to prevent the rapid spread of fire and smoke inside school buses.

FMVSS 302 is intended to reduce deaths and injuries caused by vehicle fires; however, flammability testing under FMVSS 302 is performed using a small-scale fire to represent a fire originating in the passenger compartment from sources such as matches or cigarettes. The test does not represent the most common causes of school bus fires, most of which begin in the engine and can ignite after a crash. The current standard for school buses remains less stringent than the flammability standards applied in other modes of transportation under USDOT safety oversight, such as aviation and rail, and is clearly outdated.

Following our investigation of the April 2014 collision and postcrash fire involving a truck-tractor double trailer and a motorcoach that occurred on Interstate 5 in Orland, California, we recommended that NHTSA revise FMVSS 302 to adopt the more rigorous performance standards for interior flammability and smoke emissions characteristics already in use for commercial aviation and rail passenger transportation.¹³ In 2017, NHTSA publicly announced it was pursuing a research effort, titled *Test Procedures for Evaluating Flammability of Interior Materials*, and that final results were expected to be published in June 2018; however, no results have yet been published, more than a year after the deadline.

The Oakland, Iowa, bus fire occurred when a school bus backing out of a driveway got stuck in a drainage ditch. While the driver was attempting to drive the bus forward and back onto the road, a fire ignited in the engine compartment and spread into and through the bus's passenger compartment. The driver and 16-year-old passenger sustained thermal injuries and died in the fire as a result of smoke and soot inhalation.

The Oakland school bus was not equipped with an automatic fire suppression system (AFSS). Typically, such systems deliver a fire suppressant inside a vehicle's engine compartment when a fire sensor is activated. An AFSS uses either thermal sensors to detect heat or optical sensors to detect flame on specific ignition points or flammable agents on or near the engine block. Following detection, the system alerts the driver and automatically releases a water mist or chemical (powder) suppressant. The systems can be installed during or just after new manufacture, or retrofitted into buses already in service. No national standards exist for AFSS installation or performance; however, specifications have been defined for AFSS testing as well as voluntary performance certification, both in the United States and internationally.

In 2012, the Moving Ahead for Progress in the 21st Century Act (MAP-21) instructed NHTSA to research motorcoach fires and ways to prevent them.¹⁴ This requirement, while directed at motorcoach fire safety, has helped pave the way for the testing fire suppression systems that have been shown to prevent or mitigate the spread of fire into a passenger compartment and are now widely available and already installed in some school buses. If the Oakland school bus had been equipped with such a system, the system likely would have slowed or stopped the growth and spread of the fire and its progression into the passenger compartment. As a result of this investigation, we have recommended that NHTSA require all new school buses to be equipped with fire suppression systems that, at a minimum, address en-

¹² The standard (49 CFR 571.302 [<https://www.govinfo.gov/content/pkg/CFR-2011-title49-vol6/pdf/CFR-2011-title49-vol6-sec571-302.pdf>]) specifies a horizontal burn rate of not more than 102 millimeters per minute within 13 millimeters of the passenger compartment air space.

¹³ (a) NTSB. *Truck-Tractor Double Trailer Median Crossover Collision With Motorcoach and Postcrash Fire on Interstate 5* [<https://www.nts.gov/investigations/AccidentReports/Reports/HAR1501.pdf>]. NTSB/HAR-15/01. Washington, DC: NTSB. (b) NTSB Safety Recommendation H-15-12 [https://www.nts.gov/investigations/AccidentReports/_layouts/nts.recsearch/Recommendation.aspx?Rec=H-15-012].

¹⁴ Section 32704(a) of MAP-21, Public Law 112-141 [<https://www.govinfo.gov/content/pkg/PLAW-112publ141/pdf/PLAW-112publ141.pdf>] (July 6, 2012), directs the secretary of the USDOT to "conduct research and testing to determine the most prevalent causes of motorcoach fires and the best methods to prevent such fires and to mitigate the effect of such fires, both inside and outside the motorcoach." Research and testing were to include automatic fire suppression systems.

engine fires.¹⁵ Further, we have recommended that the USDOT require in-service school buses to be equipped with fire suppression systems that, at a minimum, address engine fires.¹⁶ Absent such requirements, we recommended that school bus manufacturers install fire suppression systems that, at a minimum, address engine fires as standard equipment on all newly manufactured school buses.¹⁷

We also found during the Oakland investigation that small penetrations through the firewall protecting the interior of the bus from the engine compartment were not blocked with fire-resistant material. More importantly, the firewall did not prevent the spread of fire from the engine compartment because the engine block's penetration into the passenger compartment was covered only in fiberglass cowl, which provided no fire protection or containment and acted as fuel load. This resulted in a firewall gap and a direct pathway for the fire to enter the passenger area. We concluded that the lack of a complete firewall between the school bus engine compartment and the passenger compartment led to the rapid spread of superheated gases, smoke, and fire into the passenger compartment; and the interior components of the bus were flammable when exposed to ignition sources greater than those used in tests under FMVSS 302 and in fire block tests.

Even without a fire suppression system, if the Oakland school bus had been equipped with a complete firewall or with fire-resistant materials between the engine and the passenger compartment, the spread of fire and smoke into the bus's interior would have been reduced or slowed. As a result, the occupants would have been exposed to less smoke and heated gas, and they would have had more time to evacuate the bus, which might have prevented their fatal injuries. As a result of this investigation, we recommended that NHTSA develop standards and that school bus manufacturers ensure that, for newly manufactured school buses—especially those with engines that extend beyond the firewall—no hazardous quantity of gas or flame can pass through the firewall from the engine compartment to the passenger compartment.¹⁸

The Oakland, Iowa, fire, along with other school bus fires reported nationally and as shown in school bus fire demonstrations, illustrates that once a school bus compartment is breached (even when an exterior fire enters the bus), a fire spreads quickly, and smoke, toxic gases, and heat make the interior untenable for occupants. On April 16, 2018, as a training exercise, the Stafford County (Virginia) Public Schools and the Stafford County Fire and Rescue Department held a school bus fire demonstration. The fire department placed a hay bale in front of a school bus and ignited it; the bus was fully engulfed in flames within 3 minutes.¹⁹ That demonstration led to another on October 27, 2018, in Kansas City, Kansas, in which the National Association for Pupil Transportation partnered with the Lee Summit Fire Department to show the time it takes for flames to engulf a school bus and demonstrated realistic evacuation scenarios. A bale of hay was set on fire inside the open front door of one bus; by the 3-minute mark, the bus was filled with smoke and temperatures had reached 900 °F to 1,000 °F.²⁰

Two critical components of school bus safety are emergency training for school bus drivers and passengers, and emergency drills involving both drivers and students. Proper response in an emergency depends on the quality of training, the types of drills (which should supplement classroom instruction), and the frequency of refresher training and drills.

SCHOOL BUS DRIVER OVERSIGHT

Although the specific safety issues differed, the Baltimore, Chattanooga, and Oakland crashes shared one common factor: poor driver oversight by the school districts and contracted motor carriers, which resulted in unsafe school bus operations. In each case, the drivers continued to operate school buses unsafely with no remedial action being taken, even in the face of known driver safety issues.

¹⁵ NTSB Safety Recommendation H-19-4 [https://www.nts.gov/investigations/Accident Reports/Reports/HAR1901.pdf].

¹⁶ NTSB Safety Recommendation H-19-3 [https://www.nts.gov/investigations/Accident Reports/Reports/HAR1901.pdf].

¹⁷ NTSB Safety Recommendation H-19-11 [https://www.nts.gov/investigations/Accident Reports/Reports/HAR1901.pdf].

¹⁸ NTSB Safety Recommendations H-19-5 and -12.

¹⁹ School Bus Fleet. *School Bus Fire Demo Highlights Need for Preparedness* [https://www.schoolbusfleet.com/news/730179/school-bus-fire-demo-highlights-need-for-preparedness]. June 19, 2018.

²⁰ School Bus Fleet. *School Bus Fire Demo Shows Importance of Evacuation Training* [https://www.schoolbusfleet.com/news/731812/school-bus-fire-demo-shows-importance-of-evacuation-training]. October 27, 2018.

In the Chattanooga crash, the bus driver was speeding as he transported students from the school to their drop-off locations. While driving, he answered a cell phone call, which was still active when he lost control of the bus and departed the roadway. We concluded that the Chattanooga school bus driver's speeding, combined with his cell phone use while driving, led to the crash. At the time of the crash, the driver had about 5 months of school bus driving experience, during which he had accumulated numerous complaints about his driving performance. However, investigators found no record of disciplinary or corrective training in the driver's file. The day of the crash was not the first time the bus driver had exhibited unsafe driving maneuvers. Shortly after the beginning of the 2016 school year, he began reporting student disciplinary problems to Hamilton County Department of Education (HCDE) school staff. As the school year progressed, the problems between the driver and the students continued, and the driver sent even more discipline referrals to school administrators, who told him he should not be submitting so many. About a week later, the HCDE and Durham School Services (Durham), the contract carrier for the school district, received the first complaint that the driver was intentionally trying to make students fall.

After the crash, our investigators found e-mails and letters from parents and students about the bus driver's performance in the months leading to the crash, which provided insight into how the driver dealt with student behavioral issues during this period. Student passengers who normally rode this bus told our investigators that when there was excessive noise or when some students refused to sit down, the driver would slam on the brakes or swerve, causing them to fall. No action was taken to relieve the driver of duty, nor were definitive steps taken to resolve the safety complaints. We concluded that Durham had no systematic method for recording, tracking, or investigating complaints of driver behavior, and that it was deficient in driver oversight. Following this crash, the state of Tennessee enacted a law establishing a program to monitor and oversee transportation services for local education authorities, school districts, and charter schools.

We also have a long history of investigating crashes in which drivers who failed to report their medical conditions were issued medical certificates and were subsequently involved in fatal crashes in which their medical condition contributed to the event.

On November 1, 2016, a Baltimore City school bus struck a private auto and a Maryland Transit Administration (MTA) bus, killing four MTA passengers and both bus drivers. Medical records from the school bus driver's primary care physician document the driver's history of seizures dating back to his childhood. Additionally, the driver experienced several incapacitating medical events while on duty as a school bus driver, including three incidents in the previous 5 years. We determined that the Baltimore school bus driver was likely incapacitated by a seizure due to his long-standing seizure disorder, which resulted in the collisions with the car and transit bus.

Maryland Motor Vehicle Administration (MVA) records showed that the Baltimore school bus driver had repeated license revocations and suspensions over several decades. He fraudulently obtained his driver's license by providing documents with different name spellings or birth dates to circumvent the MVA verification system. We concluded that the Baltimore school bus driver understood his diagnosis of epilepsy and intentionally hid this disqualifying medical condition and his use of treatment medications during his medical examinations to prevent being denied certification. Further, although Baltimore City Public Schools (BCPS) was responsible for driver oversight, it failed to address multiple deficiencies and to identify the bus driver as high risk. Similarly, the MVA verification system failed to prevent the Baltimore school bus driver from obtaining a driver's license through fraudulent means.

The Federal Motor Carrier Safety Administration establishes regulations for commercial driver licensing, including licensing school bus drivers employed either by a local school district directly or by a contracted motor carrier that provides student transportation services. A person who operates a commercial vehicle in commerce must be medically certified as physically qualified to operate the vehicle. The Baltimore crash might have been prevented had a coworker or a BCPS employee reported the driver to the MVA. We concluded that school districts and their contracted student transportation service providers would benefit from awareness training on federal and state commercial driver fitness regulations and on the avenues available to report drivers with medical conditions that may make it unsafe to operate a school bus.

In the Oakland crash, the driver was found qualified for a commercial driver's license during an examination on March 6, 2017, and he held a medical certificate valid for 2 years. However, after the examination, the driver's degenerative spinal condition worsened, resulting in his inability to walk without a cane or a walker.

The driver understood his diagnosis of degenerative disc disease, had seen a specialist, and was scheduled for back surgery 2 days after the crash. The school district was also aware of the driver's condition and that he was scheduled for surgery. When a school district, as an intrastate motor carrier, identifies a physical impairment that could affect a driver's ability to operate a school bus and could lead to a crash or result in the driver's inability to safely render assistance—such as an inability to walk without a cane or move quickly in an emergency—the district should require the driver (even if he or she has a medical certificate) to demonstrate physical ability or provide a doctor's clearance for duty. Although school bus drivers undergo federally required medical examinations and can be medically certified for 2 years, their physical condition may change during the interval between examinations and render the driver incapable of performing critical emergency duties. As a result of the Oakland investigation, we recommended that states revise their school bus driver requirements so that all drivers must pass a physical performance test on hiring and at least annually, and also whenever their physical condition changes in a manner that could affect their ability to physically perform school bus driver duties, including helping passengers evacuate a bus in an emergency.²¹

SCHOOL BUS ROUTE AND STOP SAFETY

Following our investigation of a 2016 collision in which a 7-year-old was fatally struck by a pickup truck while crossing the roadway to board his school bus in Thief River Falls, Minnesota, we recommended that NHTSA assess, and if necessary, update, its guidelines on pupil transportation safety to specifically address pedestrian issues related to conspicuity and route selection.²²

We are continuing to investigate collisions involving school bus passenger loading and unloading. On October 30, 2018, three children were killed and one seriously injured in Rochester, Indiana, when they were struck by a pickup truck while they were crossing the roadway to board their bus to school.²³ The school bus had its warning lights on and the driver had deployed the stop arm, but the pickup truck driver did not stop on the 55-mph roadway. In addition to the Rochester crash, we are also investigating two other crashes—one in Hartsfield, Georgia, and one in Baldwyn, Mississippi—involving school bus passenger loading and unloading where drivers did not stop for stopped school buses with their warning lights on and stop arms deployed, and struck children crossing the roadway. These two crashes resulted in the deaths of two children and serious injury to another child.

Our investigations continue to focus on school districts' student transportation policies, bus route planning and development, and safety issues related to school bus loading and unloading on high-speed roadways.

CRASH PREVENTION TECHNOLOGY

We have advocated for collision avoidance systems in commercial motor vehicles, including buses, for more than 20 years. Collision avoidance technology mitigates or prevents crashes by detecting moving, stopped, or stationary vehicles ahead. When appropriate, vehicles equipped with automatic emergency braking systems apply brakes to prevent or mitigate a collision.

NHTSA issued a final rule, effective in August 2015, requiring electronic stability control systems on most truck-tractors and over-the-road buses weighing more than 26,000 pounds; however, the requirement does not apply to school buses. Even without this requirement, though, some school bus manufacturers are beginning to voluntarily install these systems in school buses. Our crash investigations and industry research have shown that collision avoidance systems significantly help prevent or mitigate the severity of crashes and reduce the frequency of rear-end or loss-of-control crashes, such as the one that occurred in Baltimore. In support of this effort, last year we recommended that NHTSA require, and that all school bus manufac-

²¹ NTSB Safety Recommendation H-19-6 [<https://www.nts.gov/investigations/AccidentReports/Reports/HAR1901.pdf>].

²² (a) NTSB, *Fatal Pedestrian Collision with Minivan Thief River Falls* [<https://www.nts.gov/investigations/AccidentReports/Reports/HAB1817.pdf>]. NTSB/HAB-18/17. Washington, DC: NTSB. (b) NTSB Safety Recommendation H-18-50 [https://www.nts.gov/investigations/AccidentReports/_layouts/ntsb.recsearch/Recommendation.aspx?Rec=H-18-50].

²³ NTSB, *Crash between Pickup Truck and Children Boarding a School Bus* [<https://www.nts.gov/investigations/Pages/HWY19MH003.aspx>]. NTSB/HWY19MH003 (preliminary). Washington, DC: NTSB.

turers install, collision avoidance systems with automatic emergency braking as standard equipment in all newly manufactured school buses.²⁴

CONCLUSION

Although school buses are extremely safe, more needs to be done to ensure that our most vulnerable road users—our children—arrive at school and home again safely. Our investigations have shown that improved occupant protection, driver oversight, pedestrian safety, fire protection, and collision avoidance technologies are needed to prevent crashes, deaths, and injuries on the nation's roadways. Thank you for this opportunity to discuss our recommendations for improving school bus safety. I would be pleased to answer any questions you might have.

Ms. NORTON. Thank you, Dr. Poland.

Mr. Benish, president and COO, Cook-Illinois Corporation, is testifying on behalf of the National School Transportation Association.

You may proceed for 5 minutes.

Mr. BENISH. Good afternoon, Chairwoman Norton, Ranking Member Davis, Chairman DeFazio, Ranking Member Graves, members of the subcommittee. Thank you for calling this hearing today and the invitation to testify.

My name is John Benish, Jr. I am the president and chief operating officer of Cook-Illinois Corporation based in Oak Brook, Illinois.

I would like to also acknowledge my wife, Christine, who is here with me today.

My dad, John Benish, Sr., started a company in 1958 with 75 buses. Today the company operates 2,200 schoolbuses, and we transport over 100,000 children each day in the Chicagoland area.

I started in the business as a teenager and have worked nearly every position, including CDL-licensed driver, and occasionally you will even see me driving one of our buses to keep in touch with our drivers and our students.

I am here today on the behalf of the National School Transportation Association, the trade association for private schoolbus companies that provide schoolbus service under contract. Private companies provide approximately 38 percent of the Nation's schoolbus service.

I just became the new president yesterday at our annual meeting in Austin, Texas.

We have a saying in our industry that we bleed yellow, which signifies our commitment to safety for the children we transport. Each day nearly 500,000 schoolbuses transport over 26 million students to and from school, more than intercity transit, rail and aviation combined. According to DOT, the schoolbus is the safest form of surface transportation, and NHTSA states the schoolbus is the safest vehicle on the road.

Schoolbuses operate in road and highway environments where approximately 37,000 fatalities occur annually. Schoolbus transportation averages only four to six occupant fatalities annually, which is .01 percent of the total fatalities.

²⁴ NTSB Safety Recommendations H-18-8 [https://www.nts.gov/investigations/AccidentReports/_layouts/ntsb.recsearch/Recommendation.aspx?Rec=H-18-008] and -19 [https://www.nts.gov/investigations/AccidentReports/_layouts/ntsb.recsearch/Recommendation.aspx?Rec=H-18-019].

We mourn with the entire school transportation community and families when these rare instances occur and attempt to learn from these accidents to ensure continued safe student transportation.

Despite the unparalleled safety record of schoolbus transportation, children remain vulnerable during the portion of the trip when they are waiting at bus stops, crossing streets, and loading and unloading from the schoolbus. DOT statistics show an average of 22 students are killed annually outside of the schoolbus compared to the average of 4 to 6 students who are killed inside the schoolbus.

Passing of stopped schoolbuses, illegal in all 50 States, has reached epidemic proportions. Observational surveys indicate an estimated 15 million vehicles illegally pass stopped schoolbuses in a 180-day school year.

Sometimes pictures speak louder than words. So at this point, I would like to ask you to view this short video clip of an illegal passing incident that occurred with one of our members in New Jersey last December.

[Video played.]

“Illegal Passing Video, Student Injury—New Jersey,” Submitted for the Record by Hon. Eleanor Holmes Norton

[The video referenced includes graphic content.]
<https://www.youtube.com/watch?v=rlhKsR8ZdXQ&feature=youtu.be>

Mr. BENISH. This child walked away with a few broken bones, but sometimes illegal passing has tragic consequences.

Last October in Rochester, Indiana, three children from one family were killed by an oncoming driver who failed to stop as the kids were crossing the road to board the schoolbus.

These tragedies can be prevented. We believe this is the most important issue facing the schoolbus transportation industry, eclipsing all others. This is why we are enthusiastically supporting the bipartisan bill introduced in the House by Representatives Walorski and Brownley, the Stop for School Buses Act.

I would like to ask for a revised support letter from multiple additional associations to be inserted into the record.

If we are serious about saving more children’s lives, this is the issue to tackle.

Regarding seatbelts in schoolbuses, we believe this issue is most appropriately decided at the State and local level closest to the funding streams for school transportation, and where all ramifications of the decision to mandate schoolbuses can be fully examined.

NHTSA has refused to mandate schoolbus seatbelts on large buses at the Federal level due to the fact that it would force more children into more unsafe modes of transportation. As communities are compelled to make difficult budget decisions, we stand with NHTSA on this issue.

We look forward to continued work with the committee toward the common goal of keeping our children safe.

Thank you for the opportunity to testify, and I look forward to answering any of your questions.

[Mr. Benish’s prepared statement follows:]

—————

Prepared Statement of John Benish, Jr., President and Chief Operating Officer, Cook-Illinois Corporation, on behalf of the National School Transportation Association

Chairwoman Norton, Ranking Member Davis, Chairman DeFazio, Ranking Member Graves, and Members of the Subcommittee, on behalf of the National School Transportation Association, thank you for calling this hearing today and the invitation to testify. This Committee has a long and distinguished record of promoting safety on our roadways, and nothing is more important than keeping our children safe in the yellow school bus going to and from school.

My name is John Benish, Jr. and I am President and Chief Operating Officer for Cook-Illinois corporation headquartered in Oak Brook, Illinois. Cook-Illinois is a family-owned and operated school bus transportation company established in 1951. My Dad, John Benish Sr., joined the company in 1958. Beginning with 75 school buses, the company has grown to be one of the largest family-owned and operated school bus contractors in the nation operating over 2200 school buses and transporting over 100,000 children each day in and around the Chicago area. I started in the business as a teenager and have worked nearly every position in the business, including as a CDL-licensed driver. Occasionally you will even see me driving one of our buses to keep in touch with the drivers and the students. For nearly 70 years our company has provided superior service to the school districts we serve. We are members of the Illinois School Transportation Association and the Illinois Association for Pupil Transportation.

I am here today on behalf of the National School Transportation Association (NSTA), the trade association for private school bus companies that provide school bus service under contract. Private companies provide approximately 38% of the nation's school bus service. I have served on its Board of Directors for 10 years and just became its new President yesterday at its annual meeting in Austin, Texas.

My family's business has been successful not just because we have followed sound business practices, but because our focus has always been on our communities and, most importantly, our precious cargo—the children we transport to and from school every day. We have a saying in our industry that we “bleed yellow,” which signifies our commitment to the safety of the children we transport. School transportation is a uniquely American industry, and it is part of our country's commitment to a free public education. Each day, nearly 500,000 school buses transport over 26 million school children to and from school—more than inter-city and intra-city bus transportation, rail and aviation combined.

While this hearing is focused on safety, I'd like to mention that school buses are not only safe, they are also environmentally friendly. They help ease congestion, save energy and reduce pollution by taking an average of 36 cars off the road for each trip. Taken together this represents 17 million fewer cars and a savings of 20 million tons of CO₂ each year. The technology of today's school bus is tremendously improved, incorporating clean engine and emission reduction technologies. Our company has been at the forefront of environmental issues by powering our school buses using more costly but cleaner alternative fuels over our history, starting with CNG, then propane and four years ago, to bio-diesel. NSTA is committed to green transportation through its Green Fleet certification program which was established in cooperation with EPA and an annual Go Yellow Go Green award which recognizes one company that has shown outstanding leadership in environmental stewardship. I am proud to say that my company won this award in 2016.

According to DOT statistics, the school bus is the safest form of surface transportation. The website of the National Highway Traffic Safety Administration states, “The school bus is the safest vehicle on the road”. School buses operate in an array of road and highway environments where approximately 37,000 fatalities occur annually (National Highway Traffic Safety Administration (NHTSA) 2017 FARS data). In the midst of this environment, the school bus industry averages only 4–6 occupant fatalities annually, which is 0.01% of the total fatalities. NSTA mourns with the entire school transportation community and families when these rare incidents occur and attempts to learn from these accidents to ensure continued safe student transportation.

This remarkable safety record is no small achievement and requires vigilance and safe practices from the men and women that drive, maintain, own, operate and manufacture our equipment, as well as the men and women that enforce traffic safety laws on our Nation's roads and highways. School buses are among the most regulated forms of transportation in the country and rightly so given the precious cargo they carry. School buses have unique design and safety features built in as well as

dedicated and specially trained drivers. The U.S Department of Transportation's National Highway Traffic Safety Administration (NHTSA) and the Federal Motor Carrier Safety Administration (FMCSA) play an important role in ensuring the vehicle, operators and drivers are all safe, as well as the National Transportation Safety Board (NTSB) that investigates accidents, and all 50 States. All these elements contribute to ensuring school bus transportation's extraordinary safety record.

Despite the unparalleled safety record of school bus transportation, school bus riders remain vulnerable during the portion of their trip when they are waiting at bus stops, crossing streets and loading or unloading from the school bus. DOT statistics show an average of 22 students are killed annually outside the school bus, compared to an average of 4–6 students who are killed inside the school bus. Passing of stopped school buses during loading or unloading, illegal in all 50 States, has reached epidemic proportions. In the most recent annual observational survey in 2018, 105,306 school bus drivers in 38 States reported 83,944 vehicles illegally passed their stopped school buses in ONE day. Based on these observations, an estimated 15 million vehicles illegally pass stopped school buses in a 180-day school year. The problem is likely much worse, because this alarming figure does not factor in illegal passing that may have been experienced among the other 80% of the nation's school bus drivers who were unable to participate in the voluntary national survey. [www.nasdpts.org/StopArm/2018/index.html]

Sometimes pictures speak louder than words, so at this point I'd like to ask you to view this short video clip of an illegal school passing incident that occurred with one of our members in New Jersey last December: [<https://www.youtube.com/watch?v=r1hKsR8ZdXQ&feature=youtu.be>] This child walked away with a few broken bones, but sometimes illegal passing can have tragic consequences. Last October, in Rochester, Indiana, three children from the same family were killed by an oncoming driver who failed to stop as the kids were crossing the road to board their school bus. These tragedies CAN be prevented.

NSTA believes this is the most important school bus issue facing the school transportation industry, eclipsing all others. This is why we are enthusiastically supporting a bipartisan bill introduced in the House and Senate by Congresswomen Walorski and Brownley, the STOP for School Buses Act (STOP Act) (HR 2218), and Senators Young and Peters, (S. 1254), to address this issue of illegal passing of school buses. The bill directs DOT to review state laws, enforcement and penalties, technology, driver education, distraction and all issues that are impacting this illegal activity. It calls upon DOT to create a public safety messaging campaign on the danger of illegally passing stopped school buses. The bill does not predetermine any solutions but asks DOT to do a full evaluation of all aspects of this issue and make best practice recommendations. The bill has a growing list of cosponsors in both chambers, is supported by our partners in the school bus industry, the National Association of Pupil Transportation and the National Association of State Directors of Pupil Transportation, national, State and regional private bus and school bus associations across the country and the National Education Association. I have attached these letters of support at the end of my testimony. We look forward to working with this Committee and the rest of Congress to see this bill enacted into law as soon as possible or as part of a surface transportation reauthorization bill. If we are serious about saving more children's lives this is the issue to tackle.

I'd like to address another issue that is periodically debated here in Congress and in the general public, and that is the issue of seat belts in school buses. NSTA is aware of a bill introduced in the House by Congressman Gottheimer in May, the Secure Every Child Under the Right Equipment Standards Act (SECURES Act—HR 2792) in May to mandate seat belts on school buses. NSTA believes this issue is most appropriately decided at the State and local level closest to the funding streams for school transportation and where all ramifications of a decision to mandate belts can be fully examined as school bus transportation is not funded at the federal level. Unfunded mandates that increase costs of school buses often put States in the position of reducing school bus service and giving less children access to the safest mode of transportation to school. We know from DOT statistics that children who travel to school by walking, bicycle, parents' or friend's car, or driving themselves have crashes and fatalities at far higher rates than in a yellow school bus, with or without belts. NSTA believes as many children as possible should have access to safest mode of transportation and service should not be reduced to fund new buses with seat belts. NSTA does not support a federal mandate unless accompanied by full funding to which public and private providers have equal access. Lap shoulder belts are only appropriate consideration and we do not support any requirement to retrofit as it could compromise structural integrity of the bus.

