ADVOCATES
FOR HIGHWAY
& AUTO SAFETY

June 7, 2022

The Honorable Eleanor Holmes Norton, Chair
The Honorable Rodney Davis, Ranking Member
Subcommittee on Highways and Transit
Committee on Transportation and Infrastructure
U.S. House of Representatives
Washington, D.C. 20515

Dear Chair Norton and Ranking Member Davis:

Thank you for holding tomorrow's hearing, "Addressing the Roadway Safety Crisis: Building Safer Roads for All." We respectfully request that this letter be included in the hearing record.

Advocates for Highway and Auto Safety (Advocates) is a coalition of public health, safety, law enforcement, and consumer organizations, insurers and insurance agents that promotes highway and auto safety through the adoption of federal and state laws, policies and regulations. Advocates is unique both in its board composition and its mission of advancing safe vehicles, safe motorists and road users, and safe roadway environments.

The current dangerous and deadly condition of our roadways require urgent action by our nation's leaders. Advocates commends this Subcommittee and the full Committee on Transportation and Infrastructure for including numerous provisions in the Investing in a New Vision for the Environment and Surface Transportation in America (INVEST in America) Act[1] which were advanced in the Infrastructure Investment and Jobs Act (IIJA), signed into law last November, that will improve safety and strengthen our nation's roadway infrastructure.[2] Since that time, Advocates and others have repeatedly urged the U.S. Department of Transportation (U.S. DOT) to swiftly move forward with the Congressional directives on the safety provisions. Additionally, there are still more improvements Congress can advance, and we again appreciate your leadership in holding this hearing to provide an opportunity to solicit expertise and recommendations on ways to build safer roads.

Our Nation's Roads are Dangerous and Deadly.

As noted in the May 17, 2022 statement by Chair Norton and House Transportation and Infrastructure Committee Chair DeFazio, "[t]he staggering number of deaths occurring on our nation's roadways is an ongoing crisis that demands urgent attention."[3] According to recently released data from the National Highway Traffic Safety Administration (NHTSA), 42,915 people were killed in motor vehicle crashes in 2021.[4] This represents a 10.5 percent increase

[1] H.R. 3684, 117th Cong., 1st Sess. (2021).
[2] Pub. Law 117-58 (2021).
[3] Chairs DeFazio and Norton Statement on 16-Year High Traffic Fatalities (May 17, 2022).
[4] Early Estimate of Motor Vehicle Traffic Fatalities in 2021, NHTSA, Apr. 2022, DOT HS 813 283.

from 2020 and the highest number of deaths since 2005.[5] In addition, fatalities across a number of categories increased from 2020 to 2021 including pedestrians (13 percent), motorcyclist (nine percent), pedalcyclist (five percent), speeding (five percent), alcohol-involved crashes (five percent) and unrestrained occupants of passenger vehicles (three percent).[6] Moreover, an estimated 2.28 million more were injured in traffic crashes in 2020, the latest year for which data is available.[7]

Not only does this carnage inflict tremendous physical and emotional hardship, but it also imposes a substantial economic toll. The NHTSA currently values each life lost in a crash at $11.8 million.[8] The crashes, injuries and fatalities being experienced on our roadways inflict a financial burden of well over $800 billion in total costs to society -- $292 billion of which are direct economic costs.[9] This is equivalent to a "crash tax" of $877 on every person living in the U.S. with total costs reaching nearly a trillion dollars annually when adjusted solely for inflation.[10] Further, in 2019, crashes alone cost employers $72.2 billion.[11]

In 2021, over 5,000 people were killed in crashes involving a large truck.[12] This represents a 13 percent increase over 2020.[13] Since 2009, the number of fatalities in large truck crashes has increased by 66 percent.[14] Additionally, nearly 147,000 people were injured in crashes involving a large truck in 2020, the latest year for which data is available.[15] The Insurance Institute for Highway Safety (IIHS) reports that in fatal two-vehicle crashes involving a large truck and a car, 97 percent of the deaths are the occupants of the passenger vehicle.[16] Moreover, according to the U.S. Department of Labor, truck driving is one of the most dangerous occupations in the U.S.[17] The cost to society from crashes involving large trucks and buses was estimated to be $163 billion in 2019, the latest year for which data is available.[18] When adjusted solely for inflation, this figure amounts to over $180 billion.[19]

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[5] *Id.*

[6] Early Estimates of Motor Vehicle Traffic Fatalities And Fatality Rate by Sub-Categories in 2021, NHTSA, May 2022, DOT HS 813 298.

