

Automatic Emergency Braking (AEB) is Needed on All Trucks

The Moving Forward Act (H.R. 2) Passed with Bipartisan Support in the 116th Congress Included this Safety Requirement which is Supported by the Leading Consumer, Public Health and Safety Groups and Families of Truck Crash Victims

Vehicle Safety:

- Automatic Emergency Braking (AEB) is a highly effective system.¹ Research by the Insurance Institute for Highway Safety (IIHS) has concluded that forward collision warning with automatic braking could prevent 50 percent of front-to-rear car crashes, 56 percent of front-to-rear car crashes with injuries, and 41 percent of large truck front-to-rear crashes.² Based on these estimates alone, AEB could potentially prevent approximately one million passenger vehicle crashes and more than 450,000 injuries in those crashes.
- Given that in 2018 large trucks were in over 200,000 crashes where the front of the truck was the location of impact,³ AEB on large trucks could potentially address as many as 87,000 large truck front-to-rear crashes. Additionally, single-unit trucks (a majority of which are likely Class 3-6) injure upwards of 72,000 people a year, and 27 percent of all fatalities in large truck crashes involved a Class 3-6 truck in 2019. An AEB requirement in these trucks would result in significant crash and fatality reductions.
- The costs of AEBs are minor compared to the costs of buying a new truck. The U.S. Department of Transportation (DOT) determined that the cost per vehicle of adding AEB to a new truck would add a non-retail cost of \$270 - \$290. The cost is further reduced if required by federal mandate because of economies of scale as demonstrated by past federal safety standards. For perspective, the cost of a new Class 6 truck can reach \$90,000 or more. Adding AEB would cost an additional 0.3%.
- Based on new truck sales data, limiting the installation of AEB to Class 7 and 8 trucks will potentially exclude over half a million Class 3-6 trucks every year. New sales of Class 3-6 trucks have increased by 16 percent in the last 5 years alone.⁴ Most recently, May 2021 sales in Class 6 soared 64.5 percent to 4,767 compared with a year earlier. Class 4-5 trucks had the largest numerical increase in sales, climbing from roughly 8,500 to nearly 11,500.⁵ Especially considering this uptick in sales, AEB must be required in Class 3-6 trucks.
- Class 3-6 trucks travel on local streets and through neighborhoods everyday making millions of deliveries, picking up garbage, and delivering supplies to retail stores and other businesses. Data shows that each day on average, the U.S.P.S. delivers 430 million pieces of mail and UPS and FedEx deliver 43 million packages. Equipping these trucks with AEB will make neighborhood streets safer for pedestrians, bicyclists, children, older adults, people in wheelchairs and other vulnerable road users. Furthermore, the U.S.P.S is replacing its fleet with a multi-billion dollar investment in as many as 165,000 new, state-of-the-art postal delivery trucks, the Next Generation Delivery Vehicles (NGDV). The NGDVs recently purchased by the U.S.P.S. is equipped with

¹ Teoh, E, Effectiveness of front crash prevention systems in reducing large truck crash rates, IIHS (Sep. 2020).

² Real-world benefits of crash avoidance technologies; IIHS HLDI, Dec. 2020, <https://www.iihs.org/media/259e5bbd-f859-42a7-bd54-3888f7a2d3ef/shuYZQ/Topics/ADVANCED%20DRIVER%20ASSISTANCE/IIHS-real-world-CA-benefits.pdf>

³ Large Truck and Bus Crash Facts 2018, FMCSA, Sep. 2020, FMCSA-RRR-19-018.

⁴ Transportation Energy Data Book Edition 39, U.S. Department of Energy, Feb. 2021, ORNL/TM-2020/1770.

⁵ May Medium-Duty Sales Climb 36% From 2020 period, Transport Topics, Jun. 16, 2021.

automatic braking technology. To ensure the effectiveness of the NGDV automatic braking technology, there should be a federal AEB safety standard.

- The National Transportation Safety Board (NTSB) has recommended repeatedly, including most recently in its 2021-2022 “Most Wanted List of Transportation Safety Improvements”, that AEB and other crash avoidance technologies should be standard equipment on all cars and all trucks.
- Special trucking interests are making a specious claim that AEB can only be installed in trucks equipped with electronic stability control (ESC). Having a truck of any size equipped with one of these technologies *does not require* that both technologies be present.

Roadway Safety:

- Newly released 2019 data show that 27 percent of all fatalities in large truck crashes involved a Class 3-6 truck.⁶ The share of fatalities in large truck crashes involving Class 3-6 trucks has been on the rise every year from 2016 to 2019 (23.3%, 24.9%, 26.6%, 26.9%).
- In 2018 there were 4,951 people killed in crashes involving large trucks, 541 of those were non-occupants (pedestrians, bicyclists, etc.). There were 151,000 people injured in crashes involving large trucks, 3,000 of those were non-occupants.⁷ Research shows AEB will be a game-changer to reduce fatalities and injuries and should be required on all trucks.
- The INVEST in America Act, H.R. 3589, includes numerous provisions to improve the safety and mobility of pedestrians, bicyclists and other vulnerable road users. The number of pedestrian and bicyclist deaths remain at or near the highest levels in three decades, with 6,205 and 846 fatalities respectively in 2019. 74% of pedestrians killed are outside of crosswalks. AEB is another essential safety countermeasure in the overall national strategy to prevent these needless deaths.

Driver Safety:

- Unlike Class 7 and 8 commercial motor vehicles (CMVs), there is no federal requirement that the operators of Class 3-6 trucks possess a commercial driver’s license (CDL). Therefore, drivers are behind the wheel of these trucks without having to meet any training or benchmarks to demonstrate they can operate them safely. The additional protections automatic emergency brakes (AEBs) provide would help mitigate this danger.⁸

⁶ Based on analysis provided by U.S. DOT NCSA.

⁷ Traffic Safety Facts 2018 Data: large Trucks, NHTSA, Mar. 2020, DOT HS 812 891
<https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812891>

⁸ States may have CDL licensing requirements for operators of Class 3-6 CMVs.