It is quite noteworthy that the National Highway Traffic Safety Administration, the agency charged with keeping people safe on the nation's roadways, has declined to mandate seat belts on large school buses at the federal level due to the fact that it would force more children into more unsafe modes of transportation as communities are compelled to make difficult budget decisions. The latest pronouncement was from 2011 when NHTSA denied a petition for rulemaking to mandate seat belts on new large school buses. [<https://www.regulations.gov/document?D=NHTSA-2011-0131-0001>] In the Denial, NHTSA stated, "We are denying the petition because we have not found a safety problem supporting a Federal requirement for lap/shoulder belts on large school buses, which are already very safe. The decision to install seat belts on school buses should be left to State and local jurisdictions, which can weigh the need for, benefits and consequences of installing belts on large school buses and best decide whether their particular pupil transportation programs merit installation of the devices." NHTSA also stated, "We estimated that lap/shoulder seat belts would save about 2 lives per year and prevent about 1,900 crash injuries, of which 97 percent are minor/moderate severity (mainly cuts and bruises), assuming every child wore them correctly on every trip." "Under the described conditions, the Agency estimates that the increased risk from students finding alternative, less safe means of getting to and from school could result in an increase of 10 to 19 school transportation fatalities annually."

NHTSA's statements show that the unintended effect of requiring seat belts on large school buses could endanger more children (10 to 19) than it would potentially benefit (2). It is for these reasons that NSTA stands with the nation's federal agency charged with ensuring vehicle safety and believes seat belts on school buses should be decided at the Federal level but should be a State and local decision.

I have also attached a link to a Louisiana School Transportation Task Force report from 2017 which took an exhaustive look at this issue and declined to mandate belts without funding or attendants [<https://goo.gl/rGscND>] and a recent report from this Committee's counterpart in Canada, the House of Commons Standing Committee on Transportation, Infrastructure and Communities, on Bus Passenger Safety issued just last month which declined to mandate seat belts on school buses. [<https://www.ourcommons.ca/DocumentViewer/en/42-1/TRAN/report-31/page-57#9>]

There are other issues that have come up over the last few years that I will touch on briefly. Regarding driver training, NSTA participated as a member of FMCSA's Negotiated Rulemaking Advisory Committee on Entry Level Driver Training and supports its conclusions. NSTA also supports efforts to assure that school bus drivers are fully trained in school bus operations and emergency procedures. NSTA supports periodic certification of driver physical fitness and periodic evacuation training for drivers and students. NSTA believes sleep apnea and other sleep disorders are being adequately addressed in driver physicals and it is not necessary to create a separate prescriptive and burdensome regulatory schematic for screening, testing and treatment. NSTA generally supports the employer notification systems for drivers that are currently operated by States but has concerns with complexities with that being done at the national level, but wants to work with the Committee on this issue. NSTA supports the CDL Drug and Alcohol Clearinghouse Database as it will serve to provide operators the necessary tools to identify drivers who should not be behind the wheel.

NSTA consistently works with its Federal and State regulatory agencies and legislative bodies towards common-sense initiatives to improve pupil transportation safety. Whenever NSTA evaluates new laws or regulations affecting school bus equipment, technology, operators, drivers or practices, we evaluate them with the simple formula that they must be proven to increase safety while keeping as many children as possible in the yellow school bus. Well-meaning initiatives should not have the unintended effect of reducing the availability of yellow buses, thereby forcing more children into less safe modes of transportation for their trips to and from school. We look forward to continuing to work with this Committee towards the common goal of keeping our children safe.

On behalf of the National School Transportation Association, thank you for the opportunity to testify before this Subcommittee. I look forward to answering any of your questions.

ATTACHMENTS:

- NSTA/NAPT/NASDPTS Letter in Support of STOP Act
- National Education Association letter in Support of STOP Act
- National, State and Regional Private Bus and School Bus Associations letter in Support of STOP Act

NSTA/NAPT/NASDPTS LETTER IN SUPPORT OF STOP ACT

DEAR MEMBER OF CONGRESS:

The National School Transportation Association (NSTA), the National Association for Pupil Transportation (NAPT), and the National Association of State Directors of Pupil Transportation Services (NASDPTS) request your help in addressing an important school bus safety issue, illegal passing of stopped school buses.

Collaboratively, our three organizations represent the nation's school transportation community, including all operators of school buses both public and private and state regulators of school buses. We are specifically requesting your co-sponsorship of the STOP for School Buses Act of 2019 (H.R.2218/S.1254), introduced in the House by Congresswomen Jackie Walorski (R-IN) and Julia Brownley (D-CA), and in the Senate by Senators Todd Young (R-IN) and Gary Peters (D-MI). This bipartisan legislation calls upon the Department of Transportation to undertake a comprehensive review of all issues involved with illegal passing of school buses and make recommendations to Congress on best practices to deal with this pervasive, national safety problem.

The bill directs DOT to review state laws, enforcement and penalties, technology, driver education, and distraction. It calls upon DOT to create a public safety messaging campaign on the danger of illegally passing stopped school buses. The ongoing efforts of the National Highway Traffic Safety Administration (NHTSA) to study illegal passing and develop safety countermeasures are recognized and appreciated. We believe guidance from Congress will enable NHTSA to broaden its efforts on all aspects of illegal passing and expedite best practice recommendations.

School bus transportation remains the safest form of transportation compared to all other modes, according to DOT statistics. Children are 70 times safer going to and from school in a yellow school bus than by walking, biking, being driven by parents, or, especially, as occupants of vehicles driven by teenagers. Despite the unparalleled overall safety record of school bus transportation, school bus riders remain vulnerable during the portion of their trip when they are waiting at bus stops, crossing streets, and loading or unloading from the school bus. Passing of stopped school buses, illegal in all 50 states, has reached epidemic proportions. In the most recent annual observational survey in 2018, 105,306 school bus drivers in 38 states reported 83,944 vehicles illegally passed their stopped school buses in one day. Based on these observations, an estimated 15 million vehicles will illegally pass stopped school buses in a 180-day school year. The problem is likely much worse, because this alarming figure does not factor in illegal passing that may have been experienced among the other 80 percent of the nation's school bus drivers who were unable to participate in the voluntary national survey. [<http://www.nasdpts.org/StopArm/index.html>].

Illegal passing can have tragic consequences. Last October, in Rochester, Indiana, three children from the same family were killed by an oncoming driver who failed to stop as the kids were crossing the road to board their school bus. These tragedies CAN be prevented.

We look forward to your support of the STOP for School Buses Act. Thank you for your consideration of this important issue.

Sincerely,

BLAKE KRAPP

President, National School Transportation Association

BARRY R. SUDDUTH, CDPT, CSNT

President, National Association for Pupil Transportation

MICHAEL A. LAROCO

President, National Association of State Directors of Pupil Transportation Services

NATIONAL EDUCATION ASSOCIATION LETTER IN SUPPORT OF STOP ACT

JULY 1, 2019.

Hon. JACKIE WALORSKI
United States House of Representatives, 419 Cannon House Office Building, Washington, DC 20515

DEAR REPRESENTATIVE WALORSKI:

On behalf of our 3 million members and the 50 million students they teach, support, and protect, the National Education Association thanks you for introducing the Stop for School Buses Act, H.R. 2218. We applaud you for calling attention to some-

thing that has become all too commonplace: the dangerous passing of stopped school buses that are transporting students to or from school.

Your bill seeks to better-safeguard students by requiring the U.S. Department of Transportation to take several steps, including:

- Compiling existing laws and indicating their levels of enforcement and penalties;
- Reviewing existing public safety measures and programs to prevent dangerous passing of school buses;
- Recommending best practices for preventing dangerous passing; and
- Creating a public safety campaign to promote safe driving when students are present.

By gaining a thorough understanding of the laws on passing stopped school buses, analyzing which are more or less effective, and providing a set of best practices and recommendations, we can do more to protect our students and avoid tragedies like the one that occurred in Indiana last year. The NEA is proud to support this legislation and, once again, appreciates your attention to this important issue.

Sincerely,

MARC EGAN

Director of Government Relations, National Education Association

NATIONAL, STATE AND REGIONAL PRIVATE BUS AND SCHOOL BUS ASSOCIATIONS LETTER
IN SUPPORT OF STOP ACT

DEAR MEMBER OF CONGRESS:

The national, regional and State school bus and bus associations on this letter request your help in addressing an important school bus safety issue, illegal passing of stopped school buses. We are specifically requesting your co-sponsorship of the STOP for School Buses Act of 2019 (H.R.2218/S.1254), introduced in the House by Congresswomen Jackie Walorski (R-IN) and Julia Brownley (D-CA) and in the Senate by Senators Todd Young (R-IN) and Gary Peters (D-MI). This bipartisan legislation calls upon the Department of Transportation to undertake a comprehensive review of all issues involved with illegal passing of school buses and make recommendations to Congress on best practices. The bill directs DOT to review state laws, enforcement and penalties, technology, driver education, distraction and create a public safety messaging campaign on illegal passing of stopped school buses.

School bus transportation remains the safest form of transportation over all other modes, according to DOT statistics. Children are 70 times safer going to and from school in a yellow school bus than by walking, biking, being driven by parents in cars or teens driving themselves. However, passing of stopped school buses, illegal in all 50 States, has reached epidemic proportions. In the most recent annual one-day observational survey in 2018, 105,306 school bus drivers in 38 states reported 83,944 vehicles illegally passing a stopped school bus in one day. Based on these observations, an estimated 15 million vehicles will illegally pass stopped school buses in a 180-day school year. [<http://www.nasdpts.org/StopArm/>]

Illegal passings can have tragic consequences. Last October, in Rochester, Indiana, three children from the same family were killed by an oncoming driver who failed to stop as the kids were crossing the road to board their school bus. These tragedies CAN be prevented. We look forward to your support of the STOP for School Buses Act.

Thank you for your consideration of this important issue.

Sincerely,

Alabama Motorcoach Association
Asian-American Motorcoach Association
Bus Association of New York State
California Bus Association
California School Transportation Association
Connecticut School Transportation Association
Georgia Motorcoach Operators Association
Maryland Motorcoach Association
Maryland School Bus Contractors Association
Midwest Bus and Motorcoach Association
Minnesota Charter Bus Operator's Association
Minnesota School Bus Operators Association

National Association of Motorcoach Operators
National School Transportation Association
New Jersey School Bus Contractors Association
New York School Bus Contractors Association
North Carolina Motorcoach Association
Northwest Motorcoach Association
Pennsylvania Bus Association
Pennsylvania School Bus Association
School Transportation Association of Massachusetts
Tennessee Motor Coach Association
The Greater New Jersey Motorcoach Association
United Motorcoach Association

Ms. NORTON. Thank you, Mr. Benish.

President Anne Ferro, American Association of Motor Vehicle Administrators, you may proceed.

Ms. FERRO. Thank you, Madam Chair.

Chair Norton, Ranking Member Davis, thank you for the opportunity to be here today with this distinguished panel to speak on the important issue of schoolbus safety.

I am here on behalf of AAMVA, a tax-exempt, nonprofit organization that develops model programs in motor vehicle administration, law enforcement, and highway safety. Our mission is to support the State and Provincial and Territorial officials in the U.S. and Canada who administer and enforce motor vehicle laws.

Our North Star is safety, safe drivers, safe vehicles, secure identities, and saving lives. With our members' guidance, we develop programs to encourage uniformity and reciprocity in the administration of these challenges across State and international borders.

A good illustration of AAMVA's work is in our support of our State members and their efforts to comply with national laws governing commercial drivers, just one example. In that role, the supporting role, we support and facilitate the development of best practices on CDL testing. We facilitate an understanding and communication on Federal requirements and those changes that come about periodically, and we work on both building and supporting and operating the IT applications and networks across which CDL driver convictions, suspensions, and other cancel actions are transmitted, otherwise known as CDLIS.

We rely heavily on our jurisdiction members to guide our association's work, and we consider the DMVs and highway safety agency members to be the experts in these areas.

So with this in mind and understanding we have got a very distinguished panel of jurisdiction leaders at the table, far more qualified to speak on their State-specific programs, I have limited my written comments to several national programs in which AAMVA may or may not or is currently involved: the national employer notification system, the concept or I should say the transmission of driver medical fitness data, and some background in that written testimony on the Commercial Driver's License Information System and network across which so much of that travels.

I look forward to the committee's discussion and your questions, and thank you again for the opportunity to join this panel today.

[Ms. Ferro's prepared statement follows:]

**Prepared Statement of Anne Ferro, President and Chief Executive Officer,
American Association of Motor Vehicle Administrators**

INTRODUCTION

Chairman Norton, Ranking Member Davis, thank you for the opportunity to speak on the important issue of school bus safety and protecting children. According to the National Highway Traffic Safety Administration, the school bus remains the safest method of transporting children to school by far. We must continue our efforts to make that so in every way, including driver fitness.

The American Association of Motor Vehicle Administrators (AAMVA) is a tax-exempt, nonprofit organization that develops model programs in motor vehicle administration, law enforcement, and highway safety. The association also serves as an information clearinghouse in these areas.

Founded in 1933, AAMVA represents the state, provincial and territorial officials in the United States and Canada who administer and enforce motor vehicle laws. AAMVA's programs encourage uniformity and reciprocity among the states, provinces and territories.

The majority of our members work directly with federal and state safety partners, thus AAMVA relies heavily on its state members to guide the direction of the association's work with respect to commercial driver safety. They are, and always will be, the experts. While Congress has established federal requirements establishing a commercial vehicle operator safety framework, many of our state members have implemented additional laws and regulations to fill additional safety gaps, particularly regarding school bus operations. With this in mind, and understanding our state members are more qualified to speak on their state-specific programs, AAMVA will focus on the national program efforts concerning an Employer Notification Systems (ENS) and driver medical fitness with background on the Commercial Driver License Information System (CDLIS).

EMPLOYER NOTIFICATION SYSTEM

In 2016, AAMVA developed a report [<https://www.fmcsa.dot.gov/sites/fmcsa.dot.gov/files/docs/registration/commercial-drivers-license/396341/aamva-ens-design-and-best-practices-recommendations-ver-102.pdf>] entitled, "Employer Notification System Design and Best Practices Recommendations" for the Federal Motor Carrier Safety Administration (FMCSA). Under the Commercial Motor Vehicle Safety Act of 1986 (CMVSA), within 30 days of a conviction for any traffic violation, except parking, a commercial vehicle operator must notify their employer, regardless of the nature of the violation or the type of vehicle which was driven at the time. If an operator's commercial driver's license (CDL) is suspended, revoked, canceled, or if they are disqualified from driving, the driver must notify their employer within one business day following notice. Prior research has estimated that only 50 to 80 percent of commercial drivers actually self-report. As a result, employers may unknowingly use a driver whose license is suspended.

The current regulatory requirement is for motor carriers to annually check the driving history record of their drivers. As a result, if a driver does not self-report, it could take up to 364 days for the disqualifying event to be discovered. In the commercial motor vehicle operations safety net envisioned under federal law and overseen by FMCSA, employers are responsible for monitoring and taking action on their employees. However, the availability of driver data for employers could be improved to allow for real-time, automatic notification of convictions or disqualifying events. This type of an effort would entail additional federal investment in supporting states' efforts to improve their safety systems and automated reporting through an Employer Notification System (ENS).

In 2007, a pilot ENS program was conducted in Colorado and Minnesota to assess the feasibility, costs, safety impacts, and benefits of such a system; and to assess methods for efficient exchange of driver safety data from existing state systems. This system allowed motor carriers to register, with the driver's expressed permission, to receive timely electronic notification of convictions and suspensions. Other states have independently pursued their own ENS systems. FMCSA provides [<https://www.fmcsa.dot.gov/sites/fmcsa.dot.gov/files/docs/registration/commercial-drivers-license/405406/jurisdictional-ens-implementation-final.pdf>] an updated listing of Employer Notification Services by state.

Congress supported efforts to establish an employer notification system for commercial drivers by establishing section 32303 of the Moving Ahead for Progress in the 21st Century Act (MAP-21). That section would permit employers to satisfy the requirements to check their drivers' histories annually by "receiving occurrence-based reports of changes in the status of a driver's record from one or more driver record notification systems that meet minimum standards issued by the Secretary." For most states that would include continuing the best practice of an annual driver history record as well.

At the request of FMCSA, AAMVA researched potential options on how an ENS system might work in 2016. This included the following options:

Solution 1—Each jurisdiction builds its own ENS using common standards

Solution 2—Build a national ENS that jurisdictions can participate in.

Option 1—Build a national ENS independent of the Commercial Driver License Information System (CDLIS).

Option 2—Build a national ENS leveraging the AAMVAnet network and CDLIS.

The AAMVA membership discussed and analyzed the various options and recommended that *if* a national ENS system were to be pursued and developed, it utilize the existing networking capabilities of CDLIS. While the membership discussed these as potential options, they did so under the assumption that participation be voluntary and take into account the numerous state-specific requirements of their driver systems. There are also several private sector entities that specialize in providing driver histories to the CMV industry who would be capable of building such a solution.

CDL AND MEDICAL FITNESS

With respect to medical fitness of commercial drivers, states rely upon the federal oversight of ensuring driver fitness. One of FMCSA's tools to do this is by setting standards for qualified medical professionals and tracking them through the federal National Registry of Certified Medical Examiners (NRCME). Medical examiners perform the function of evaluating and qualifying a driver for duty. CMV operators are required to have that evaluation performed and submitted in a timely manner. The evaluation is conducted by a U.S. DOT certified medical examiner who is required to submit qualification information to the state driver's license agencies as a prerequisite for licensure. This process is partially automated through the NRCME and eventually will be fully automated so the record of medical fitness will be submitted and accessed electronically by all parties, including roadside enforcement.

In addition to facilitating driver testing standards, AAMVA's role in support of CDL driver fitness is primarily one of enabling confirmation and exchange of information that a driver has a valid medical certification on record with the state of license. When enabled, the exchange of this data among states will be made through the Commercial Driver License Information System (CDLIS). Under its Medical Examiner's Certification Integration final rule, U.S. DOT-FMCSA is working to make this an electronic process, but the system is currently not fully available for the exchange of information between medical examiners and state driver licensing agencies.

COMMERCIAL DRIVER'S LICENSE INFORMATION SYSTEM (CDLIS)

CDLIS is a nationwide computer system that enables state driver licensing agencies to ensure each commercial driver has only one driver's license and one complete driver record. AAMVA's role as operator of the CDLIS system is based upon a cooperative agreement with the U.S. Department of Transportation's Federal Motor Carrier Safety Administration (FMCSA).

State driver licensing agencies use CDLIS to complete various procedures, including:

- Transmitting out-of-state convictions and withdrawals for commercial drivers
- Transferring the driver record when a commercial driver's license holder moves to another state
- Responding to requests for driver status and history.

CDLIS was established under the Commercial Motor Vehicle Safety Act (CMVSA) of 1986 [<https://www.congress.gov/bill/99th-congress/senate-bill/1903>] and is based on the Federal Commercial Motor Vehicle Safety Act (CMVSA) of Motor Carrier Safety Regulations (FMCSRs) in 49 CFR 383 and 384 [<https://www.fmcsa.dot.gov/regulations/title49/b/5/3>].

Authorized users can report and access commercial driver identification information, commercial driver's license information, and driver history information needed to regulate commercial drivers in the U.S. CDLIS enables the jurisdictions to satisfy the requirements of federal laws and regulations related to commercial drivers [<https://www.fmcsa.dot.gov/registration/commercial-drivers-license>].

The state driver license agency maintain records of the drivers they license. A state will host databases, application programs, and system software to support its CDLIS functions and maintain its "pointer" records on the CDLIS Central Site. "Pointer" records consist of the driver's name, date of birth, social security number (last 5 digits), driver's license number and state.

Authorized Federal and State government agencies and personnel may also access CDLIS to utilize CDL-related information for compliance and enforcement monitoring and analysis.

Third party service providers can access CDLIS on behalf of employers of commercial drivers to obtain the list of jurisdictions where the driver is/was licensed. Once the jurisdictions are identified, the service providers must contract with the indi-

vidual jurisdictions to obtain additional driver data/information. Authorized employers or third party service providers can retrieve the basic identification data from the CDLIS Central Site. Based on this information, the employers or third party service providers can make inquiries to the jurisdictions they have contracts with to obtain driver status and history.

Information on Mexican CDL holders is accessible by U.S. jurisdictions. Jurisdictions can post convictions and withdrawals to Mexican driver records via the FMCSA foreign convictions and withdrawals database which as a gateway to CDLIS. The U.S. and Canadian jurisdictions can also exchange driver status data within the allowances of their data privacy laws.

AAMVA thanks the Committee for its consideration, the opportunity to testify, and its continued dedication towards improving safety. We stand as partners in this effort and look forward to continued dialogue on how to improve safety for all road users.

Ms. NORTON. Thank you, President Ferro.

Secretary-Treasurer Matthew Condron, Teamsters Local 384, Norristown, Pennsylvania. Please step forward.

Mr. CONDRON. Chairwoman Norton, Chairman DeFazio, Ranking Member Davis, members of the subcommittee, thank you for having me here to testify today.

My name is Matt Condron, and I am the secretary-treasurer of Teamsters Local 384 out of Norristown, Pennsylvania.

I also work as a member of the First Student National Master Agreement Negotiating Committee for the Teamsters, where I set up national contracting goals and policies for Teamster schoolbus drivers across the country.

I am honored to be here today to convey the safety concerns of the more than 30,000 schoolbus drivers, monitors, and mechanics we represent. These hardworking men and women who I have had an honor of representing for over 18 years need your help to make their industry and their jobs safer.

Federal laws and regulations do almost nothing to help schoolbus drivers. Once a schoolbus comes off the manufacturing line, there are no Federal rules requiring it to be kept in a safe working condition.

Many people are shocked to learn that the U.S. Government plays almost no role in setting minimum standards for schoolbus operations in our country. This is a recipe for disaster.

Private companies whose business is to make money or small school districts strapped for cash are often left to decide whether investing in safe drivers and new buses is a smart financial decision instead of whether it is the right one. This should never be just a dollars and cents calculation. It should be based on what is safest for our children each and every time.

In my view, many of these problems come down to the lack of rules governing schoolbus operations across the country. The privatized schoolbus industry gives us a perfect example of this. Almost one-third of schoolbus operations in this Nation are privatized, but there are no national standards dictating what an unsafe or unreasonable bid by the private contractor to do this work is.

Almost any bus company can come off the street and make a bid to take your kids to school. Oftentimes this means that small "mom and pop" bus companies who do not have the money to invest in new buses or who do not pay the drivers enough to keep qualified

people in the driver's seat will come in and offer way less than they should to do this work.

You may think that no school district would accept this kind of offer, and I wish you were right, but in many cases, school districts are forced by law to accept the lowest bid they receive, and for cash-strapped school districts, saving money anywhere they can, can be appealing no matter what the long-term cost.

This practice also puts safe and responsible carriers who are trying to do the right thing at a disadvantage. Unionized carriers who are forced to take care of their buses and reward safe drivers are punished for making those investments. They are undercut by companies who do not invest in things that every bus company should be forced to invest in, proper maintenance of their buses, paying drivers a decent wage so that good drivers will stick around from year to year, and more.

Safety should not be open for competition. It should be something that every school district has to invest in no matter what.

So what can Congress and the Federal Government do to fix this? You can make sure there are basic standards in place so that no school district falls through the cracks.

When companies bid on a job, you should make sure they actually have enough buses to do the work. When they do not, kids are taken to school in overcrowded vehicles, sitting in the aisles on top of each other, putting them in enormous danger.

If there is a crash or even a sharp turn on a winding road, you need to make sure that anyone bidding on a bus route has a real maintenance program in place so that the kids are not being taken to school on a bus with a broken stop sign, bald tires, broken mirrors, brakes that have never been inspected or worse.

You need to make sure that companies have real driver training programs in place so that a driver who just got his CDL and has never driven a day in his life knows the basics of what to do and what not to do when there are 50 screaming children in the back of their bus.

And most importantly, you need to make sure drivers get a decent wage and real benefits so that good, safe drivers want to do this job, and once they are here, they stay here. The people we ask to drive our children to school are some of the lowest paid professional drivers in this country. They make a national median wage of \$16 an hour and usually do not get to work 40 hours in a week. They only get paid for 9 months a year, unlike other school employees.

Many of them cannot afford to take a day off if they are too sick to drive, and oftentimes they will be reprimanded or fired if they do. Many drivers need to work multiple jobs just to make ends meet. So they are exhausted when they show up to drive their route.

Is that how you want someone who is driving your kid to school to be treated?

The lack of Federal oversight of even the most basic safety standards for schoolbus drivers puts us all at risk. It is time for Congress to take the lead and drive up standards in this industry so that no child is put in harm's way on their way to school.

Thank you, and I look forward to your questions.

[Mr. Condrón's prepared statement follows:]

**Prepared Statement of Matthew Condrón, Secretary-Treasurer, Teamsters
Local 384, Norristown, Pennsylvania**

Chairwoman Norton, Ranking Member Davis, Members of the Subcommittee. My name is Matthew Condrón, I am the Secretary-Treasurer of Teamsters Local 384 out of Norristown, Pennsylvania, and I also work under the Passenger Transportation Division of the International Brotherhood of Teamsters as a member of the First Student National Master Agreement Negotiating Committee. I have represented school bus drivers in Pennsylvania for over 18 years in both the private and public sectors. Thank you for inviting me here to represent the safety concerns of the over 30,000 school bus drivers, monitors, and mechanics represented by the International Brotherhood of Teamsters. Teamster drivers and monitors are the first line of defense in making sure our kids get to school and back home safely each day. Our International Union works closely with many of the top school bus contractors to ensure safe and fair working conditions across the country. Our national and local contracts with these companies have all translated into a safer transportation environment for students nationwide. But we can't do it all ourselves. We need your help to hold bus contractors and school districts who refuse to meet basic safety standards accountable.

MAINTENANCE, INSPECTIONS, AND PROCUREMENT

Some of the harrowing stories you may hear about today could have been directly prevented by stronger federal oversight and increased safety measures on the physical buses being used in our country. In my role as a school bus worker representative with the International Brotherhood of Teamsters, I have seen what works and what doesn't. At a minimum, it takes well-resourced private contractors and well-funded school districts to fulfill many of the responsibilities needed to run a safe bus fleet. School buses are expensive. The maintenance they require to be kept in good operating condition is expensive. The prevalence of small "mom-and-pop" sized private contractors as well as underfunded school districts that don't have the resources to meet basic maintenance and procurement needs is a serious problem across the industry. But even in areas where the funds are available, it's not a guarantee of safe vehicles. Proper maintenance and procurement rules need to be put into place, and they need to be actively enforced. Our union has identified a number of ways to ensure that buses receive proper maintenance and servicing. We have specific remedies outlined in our contracts for when there is a failure or possibility of a failure to meet these standards. But, we don't represent every school district in the country. We believe that the federal government should take a stronger role in setting a national floor for operational bus standards so that all bus operators are using a fleet that meets a basic level of safety.

