"SAVING LIVES AND TRUCK DRIVER LIVELIHOODS"

STATEMENT OF ANDY YOUNG

Truck Safety Advocate

BEFORE

The Subcommittee on Highways and Transit
Committee on Transportation and Infrastructure
United States House of Representatives

ON

"UNDER PRESSURE: THE STATE OF TRUCKING IN AMERICA"

Washington, D.C. – June 12, 2019

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Abbreviation Guide

AEB	Automatic Emergency Braking
ATA	American Trucking Associations
CMV	Commercial Motor Vehicle
FARS	Fatality Analysis Reporting System
FCAM	Forward Collision Avoidance Mitigation
FMCSA	Federal Motor Carrier Safety Administration
FMVSS	Federal Motor Vehicle Safety Standards
FUP	Front Underride Protection
GAO	Government Accountability Office
IIHS	Insurance Institute for Highway Safety
NHTSA	National Highway Traffic Safety Administration
NTSB	National Transportation Safety Board
OEM	Original Equipment Manufacturer
OOIDA	Owner-Operators Independent Drivers Association
PCI	Passenger Compartment Intrusion
RIG	Rear Impact Guard
SUG	Side Underride Guard
SUT	Single Unit Truck
TSC	Truck Safety Coalition

Introduction and Biography of Andy Young

Good morning Chairwoman Norton, Ranking Member Davis and Members of the Subcommittee and good morning to my own Representative Bob Gibbs (R-OH-7), also a Member of this Subcommittee.

My name is Andy Young and I am a truck driver holding an active, interstate, Class A Commercial Driver's License and owner of an old classic Peterbilt 359 that regularly hauls a much newer 45-foot car hauler trailer. I am also an attorney and one of the founding partners of Young & McCarthy LLP, based in Northern Ohio. My law practice focuses on representing victims and survivors of truck crashes throughout the country. Many of my clients are truck drivers who have been hurt or killed by other unsafe truck drivers and truck companies. I have successfully represented people catastrophically injured in underride truck crashes as well. I have been published in numerous publications and I lecture throughout the country on truck safety, truck litigation, and trial tactics. The Insurance Institute for Highway Safety (IIHS), The Truck Safety Coalition, and AnnaLeah & Mary for Truck Safety invited me to serve as a moderator for two industry Truck Underride Roundtables hosted at the IIHS crash test facility in Ruckersville, Virginia. I also served on the Organizational Committee for these two events. I recently helped team-drive a 2016 International LoneStar and a 53-foot Hyundai trailer to Washington, D.C. for a DC Underride Crash Test. I also served as the event MC and moderator for a speaker panel at this event. I would like to thank Chairman DeFazio, Chairwoman Norton and Representative Cohen for sending Congressional Staff to this important event.

As both a member of the Owner-Operators Independent Drivers Association (OOIDA) and a past-chair of the Ohio Association for Justice's Truck Safety Section, I have provided hearing testimony before the Ohio Senate Transportation Committee on truck size and weight legislation. I am currently the President of Ohio's Lorain County Bar Association and serve as an Executive Officer of the American Association for Justice's Truck Litigation Group. My volunteer work has resulted in awards in both organizations. I regularly consult with truck safety advocates and attorneys across the country on truck safety, trial, and truck crash litigation tactics. I also currently serve on the City of Cleveland's Vision Zero Task Force. I firmly believe that underride guards and the other truck safety topics to be discussed at this Hearing will keep drivers from facing possible jailtime due to vehicular homicide criminal charges and keep smaller motor carriers from 8-figure verdicts that could bankrupt them. I am here as a Truck Safety Advocate. I frequently volunteer my time for the Truck Safety Coalition and AnnaLeah & Mary for Truck Safety. My motivation for testifying is my belief that many of the initiatives discussed today will not only save lives, but also save truck driver livelihoods.

A Truck Driver is "Under Pressure" Every Mile of Every Day

Saving lives and truck driver livelihoods can be accomplished with the passage of many of the safety initiatives that will be discussed at today's Hearing "Under Pressure: The State of Trucking in America."

As someone who drives a tractor-trailer and represents victims and survivors of truck crashes, I know all too well about the "pressure" that a truck driver must contend with daily. Much of the pressure comes straight from the customer (shipper / broker / receiver) demanding that their products arrive on time and without any damage. Often the customer does not realize the complexity and inherent dangers of driving a big rig. The customer does not understand this concept because the customer usually is not subject to the Federal Motor Carrier Safety Regulations and the industry safety standards that must be obeyed every mile of every run of every day. The customer can wield great power over truck safety by choosing to hire and pay for a safe and responsible truck company to haul the customer's goods. To give them (the broker or shipper) a pass on liability would only increase "pressure" on "the state of trucking in America." The shipper and broker should not and must not be allowed to hire a cheaper, less safe truck company, simply for the sake of transporting goods at the cheapest freight rates possible. **Safety must not be sacrificed for cheaper freight rates**.

The most catastrophic consequences can result when an 80,000 pound CMV collides with a 4,000 pound car. The truck driver knows that protecting the motoring public is his or her responsibility. The trucking companies employing the truck drivers know this, too. Yet they are pressured by the conflict between the cost of safety and the desire to reduce operating costs and remain competitive. Gambling on unsafe practices can lead to increased wages for the driver (frequently paid by the mile) and increased revenues for the truck company—at least until a catastrophic crash occurs with its financially ruinous consequences. While there will always be this tension, this Committee can help level the playing field between the responsible truck companies and the irresponsible truck companies, and every one of us—our families, friends, constituents—can benefit.

Ironically, car passengers are not the only ones who are at risk. Even though their rigs are huge, truck drivers all know that their own lives are on the line at least in part because their truck company employers engage in unsafe practices and pressure their drivers into engaging in unsafe practices. Tragically, truck occupant deaths have increased to over 800 fatalities in 2017.[1]

[1] Truck driver fatalities increased in 2017 to the highest number since 2003 according to the Department of Labor's Bureau of Labor Statistics. NHTSA reported that there were 841 occupants of large trucks killed in crashes in 2017.

Safety Initiatives Can Benefit Everyone

Often when someone is injured by a truck driver or truck company error, society in some way or another picks up the pieces. This occurs through motor vehicle liability insurance spreading the risks of the loss among car and truck insurance companies. Liability insurance often is insufficient. Private and government health insurance programs fill the gaps, as do other government welfare programs for people who can no longer work as a result of their injuries at great societal expense. It is not right that all of these programs should pay all of these inordinate costs when the implementation of simple and relatively inexpensive safety initiatives can markedly reduce the risk of catastrophic injuries in the first place.

Safety initiatives like Automatic Emergency Braking and Speed Limiters benefit the truck driver *and* everyone else on the road. Safety initiatives like Underride Guards can both save lives for pedestrian and automobile occupants and prevent criminal responsibility for truck drivers who make unfortunate mistakes. It is unlikely that a truck driver will be prosecuted for vehicular homicide when their mistakes do not lead to the death of someone else. Increasing Broker/Shipper Liability will encourage customers to choose safe motor carriers to transport their goods creating positive competition for good outcomes. Increasing Minimum Insurance Limits improve the quality of truck driver training and truck company operations. All of these initiatives together will help America's 3.4 million truck drivers do their jobs and reduce fatalities to the "Vision Zero" that is sought by all.

Stop Underrides Act of 2019 (H.R. 1511 / S. 655) and Vehicle Crash Compatibility – Height Mismatches Result in Deaths

Late in 2018, I gave a talk as the Keynote Speaker to the State Bar of Texas at their "Prosecuting & Defending Truck and Auto Collision Cases" seminar. My topic was "**Underride Guards for Trucks to Avoid 8-Figure Jury Verdicts.**" Underride crashes are the most horrific of all highway crashes. Why? Because a car and its passengers fare much better hitting a concrete wall than hitting a commercial truck.

No matter how safe the car may actually be, the safety features of a car are only effective if there is good structural interaction (**vehicle crash compatibility**) between collision partners. There must be a geometrical match up of the crush structure of both the striking vehicle and the vehicle being struck (**the bumpers must match up**). Otherwise, the lower profile passenger car physically goes underneath the higher profile commercial motor vehicle ("CMV"). This is known as a truck underride crash. The first point of impact is beyond the hood and into the glass windshield. The second point of impact then literally becomes the heads, faces, neck, spine, and chest of the lower profile vehicle's occupants. The same holds true when a truck rear ends a passenger car: often the front bumper of the truck goes over the back bumper of the car. The truck then climbs the backseat of the car, frequently crushing children in the back seat.

