



ADVOCATES
FOR HIGHWAY
& AUTO SAFETY

**STATEMENT OF CATHERINE CHASE
PRESIDENT
ADVOCATES FOR HIGHWAY AND AUTO SAFETY**

ON

**“THE STATE OF TRANSPORTATION AND CRITICAL
INFRASTRUCTURE: EXAMINING THE IMPACT OF THE COVID-19
PANDEMIC”**

SUBMITTED TO THE

**UNITED STATES SENATE
COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION**

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Introduction

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 safer vehicles, safer motorists and road users, and safer infrastructure. We thank the Committee for holding this important hearing and respectfully request that this statement be included in the hearing record.

The carnage and expense borne from crashes on our roadways are unacceptable. Newly released estimates from the United States Department of Transportation (U.S. DOT) show that in 2019, 36,120 people were killed in traffic crashes.¹ This represents a slight decrease from 2018, during which 36,560 people were killed and 2.7 million people were injured in motor vehicle crashes.² Moreover, crashes impose a financial toll of well over \$800 billion in total costs to society and \$242 billion in direct economic costs, equivalent to a “crash tax” of \$784 on every American.³

Fatal truck crashes continue to occur at an alarmingly high rate. In 2018, the number of individuals killed in crashes involving a large truck increased to 4,951. With the exception of 2014, the number of fatalities in crashes involving large trucks has been steadily on the rise since 2003. Since that time, the number of fatalities in large truck crashes has increased by 46 percent. In addition, despite an estimated decrease of approximately one percent in overall crash deaths in 2019, fatal crashes involving large trucks are estimated to have increased once again, the fifth year-to-year increase. Although we are not in ordinary times, our Nation remains dependent on trucking to provide goods and supplies. Advocates continues to be supportive of and grateful for truck drivers’ personal sacrifices and commitment to accomplishing their job safely. Improving the level of safety on the roadways for truck drivers and all motorists sharing the roadways with them must be prioritized. Most certainly, current truck safety regulations should not be further eroded.

The COVID-19 pandemic has brought about unprecedented public health and economic hardship and its effects have been felt by all sectors of society, including transportation. Advocates recognizes the unique challenges this has posed for the automotive and trucking industries and commends their contributions to the relief efforts. While it may be some time before we know the full brunt of the impacts, early reports and data have shown that while overall vehicle miles traveled (VMT) may be down, dangerous behavior like speeding and reckless driving are on the rise. As reported by *The Washington Post* on May 11, 2020 in the article, “The coronavirus pandemic emptied America’s roadways. Now speeders have taken over,” “‘The trend is very concerning,’ said Catherine Chase, president of Advocates for Highway and Auto Safety. ‘At a time of national crisis, drivers should not be turning our roadways into racetracks.’”⁴ A local Mississippi ABC affiliate, WAPT 16, reported on this issue on May 21, 2020 with the story

¹ National Center for Statistics and Analysis. (2020, May). Early estimate of motor vehicle traffic fatalities for 2019 (Crash•Stats Brief Statistical Summary. Report No. DOT HS 812 946). National Highway Traffic Safety Administration.

² Statistics are from the U.S. Department of Transportation unless otherwise noted.

³ “The Economic and Societal Impact of Motor Vehicle Crashes, 2010,” NHTSA (2015).

⁴ Luz Lazo, “The coronavirus pandemic emptied America’s roadways. Now speeders have taken over.” Wash. Post (May 11, 2020).

“MHP says extreme speeding has increased across the state.”⁵ Similar reports from Washington State were detailed in an April 18, 2020 article in *The Columbian*, “Officials: Traffic is down, speeding is up in Clark County.”⁶

In fact, the National Safety Council recently reported that in March, the fatality rate was up 14 percent over the same month in 2019.⁷ As states ease stay-at-home restrictions and traffic volumes increase, Congress as well as state and local government policymakers must consider impacts to roadway safety and advance measures designed to keep drivers, occupants, pedestrians, bicyclists and other road users safe. In this statement, Advocates details our recommendations to achieve that objective.

Our Nation is at a Transformational Time in Transportation History with Innovative and Cost-Efficient Safety Solutions Proven to be Effective and Available

Every day on average, over 100 people are killed and nearly 7,500 people are injured in motor vehicle crashes. Yet, proven solutions are currently available that can prevent or mitigate these senseless tragedies. The National Highway Traffic Safety Administration (NHTSA, “Agency”) currently values a life lost in a crash at \$9.6 million. Each one of these preventable deaths not only irreparably harms families and communities, but they also impose significant economic costs on society that can and should be avoided.