Currently, the only federal rules for school bus equipment are focused on the manufacturing of school buses. Once buses are being used by a company or school district, there is no federal requirement that those buses be maintained in safe, working order. Requirements for ongoing maintenance of school buses are currently the responsibility of individual states, and many times, the privatized school bus company or school district themselves. Unfortunately, those maintenance standards are often lacking. One driver, working for a small contractor in my state of Pennsylvania was concerned about the thoroughness of the state safety inspections, specifically the inspection of the brakes on his bus. The wheels must be removed to inspect the breaks, so he put aluminum foil on his lug nuts on the evening prior to the inspection to make sure the wheel was actually being removed, and the brakes were actually being inspected. When he returned to work the next day, the new state inspection sticker was on his bus, while the aluminum foil was still sitting on the lug nuts. While anecdotal, this experience is enough for me to urge you to recognize the limits of our current system.

Safety should also not be seen as a competitive advantage that can be used by one bus contractor over another. Private contractors often underbid one another by refusing to buy new buses for their fleet, or by failing to budget for the actual cost of maintenance into their contracts. We believe Congress can and should enact minimum contracting and procurement standards which school districts and private contractors must adhere to in order for any company they hire to be eligible to engage in home-to-school transport. This should include nationwide inspection and maintenance standards that prescribe preventative and corrective maintenance pro-

grams. These programs should be coupled with fines on privatized school bus companies, school districts, and the state agencies charged with completing the inspections if they fail to enforce these standards.

FLEET SIZE

Even under the most comprehensive of inspection regimes, buses will sometimes break down. That's a fact of life. It is how these breakdowns are handled that is another crucial step for safety. When a bus breaks down, it must be taken out of service for maintenance and spare buses must be utilized to cover scheduled routes. Contractors must have an adequate number of spare buses in rotation in order to ensure that only safe buses are put on the road. Without enough quality spare buses, contractors and school districts are often left to put unsafe buses on the road or double up on routes, putting children at risk in an overcrowded bus. Policies should be put in place setting minimum number of spare buses any school bus fleet must hold. We believe this number should be at least 10–15% of the total fleet. That would drastically reduce the risks posed to our students who are being forced to ride on overcrowded or unsafe buses. Additionally, the age of a school bus directly correlates to the cost of maintenance and rate of equipment failure. Limiting the age of school buses on the road to an average fleet age of 7 years and capping the age of any bus at 15 years would help to prevent school districts and contractors from using unsafe buses by pulling those vehicles most likely to break down out of the equation entirely.

MANUFACTURING AND CAPACITY STANDARDS

There are currently no federal regulations limiting the number of students who can be loaded onto a school bus at one time. School bus manufacturers determine the maximum capacity of their vehicles, often by assuming three students can fit on one bench seat, and then multiplying that by the number of benches and adding any other seats on the bus to that total. Three students on a bench may be appropriate for young children, but it is wildly deficient for middle and high school students. If older and larger students are loaded onto buses in numbers meant for young children, it leads to unsafe situations like students sitting on each other's laps or sitting in the aisles. In the event of a crash, those students are at a much higher risk of injury than those on a bus with an appropriate number of students.

Some districts and contractors have rightly taken it upon themselves to lower the maximum capacity of their buses. But without national rules enforcing these sorts of limits, it is another area that can be ignored by bad actors. As many school districts look to run their bus routes as inexpensively as possible, overcrowding is one of the most preventable dangers our students face. Seat belts and other pieces of technology aimed at safety become irrelevant if children are forced to sit in the aisles.

WORKING CONDITIONS AND RETENTION OF QUALIFIED SCHOOL BUS DRIVERS

While many preventable tragedies can be traced back to human error, the causes of the error must also be closely examined. Many drivers working for under-resourced contractors report being pressured to work even when they are too sick to do so for fear of retribution or discipline. We support a number of proposals to improve driver health because they are morally right, and important for safety. This includes treatment for those with sleep apnea and other conditions which may impede a driver's ability to provide safe transportation for students. Unfortunately, in the current state of the industry, many drivers are not able to even take a sick day and get properly diagnosed and treated for illnesses for fear of harassment or job loss. Many drivers who work for small contractors also earn significantly less per hour than drivers who work for reputable contractors and are unlikely to be covered by health insurance in the first place. Drivers without health insurance may not be able to get diagnosed or treated for an illness that directly impedes their ability to drive. The ability of a school bus driver to maintain their own health must be considered as important as the operational condition of the bus itself.

The pay and scheduling issues inherent with the school bus industry also directly contribute to safety on the job. Low pay by many companies leads to some drivers working two or more jobs to make ends meet, leading to greater fatigue when they show up to drive their bus. Scheduling issues are present an enormous hurdle. Many drivers aren't able to work as many hours a week as they'd like because of the nature of a school's schedule. They don't get paid for the time in between their morning and evening routes, and they often don't get paid at all when school is out of session. Even many safe and experienced drivers who work for reputable, well-

resourced contractors leave the industry every year when they do not qualify for unemployment insurance in the summer months and there is not enough summer work to go around. This leads to high turnover in the industry, and new drivers, fresh out of training, or without any quality training at all, are learning routes as they go and building relationships with the students on the fly. This leads to challenges in keeping track of students who the driver just met, identifying obstacles outside the bus like a child walking through the blind spot, and other issues that become much easier as the driver gains more experience on the job.

CONCLUSION

I am pleased to be here to and help you understand the wide variety of safety issues plaguing the school bus industry. The Teamsters are committed to working with you to push forward meaningful, national safety reforms that keep our nation's students and drivers safe. I look forward to your questions.

Ms. NORTON. Thank you, Secretary Condron.

I am amazed to see that so many schoolbus drivers might not even be in anybody's jurisdiction because they have been privatized. This is something the committee has to look at.

I am going to begin with questions. First of all, we heard many things that need to be changed and many helpful suggestions from you. Now, remembering that we are Federal authorities, this is the Congress, and much of the jurisdiction lies in the States.

So I would like to ask each of you as my first question to focus on the Federal Government, and I am looking for you to indicate what priority do you think Congress should place.

Of the improvements that are needed, that the Congress could implement, which would be your priority?

Many of you had a number of different kinds of things that needed to be done. I am going to start with Mr. McLean and go on down the line and ask you that first question.

What priority for the Congress?

Mr. MCLEAN. Thank you very much for your question.

Generally speaking, we prefer, the States prefer a carrot versus a stick. One of the great things about our democracy is that we have so many laboratories of democracy. Different States are exploring different solutions.

Ms. NORTON. So you do not think there is something that the Congress can do for a carrot or a stick?

Mr. MCLEAN. I do think that there are several different things that the Federal Government can do. One is research the effectiveness of different solutions that States are exploring.

So one of the things that I mentioned in my testimony was exploring the stop-arms. We are exploring the crossing guards.

There is very little data on what is actually going to solve the problem of kids being hurt and killed on and around schoolbuses, and so continuing with the research about effective strategies is one way the Federal Government can play a role.

Additionally, incentivizing safety programs within States is a really important tool to incentivize different States.

Ms. NORTON. I need to go down the line. "Incentivizing" is a very broad word.

Ms. FULTON?

Ms. FULTON. Thank you, Madam Chair.

From our standpoint, I would prioritize a notification system that crosses States. You know, in New Jersey, our drivers are driving in other States quite frequently.

Ms. NORTON. Identification systems?

Ms. FULTON. Notification system. Let me give you an example. If a New Jersey driver is convicted outside the State, we do get notice that they have got a suspension, and we can notify, but if a New York driver offends in our State, that notice may be sent through the mail and may take a period of time before New York finds out that the schoolbus driver was convicted of something that put them over the number of points.

So we have gotten a lot of support from the American Association of Motor Vehicle Administrators, AAMVA, and I am sure Ms. Ferro can speak to this, but while there are some ways to cross States in terms of identifying a driver that should be taken out of that driver's seat—

Ms. NORTON. I am going to get all before my 5 minutes is up. But that is a classic thing that the Congress can do. So I thank you for that, Ms. Fulton.

Dr. Poland.

Ms. POLAND. Thank you for the question.

The NTSB has long advocated for vehicle design aspects dealing with crash prevention, stability control systems for collision avoidance, automatic emergency braking systems, occupant protection.

Everyone has talked about lap/shoulder belts, passenger lap/shoulder belts, and then most recently talking about post-crash events, so fire protection to—

Ms. NORTON. Those are things that you think Congress and only Congress can do?

Ms. POLAND. Vehicle design aspects.

Ms. NORTON. Yes, yes.

Ms. POLAND. We focus those recommendations to NHTSA.

Ms. NORTON. Mr. Benish? Because my time is going to run out.

Mr. BENISH. I would say one of the things which I mentioned in my testimony is the Stop for School Buses Act, illegal passing laws, and we do have a bill that is out there right now, and as I mentioned, most—

Ms. NORTON. And you say that the Federal Government can do that?

Mr. BENISH. Yes.

Ms. NORTON. OK.

Mr. BENISH. Like I said, the statistics, each day we figure there are at least 80,000 illegal passes.

Ms. NORTON. I'm just trying to get the priority.

Mr. BENISH. Yes.

Ms. NORTON. Ms. Ferro.

Ms. FERRO. Yes, ma'am. In support of Chief Fulton's comment regarding oversight of drivers, resources, and tools to ensure that States and companies have timely access to driver convictions, suspension, cancellation data.

Ms. NORTON. Thank you.

Secretary Condron.

Mr. CONDRON. Yes, just one thing that we do not want to look for is there is a shortage of busdrivers generally across this country, and legislation that would eliminate or diminish the pool of drivers would be a detrimental issue on trying to find who is taking these children to school.

But we agree that there should be a standardization. We think the bidding process needs to be adjusted where all schools can look at the safety aspects as opposed to accepting the lowest bid.

And the other thing is we believe in certainly bus safety, but the standardization of the safety rules across the country so that every bidder is bidding the same.

Ms. NORTON. Thank you very much, Secretary Condron.

Those are very helpful suggestions as we prepare for the next bill. It sounds to me that the Federal Government is way behind, given those suggestions, on things we can do. So I appreciate those suggestions, those recommendations from all of you.

I am going to ask Mr. Davis, our ranking member, if he could offer his questions at this time.

Mr. DAVIS. Thank you, Madam Chair.

And thanks, again, to the witnesses. I enjoyed your opening testimony.

Vic Zimmerman, he is the superintendent of the Monticello School District in Piatt County, Illinois, and it is in my congressional district, and he has been active in ensuring children get safely to and from school. He had been particularly focused on the role technology can play in keeping our children safe when they exit the bus and cross the street.

In fact, this past January, his school district purchased stop-arm cameras to report vehicles illegally passing a schoolbus. I know though that he does not want to stop there, and he is always looking for new technology to help keep his students and our kids safe.

With that in mind, I want to start with Mr. Benish.

With that in mind, are there existing technologies that we can better utilize to increase safety as children cross the street in front of a stopped bus?

Mr. BENISH. Well, what we are looking at right now is illegal passing laws, making sure that we look at not only the technology as far as radar. We discussed the other day that if there is a stopped bus or something with yellows on, just like you have a system where ambulances can go right through red lights when they make them turn green, a system where that would be hooked up to a bus that would talk to all of the cars in the area, knowing that there is a slowing down and/or a stopped schoolbus.

But we would also like to do creative public safety messaging, and we also would like to do more technology as far as training with the drivers.

Mr. DAVIS. OK. Anybody else want to take that question, technology innovation?

Mr. CONDRON. Yes, I will add to that. A little technology, it is available out there. A little story real quick is I had a schoolbus driver with four first grade boys, and he let three off at one stop, and the fourth one at the following stop. One day the mom picked up one of the boys to take home herself.

So the busdriver is on his run. Instead of having three at one stop he only had two, but unbeknownst to him, the second stop the other one-stop kid got off with the other two. So he pulls up to the stop to let three boys off when he only had two, and three get off.

He goes to the following stop, and what does he find? He secures the vehicle, and the mom is waiting for her son to get off, and there

is no child. Where is that child? The mom does not know and the driver does not know that that child got off at the previous stop.

We have technology out there. We can scan a bar code in easily in any dimension, any store, anywhere. Why are we not having a lanyard on a child or any child that scans it in when he gets on the bus. He scans it when he gets off the bus. Everybody knows where these children are. It is easy to check. It helps the drivers. It helps the parents, and it helps keep these kids safe.

And if there was some kind of fatality or accident, the first responders would certainly know how many children, boys and girls, and what their ages are on that bus so that they do not have to chase shadows when they get there.

Mr. DAVIS. Thank you very much. Excellent advice.

So, Ms. Ferro, welcome back.

Ms. FERRO. Thank you.

Mr. DAVIS. Are there any existing barriers at the Federal level that prevent States and local governments from adopting innovative safety solutions?

Ms. FERRO. Ranking Member Davis, I am trying to position that question in the context of AAMVA to see what that would be in regard to.

From the perspective of motor vehicle administrators and highway safety enforcement, they would be working closely on any national programs with the Federal agency, and as I think Chief Fulton indicated, structuring a program at the State level.

Are you speaking to the technology, such as an employer notification system?

Mr. DAVIS. No. I have kind of gotten beyond the technology issues unless you have something else you want to add to my previous question.

But I just want to know. You have got some experience sitting at that witness table before, and are there any barriers that you see at the Federal level that would stop States and local governments from implementing some of the suggestions we just heard from Mr. Benish and Mr. Condon or any other innovative approach?

Ms. FERRO. Well, I really appreciate that question. I am just not in a position to answer what would be a barrier at the Federal level at this time.

Mr. DAVIS. How about you, Ms. Fulton?

Ms. FULTON. Thank you, Ranking Member.

We have not run into any barriers to strengthening the protections for our own kids, other than what I mentioned which is, you know, keeping track of what happens interstate.

Mr. DAVIS. OK.

Ms. FULTON. And keeping track of drivers outside the State.

Mr. DAVIS. Well, that is OK. I saved Mr. McLean for last based upon who he is representing.

What barriers do you think exist? Because clearly, we see in the panel others do not feel that there are any barriers to State and local legislatures and local officers being able to change and implement more safety standards.

Mr. McLEAN. I think one of the most significant barriers is money, and so when we enact bills at the local level, we are consid-

ering what local school districts and local cities and towns have for a budget.

So every time we put a requirement on local cities and towns, we have to incorporate any sort of fiscal impacts. So that is a significant barrier at the State level that we have to consider when passing these laws.

Mr. DAVIS. Right. I would ask you how we can fix it, but I am out of time. So I yield back.

Ms. NORTON. I must note that my very good friend, and he is my good friend, asked the very opposite of the question I asked, which is what the Federal Government can do and he wants to know is the Federal Government in the way, and it looks like there is more it can do than to get out of the way at least at the moment.

Mr. GARCÍA.

Mr. GARCÍA. Thank you, Chairwoman Norton and Ranking Member Davis, for organizing this hearing.

As a father of three, I know how stressful it can be to worry about our children's safety, and I applaud the efforts of this committee to evaluate these safety measures today.

A question for Ms. Poland. As you mentioned in your written testimony, an emergency braking system can serve to prevent and mitigate collisions. Earlier this year, I joined my colleague, Hank Johnson from Georgia, to introduce the Safe Roads Act to require commercial motor vehicles to be equipped with an automatic emergency brake, or AEB, system.

In 2015, in an agreement with the National Highway Traffic Safety Administration, or NHTSA, the NTSB recommended that all AEB come standard with all passenger vehicles to help mitigate and avoid collisions.

Briefly, would you extend this same recommendation to schoolbuses and/or commercial motor vehicles as my legislation does?

Ms. POLAND. The NTSB actually has recommended automatic emergency braking for commercial vehicles and schoolbuses. Most recently we recommended this technology for schoolbuses in our Baltimore and Chattanooga special investigation report.

As you are emphasizing in the work that you are talking about, automatic emergency braking provides a protection in the last moments if there is a crash that is imminent and provides that braking to mitigate the forces involved with the crash and in some cases to avoid it.

The NTSB has been a long advocate for this type of technology.

Mr. GARCÍA. Thank you.

Just switching gears slightly, crash avoidance and mitigation technologies are critical to schoolbus safety. I'd like to transition, however, to a safety issue that is too often overlooked, the safety of the air our children breathe on schoolbuses.

I am working with Senator Kamala Harris and colleague Representative Jahana Hayes, a former educator from Connecticut, to introduce the Clean School Bus Act to accelerate the electrification of the Nation's bus fleet.

Over 25 million schoolchildren rely on the Nation's schoolbus fleet to get to and from school daily. The tailpipe emissions that they are exposed to in transit and while idling in these buses are

extremely toxic, especially if some of the schoolbus yards are located in urban areas next to the residential areas.

Madam Chair, I ask unanimous consent to enter into the record the 2019 American Lung Association “State of the Air Report,” which further highlights the toxicity of air in heavy-duty diesel engines, including schoolbuses.

Ms. NORTON. So ordered.
[The information follows:]

Report, “State of the Air 2019—20th Anniversary,” by the American Lung Association, Submitted for the Record by Hon. Jesus G. “Chuy” García

The report is retained in committee files and is available online at <http://www.stateoftheair.org/assets/sota-2019-full.pdf>.

Mr. GARCÍA. Thank you.

This pollution negatively affects school attendance, health, and test scores, a burden that also tends to fall disproportionately on low-income students and students of color, like those in the district I represent, Chicago Southwest and Northwest Sides.

The Clean School Bus Act would provide grants to help States replace diesel buses with electric buses to reduce student exposure to tailpipe emissions and curb our contribution to the climate crisis.

A question for Mr. McLean. As a former county commissioner and State legislator, I understand the struggles that States deal with to find funding for safety measures like these. Do you believe that States and local governments would be supportive of additional Federal grants to modernize and electrify the schoolbus fleet?

Mr. MCLEAN. I do. I think that is a perfect example of one of the incentives that the Federal Government could use to provide increased safety measures for kids on schoolbuses.

Mr. GARCÍA. Great. And back to Ms. Poland. In your investigation of the Oakland bus fire, you noted that the schoolbus engine designs often fail to mitigate the spread of gases into the passenger compartment. That can exacerbate a situation involving a fire.

But can you speak to whether or not these fumes can get regularly into the passenger compartment even in the absence of a fire?

Ms. POLAND. Our investigation, of course, focused on the post-crash fire in that event, and when there was that significant fire in the engine compartment, how the incomplete firewall led to the fire being able to spread into the passenger compartment.

Mr. GARCÍA. Can you comment on the entrance of fumes into the bus cavity?

Ms. POLAND. The NTSB currently does not have a position on that aspect.

Mr. GARCÍA. OK. Thank you.

I yield back, Madam Chair.

Ms. NORTON. Thank you very much, Mr. García.

Mr. Gallagher.

Mr. GALLAGHER. Thank you.

Ms. Poland, Representative Krishnamoorthi and I have introduced H.R. 2416, which is the SAFE TO DRIVE Act, which would direct the Department of Transportation to use some of the money

that has already been appropriated for grants combatting distracted driving to new grants for the same purpose, but which would be easier to qualify for.

So my question is: to what extent does the National Highway Traffic Safety Administration see distracted driving, especially from cell phone use, as affecting the safety of schoolbuses?

Ms. POLAND. So the NTSB has commonly looked at distraction, and in fact, this has been an item on our “most wanted list” for many years. Distraction can come from a variety of different forms, and we focused on distraction for schoolbus drivers.

Of course, in all of the discussions that you are hearing today, we think that oversight of the drivers is critical, and that is dealing with the actions of the driver, including medical fitness and some of the many other aspects, but also there are technological solutions that if there is distraction involved that we can mitigate the effects of a crash before they happen or even make that crash less vulnerable to the occupants inside.

Mr. GALLAGHER. And as you look at the data of just crashes over—take your time period—has there been a consistent primary factor that has contributed to schoolbus crashes over the last several years or is each case just unique such that you cannot establish a trend or is the sample size not large enough?

Ms. POLAND. So the NTSB typically investigates extremely severe crashes that may not be representative of all crashes, but obviously, there is a wide variety of causes, and that is why we look at different recommendations to address those countermeasures.

So you are hearing some of those today from proper oversight of the drivers to technological interventions, to also increasing the time to evacuate in post-crash events, such as fires or water immersion.

Mr. GALLAGHER. And a final question for you or for anyone on the panel who wants to take a swing. I mean, to what extent do we think overall congestion on the roads, increasing congestion, which obviously would vary regionally, locally, is creating more safety concerns?

So, for example, I have a bill that would allow logging trucks access to highways to get them off local roads, which I view as not only an environmentally friendly thing, but a safety thing, right? I mean, it is sort of easier to transit than going around with a lot of roundabouts in northeast Wisconsin, Green Bay, Wisconsin.

We also know that according to the National Highway Traffic Safety Administration, getting on and off the bus, crossing the street, waiting for the bus can put children in significant danger. Schoolbuses operate on local roads, which include intersections, crosswalks, curves, stop signs, and other variations in the flow of traffic.

So in your expert opinion, would reducing congestion, in general, but specifically reducing sort of large vehicles like logging trucks, from local roads improve the safety of schoolbuses?

Ms. POLAND. So schoolbuses are large vehicles, and typically in most crashes with passenger vehicles they fare very well. Unfortunately in crashes with other large vehicles, that is where we see the vulnerability, especially in side-impact collisions and high-speed rollovers.

We also have to be very careful of unintended consequences because the NTSB has investigated a number of commercial motor vehicle crashes, especially in work zones where there may be some sort of a vehicle that is not stopped for a queue that has developed for a work zone.

So I guess I would encourage you to consider unintended consequences and also technological solutions, such as we were discussing earlier of forward collision avoidance and automatic emergency braking for all commercial vehicles.

Mr. GALLAGHER. Interesting. Yes, ma'am.

Ms. FULTON. Congressman, I would just add certainly NTSB is the expert on statistics, but our tragic crash happened on a highway so, you know, with a large vehicle striking a schoolbus on a highway, a major highway.

Mr. GALLAGHER. Sure.

Ms. FULTON. So clearing the local roads would not have been helpful in that situation.

I think, again, unintended consequences, there are a lot of different ways to look at it.

Mr. GALLAGHER. Well, I certainly respect that. Unintended consequences are part of the main reason that I am sitting on this side of the aisle, but I appreciate all of your answers, and thank you for the dedicated work that you do.

Ms. NORTON. I am sure it was not unintended that you are on that side of the aisle.

[Laughter.]

Ms. NORTON. Thank you very much, Mr. Gallagher.

Mr. Malinowski.

Mr. MALINOWSKI. Thank you, Madam Chair.

And Mr. Gallagher is always welcome to switch sides of the aisle. We can talk afterwards.

Mr. GALLAGHER. And I would have to not respect unintended—never mind.

Mr. MALINOWSKI. Ms. Fulton, first of all, welcome as a fellow New Jerseyan. I am happy to see you here and very pleased to see the strides that New Jersey has been making in improving schoolbus safety going forward, especially after the tragic accident in Mount Olive, which happened in my district, as you know.

I was able to meet Miranda's father and sister just a couple of weeks ago when they came to Washington to advocate for greater Federal involvement in preventing tragedies like that bus crash from ever happening again.

In that context, I wanted to ask you to say a little bit more about New Jersey's employer notification system. I think you began to a little bit earlier.

As I understand, it was recently updated to better prevent bad drivers from getting behind the wheel of a bus, and I wonder if you could explain how the system works and some of the changes that we have made.

Ms. FULTON. Yes. Thank you, Congressman Malinowski.

So we at the Motor Vehicle Commission, when a notice of suspension is posted by courts or law enforcement to a driver's license and that driver's license has a schoolbus endorsement, a report is

automatically generated, and we do this on a daily basis, every business day, and for us Saturday is a business day.

So 6 days a week we generate a report, anyone who holds that schoolbus endorsement whose license has been suspended, and that goes directly to the department of education, and then the department of education was notifying operators.

The change in the law, first, shortens the time that the employer has and the department of education. So department of education has 24 hours to notify the operator, whether it is the board of education or the private operator, that this driver has been suspended.

And they must confirm within another 24 hours that that driver is off the road, that the driver is not driving a schoolbus.

And the second piece of the legislation is that we do not just do that for suspensions or 12 points or over, which generates a suspension. We are now required to do that if you get six points or more or three moving violations in a 3-year period.

So there are more stringent requirements, and the notification has shortened. This is still relatively new, but that is how it works.

Mr. MALINOWSKI. And so let's move from that to the across State lines issue. If somebody had an infraction, let's say someone had the equivalent of six points in another State, moved to New Jersey, what would happen and how soon would it happen?

Ms. FULTON. Well, first, Congressman, if there is a notice of suspension that comes from another State, we may get that any number of ways depending on whether we have an agreement with that State where we get something electronically or whether we get it in the mail the way that we communicate with some of our sister States.

So it may come in the mail, and that can take time. It has to be managed manually.

The six points, now that is a new New Jersey rule, and we have not yet gotten that to happen automatically, right? So there is not an automatic trigger of six points that come in from another State.

Now, I guess once it gets posted to the New Jersey driver's license, then we are in state, and we can manage it. But the real trick is getting notice from the other State. How long does it take for a conviction that happens in Pennsylvania or New York? How long does it take for that conviction to get posted in New Jersey?

That is manual process many times.

Mr. MALINOWSKI. So that just leads to the obvious final question, which is whether a national ENS, employer notification system, would be helpful.

Ms. FULTON. A national notification system would be helpful for us for sure, and you know, I have referenced AAMVA before, but we actually use AAMVA's existing system for other CDL information. So that would be helpful.

Mr. MALINOWSKI. Great. Thank you.

I yield back.

Ms. NORTON. Thank you, Mr. Malinowski.

It may be that there is something that this committee can do to make sure that that national system occurs. So I appreciate those questions.

Mr. Palmer.

Mr. PALMER. Thank you, Madam Chairman.

Ms. Poland, the NHTSA found that 97 pedestrians under the age of 18 were killed in school transportation-related crashes between 2008 and 2017. Do you know how many were struck by vehicles going around the bus out of that 97?

The National Transportation Safety Board, do you all have that? Does anyone have an idea?

Ms. POLAND. Certainly there is data available on those crash statistics. The NTSB accidents are a portion of those numbers that you are looking at, and as I mentioned in my opening statement, we have three ongoing investigations in three different States where we are looking at what is happening on those high-speed roadways.

Mr. PALMER. I have got several questions that I want to ask about this, but I think it is important to know how many of these fatalities were the result of people going around the bus as opposed to the bus actually running over the child.

You have got both of those situations, and the reason I bring that up is that in reading the testimonies here, Mr. Benish's testimony pointed out that the passing of stopped schoolbuses during loading or unloading, illegal in all 50 States, has reached epidemic proportions. A most recent annual observational survey in 2018, 105,306 schoolbus drivers in 38 States reported almost 84,000 vehicles had illegally passed their stopped schoolbus in 1 day.

That is incomprehensible to me that that many people are that stupid or that unconcerned about the safety of the kids on that bus.

And based on the observations, have you projected that out over a 180-day school year? That is 15 million vehicles illegally passing a schoolbus.

So I think it is important to know, Madam Chairman, how many of these fatalities and injuries are because people are passing schoolbuses, and I think we may need to take a look particularly at the State level for those of you who are involved with the State legislature, as the Honorable Ms. Fulton and Mr. McLean, that the penalties ought to be much more severe for going around a schoolbus when it is stopped.