Most people truly do not understand what is involved in an underride crash until they have suffered the loss of a loved one in one of these crashes or they have seen videos or photos of one of these crashes. I welcome all reading this testimony to go to www.youtube.com/watch?v=jHNIhh8NsFs to watch crash tests performed by the IIHS on March 30th and March 31st of 2017. The IIHS crashed cars into the side of a trailer both without an underride guard on the truck and with an underride guard on the truck to prove the safety differences. The results are truly remarkable and speak for themselves. I further recommend going to www.annaleahmary.com or www.stopunderrides.org to see the three crash tests performed right here in Washington, D.C., a few months ago, on March 26, 2019. All of these videos show crash tests at 35 mph or under. The video of those tests without an underride guard show the devastating consequences that must be addressed today and hopefully fixed by Subcommittee Members with the passage of the Stop Underrides Act of 2019.

As can be seen in these videos, air bags do not deploy because the lower profile vehicle's bumpers and air bag sensors are not triggered. Energy absorbing bumpers and crumple zones, all designed to keep the passenger compartment intact, become irrelevant. The load path from the crash results in energy that does not initially strike the intended engineered crush structure of the passenger car. With no air bag and the vehicle traveling underneath the opposing vehicle, (**even at low speeds**), the occupant compartment is pierced, resulting in a passenger compartment intrusion ("PCI"). Literally, the car windows and then the heads of the occupants are smashed into the CMV.

Without Underride Guards – We Have Closed-Casket Fatalities

With passenger compartment intrusion, the seatbelts restraining the occupants fail to prevent catastrophic injury or deadly consequences as the energy from the collision is absorbed directly by the human body. The car's occupants then suffer the most horrific crash consequences: death by blunt trauma; decapitation; open skull fractures; traumatic brain injuries; degloving of the face; spinal cord injuries; paraplegia; or quadriplegia. Those families who lose a loved one in an underride crash often suffer even further through a closed casket funeral because the faces of their loved ones are literally obliterated. This is reality and not mere conjecture or rhetoric. Just last week, I saw a picture of an 18-year-old recent high school graduate killed in a truck crash where her entire body was covered at the funeral with only her hand sticking out from underneath the blanket. This teenager was an only child and all her mother had to hold onto prior to her burial was her hand. The consequences of these crashes will continue if the Stop Underrides Act of 2019 is not passed. But, it does not stop with the victims or survivors. Why? Because the truck driver and truck company also become victims of an underride crash.

Truck Driver and Truck Companies Are Victims of Underride Crashes Too

When the truck driver is at fault, he or she suffers with a career-ending criminal vehicular homicide or felony vehicular assault criminal charges. These charges frequently result in jailtime. If the truck driver is the financial provider for his or her spouse and children, the economic consequences to the truck driver's family can lead to poverty and dependency.

If the truck driver is lucky enough not to be found at fault, the truck driver still often suffers the mental health consequences and psychological trauma associated with being an integral part of such a horrific crash. This, too, may result in the end of a professional driving career for the truck driver with unfortunate economic consequences to the driver and family.

The truck company then likely encounters a civil lawsuit. The fatalities and catastrophic injuries associated with underride crashes typically produce seven to eight figure verdicts, all exceeding minimum insurance requirements. Truck companies are thereafter saddled with paying judgments in excess of insurance coverage. Smaller truck companies must sell assets and/or file for bankruptcy. Everyone loses in an underride truck crash, the truck company and truck driver included.

I would like to recognize and commend House Representative, Subcommittee Member, Steve Cohen (D-TN) for introducing the Stop Underrides Act on March 5, 2019 which has been assigned to this very important Committee and Subcommittee. I'd like to also recognize each of the co-sponsors and urge others to become a co-sponsor of this bill. I am equally grateful to Senators Kirsten Gillibrand (D-NY) and Marco Rubio (R-FL) for introducing the Senate version (S. 665). This bill will save lives and truck driver livelihoods. I am hopeful that the content of my written and oral testimony will open hearts and minds of trucking industry stakeholders allowing for a new perspective on why this bill makes common sense and is a simple fix to saving lives. This debate began over 60 years ago and arguably longer than that. This decades long problem deserves a fair and open discussion allowing for an end with passage of this bill.

<u>Science and Data Exists to Support Passage of the Stop Underrides Act</u>

The ATA wrote a March 15, 2019 letter to this Committee about this bill stating that it is "committed to the goal of accident and fatality-free highways." The ATA further states that this bill "is not based on science, data or safety benefit." I submit to you that ATA is NOT accurate with this statement and fails to consider **all** of the science, data and safety benefit that underride guards provide. I welcome this particular topic as a point of debate during the panel question and answer session during this Hearing to truly explore **all** of the science, data, and safety not considered by the ATA's statement.

Specifically, the goal of the Stop Underrides Act is to allow for "vehicle crash compatibility" between cars and trucks. Again, vehicle crash compatibility is the academic speak that the bumpers of the two vehicles (car vs. truck or truck vs. car) must match up! Why? So that an ordinary car's energy absorbing bumpers and crumple zones can actually do the job that they were intended to do when original equipment manufacturers' engineers and design teams go to NHTSA or the IIHS to have the vehicles tested for crash worthiness. If we all pause to consider how much money has gone into the research and development of vehicle crash worthiness, including seatbelts and airbags, then we come to the clear conclusion that the science and data exists.

Moreover, the **true** science and data that must be considered when discussing this bill is **all** of the science and data extracted from every single crash test performed weekly over the past decades. For instance, when the IIHS gives a "good rating" a "top safety pick" or determines a car has

"superior-rated front crash prevention" it presumes one very important fact, that the bumpers match up. Most all of the crash tests performed are into a barrier or another car presuming the bumper will be the first point of impact. If we were to take each of the "top rated" safety picks for vehicles and performed crash tests of those same vehicles into the side of a commercial trailers, then we will all see that the science and data that has gone into protecting the occupants of the car will literally and figuratively go out the window producing gruesome results. I respectfully recommend that this Subcommittee invite all of the scientists and engineers that work for auto manufacturers to come here to discuss the millions, if not billions of dollars, cumulatively spent to design the safest passenger vehicles in the world. At that hearing you should ask how their safest vehicles will perform in a low-speed underride crash test into the side of a commercial trailer. I have no doubt that those scientists and engineers will tell you that the science and data does exist and mandates the passage of the Stop Underrides Act of 2019.

Interestingly, the ATA issued a "A Brief Look at the Far Horizon" Technology & Maintenance Council report in 2002, **seventeen years ago**, predicting "underride regulations for single-unit trucks ("SUTs") by 2005 and "frontal aggressivity regulations and side underride regulations" by 2006.[2] Here we are now, in 2019 and SUTs are still under the woefully inadequate 1953 regulation and front and side underride regulations have not yet been realized (*see further historical discussion below and Appendix A*). In addition, the NTSB has recommended front, side, improved rear underride regulations for single-unit trucks as well as tractor trailers.[3] In fact, Europe, Australia, Japan, India, and Saudi Arabia all have Front Underrun Protection ("FUP") standards. Many U.S. truck manufacturers have an international presence – installing FUP on trucks purchased in other countries, but not in our country. Why is that?

Twelve Million Unsafe Trailers

In 2016, trailer OEMs reported that "[n]ew trailer orders in the United States reached 315,000, the second-highest annual total" and that orders were down in comparison to "2014's record total" of more than 356,000 new trailers.[4] Trailer orders are projected to have a record-setting year for 324,000 trailers in 2019, up from 323,000 trailers in 2018.[5] All of these new commercial trailers were added to the 11.7 million registered trailers in existence as reported by the Federal Highway Administration in 2012.[6] Combining all new trailer orders with currently registered trailers puts

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[2] The American Trucking Associations, Technology & Maintenance Council (TMC), Future Truck Committee Information Report: 2002-1, *A Brief Look at the Far Horizon – An Exploration of What's to Come for Trucking*, Issued November 2002.

[3] National Transportation Safety Board, Office of Highway Safety, *Heavy Truck Aggressivity*, Office of Research and Engineering. https://www.ntsb.gov/news/events/Documents/hampshire_il-Heavy%20Truck%20Aggressivity.pdf

[4] The American Trucking Associations, Transport Topics, *Trailer Shipments Set Record as 2015 Orders Stay Strong*, by Roger W. Gilroy, Page 1, Week of February 1, 2016.

[5] FreightWaves, *Truck Trailer Orders Down in February, but Analysists Predict Another Record Year*, https://www.freightwaves.com/news/trucking/trailer-orders-drop-for-third-straight-month

[6] https://www.fhwa.dot.gov/policyinformation/statistics/2012/mv11.cfm See also the American Trucking Associations' February 5, 2016 Comment on the pending NPRM Docket No. 2015-0118 Rear Impact Guards, Rear Impact Protection. Note: as referenced in the ATA comment, many of these trailers are not used on a regular basis.

the total number of commercial trailers in the United States at well over 12 million.[7] This represents over 12 million potential opportunities for an underride crash.