[7] Stewart, T. (2022, March). Overview of motor vehicle crashes in 2020 (Report No. DOT HS 813 266). National Highway Traffic Safety Administration.

[8] John Putnam, DOT Deputy General Counsel, Guidance on the Treatment of the Economic Value of a Statistical Life (VSL) in U.S. Department of Transportation Analyses – 2021 Update.

[9] Economic costs include lost productivity, medical costs, legal and court costs, emergency service costs, insurance administration costs, congestion costs, property damage, and workplace losses.

[10] "The Economic and Societal Impact of Motor Vehicle Crashes, 2010," NHTSA (2015).

[11] Cost of Motor Vehicle Crashes to Employers 2019, Network of Employers for Traffic Safety, March 2021.

[12] Traffic Safety Facts: Crash Stats; Early Estimates of Motor Vehicle Traffic Fatalities and Fatality Rate by Sub-Categories in 2021, NHTSA, May 2022, DOT HS 813 298.

[13] *Id.*

[14] *Id*. and Traffic Safety Facts 2019: A Compilations of Motor Vehicle Crash Data, NHTSA, Aug. 2021, DOT HS 813 141. Note, the 45 percent figure represents the overall change in the number of fatalities in large truck involved crashes from 2009 to 2021. However, between 2015 and 2016 there was a change in data collection at U.S. DOT that could affect this calculation. From 2009 to 2015 the number of fatalities in truck involved crashes increased by 21 percent and between 2016 to 2021, it increased by 20 percent.

[15] Traffic Safety Facts, 2020 Data: Large Trucks, NHTSA, Apr. 2022, DOT HS 813 286.

[16] IIHS, Large Trucks, available at: https://www.iihs.org/topics/large-trucks.

[17] U.S. Department of Labor, Bureau of Labor Statistics, National Census of Fatal Occupational Injuries in 2020, USDL-21-2145 (Dec. 16, 2021).

[18] 2021 Pocket Guide to Large Truck and Bus Statistics, FMCSA, Dec. 2021, RRA-21-004.

[19] CPI Inflation Calculator, BLS, available at https://www.bls.gov/data/inflation_calculator.htm.

Any Proposals to Increase Federal Truck Size and Weight Limits Will Result in More Carnage on our Roadways and Increased Damage to our Infrastructure. They Must be Rejected.

Overweight trucks disproportionately damage our badly deteriorated roads and bridges. According to the 2021 Infrastructure Report Card from the American Society of Civil Engineers, America's roads receive a grade of "D," and our bridges were given a "C."[20] Nearly 40 percent of our 615,000 bridges in the National Bridge Inventory are 50 years or older, and one out of 11 is structurally deficient.[21] An 18,000-pound truck axle does over 3,000 times more damage to pavement than a typical passenger vehicle axle.[22] Federal limits on the weight and size of commercial motor vehicles (CMVs) are intended to protect truck drivers, the traveling public and America's roads, bridges and other infrastructure components. Yet, provisions allowing larger and heavier trucks that violate or circumvent these federal laws to operate in certain states or for specific industries have often been tucked into must-pass bills to avoid public scrutiny.

Raising truck weight or size limits could result in an increased prevalence and severity of crashes. Longer trucks come with operational difficulties such as requiring more time to pass, having larger blind spots, crossing into adjacent lanes, swinging into opposing lanes on curves and turns, and taking a longer distance to adequately brake. In fact, double trailer trucks have an 11 percent higher fatal crash rate than single trailer trucks.[23] Overweight trucks also pose serious safety risks. In 2021, violations related to tires and/or brakes accounted for 10 of the top 20 most common vehicle out-of-service (OOS) violations.[24] According to a North Carolina study by IIHS, trucks with out-of-service violations are 362 percent more likely to be involved in a crash.[25] This is also troubling considering that tractor-trailers moving at 60 miles-per-hour (MPH) are required to stop in 310 feet – the length of a football field – once the brakes are applied.[26] Actual stopping distances are often much longer due to driver response time before braking and the common problem that truck brakes are often not in adequate working condition.