I think it would be important to know what is going on with that, and the other thing that I want to ask is that a number of these accidents are in rural areas.

Any idea, Ms. Poland, about why so many of them are in rural areas?

I mean, we had a lot of discussion about congested streets. That is really not an issue out where I grew up, and I rode a schoolbus when I was a kid. That was 1964, by the way.

Ms. POLAND. Well, I guess it is unfortunate to report that the National Association of State Directors of Pupil Transportation Services yesterday put out the new statistics for the last school year, and now they are reporting that there is over 95,000 illegal passings in that single day, from 39 States that are reporting that information.

As I mentioned earlier, the NTSB is looking at three crashes. All of those are in what you would classify as rural areas from high-speed roadways, 55-mile-per-hour roadways.

And so our investigators are currently looking at a variety of different countermeasures, including conspicuity, route planning, and

technological countermeasures to be able to make recommendations to our Board to assist in this process.

Mr. PALMER. I want to get to some questions that will lead to some solutions. OK? So what I am suggesting here is that we look at these crash statistics, rural versus suburban, urban, look at the number of vehicles that are going around schoolbuses. I would like to know whether or not these are rural incidents or in other areas.

In regard to these higher speed highways, where I currently live, we have a highway where it is 55, but during certain times of the day when kids are coming to school and when kids are leaving the school, that speed limit is reduced to about 25 miles an hour.

And it may be that particularly in rural areas, you treat this like you would a construction zone. Somebody brought this up, Madam Chairman. I think it is a pretty good idea that maybe during those times we do it like a construction zone. We notify you ahead of time you have got to bring your speed down because you have got schoolbuses operating in the area.

I know that is going to create some issues for transport vehicles and things like that, but I will pay the extra cost for a loaf of bread or a bottle of water, whatever, if it saves the life of a kid.

One last thing, if I may, Madam Chairman. I am kind of on a roll. I look at this, too, and this is something that I wanted to ask Mr. McLean about, the legislative role in this, and Ms. Fulton, too.

My concern is about the abuse of alcohol, and some States have requirements for how many hours after a busdriver consumes alcohol. That should also include recreational marijuana.

And the thing that concerns me is that there are commercial drivers who lose their license, and in a lot of cases they self-report. I think we need to have a database where if someone applies for a license to drive a schoolbus, there is a database that is searchable, and you can determine whether or not someone has lost their license before we put them behind the wheel of a bus carrying our kids.

What do you think about that?

I do not know that I want to make it a Federal law, but—

Ms. NORTON. He is over time. So I wish you would take those suggestions under advisement.

Mr. PALMER. I thank the chairman for her indulgence.

I yield back.

Ms. NORTON. And I thank Mr. Palmer for his comments, especially his notion about ways to make the penalties more severe for passing of a schoolbus. That is something that we need to look into, raising a Federal issue as to whether or not we could do that, recognizing that most of these laws are local.

And Mr. Palmer raised a number of issues. I think this was raised before about studies that we need to do, statistics we simply do not have. It seems to me we cannot pass another bill without making sure that those studies and statistics are mandated.

So I thank you, Mr. Palmer.

Mr. COHEN.

Mr. COHEN. Thank you, Madam Chair.

First, I would like to address my question to Ms. Fulton.

Thank you for the good work you have done in New Jersey. You all seem to have been way ahead of the game and done super.

Why has New Jersey been able to make significant progress toward improving schoolbus safety with three-point safety belts when it has been so difficult in other States?

Ms. FULTON. Well, Congressman, I will be honest with you. It makes a difference when the Governor and the members of our New Jersey congressional delegation make it a priority, continue to work actively educating the community, speaking out about it and speaking to our State legislators.

We have had incredible support across the board from Members of Congress and the Governor to say we are going to do this.

Mr. COHEN. Who is your Governor?

Ms. FULTON. Governor Phil Murphy, and this has been something that was important to him and important to our Members of Congress, and they made it happen.

Listen. No one wants to wait for a tragedy, but when it happens, you know, that is an opportunity where people in a position to make a difference can choose to really—

Mr. COHEN. Were you part of the campaign to make it happen, the lobbying effort?

Ms. FULTON. I was not. I do not lobby for legislation in my position as motor vehicle commissioner. We provided—

Mr. COHEN. As an observer, do you recall who were the main people against the bills?

Ms. FULTON. Against the bill?

Mr. COHEN. Yes. Was it—

Ms. FULTON. There was not significant opposition. You know, there were questions about the additional cost, but the additional cost of a couple thousand on a 54-passenger bus, it is a cost for school districts, but there was a lot of support from the school districts where they had had accidents to go forward with it.

Mr. COHEN. Thank you, ma'am.

Ms. Poland, let me ask you as part of a special report examining schoolbus safety, the NTSB clearly and unequivocally recommended that all new large schoolbuses be equipped with lap and shoulder belts. You probably remember that from my opening statement. Everybody does. It is probably enshrined in everybody's mind.

In addition, the American Academy of Pediatrics has a long-standing position that new schoolbuses should be equipped with seatbelts.

Why is it so important that this commonsense safety equipment that has already saved thousands of lives in passenger motor vehicles be placed in all large schoolbuses?

Ms. POLAND. As I mentioned in my opening statement, we know that schoolbuses are extremely safe, but they are vulnerable in certain types of crashes, and over and over again we are seeing children that are injured and killed in these types of very severe crashes.

The technologies have changed over time. We initially recommended occupant protection systems, but now we are seeing that lap/shoulder belts are well designed and, in fact, in certain circumstances we are able to study how they are performing in crashes and finding that occupants are very well protected in these new designs of lap/shoulder belts.

So that is why we came out with our recommendations to the States to have new large schoolbuses be equipped with passenger lap/shoulder belts.

Mr. COHEN. I kind of vaguely recall from when I sponsored this as a State senator, which is like 20-odd years ago maybe, that there was some discussion about the safety belts that the seats are like perpendicular. They are at right angles, and that they are stiff and they do not move, and it would hurt the kids' necks if they were strapped in.

Is that an argument that has been made?

Ms. POLAND. That is an argument that has been made, but fortunately, the technologies have advanced so they are able to protect an occupant that may be unbelted behind occupants that are belted as well.

And, again, we have been able to study some of these crashes when there have been onboard video camera systems that are showing the outcome and seen that there is good protection with these modern lap/shoulder belts in schoolbuses.

Mr. COHEN. Thank you.

The NTSB also recommended automatic emergency braking technology. It is widely available. You also concur that that should be part of the schoolbus?

Ms. POLAND. Correct. So the NTSB is always advocating for crash prevention. So technologies like forward collision avoidance, automatic emergency braking, electronic stability control, if they can activate at that last moment before a crash happens, in some cases we can avoid the crash altogether.

In other cases, we can just lower the severity of that crash, but it is very important for schoolbuses as well as all vehicles.

Mr. COHEN. Thank you.

And those are the reasons which have been discussed here, why Senator Duckworth and I introduced H.R. 3959, the School Bus Safety Act, and we hope that we can have it included in some measure as time goes on and pass it into law.

Thank you, Madam Chair, and I yield back the balance of my time.

Ms. NORTON. Thank you, Mr. Cohen.

I allowed Mr. Palmer to ask a question when it was slightly out of time, but it was impossible given the time remaining for the question to be answered.

So I invite those of you who do have answers to Mr. Palmer's question to submit it in writing, and I will make sure that those answers get into the record.

Mr. Balderson.

Mr. BALDERSON. Thank you, Madam Chair.

And I will assist that because Representative Palmer took some of my questions talking about rural communities and the impact of bus travel for those students.

I did have a stat here that 52 percent of the schoolbus crashes do occur in rural communities, and that is done by the National Highway Traffic Safety Administration that was done.

Could all of you elaborate on some of the things, of any recommendations that we can do to improve safety?

In rural communities and some of the areas that I represent in Ohio's 12th Congressional District, I mean, there is one county that is not in the district anymore, but right close that has no four-lane roads. So it is all State route or gravel roads, and a student is on that bus one way 2 to 2½ hours for travel.

So I will ask the whole panel if there is anything, any thoughts that you would have of safety concerns that have been addressed for the rural communities since 52 percent of the schoolbus incidents happen in rural communities.

The Honorable Andrew McLean, lead the way.

Mr. MCLEAN. I am not sure I am in a position to say what would help rural communities specifically. So I do not know that I have suggestions for rural communities, but I do think that allowing States to explore the solutions and having the Federal Government permit the States to explore those solutions is really important to figure out what the best solutions are.

You know, we are probably never going to eliminate all accidents, but we need to figure out the best ways to reduce the number of accidents.

Sir, I do not have specific recommendations.

Mr. BALDERSON. Does anybody have a suggestion? Honorable Fulton.

Ms. FULTON. Well, Congressman, I do not know that this is specific to rural communities, but in our State, rural and urban communities both may have less resources at their school board than the suburban communities.

But one of the things that is critically important for us is the inspection from the State level of the schoolbus to ensure that they are not allowing a lack of resources to lead to the schoolbuses not staying maintained and not meeting the standards.

And just as important, when we do those inspections, both the announced and the unannounced, we check the driver records. Are you sure that the drivers that you are putting behind the wheel or does every one of them have a current medical certification? Does every one of them have a current CDL with a legitimate endorsement and no suspensions?

You would be surprised how often private operators are often used when funds run low. We had 330 summonses in the space of 1 year in our inspections where private operators, and for the most part it was private operators, had failed to keep those things current, and that leads to people behind the wheel that are not qualified.

Mr. BALDERSON. Madam Chairman, I will switch gears for the panel a little bit.

According to the National Highway Traffic Safety Administration, the greatest risk to schoolchildren is getting on and off the schoolbus. Have any States successfully implemented reforms to better prevent these violations?

Mr. CONDRON?

Mr. CONDRON. I was just going to comment on the last question on the rural busdrivers, if I may comment on that question.

Mr. BALDERSON. You may comment.

Mr. CONDRON. Traditionally, on the coast, the east and west coast, you do not see this much, but in the rural area you see more

they call it “park-out,” where the driver takes the bus home with them. They do not report to a terminal or a yard. The driver just gets in the bus and then goes on their route.

So in the rural areas, I think you probably would need to make sure that the vehicles are inspected and up to date, a little more oversight, and also that the driver is current in their training on what is current in that area.

Mr. BALDERSON. OK.

Mr. BENISH. I would like to comment, being one of the bus-drivers, and I do drive a bus and have had a CDL and driven for over 25 years.

I think what Mr. Palmer said also, too, is more signage in those areas, especially rural; making sure we put specific speed limits down at certain times of the day to slow down just as we do in a construction site in our slowdown.

And, again, as I mentioned in my opening statement, we do have a new act out, the Stop for School Buses Act of 2019 by Representative Walorski, and we want more public messaging, especially for new drivers, and especially more talk about distracted driving, which was involved in an accident in Rochester, where exactly that happened. Three students were killed this past year in rural Indiana, all from the same family early in the morning.

Mr. BALDERSON. Thank you.

Madam Chair, thank you.

Ms. NORTON. Thank you very much, Mr. Balderson.

Mr. Payne.

Mr. PAYNE. Thank you, Madam Chair.

And, Ms. Fulton, it is good to have you here. I do not know if you are aware of this, probably not, but before my time in Congress, as the president of the city council in Newark, New Jersey, I was in student transportation for 10 years. I started out actually for one of the educational commissions, Essex County Educational Services Commission, and started out as a schoolbus monitor where I was out on routes in the morning doing spot inspections and making sure children, parents if they had problems with children being picked up, all of those types of issues, and worked my way up to supervisor of transportation, where I was responsible for 10,000 children on schoolbuses a day, handling Newark Public Schools transportation and special needs throughout Essex County of our most vulnerable students, stretcher-bound children that were paraplegic.

So this is really where I cut my teeth in public service. So I'm really glad to see that we are here discussing these issues. I also am proud that New Jersey is on the cutting edge of safety.

And so I fully understand the need for safe schoolbuses and commend you for your work to increase their safety.

My children, I have triplets, and in New Jersey they have early school intervention where children go to school as early as 3, and so my children were on schoolbuses in Newark at 3 years old. As a matter of fact, there is one of them taking pictures of me right now. So he has made it pretty far.

So New Jersey is a leader when it comes to schoolbus safety, requiring all schoolbuses to have the three-point safety belts. Yet the

Federal Government does not require that all schoolbuses have them.

Can you explain how the three-point safety belts improve bus safety?

And do you think it would be in the country's best interest to have these belts required nationwide?

Ms. FULTON. Thank you, Congressman Payne.

And if I might use a moment to say I did not get a chance to agree with my friend Mr. Condron from the Teamsters, but schoolbus drivers are incredibly valuable and incredibly underpaid for the responsibility that we give them.

Mr. PAYNE. I agree.

Ms. FULTON. So let me say that.

And then with that, in terms of the statistics on three-point belts, we get all of our stats from the National Transportation Safety Board. So to make sure I do not screw that up, I am going to pass off to Ms. Poland—

[Laughter.]

Ms. FULTON [continuing]. And defer to her for the information on that.

Ms. POLAND. So the NTSB has looked at a wide variety of crashes. I have investigated crashes in schoolbuses for over 20 years now, looking at schoolbus passengers, what happens during crashes when there is just compartmentalization inside the schoolbus, when it is lap only belts and when there are lap/shoulder belts, and we have found that the recent advancements in the design of the lap/shoulder belt has provided excellent protection for the occupants inside the schoolbus in a variety of different crashes, knowing that the baseline level, the minimum performance for large schoolbuses right now, compartmentalization is incomplete.

And many of these catastrophic crashes involve side impacts and rollovers, which lap/shoulder belts provide that protection for our occupants.

Mr. PAYNE. You know, I also was able to meet with Miranda's father and her family several weeks ago, and I am wondering—the laws that we have in New Jersey, are they really a good foundation for the possibility of Federal laws across the country?

And anybody that wants to weigh in, please feel free.

Ms. FULTON. Well, Congressman, we already have the laws, and I feel perhaps my friend from Maine can weigh in on whether the States feel. You know, we still are learning in terms of how to execute some of these things and what is going to have the greatest impact, but we will see.

Mr. PAYNE. Yes or no from anybody that wants to because my time is running out.

Mr. MCLEAN. And it is the position of NCSL that the Federal Government should leave it to the States to explore different solutions because there are different solutions for each State.

Ms. POLAND. And speaking with a variety of people that have implemented the lap/shoulder belts in various jurisdictions, we are pleased to see that best practices are being shared amongst this community because I think we are all in agreement here that ultimately, we want the safe transportation of our students to and from school.

Mr. PAYNE. OK. Thank you.

My time has expired. I yield back.

Ms. NORTON. Thank you, Mr. Payne.

Mr. Stauber.

Mr. STAUBER. Thank you, Madam Chair.

I appreciate the witnesses giving us the opportunity to listen to your expertise.

I come from a little bit different background. I was actually a schoolbus monitor many years ago, but I also had the privilege of serving my community in Duluth, Minnesota, as a police officer.

One of the worst things we can do is respond to a crash of a student getting on or off the bus, and it is just unconscionable that we see drivers do this every single day in this country. It is uncalled for.

I have been in a fully marked squad car, the second car behind a stopped schoolbus. The light is on. The gate is out right in front of me. That is unconscionable.

And so for me to see it, I have cited it. I have testified in court. For me we are in this together. When we put our kids at the end of the sidewalk or the corner, we expect them to arrive safe to and from school.

And from my perspective, we talked about the greatest concern is the crossing of the roads. Are we putting enough emphasis in our driver's education classes in each of our States? Because they are all a bit different.

Mr. McLean, what does your State require for driver's education, total hours, and what do they put for this subject, or do they not specify this subject?

Mr. MCLEAN. I am not a motor vehicle administrator so I cannot speak to the exact requirements, but we do have a pretty rigorous system and process for a beginning license.

Mr. STAUBER. No, you are talking about 16-year-old drivers going through the driver's education?

Is there anybody that thinks that we could enhance our driver's education? Because if the majority of it is happening, the driver is not paying attention or what have you, it seems to me, the educational component and the seriousness of teaching our young drivers.

Mr. Benish.

Mr. BENISH. Yes, that is something, again, with the Stop for School Buses Act that we have proposed in my opening statement about putting more education.

I recently had this discussion with my three teens about 2 months ago about stopping in and around a schoolbus, and knowing that I own a schoolbus company and am a driver, it was very interesting to hear the perspective from McKenzie, George and Jack, what they did know and did not know about stopping around a schoolbus.

They are brandnew drivers, and it was just plain scary.

Mr. STAUBER. Yes, and I think that we have to actually allow our States to adopt real strict educational parts of stopping in and around schoolbuses, and by the way, I am a cosponsor of the Stop for School Buses Act.

Mr. BENISH. Thank you.

Mr. STAUBER. For me, one driver on a schoolbus is too much, one in this entire country because the safety of our kids is paramount.

One of the things I wanted to talk about, Ms. Poland, you talk about the restraints and what have you. Do you feel comfortable saying that the restraints in a fire or water emergency for young kids, especially in rural areas where you are not going to get the help right away; do you feel comfortable in putting that mandate forth for the entire country?

Ms. POLAND. That is a good question, and many people, of course, are asking that question. I can just lend some of the experience that we have had where we have looked at crashes, very severe crashes, where there have been onboard camera systems, and we have studied the evacuation and seen that the passengers that have maintained consciousness during the crash are able to self-evacuate.

So it is important for those students to be protected during the crash to give them the best chance to be able to self-evacuate.

If they are unable to be protected during that crash, then of course the injuries may negatively affect their ability to quickly and safely evacuate the schoolbus.

Mr. STAUBER. Thank you very much.

And to the witnesses, I really appreciate we all want the schoolbus and the kids and their safety. That is the utmost importance, and you all are experts in your respective field. So I appreciate this opportunity to listen to you, and together we can increase, in my mind, safety exponentially using, I think, some commonsense measures.

So with that I yield back, Madam Chair.

Ms. NORTON. Thank you very much, Mr. Stauber.

Mr. Babin.

Dr. BABIN. Thank you, Madam Chair. I appreciate it.

And thank you, witnesses, for your expertise. I appreciate you being here.

Ms. Poland, thank you for being here with us today. Each and every member of this committee cares deeply about the safety and the security of our school-age children, as we have heard numerous of our Members say, and we want to ensure that when they do get on the schoolbus to go to and from school that they arrive safely at their destination.

However, I also want to make sure that our States and local communities are allowed the flexibility they need to implement proper regulations for their unique jurisdictions.

And with that in mind, how can Congress balance the need for improved schoolbus safety without imposing a heavy-handed, over-regulating, one-size-fits-all approach for our States and school districts?

Ms. POLAND. Thank you for the question.

NTSB has made recommendations about vehicle design, and we think it is important for the Federal Government to provide that minimum level of vehicle design, including the crash protection and occupant protection.

We have investigated many crashes where oversight of the drivers is a concern. We recognize that there are minimum standards at the Federal level, but much of that oversight happens at the

State and local level, and so many of our recommendations have focused on that State and local level.

So, again, we think that those minimum standards should be provided at the Federal level, but we do think it is important and critical that the State and local levels can implement them and many times exceed them, as you have heard today.

Dr. BABIN. Exactly. I have a niece that was involved in an accident in Beaumont, Texas, a charter bus, not a schoolbus, and it was a terrible accident with some fatalities, and my niece was injured.

I think they have implemented in the State of Texas seatbelts because of that one accident.

Then a followup on that question, could you talk about some of the recent actions that you have seen States and school districts take in order to increase the safety of students traveling to and from school on schoolbuses?

And I know we have talked about that already. You have already hit on it a little bit, but if you would elaborate a little further, I would appreciate it.

Ms. POLAND. Yes, of course. So we are very pleased to see so much movement on occupant protection. There are so many States that are now looking at passenger lap/shoulder belts for large schoolbuses, and we think that this is a critical move.

We are also seeing a lot of motion in the schoolbus manufacturers where they are looking at some of the technologies for preventing crashes, and they are implementing these in some buses as standard equipment. So we also think that that is also very critical for the crash avoidance aspect.

So there is a lot of movement. We are seeing a lot of sharing of best practices, including some of the aspects that do not necessarily address injuries and fatalities, but some of the aspects of driver retention and distraction that may have improved with some of the technologies and some of the installations that we are talking about like lap/shoulder belts.

Dr. BABIN. Absolutely.

I will yield back the balance of my time. Thank you, Madam Chair.

Ms. NORTON. Thank you, Mr. Babin.

Mr. LaMalfa.

Mr. LAMALFA. Thank you, Madam Chair.

I have actually got a little bit of good news on this subject here. We have in northern California the town of Paradise, which had a horrendous fire almost coming up on a year ago now, and we had one story of a local schoolbus driver, Kevin McKay, who during this fire crisis without being told by anyone decided to drive his schoolbus back into town to the Ponderosa Elementary School in Paradise when the Camp Fire hit town. His wife and family were already on the way to safety.

In coordination with the Ponderosa School principal, Mr. McKay loaded 22 kids and several teachers onto his bus and took them to safety. At one point, Mr. McKay literally tore off his own shirt and gave it to the teachers who ripped it up and made it into breathing masks because the bus was filling up with smoke from the fire.

Well, thanks to the efforts of Mr. McKay and other Ponderosa teachers, all the kids escaped Camp Fire without major injury. So a really good piece.

Now, being California, as dangerous as the wildfires are there and still will be, schoolbuses are under fire in another way. California Air Resources Board, over the objections of heavy vehicle users, decided to implement the installation of the diesel particulate filters, refitting these existing buses with these devices.

They can reach and exceed 600 degrees Celsius when the engine is operating and have been prone to clogging with ash and unburned fuel, which causes them to catch fire. These are not isolated cases to buses. We have plenty of anecdotes with trucks and other vehicles that have been forced to be refitted with these devices.

Just like freight trucks, these, again, schoolbuses are vulnerable to these issues and have caught on fire.

Now, being California is the largest population, it also has the largest schoolbus fleet and also the largest number of students of any State. So California usually has the most restrictive regulations on schoolbuses as well. So CHP has to inspect each bus every year, and the drivers themselves review their own vehicles every 45 days.

So despite these regulations, these buses still catch on fire because of the diesel particulate filter that was required was not suitable to be used. That technology had not caught up to what was a requirement on these buses.

Hundreds of thousands of vehicles were required to install them anyway, no matter the cost. So I will throw this to Ms. Poland.

The Federal Government does set a pretty low bar for schoolbuses and typically allows States to increase those standards as they see fit. Are you aware of any intervention the Federal Government has made when States are endangering students and implementing standards that are causing schoolbuses to catch fire?

Ms. POLAND. Our experiences with the schoolbus fires are not related to the issue that you are bringing up, but some of the countermeasures that we have recommended may ultimately—

Mr. LAMALFA. You have not heard of any cases of trucks or buses that have been refitted with these filter systems catching fire?

Ms. POLAND. So our Oakland, Iowa, crash that we just made public recently had a schoolbus fire, but in that case the engine compartment caught on fire from overheating of the turbocharger.

Of course, in that case, I also mentioned that there was an incomplete firewall that allowed the smoke and fumes and fire—

Mr. LAMALFA. Well, that is one case there. Now, a turbo that was coming apart or lost a bearing or something, that could be something that would happen, but we are talking about the diesel particulate filters that have been forced to be refitted to many buses and trucks and lots of equipment in California and maybe other States that have joined in that.

So is there any kind of protection from the Federal Government over a regulation that is causing fires simply by the fitting of this equipment?

Ms. POLAND. The NTSB's position is on fire suppression systems in the engine compartment and also on flammability of the interior components. It would not address specifically the cause of your fire,

but may mitigate the consequences and increase the time for passengers to be evacuated if those systems were fitted with those countermeasures.

Mr. LAMALFA. Well, the Federal EPA is taking a look at how States sometimes go beyond to the harm of consumers, to the harm of the safety of buses on that. Would NTSB be looking more at the possible harm in this case that fitting these devices on untested, the technology not having made fully applicable in a safety factor, would they look at, say, maybe that they should not be fitted until they are more properly engineered?

Ms. POLAND. If there was a circumstance where that was the cause of a fire that the NTSB is investigating, I am confident that we would look into that and certainly address countermeasures that may be able to mitigate the consequences.

Mr. LAMALFA. Might be able to look at countermeasures. So you have no statistics on how many fires have been caused by the refitting of these vehicles with these filters?

Ms. POLAND. No, sir, we do not.

Mr. LAMALFA. Have you actually heard of it? Have you heard of this happening anecdotally yourself?

Ms. POLAND. As I mentioned earlier, that has not been the cause of any of our schoolbus fires nor our motorcoach fires.

Mr. LAMALFA. In general, trucks, buses, diesel vehicles that have had these filters refitted to them?

Ms. POLAND. Not that specific issue.

Mr. LAMALFA. You never heard of that.

Ms. NORTON. The gentleman's time has expired.

Mr. LAMALFA. You never heard of that.

Ms. NORTON. Mr. Katko.

Mr. KATKO. Thank you, Madam Chairman.

And thank you all for being here today.

I will say at the outset I am a very proud sponsor of the Stop for School Buses Act of 2019, and I am pleased that this legislation includes a review of technologies to enhance schoolbus safety. So I am very happy with that.

Mr. Condrón, I just want to congratulate you on last night's vote. It was very important for Teamsters, and I was very supportive of that as well. So let's hope that moves in the Senate. That is a very big vote.

Mr. CONDRÓN. Thank you.

Mr. KATKO. Something you said and I believe Ms. Poland said it. The most recent studies, that 95,000 people pass schoolbuses with lights on illegally a day now. That is the most recent study. That is really stunning to me.

And one of the things that the Stop for School Buses Act of 2019 includes is a review of technologies to enhance schoolbus safety.

I am exposed to some of these in different settings of law enforcement. I was a Federal organized crime prosecutor for 20 years. So I am aware of all of the emergent technologies. Let's talk about a few of them.

I think there are some technologies out there that would pay for themselves, and if you will indulge me for a second, for example, if there is something mounted outside the bus which shows it can take a picture of these cars' license plates as they are passing and

then they are subsequently fined, and you have got 95,000 cars doing this a day, those very quickly pay for themselves.

So I do not know if that is something you are contemplating, but something that is going to absolutely get to the distracted driver, because I think that is a big part of it, and something that absolutely gets to the lack of respect for these warning signs.

And I think we need to take the gloves off with these knuckleheads that are doing this because recent statistics showed in a 10-year study or whatever it was that 90-some-odd children were killed as pedestrians, not on the bus, in different accidents, you know.

Getting off a bus or getting on, as you have noted, is the most dangerous time. So I would like to hear what you think about that possible proposal. I know it is being used in other applications. For example, there is technology out there that as the car goes by, you can take a quick picture of it and you can tell right away whether its registration has expired or not, and they get sent a ticket.

I mean, why can we not do something similar with buses? If we had that, I think it would pay for itself. So I would like to hear from you and some of the others.

Ms. POLAND. So the NTSB has looked at some aspects revolving around the schoolbus loading zone, including the route selection, in order to minimize the exposure in these circumstances and also conspicuity.

We have three investigations that are ongoing right now where we are exploring a variety of these technologies that can aid in the loading zone in preventing or mitigating these injuries and fatalities.

Our investigators are looking at a variety of different aspects, and I guess I will open it up to some of our State partners here at the table because we are also exploring that there may be some barriers at the State level for some of the technological interventions that you are talking about.

