



ADVOCATES  
FOR HIGHWAY  
& AUTO SAFETY

February 23, 2021

The Honorable Thomas R. Carper, Chair  
The Honorable Shelley Moore Capito, Ranking Member  
Committee on Environment and Public Works  
United States Senate  
Washington, D.C. 20510

Dear Chairman Carper and Ranking Member Capito:

Thank you for holding tomorrow's hearing, "Building Back Better: Investing in Transportation while Addressing Climate Change, Improving Equity, and Fostering Economic Growth and Innovation." Advocates for Highway and Auto Safety (Advocates) appreciates your leadership on these important topics and urges you to prioritize safety as you consider policies and laws investing in infrastructure. The safety of everyone who uses our transportation system should be a cornerstone of these discussions and accomplished in complement with improving environmental concerns, advancing equity, and promoting growth and innovation. We respectfully request this letter be included in the hearing record.

Crashes, deaths, injuries and associated costs remain persistently high. Every year on average, over 36,000 people are killed and 2.74 million more are injured in motor vehicle crashes. Preliminary estimates from the National Highway Traffic Safety Administration (NHTSA) indicate that the fatality rate and total for the first nine months of 2020 increased over the same time period in 2019. This is in line with troubling trends reported across the country, and confirmed by NHTSA, of drivers engaged in riskier driving behaviors including speeding, impairment, and lack of seat belt use during the COVID-19 pandemic. Media and analytics reports note distraction increased as well. Further, in 2019, more than 5,000 people were killed in crashes involving a large truck. Since 2009, the number of fatalities in large truck crashes has increased by 48 percent.<sup>1</sup> In 2019, 159,000 people were injured in crashes involving a large truck, and the number of large truck occupants injured increased by 18 percent. In fatal crashes involving a truck and a passenger vehicle, 96 percent of the fatalities were passenger vehicle occupants, according to the Insurance Institute for Highway Safety (IIHS). The cost to society from crashes involving commercial motor vehicles (CMVs) was estimated to be \$143 billion in 2018, the latest year for which data is available. According to the U.S. Department of Labor, truck driving is one of the most dangerous occupations in the United States.

---

<sup>1</sup> Note, the 48 percent figure represents the overall change in the number of fatalities in large truck involved crashes from 2009 to 2019. 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 2019, it increased by 7 percent.

This substantial crash death and injury toll also comes with a serious financial burden. Based on 2010 data, crashes impose an annual cost of over \$800 billion to society, including \$242 billion in direct economic costs (NHTSA). When adjusted only for inflation, comprehensive crash costs now near one trillion dollars, with direct economic costs amounting to \$292 billion – or an \$885 “crash tax” on every American. Additionally, crashes cost employers \$47.4 billion in direct crash-related expenses annually, based on 2013 data from the Network of Employers for Traffic Safety (NETS). Similarly adjusted, the cost to employers is now approximately \$54 billion annually. Ending the physical, emotional, and economic toll of road crashes is achievable and it is critical that we take swift action to do so. As the Committee begins consideration of an infrastructure package and surface transportation reauthorization, we urge you to take action on vital traffic safety issues including the following recommendations.

**Require and expand the use of proven technologies which are demonstrated by data, research and experience to prevent, mitigate or reduce motor vehicle crashes yet are currently deployed inequitably.** Advanced vehicle safety technologies, also known as advanced driver assistance systems (ADAS), prevent and lessen the severity of crashes. The National Transportation Safety Board (NTSB) has included increasing implementation of collision avoidance technologies in its *Most Wanted List of Transportation Safety Improvements* since 2016. These technologies should be required in all new vehicles, subject to a minimum performance standard which sets a floor, not a ceiling, from which manufacturers can innovate. This action will also help achieve safety equity by providing benefits to all road users and reducing the base cost of technology due to economies of scale.

However, access to these lifesaving crash avoidance technologies currently is not equitable. They are often sold as part of an additional, expensive trim package coupled with other non-safety features, or included as standard equipment only in high end models or vehicles, which are unaffordable to many families. A report from Consumer Reports found an astounding upcharge of more than \$16,000 for AEB with pedestrian detection in the second most popular vehicle sold in the U.S. It is essential that vehicle safety technology be required as standard equipment to make safety equitable and to expedite the benefits to all road users. Individuals who rely on walking or biking for utilitarian purposes, rather than choice, to reach work or school are at the highest risk for injury or death. Mandating safety equipment in all new vehicles and ensuring the protection of vulnerable road users could address this aspect of social inequity. Moreover, as Congress works towards achieving climate goals and supporting American manufacturing through the domestic production of electric vehicles (EVs) and with automakers reconfiguring their production lines to do so, it is an efficient and economical opportunity to concurrently integrate ADAS technologies.

