



Comments from the Institute for Safer Trucking and Road Safe America on Advanced Notice of Proposed Rulemaking (ANPRM) on Side Underride Guards on Trailers and Semitrailers

Docket No. NHTSA-2023-0012

The Institute for Safer Trucking (IST) and Road Safe America (RSA) submit the following joint comments in response to the National Highway Traffic Safety Administration's (NHTSA) request for comments to the proposed requirement for side underride guards on trailers and semitrailers, as outlined in the ANPRM mandated by Section 23011(c) of the Bipartisan Infrastructure Law (BIL).

Introduction

Side guards are life-saving devices that should be required on as many trailers and semitrailers as possible. Too many lives are needlessly lost or drastically altered because of a vehicle design flaw that severely endangers passenger vehicle occupants and vulnerable road users that collide with the side of a trailer or semitrailer and travel underneath. By requiring side guards, we can finally address this problem and make our roads safer for all who share them. Side guards should be required on single-unit trucks as well as trailers and semitrailers.

We are disappointed in NHTSA's research on the number of lives saved and injuries prevented due to side guards. We question the accuracy of the estimated benefits and costs presented by NHTSA due to several reasons outlined in these comments.

Underride Crashes are Undercounted, Which Undercounts the Benefits of Side Guards

Underride crashes are often underreported for various reasons, including a lack of awareness among law enforcement officers and the absence of a specific field for underride on police accident reports in most states. This underreporting leads to an incomplete understanding of the true magnitude and impact of these crashes. Therefore, it is imperative that NHTSA consider this discrepancy when assessing the benefits, costs, and other impacts of side underride guards.

In the 2022 Safer Trucking Report, Institute for Safer Trucking looked at the differences in reported underride fatalities between five states with an underride field on their police accident report (PA, NC, IL, KY, IA) and five states without such a field (TX, CA, FL, GA, OH). The differences were alarming. From 2011 to 2020, states with an underride field reported 2.7 times as many truck underride deaths.

Put another way, approximately 12 percent of truck crash deaths in states with a field for underride were coded as having underride, whereas this number fell to just four percent in states without a field for underride. So, while the total underride deaths from 2011 to 2020 for the five states was 664, it could be much higher. For example, if the abovementioned five states without an underride field reported at similar levels to five states with a field, the number of deaths would have been closer to 1,807 (15,311 total deaths times 11.8 percent). The 2022 Safer Trucking Report, which used data from Fatality Analysis Reporting System (FARS), can be found here: <https://www.safertrucking.org/report>.

We urge NHTSA to recalculate the estimated number of underride deaths to account for the major difference in reporting between the states with an underride field versus those without such a field. Given IST found that states with fields were 2.7 times as likely to report underride deaths, we urge NHTSA to, at a minimum, double the number of underride deaths in states without underride fields. Additionally, the Agency should be using data from states with underride fields in their benefit analysis. Given these states are more likely to have accurate reporting of fatal underride crashes than states without an underride field, it would follow that NHTSA should rely on data from these states to determine the estimated number of deaths and injuries in underride crashes.

In order to attain more accurate data, we urge that NHTSA collaborate with law enforcement agencies to raise awareness about underride crashes and establish a specific field for underride on police accident reports. By improving data collection and reporting, we can better understand the full extent of the problem and ensure that any proposed regulations are based on comprehensive and reliable information.

NHTSA should also include vulnerable road users in their analyses pertaining to the benefits of side underride guards. Currently, bicyclists and pedestrians cannot be coded as being involved in an underride crash because they are not considered to be in a vehicle. Thus, NHTSA did not include the lives saved and injuries prevented of bicyclists in their benefit analysis. The Agency should remedy this to calculate a more accurate benefit for side underride guards. "Underride" should not only be considered a vehicle-related factor, and the Agency should determine a method for bicyclists and pedestrians to be coded as being involved in an underride crash to achieve a more accurate number of fatalities that could be prevented by side underride guards.

The Agency should also conduct an in-depth review of cases that likely involved underride but were not coded as such in the FARS. The Institute for Safer Trucking's board member Eric Hein, whose son Riley was killed in a side underride crash, examined the issue of underride undercount. Eric looked at the prevalence of underreporting of side underride crash fatalities in FARS Case Listing records. He used Google to locate and confirm 40 articles that reported fatalities resulting from side underride crashes with semitrailers. He then used photos and/or descriptions from the articles to validate

that each side underride crash, if accurately recorded, should have been coded as an "Underride" in FARS.

Thirty-nine of 40 Case Listings for the side underride crashes were in FARS, which included 58 fatalities. Of the 39 Case Listings, every underride data element was inaccurately coded in FARS as "No Underride or Override Noted." This is yet another example of the underride undercount in the U.S. The full report is available here: <https://www.safertrucking.org/ist-analysis/report-0n-uncounted-truck-side-underride-crashes-in-fars-database>.

NHTSA's Benefit Analysis Excludes Many Instances of Underride

In conducting their research on the number of lives saved and injuries prevented, NHTSA went to great lengths to exclude many circumstances that resulted in side underride. NHTSA included two-vehicle crashes involving one passenger vehicle and one tractor-trailer in which the passenger vehicle's initial impact location was coded as front or roof, and the truck's initial impact location was coded as side or undercarriage. This means that the Agency failed to look at:

- Crashes involving more than two-vehicles, and
- Crashes that occurred at an angle.

These are all instances in which side underride crashes occur. The Agency must remedy their criteria for selecting fatal truck crashes as part of their benefit analysis. Failure to do so will result in a skewed cost-benefit analysis that fails to accurately portray the number of lives saved and injuries prevented by the required use of side guards.

Overstatement of Costs

NHTSA does not accurately calculate the cost of side underride guards for two main reasons: 1) their estimates about the number of side guards that will have skirts is flawed, and 2) the Agency does not correctly account for the reduction in cost associated with mandated safety features.

With regards to the impact on fuel efficiency, NHTSA has overestimated the costs. First, the estimate for the number of fuel efficiency skirts at 40% is too low and shows a lack of awareness of some of the commercially available options on the market. For example, the PHSS Fortier sideguard has a skirt incorporated into the design, so it will be 100% of those units, which have been tested and proven to actually improve fuel efficiency by 4 percent. Given the market will demand skirts to be integrated, the percentage should be much higher, which will improve the benefits arising from improved fuel efficiency.

Regarding production costs, the units right now are based on extremely small volumes on a per order basis. If mandated, OEM production or large-scale orders by large motor

carriers will significantly drive down costs. As has been the case with every safety technology that has been mandated in large trucks over the past two decades, innovation and process improvement will lead to lighter, cheaper and/or easier-to-produce options.

Conclusion

The Institute for Safer Trucking and Road Safe America strongly support the implementation of side underride guards on trailers and semitrailers as a crucial step toward improving safety on our roads. However, we emphasize the need for accurate data collection and analysis as this rulemaking moves forward. We urge the NHTSA to recalculate the benefits of side guards to address the:

- Underreporting of underride crashes in states with no underride field,
- Exclusion of vulnerable road users who are harmed in side underride crashes, and
- Exclusion of various crash types that result in side underride injuries and deaths.

Thank you for considering our comments.