The Interstate Highway System is 46,875 miles long.[8] When one calculates the number of registered trailers per mile of the Interstate Highway System, this equates to over 250 registered commercial trailers for every mile of Interstate Highway. Average daily truck volume reaches up to 50,000 trucks on much of the Interstate Highway System East of the Mississippi River.[9]

With roughly 300,000 new trailers being produced annually and with 12 million registered trailers in existence, this tells you the life of a trailer is inordinately long. Most in the industry will likely agree that the life of a new trailer can exceed 15 years. Each year we wait to mandate underride guards, the more the danger of catastrophic underride crashes will exist for decades to come.

According to the recent study published by the U.S. Government Accountability Office, a truck underride crash likely happens more often than the Department of Transportation's data suggests.[10] The GAO recommends, among other things, that NHTSA "conduct additional research on side underride guards to better understand the overall effectiveness and cost associated with these guards, and if warranted, develop standards for their implementation."[11] A simple analysis, as is performed below, demonstrates that indeed the costs are low and implementation is warranted.

Approximately 60 Cents/Day/Trailer Cost for Underride Protection

The cost argument raised by the ATA, OOIDA and others in opposition to the Stop Underrides Act of 2019 must be taken into perspective. By way of example, an AngelWing Side Underride Guard, manufactured by AirFlow Deflector, costs about $2,900.00, which includes shipping anywhere in the US or Canada. The total cost of a new trailer is roughly $50,000.00. The new cost of a trailer with an underride guard, at the upper limit, is an additional 6% of the total cost of the trailer. I state that this cost is at the upper limit because this is the cost for an aftermarket underride guard. If the guard were mass produced with the trailer, the cost is likely a lot less. Keep in mind that depreciation tax incentives take care of the cost for the new equipment for the purchaser, too. Consider the cost offset with the savings brought with the fuel efficiency because

[7] According to the U.S. Census, the State of Ohio has a population of 11,594,163. The State of Pennsylvania has a population of 12,787,209. The population of these states provides a basis of comparison to show the magnitude of what the number of registered trailers in the United States truly represents.

[8] https://www.fhwa.dot.gov/interstate/faq.cfm#question3

[9] U.S. Department of Transportation, Federal Highway Administration, Office of Freight Management and Operations, Freight Analysis Framework, "Estimated Average Annual Daily Truck Traffic." https://ops.fhwa.dot.gov/freight/freight_analysis/nat_freight_stats/docs/06factsfigures/index.htm

[10] U.S. Government Accountability Office, "Truck Underride Guards: Improved Data Collection, Inspections, and Research Needed." https://www.gao.gov/product/GAO-19-264 , April 15, 2019.

[11] Id. at https://www.gao.gov/product_recommendations/GAO-19-264

the trailer guard also comes with a fuel-efficient skirt.[12] Consider also the cost offset that insurance underwriters should credit to a truck company for having underride protection a trailer.

We must consider the life of a trailer. As discussed above, the life of a trailer is at least 15 years. Consider the $2,900.00 cost of an aftermarket side guard and then divide it by 15 years, or 5,475 days, representing the number of days the trailer is in operation. The result is a cost of less than 60 cents per day, per trailer.

Revenue/Mile Versus Cost Analysis

To put this into further perspective, revenue generated while the trailer is hauling freight covers the cost of the Underride Guard in the first mile the trailer is hauling goods. This past week, I asked my neighbor who runs and owns a freight broker company, what is "the cheapest" rate to run freight from the East Coast to the West Coast? His response was a very low charge for a brokered "van" type trailer is $1.15 to $1.20 per mile. The average revenue for a brokered flatbed is $1.90 per mile. Keep in mind this is a broker rate, so the customer is likely paying more.

A truck company with direct customer relationship (no broker or middle person) has revenue for vans of at least $2.00 per mile. A good day's revenue on a truck and trailer is between 400-500 miles of driving in one drive period. Regardless of the number of miles the trailer is driven in one drive period, the underride guard cost at 60 cents a day pays for itself with the revenue earned in the first one-half mile of driving each day. Essentially, the trailer guard is paid for on each daily run before it is conceivably driven from a shipper's doorstep to the nearest highway.

Revenue/Week Versus Cost Analysis

If an underride guard costs 60 cents per day, that equates to $4.20 per week. A truck company looks to earn revenue for a van type trailer of $3,500.00 per week. Doing the math further, the cost of an underride guard is 1/100th of 1% of the total weekly revenue for a trailer.

60 Cents vs. Another 60 Years Without an Underride Guard Mandate

At one time, the public seemed oblivious to the dangers of underride truck crashes. Fortunately the IIHS crash test videos and videos from other underride crash tests have been utilized by television media and social media bringing greater public awareness to this issue. The threat of underride crashes to the public is now becoming known. For decades, government regulators, original equipment manufacturers and the trucking industry have remained idle on this issue without meaningfully addressing it. The websites of Marianne Karth and Lois Durso, which are dedicated to their daughters' memory, reflects the astonishment and disbelief that not much has

[12] We see fuel efficiency skirts on most trailers on the highway now. Make no mistake, there is no barrier or robust structure behind these fuel efficiency skirts. They are flimsy and a car can easily go without resistance through them, much as a dog goes through a dog door.

been done to protect against the horrors associated with underride truck crashes.[13] Their astonishment now turned into action here on Capitol Hill leading to this day and a consideration of all truck safety issues, including the Stop Underrides Act of 2019. Marianne Karth's efforts and Lois Durso and Jennifer Tierney and the memory of their loved ones, will hopefully be realized by an open understanding that this is a cheap and easy way to achieve the "Vision Zero" goal of reducing fatalities on our nation's roadways.

In addition to legislative action by Members of this Congress, the National Highway Traffic Safety Administration (NHTSA) has the regulatory authority to mandate that adequate protective guards be installed by OEMs. NHTSA is well aware of the problems presented by vehicle crash incompatibility and the need to prevent underride crashes as evidenced by its study focused on occupant compartment deformation and occupant injury.[14] However, NHTSA remains slow to enact meaningful regulation, whereas the European Union and many other nations (United Kingdom, Brazil, Japan, Australia, and China) have surpassed the U.S. in regulatory requirements for rear guards, front underride protection, and side underride guards.[15]

The U.S. first enacted rear underride guard standard on CMVs in 1953. This standard mandated rear guards for trucks manufactured after December 31, 1952.[16] This early standard required rear guards to have maximum ground clearance of 30 inches. Guards were not required if the rear axle/wheel setback was 24 inches or less from the rear of the CMV's cargo bed. This regulation mandated rear guards for **both** single-unit trucks and combination tractor-trailers. This standard included **no strength testing requirements** for the rear guards. So, as a result, the rear bars simply existed visually and easily folded under in a crash without really preventing underride or PCI.

Single-unit trucks ("SUTs"), more commonly known as "box trucks" or "straight trucks," likewise present the risk of an underride truck crash due to the higher vehicle profile. These trucks are not a "combination" of a tractor and a trailer with an articulating section that requires more space for turning and backing. SUTs are typically found in construction and/or urban settings because they are shorter and allow for tighter maneuverability. Urban settings also present more challenges, not only with greater vehicle congestion, but more bicycle and pedestrian traffic. 360 degree lower-profile protection / guards are necessary on all CMVs to protect bicyclist, motorcyclists, pedestrians and to prevent vehicle underride.

Forty-five years after the 1953 rule, NHTSA promulgated an updated rear underride guard standard that became effective in 1998. The new rule required the following: rear guard ground

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[13] https://www.annaleahmary.com

[14] Eigen, A.M.: Glassbrenner, D., Mathematical Analysis Division, National Center for Statistics and Analysis, U.S. Department of Transportation, National Highway Traffic Safety Administration. *The Relationship Between Occupant Compartment Deformation and Occupant Injury*, DOT HS 809 676, November, 2003.

