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Docket Management Facility, M-30
U.S. Department of Transportation
1200 New Jersey Avenue S.E.
West Building, Room W12-140
Washington, D.C. 20590

Submitted via www.regulations.gov

Comments of Consumer Reports to the
National Highway Traffic Safety Administration on the
Advance Notice of Proposed Rulemaking: Amending FMVSS No. 208, "Occupant Crash Protection," to Require a Seat Belt Use Warning System for Rear Seats
Docket No. NHTSA-2019-0093

Consumer Reports, the independent, non-profit member organization,[1] welcomes the opportunity to submit comments to the National Highway Traffic Safety Administration (NHTSA) on the advance notice of proposed rulemaking regarding amending Federal Motor Vehicle Safety Standard No. 208 to require a rear seat belt use warning system. Seat belts have been proven to greatly reduce the risk of fatal and non-fatal injuries,[2] yet rear seat belt use currently lags below front seat belt use by over 14 percent.[3] Seat belt reminder systems are effective in increasing seat belt use,[4] and thus we emphasize the urgent need for NHTSA to complete a rulemaking requiring rear seat belt reminders. Deaths from seat belt non-use are preventable, and any delay in the rulemaking process risks more lives being lost.

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[1] Founded in 1936, Consumer Reports uses its dozens of labs, auto test center, and survey research center to rate thousands of products and services annually. CR works together with its more than 6 million members for a fairer, safer, and healthier world, and reaches nearly 20 million people each month across our print and digital media properties.

[2] Mark Freedman et al. 2009. Effectiveness and Acceptance of Enhanced Seat Belt Reminder Systems: Characteristics of Optimal Reminder Systems, Final Report. DOT HS 811 097. Washington, DC: U.S. Department of Transportation, National Highway Traffic Safety Administration.

[3] Li, R., Pickrell, T.M. (2019, February). Occupant restraint use in 2017: Results from the NOPUS controlled intersection study (Report No. DOT HS 812 594). Washington, DC: National Highway Traffic Safety Administration.

[4] Bylund PO, Björnstig U. Use of seat belts in cars with different seat belt reminder systems. A study of injured car drivers. Annu Proc Assoc Adv Automot Med. 2001;45 1-9. PMID: 12214343; Maria Krafft, Anders Kullgren, Anders Lie & Claes Tingvall (2006) The Use of Seat Belts in Cars with Smart Seat Belt Reminders—Results of an Observational Study, Traffic Injury Prevention, 7:2, 125-129, DOI: 10.1080/15389580500509278.

Given the immense potential safety benefit of rear seat belt reminder systems, we appreciate NHTSA seeking feedback on the implementation and scope of the proposed rule. We urge NHTSA to review this feedback expeditiously and publish a notice of proposed rulemaking without delay. CR offers additional comments on the following topics:

Visual and Audible Warnings

Previous research has identified that an audio-visual warning is more effective at prompting seat belt use than visual icons alone. While the agency points to the fact that these audio-visual warnings may be more intrusive than visual warnings alone, observational studies on the effectiveness of these systems have not found that the additional intrusiveness of the audible warning results in less seat belt use than a visual-only warning. In fact, the intrusiveness of the warning system has been found to be strongly positively correlated with an increase in seat belt use.[5] Additional research has found that a combined audio-visual warning can lead to almost twice the seat belt compliance rate of a system with only a visual warning, while the effectiveness of the visual-only warning system was not significantly different than having no warning at all.[6] Therefore, for this rulemaking to have the maximum safety benefit -- or, in all likelihood, any safety benefit -- the warning must be required to be audio-visual. In addition, the rule should require a notification on the instrument cluster if a seat belt is unbuckled that must be acknowledged by the driver before any other use of the instrument panel is permitted. This additional warning will persist after the audible warning ends and, in our experience, increase the likelihood of the warning resulting in greater seat belt use.

Triggering Conditions

It is necessary that rear seat belt reminder systems protect the most vulnerable passengers and those most likely to be seated in the rear of a vehicle: children. Thus, the reminder system should trigger not only at the beginning of the trip to ensure the rear passenger is protected from the outset, but also should trigger if the seat belt becomes unbuckled during the trip. NHTSA's previous research has found this mid-trip change of warning status effective in getting passengers to refasten their seat belt,[7] so this added protection should be required.

