



November 6, 2023

The Honorable Pete Buttigieg
Secretary
U.S. Department of Transportation
Docket Management Facility, M-30
West Building, Ground Floor, Room W12-140
1200 New Jersey Avenue, SE
Washington, DC 20590

RE: Docket No. NHTSA-2023-0023 &
Docket No. FMCSA-2022-0171

Dear Secretary Buttigieg:

Thank you for allowing the National Safety Council (NSC) to respond to the National Highway Traffic Safety Administration (NHTSA) Notice of Proposed Rulemaking (NPRM) to amend Federal Motor Vehicle Safety Standard (FMVSS) No. 208, "Occupant crash protection," to require a seat belt use warning system for rear seats and enhance the existing front seat belt warning requirements. NSC strongly supports this proposal because seat belt use saves lives. Additionally, a 2018 survey commissioned by NSC, found that 70.1 percent of the 2,000 drivers surveyed were in favor of regulations that required all cars to have seat belt reminders that continuously chime until the seat belt is buckled, including rear seat passengers.¹

NSC is America's leading nonprofit safety advocate and has been for 110 years. As a mission-based organization, we work to eliminate the leading causes of preventable death and injury, focusing our efforts on the workplace and roadways. We create a culture of safety to keep people safer at work and beyond so they can live their fullest lives. Our more than 13,000 member companies represent nearly 41,000 U.S. worksites.

Belt use rates have dramatically increased from 14% of observed front seat occupants in 1983 to 90% in 2021.² Unfortunately, belt use remains lower for rear seat occupants, with 78% of observed belted occupants in the rear seat in 2021.³ A 2016 national survey found the top reason for adults not using belts in the rear was the perception that the rear seat is safer than the front seat.⁴

For years, NSC has supported requiring a seat belt use warning system for people in all seating positions because data clearly reflect the safety impact of seat belt use in all seating positions.

¹ <http://www.norc.org/Research/Projects/Pages/underutilized-strategies-in-traffic-safety-results-of-a-nationally-representative-survey.aspx>

² <http://onlinepubs.trb.org/onlinepubs/sr/sr278.pdf>

³ <https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/813072>

⁴ <https://www.iihs.org/topics/bibliography/ref/2141>

According to NHTSA, in 2021, 26,325 passenger vehicle occupants were killed, and about 50% of those killed were not buckled (based on known seat belt use).⁵ These fatalities come after decades of working to improve seat belt use in the U.S.

A 2016 National Transportation Safety Board (NTSB) workshop found that despite some manufacturer claims, the cost of these systems has come down dramatically, and they are now considered inexpensive.⁶ The same workshop issued a recommendation to implement advanced rear seat belt reminder systems for all seating positions and noted that “the Alliance of Automobile Manufacturers recommends that NHTSA incorporate rear seat belt reminder systems into [the New Car Assessment Program] (NCAP) using the same rear seat belt reminder test protocols and criteria as currently employed by Euro NCAP Assessment-Protocol-AOP-V7.03.”⁷

The research is irrefutable. Seat belt use in all seating positions saves lives. One study estimated that rear seat occupants who wear a seat belt, compared with those who do not, can reduce their risk of death by approximately 60 percent in a car and 70 percent in a light truck.⁸ The Centers for Disease Control and Prevention has concluded that seat belt use is the most effective way to save lives and reduce injuries in crashes, yet roughly one in seven people still don’t buckle up.⁹

People who are not properly restrained are 30 times more likely to be ejected from a vehicle during a crash, and more than three out of four people who are ejected during a crash die from their injuries.¹⁰ Furthermore, in 2021, seat belt use continued to be lower in rear seats (77.9%) than in front seats (90.4%), according to the National Occupant Protection Use Survey.¹¹ Seat belts prevent occupants from being ejected and reduce potentially lethal contact with other passengers and surfaces.¹²

Seat belts save lives and save taxpayer dollars as well. Motor vehicle-related fatal and nonfatal injury costs exceeded \$99 billion, while costs associated with occupant fatal and nonfatal injuries accounted for 71 percent or \$70 billion of all motor vehicle-related costs in one year alone.¹³ Yet, despite this knowledge, research found that just 30 percent of its rated model year 2021 vehicles were equipped with rear belt reminders.¹⁴ By amending FMVSS No. 208 to require rear seat belt warning systems, it will be mandatory for auto manufacturers to implement this life saving technology.