[15] United Nations Economic Commission for Europe ECE Regulation No. 73, Lateral Protection; United Nations Economic Commission for Europe ECE Regulation No. 93, Front Underrun Protection; and United Nations Economic Commission for Europe ECE Regulation No. 58 for Rear Underrun Protection. http://www.unece.org/trans/main/wp29/wp29regs41-60.html

[16] Blower, D. Woodrooffe, J., Page, O., University of Michigan Transportation Research Institute; on behalf of the U.S. Department of Transportation, National Highway Traffic Safety Administration, Office of Applied Vehicle Safety, *Analysis of Rear Underride in Fatal Crashes, 2008*, DOT HS 811 652, August, 2012.

clearance to be no more than 22 inches and strength testing requirements. Guards are not required if rear wheel setbacks are no more than 12 inches from the end of the cargo bed. The 1998 standard is **for combination tractor-trailers only**.[17] Meaningful regulations have yet to become standard for SUTs which still operate under the 1953 standard. Please see **Appendix A** for a comprehensive historical chronology addressing the issues of truck underride regulation.[18]

Repeated Calls for Underride Protection

As can be seen in the decades long chronology for addressing truck underride, both the Insurance Institute for Highway Safety ("IIHS") and the National Transportation Safety Board ("NTSB") have repeatedly called upon NHTSA to implement better underride protection standards. In the past eight (8) years, a 2011 crash-test analysis by the IIHS demonstrated that underride guards on tractor-trailers continue to fail in low-speed crashes in spite of the 1998 regulatory standard.[19][20] In 2011, IIHS petitioned NHTSA for improvements for underride protection.[21]

In a letter dated April 3, 2014, the NTSB urged NHTSA to take action by improving rear underride protection systems. The NTSB letter even went one step further, requesting that newly manufactured trailers be equipped with "**side underride** protection systems that will reduce underride and injuries to passenger vehicle occupants."[22]

On May 5, 2014, Marianne Karth and the Truck Safety Coalition ("TSC") hand-delivered a petition for rule making which asked NHTSA to improve the safety of rear underride guards on trailers and SUTs. Marianne Karth and TSC also requested rulemaking to prevent side underride and front override truck collisions. On July 10, 2015, NHTSA granted, in part, the petition and planned on issuing two separate notices – "an advanced notice of proposed rulemaking pertaining

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[17] NHTSA, FMVSS: Rear Impact Protection; Final rule. *Federal Register; Vol 61*, p. 2004, January 24, 1996. Federal Motor Vehicle Safety Standards 223 and 224: 49 C.F.R. Section 571.223 Standard No. 223; Rear impact guards. 49 C.F.R. Section 571.224 Standard No. 224; Rear impact protection.

[18] This historical chronology addressing Truck Underride from 1953 to present was put together by Andrew R. Young (who served as a Moderator of the May 5, 2014 Underride Roundtable and as a Moderator of the August, 2017 Underride Roundtable II) in collaboration with IIHS representatives and the Executive Director of the Truck Safety Coalition.

[19] The American Trucking Associations, Transport Topics, *Insurance Group Cites Concerns on Underride Guards*, March 1, 2011.

[20] Brumbelow, M.L. and Blanar, L., "Evaluation of US Rear Underride Guard Regulation for Large Trucks Using Real-World Crashes." Stapp Car Crash Journal 54:119-131, 2010.

[21] Insurance Institute for Highway Safety, 2011, "Petition for Rulemaking; 49 C.F.R. Section 571 Federal Motor Vehicle Safety Standards; Rear Impact Guards; Rear Impact Protection." Arlington, VA https://www.iihs.org/laws/petitions/pdf/petition_2011-02-28.pdf The petition requested, among other things, a lower guard clearance from 22 inches and an inclusion of SUTs

[22] Hersman, Deborah A.P., Chair, National Transportation Safety Board, Safety Recommendations, H-14-001 through -007, letter to the Honorable David J. Friedman, Acting Administrator, National Highway Traffic Safety Administration, page 14.

to rear impact guards and other strategies for single unit trucks, and a notice of proposed rulemaking on rear impact guards on trailers and semitrailers."[23]

2015 Rulemaking for Single Unit Trucks

On July 23, 2015, NHTSA issued the "Advanced Notice of Proposed Rulemaking Underride Protection of Single Unit Trucks."[24] The agency's summary confirms that this rulemaking would respond to Marianne Karth and the Truck Safety Coalition's petition and also, in part, respond to the earlier petition for rulemaking by the Insurance Institute for Highway Safety.[25] A Google search of "Docket ID: NHTSA-2015-0070" can easily allow for a review of the rule and the seventy-three (proponent and opponent) comments made by various interested parties.

OEMs and several trade associations are among the strongest opponents, citing arguments that many SUTs need to have "good off road mobility at construction sites" or "hitch connections" and therefore cannot have rear impact protection. Specifically, a rear guard would interfere with the work the truck must perform.[26] A review of the Federal Register suggests that NHTSA seems to adopt the opposition arguments that underride guards would not be cost effective on SUTs.

Based upon my own research and travel (twice) overseas to "The Commercial Vehicle Show" in Birmingham, England, opposition against rear underride guards on SUTs must be met with severe skepticism. In 2015, I personally took photographs of many European CMVs that have rear underride guard protection on trucks like dump trucks and box trucks with lift gates. I am happy to share these photographs with Members at the conclusion of the Hearing. There was even a vendor at this trade show who displayed rear impact bars that allow for manual adjustment of the guard so that it can be moved up and down as needed. I also videoed this vendor demonstrating how one of the guards can be manipulated and locked into upward and downward positions. By manually adjusting the guard upward, it allows for a construction vehicle to encounter low ground clearances or lift the guard out of the way so that it does not interfere with a tow hitch when towing a trailer with equipment or materials. Likewise, other photos taken show how rear guards can easily be integrated with lift gates.

The U.S. lags far behind other developed nations. Hopefully, this Congress and NHTSA are not too easily swayed by opposition to allow for meaningful regulations for rear impact protection on SUTs. I submitted the aforementioned photographs and many of the same arguments in a "public

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[23] Department of Transportation, National Highway Traffic Safety Administration, Grant of Petition of Rulemaking; 49 C.F.R. Section 571 Federal Motor Vehicle Safety Standards: Rear Impact Guards; Rear Impact Protection, Federal Register Number 2014-16018. https://www.regulations.gov/#!documentDetail;D=NHTSA-2014-0080-0001.

[24] Department of Transportation, National Highway Traffic Safety Administration, Docket No. NHTSA-2015-0070, Rear Impact Protection, Lamps, Reflective Devices, and Associated Equipment, Single Unit Trucks. https://www.regulations.gov/#!docketBrowser;rpp=25;po=25;dct=PS;D=NHTSA-2015-0070

[25] Id.

[26] Id.

comment" in support of the rulemaking.[27] **The agency just withdrew this regulatory action this month. This is confounding and unconscionable.**

2015 Rulemaking to Update Rear Guards on Tractor-Trailers

On December 16, 2015, NHTSA issued the "Notice of Proposed Rulemaking Upgrade Underride" to enhance strength testing requirements of the 1998 standard to improve rear impact protection for trailers and semitrailers.[28] Again, the agency's summary confirms that this rulemaking would respond, in part, to petitions filed by IIHS, the Truck Safety Coalition, and Marianne Karth.[29] A Google search of "Docket ID: NHTSA-2015-0118" will allow for a review of the rule and the thirty-four public comments, virtually all of which are in support.

Within the rulemaking summary, the agency states that the new rule would upgrade the Federal Motor Vehicle Safety Standards that address rear underride protection in crashes into semitrailers.[30] More specifically, the stated goal of this rulemaking is to harmonize the U.S. standard with the existing 2004 Canadian underride guard strength testing requirements (from 30mph crash protection to 35 mph crash protection).[31]

A review of the comments demonstrates very little opposition because OEMs already meet the 15-year-old Canadian standard. The lack of opposition highlights the fact that NHTSA is seemingly not interested in challenging OEMS to come up with a better and safer underride solution, such as a guard that protects against a 40 mph crash. **The agency has taken no further regulatory action.**

2016 Truck Underride Roundtable & the "ToughGuard" Award

To help incentivize underride protection beyond regulatory minimums, the IIHS, TSC, and Anna Leah & Mary for Truck Safety hosted the first ever "Truck Underride Roundtable" on May 5, 2016. IIHS's Vehicle Research Center in Ruckersville, Virginia served as the host facility.

The aftermath of the first Truck Underride Rountable motivated trailer manufacturers to offer improvements to rear guards. As of October 1, 2018, all eight (8) major trailer manufacturers have passed IIHS tests exceeding regulatory standards and passed the IIHS 30% overlap, 35mph test.[32]

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[27] The photographs I took can be found with my public comment to the rulemaking at this link, https://www.regulations.gov/#!documentDetail;D=NHTSA-2015-0070-0075

[28] Department of Transportation, National Highway Traffic Safety Administration, Docket No. NHTSA-2015-0118, NPRM Upgrade Underride. https://www.regulations.gov/#!docketBrowser;rpp=25;po=0;dct=PS;D=NHTSA-2015-0118

[29] Id.

[30] Department of Transportation, National Highway Traffic Safety Administration, Docket No. NHTSA-2015-0118, NPRM Upgrade Underride. https://www.regulations.gov/#!documentDetail;D=NHTSA-2015-0118-0001

[31] Id.