Warning Location

CR recommends that the warning be visible to the driver of the vehicle. The driver controls and operates the vehicle, and thus is responsible for the passengers within. In our experience operating vehicles with front passenger warning systems, the warning is most

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[5] Mark Freedman et al. 2009. Effectiveness and Acceptance of Enhanced Seat Belt Reminder Systems: Characteristics of Optimal Reminder Systems, Final Report. DOT HS 811 097. Washington, DC: U.S. Department of Transportation, National Highway Traffic Safety Administration.

[6] Bylund PO, Björnstig U. Use of seat belts in cars with different seat belt reminder systems. A study of injured car drivers. Annu Proc Assoc Adv Automot Med. 2001;45 1-9. PMID: 12214343.

[7] Paul Schroeder & Melanie Wilbur. 2015. Survey of Principal Drivers of Vehicles with a Rear Seat Belt Reminder System. Washington, DC: National Highway Traffic Safety Administration.

effective when in the center instrument cluster. A warning toward the periphery of the instrument panel is less likely to be seen by the driver.

Alternative Warning Systems

NHTSA seeks feedback on a few alternatives to an audio-visual warning system, such as a haptic signal, or simply just the sound made when he latch plate clicks in the buckle when a seat belt is fastened. However, current research, largely composed of research conducted by the agency, has found that an audio-visual warning is the most effective seat belt reminder system. The "click" of the belt buckle, while certainly evidence of a buckled seat belt, can easily be missed by the driver and other occupants, as it could be masked not only by the drivers' own belt clicking, but also by noise created by the car's audio system or by children or other occupants. Also, the "click" has such a short duration that any momentary distraction could result in such a "warning" being missed. Given the body of research supporting the effectiveness of an audio-visual signal, an alternative warning system is not an acceptable rear seat belt reminder at this time.

Effectiveness & Consumer Acceptance

NHTSA seeks feedback on the effectiveness and consumer acceptance of rear seat belt warning systems. In addition to the agency's own research, which has found seat belt reminder systems effective in increasing real world seat belt use, research by experts at the Insurance Institute for Highway Safety has found that the majority of drivers in the U.S. who transport passengers would accept a rear seat belt reminder system.[8] This same study found that parents believed an auditory alert to be especially useful in alerting the driver to a child unbuckling in the back seat during a trip. While CR recognizes that research specifically examining the effectiveness of rear seat belt reminder systems is limited, there is extensive evidence to support the effectiveness of both driver and front passenger seat belt reminder systems. We do not see any reason to believe that the effectiveness of a rear seat belt reminder system, if implemented similarly, would differ significantly from the effectiveness of a front passenger seat belt reminder system.

Conclusion

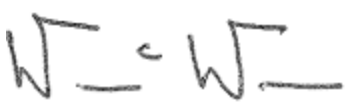
CR urges NHTSA to move forward quickly with its rulemaking to require a rear seat belt warning system in motor vehicles. The data has shown for years that rear seat passengers do not buckle their seat belts at the same rate as front seat passengers, and this puts them at an increased risk of being injured or killed in a crash. Furthermore, the rear seat is becoming a more common seating position with the increasing prevalence of ride-hailing services such as Uber and Lyft. Over seven years have gone by since Congress passed a law requiring the agency to develop a

[8] David G. Kidd & Anne T. McCartt (2014) Drivers' Attitudes Toward Front or Rear Child Passenger Belt Use and Seat Belt Reminders at These Seating Positions, Traffic Injury Prevention, 15:3, 278-286, DOI: 10.1080/15389588.2013.810333.

rule requiring rear seat belt reminder systems, and any additional delay would only lead to more lives being lost to preventable tragedies.

Thank you for considering our comments on this important topic. This rulemaking is long overdue, and the research is clear as to the most effective approach to take. We look forward to continuing to work with NHTSA to finalize this necessary and lifesaving rule.

Respectfully submitted,



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