Additionally, connected vehicle technology has the potential to offer added safety benefits. 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. Vehicle technologies are already being introduced that provide speed assistance. In

fact, the European New Car Assessment Program (Euro NCAP) “promotes the installation of speed assistance systems that support drivers to control their speed.” We urge Congress to direct NHTSA to complete the upgrade of U.S. NCAP to include this advancement and update and complete the 2017 Notice of Proposed Rulemaking (NPRM) to require V2V technology, as well as partner with the Federal Highway Administration (FHWA) to study the needs and benefits of V2I with the goal of V2X communications for safety.

**Essential protections for pedestrians, bicyclists, and other vulnerable road users (VRUs) must be adopted – in 2019 pedestrian and bicyclist fatalities remained among their highest levels in 30 years.** Advances in vehicle safety technology, such as automatic emergency braking (AEB) that can detect and respond to pedestrians, bicyclists, and other VRUs as well as vehicles and objects, will be key to making meaningful reductions in fatalities and injuries. Advocates continues to urge NHTSA to require this technology as standard equipment in all new vehicles. The safety agency should also update the U.S. NCAP to include VRU crashworthiness, crash avoidance, and speed assistance systems. The NTSB has recommended updating NCAP to include these safety improvements for rating and Euro NCAP already evaluates a number of these upgrades. Additionally, Advocates has called on NHTSA to establish standards for the hood and bumper areas of vehicles to reduce the severity of impacts with bicyclists and pedestrians.

**Automated enforcement (AE), such as speed and red-light running cameras, is a verified deterrent against frequent crash contributors and has been identified by NHTSA, NTSB, Centers for Disease Control and Prevention (CDC), IIHS and others as an effective means to curb dangerous driving behavior.** Moreover, a recent review by the Congressional Research Service (CRS) found that speed camera programs are effective in reducing speeding and/or crashes near cameras. Additionally, for VRUs, such as pedestrians and bicyclists, small changes in speed can have a large impact on survivability. New crash tests performed by IIHS, the AAA Foundation for Traffic Safety, and Humanetics show that modest five to ten miles per hour (mph) increases in speed can have a severe impact on a driver’s risk of injury or even death. Expanding the use of this technology is especially important considering in 2019 pedestrian and bicyclist fatalities remained among the highest levels in 30 years.

**A systematic plan of proven countermeasures should be required to improve road safety, such as a Safe Systems approach, and implemented during any road maintenance or building projects.** Safe Systems incorporates upgrades to infrastructure, such as protected intersections, dedicated, accessible bike lanes and pedestrian pathways, expanded use of AE systems to curb speed and red-light running, leading intervals for signaling, speed curbing measures and other improvements to minimize interactions between VRUs and vehicles. This strategy offers pedestrians and bicyclists better protection to reduce the occurrence and severity of crashes and should be included in infrastructure and surface transportation legislation. Congress should take action to direct the U.S. Department of Transportation (DOT) to offer grant opportunities to incentivize the incorporation of Safe Systems principles in state and local road infrastructure projects. These projects must be extended to all neighborhoods to promote equity of the safety improvements. They should aim to help improve our roads to ensure safety for mixed modal use (i.e., vehicles, pedestrians, bicyclists, people who use wheelchairs or other

assistive devices, micromobility and other novel mobility products) and expand the ability for localities to respond to different road use challenges, among other upgrades.

**Potential impacts from autonomous vehicles (AVs) to transportation systems, infrastructure, and the environment must be fully studied, safety and societal benefits assured, and detriments effectively mitigated before widespread rollout.** Despite the reality that mass deployment of AVs is likely far in the future, significant efforts to fast-track their public sale and use without proper safeguards continue to persist. Proponents have sought mass exemptions from safety standards, often under the misleading claim that the U.S. will fall behind China in the AV race. However, this is not true. In fact, a 2020 report by KPMG shows the U.S. is fourth in readiness for AVs, while China is far behind at number 20.