[32] The test performed was a "30% overlap, offset at 35mph" crash test. 100% "overlap" no "offset" is when 100% of the car's bumper from the right side to the left side, interacts squarely with 100% of the back of the rear guard, again from right to left. In a real-world crash, however, the driver often attempts to steer away from the truck at the last minute. Assuming the car driver steers left, then only 50% or 30% of the right side of the passenger car's

IIHS announced the "ToughGuard" award and presented this accolade to each trailer manufacturer that passed the test.[33] The "ToughGuard winners have rear guards that prevent underride of a midsize car in three test modes: full-width, 50 percent overlap and 30 percent overlap."[34] Stoughton Trailers, LLC has taken it a step further and announced a retroactive kit that is now available for purchase and meets IIHS requirements. This aftermarket kit can be installed on its trailers dating back to 2007.[35]

Shortly after the announcement of the "ToughGuard" award, trailer manufacturers Hyundai Translead, Utility Trailer Manufacturing Co., and Strick Trailers, LLC approached the IIHS to set up crash tests to prove that their trailers likewise meet IIHS rear impact guard ("RIG") standards. IIHS publicly announced on September 27, 2018 that Strick Trailers, LLC was the last of the three remaining trailer manufacturers to pass the IIHS RIG standards. All eight (8) major trailer manufacturers represent approximately 80% of the trailers on U.S. roadways.[36]

2017 Truck Underride Roundtable 2 & the AngelWing SUG

For the first time, on March 30, 2017, IIHS tested a Side Underride Guard ("SUG"). The SUG inventor is Perry Ponder, a mechanical engineer from Tallahassee, Florida. The SUG brand name is the AngelWing. The company promoting the AngelWing is AirFlow Deflector with its principal place of business in Montreal, Canada. The March 30th 35 mph test with the SUG was a success. The very next day, on March 31, 2017, the IIHS performed a 35 mph test without the SUG. This test showed catastrophic results, sheering the top of the mid-size Chevy Malibu off the length of the vehicle all the way to the backseat. I personally attended both tests.[37]

On August 29, 2017, "Truck Underride Roundtable 2" was held and sponsored by the same entities as the first Truck Underride Roundtable. Those in attendance witnessed a 40 mph test of the AngelWing SUG. The test was a success. I participated as a member of the organizing committee for both Truck Underride Roundtables and as a Moderator at both as well. The focus of this

bumper interacts ("overlaps" or "offsets") with 50% of or 30% of the left portion of the rear guard. Past IIHS testing showed the majority of trailer manufacturers failed to prevent underride in offset crashes. Passenger compartment intrusion would occur along just one side of the car. Frequently, occupants not effected by the passenger compartment intrusion (particularly at lower speeds) can suffer no injury at all while those effected by the PCI can produce fatal consequences or catastrophic injuries. Trailer manufacturer engineers have worked toward preventing PCI even in these "offset" impacts.

[33] Press Release, Insurance Institute for Highway Safety, Highway Loss Data Institute, "IIHS Recognizes Semitrailers with Good Underride Guards," by Russ Rader, Senior Vice President, http://www.iihs.org/iihs/news/desktopnews/iihs-recognizes-semitrailers-with-good-underride-guards

[34] Id.

[35] Stoughton's improved rear guard probably saved the life of Terry S. Rivet on March 2, 2017. The tractor trailer jackknifed on slippery conditions on Interstate 90, and his car hit the rear of the trailer when that happened, but it prevented passenger car intrusion and the head injuries and deaths that otherwise would have occurred. Stoughton is an American owned company that builds its trailers in America.

[36] Press Release, Insurance Institute for Highway Safety, Highway Loss Data Institute, "All Major Trialer Makers Earn IIHS Award for Good Underride Protection," by Russ Rader, Senior Vice President, https://m.iihs.org/mobilenews/all-major-trailer-makers-earn-iihs-award-for-good-underride-protection

[37] Please go to this link to watch these test https://www.youtube.com/watch?v=jHNIhh8NsFs

Underride Roundtable was on SUGs, instead of the previous year's focus on rear impact guards. It was hoped that information from this event and the results of the SUG crash test would similarly encourage trailer manufacturers in the direction of adding side SUGs to their trailers. Wabash did introduce a prototype trailer with a lighter weight and cheaper SUG, but it is unknown if this is available for consumer purchase. I hope that Wabash and others trailer manufacturers have approached the IIHS to test their SUGs. At worst, the entire trucking industry can no longer feign ignorance of the catastrophic consequences of a collision resulting in occupant compartment intrusion. If trailer manufacturers are so keen to go beyond minimum compliance to protect the rear of the trailer from an underride, then why not the sides too?

Conclusion on Comments on the Stop Underrides Act of 2019

Truck drivers and truck companies should demand meaningful underride guards from trailer manufacturers. When the first point of impact is a car's windshield and thereafter the occupants' bodies inside, then the insurance minimums are incapable of protecting the truck company and truck drivers from potential exposure beyond insurance limits. Legislators must join safety advocates to encourage a demand for safer underride protection or help to push meaningful legislative or regulatory change that can finally put to rest the over 60 years of inaction by the industry. **Vehicle crash compatibility (making the car bumpers match up with the truck's side, front, and rear) is the only way** for a car's safety features to protect occupants when that car collides with a heavy commercial motor vehicle. I urge all Subcommittee Members join in supporting the Stop Underrides Act of 2019 to end 60 years of these preventable crashes.

Truck Drivers Benefit from an Increase in Insurance Minimums

The primary threat to a truck driver's life on the road is an unsafe or negligent *truck* driver. A 4,000 pound car hitting a truck will likely not cause the truck driver to lose his or her life. However, an 80,000 pound truck that causes a truck versus truck crash can cause the loss of a truck driver's life. As aforementioned, truck occupant deaths increased significantly over the last reported year. In fact, I just recently settled a case on behalf of a truck driver's family. The truck driver unfortunately burned alive and died in his truck cab because another truck driver was doing something incredibly and admittedly unsafe. Fortunately, the offending truck driver and truck company were from Canada and had enough insurance to net a $3.5 Million U.S. Dollar result for my truck driver client's family. Increasing insurance minimums will protect the truck driver and his family because the limits from 1980 are truly not enough to protect those catastrophically killed or injured in a truck crash. Moreover, increasing insurance minimums will also protect the taxpayer. In the 8-figure type catastrophic scenario, someone has to pick up the medical costs for anything beyond the insurance minimums. The negligent truck company's insurance should be that party, not the public, because that will directly incentivize safer trucking operations.

Interestingly, the Owner-Operators Independent Drivers Association ("OOIDA") represents members that belong to one of two groups. The majority of the membership are the true Owner-

Operator, someone who simply owns a tractor only. This Owner-Operator cannot hold himself or herself out as a for-hire motor carrier without motor carrier authority. As such, the majority of OOIDA's members are leased-on to a larger motor carrier under FMCSR 376.12. It is the larger motor carrier that must provide the insurance when the leased-on Owner-Operator is hauling freight in either the motor carrier's own trailers or a customer's trailer. The Owner-Operator then benefits when he or she is leased-on to a motor carrier that has more than the minimum insurance. Not only is he or she protected, but his or her equipment is protected under the blanket of a larger insurance policy. Similarly, and not aforementioned, the Owner-Operator would also benefit if the leased-on motor carrier's trailer has underride guards. Both the costs of the underride guard and the increased insurance does not fall on the back of the Owner-Operator, but onto the motor carrier to whom he or she is leased-on.

OOIDA's other group of members are smaller truck companies with motor carrier authority. These people are particularly vulnerable to civil liability verdicts that exceed insurance minimums because they are "mom and pop" type operations without deep pockets or significant assets. They typically do not have the ability to pay for catastrophic claims in the event that one of their drivers causes an underride crash, catastrophic injury, or fatality that exceeds minimum insurance. Increasing insurance minimums will further protect them from financial ruin. I doubt that we will hear OOIDA take this stance because OOIDA writes insurance policies typically just above the insurance minimum at $1,000,000.00. OOIDA also profits from writing these policies. OOIDA's insurance arm likely does not want increased insurance minimums. I am hopeful that Subcommittee Members will address this topic during the question answer session so that OOIDA's representative and I can have a friendly debate on this issue. I hope to persuade OOIDA to change their stance in opposition to insurance minimums and that Subcommittee Members will keep in mind the various hats that the OOIDA representative wears when providing testimony on this issue on behalf of its varied membership.

The minimum insurance level set in 1980 for general freight motor carriers is $750,000.00 per accident. This insurance minimum, untouched since the Motor Carrier Act of 1980 was enacted by Congress, has **never** been adjusted to keep pace with inflation and is now completely inadequate. Had the $750,000 limit automatically increased each year for inflation, today minimum insurance coverage for trucking operations would be about $2,400,000.00.[38] Most truck companies have not increased their insurance coverage with inflation and, instead, carry about $1,000,000.00 in coverage. That is not enough. While responsible companies and drivers carry much more than $1,000,000.00 in coverage, too many companies do not. The insurance minimum covers all persons injured in the crash, and the current $750,000.00 is woefully inadequate in cases involving serious medical injury. This is especially true in crashes involving multiple vehicles which can result in catastrophic injuries and even deaths.