Mr. KATKO. There may be, but I know some of these technological innovations have gone into practice, and I think it cannot go unnoticed that the distracted driver component is quite serious, and it seems to be getting much worse.

So statistics up until they were updated once today had it in 60-something thousand per day. Now it is at 95,000. That is a gigantic increase in a short period of time, and that is indicative of an escalation of the distracted driver or the person who just disregards it, but I think it is time to take the gloves off with them.

Mr. Benish, do you want to add anything?

Mr. BENISH. Well, we can get you a State-by-State schoolbus illegal passing law breakdown, and some States do have and have enacted the taking a picture of licenses and so on, and some States have made it more severe.

Unfortunately, as you just mentioned, taking the gloves off is needed because it is just not preventing them to do that.

So, again, with the Stop for School Buses Act, and we appreciate the support, we need more signage. We need more education. We need more education for new, young drivers, and obviously distracted driving is a huge problem, especially in trucking and in

school-busing. That is where we see now obviously more accidents on the road, and that has definitely had something to do with it.

But we have to make it a lot more severe, and we have to do a lot better job making our presence known about stopping for schoolbuses.

Mr. KATKO. Yes, I understand that there are a lot of other components. I am just focusing really on the stopped schoolbus. That is an epidemic when you have that many cars a day disregarding it or not seeing it.

So does anybody else want to add anything to that?

Mr. McLean.

Mr. MCLEAN. Yes. Thank you very much.

Just very briefly, so we just enacted a bill to allow cities and towns to put stop-arm cameras on their schoolbuses. We believe that this is a really critical issue because it goes to the enforcement.

Our State police believe that increased fines do not actually solve the problem, but the enforcement does, and the stop-arm cameras will allow the prosecution of violators of that law.

Mr. KATKO. Right. I guess that is what I am talking about. I mean, not increasing the fines as much as saying every single person that passes, you are going to get a picture of the license plate, and they are going to get smacked.

Mr. MCLEAN. Correct.

Mr. KATKO. That might help.

So thank you very much.

I yield back, Madam Chair.

Ms. NORTON. Thank you, Mr. Katko.

Mrs. Miller.

Mrs. MILLER. Thank you, Chairwoman Norton and Ranking Member Katko.

And thank you all for being here today.

I am happy we can come here today to talk about solutions to address the schoolbus safety. I am a mother and a grandmother, and I would like to say that safety of children is of the utmost importance and should be our first priority with our kids.

Dr. Poland, do you know what percentage of schoolbus crashes are classified as large buses?

Ms. POLAND. I do not have a specific statistic, but the majority of schoolbuses that are on our roads today are classified as large schoolbuses.

Mrs. MILLER. OK. In Charleston, West Virginia, one of our school districts held a demonstration on a new safety lighting system that illuminates the paths students take to the bus in the dark. It has been extremely helpful to the students and other drivers on the road.

Have you noticed a trend in the amount of off-the-bus accidents at night?

Ms. POLAND. It has been a longstanding trend that more students are injured and killed in the loading zone than on the bus itself.

Of course, we know that schoolbus operation changes throughout the year. So sometimes it is in low-light conditions, and of course,

with these crashes that we are looking at in the three States that I mentioned earlier, 55-mile-per-hour roads, low-light conditions.

There are a variety of countermeasures that our investigators are looking at, and we are looking forward to bringing those recommendations to our Board in the near future.

Mrs. MILLER. Is there anything that you think Congress can do to work on this issue?

Ms. POLAND. I think there are a variety of aspects, and certainly having this hearing is one of them because our State partners have a variety of countermeasures that they are already implementing, and so we are looking to those successful cases when we are investigating these types of crashes to see what the best practices are and what are proven technologies to be able to reduce the injuries and fatalities in the schoolbus loading zone are.

Mrs. MILLER. In 2010, I was in our State legislature, and a mother, grandmother came to me and my officemate. Her 6-year-old granddaughter had been killed, run over getting off a schoolbus, and of course, she was heartbroken.

And it took us quite a while to get legislation through to at least double the fines, and it has been an ongoing thing to try and change the laws as we go.

But the heartache and, I mean, we have developed quite a strong relationship with this grandmother through it all, and the little girl would be turning 16 now. It just breaks your heart.

And I know one of the biggest problems that we have in schoolbus safety is the people who are ignoring the schoolbus unloading stop lights. Currently Indiana has taken measures to address the placement of schoolbuses that are operated on a U.S. route or State route. From my understanding, the driver may not load or unload a student at a location that requires the student to cross a roadway unless no other safe alternatives are available.

Have you all seen other States take steps to improve unloading safety, any of you all?

Mr. McLean?

Mr. MCLEAN. Can you repeat the question?

Mrs. MILLER. On State routes, the State of Indiana has issued a law that you cannot load or unload a student at a location on a 55-mile-an-hour highway if they have to cross it unless there is no other alternative.

Mr. MCLEAN. We have not. I do not know any specific issues around routing. We have been dealing with issues on and around loading and unloading zone.

Mrs. MILLER. But never across a highway where they have to cross over?

Mr. MCLEAN. Not that I know of.

Mrs. MILLER. I know in driving myself, when I see a schoolbus on this side of the road and it is two lanes over here and two lanes over here and stuff in the middle, and they are stopped. A lot of people just keep going here, and it is extremely difficult to get that child across the road.

Have there been any other best practices implemented to keep kids safe in loading and unloading zones, particularly in those unsafe traffic areas and dangerous neighborhoods?

Mr. Benish?

Mr. BENISH. Dangerous neighborhoods, yes, especially in the city of Chicago they do have certain areas where they have chaperones and/or people in the neighborhood that will help out with that.

But getting back to your original question, the suggestions, according to what I have heard from the State of California, a driver has to physically walk off the bus with the student with a sign and walk them to the side of the street in that instance.

And I guess over the past 30 or 40 years, it has been very successful, and they have had a really low frequency of accidents with that.

Mrs. MILLER. So they do not have like a helper on the bus that would get off and do it?

Mr. BENISH. It is actually the driver, according to what I have heard.

Mrs. MILLER. Wow. OK. Thank you.

I yield back my time.

Ms. NORTON. Thank you very much, Mrs. Miller.

Mr. Westerman.

Mr. WESTERMAN. Thank you, Madam Chair.

Thank you to the witnesses for your testimony today.

I live in a large rural district back in Arkansas where bus transportation is a big issue. I had the opportunity to serve on a school board which was the first elected office that I held, and then in the State legislature where we dealt with a lot of school-related policy.

You know, as we look at the impacts of what we do with bus safety and bus transportation, it, I think, probably has a disproportional impact on rural schools because so much of their budget goes to transportation with the longer routes and the additional buses that they have that sometimes are not fully utilized.

So, Mr. Benish, I think you mentioned something about cost, and I might have heard, I think, Mr. Condron mentioned something about cost effectiveness. And obviously, when we are talking about schoolbuses, safety outweighs cost, but cost has to be a consideration because schools just do not have the funding to go out and purchase all of the latest and greatest equipment that is there.

One thing, and the gentleman asked questions earlier about air quality, and I know that there is some really clean bus technology out there, not electric buses, but compressed natural gas buses, and an issue that I saw with that from the local level and on the State level was a lot of schools would really like to put in CNG buses, and the cost of a new CNG bus is the equivalent to the cost of a new diesel bus, but you have to have this elaborate CNG charging station that is a large capital investment for schools. So they often cannot afford the upfront capital investment so that they can take advantage of the low operating cost with CNG buses.

This is, you know, 10 or 12 years ago when I was working on these issues. What is the safety as far as compressed natural gas versus diesel or conventional gasoline buses? Are there differences in the safety in a crash test or with air quality?

Mr. BENISH. CNG buses were introduced about 10 years ago and really just never caught popularity due to exactly what you are saying as far as the cost. They are quite expensive, and the fueling stations I have heard run anywhere from \$200,000 to \$300,000.

There has to be with compressed natural gas, which we did run some of this in the 1970s, you do have to make some modifications to your shop and to your yard due to the explosiveness, obviously, of a gas.

The new diesel engines that are out there today are actually pretty clean. So somebody told me the other day that the air coming out or coming into a diesel or coming out of diesel is cleaner now than it is going in. So there has been a lot of cleanup.

You do not see a big puff of black smoke anymore in yellow schoolbuses.

We also run some propane buses at home, and we have two electric schoolbuses on order, which we should get sometime this fall.

So there is technology that is out there, but as far as the air quality inside the bus and as far as the diesel emissions, there has been some DERA funding that is out there that has got a lot of those older buses off the road. So it is effective and the buses today are definitely way cleaner than they were 10 years ago.

Mr. WESTERMAN. So when I was on going back to the school board, we would purchase a few buses every year and kind of rotate new buses through the fleet. So after a while you get older buses that do not have the latest technology on it.

As kind of advice to schools, is it better to wait and spend more money on the new bus with the latest safety gear or to invest that money in your old equipment putting the safety gear onto it?

Mr. BENISH. It is probably like a bus-by-bus feature. What we talked about today is stability control, is now to be standard pretty much in all schoolbuses. Emergency braking and those kind of things, technology is right in the forefront and should be on most schoolbuses in the very near future.

So I guess if you can afford it and for the safety of the children and the newer bus, it would probably make a better practice to buy a newer bus nowadays.

Mr. WESTERMAN. And you were talking about the tremendous amount of classes of stock schoolbuses. How do you educate the public more to know, you know, when there is a bus stopped with the lights flashing and the arm out that means stop?

And I say that just from practical experience. Within the last couple of months I was driving on a road in my district. It was a very wide, nice road, two lanes of traffic each direction, with a turning lane in the middle, 65-mile-an-hour speed limit, and I started meeting a schoolbus on the far side of the road slowing down to stop. So I stopped in a 65-mile-an-hour zone, and I think I got passed four times, and the kids were getting off on the other side of the road.

It was not necessarily any danger for those children who were getting off on the other side of the road, but still, you know, people just ignored that stopped schoolbus.

And plus it was kind of a safety issue with me stopped in a 65-mile-an-hour zone with cars coming up behind me real quickly.

So how do we educate the public and do a better job of that because it is basically just on when you take your driver's test.

Ms. NORTON. Someone can answer, but the time has expired. Is there any answer?

Ms. POLAND. So the NTSB is focusing on route selection, and then with our continuing investigations, we are looking at other countermeasures because three of our investigations are very similar to that circumstance, except the students were crossing the high-speed oncoming roadway, and so we are looking at countermeasures to try and address that issue specifically.

Mr. WESTERMAN. Thank you, Madam Chair.

Ms. NORTON. Thank you very much, Mr. Westerman.

And I want to welcome Chairman Cummings who asked permission to sit with us at this hearing and ask questions.

Mr. Cummings.

Mr. CUMMINGS. Thank you very much, Madam Chair.

On January 11th, 2017, Congressman Steve Cohen and our former colleague, Congressman Jimmy Duncan, and I wrote to our previous chairman asking that the committee convene a hearing on schoolbus safety, but he did not answer our request.

I want to thank Chairwoman Norton and Chairman DeFazio for your focus on this critical issue and for convening today's hearing.

On November 1st, 2016, six people were killed in Baltimore in my hometown when a schoolbus crashed into a car, then struck a pillar in a cemetery, and finally collided head on with a public transit bus.

The National Transportation Safety Board investigated this crash and a crash in Chattanooga, Tennessee, and adopted a report on May 22nd, 2018, addressing these two accidents.

The report stated, and I quote, "Although the specific safety issues differed, the crashes shared one common factor, poor driver oversight by both the school districts and the contracted motor carriers, which resulted in unsafe operation of schoolbuses," end of quote.

The report found that the driver of the Baltimore schoolbus, quote, "repeated license revocations and suspensions over several decades," end of quote. It had also uncovered instances in which the driver fraudulently obtained his license as well as numerous moving violations.

In addition, the driver had medical conditions, including a history of seizures that should have disqualified him from driving a schoolbus.

In March 2017, the NTSB recommended that the Baltimore Public Schools request a performance audit of the transportation department and then take corrective actions to improve internal controls.

NTSB also recommended that the Maryland State Department of Education review the State regulations to clarify disqualifying conditions and require notification to the State department of education regarding all drivers who are determined to be not qualified to drive a schoolbus.

NTSB also made several recommendations to the Maryland Motor Vehicle Administration.

Dr. Poland, what is the status of the recommendations you made to the Baltimore City School System and to the State of Maryland?

Ms. POLAND. So those early and urgent recommendations have certainly been updated. We received correspondence from Baltimore City Public Schools about the performance audit and based

on the correspondence and their actions, we have closed that recommendation with an acceptable action.

There is another recommendation as you mentioned to Baltimore City Public Schools that they take corrective actions, and that recommendation is still open while they continue to do those corrective actions, and that is an acceptable status.

The recommendation to the Maryland State Department of Education addressing the COMAR, the Code of Maryland Regulations, is in a status of open—acceptable response. So Maryland has communicated with us that they are working on that recommendation, and they are in the process of implementing it, and we found that acceptable.

Mr. CUMMINGS. According to a report in the Baltimore Sun from March 2nd, 2018, the results of the order of the Baltimore School System showed, and I quote, “an accumulation of errors,” including, quote, “a systemic absence of leadership over an extended period of time,” end of quote, and a failure, quote, “to provide due diligence over the systems,” end of quote, that were in place.

Have steps been taken to address these findings and to implement corrective measures that will ensure no more individuals are able to drive schoolbuses with disqualifying conditions in Maryland?

Ms. POLAND. Maryland is currently working on implementing that, and I think importantly from that investigation, because we were able to share that on a nationwide level, other States are looking at those recommendations and examining their own systems to ensure that in other States they are having appropriate reporting and the action is being taken at the local level to remove drivers that are unsafe for a variety of reasons, as you mentioned.

Mr. CUMMINGS. Thank you, Madam Chair.

Ms. NORTON. Thank you very much, Mr. Cummings. We appreciate your attending.

Are there any further questions from members of the subcommittee? Yes, Mr. LaMalfa.

Mr. LAMALFA. Thank you, Madam Chair.

I would like to just follow up where I left off on the last question. Ms. Poland ran out of time.

Have you heard of anecdotes or instances of diesel vehicles being refitted with these filtration systems and catching fire because of them? You know, whether it is trucks, buses, farm equipment, you know, I can answer that on my own, but I would rather hear yours.

Ms. POLAND. Sure. So as I mentioned earlier, our ongoing investigations and our previous investigations do not deal with that specific cause.

My background is biomechanical engineering. We have experts at the NTSB that are experts in fire safety and some of these post-crash fires. So we would be happy to take your question back to see if there are some of our subject matter experts that are more familiar with your question.

Mr. LAMALFA. OK. It may not necessarily deal with crashes per se, but just are you getting that feedback?

So all right. And I would like to follow up on what Mr. Cummings was talking about as well. You know, we hear a lot of talk about technology coming to save the day here, but it really comes

down to there is a human factor of those driving the buses and the people driving the cars.

And so I think the focus we are going to have the most success is, indeed, how do we tighten that up. He was talking about qualifications for busdrivers, and I wondered do we have anything close to a 50-State standard on who is eligible, what their record is, what their physical capabilities are for vision, for being able to help students in situations?

And I would like to also follow that. I think Mr. Benish commented on it. Is there a 50-State standard or do all States? You said in California, and I am used to it, that if a child is going to cross the road, there is a whole lot of difference between letting kids off on the edge of the road and they go this way, but if they are to be crossing the road, you have got red lights. You should be stopping cars. We hear that they are not.

But if the driver is also getting out, the driver is the adult in this case, and they are the one who should be trained and making sure that there are actually no cars coming when they make that commitment to go across the road and the other lane to the other side.

So do we have a 50-State standard on the driver getting out with the sign or something to prevent the kid from just running across, the driver being the adult, before they cross that other lane to the other side of the road?

And do we have a standard of, you know, my previous thought there on drivers in general?

Mr. BENISH. Currently I do not think there is a standard across 50 States to do that. It is just in California, what I understand.

Mr. LAMALFA. It seems like that is the sensible thing because, again, the driver is the adult and all of that.

I would like, Ms. Poland, if you have stats, too, on when you talk about collisions with children by cars. Are the vast majority of them on crossing the roadway or is it happening on the safer side where they are getting out and just going away from the road?

I would think that it is going to be the vast majority are going to be the crossing the road, and if we are, you know, enforcing on that better, then I think we can have a lot more success.

Maybe it is the driver getting out as a 50-State standard, and just regular drivers, you know, people who have been driving a while, have not taken the test in a while, whatever, I think we need to have a really great emphasis on the difference between a flashing yellow light on a bus and a flashing red light.

You know, there are so many holdups in traffic, and if they do not take the bus seriously, you know, if people do not stop for a flashing yellow light when there are no kids present. Once the traffic is stabilized, and this is again where more driver training needs to be in place. They should not flick the red light on and start doing things until traffic is maybe calm and there is a break in that. It is about an inconvenience, making drivers mad, and all of this stuff because driver rage is a big part of a lot of things.

But there needs to be that finesse there of the yellow light to get things calmed down, and then the red light when you're actually going to have students.

I know I gave you a few things to think about there, but that seems to me to be where the success is going to be. And we hear

a lot about technology saving the day. We have got to have top-notch drivers and our people on the road, our car drivers, need to be a little more cognizant of the difference between yellow light is OK, slow down. Red light you have got to stop, and the drivers differentiating.

Go ahead. Please comment and I will stop.

Ms. POLAND. As you mentioned, this is a multifaceted approach for schoolbus transportation safety from the human performance of the schoolbus driver and the drivers on the road around it to those last-minute, technological interventions that can prevent a crash, to protecting the occupants if a crash does happen.

So I certainly appreciate your comments, and that is something that we will consider as we move forward on our loading zone crashes.

Mr. LAMALFA. Yes. Again, those stats I mentioned, if we could get those stats maybe for the committee or at least for my office on are these crossing the road statistics by and large. Is it more 50-50? And is it while the bus is still there or are kids getting hit even after the bus has left?

Something like that would be very instructive on what we need to look at.

Thank you, Madam Chair.

Ms. NORTON. I appreciate those questions. Perhaps you can get those statistics to the committee itself that the gentleman just asked for so that we can put them in the record. They would be very important.

Ms. POLAND. Yes, ma'am.

Ms. NORTON. Are there any further questions of members of the subcommittee?

[No response.]

Ms. NORTON. Seeing none, I want to thank each of the witnesses today for really very helpful testimony. Each and every one of you gave not only helpful information to us, but I must tell you I think homework for us.

When I came into this hearing before I heard your testimony, I did not have what I would call an agenda. You have given me one now because of the detail of your helpful testimony.

I ask unanimous consent that the record of today's hearing remain open until such time as our witnesses have provided answers to any questions that may be submitted to them in writing or that Members have already asked and I have asked to be submitted.

I also ask unanimous consent that the record remain open for 15 days for any additional comments and information submitted by our Members or witnesses to be included in the record of today's hearing.

Without objection, so ordered.

If no other Members have anything to add, the subcommittee stands adjourned. Thank you for attending.

[Whereupon, at 4:30 p.m., the subcommittee was adjourned.]

SUBMISSIONS FOR THE RECORD

Prepared Statement of Hon. Eddie Bernice Johnson, a Representative in Congress from the State of Texas

Thank you, Madam Chairwoman.

It is with great appreciation that I thank the Chairwoman for holding this hearing today, as it allows us to review school bus safety.

Everyone should care about school bus safety because it transports our precious children. Today, I am eager to hear from the witnesses on the issues surrounding school bus safety and how we, in Congress, can assist in improving school bus safety.

In my district, the school districts have implemented safety initiatives to protect our children. They are purchasing new school buses that have new technology including auto-braking and back-up cameras. To put parents' minds at ease, Lancaster Independent School District purchased "Safe Stop" software that includes an app usable by parents. When a child boards or exits a school bus, he or she swipes his or her ID card, which registers whether the child is on the school bus or not. Safe Stop tracks the location of each child riding a school bus. The ability for parents to know the location of their child has given parents peace of mind.

The Dallas Independent School District spent \$2 billion for a new camera system for all their school buses. The camera system consists of interior and exterior cameras to know what is happening in and around the school bus to increase safety.

Safety is key. This includes the safety of transporting our children to and from school. I am ready to work with my colleagues in examining ways we can help improve school bus safety.

I look forward to hearing the testimony and solutions from all the witnesses today.

Thank you. I yield back.

Statement of Hon. Jackie Walorski, a Representative in Congress from the State of Indiana

Thank you, Chairwoman Eleanor Holmes Norton, Ranking Member Rodney Davis, and members of the House Transportation and Infrastructure Subcommittee on Highways and Transit. I appreciate the opportunity to provide written testimony for this important hearing entitled "Examining the Federal Role in Improving School Bus Safety."

On October 30, 2018, three siblings in my district were tragically killed by an oncoming driver who failed to stop as the kids were crossing the road to board their school bus. Illegal passing of school buses happens at an alarming rate every day in America. Every driver has a responsibility to exercise caution when students are present, and that includes never passing a school bus that is stopped with red lights flashing or its stop arm extended.

In the most recent annual one-day observational survey, 105,306 school bus drivers in 38 States reported 83,944 vehicles illegally passed a stopped school bus in one day. Based on these reported observations from 2018, it is estimated that 15 million vehicles pass stopped school buses in a 180-day school year, even though it is against the law in all 50 states. These startling statistics show that we need to do more to help local school systems figure out what tools are available to improve student safety and prevent dangerous, illegal passing of school buses when children are present.

In response to these troubling events, Rep. Julia Brownley and I recently introduced H.R. 2218, the Stop for School Buses Act, which will help our states and local communities take the most effective actions to prevent illegal passing of school

buses and ensure students are safe when traveling to and from school. The bill does not pre-determine any one solution but directs the U.S. Department of Transportation to:

- compile illegal passing laws in all states, including levels of enforcement and penalties;
- review existing public safety measures and programs to prevent illegal passing of school buses;
- issue recommendations on best practices for preventing illegal passing;
- evaluate the effectiveness of various technologies that may help prevent illegal passing incidents;
- review driver education materials in all states to determine whether more information about illegal passing should be provided to drivers;
- research connections between illegal passing of school buses and other safety issues; and
- create and execute a public safety messaging campaign to promote safe driving when children are present and highlight the dangers of illegal passing.

The tragic loss of young Hoosiers in bus-related crashes last year was a reminder that life is precious and that we all need to work together to keep children safe. The Stop for School Buses Act will help state and local governments determine the best solutions to improve the safety of students and prevent illegal passing of school buses. I look forward to working with this subcommittee as well as the full Transportation and Infrastructure Committee to advance the Stop for School Buses Act, and I appreciate the opportunity to submit this testimony for the record.

**Statement of the National Safety Council, Submitted for the Record by
Hon. Eleanor Holmes Norton**

Thank you for holding this important hearing, “Examining the Federal Role in Improving School Bus Safety,” and for allowing the National Safety Council (NSC) to submit comments for the record.

NSC is a 100 year-old nonprofit organization with the mission of eliminating preventable deaths at work, in homes and communities, and on the road through leadership, research, education and advocacy. Our more than 15,000 member companies represent employees at more than 50,000 U.S. worksites. Last Congress, NSC supported Representative Cohen’s, “*School Bus Safety Act*,” and will continue to support this critical legislation until it becomes law.

As you know, motor vehicle crashes are the leading cause of death for children in the United States.¹ From 2008 to 2017, there were 264 school-age children killed in school transportation-related crashes.² Sixty-one were occupants of school buses, 100 were occupants of other vehicles, 97 were pedestrians, five were pedal cyclists and one was another non-occupant.

Seat belts save lives and reduce serious injuries by half.³ In 2017, seat belts saved almost 15,000 lives.⁴ There is no question that seat belts play an important role in keeping passengers safe, but most students on school buses travel without this important safety protection. The National Safety Council supports all school buses being equipped with three-point belts so that children are appropriately protected each and every ride.

Most school buses operating today only include a seat belt for the driver and are not provided for the passengers. However, since 2002, lap and shoulder belts have been made available on school buses, and some school systems do in fact use passenger seat belts.⁵ Congress should act to require this important protection on all school buses.

Additionally, the school bus loading zone can be dangerous. All 50 states have laws prohibiting drivers from passing a stopped school bus, yet each day in the United States, it happens tens of thousands of times with virtually no consequences. Incorporating technology on buses to record these violations and allow for the prosecution of violators would deter others from taking the same potentially deadly actions. NSC urges Congress to require the incorporation of these technologies in to school buses.

¹ <https://www.nhtsa.gov/road-safety/school-bus-safety>

² <https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812712>

³ <https://www.cdc.gov/motorvehiclesafety/seatbelts/facts.html>

⁴ <https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812691>

⁵ <http://www.nasdpts.org/Documents/NASDPTS%20POSITION%20PAPER%20PASSENGER%20LAP%20SHOULDER%20BELTS%20FINAL%20FEB%202014.pdf>

Report, “A Continuous Video Recording System on a Lap-Belt Equipped School Bus: Real-World Occupant Kinematics and Injuries During a Severe Side Impact Crash,” by Kristin Poland et al., Submitted for the Record by Hon. Eleanor Holmes Norton

A CONTINUOUS VIDEO RECORDING SYSTEM ON A LAP-BELT EQUIPPED SCHOOL BUS:
REAL-WORLD OCCUPANT KINEMATICS AND INJURIES DURING A SEVERE SIDE IM-
PACT CRASH

Kristin Poland
Thomas H. Barth
National Transportation Safety Board
USA

Kristy B. Arbogast
Mark R. Zonfrillo
Children’s Hospital of Philadelphia
USA

Richard Kent
University of Virginia
USA

Paper Number 15–0253

ABSTRACT

A loaded truck-tractor semitrailer severely impacted the side of a lap-belt-equipped large school bus in which 30 students, age 5 to 11 years, were riding. The crash investigation obtained on-board video and audio from the school bus recording system, which had four active cameras that recorded at 15 frames per second. A total of 55 minutes 39 seconds of video and audio was obtained, including over 15 minutes after the bus came to final rest. Qualitative descriptions of occupant motion during the crash sequence were documented based on the time sequence of vehicle motion, including kinematics of lap-belted pediatric occupants, occupant-to-occupant interactions, and occupant-to-vehicle interactions. Further, quantitative measurements of occupant motion were performed by tracking visible body regions such as the head or center of the pelvis using commercially available motion analysis software. Occupant injuries were coded using hospital medical records and according to the Abbreviated Injury Scale 2008 manual.

Injury severity was higher in the rear of the bus near the region of impact, maximum intrusion, and maximum lateral accelerations. The injury severity scores (ISS) ranged from 1 to 6 in the front of the bus and from 1 to 57 at the rear, including the one student seated at the rear of the bus who was fatally injured. Head injuries included several mild to moderate traumatic brain injuries. Lateral head translations and velocities were evaluated. The lateral head displacements toward the impacted side in the front of the bus were similar to those in the rear during the initial impact, but the head displacements for occupants in the rear of the bus were greater during the secondary and tertiary rebound motions toward alternating sides of the bus. Lateral head velocities relative to the bus interior were generally almost twice as high in the rear of the bus as in the front. In addition, the magnitude of whole body pediatric occupant motion in the absence of injury was notable. Further, loss of consciousness negatively affected occupants’ ability to self-evacuate, even when subjects regained consciousness.

The qualitative and quantitative descriptions represent the first time that lap-belted school bus pediatric occupant motion during a crash has been documented from continuous onboard video recordings. This unique data source allows the rare correlation of occupant kinematics with crash severity and injury outcomes in living humans.