There is overwhelming opposition to any increases to truck size and weight limits. The public, local government officials, safety, consumer and public health groups, law enforcement, first responders, truck drivers and labor representatives, families of truck crash victims and survivors, and even Congress on a bipartisan level have all rejected attempts to increase truck size and weight. Also, the technical reports released in June 2015 from the U.S. DOT Comprehensive Truck Size and Weight Study concluded there is a "profound" lack of data from which to quantify the safety impact of larger or heavier trucks and consequently recommended that no

[20] 2021 Infrastructure Report Card – Bridges, American Society of Civil Engineers (ASCE); 2021 Infrastructure Report Card – Roads, ASCE.
[21] 2021 Infrastructure Report Card – Bridges (ASCE).
[22] Equivalent Single Axle Load, Pavement Interactive, Aug. 15, 2007, available at http://www.pavementinteractive.org/equivalent-single-axle-load/.
[23] An Analysis of Truck Size and Weight: Phase I – Safety, Multimodal Transportation & Infrastructure Consortium, November 2013; Memorandum from J. Matthews, Rahall Appalachian Transportation Institute, Sep. 29, 2014.
[24] Roadside Inspections, Vehicle Violations: All Trucks Roadside Inspections, Vehicle Violations (2021), FMCSA.
[25] Teoh E, Carter D, Smith S and McCartt A, Crash risk factors for interstate large trucks in North Carolina, Journal of Safety Research (2017).
[26] Code of Federal Regulations (CFR) Title 49 Part 571 Section 121: Standard No. 121 Air brake systems (FMVSS 121).

changes in the relevant truck size and weight laws and regulations be considered until data limitations are overcome.[27]

It is clear that increasing truck size and weight will exacerbate safety and infrastructure problems, negate potential benefits from investments in roads and bridges, and divert rail traffic from privately owned freight railroads to our already overburdened public highways. Heavy trucks and buses also accounted for 19 percent of our Nation's transportation energy use, based on a 2020 report, and trucks with heavier gross weights require larger engines that decrease fuel economy on a miles-per-gallon basis.[28] Despite claims to the contrary, bigger trucks will not result in fewer trucks. Following every past increase to federal truck size and weight, the number of trucks on our roads has gone up. Since 1982, when Congress last increased the gross vehicle weight limit, truck registrations have more than doubled.[29] The U.S. DOT study also addressed this meritless assertion and found that any potential mileage efficiencies from the use of heavier trucks would be offset in just one year.[30] Any proposals to increase truck size and weight, including state and industry-based exemptions and pilot programs, should be rejected. Similarly, needless and reckless exemptions from essential safety regulations such as those that apply to the hours-of-service (HOS) rules and fitness of CMV drivers should also be denied.

Solutions to Improve Infrastructure Safety Must be Implemented and Advanced.

Several commonsense actions and strategies can improve public safety and our nation's infrastructure.

Highway Safety Programs
Specific provisions in the IIJA will enhance safety and help the U.S. to curb traffic fatalities including:

- Authorizes safety upgrades to the Highway Safety Improvement Program (HSIP) that will help to protect vulnerable road users (VRUs) including infrastructure features that calm traffic and reduce vehicle speeds (Section 11111);
- Requires U.S. DOT to establish a safe routes to school program for children through high school that includes grants to non-profit groups (Section 11119);
- Mandates that the initial update of the Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD) include protection of VRUs (Section 11135);
- Encourages states and local entities to use federal funding for complete streets standards and policies (Section 11206);
- Requires U.S. DOT to conduct a study on the existing and future impacts of autonomous vehicles (AVs) to transportation infrastructure, mobility, the environment, and safety (Section 11504);

[27] Comprehensive Truck Size and Weight Limits Study Technical Reports, Questions and Answers, Federal Highway Administration (June 2015).
[28] Transportation Energy Data Book: Edition 39, U.S. Department of Energy, Aug. 2021, available at https://tedb.ornl.gov/wp-content/uploads/2021/02/TEDB_Ed_39.pdf.
[29] Traffic Safety Facts 2018: A Compilation of Motor Vehicle Crash Data, NHTSA, Nov. 2020, DOT HS 812 981.
[30] Comprehensive Truck Size and Weight Limits Study, Federal Highway Administration (June 2015).