Take into consideration an unsafe truck driver that causes a multi-vehicle crash that results in four (4) fatalities or more. The minimum insurance does very little for these innocent victims' families. In fact, broker/shippers then shoulder the burden of these multi-fatality crashes because the truck

[38] Determined using the Department of Labor, Bureau of Labor Statistics "CPI Inflation Calculator" at https://data.bls.gov/cgi-bin/cpicalc.pl

driver who killed these four people was presumably an unsafe driver or driving for an unsafe company that should **not** have been hired. Moreover, the public CSA data likely showed this company held Out-of-Service rates that exceeded national averages, so the broker/shipper had no business hiring such a truck company in the first place, unless they had an economic incentive to do so.

In 2014, the FMCSA released a report to Congress that examined the adequacy of the current financial responsibility requirements for motor carriers. The conclusion was clear: today, the costs of injuries and fatalities arising from crashes far exceeds the minimum insurance levels interstate operators are required to carry. These costs are real and are often in the form of the cost of medical care, which in the case of a catastrophic injury is shifted from the negligent wrongdoer to the taxpayer funded programs such as Medicare or Social Security Disability. Worse yet, when there is insufficient compensation, families, including truck drivers, are forced to declare bankruptcy or rely on government programs after being financially drained.

Lastly, raising the trucking insurance minimums will give insurance companies real incentives to enforce safety, with the effect of providing crash victims better compensation for their injuries. This includes truck drivers who I have repeatedly stated are victims of truck crashes too!

I urge this Subcommittee to require the FMCSA to reinstate its Advanced Notice of Proposed Rulemaking ("ANPRM") to increase the minimum financial responsibility requirements for motor carriers. Or, as an alternative, members of the Subcommittee can direct the Secretary of Transportation to take immediate action to index the minimum level to inflation, which can be accomplished without a rulemaking.

A "National Hiring Standard" for Broker/Shippers is Misleading

As the title of this Hearing indicates, truck drivers and the trucking industry are "Under Pressure." In reality, while the proposed national hiring standard sounds like it is pro-safety, it is deceptive and dangerous and will neither enhance interstate commerce nor truly create a "national hiring standard." It disguises the indemnification of broker/shippers as the creation of a national safety standard. The "standards" offered contain no safety performance data and restrict those who have been adversely impacted in a truck crash, including truck drivers.

An increase in "pressure on the State of Trucking in America" would be to create a "national hiring standard" that further insulates broker/shippers from the responsibility of making sure their freight is shipped safely. A cheap motor carrier offers lower freight rates simply because they are skimping somewhere to keep their profit margins. Skimping anywhere usually implies safety is the first to be sacrificed. They use worn out equipment, undertrained drivers, and dangerous drivers. It is frequently the demands of the brokers/shippers to get freight to its destination "on time" that creates the pressures discussed at this Hearing. All of us in this room and all of the constituents represented by the Members of this Subcommittee are somewhat guilty of hitting the "next day shipping" button on the website vendor's payment and shipment page, further putting pressure on truck drivers and truck companies. Insulating broker/shippers from liability will

increase the danger on the roads by allowing them to put further pressure on trucking companies to reduce costs and race to the delivery point in time without having any responsibility for choosing the cheapest, fastest carriers. This perpetuates the risks to the truck driver and the motoring public. Broker/shippers are not subject to the FMCSRs the same way as a truck driver and motor carrier. It is unfortunate as many truck drivers and truck companies violate the FMCSRs just to keep the relationship with the broker/shippers. In this scenario, "the customer is always right" does not apply. It is frequently the broker/shippers that ask, encourage, or coerce truck drivers and truck companies to violate safety policy. If the trucking company will not compromise its safety practices with cheaper equipment, cheaper drivers and faster driving, the broker/shipper just picks a competitor who will—which spirals safety on the roads downward and puts responsible trucking companies at an unfair competitive disadvantage. We cannot encourage broker/shippers by immunizing them from liability which would allow them to push truck drivers and truck companies even harder to haul freight unsafely.

Broker/shippers are third-party intermediaries responsible for hiring the companies and the drivers who transport goods on our highways. The broker/shippers do not own the goods that are being transported, nor do they physically transport the goods. Instead, the broker/shipper facilitates and coordinates the shipment of goods in various capacities, including hiring the truckers providing transport. In many instances, the broker/shipper will choose the cheapest option, hiring independent contractors and fly-by-night companies with horrible safety records. These contractors frequently disappear or declare bankruptcy when a lawsuit is filed. Immunizing the third-party broker/shipper, which is sometimes the only party that can be held responsible for any wrongdoing in the shipping process, shifts responsibility to the underinsured truckers and leaves motorists hurt or killed on the road without sufficient remedy or recovery. This arrangement shifts the burden of the loss onto the taxpayers through government programs or increased health insurance rates.

The broker/shippers have been asking Congress to establish a so-called "national hiring standard." This would be a mistake, essentially providing immunity to the broker/shipper who meets a meaningless set of criteria with respect to hiring a trucking company. The criteria are meaningless because they are already required by law and because the safety fitness determination program is seemingly non-existent. The "national hiring standard" proposal does not create any new standards to determine if trucks are safe, but instead uses the old FMCSA standards that are "outdated" to avoid liability.

Indeed, no process exists right now for a safety determination rating because the FMCSA rulemaking that would have established the standard has been dropped. This makes the public information on the Compliance, Safety, Accountability/Safety Measurement System, FMCSA website, all the more relevant. Congress should not bury a motor carrier's safety score from public view. Instead, the public and broker/shippers should easily be able to see a motor carrier's true scores and make wise decisions based on them. Moreover, if a truck driver is intending to apply for a job with a motor carrier, he or she should also be able to see the public safety scores of the truck company he or she is applying to work for so he or she can make an informed choice to

choose to work for a safe trucking company. The safe trucking companies, which are the majority, should also encourage CSA/SMS scores to remain public for all of these same reasons.

The so-called "national hiring standard" does not increase safety standards or ensure that trucks are safe. Instead it's an immunity provision that further erodes public safety.

Speed Limiters Reduce Crash Risk and Saves Money

Since truck drivers are typically paid by the mile, there is a strong incentive to drive too fast. In my home State of Ohio, Legislators are incorporating into the budget a possible increase of the speed on Ohio's highways to 75 mph. Of note, it has been reported that the Ohio Trucking Association is behind the push for the speed limit increase. Why? Because the new electronic logging device ("ELD") mandate makes it harder to distort on hours-of-service ("HOS") requirements. Per mile compensation always encouraged unsafe truck drivers to falsify logs and go farther and get the extra pay by mile. Now that it is harder to distort the HOS with the ELD mandate, unsafe truck drivers are incentivized to make up the difference by driving faster to achieve more miles and more pay.

High speeds are a significant contributing factor to high fatality rates on our nation's roads. Consider the fact that NHTSA and the IIHS only crash test vehicles at 45 mph or less. The human body cannot sustain crashes at higher speeds. Just ask NHTSA and IIHS why they do not crash test at higher speeds? Their answer will likely be similar. An increase in speed limits on highways does not make any sense because even the safest vehicles will not protect occupants. Yet state by state speed limits are increasing throughout the country. With increased speeds on our nation's roadways, we have 80,000-pound trucks driving at increased speeds too. Unfortunately, I regularly see truck drivers tweet photographs onto social media platforms showing their truck's speedometer topping out above 80 mph. Not only is the truck driver speeding, he or she is recklessly taking photographs and tweeting about it too!

My truck is an older, classic Peterbilt. I have it deliberately governed at a maximum speed that is less than the 70 mph Ohio's highways allow. I will tell you from a truck driver's perspective, there is no reason to go 70 mph or greater unless there is an economic incentive to do so. Unfortunately, that equates to a disincentive for the safety of the truck driver and the motoring public.

On September 28, 2016, both the FMCSA and NHTSA filed an NPRM requiring the installation of speed limiting devices in heavy vehicles.[39] A comment period elicited over 2,250 comments debating the merits of the proposal and to garner feedback as to whether speeds should be limited to 60, 65, or 68 mph.[40] The rulemaking was a response to petitions from the ATA and Roadsafe

[39] Department of Transportation, National Highway Traffic Safety Administration, Docket No. NHTSA-2015-0188, https//www.regulations.gov/docket?D=NHTSA.2016-0087

[40] "Suggesting 60-68 mph, FMCSA, NHTSA propose truck speed limiters" FleetOwner, August 26, 2016, www.//m.fleetowner.com/regulations/suggesting-60-68-mph-fmcsa-nhtsa-propose-truck-speed-limiters

America. It is estimated that limiting truck speeds will prevent 1,115 fatal truck crashes annually.[41] **Both agencies have taken no further regulatory action.**

There is no cost to speed limit a truck. In fact, most larger truck companies have already figured out that a speed limited truck at a lower speed saves exponentially on fuel and adds to the bottom line. Speed limiters improve a truck company's profitability and safety. Please mandate speed limiters to protect truck drivers, particularly the younger and newer truck drivers, from going at speeds that will get them and likely others killed.