NSC Comments on the Proposed Rule:

⁵ <https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/813487>

⁶ https://www.nts.gov/news/events/Documents/2016_rss_WS_Summary.pdf

⁷ Ibid.

⁸ <https://injuryprevention.bmj.com/content/13/3/183.full>

⁹ <https://www.cdc.gov/motorvehiclesafety/seatbeltbrief/index.html>

¹⁰ Ibid.

¹¹ <https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/813344>

¹² Charles J. Kahane. 2015. Lives Saved by Vehicle Safety Technologies and Associated Federal Motor Vehicle Safety Standards, 1960 to 2012—Passenger Cars and LTVs—With Reviews of 26 FMVSS and the Effectiveness of Their Associated Safety Technologies in Reducing Fatalities, Injuries, and Crashes. DOT HS 812 069. Washington, DC: U.S. Department of Transportation, National Highway Traffic Safety Administration, p. 89.

¹³ <https://www.ncbi.nlm.nih.gov/pubmed/20730682>

¹⁴ <https://www.consumerreports.org/cars/car-safety/better-car-seat-belt-minders-could-save-lives-iihs-study-a6862787411/#:~:text=Consumer%20Reports%20found%20that%20just,highlighting%20this%20important%20safety%20feature.>

1. NSC supports NHTSA's tentative proposal requiring an audio-visual reminder that lasts until the belts are fastened at any occupied front outboard seating position. According to an Insurance Institute for Highway Safety (IIHS) study, audible reminders lasting at least 90 seconds were significantly more effective for increasing seat belt use than an intermittent audible reminder. IIHS estimates that an audible reminder lasting 90 seconds could save up to 1,489 lives annually.¹⁵ Additionally, NHTSA research shows that audible warnings in conjunction with visual warnings are generally more effective than text or icons alone.¹⁶

An IIHS study found that an indefinite reminder and a 100 second constant reminder increased seatbelt use by 30-34 percent over an intermittent reminder.¹⁷ The system that continued to cycle auditory/visual reminders throughout the entirety of the drive was rated as more effective than systems that cycled for a limited number of times.¹⁸ Seat belt reminder systems with an intrusive and more aggressive acoustic signal are most effective in getting occupants to wear seat belts.¹⁹

2. NSC supports the negative-only and full-status options for visual warning on vehicle start-up to inform the driver of the status of rear seat belts. NSC urges NHTSA to require occupant detection systems and audible warning for rear seats to mirror requirements already in place for the front seat.

NHTSA-cited complexities (i.e. transportation of cargo and pets, etc.) due to occupant detection systems can be addressed through a relatively small investment and have great potential to reduce injury as well as costs to society.²⁰ These same issues could be at play in the front seat too, and we have overcome these potential problems. The systems are comprised of three basic components: 1. a sensor in the seat which detects occupancy; 2. a sensor in the safety belt buckle; 3. a control unit for a reminder system that features flashing lights and/or an audible chime. Low cost 2-D or digital cameras also could be used to detect a rear seat passenger. The cost will decrease even further if rear seat belt occupant detection systems are required in all vehicles.

As NHTSA indicates in this NPRM, rear seat reminder systems with audible warnings may present acceptance issues for "positive-only" systems. For reminder systems to be successful, they must not only provide sufficient motivation to buckle up but also achieve a minimum level of acceptance among both the belted and unbelted populations. NHTSA has conducted 106 in-depth interviews with part-time seat belt users, non-users and full-time users, finding that nearly two thirds of respondents rated seat belt warning systems as "acceptable," while approximately 80 percent thought they would be effective.²¹ As NHTSA points out in this NPRM, without rear seat occupant detection systems, audible warnings for rear seats could result in "false" warnings, may annoy drivers, and could lead to behaviors that would decrease system effectiveness. Thus, the only way to require audible warnings, which greatly increase system effectiveness, would be to also require occupant detection systems.