INTRODUCTION

Pediatric biomechanics is a critical area of research to ensure the protection of these vulnerable occupants. Key data has been gathered from research through academic and industry partnerships. [1] Government programs, such as the National Highway Traffic Safety Administration (NHTSA) National Automotive Sampling System (NASS) and Crash Injury Research (CIREN), generate critical databases, crash reconstructions, and associated research. Although a significant amount of real-world information for a large number of crash types and scenarios has been ob-

tained in the past, there is still limited information available about real-world pediatric occupant kinematics and interactions with seats, restraints, and interior systems during the impact sequence.

Seat and restraint designs are developed using anthropomorphic test devices (ATD), which have biofidelity limitations, including seat positioning differences between the ATD and a human. [2] Further, pediatric ATDs are often scaled from adult ATDs and suffer from a lack of information establishing range of motion and injury thresholds. [3] Human volunteer research partially addresses the differences between ATDs and humans, but this research is conducted in sub-injurious settings. [4, 5] Naturalistic driving studies have the potential to provide information on a range of event severities as long as the appropriate data can be collected. [6] Accident reconstructions in conjunction with post mortem human subject (PMHS) testing address injurious crash levels, but pediatric PMHS testing is extremely rare [7] and does not include muscle response.

The objectives of this analysis were to document pediatric occupant injuries, qualitative observations from the continuous onboard video system, and quantitative measurements from the onboard video of occupant kinematics during the crash phase. The results present a unique data source to study the real-world movement and associated injuries of pediatric occupants.

METHODS

In this crash, a loaded truck-tractor semitrailer severely impacted the side of a lap-belt-equipped large school bus occupied by the driver and 30 students, age 5 to 11 years. (See Figure 1.) The school bus was equipped with a continuous audio and video recording system manufactured by Seon Design, Inc. The system had four active cameras, which recorded at 15 frames per second. The videos began prior to student loading of the bus and continued through the bus trip to the point of the collision and after. A total of 55 minutes 39 seconds of video and audio was obtained, including over 15 minutes after the bus came to final rest. The continuous video system captured useful data prior to, during, and after the crash.

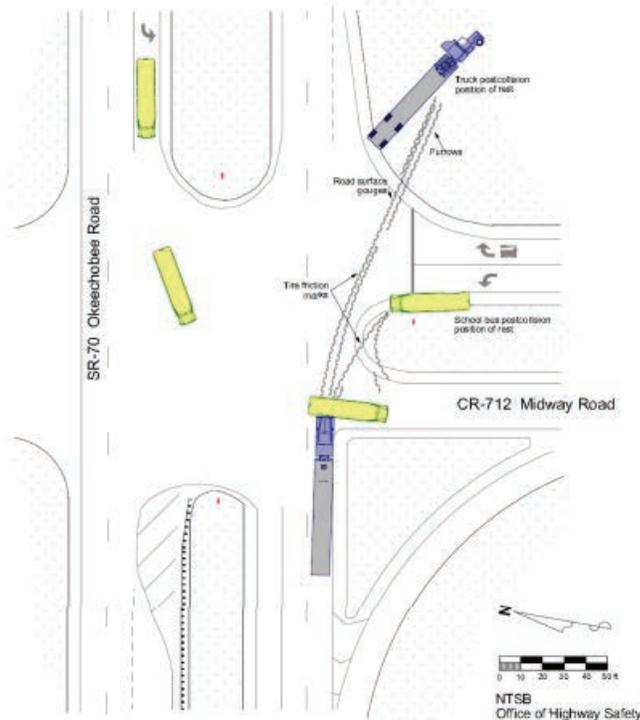


Figure 1. The crash scene diagram.

Vehicle and Occupant Descriptions

Each of the four camera positions was individually labeled, by the Seon Design, Inc. video system, as “Step”, “Front”, “Mid”, and “Rear” according to their location and orientation. Figure 2 shows a still image with four frames from each of the four onboard video cameras prior to the loading of the school bus. (By statute, the NTSB is prohibited from releasing onboard video and audio recordings that show occupants.) All four camera views were evaluated for the entire recorded duration to describe the motion of the school bus and the occupants using both qualitative and quantitative methods. During the precrash phase, qualitative descriptions of the driver’s actions, communications, the vehicle motion, and any relevant video overlay information, such as “RT” indicating the right turn signal was illuminated or “BRK” indicating that the brake was applied, were documented based on the crash timeline. In addition, qualitative descriptions of each visible occupant’s belt use, seating position prior to impact, position at final rest, whether the occupant was ejected from the seat compartment, occupant-to-occupant interactions, occupant-to-vehicle interactions, and state of consciousness postcrash were documented based on the timeline developed for the vehicle motion.



Figure 2. Still images from the onboard video system showing the four camera views prior to the occupants loading onto the school bus. The four camera views, starting in the upper left corner and moving clockwise, are “Step”, “Front”, “Rear”, and “Mid”. Text detailing the row numbers is overlaid on the images for clarity.

Further, quantitative positions and velocities of the school bus and the visible occupants were calculated. The process to estimate the dynamic school bus motion history has been described previously. [8] Briefly, a model of the camera was developed and calibrated. In an iterative process, each video frame from the camera was matched to a synthesized video frame, including known landmarks outside the bus, generated by the camera model. When the frames matched, the bus position and orientation was established. For the quantitative occupant motion, the “Front” and “Mid” cameras provided the clearest view of the occupant motion and were the source of this documentation. The basic method to calculate the occupant motion required the calibration of the visible occupant space within the two-dimensional recorded video frame. ProAnalyst Professional Edition (Version 1.5.6.5) was used to calibrate the local occupant seating coordinate system, based on interior bus dimensions measured from the three-dimensional laser scans of the school bus, and to track the occupants’ (or interior surfaces’) motion.

The “Front” camera was centered in the middle of the school bus interior. As a result, the perspective calibration was used in ProAnalyst, using four points representing the base and top of the windows on each side of the bus in a position closely matching the occupant’s initial seated position. Row 2 and row 3 were cali-

brated. Seat spacing and seat width were used to verify the calibrations. The “Mid” camera was offset toward the driver’s side of the bus looking toward the passenger side of the bus. The perspective calibration was implemented again for row 7, using four points representing the base and top of the windows on both sides of the bus in a position closely matching the tracked occupant’s initial seated position. For row 6, because the top of the windows were not visible in the camera view, the perspective calibration was used but the four points represented the base of the windows and the base of the seat pan on both the driver and passenger side of the bus. The perspective calibration was adjusted to most closely match the tracked occupant’s motion within a seat row. As a result, there were multiple calibrations defined for both row 6 and row 7. Seat spacing and seat width were used to verify the calibrations. The motion in the local occupant seating coordinate system was then transformed into the bus body coordinate system. Positions and velocities were calculated relative to the bus body coordinate system.

The videos documented student loading onto the bus, the use of seat belts for most students, and occupant positions throughout the bus trip. These continuous recordings helped establish an accurate seating chart, including occupant age and gender, preimpact position, and the level of restraint for most of the students.

Injury Coding

Abbreviated Injury Scale (AIS) scores were assigned and injury descriptions were summarized for all occupants who received medical attention. Copies of medical records and digital radiographic images were reviewed to confirm injuries. Standard AIS coding rules were used based on the most recent AIS manual. [9] Injuries were summarized using several metrics: the traditional International Civil Aviation Organization (ICAO) code with categories of uninjured, minor, serious, or fatal; the comprehensive AIS score; and the total Injury Severity Score (ISS) ranging from 0–75. Individual injuries by ISS body region, AIS code, and injury description were listed for each school bus occupant that received treatment and for the fatally injured occupant. [10]

Given the availability of the on-board video system, observation of loss of consciousness (LOC) was used to help determine the concussion diagnoses. Occupants were given the diagnosis of concussion if there was probable or certain LOC on the bus and no intracranial hemorrhage, or if a final concussion diagnosis was confirmed in the medical record (regardless of whether the passenger experienced LOC). Concussions were not coded if the patient had LOC with any intracranial hemorrhage.

RESULTS

Qualitative Observations from Continuous Video System

The continuous video system confirmed that the bus driver was not distracted by a cell phone or other portable electronic device and that he had both hands on the steering wheel during the left turn maneuver just prior to the collision. The driver consistently used the turn signals to indicate a transition from one lane to another and to indicate motion into the left turn lane prior to the collision. The driver also applied braking in preparation for this left turn. Further, it was apparent that the driver perceived the impact threat, though too late, because he turned his head toward the oncoming truck. The onboard videos and associated audio recordings showed that the driver encouraged seat belt use at the beginning of the trip and that he did not appear to be distracted by students just prior to the collision.

The continuous recordings also documented student loading onto the bus, the use of seat belts for most students (some views were partially obscured, including the seating position of the fatally injured occupant), and occupant positions throughout the bus trip. These data helped investigators establish an accurate seating chart, pre-crash occupant positions, and the level of restraint for most of the occupants. Pre-crash video and audio documentation showed that the driver’s attentiveness to passenger safety and seat belt rules was a factor in the number of students who properly wore and adjusted their seat belts.

The most beneficial data obtained from the onboard video system were related to the crash sequence and the post-crash environment. The four interior cameras remained in place and functional throughout the crash event and continued recording for over 15 minutes after the initial impact.

Crash Sequence and Post-crash Events as Determined from Video Systems

Impact occurred at 15:55:03 and the bus came to final rest almost 10 seconds later. During the motion to final rest, the bus yawed approximately 180 degrees and experienced two large roll events. The first non-occupant to enter the school bus was an adult female who entered the bus at time 15:55:28 through the open rear emer-

agency exit door and provided assistance to occupant 10D about 15 seconds after the bus came to final rest. She continued to provide assistance to the bus occupants until the end of the video recording, which stopped at 16:10:07. The first uniformed officer boarded the school bus about 3 minutes and 22 seconds after the bus came to final rest and emergency medical services arrived about 8 minutes and 22 seconds after the bus came to final rest.

Seating Chart and Injuries

The seating chart established based on the continuous onboard video system is shown in Figure 3. All occupants are marked with the ICAO code. For those occupants with medical records, the maximum AIS level and the ISS score are also documented. In addition, occupant gender and age are listed. Seating positions were labeled based on the seat row (1–11) and the seat position (A–F from left to right as viewed from the back). The area of impact (AOI) is shown on the chart. Additional details on the injury documentation are included in the NTSB’s Highway Safety Report—Commercial Vehicle Onboard Video Systems. [11]

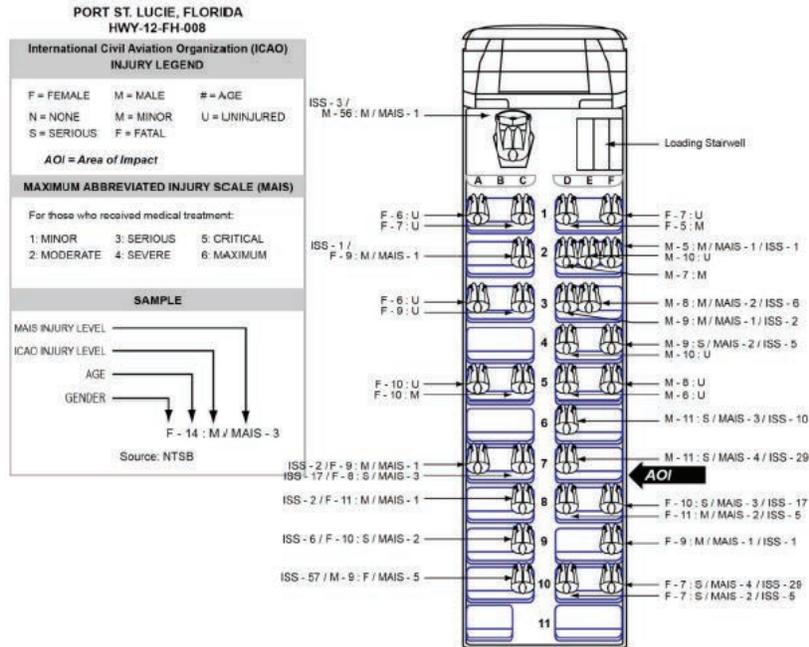


Figure 3. The school bus passenger seating chart, with ICAO injury level, MAIS injury level, ISS score, and demographic information.

Belt Use

Belt use was visible for twenty-two occupants and of those, seven appeared to wear the lap belt loosely or slightly loosely (1D, 2C, 4D, 5C, 7D, 8D, and 8F), as determined by the visible tension in the belt and the motion of the occupant during the crash sequence. There were no observations showing a lack of belt use, however, belt use was not visible for eight occupants (3D, 3E, 4F, 5A, 5F, 10C, 10D, and 10F) due to the obstructions of the seatbacks and the occupant’s seating distance from the onboard cameras.

Occupant Position Relative to Seat Compartment Post-crash

Twelve occupants were ejected from their seat compartment during the crash sequence (1C, 1D, 2C, 2D, 3C, 3D, 4D, 5A, 5C, 9C, 10C, and 10D). All of these occupants, except occupant 5A, were initially seated along the aisle and most were ejected into the aisle post-crash despite wearing the lap belt. Occupant 5A was ejected into the aisle and then backward into seat row 6, on the driver side of the bus. Belt use was not visible for occupant 5A due to the camera positions and obstructions from the seatbacks. Other occupants (7C, 7D, 8C, and 8D) were not considered to

be ejected from the seat compartment but it was noted that the occupants' heads and upper torsos flailed outside the seating compartment into the adjacent seating compartment across the aisle during the crash sequence.

Occupant-to-Occupant and Occupant-to-Interior Impacts

There were nineteen documented instances of occupant-to-occupant impacts, 16 of which involved an impact of an occupant's head with either another occupant's head or other part of their body. All of the documented occupant-to-occupant contacts occurred for occupants in rows 2, 3, 5, 6, 7, 8, and 9. Generally, the occupants impacted other occupants within the same seating row, but in rows 5/6 and 8/9, impacts occurred between occupants originally seated in different rows. For example, occupant 5A's right torso was impacted by occupant 6D's head as occupant 5A traveled into the seat row behind and occupant 6D flailed in that direction. In rows 8/9, occupant 8F's body was pushed upward and rotated backward over the seatback such that occupant 8F's head impacted the chest and pelvis of the occupant seated directly behind (9F). (Occupant 8F's head also continued back and contacted the seat pan near occupant 9F's seating position.) Occupant 8F was lap belted and observations from the video showed the belt visible on the occupant's thighs. Occupants in row 1 interacted with each other but specific impacts between occupants were not noted. Occupants in row 10 were generally not visible due to the camera positions and the obstruction from the high seatbacks.

There were also nineteen documented instances of occupant-to-interior impacts. Nine of these involved an impact of the occupant's head onto a passenger side window or sidewall structure (2F, 3E, 4F, 5F, 6D, 7D, 8D, 8F, and 9F) and one other involved an impact of the occupant's head with a driver side window and sidewall structure (3A). All of these occupant-to-interior impacts were sustained by occupants seated against the sidewall or in a position without other occupants between them and the sidewall, except in row 8 where both occupants on the right side of the bus impacted the sidewall. The other occupant-to-interior impacts involved impacts onto the seat pans and the aisle-side edges of the seatbacks.

Loss of Consciousness and Head Injuries

Loss of consciousness (LOC) was observed in seven occupants (3E, 6D, 7C, 7D, 8D, 8F, and 10C). The state of consciousness was unknown for three other occupants (8F, 10D, and 10F) who were not visible post-crash. The other twenty occupants were conscious post-crash. Of those occupants with an observed LOC, only occupant 6D remained unconscious at the end of the video recording. (Occupant 10C was documented with a LOC but was the fatally injured occupant.) In addition, recorded audio discussions between the adult female and emergency medical responders indicate that occupant 10F was conscious at the end of the recording.

Head injuries were documented on the medical records for twelve occupants (2F, 3E, 6D, 7A, 7C, 7D, 8D, 8F, 9C, 10C, 10D, and 10F) including six who were diagnosed with only a concussion (3E, 7A, 8D, 8F, 9C, and 10D). All seven occupants with an observed LOC had a documented head injury. As expected from the dynamics of the bus, the majority of the head injuries were seen in occupants seated in the back half of the bus. For the two front seated occupants with head injuries, the sustained injuries were less severe. For example, occupant 2F was diagnosed with a head injury that was not further specified and occupant 3E was diagnosed with a concussion with LOC. In the back half of the bus, the head injuries were more severe, especially for occupants in rows 6, 7, and 10. Occupant 6D's head injuries included cerebral contusions, a cerebral hematoma, a subdural hemorrhage, a mastoid fracture, and a skull fracture. Head injuries to occupant 7C included a cerebral subarachnoid hemorrhage and left and right intraventricular hemorrhages. For occupant 7D, head injuries included comminuted basilar skull fractures on the left and right sides, a temporal bone fracture, and left and right cranial nerve VII palsy. Interestingly, the head injuries to occupants in rows 8 and 9 were limited to only concussions and minor lacerations. Yet occupants in row 10 again experienced severe head injuries. Occupant 10C, who was fatally injured in the crash, sustained bilateral cerebral edemas, multiple cerebral subarachnoid hemorrhages, and a skull fracture. Occupant 10F sustained a cerebral subdural hematoma.

Evacuation

Nineteen occupants self-evacuated out the front loading door (1A, 1C, 1D, 1F, 2C, 2D, 2E, 2F, 3A, 3C, 3D, 4D, 4F, 5A, 5C, 5D, 5F, 7A, and 9F). Eighteen of those self-evacuated in 60 seconds or less, from the time the bus came to final rest. Another four occupants were assisted out the rear emergency exit door (8C, 8D, 9C, and 10D). Occupants 3E, 6D, 7C, 7D, 8F, 10C, and 10F remained on the bus at the end of the video recording. Occupant 10D was the first occupant removed from the school bus with assistance by the adult female at 15:55:33, which was about 20 sec-

onds after the bus came to final rest. Occupant 1D was the first to self-evacuate out the front loading door at 15:55:43, 30 seconds after final rest. Occupant 7A was the last to self-evacuate out the front loading door at 15:58:12, almost 3 minutes after final rest. Occupant 8C was the last occupant removed with assistance before the video recording ended, at 15:58:39, about 3.5 minutes after final rest.

Injury Factors in Self-Evacuation: None of the occupants with an observed LOC were able to self-evacuate. Most occupants with a LOC regained consciousness during the period of the video recording but only occupant 8D was evacuated off the bus with assistance. The remaining occupants with an observed LOC were on the bus at the end of the recording, which was almost 15 minutes after the bus came to final rest.

Five occupants sustained pelvis and/or lower extremity fractures as a result of the crash (4F, 7C, 7D, 8F, and 9C). The sustained pelvic/lower extremity fractures were a closed left ankle fracture for occupant 4F, a right pubic fracture for occupant 7C, a pelvic ring fracture at the anterior iliac spine for occupant 7D, a right talus fracture for occupant 8F, and pelvic fractures at the sacral spine and at the right ramus through the pubic symphysis for occupant 9F. Of the occupants that sustained a pelvic/lower extremity fracture, three also experienced a LOC and a documented head injury (7C, 7D, and 8F). In addition, occupant 9C sustained a concussion without LOC, as discussed above. Only occupant 4F sustained a lower extremity fracture without a head injury or LOC and this occupant was able to self-evacuate 48 seconds after the bus came to final rest.

Spinal injuries were rare. (The driver, although not a focus of this paper, sustained a cervical spine sprain, or whiplash, and a lumbo-sacral spine strain.) Occupant 3D sustained a cervical spine sprain (whiplash) and occupant 10D, the fatally injured occupant, sustained a cord laceration with fracture and dislocation at C7-T1. Except for the fatally injured occupant, the minor spinal injuries did not affect evacuation.

Occupant Kinematics

Using the “Front” camera, the head positions of occupants 2C, 3C, and 3E and the pelvis position of occupant 3C were tracked in the bus based coordinate system. The lateral position versus time history can be seen in Figure 4, where the lateral centerline of the bus is zero and motion toward the driver side is in the positive direction. The lateral distance from the bus centerline to the sidewall was 1.17m and is labeled on the graph.

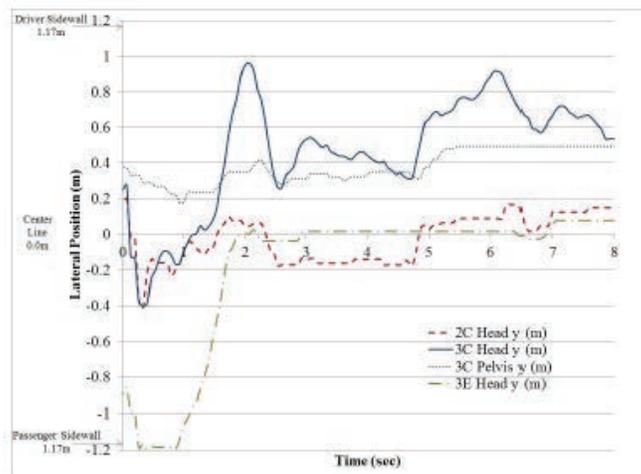


Figure 4. The lateral (y axis) head position of occupant 2C, 3C, and 3E and the lateral pelvis position of occupant 3C.

Using the “Mid” camera, the head positions of occupants 6D, 7A, 7C, and 7D and the pelvis position of occupant 6D and 7D were tracked. The lateral position versus time history can be seen in Figure 5.

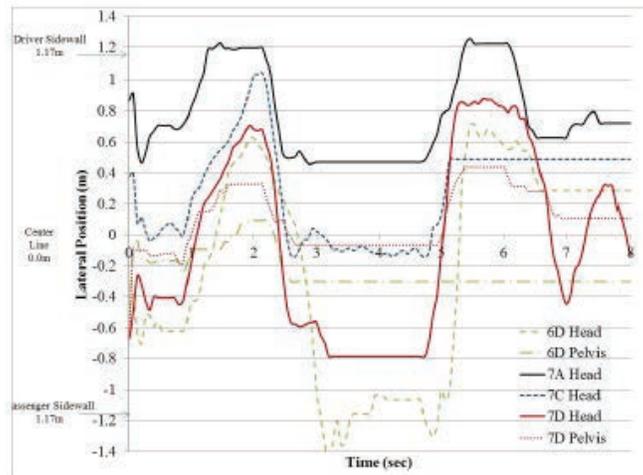


Figure 5. The lateral (y axis) head position of occupant 6D, 7A, 7C, and 7D and the lateral pelvis position of occupant 6D and 7D.

The position of the “Mid” camera did not remain stationary relative to the bus interior during the impact sequence. This relative motion between the camera and bus interior may have resulted from deformation at the floor and sidewall, camera orientation changes, or a combination of the two during the impact sequence. In an effort to document this relative velocity, four points fixed on the bus interior were tracked. The left sidewall experienced the least deformation and would, ideally, provide the best estimate of the camera velocity but since this sidewall moved out of the camera view for a portion of the impact sequence, points on the left sidewall were not tracked. Instead, the aisle-side position of seat 6C was used as a surrogate for the camera velocity since that seat was attached to the left sidewall and the floor underneath and experienced the least deformation of the interior points visible in the “Mid” camera.

Using this correction for the “Mid” camera, the maximum intrusion into row 7 was approximately 0.48m during the first 0.13 seconds with a recovery of 0.12m during the next 0.13 seconds. Similarly, the maximum velocity of the right sidewall in row 7 was 2.41 m/s and the maximum velocity of the aisle-side point on seat 7D was 3.50 m/s at 0.13 seconds. Note that these velocities are lower bounds on possible velocities because the calculation is limited by the video frame rate. Maximum displacement could have occurred between frames and not captured until the subsequent frame, 67 milliseconds later, which would reduce the calculated velocity.

Although the bus motion involved both translation and rotation, the initial occupant motion was predominantly lateral with some longitudinal components. Since the camera orientations were perpendicular to the lateral plane, motion in the lateral direction was well quantified. Table 1 summarizes the lateral head velocity at impact or immediately prior to impact along with a snap shot of the qualitative description of the occupant motion [12] at that time, during the initial motion toward the passenger sidewall. Note that all the velocities are negative indicating motion toward the passenger side of the bus.

Table 1.—Lateral head velocity immediately prior to or at the estimated time of the head contact from the video observations.

Occupant	Time (sec)	Lateral Head Velocity (m/s)	Qualitative Description of Occupant Motion
2C	0.267	-2.96	Torso reaches maximum articulation onto seat 2D with back nearly horizontal across aisle, shoulders are completely obscured behind the seatback of row 1

Table 1.—Lateral head velocity immediately prior to or at the estimated time of the head contact from the video observations.—Continued

Occupant	Time (sec)	Lateral Head Velocity (m/s)	Qualitative Description of Occupant Motion
3C	0.133	-3.04	Upper body is fully articulated across aisle, occupant 3C's head on seat 3D (behind row 2 seatback)
3E	0.133	-0.98	Head shifts towards window and sidewall moves towards head due to the impact, face is either making contact or about to make contact with lower portion of window
6D	0.133	-4.21	Occupant 6D flails completely to the passenger side, head impacting sidewall below window (sidewall was deforming toward occupant 6D)
7A	0.133	-5.43	Head of occupant 7A impacts the posterior hips of occupant 7C
7C	0.133	-5.34	Occupant 7C's head near or in contact with left postero-lateral aspect of 7D's torso
7D	0.133	-0.13	Occupant 7D's head remains in essentially the same position relative to the camera as before the impact but due to the sidewall intrusion, the head and right shoulder are now in contact with the passenger side sidewall

DISCUSSION

This onboard video recording analysis utilized first of its kind data to describe the qualitative and quantitative kinematics of pediatric school bus occupants during a crash and related their movement to crash dynamics and injury outcomes. Being able to visualize living human movement in a crash setting provided insight into the magnitude of excursion capable from a restrained occupant, the flexibility without injury that children demonstrate, and the temporal nature of concussion.

Injury severity was highest for occupants in rows 6–8 and also in row 10. Likely, injuries were greatest in rows 6–8 because that was the region of impact and the area of maximum intrusion along the right passenger sidewall. In row 10, accelerations were the greatest in this region due to the dynamics of the bus as it pivoted about the front axle as a result of the side impact near the passenger side rear axle. These high accelerations likely resulted in the severe injuries for occupants in row 10.

The injury severity score (ISS) varied from 1 to 6 in the front of the bus. In the rear of the bus, the ISS ranged from 1 to 57 and included several mild to moderate traumatic brain injuries. Lateral head translations toward the point of impact in the front of the bus were similar to those in the rear during the initial impact, but the head translation for occupants in the rear of the bus was greater during the secondary and tertiary rebound motions toward each side of the bus. Lateral head velocities were generally higher in the rear of the bus except for occupant 7D who essentially did not move relative to the “Mid” camera. Instead, the sidewall intruded directly into his seating compartment and impacted his head and right shoulder before he began to flail toward the impact point. In the front of the bus, the lateral velocities of occupants' heads ranged between -0.98 and -3.04 m/s, but in the rear of the bus the maximum lateral velocities of occupants' heads were almost twice as high, ranging from -0.13 to -5.43 m/s.

Further, the magnitude of whole body pediatric occupant motion in the absence of injury was notable. For example, occupant 8F bent backward over the top of her seatback such that her head impacted the chest and pelvis of the occupant (9F) seated directly behind her. Her head continued downward, impacting the seat pan of seat 9F, as well. Her thighs were still restrained by the lap belt, which had slid down during her vertical translation and backward rotation. Despite this extreme hyper-extension, occupant 8F did not sustain any spinal injuries and her torso injuries consisted of only a lung contusion to the right middle and lower lobes and a right 7th rib fracture.