Automatic Emergency Braking Will Save Lives

The top three causes of truck crashes are rear end collisions, lane departures, and rollover accidents.[42] OEMs continue to introduce safety technology to prevent each of the top three causes of crashes, including automatic emergency braking, lane departure warning, and electronic stability control systems, the latter of which is already mandated. Rear end collisions are listed as the top cause of truck crashes annually, accounting for approximately 33,000 or 23.1% of all truck wrecks.[43] Automatic Emergency Braking ("AEB") technology is proving to have great success at preventing rear-end collisions. It is anticipated that once this Subcommittee's Members mandate automatic emergency braking, rear end collisions will no longer top this list.

18 Years of Forward Collision Avoidance Technology

Early collision warning systems have been in existence for well over a decade. Penske Logistics announced on September 18, 2001 (almost 18 years ago) that it was installing collision warning system equipment on its entire tractor fleet.[44] At that time, Penske Logistics' Vice President of Safety, Paul Pentazer, was quoted as stating, "we feel so strongly about the benefits…we now include it as standard equipment on all new tractor orders."[45] This older technology did not include automatic emergency braking. Forward collision warning technology (without automatic braking) simply emits an urgent audible alert with a driver display to warn the driver of an impending collision or that the driver's following distance is unsafe.

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[41] Department of Transportation, National Highway Traffic Safety Administration, Docket No. NHTSA-2015-0188, https://www.regulations.gov/docket?D=NHTSA-2016-0087

[42] James Hedlund and Daniel Blower, *The Large Truck Crash Causation Study (LTCCS) Analysis Series: Using LTCCS Data for Statistical Analyses of Crash Risk,* January 2006, Office of Information Management, Publication #: FMCSA-RI-05-037, "Table 4 – Estimated Number of Truck Crashes by Crash Type."

[43] Id.

[44] "Penske Logistics to Install Eaton Vorad Collision Warning System Throughout Tractor Fleet Following Successful Pilot Program with Whirlpool Corporation." Published September 18, 2001, https://www.prnewswire.com/news-releases/penske-logistics-to-install-eatonr-voradr-collision-warning-system-throughout-fleet-followign-successful-pilot-program-with0-whirlpool-corporation-72060747.html Note to Reader: The Vorad from Eaton was acquired by Bendix Commercial Vehicle Systems, LLC (an Elyria, Ohio based company) in 2009.

[45] Id.

Collision Warning/Mitigation encompasses three related technologies: 1) Forward Collision Warning/Alert Systems; 2) Adaptive Cruise Control; and, 3) Collision Mitigation Systems.[46] Forward Collision Warning is the most basic, simply alerting drivers (both audibly and visually, on an in-cab display) that a rear end collision is imminent. Adaptive Cruise Control allows a truck to maintain a set time-gap between it and a vehicle in front of it, by automatically decelerating if the other vehicle slows down and re-accelerating (up to a set speed) if the other vehicle speeds up or switches lanes. The most advanced systems alert drivers to potential conflicts with objects **and** automatically initiate emergency braking to stop the commercial vehicle from causing a rear-end collision or, at a minimum, reduce the severity of the crash.

On-board radar is mounted in the front bumper to detect vehicles up to 500 feet in front of the truck.[47] Earlier radar systems could only track metallic vehicles and had a tendency to miss smaller vehicles such as motorcycles and bicycles. Radar systems were unable to detect pedestrians. Technology evolved allowing for camera-based systems with enhanced detection capabilities that will also detect pedestrians and bicyclists.[48] Fleet acquisition managers now have the option to install both of these advanced technologies for the safest overall operation.[49]

Going too fast and not allowing for a safe stopping distance are primary causes of rear end collisions. In 2016, advanced camera-based technology was introduced that reads and compares the posted speed limit to the truck's real-time speed.[50] An audible alert is issued to the truck driver when the truck is more than 5 mph over the posted speed limit. If the truck is more than 10 mph over the speed limit, the audible alert is accompanied with a one-second speed reduction (automated engine throttle reduction) to slow down the truck and refocus the driver's attention.[51]

Choosing to Stop Short of a Collision with Automatic Emergency Braking

The choices made by a truck company's fleet acquisition personnel demonstrate whether a truck company prioritizes crash avoidance. FCAM technology with AEB is currently available as a market option when purchasing equipment from an OEM. By choosing to install FCAM technology, a trucking company's purchasing decision can dramatically reduce the number of preventable rear end collisions or at the least, reduce crash severity, likely preventing a fatality.

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[46] 2014 Freightliner Cascadia's Driver's Manual, Publication Number STI-478-6 (2/13), Part Number STI 478, Page 6.1, Daimler Trucks North America, LLC

[47] Meritor WABCO "OnGuard", http://www.meritorwabco.com/Product, 2,15,2,OnGuard%e84%a2-Collision-Safety-Systems-.aspx; Bendix "Wingman Advance", http://www.bendix.com/en/products/acb/wingmanadvanced_1.jsp

[48] "Development of a Camera-Based Forward Collision Alert System" General Motors Company and Mobileeye Vision Technologies, Ltd.; http://www.mobileye.com/technology/applications/vehicledetection/forward-collision-warning/.

[49] "Freightliner Detroit Assurance Suite of Safety Systems" https://freightliner.com/demand-detroit/detroit-assurance-suite-of-safety-systems/

[50] "Bendix Takes Wingman Collision Avoidance Tech To Next Level, Includes Auto Slowdown for Speeding." Overdrive Magazine, http://www.overdriveonline.com/bendix-takes-wingman-collision-avoidancetech-to-next-level-includes-auto-slow-down-for-speeding/

[51] Id.

Bendix Wingman Advance and Meritor WABCO's OnGuard are the two leading FCAM options available to install on fleet equipment.

According to Dean Newell, Vice President of Safety, Maverick USA, "we have seen a clear downward trend in rear end incidents since we started putting OnGuard systems on our trucks…our rear end accidents were at a rate of 0.09 per million miles in 2008, and they went down to 0.06 per million miles in 2011."[52] Jim Boyd, manager of fleet technical services at Southwester Freight (a 3,000 unit motor carrier), utilizes both Bendix and Meritor WABCO collision avoidance systems, giving them a positive review. He has been quoted as saying the systems "might not completely help you avoid a crash, but they certainly can take some of the speed out of a crash. We feel like our success with the systems has already made a positive impact on accident reduction."[53] An FMCSA study found that between 8,597 and 18,013 rear end crashes could be prevented annually with the use of Forward Collision Warning systems.[54]

Automatic Emergency Braking Mandate Needed

NHTSA along with the Virginia Tech Transportation Institute completed a year-long test of trucks equipped with collision avoidance systems. The test was a success and involved 150 trucks, more than 100 drivers from 7 unidentified motor carriers traveling and producing 3 million miles of data, with no rear end crashes.[55] NHTSA reported that fleet safety managers should recommend crash avoidance system technology with new fleet acquisitions.[56]

On October 16, 2015, NHTSA granted a petition submitted by truck safety advocates "to establish a safety standard to require automatic forward collision avoidance and mitigation systems on certain heavy vehicles."[57] The ATA's former Director of Engineering publicly proclaimed that, "ATA strongly believes that preventing rear-end crashes is a far better strategic goal than mitigating them and strongly recommends that all vehicles (light and heavy) be equipped with forward collision warning and mitigation braking technology."[58]

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[52] The American Trucking Associations, Transport Topics, *Anti-Crash Systems Proliferate as Fleets See Safety Benefits*, January 23, 2012.

[53] The American Trucking Associations, Transport Topics, *Collision Avoidance Systems Succeed in NHTSA Field Test*, page 23, June 20, 2016.

[54] "Benefit-Cost Analyses of Onboard Safety Systems," by Amy Houser (MC-RRT), February 2009, Federal Motor Safety Administration Office of Analysis, Research and Technology.

[55] The United States Department of Transportation, National Highway Traffic Safety Administration, "Field Study of Heavy-Vehicle Crash Avoidance Systems" DOT HS 812 280, June 2016; The American Trucking Associations, Transport Topics, *Collision Avoidance Systems Succeed in NHTSA Field Test,"* page 1, June 20, 2016.

[56] Id.

[57] The United States Department of Transportation, National Highway Traffic Safety Administration, Grant of Petition for Rulemaking, "Federal Motor Vehicle Safety Standard; Automatic Emergency Braking." DOCKET NO. NHTSA-2015-0118. https://www.regulations.gov/document?D=NHTSA-2015-0099.