¹⁵ <https://www.iihs.org/topics/bibliography/ref/2185>

¹⁶ DOT 2009 Belt Warning Study, *supra*, p. 39 (drivers); p. 45 (passengers).

¹⁷ <https://www.iihs.org/news/detail/belt-reminders-can-be-just-as-effective-as-interlocks>

¹⁸ *Ibid.*

¹⁹ https://www.swov.nl/sites/default/files/publicaties/gearchiveerde-factsheet/uk/fs_seatbelt_reminders_archived.pdf

²⁰ *Ibid.*

²¹ <https://www.nap.edu/read/10832/chapter/6#72>

NSC believes that requiring occupant detection in rear seats would also boost efforts to combat pediatric vehicular heatstroke (PVH) as rear seat occupant detection systems could also be used for PVH reminders. (NSC thanks NHTSA for their representative involvement in the pediatric vehicular heatstroke academic stakeholders workgroup led by the NSC, particularly the research and technology committee that focuses on this matter.) Almost 1,000 children have been confirmed to have lost their lives as a result of vehicular heatstroke since 1998. Of those that have died, more than fifty percent are reported to have been unintentionally left or forgotten in vehicles, with exponentially more children injured.²² Children involved in fatalities have ranged in age from 5 days to 14 years, with more than half of these deaths in children under 2 years of age.²³ NHTSA has stated, and NSC agrees, "one child is too many" lost from this preventable cause of death.

In requirements for testing rear seat occupant detection systems, NHTSA states that "it would not be appropriate to specify the use of the 3-year-old [Hybrid III dummy] because a child represented by this anthropomorphic test device (ATD) should be seated in a forward or rear-facing child restraint system (CRS), not a booster seat." However, data from the National Digital Car Seat Check Form show that many children are not riding in the appropriate CRS based on their height and weight.²⁴ Specifying the use of the 3-year-old child represented by an ATD would provide protections for children who do not have the agency to protect themselves or increase their own safety.

3. NSC supports NHTSA's proposal to require that the owner's manual to describe the warning system's features, including the location, format, and meaning of the visual warnings and that the owner's manual include instructions on how to make any manual electrical connections for readily removable seats, like child passenger safety seats.

To achieve the full safety potential of seat belt warning systems and to reduce distraction and confusion, NSC supports the inclusion of the system's features in the vehicle owner's manual. It is imperative to educate the public on how to best interact with vehicle technology to ensure a better, safer driving experience. Communicating the appropriate operation of these systems may prove difficult without consistent education. With increased system complexity, greater knowledge and understanding of the system is required. By including seat belt warning system features in the owner's manual, drivers and passengers can familiarize themselves with the system.

It is also important to note safety features, such as seat belt warning systems, have different operational parameters and limitations across manufacturers and sometimes even across the same manufacturer's varying models. Many safety features also have different generic names that vary among manufacturers. NSC urges NHTSA to consider standardizing generic nomenclature as well as standardizing warning and icon symbols to reduce driver confusion.

NSC applauds NHTSA for its continued efforts to promote occupant crash protection by amending FMVSS No. 208, to require a seat belt use warning system for rear seats. NSC supports the incorporation of this lifesaving technology in all seating positions in passenger

²² https://www.noheatstroke.org/PVH_2023.htm

²³ Ibid.

²⁴ <https://carseatcheckform.org/national-dashboard>

cars and urges NHTSA to require this technology in other vehicles like school buses and limousines. Seat belt use saves lives.

Sincerely,

A handwritten signature in black ink that reads "Lorraine Martin". The signature is written in a cursive, flowing style.

Lorraine M. Martin
President & CEO