- Establishes a grant program for local governments to develop and carry out "Vision Zero" or "Toward Zero Deaths" initiatives. Authorizes $1 billion for this program, with no less than 40 percent allocated to support the development of comprehensive safety plans (Section 24112); and,
- Emphasizes additional focus on the safety of VRUs and combating multiple substance-impaired driving (Sections 11122 and 24106).

Safe System Approach
A Safe System Approach that seeks to prevent traffic fatalities by minimizing roadway conflicts and reducing crash forces when they do occur results in a myriad of benefits for our nation's infrastructure including fewer crashes, reducing the severity of such incidents, less congestion with the resulting environmental benefits and a reduction in damage to roads. This is accomplished through measures such as reducing speeds, road safety infrastructure improvements and better post-crash management, in addition to addressing vehicle and road user safety.

The IIJA requires the U.S. DOT to issue a final rule within two years for automatic emergency braking (AEB) in new large CMVs and the issuance of a Federal Motor Carrier Safety Regulation (FMCSR) to require drivers use AEB.[31] According to IIHS, equipping large trucks with forward collision warning (FCW) and AEB could eliminate more than two out of five crashes in which a large truck rear-ends another vehicle.[32] As such, we urge U.S. DOT to meet the statutory deadline for this standard and include all new CMVs in the rule. Based on new truck sales data, over half a million Class 3-6 trucks are sold every year.[33] These vehicles travel on local streets and through neighborhoods everyday making millions of deliveries. Equipping these trucks with AEB will make streets safer for pedestrians, bicyclists, children, older adults, people in wheelchairs and other VRUs.

Advocates also has consistently supported the use of speed limiting devices for CMVs because high speed crashes involving large trucks have the potential to be far deadlier than those that occur at lower speeds.[34] The recent announcement by the Federal Motor Carrier Safety Administration (FMCSA) that it is moving forward with a rulemaking to require trucks that have the technology to use it when operating is a step in the right direction, albeit long overdue, and we urge the agency to promptly complete the action.[35]

Moreover, technology is currently available that can prevent a passenger vehicle from traveling underneath the rear or side of a trailer and significantly increase the chances of survival. We commend the Subcommittee and full Committee for including the provision to upgrade the performance standard for rear underride guards.[36] This is also long overdue as testing by IIHS has found that the largest trailer manufacturers far exceed the current federal standard.[37] The

[31] Pub. L. 117-58 (Nov. 15, 2021).
[32] IIHS, Study shows front crash prevention works for large trucks too, available at: https://www.iihs.org/news/detail/study-shows-front-crash-prevention-works-for-large-trucks-too.
[33] May Medium-Duty Sales Climb 36% From 2020 period, Transport Topics, Jun. 16, 2021.
[34] Docket: FMCSA-2014-0083, Comment ID: FMCSA-2014-0083-4459.
[35] 86 FR 26317 (May 4, 2022).
[36] Pub.L. 117–58 (2021).
[37] IIHS, Topics. Large Trucks, Underride.

National Transportation Safety Board (NTSB) has recommended rear, side, and front underride protection.[38] In 2017, IIHS performed its first tests of a side underride guard designed for an automobile.[39] The guard succeeded in blocking a midsize car traveling 35 MPH from going underneath the side of the trailer.[40] A subsequent test showed it also prevented underride at 40 MPH.[41] In both tests the device bent but did not allow the car to go underneath the trailer, enabling the car's airbags and safety belt to properly restrain the test dummy in the driver seat. As such, U.S. DOT should require the installation of comprehensive underride protection (side and front) for the entire CMV. Not only will these advances improve public safety by preventing crashes, but they also have significant infrastructure implications as they can prevent needless damage and wear on our roadways resulting from these incidents.