This urgency has been propagated while major issues with AVs remain unaddressed. Instead, we urge Congress to take a comprehensive approach involving all stakeholders, should AV legislation be considered. Proposals for AV legislation to-date have largely sidestepped ongoing critical conversations about how these vehicles will affect transportation systems, infrastructure, and the environment. They have also lacked requirements to ensure safety and other outcomes such as accessibility, mobility and equity will be improved. While this Committee has rightfully started to examine this issue, including a June 2018 hearing on “Innovation and America’s Infrastructure: Examining the Effects of Emerging Autonomous Technologies on America’s Roads and Bridges,” more work is needed to fully address the known and foreseeable consequences of AVs. We thank Chairman Carper and other members of this Committee for their strong leadership and commitment to ensuring AV safety.

During the June 2018 hearing, Advocates was honored to serve as a witness and provide comprehensive testimony on ways to do so. Since then, we have continued to expand our knowledge on the issue and engaged expert stakeholders. In November 2020, we led a group of 60 diverse organizations to release the “[AV Tenets](#)” that must be the foundation for any AV policy that is considered. The core principles of the AV Tenets are: 1) prioritize safety for all road users; 2) guarantee accessibility and equity; 3) preserve consumer and worker rights; and, 4) ensure sustainable transportation and retain local control. Specifically, from the AV Tenets:

AVs could have direct and indirect negative impacts on safety, congestion, pollution, land use, accessibility, transportation infrastructure capacity and needs, energy consumption, public transit, jobs and job functions, mobility and equity. DOT must be directed to undertake a comprehensive study to inform policymakers and the public about how these vehicles will impact our existing transportation systems and ensure effective mitigation of problems identified. Implementation of infrastructure to support the safe operations of AVs, such as placement of electric vehicle charging stations, visible lane striping, and uniform and unobstructed signage, must be equitable for all communities to ensure equal opportunity for people of all racial and socioeconomic backgrounds.

**Overweight trucks disproportionately damage our Nation’s crumbling infrastructure and threaten public safety.** Federal limits on the weight and size of 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.

According to the 2017 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+". Nearly 40 percent of the more than 614,000 bridges in the National Bridge Inventory are 50 years or older, and one out of 11 is structurally deficient. The U.S. DOT Comprehensive Truck Size and Weight Study found that introducing double 33-foot trailer trucks, known as "Double 33s," would be projected to result in 2,478 bridges requiring strengthening or replacement at an estimated one-time cost of \$1.1 billion. This figure does not account for the additional, subsequent maintenance costs which will result from longer, heavier trucks. In fact, increasing the weight of a heavy truck by only 10 percent increases bridge damage by 33 percent. The FHWA estimates that the investment backlog for bridges, to address all cost-beneficial bridge needs, is \$125.4 billion. The U.S. would need to increase annual funding for bridges by 29 percent over current spending levels to eliminate the bridge backlog by 2034.

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. Overweight trucks also pose serious safety risks. Not surprisingly, trucks heavier than 80,000 pounds have a greater number of brake violations, which are a major reason for out-of-service violations. 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. This is also troubling considering that tractor-trailers moving at 60 mph are required to stop in 310 feet – the length of a football field – once the brakes are applied. 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 changes in the relevant truck size and weight laws and regulations be considered until data limitations are overcome.

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. 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. 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. Any proposals to increase truck size and weight, including state and industry-based exemptions and pilot programs, should be rejected.

**Safety, sustainability, equity, economic growth and innovation are all goals that can and should be addressed in unison to improve the lives and well-being of everyone living in America.** As this Committee moves forward with an infrastructure package and a surface transportation reauthorization bill, we strongly urge you to include a strong safety title and reject provisions that would further degrade infrastructure and safety. The status quo of persistently high deaths, injuries and costs resulting from crashes is not acceptable, and should not be perpetuated when effective solutions are readily available to save lives now.

Thank you for again for holding this essential hearing and for your consideration of these issues. We look forward to working with you to improve safety on our Nation's roadways.

Sincerely,

A handwritten signature in black ink, appearing to read "Catherine Chase". The signature is fluid and cursive, with a long horizontal stroke at the end.

Catherine Chase, President

cc: Members of the U.S. Senate Committee on Environment and Public Works