LOC had a noticeable effect on the ability for occupants to self-evacuate. Occupants with an observed LOC were not able to self-evacuate, even if they regained consciousness post-crash. Obviously, maintaining occupants' consciousness during the crash is critical to a timely evacuation, especially for post-crash environments that may involve water immersion or fire. Impact onto intruding sidewall and win-

dow surfaces, along with upper body flailing enabling occupant-to-occupant impacts, was likely the main cause for the occupants' LOC. Reducing the upper body flailing could be accomplished with greater upper body restraint, such as with a properly adjusted lap/shoulder belt. [13] Reducing the severity of impacts onto sidewall and window structures could be accomplished with school bus performance standards that address passenger protection for sidewalls, sidewall components, and seat frames, as first recommended by the NTSB in 2001. [14]

Other injuries, such as pelvic or lower extremity fractures, did not appear to negatively impact evacuation, if the injury was sustained by an occupant without a head injury or LOC. Spinal injuries, which may also reduce the ability to self-evacuate, were rare in this crash.

The study was limited by the resolution of the camera system and the frame rate, which was relatively low given the dynamics of the crash. The calculation of the vehicle dynamics was also limited due to the lack of a forward-facing camera. In addition, due to the high seatbacks on the school bus, occupants were not visible at all times during the crash sequence. Further, because concussions were not coded if the patient had LOC with any intracranial hemorrhage, the estimated number of concussions may be conservative. (For example, there may have been other occupants who had concussion and did not experience a visible LOC, but there was insufficient medical record documentation of symptoms or diagnosis). Additionally, there was variability in the available medical records for injured patients (for example, detail of radiographic imaging and reports and medical record documentation). As a result, some injuries may have not been captured. Similarly, there may have been occupants who did not seek medical attention, but who may have had minor injuries (for example, contusions, lacerations, and/or mild sprains).

The qualitative and quantitative descriptions represent the first time that lap-belted school bus pediatric occupant motion has been documented from onboard video recordings. The correlation of occupant kinematics with crash severity and injury outcomes was also unique. Ultimately, research using onboard video data from school buses can be a basis for a multidisciplinary approach to improving occupant safety.

CONCLUSIONS

The documentation of real-world lap-belted pediatric occupant kinematics in a severe side impact crash based upon video and audio recordings combined with medical records provides unique information to evaluate realistic pediatric occupant kinematics and provide data unable to be found elsewhere to evaluate ATD biofidelity. This information also provides unique insight into injury mechanisms and outcomes.

The continuous video system offered the first such documentation of lap-belted children involved in a severe side impact collision. The videos further highlight differences in occupant kinematics across a range of collision severities, which were evident when contrasting occupant motion in the front of the bus with occupant motion in the rear of the bus. Because of the length of the school bus and the center of rotation at the front axle, the crash was much more severe for rear-seated occupants than for those seated in the front of the bus.

REFERENCES

- [1] Partners for Child Passenger Safety. "The State of Child Occupant Protection Interim Report 2003", The Children's Hospital of Philadelphia Center for Injury Research and Prevention, 2003.
- [2] Bohman, K, Stockman I, Jakobsson L., Osvelder A., Bostrom O., Arbogast K.B. 2011. "Kinematics and Shoulder Belt Position of Child Rear Seat Passengers during Vehicle Maneuvers." In Proceedings of the 2011 Association for the Advancement of Automotive Medicine, October 2011.
- [3] Seacrist, T., Balasubramanian, S., García-España, T.F., Maltese, M.R., Arbogast, K.B., Lopez-Valdes, F.J., Kent, R.W., Tanji, H., Higuchi, K. 2011. "Kinematic Comparison of Pediatric Human Volunteers and the Hybrid III 6-Year-Old Anthropomorphic Test Device." In Proceedings of the 2011 Association for the Advancement of Automotive Medicine, October 2011.
- [4] Seacrist, T., Samuels, J., García-España, F., Arbogast, K.B., Mathews E.A., Balasubramanian, S., Maltese, M.R., Longhitano, D., St. Lawrence, S., 2012. "Kinematic Comparison of the Hybrid III and Q-Series Pediatric ATDs to Pediatric Volunteers in Low-Speed Frontal Crashes." In Proceedings of the 2012 Association for the Advancement of Automotive Medicine, October 2012.
- [5] Seacrist, T., Locey, C.M., Mathews, E.A., Jones, D.L., Balasubramanian, S., Maltese, M.R., Arbogast, K.B., 2014. "Evaluation of Pediatric ATD Biofidelity as Com-

- pared to Child Volunteers in Low-Speed Far-Side Oblique and Lateral Impacts.” *Traffic Injury Prevention*, 15, S206–S214, Taylor & Francis Group, LLC, June 2014.
- [6] The SHRP 2 Naturalistic Driving Study (NDS), Strategic Highway Research Program, Transportation Research Board (TRB) of the National Academies, <http://www.trb.org/StrategicHighwayResearchProgram2SHRP2/Pages/The-SHRP-2-Naturalistic-Driving-Study-472.aspx>, accessed on March 9, 2015.
- [7] Lopez-Valdes, F.J., Forman, J., Kent, R., Bostrom, O., Segui-Gomez, M. 2009. “A comparison between a child-size PMHS and the Hybrid III 6 YO in a sled frontal impact.” In *Proceedings of the 2009 Association for the Advancement of Automotive Medicine*, October 2009.
- [8] Horak, D. T. “Estimation of Vehicle Speed and Trajectory Based on Video from a Vehicle-Mounted Camera,” *Collision. The International Compendium for Crash Research*, Volume 4, Issue 2, 2009, pp.18–25.
- [9] Association for the Advancement of Automotive Medicine (AAAM). *The Abbreviated Injury Scale (AIS) 2005—update 2008*. Barrington, IL: Association for the Advancement of Automotive Medicine, 2008.
- [10] NTSB (National Transportation Safety Board). 2013. “Injury Coding Factual Report.” In NTSB: Docket Management System, HWY12FH008, <http://dms.nts.gov/pubdms/>, DC: NTSB.
- [11] NTSB (National Transportation Safety Board). 2015. “Commercial Vehicle On-board Video Systems”, Safety Report NTSB/SR–15/01. Washington, DC: NTSB.
- [12] NTSB (National Transportation Safety Board). 2013. “School Bus Video Documentation Group Factual Report.” In NTSB: Docket Management System, HWY12FH008, <http://dms.nts.gov/pubdms/>, DC: NTSB.
- [13] NTSB (National Transportation Safety Board). 2013. “School Bus and Truck Collision at Intersection Near Chesterfield, New Jersey, February 16, 2012”, NTSB/HAR–13/01. Washington, DC: NTSB.
- [14] NTSB (National Transportation Safety Board). 2001. “Collision of CSXT Freight Train and Murray County School District School Bus at Railroad/Highway Grade Crossing, Conasauga, Tennessee, March 28, 2000”, NTSB/HAR–01/03. Washington, DC: NTSB.

APPENDIX

QUESTIONS FROM HON. HENRY C. "HANK" JOHNSON, JR. TO HON. ANDREW J. MCLEAN, HOUSE CHAIRMAN, JOINT STANDING COMMITTEE ON TRANSPORTATION, MAINE STATE LEGISLATURE, ON BEHALF OF THE NATIONAL CONFERENCE OF STATE LEGISLATURES

Question 1. Opponents of seat belts on large buses assert that the installation of seat belts will not only make buses more expensive to manufacture, but that they'll also reduce the seating capacity on buses. Congressional Research Service (CRS) estimates that seat belts will reduce seating capacity on an average of 16 to 33 percent. The NTSB, however, has indicated that compartmentalization is not enough to prevent injuries on school buses.

How do you think we should prioritize manufacturing costs and seating capacity, when measured against the safety of school children?

ANSWER. This is not an area that the National Conference of State Legislatures (NCSL) has a policy position on. Further, I unfortunately also do not have significant expertise in this area however, generally, this dynamic highlights the need for dedicated funding for a seat-belt mandate, as school districts with tight budgets are unlikely to be able to afford yet another mandate that increases costs and the number of needed school bus drivers, while decreasing the utility of each school bus.

Question 2. NHTSA concurs that compartmentalization is the optimal option for safety, while NTSB recommends that states enact laws requiring the use of three-point seatbelts on school buses. How do these differing stances from both safety agencies help us to optimize the safety features on school buses?

ANSWER. Again, this is not an area that NCSL has a policy position on. In my view, the differing stances from NHTSA and NTSB make it difficult to assess the proper policy path forward. They both rightly highlight the still evolving understanding of school bus seat belts, and the difficulty of assessing costs and benefits, particularly if seat belt requirements may impact the ability to quickly exit school buses in certain situations. Additionally, if seat belts would reduce seating capacity on school buses and increase costs for states and school districts, states may be more reluctant to enact mandates for school buses and instead pursue policies encouraging, not mandating, their installation or staying silent on the issue.

a. Would you say this helps or hurts the legislative framework at the state level?

ANSWER. NCSL and state legislatures look to NHTSA and NTSB for guidance and best practices for many traffic safety issues. Both organizations are known for their rigorous research and data collection, which sometimes leads to new recommendations and/or a general consensus on the best policies and interventions to increase safety. Given the lack of consensus between NHTSA and NTSB, states may be less inclined to move forward with three-point seat belt requirements for school buses. However, the weight of NTSB's recommendations may influence some policymakers to move forward with seat-belt requirements.

Question 3. Do you forecast the need for federal mandates regarding seat belt use on school buses?

ANSWER. NCSL does not forecast the need for a federal mandate on school bus seatbelt requirements. States are best equipped to adopt seat belt requirements or laws encouraging their installation, given the significant and long-standing state role in funding school systems and working with school districts. NCSL does support a continued federal role in helping to set national transportation safety goals as well as that safety programs should be expanded to incorporate emerging safety issues while respecting state sovereignty. We urge Congress and USDOT to provide additional flexibility to states so as to ensure all states gain full access to federal funding for transportation safety. One alternative approach could be to incentivize states to achieve your desired outcomes with regard to the installation of seat belts on

school busses. Such an incentive structure, similar to other existing federal grants aimed at improving transportation safety, could help promote state action on this issue while ensuring and adhering to principles of federalism.

Additional question from Hon. Henry C. "Hank" Johnson, Jr. forwarded to the National Conference of State Legislatures by the National Transportation Safety Board

Question 4. Are these types of laws (not requiring school districts to provide bus service to students) commonly seen in state legislatures?

ANSWER. This is common in many states. Most states do not have a statutory requirement to offer bus service to regular education students. However, there are a few notable exceptions to this, which I have detailed below:

- Massachusetts requires free public transportation for students only if they are in grades K–6 and only if they live more than two miles from the school they are entitled to attend.
- Louisiana requires public school boards to provide free transportation for students who live more than one mile from school. However, statute allows districts to stop providing this transportation for “economically justifiable reasons”.
- Minnesota School boards are required to provide transportation to and from school, or to provide board and lodging, for all students who live two miles or more from schools. School boards are required to provide equal transportation for nonpublic school students.
- Nebraska State Statute 79–611 requires public schools to provide transportation or pay reimbursement to parents in lieu of transportation for students who live four miles or more from school.
- New Hampshire Districts are required to provide transportation to all pupils in grades 1 through 8 who live more than 2 miles from the school
- New York Requires all non-city districts to provide transportation for pupils enrolled in kindergarten through grades 8 who live more than two miles from the school they attend and for pupils enrolled in grades 9–12 who live more than three miles from the school they attend up to a distance of fifteen miles.
- Ohio requires bus service to students in grades kindergarten through eighth living more than two miles from their home assigned school.
- Connecticut requires school districts to provide transportation for all school-age children whenever it is “reasonable and desirable”
- Wyoming provides transportation to all primary and middle school pupils (K–8) who live more than 1.25 miles from their school.

In other states, statute allows districts to provide student transportation where “reasonable” or “practical” and given funding constraints. These statutes commonly include requirements for the administration of school bus programs such as riding times, driver requirements, and distance between a student’s home and the bus stop. Most states allow schools to charge fees for bus transportation.

Additionally, several states (Connecticut, Delaware, Florida, Idaho, Iowa, Louisiana and Ohio) require transportation services for charter school students. I’ve also included the list of relevant statutes in the attached document.

ATTACHMENT

State	Policy or Statute
AL	The county board of education shall consolidate schools wherever in its judgment it is practicable and arrange, if necessary, for the transportation of pupils to and from such consolidated schools, subject to the provisions of this title. Alabama law only requires county school districts to offer school bus transportation for students. Statute: Section 16–8–13 [http://alisondb.legislature.state.al.us/alison/CodeOfAlabama/1975/16-8-13.htm]
AK	School districts in the state of Alaska are not required by state law to offer bus transportation to regular education students. School districts may provide student transportation. Statute: AK ST § 14.09.010
AZ	No Statutory requirement for transportation. “In absence of statute mandating that a school board provide transportation, board has no duty to do so except, perhaps, in the rare circumstance where failure to provide the transportation would deprive a child of even minimal education” Opinion from State Attorney General. Statute: A.R.S. § 15–922

State	Policy or Statute
AR	No relevant statute.
CA	<p>Does not require districts to transport students who live far from school. Instead, state law allows the district governing board to provide pupil transportation "whenever in the judgment of the board the transportation is advisable and good reasons exist therefor." Generally, the state grants districts discretion over which students they will transport and how many school bus routes they will operate.</p> <p>Statute: ARTICLE 1. General Provisions [http://leginfo.ca.gov/faces/codes___displaySection.xhtml?lawCode=EDC&sectionNum=39800.] [39800-39809.5]</p>
CO	<p>State statute: The board of education of a school district may furnish transportation:</p> <p>(a) To and from public schools of the district for any reasonable classification of resident pupils enrolled in the schools of the district;</p> <p>The general assembly finds and declares, however, that the provision by school districts of transportation for pupils is not required by the constitution as a part of a thorough and uniform system of free public schools and that any school district which provides transportation may pay the costs incurred in doing so through any means authorized by the general assembly pursuant to this title.</p> <p>Statute: 22-32-113 (Transportation of Pupils)</p>
CT	<p>State law requires school districts to provide transportation for all school-age children whenever it is "reasonable and desirable". In general, this requirement is limited to transportation to public and certain nonprofit, private schools located within the school district. The only out-of-district transportation school districts must provide is for students attending state technical high schools and district-designated regional agricultural science and technology centers.</p> <p>Statute: CGS § 10-220(a). State Policy Page [https://www.cga.ct.gov/2012/rpt/2012-R-0085.htm]</p>
DE	<p>Districts may develop school transportation plans.</p> <p>Statute: DE ST TI 14 § 508</p>
FL	<p>No state requirement, school districts may provide transportation.</p> <p>Statute: F.S.A. § 1006.22</p>
GA	<p>No requirement, however the statute outlines procedures for the State Board of Education to provide standard transportation costs.</p> <p>Statute: Ga. Code Ann., § 20-2-188</p>
HI	<p>Transportation not required by statute, however the Department operates a bus service for students who reside outside a certain distance from a school (for an additional cost). State does require additional fees.</p>
ID	<p>Statute: "To afford more equal opportunity for public school attendance, the board of trustees of each district, including specially chartered school districts, shall, where practicable, provide transportation for the public school pupils within the district, and pupils resident within adjoining districts annually agreed to in writing by the districts involved, under conditions and limitations herein set forth. Nonpublic school students may be transported, where practicable, when the full costs for providing such transportation are recovered. In approving the routing of any school bus, or in the maintenance and operation of all such transportation equipment, or in the appointment or employment of chauffeurs, the primary requirements to be observed by the board of trustees are the safety and adequate protection of the health of the pupils. Nothing herein contained shall prevent any board of trustees from denying transportation to any pupil in any school bus operated by or under the authority of said board, upon good cause being given, in writing, to the parents or guardian, or either of them, of such pupil. No board of trustees shall be required to provide transportation for any pupil living less than one and one-half (1½) miles from the nearest appropriate school. A board of trustees may require pupils who live less than one and one-half (1½) miles from the nearest established bus stop to walk or provide their own transportation to such bus stop."</p> <p>Statute: ST § 33-1501</p>
IL	<p>Per Section 29-3 of the School Code, only certain types of school districts are required by law to provide free transportation services. Specifically, community consolidated districts, community unit districts, consolidated districts and consolidated high school districts, and combined school districts (if the combined school district includes any district that was previously required to provide transportation) shall provide free transportation for pupils residing at a distance of one and one-half miles or more from any school to which they are assigned for attendance maintained within the district.</p> <p>Statute: 105 ILCS 5/29-3</p>
IN	<p>A 2015 Indiana Supreme Court Decision found that public schools are not constitutionally required to bus students to and from school.</p> <p>Statute: Title 20. Education Article 27. School Transportation Chapter 9. Use of School Buses</p>

State	Policy or Statute
IA	No requirement however the state does have guidelines for riding time and distance. Statute: Title VIII—Chapter 43—Pupil transportation [https://www.legis.iowa.gov/docs/iac/chapter/281.43.pdf]
KS	No requirement. Statute: State regulations included in 91–38–1 [https://www.ksde.org/Portals/0/School_Bus/Regulations/ManualDecember2017.pdf]
KY	Boards of education <i>may provide transportation</i> from their general funds or otherwise for any pupil of any grade to the nearest school to the pupil's residence within the district if the pupil does not live within a reasonable walking distance to such nearest school of appropriate grade level. Statute: 158.110 Transportation of pupils [https://apps.legislature.ky.gov/law/Statutes/statute.aspx?id=3441]
LA	"Each city, parish, and other local public school board shall provide free transportation for any student attending a school of suitable grade approved by the State Board of Elementary and Secondary Education within the jurisdictional boundaries of the local board if the student resides more than one mile from such school. This requirement shall not apply to any student attending a nonpublic school" "No parish or city school board shall eliminate or reduce the level of transportation services provided to students as required by the provisions of this Section except for economically justifiable reasons approved in accordance with the provisions of this Subsection by the State Board of Elementary and Secondary Education." Statute: LSA–R.S. 17:158
ME	"The superintendent of schools in a municipal school unit shall, with the approval of the school board, provide transportation for elementary school students and public preschool students a part of or the whole distance to and from the nearest suitable elementary school. The municipality may provide transportation for secondary level students." Statute: §5401. Transportation [http://legislature.maine.gov/statutes/20-A/title20-Asec5401.html]
MD	No requirement found.
MA	Requires free public transportation for students only if they are in grades K–6 and only if they live more than two miles from the school they are entitled to attend. Statute: Massachusetts General Law Chapter 71, Section 68 [https://www.nps.org/sites/northbridgeps/files/pages/school_committee_transportation_policy_-_eeaa.pdf]
MI	School districts are NOT required by law to transport regular education children. Michigan Compiled Law (MCL) 380.1321 outlines the obligations of the school district IF its board of education elects to provide transportation.
MN	School boards are required to provide transportation to and from school, or to provide board and lodging, for all students who live two miles or more from schools. School boards are required to provide equal transportation for nonpublic school students. Statute: 124D.03 ENROLLMENT OPTIONS PROGRAM.
MS	No requirement for service, however regulations and rules in Section 37–41–1, Mississippi Code of 1972, as amended
MO	Students living more than three and one-half miles from school must be provided transportation service. All students can be transported by local board decision (167.231, RSMo)
MT	No requirement but imposes guidelines on Bus transportation State Reimbursement
NE	State Statute 79–611 requires public schools to provide transportation or pay reimbursement to parents in lieu of transportation for students who live four miles or more from school.
NV	No requirement found.
NH	Districts are required to provide transportation to all pupils in grades 1 through 8 who live more than 2 miles from the school to which they are assigned. Districts may provide transportation to kindergarten pupils, pupils in grades B through 12, or to pupils residing less than 2 miles from the school to which they are assigned, when providing transportation is appropriate, or when the district has been directed to furnish transportation by the Commissioner of Education. (RSA 189:6) [https://www.sau70.org/uploaded/SAU/transportation_files/The_Duty_To_Transport_Students-NH.pdf]

State	Policy or Statute
NJ	<p>Transportation shall be provided to public school students who reside remote from their assigned school of attendance, nonpublic school students who reside remote from their school of attendance and meet the eligibility criteria of N.J.A.C. 6A:27-2.2, and special education students who reside remote from their assigned school or who require transportation services in accordance with their individualized education program (IEP).</p> <p>Statute: 6A:27-1.4 Students who shall be transported [https://www.nj.gov/education/code/current/title6a/chap27.pdf]</p>
NM	<p>No requirement.</p> <p>Bus routes shall be established by the local school district. No school bus route shall be maintained for distances less than:</p> <p>(1) one mile one way for students in grades kindergarten through six; (2) one and one-half miles one way for students in grades seven through nine; and (3) two miles one way for students in grades ten through twelve.</p> <p>New Mexico 22-16-4 [https://www.lawserver.com/law/state/new-mexico/nm-statutes/new_mexico_statutes_22-16-4]</p>
NY	<p>Requires all non-city districts to provide transportation for pupils enrolled in kindergarten through grades 8 who live more than two miles from the school they attend and for pupils enrolled in grades 9-12 who live more than three miles from the school they attend up to a distance of fifteen miles.</p> <p>New York Section 3635 Education Law</p>
NC	<p>No Requirement.</p> <p>Each local board of education is hereby authorized to acquire, own, lease, contract and operate school buses for the transportation of pupils enrolled in the public schools of such local school administrative unit, and of persons employed in the operation of such schools in accordance with rules and regulations adopted by the State Board of Education. The State Board of Education shall be under no duty to supply transportation to any pupil or employee enrolled or employed in any school.</p>
ND	<p>No requirement. Rules and regulations regarding school transportation in North Dakota Code 39-21-27.1</p>
OH	<p>In all city, local, and exempted village school districts where resident school pupils in grades kindergarten through eight live more than two miles from the school for which the state board of education prescribes minimum standards pursuant to division (D) of section 3301.07 of the Revised Code and to which they are assigned by the board of education of the district of residence or to and from the nonpublic or community school which they attend, the board of education shall provide transportation for such pupils to and from that school except as provided in section 3327.02 of the Revised Code.</p> <p>R.C. 3327.01 [http://codes.ohio.gov/orc/3327.01]</p>
OK	<p>No requirement. Any school district maintaining a school may provide transportation with the approval of the State Board of Education.</p> <p>210:30-5-1. District operation and management [https://sde.ok.gov/sites/ok.gov.sde/files/Rules-Ch30Sub5Transportation.pdf]</p>
OR	<p>No requirement. Some policies on school district policies and charter schools.</p> <p>ORS 338.145 [https://www.oregonlaws.org/ors/338.145]</p>
PA	<p>No requirement, exceptions for charter schools.</p> <p>Penn Department of Education Policy [https://www.education.pa.gov/Documents/Teachers-Administrators/PupilTransportation/PupilTransportationFrequentlyAskedQuestions.pdf]</p>
RI	<p>No statutory requirement, however the state is creating a statewide student transportation system which will include mandatory participation from school districts.</p> <p>State Information Page [https://www.ride.ri.gov/StudentsFamilies/AdditionalResources/StudentTransportation.aspx#1817596-background-information]</p>
SC	<p>No requirement found.</p>
SD	<p>No requirement. Some rules for safety and regulation in Chapter 13-29 School Buses and Transportation Of Students</p>

State	Policy or Statute
TN	Boards of education may provide school transportation facilities for children who live more than one and one half (1½) miles by the nearest accessible route from the school to which they are assigned by the board of education and in which they are enrolled. 49-6-2101 [https://law.justia.com/codes/tennessee/2010/title-49/chapter-6/part-21/49-6-2101/]. Power of boards to provide transportation.
TX	No requirement—schools only required to provide transportation as required by Federal law.
UT	No requirement—The Superintendent shall determine transportation eligibility for elementary students (k-6) and secondary students (7-12) in accordance with the mileage from home, specified in Subsections 53F-2-403(1) and (2), to the school attended by assignment of the local school board. R277-600-4. Eligibility.
VT	No requirement found.
VA	No requirements but numerous safety and regulatory provisions in 8VAC20-70-80.
WA	No requirement found.
WV	No requirement. County Education Boards are authorized to: Provide transportation according to rules established by the county board, as follows: (1) To provide at public expense adequate means of transportation: Statute: §18-5-13. Authority of boards generally.
WI	A school district may, but is not required to, provide transportation to a pupil who lives less than two miles from school and not in a UHT area, if the pupil's parent or guardian requests such transportation. The school district may charge for the cost of the transportation. State Information Page [https://dpi.wi.gov/sms/transportation/public-school-questions]
WY	The Wyoming Board of Education provides transportation to all primary and middle school pupils (K-8) who live more than 1.25 miles from their school. Wyoming Statutes Title 21. Education § 21-3-131

QUESTIONS FROM HON. HENRY C. "HANK" JOHNSON, JR. TO HON. SUE FULTON,
CHIEF ADMINISTRATOR, NEW JERSEY MOTOR VEHICLE COMMISSION

Question 1. You are here representing the state of New Jersey, one of only eight states that requires seat belts on school buses.

Can you speak to the concern about the reduction of school bus services?

ANSWER. I have heard concerns from school boards and the New Jersey State Department of Education, as well as from other states, that it is difficult to hire school bus drivers given the low pay and minimal hours. However, I have not heard the same concerns about the modest additional cost of requiring seat belts for new buses.

Question 2. Do state laws requiring seat belts on school buses seem like a common-sense safety measure to you?

ANSWER. Based on the safety studies I've seen regarding use of seat belts, yes, I believe that requiring them in school buses is a common-sense solution.

QUESTION FROM HON. PETER A. DEFazio TO KRISTIN POLAND, PH.D., DEPUTY
DIRECTOR, OFFICE OF HIGHWAY SAFETY, NATIONAL TRANSPORTATION SAFETY BOARD

Question 1. Dr. Poland, last year for the first time NTSB issued the recommendation that large school buses be equipped with lap/shoulder belts stating that "compartmentalization" does not offer adequate occupant protection in side-impact and rollover collisions. For decades, school buses have relied on compartmentalization to protect students in the event of a crash, and NTSB has not formally called for the use of lap/shoulder belts until now.

Can you describe how NTSB came to the decision to formally recommend the use of lap/shoulder belts on school buses? How do you account for any displaced riders?

ANSWER. In 1999, the NTSB recommended that the National Highway Traffic Safety Administration (NHTSA) develop performance standards for school bus occupant protection systems that account for all types of collisions and rollovers. At that time, there were a variety of designs attempting to enhance compartmentalization on school buses but there were no requirements or standards establishing a min-

imum performance criteria. In 2008, in response to our recommendations, NHTSA published a final rule that established standards for both lap and lap/shoulder belts, if voluntarily installed, on large school buses. Now that there is a federal regulation defining performance standards for large school bus passenger lap/shoulder belts, school bus and seat manufacturers are designing large school buses with this safety improvement and we have seen benefits in these systems in our crash investigations.¹ In addition, design improvements—such as flexible seating systems—have reduced the impediments to equipping large school buses with this key safety feature. Although NHTSA was unable to require lap/shoulder belts for all passenger seating positions in new large school buses, we believe the states can implement this safety improvement, which is why we made the specific recommendation that each state that has not already done so require that passenger lap/shoulder belts be installed in all new large school buses to provide the best protection for all their occupants.²

Large school buses equipped with passenger lap/shoulder belts at all seating positions will not affect total ridership on school buses with the advancement of flexible seating systems.