Automated Enforcement

Automated enforcement (AE), such as speed and red-light running cameras, is a verified deterrent against frequent crash contributors. In fact, these systems have been identified by NHTSA, the NTSB, Centers for Disease Control and Prevention (CDC), IIHS and others as an effective means to curb dangerous driving behavior. Moreover, a review by the Congressional Research Service (CRS) found that speed camera programs are effective in reducing speeding and/or crashes near cameras.[42] New crash tests performed by IIHS, the AAA Foundation for Traffic Safety, and Humanetics show that modest five to ten MPH increases in speed can have a severe impact on a driver's risk of injury or even death.[43] Additionally, for VRUs, such as pedestrians and bicyclists, small changes in speed can have a large impact on survivability. Expanding the use of this technology is especially important considering pedestrian and bicyclist fatalities increased in 2020 and again in 2021.[44] Advocates joined leading traffic safety organizations to produce a resource for communities implementing new AE programs or updating existing ones entitled the Automated Enforcement Program Checklist.[45] While the IIJA revised the prohibition on the use of federal funds on AE to allow for the systems to be used in school and work zones, limitations should be stricken in their entirety.[46]

Connected Vehicle Technologies

Connected vehicles have the potential to improve safety on our nation's roads. These technologies allow a vehicle to send and receive communications with other vehicles (vehicle-to-vehicle, V2V), the infrastructure (vehicle-to-infrastructure, V2I), and "everything" (vehicle-to-everything, V2X). Specifically, V2X communication can relay signals to the vehicle about upcoming traffic lights and speed limits, among other messaging, further improving the safety of drivers and all road users. Connected vehicle technology can also amplify the benefits of certain vehicle safety technologies and may provide necessary redundancy for future AV operations. The IIJA includes an important provision requiring U.S. DOT to expand vehicle-to-pedestrian

[38] NTSB Safety Recommendations H-10-12, H-10-13, H-14-03, H-14-02, H-14-04.
[39] IIHS, Side guard on semitrailer prevents underride in 40 mph test (Aug. 29, 2017).
[40] *Id.*
[41] *Id.*
[42] CRS, Safety Impact of Speed and Red Light Cameras, Report: R46552 (Sep. 28, 2020).
[43] IIHS, New crash tests show modest speed increases can have deadly consequences (Jan. 28, 2021).
[44] Early Estimates of Motor Vehicle Traffic Fatalities And Fatality Rate by Sub-Categories in 2021, NHTSA, May 2022, DOT HS 813 298.
[45] See: https://saferoads.org/wp-content/uploads/2019/08/2018-Red-Light-Camera-Program-Checklist.pdf
[46] Pub. L. 117-58, § 24102 (2021).

research efforts to ensure that bicyclists and other VRUs will be incorporated into the safe deployment of connected vehicle systems. Advocates commends the Subcommittee and full Committee for including this provision in the legislation and urges U.S. DOT to meet the deadline included in the law to submit a report to Congress on this critical issue.

Autonomous Vehicles

The emergence of experimental autonomous CMVs (ACMVs) and their interactions with conventional motor vehicles, trucks and buses and all road users for the foreseeable future demand an enhanced level of federal and state oversight to ensure public safety. It is imperative that CMVs, including those with autonomous driving systems (ADS), be regulated by U.S. DOT with enforceable safety standards and subject to adequate oversight. The potential for an 80,000 pound truck equipped with unregulated and inadequately tested technology on public roads is a very real and dangerous scenario if these vehicles are only subject to voluntary guidelines.[47] In addition, passenger carrying ACMVs which have the potential to transport as many as 53 passengers will need additional comprehensive federal rules specific to this mode of travel.

At a minimum, ACMVs must be subject to the following essential provisions:

- In the near term, rulemakings must be promulgated for elements of ACMVs that require performance standards including but not limited to the ADS, human machine interface, sensors, privacy, software and cybersecurity. ACMVs must also be subject to a "vision test" to guarantee they properly detect and respond to other vehicles, all people and objects in the operating environment. Also, a standard to ensure ACMVs do not go outside of their operational design domain (ODD) should be issued. Standards for ACMVs must be required to be issued by specific deadlines, with a compliance date, set by Congress before deployment.