[58] Ted Scott, Director of Engineering, American Trucking Associations, February 5, 2016 Public Comment on NHTSA Federal Motor Vehicle Safety Standards: FMVSS No. 223 and 224 Rear Impact Guards, Rear Impact Protection, DOCKET NO. NHTSA-2015-0118. https://www.regulations.gov/document?D=NTHSA-2015-0118-0015 Please note that Ted Scott has since passed away, may he rest in peace.

All too often the bad apple spoils the bunch and we hear about a truck driver who is drowsy, distracted, drunk or drugged causing a collision resulting in multiple fatalities. For example, on June 25, 2015, truck driver Benjamin Brewer was reported to have been awake 55 hours straight and on methamphetamine when he caused six fatalities after rear ending seven vehicles that had stopped in a construction zone.[59] Truck driver John Wayne Johnson was charged with a rear-end crash that took the lives of five Georgia Southern University nursing students and severely injured two others in an April 2015 crash.[60]

AEB is a proven technology endorsed by many in the trucking industry. A mandate for AEB on all new trucks will clearly ease the pressure on "the State of Trucking in America." Unfortunately, in spite of various studies, the granting of a petition, and the support of many in the industry, NHTSA has taken no further regulatory action on this issue. How many more people need to die before a mandate? It is imperative that Members require NHTSA to take immediate action on this issue. The European Union mandated all new trucks to be equipped with AEB beginning in 2015. We are now several years beyond that. Why is Europe protecting its motoring public and we are not?

Conclusion

The fact that truck drivers are victims of crashes is an important point to consider. Not only are they on the receiving end of truck vs. truck crashes, but they suffer lifelong consequences when they are on the giving end. Speed Limiters are a simple fix, cost no money, and will protect truck drivers and the motoring public from harm. Speed limiters are supported by many in the industry as being cost effective, efficient, profitable and safe. AEB is also a simple fix. Mandating this technology will clearly reduce crashes and fatalities and is supported by many in the trucking industry.

Nearly 40 years is too long to keep insurance minimums from increasing, especially considering the effect of inflation and the huge increase in truck volume and traffic. Victim truck drivers and the motoring public deserve to have their families protected with increased insurance minimums.

Lastly, 60 years is far too long to ignore the very real problems of vehicle crash incompatibility. We need to have underride guards that allow the safety engineering of passenger cars to interact with safety features of trucks, so that all of those features can work together to protect vehicle occupants. The fact that many catastrophic injuries and deaths are easily and affordably preventable, yet nobody is doing anything to prevent them, is simply unconscionable.

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[59] Shelly Bradbury and Alex Green, "Death on the Highway: Six People Died When A Tractor-Trailer Slammed Into Traffic on June 25 – But the Crash Was One of Many, And It Will Happen Again," Chattanooga Times Free Press, December 20, 2015.

[60] American Trucking Associations, Transport Topics, *Driver, Company Indicted in 2015 Truck Crash That Killed Five*, page 23, June 20, 2016.

Each of the items discussed here will help achieve the "Vision Zero" initiatives all over the country. I hope Members of this Subcommittee sense and realize the urgency needed to fix these issues without further delay.

I would like to recognize those in this room that are not here today because their choice in a job have led them to this Hearing. They are the family members of victims of truck crashes. Christa Hammack (lost her daughter, Erin Alexander in a side underride in Texas on May 4, 2018) is here with her younger daughter, Abigayle. Marianne Karth (lost her daughters AnnaLeah and Mary in a rear underride in Georgia on May 4, 2013) is here with her daughter Rebekah Chojnacki (pronounced Hoy Not Ski). Unfortunately, her husband Jerry Karth could not be here, but needs recognition and thanks as well. Also, Lois Durso could not be here today, but has been tirelessly working with Marianne to raise underride awareness here in DC after losing her daughter Roya Sadigh in a side underride on November 24, 2004. These individuals, in particular, have more courage than anyone I have ever met and deserve thanks and recognition for their work to prevent others from experiencing the same grief they have felt since the fateful day their loved ones perished.

"Under Pressure: The State of Trucking in America" needs to have the pressure relief valve released. These safety initiatives help. They help your constituents, the motoring public, and the truck driver. Help the truck drivers of America by co-sponsoring the Stop Underrides Act of 2019 and move forward these other initiatives! No longer can Congress, NHTSA, FMCSA, and the trucking industry sit idle on these important issues. Your decisive action is desperately needed to save lives and truck driver livelihoods. I thank you all for the opportunity to testify before you today and I welcome any and all questions, even the most challenging ones. Thank you again!

Respectfully submitted,

Andy Young

APPENDIX A

Truck Underride Prevention Attempts

Historical Chronology

1953	First federal standard requires underride guards for both combination tractor-trailers and single-unit trucks, but includes no strength testing requirements.
1967	Actress Jayne Mansfield dies in a rear underride truck crash.
1969	National Highway Safety Bureau (precursor to NHTSA) proposes guards on combination tractor-trailers and single-unit trucks with 18-inch max clearance; predicts side guards will be added after further research.
1971	NHTSA abandons 1069 rulemaking.
1972	NTSB recommends NHTSA require energy-absorbing underride and override barriers.
1976	IIHS crashes Ford Granada into tractor-trailer with improved, prototype guard that prevents underride. Same test with federally compliant guard results in severe underride.
1977	IIHS petitions NHTSA for a new rear underride standard.
1981	NHTSA issues proposal to upgrade underride protection requirement.
1986	IIHS study shows rear guards designed to prevent underride work well on British rigs.
1996	NHTSA issues new standard effective 1998, covering combination tractor-trailers and requiring 22-inch max clearance and strength testing. The standard does not affect single-unit trucks. They remain under the 1953 standard.
2004	Transport Canada issues standard after crash tests show U.S. standards is insufficient. Canadian rule approximately double strength requirements.
2010-12	IISH testing shows guards can fail in 35 mph impacts. Guards on Manac trailers are the only one from the 8 largest manufacturers to prevent severe underride in 30% overlap test.
2011	IIHS petitions NHTSA for improvements to standard for rear underride protection.
2013	NHTSA releases study, “Heavy-vehicle crash data collection and analysis to characterize rear and side underride and front override in fatal truck crashes.”

April 3, 2013 NTSB urges NHTSA to take action to improve underride guards, including side underride guards.

May 5, 2014 Marianne Karth and the Truck Safety Coalition submit their own petition for underride rulemaking.

July 23, 2015 In an advanced notice of proposed rulemaking, NHTSA suggests rear underride guards would not be cost effective on single-unit trucks.

Dec. 16, 2015 NHTSA proposes adopting Canadian underride guard requirements for combination tractor-trailers only.

May 5, 2016 IIHS, AnnaLeah & Mary for Truck Safety, and Truck Safety Coalition host industry-wide, Underride Roundtable to identify solutions to this six decade long concern.

March 1, 2017 IIHS announces and presents its ToughGuard Award to five (5) national trailer manufacturers. Trailers that qualify for the ToughGuard Award have rear guards that prevent underride of a midsize car in three test modes – full-width, 50 percent overlap, and 30 percent overlap at 35 mph

Mar. 30, 2017 IIHS performs a successful 35 mph crash test of a Chevy Malibu into the side of a semi-trailer with an aftermarket side guard crash attenuator named AngelWing Underride Protection. The test was performed with the AngelWing inventor, Perry Ponder, and Robert Martineau, CEO of AirFlow, a Side Guard Manufacturer.

Mar. 31, 2017 IIHS performs a similar test as the day before, however this test was performed without the Side Guard demonstrating the catastrophic and fatal consequences of underride truck crashes.

Aug. 29, 2017 IIHS, AnnaLeah & Mary for Truck Safety, and the Truck Safety Coalition host the 2nd Underride Roundtable to further identify solutions to the issues associated with side underride and passenger compartment intrusion. IIHS performed a successful 40 mph crash test of a Chevy Malibu into the side of a semi-trailer with an aftermarket AngelWing Underride Protection side guard.

Dec. 12, 2017 "Stop Underrides Act of 2017" was introduced into both the House and Senate.

Sept. 29, 2018 IIHS announces all eight (8) major trailer manufacturers have earned the ToughGuard Award for rear underride guards, exceeding FMVSS standards.

March 5, 2019 "Stop Underrides Act of 2019" was introduced into both the House and Senate.

Mar. 26, 2019 AnnaLeah & Mary for Truck Safety host in Washington, D.C. three (3) grassroots crash tests into the sides of trailers, two with side underride guards, and one without a side underride guard.

June 2019 NHTSA **withdraws** the advanced notice of proposed rulemaking to amend the FMVSS to single-unit trucks to be equipped with improved rear guards.

June 12, 2019 The House Committee on Transportation and Infrastructure's Subcommittee on Highways and Transit hold a hearing titled, "Under Pressure: The State of Trucking America" to allow for testimony on safety initiatives including the Stop Underrides Act of 2019.