QUESTION FROM HON. ELEANOR HOLMES NORTON TO KRISTIN POLAND, PH.D., DEPUTY DIRECTOR, OFFICE OF HIGHWAY SAFETY, NATIONAL TRANSPORTATION SAFETY BOARD

Question 2. Dr. Poland, your written testimony noted that design improvements have reduced the impediments to equipping large school buses with seat belts. One of the primary concerns with installing seat belts on large school buses is the potential impact on seating capacity. Keeping in mind that the majority of large school buses have to accommodate small, elementary age students all the way up to kids in high school, capacity is a critical issue.

With improvements in seat belt design, such as flexible seating systems, do we still face the same risk of reduced seating capacity when equipping school buses with seat belts?

ANSWER. Flexible seating systems enable a large school bus equipped with passenger lap/shoulder belts to seat an equivalent number of elementary, middle, and high school aged students as a bus equipped with only compartmentalization as the occupant protection system.

QUESTIONS FROM HON. HENRY C. “HANK” JOHNSON, JR. TO KRISTIN POLAND, PH.D., DEPUTY DIRECTOR, OFFICE OF HIGHWAY SAFETY, NATIONAL TRANSPORTATION SAFETY BOARD

Question 3. In 2018, the National Transportation Safety Board (NTSB) issued an investigative report containing a series of safety recommendations following two fatal school bus crashes in 2016. This report uncovered a number of safety issues including poor management of unsafe school bus drivers, and recommended a number of safety measures including three-point seat belts on all new large school buses.

The implementation of such safety recommendations, however, is often carried by the states. And at this time, only eight states have enacted laws requiring seat belts on school buses.

Can you provide insight on the importance, if any, of streamlining federal, state, and local laws to maximize school bus safety?

ANSWER. School buses are the safest form of transportation for students. It’s important that federal, state and local laws are streamlined to ensure that a consistent safety message is communicated about school bus occupant safety. Our investigations have shown that improved occupant protection, driver oversight, pedestrian safety, fire protection, and collision avoidance technologies are needed to prevent crashes, deaths, and injuries on the nation’s roadways. The federal, state, and local governments all play a role in ensuring school bus travel continues to be the safest forms of transportation on our roads today.

¹NTSB. School bus roadway departure [<https://www.nts.gov/investigations/AccidentReports/Reports/HAB1606.pdf>] NTSB/HAB–16/06. Washington, DC: NTSB. *Intersection Collision and Roll-over Involving School Bus and Pickup Truck* [<https://www.nts.gov/investigations/AccidentReports/Reports/HAB1902.pdf>]. NTSB/HAB–19/02. Washington, DC.

²NTSB Safety Recommendations H–18–9 [https://www.nts.gov/investigations/AccidentReports/_layouts/ntsb.recsearch/Recommendation.aspx?Rec=H-18-009] and -10 [https://www.nts.gov/investigations/AccidentReports/_layouts/ntsb.recsearch/Recommendation.aspx?Rec=H-18-010].

Question 4. Is rulemaking on the part of NHTSA, FMCSA, NTSB, or other transit and safety agencies considered effective if states are slow to adopt those rules, if at all?

ANSWER. While the NTSB does not have regulatory authority, our interactions with the states and the school bus associations representing the states have shown that school transportation safety is a high priority in all locations.

Question 5. California state law doesn't require school districts to provide bus service to students. Is there any concern that laws like these create inequity when transporting children to school?

a. Are these types of laws commonly seen in state legislatures?

ANSWER. The NTSB has not made recommendations regarding how states provide transportation to students, but we do recognize that children are safer traveling to and from school and school-related activities on school buses than in any other vehicle.

According to the National Conference of State Legislatures (NCSL), most states do not have a statutory requirement to offer bus service to regular education students. NCSL has identified nine states that require school districts to provide transportation to at least some students. It also identified an additional seven states that require transportation services for charter school students.

QUESTIONS FROM HON. DOUG LAMALFA TO KRISTIN POLAND, PH.D., DEPUTY DIRECTOR, OFFICE OF HIGHWAY SAFETY, NATIONAL TRANSPORTATION SAFETY BOARD

Question 6. Is the National Transportation Safety Board aware of, or investigating, fires in any type of a diesel vehicle that resulted from the vehicle's diesel particulate filtration system?

ANSWER. The NTSB is aware of the diesel particulate filtration system on some school buses but is not aware of specific fires nor are we investigating any fires resulting from the vehicle's diesel particulate filtration system.

Question 7. How many and what percent of the injuries and fatalities involving children riding school buses occur when the child is crossing the road? How many and what percentage occur at the bus stop?

ANSWER. The NTSB is continuing its investigation into the 2018 Rochester, Indiana school bus loading zone crash. In this crash, the school bus was stopped to pick up students at the designated location when a pickup truck traveling south struck the four children, who were crossing the roadway in the early morning darkness. Three of the children were killed and one was injured. In addition, two other similar crashes in Hartsfield, Georgia and Baldwyn, Mississippi are also being investigated to further support the findings in Rochester, Indiana.

Data concerning school bus loading zone crashes will be included in the final Board report for those investigations. In addition, NHTSA does maintain data related to school bus crashes and published a report "School-Transportation-Related Crashes" in July 2019 with its latest information, including pedestrian fatalities in school transportation related crashes.

QUESTIONS FROM HON. GARY J. PALMER TO KRISTIN POLAND, PH.D., DEPUTY DIRECTOR, OFFICE OF HIGHWAY SAFETY, NATIONAL TRANSPORTATION SAFETY BOARD

Question 8. How many injuries/fatalities from a vehicle driving around a stopped bus occur in rural areas? In suburban areas? In urban areas?

ANSWER. The NTSB is continuing its investigation into the 2018 Rochester, Indiana school bus loading zone crash. In this crash, the school bus was stopped to pick up students at the designated location when a pickup truck traveling south struck the four children, who were crossing the roadway in the early morning darkness. Three of the children were killed and one was injured. In addition, two other similar crashes in Hartsfield, Georgia and Baldwyn, Mississippi are also being investigated to further support the findings in Rochester, Indiana.

Data concerning school bus loading zone crashes will be included in the final Board report for those investigations. Although NHTSA does maintain data related to school bus crashes and published a report "School-Transportation-Related Crashes" in July 2019 with its latest information, including pedestrian fatalities in school transportation related crashes, that report does not differentiate between rural, suburban and urban areas.

Question 9. How many bus drivers are disqualified each year?

ANSWER. The NTSB does not track this information.

Question 10. Should states establish a searchable database listing disqualified drivers?

ANSWER. Although the NTSB has not made a specific recommendation regarding this type of database, we have previously recommended methods to identify fraudulent drivers. For example, we recommended that the state of Maryland continue its facial recognition program beyond 2019 to help prevent driver license fraud. (H-18-11) More specifically, we recommended that the Maryland Motor Vehicle Administration:

Process all current commercial driver's license holders through the facial recognition software system to detect those drivers who may hold fraudulent licenses. (H-18-13).

These recommendations are currently both classified Open—Acceptable Response.

Question 11. How many incidents involving other motor vehicles involved distracted driving? (vehicles striking a child, etc.)

ANSWER. Eliminate Distractions is on the NTSB's Most Wanted List of transportation improvements in 2019-2020. While distraction has been addressed in school transportation investigations, it is also a problem in many highway crashes. The NTSB's fact sheet related to distractions in highway crashes is attached to this response, for reference.



2019-2020 NTSB

MOST WANTED LIST OF

TRANSPORTATION SAFETY IMPROVEMENTS





Eliminate Distractions

What is the problem?

Too many drivers are operating their vehicles while distracted, leading to deadly crashes. Driver distraction occurs when drivers divert their attention away from the driving task and fail to do the basics, like continuously monitoring the road and controlling their vehicle to address unexpected events. Personal electronic devices (PEDs), such as cell phones, are one of the greatest contributors to driver distraction.

In 2016, more than 3,100 fatal crashes involving distraction occurred on US roadways (9% of all fatal crashes that year). These crashes involved 3,210 distracted drivers, according to the National Highway Traffic Safety Administration (NHTSA), because some of them involved more than one distracted driver.

Contributing to the problem is the widespread belief by many drivers that they can multitask and still operate a vehicle safely. But multitasking is a myth; humans can only focus cognitive attention on one task at a time. That's why executing any task other than driving is dangerous and risks a crash.

Although drivers contend with many other distractions, such as other passengers and infotainment systems, PEDs are particularly concerning because drivers spend more time on these devices than on other distracting activities. We continue to investigate crashes in all modes that involve the inappropriate use of PEDs.

But manual distraction—texting—is not the only concern; “cognitive” distractions can occur when using hands-free devices because, although you’re not physically holding something or pushing a button, you are still focusing your mind elsewhere, such as on your conversation, rather than on the road ahead. We have seen several crashes involving hands-free devices and this form of cognitive distraction.



On May 23, 2013, a truck-tractor in combination with a flatbed semitrailer hauling an oversize load struck the I-5 bridge above the Skagit River, resulting in a partial bridge collapse. Eight vehicle occupants were involved; three received minor injuries. We determined that the certified pilot/escort vehicle driver failed to perform required duties and to communicate potential hazards, due in part to distraction caused by cell phone use.

3,450

Lives lost from distracted driving in 2016 (9% of overall highway fatalities that year)
Source: NHTSA

2x

Odds of a crash when drivers engaged in all forms of visual-manual cell phone tasks, compared with the same drivers under similar traffic and environmental conditions without engaging in any visible nondriving tasks
Source: AAA Foundation for Traffic Safety

23x

The risk of a crash increases when texting in a commercial vehicle
Source: Virginia Tech Transportation Institute

Related reports:

HAR-14/01: Collapse of the Interstate 5 Skagit River Bridge Following a Strike by an Oversize Combination Vehicle; Mt. Vernon, Washington; May 23, 2013; Accident ID HWY13MH012

HAR-14/02: Highway-Railroad Grade Crossing Collision; Rosedale, Maryland; May 28, 2013; Accident ID HWY13MH013

For detailed investigation reports, visit www.nts.gov

Continued on next page →

Eliminate Distractions		2019–2020 NTSB MOST WANTED LIST OF TRANSPORTATION SAFETY IMPROVEMENTS	 HIGHWAY
<h3 style="color: #4a7c9c;">What can be done?</h3> <p>To reduce crashes, injuries, and deaths, drivers must keep their minds, hands, and eyes focused only on driving. Focusing on or thinking about anything other than the task at hand impairs performance and can lead to tragic consequences. Distraction can best be addressed through a combination of education, legislation, and enforcement.</p> <p>To address the problem of distraction, the following actions should be taken:</p> <p>States</p> <ul style="list-style-type: none"> › Ban all PED use on our roadways. The District of Columbia and 37 states restrict the use of cell phones by novice drivers, and 47 states, DC, Puerto Rico, Guam, and the US Virgin Islands ban text messaging for all drivers. › Strictly enforce laws; consider roadway monitoring to detain violators. 			
<p>States without a texting ban: Arizona, Montana and Missouri*</p>  <p><small>*Only drivers under age 21 are banned in MO</small></p>		<p>On May 28, 2013, a truck (inset), did not stop at a grade crossing and was struck by a freight train in Rosedale, Maryland, causing the cars carrying hazardous materials to derail. Five people were injured. Contributing to the crash was the truck driver's distraction due to a hands-free cell phone conversation.</p>	
<p>Operators/Industry/Advocacy Groups</p> <ul style="list-style-type: none"> › Educate the public. Public education continues to be important for teaching drivers, operators, and safety-critical personnel about the dangers of distractions. Legislation and enforcement can help bring about this change. 		<p>Vehicle Manufacturers</p> <ul style="list-style-type: none"> › When designing and incorporating infotainment systems, consider the level of distraction they will create for drivers and restrict access when the vehicle is in motion. <p>Public (Drivers)</p> <ul style="list-style-type: none"> › Recognize that safe driving requires 100% of a driver's attention 100% of the time. Distraction is not only about holding a device in your hand or glancing away from the road; it also involves mentally straying from the driving task. You can't multitask! 	
 <p>Critical changes needed to reduce transportation accidents, injuries, and fatalities</p>		<p>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</p> <p>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.</p> <p>National Transportation Safety Board 490 L'Enfant Plaza, SW Washington, DC 20594 (202) 314-6000</p>	
<p> twitter.com/ntsb #NTSBmwl facebook.com/ntsbgov youtube.com/user/ntsbgov instagram.com/ntsbgov flickr.com/photos/ntsb </p> 			

QUESTIONS FROM HON. HENRY C. "HANK" JOHNSON, JR. TO JOHN BENISH, JR., PRESIDENT AND CHIEF OPERATING OFFICER, COOK-ILLINOIS CORPORATION, ON BEHALF OF THE NATIONAL SCHOOL TRANSPORTATION ASSOCIATION

Question 1. Your testimony expresses support for state and local level decision-making on seat belt mandates for school buses. The National School Transportation Association (NSTA) concurs that unfunded mandates will increase the manufacturing costs of school buses, and may even lead to the reduction of school bus services in many areas.

In the eight states that have enacted seatbelt laws, can you provide examples of how they've had to curtail bus service in any of their school districts?

ANSWER:
 Arkansas, AR Code § 6–19–117, effective 1/1/18, contingent on funding
 California, Cal. Veh. Code § 27316, effective 7/1/04
 Florida, Fla. Stat. Ann § 316.6145, effective 12/31/00

† Iowa, 281 IAC Chapter 44, effective 10/2/19
 Louisiana, LA Rev Stat § 17:164.2, effective 6/30/04, contingent on funding
 Nevada, NRS 386.837, effective 7/1/19
 New Jersey, N.J. Stat. Ann. § 39:38–10, effective 2/21/19
 New York, N.Y. Veh. & Traf. § 383(5), effective 7/1/1987
 Texas, TX TRANSP § 547.701, effective 1/1/18

† On September 10, 2019, Iowa’s Legislative Rules Committee validated the State Board of Education’s rule to require three-point seat belts on all new school buses manufactured on or after October 2, 2019.

For several of these states, the effective date just occurred, so it too soon to determine if a seat belt mandate has the unintended consequence of curtailing school bus service in those states. Further, the ebb and flow of student census and school budgets makes it difficult to draw a direct line from the number of buses serving a school to the cost of seat belts specifically. A better measure would be to review school districts that have implemented seat belts to better determine how they been affected by the cost.

One data point comes from the state of Texas. In 2007 the state enacted H.B. 323 (2007 Tex. Sess. Law Serv. Ch. 259), to require three-point seat belts on school buses aged 2010 or newer, however this mandate was contingent on funding. In 2017, the State’s legislature introduced and enacted subsequent legislation amending the 2007 requirement to be an unfunded three-point seat belt requirement, TX S.B. 693 (2017 Tex. Sess. Law Serv. Ch. 908). This new mandate permitted local school boards to vote to defer this requirement in a public meeting as a result of lack of funding. Then, in November 2018, State Senator Bob Hall introduced TX S.B. 79, which seeks to repeal the 2017 three-point seat belt requirements—as his constituency found the equipment mandate to be unattainable under their allocated transportation budget. Thus far, no Texas school boards were able to pass a referendum for a public vote to suspend the requirement.

Another example is from Alabama. From 2007 to 2010, the state conducted a study on seat belts on large school buses. The survey identified that more school bus pupil fatalities occur outside of school buses either in or near loading zones, than inside the school bus. So, if funding were to be spent on school bus safety, “[I]t appears more lives could be saved by investing in enhanced safety measures in loading/unloading zones. These treatments are likely more cost effective than seat belts[.]”¹

In 2016, Louisiana conducted a study on seat belts on large school buses. Similar to Alabama conclusions, Louisiana’s study notes that more child-aged student fatalities occur outside the school bus, than inside. As such, the Louisiana study advises that policy-making should focus on educating motorists, parents, school bus drivers, and school-aged children on how to proceed around a stopped school bus.² Louisiana enacted school bus seat belt requirements in 1999, however the equipment mandate is contingent on funding from the state. To date, the legislature has not provided funding.

Question 2. What should Congress’ role be, if any, to ensure that school districts aren’t vulnerable to a reduction of bus service?

ANSWER. Most state and local budgets do not realistically earmark funding for new school bus equipment mandates. Therefore, the cost of these mandates usually is borne by the local taxpayer. We strongly believe that decisions requiring state and local funding streams should appropriately be made at the state and local level so that all ramifications of the decision, especially any reductions in school bus service, can be evaluated. If federal funds were to be made available for new equipment mandates, they should be equally accessible to private school bus contractors, as well as to public school district operators.

Question 3. Lastly, may I ask your response to assertions from NTSB that compartmentalization alone is not enough to protect against side impact or rollover collisions?

ANSWER. NSTA notes that NTSB is an independent federal agency tasked with investigating accidents and determining causation factors, and making safety recommendations based on those investigations. It is not a regulatory agency. NSTA

¹ Report to the Alabama Governor “Alabama School Bus Seat Belt Pilot Project,” from the University Transportation Center for Alabama, pg. 8, http://utca.eng.ua.edu/files/2011/08/Pilot_Project_Summary_Report1.pdf.

² Report to the House and Senate Committees on Education of the Louisiana Legislature, “Response to Senate Resolution 122 of the 2016 Regular Session,” from the Louisiana Department of Education, Data Analysis section, p. 2, <https://s3-us-west-2.amazonaws.com/nsta/43161/SR-122-Final-Draft-R-1-5-2017-Transportation-Report.pdf>

respects the important role that NTSB plays and responds thoughtfully to recommendations they present to NSTA. The National Highway Traffic Safety Administration (NHTSA) is the regulatory agency with statutory authority to promulgate regulations pertaining to vehicle and highway safety. In that process, NHTSA is required to analyze any proposed regulation in light of the overall safety record and experience of the industry subject to regulation and the travelling public it serves. In 2011, NHTSA was presented with a petition to mandate seat belts in large school buses. The agency denied that petition, citing:

“For large school buses, we have determined there is not a safety problem warranting national action to require the addition of lap/shoulder belts to these vehicles. Large school buses are very safe due to their greater weight and higher seating height than most other vehicles, high visibility to motorists, and occupant protection through compartmentalization.”³

NHTSA also goes on to specify that “our analysis shows that a National lap/shoulder belt requirement for large school buses could result in an increase of 10 to 19 student fatalities annually in the U.S. A State or local jurisdiction . . .”⁴ NHTSA has not reversed its position since 2011, and NSTA looks to them for ultimate guidance on school bus vehicle safety.

According to DOT statistics, school bus transportation remains the safest form of transportation to-and-from school over all other forms of transportation, including walking, biking, driving in parents’ cars and teenagers driving themselves. On average, four to six students are killed annually inside a yellow school bus, while an average of 800 children are killed going to school in other ways. It is this data that drives NSTA’s belief that as many children as possible should have access to the safest form of transportation.

QUESTIONS FROM HON. GARY J. PALMER TO JOHN BENISH, JR., PRESIDENT AND CHIEF OPERATING OFFICER, COOK-ILLINOIS CORPORATION, ON BEHALF OF THE NATIONAL SCHOOL TRANSPORTATION ASSOCIATION

Question 4. How many injuries/fatalities from a vehicle driving around a stopped bus occur in rural areas? In suburban areas? In urban areas?

ANSWER. Unfortunately, this specific of data is not currently available at a national level. While the National Association for State Directors of Pupil Transportation Services (NASDPTS) conducts annual surveys of stop arm violations, only 39 out of 50 states participated in 2019, and data is strictly based on school bus driver observations over the course of a one-day period.⁵ However, under provisions of the STOP for School Buses Act of 2019, these data points would be identified, acquired, and reviewed. The current level of school transportation data highlights the need for a greater emphasis on data acquisition and creating a clearinghouse for this data.

Question 5. How many bus drivers are disqualified each year?

ANSWER. Once again, this is difficult, at best, to determine an exact number, or an estimate, as most disqualifying events occur and/or are adjudicated at the local level. Be advised that “disqualifying” events could take place under employer policy and procedure directive, non-compliance with state or federal requirements, or through an adjudicated result. Unfortunately, this data is not readily available at the national level. It should be noted that the FMCSA Drug and Alcohol Clearinghouse is coming online in January 2020, and will begin to provide data on disqualified drivers due to drug and alcohol violations.

Question 6. Should states establish a searchable database listing disqualified drivers?

ANSWER:

- a. In states where this is already required, our members have found it to be highly useful
- b. Concerns about costs associated with program participation
 - i. Costs mitigated by insurances premium reductions

³ See, e.g., NHTSA, 49 CFR Part 571, Final Rule, Docket No. NHTSA–2011–21596, <https://www.federalregister.gov/documents/2011/08/25/2011-21596/federal-motor-vehicle-safety-standards-denial-of-petition-for-rulemaking-school-buses>

⁴ *Id.*

⁵ Annual Survey on “National Stop Arm Violation Count” by the National Association of State Directors of Pupil Transportation Services, <http://www.nasdpts.org/stoparm/>. See also July 24, 2019 “Annual NASDPTS Illegal Passing Survey Press Release”, <https://nasdpts24.wildapricot.org/resources/Documents/2019%20NASDPTS%20Illegal%20Passing%20Results%20Press%20Release-7-24-19.pdf>

Several of our members operate in states where participation in an Employment Notification System (ENS) is required, and they have advised that these programs are highly useful. We are supportive of promoting ENS systems, and note its contribution to increased safety measures for school transportation operators. We do remain concerned regarding the efficiencies and costs to employers of participating in a national ENS system.

Question 7. How many incidents involving other motor vehicles involved distracted driving? (vehicles striking a child, etc.)

ANSWER. Unfortunately, there is no clear data at the national level on this point. Once again, the STOP for School Buses Act seeks to acquire and provide the number of these incidents that occur and are tracked. Right now, we can only speculate that a majority of illegal passings may occur as a result of distracted driving. Other reasons include, a lack of fundamental understanding of how to traverse around a stopped school bus and ignorance of applicable traffic laws. With regard to ignorance of appropriate traffic laws governing the passing of a stopped school bus, we believe there should be a particular emphasis on young drivers in mandated driver training, to ensure that they are made fundamentally aware of these rules and regulations. The STOP Act directs the U.S. Department of Transportation (DOT) to look at distraction driver training, daylight savings time changes, bus stop locations and other issues impacting the illegal passing issue. Additionally, the STOP Act directs DOT to produce a public service campaign to bring awareness to drivers on how to proceed when approaching a stopped school bus.

QUESTION FROM HON. PETER A. DEFAZIO TO ANNE FERRO, PRESIDENT AND CHIEF EXECUTIVE OFFICER, AMERICAN ASSOCIATION OF MOTOR VEHICLE ADMINISTRATORS

Question 1. Ms. Ferro, your written testimony describes AAMVA's analysis of the feasibility of a national employer notification system (ENS) to provide real-time updates to employers of a driver's status. Under current regulations, school bus drivers are required to self-report moving violations and other factors which could jeopardize their commercial driver license status, but it's estimated only 50 to 80 percent of drivers actually self-report.

Would a national ENS be effective in closing the gap on school bus drivers who do not self-report driving violations and other disqualifications to their employers?

ANSWER. Under the current commercial motor vehicle operations safety net in federal law and overseen by FMCSA, employers are responsible for monitoring and taking action on their employees. AAMVA encourages Congress to retain employer responsibility for ensuring the safe operation of their fleet. Current federal law permits employers to satisfy their annual driver history obligations by "receiving occurrence-based reports of changes in the status of a driver's record from one or more driver record notifications systems that meet minimum standards issued by the Secretary." The Congressional directive to provide better data for safety employment considerations increasingly trends towards the timeliness, availability, and sufficiency of data. An Employer Notification System (ENS) would assist in the timeliness of available safety data for employment purposes and help close the gap on failures to self-report.

While school districts participating in an ENS system may close the gap on self-reporting, the level of participation may have an impact on each jurisdiction's ability to effectively leverage such a program. FMCSA cites [<https://www.fmcsa.dot.gov/sites/fmcsa.dot.gov/files/docs/registration/commercial-drivers-license/405406/jurisdictional-ens-implementation-final.pdf>] 19 states that already provide easy, periodic access to driving records. Congress should consider the implications of requiring employer participation in an ENS. With regard to requiring state participation, flexibility in administration of ENS programs is advantageous in that each state is familiar with their internal information technology architecture, and is positioned to more effectively assist employers in their oversight responsibilities. Consideration of a national ENS may require costly and extensive modifications to existing state systems and networking capabilities to ensure a similar level of accountability. It is the recommendation of the AAMVA membership that if a national ENS system were to be pursued, it utilize the existing networking capabilities of the Commercial Driver's License Information System (CDLIS) which is already an available platform for exchanging state commercial driver information.

Question 2. What recommendations do you have for the development of a national ENS to ensure its success?

ANSWER. In 2016, AAMVA developed a report [<https://www.fmcsa.dot.gov/sites/fmcsa.dot.gov/files/docs/registration/commercial-drivers-license/396341/aamva-ens-design-and-best-practices-recommendations-ver-102.pdf>] entitled, "Employer Notifi-

cation System Design and Best Practices Recommendations” for the Federal Motor Carrier Safety Administration (FMCSA). The recommendations from this member-based resource are detailed in Section 4 of the report and includes recommending building a national ENS by leveraging CDLIS. The member working group also recommended that the system should provide jurisdictions with the capability to opt-in or opt-out of sending the driver history record (DHR) to the motor carrier or employer. This report contains numerous other recommendations and best practices for different ENS models.

QUESTION FROM HON. ELEANOR HOLMES NORTON TO ANNE FERRO, PRESIDENT AND CHIEF EXECUTIVE OFFICER, AMERICAN ASSOCIATION OF MOTOR VEHICLE ADMINISTRATORS

Question 3. Ms. Ferro, Federal regulations for commercial driver licenses require applicants to be medically certified by a registered physician and subsequently renew their certification up to every two years. However, Federal regulations exempt publicly-employed school bus drivers from having to obtain this medical certification, but state laws may still require a medical exam.

Are there any states that permit school bus drivers to operate without a medical certification as part of their CDL?

ANSWER. The application of medical fitness requirements varies depending on the operating oversight of the school district and/or driver. With this in mind, the school districts themselves, or their representative association, may be better qualified to speak on the medical oversight of their drivers. While most school bus drivers are expected to operate on an intrastate or localized route and be subject to state and local requirements for operation that are excepted from *federal* medical fitness requirements, it is feasible that school districts administer or require their own medical fitness programs. While state requirements may provide initial insight, a more comprehensive outlook on applicable medical fitness requirements may be available from individual school districts that have very different geographical and regulatory considerations.

Question 4. Is there any benefit to exempting publicly-employed school bus drivers from needing a medical certification as a prerequisite of the CDL?

ANSWER. The review and consideration of medical fitness information is an important part of safe operational oversight of commercial vehicles. With regard to school bus operation, it is not clear how public employment would entail different safety or fitness responsibilities than private employment.

States currently rely upon federal oversight of ensuring driver fitness. The federal government established standards for qualified medical professionals and requires physician registration with the National Registry of Certified Medical Examiners. These examiners perform the essential function of evaluating and qualifying a driver for duty. Good work is currently underway with respect to inclusion of medical information on the driver record, and AAMVA encourages Congress to continue supplying federal and state authorities with the resources needed to integrate this information in the driver record. One such avenue for these improvements is leveraging the Commercial Driver’s License Program Improvement (CDLPI) grant program.