- Drivers operating an ACMV must have an additional endorsement or equivalent certification on their commercial driver's license (CDL) to ensure they have been properly trained to monitor and understand the ODD of the vehicle and, if need be, to operate an ACMV. This training must include a minimum number of hours of behind-the-wheel training.

- Each manufacturer of an ACMV must be required to submit a safety assessment report that details the safety performance of automated driving systems and automated vehicles. Manufacturers must be required to promptly report to NHTSA all crashes involving ACMVs causing fatalities, injuries and property damage.

- ACMVs that do not comply with Federal Motor Vehicle Safety Standards (FMVSS) must not be introduced into commerce nor be subject to large-scale exemptions from such.

- Any safety defect involving the ACMV must be remedied before the ACMV is permitted to return to operation. The potential for defects to infect an entire fleet of

[47] Tyson Fisher, TuSimple completes first 100% driverless truck run on public roads, Land Line Magazine (Jan. 3, 2022); Chris Hoffman, Company testing self-driving trucks on I-576, CBS News (May 23, 2022).

vehicles is heightened because of the connected nature of AV technology. Therefore, manufacturers must be required to promptly determine if a defect affects an entire fleet. Those defects which are fleet-wide must result in notice to all such owners and an immediate suspension of operation of the entire fleet until the defect is remedied.

- The U.S. DOT Secretary must be required to establish a database for ACMVs that includes such information as the vehicle's identification number; manufacturer, make, model and trim information; the level of automation of each automated driving system with which the vehicle is equipped; the ODD of each automated driving system; and the FMVSS, if any, from which the vehicle has been exempted.

- For the foreseeable future, regardless of their level of automation, ACMVs must have an operator with a valid CDL in the vehicle at all times. Drivers will need to be alert to oversee not only the standard operations of the truck but also the ADS. Therefore, the Secretary must issue a mandatory safety standard for driver engagement. In addition, critical safety regulations administered by the Federal Motor Carrier Safety Administration (FMCSA) such as those that apply to driver hours of service (HOS), licensing requirements, entry level driver training and medical qualifications must not be weakened.

- Motor carriers using ACMVs must be required to apply for additional operating authority.

- FMCSA must consider the additional measures that will be needed to ensure that ACMVs respond to state and local law enforcement authorities and requirements, and what measures must be taken to properly evaluate an ACMV during roadside inspections. In particular, the safety impacts on passenger vehicle traffic of several large ACMVs platooning on bridges, roads and highways must be assessed.

- NHTSA must be given imminent hazard authority to protect against potentially widespread catastrophic defects with ACMVs, and criminal penalties to ensure manufacturers do not willfully and knowingly put defective ACMVs into the marketplace.

- NHTSA and FMCSA must be given additional resources, funding and personnel, in order to meet demands being placed on the agency due to the advent of AV technology.

Without these necessary safety protections, mandated by Congress to assure they are adopted with prescribed deadlines, commercial drivers and those with whom they share the road are at risk. In a February 2022 public opinion poll commissioned by Advocates, 85 percent of respondents reported being concerned with sharing public highways and roads with driverless tractor-trailers and delivery trucks as a motorist, a bicyclist, or a pedestrian.[48] Allowing technology to be deployed without rigorous testing, vigilant oversight, and comprehensive safety

[48] ENGINE'S CARAVAN SURVEY, Public Opinion Poll, Public Concern About Driverless Cars and Trucks (Feb. 2022).

standards is a direct and unacceptable threat to the motoring public which is exacerbated by the sheer size and weights of large CMVs.

Conclusion

We laud the Subcommittee for holding this hearing as the recent data released from NHTSA illustrates the depth of the public health crisis on America's roads. Infrastructure upgrades coupled with proven vehicle safety technology can help to improve these grim statistics. We look forward to continuing to work with the Members of this Subcommittee to improve public safety.

Sincerely,

Catherine Chase, President

cc: Members of the Subcommittee on Highways and Transit