Advocates remains optimistic that in the future autonomous vehicles (AVs) may bring about meaningful and lasting reductions in motor vehicle crashes. However, that potential remains far from a near-term certainty or reality. The fact remains that there is no data or documentation proving AV technology as it currently stands improves road safety. In fact, NHTSA released a notice on March 17, 2020 which stated that the safety potential of automated driving systems is “unsubstantiated and the impacts unknown.”⁸ Dr. Missy Cummings, a leading AV expert and director of Duke University Humans and Autonomy Laboratory, noted in a recent article that “[s]elf-driving systems, even with their multiple sensors and software advancements, still cannot reliably work in rain and snow conditions (Zang et al. 2019), during time of low sun angles (Dowling 2019), and often where lines on the road are either non-existent or with faded paint (Sage 2016).”⁹ While endeavoring to improve safety, human driver error cannot be replaced with human coding or computer errors – mistakes that could have widespread and serious consequences.

Therefore, in the short-term Advocates urges Congress to require that advanced technologies proven to be effective in preventing and mitigating crashes be standard equipment with minimum performance standards. Advocates is a long-time proponent of this strategy which has produced numerous safety successes including airbags, electronic stability control, and most recently rearview cameras. In fact, in 2015 NHTSA estimated that since 1960, more than

⁵ Marcus Hunter, MHP says extreme seeding has increased across the state, WAPT News (May 21, 2020).

⁶ Jerzy Shedlock, Officials: Traffic is down, speeding is up in Clark County, *The Columbian* (Apr. 18, 2020).

⁷ NSC, Motor Vehicle Fatality Rates Jump 14% in March Despite Quarantines (May. 20, 2020).

⁸ Occupant Protection for Automated Driving, NHTSA, Vol. 85, No. 61, Fed. Reg, March 30, 2020, NPRM, Docket No. NHTSA–

2020–0014. Available at: <https://www.govinfo.gov/content/pkg/FR-2020-03-30/pdf/2020-05886.pdf>

⁹ Cummings, M.L, "Rethinking the maturity of artificial intelligence in safety-critical settings," *AI Magazine*, in review.

600,000 lives have been saved by motor vehicle safety technologies.¹⁰ Furthermore, the National Transportation Safety Board (NTSB) has included increasing implementation of collision avoidance technologies in its Most Wanted Lists of Transportation Safety Improvements since 2016.¹¹

Currently available proven collision avoidance systems include automatic emergency braking (AEB), lane departure warning (LDW), blind spot detection (BSD), rear AEB and rear cross-traffic alert. The Insurance Institute for Highway Safety (IIHS) has found that:

- AEB can decrease front-to-rear crashes with injuries by 56 percent;
- LDW can reduce single-vehicle, sideswipe and head-on injury crashes by over 20 percent;
- BSD can diminish injury crashes from lane change by nearly 25 percent;
- Rear AEB can reduce backing crashes by 78 percent when combined with rearview camera and parking sensors; and,
- Rear cross-traffic alert can reduce backing crashes by 22 percent.¹²

These crash avoidance safety systems are often sold as part of an additional, expensive trim package along with other non-safety features, or included as standard equipment only in high end models or vehicles. Just this week, Consumer Reports released a report that 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.¹³ This inordinate charge underscores Advocates' long-held position that critical vehicle safety technology must be standard equipment and provided to everyone purchasing a new vehicle. Moreover, there are currently no minimum performance standards to ensure these technologies function as expected. And, the IIHS has also found that while nighttime visibility is essential for safety, few vehicles are equipped with headlights that perform well.¹⁴ Federal Motor Vehicle Safety Standard (FMVSS) 108 should be upgraded to improve headlight performance.

Unfortunately, directives from Congress are needed to accomplish these needed improvements due to Agency inaction and industry resistance. Voluntary industry agreements have been demonstrated to be ineffective as most recently evidenced by the March 2016 agreement among 20 automakers to have AEBs in most new light vehicles by 2023. As of December 2019, two manufacturers, which account for nearly a third of the U.S. auto market, demonstrate this lackluster response to the detriment of the motoring public. Only 29 percent of General Motors' vehicles and 9.5 percent of Fiat Chrysler vehicles were sold with AEB between September 1, 2018 through August 31, 2019. Similarly, the voluntary agreement announced by industry in September 2019 on technology to prevent hot car deaths of children prolonged the timeline to get this equipment into new cars even though it is available at a very minimal cost now. In fact, General Motors announced it would equip its new cars with technology that "can detect motion as subtle as the breathing of an infant sleeping in a rear-facing child safety seat" in 2001 with the

¹⁰ Lives Saved by Vehicle Safety Technologies and Associated Federal Motor Vehicle Safety Standards, 1960 to 2012, DOT HS 812 069 (NHTSA, 2015).

¹¹ NTSB Most Wanted List Archives, https://ntsb.gov/safety/mwl/Pages/mwl_archive.aspx

¹² IIHS, Real world benefits of crash avoidance technologies, available at: <https://www.iihs.org/media/259e5bbd-f859-42a7-bd54-3888f7a2d3ef/e9boUQ/Topics/ADVANCED%20DRIVER%20ASSISTANCE/IIHS-real-world-CA-benefits.pdf>

¹³ Douglas, E., A High Price on Safety, Consumer Reports (Jun. 1, 2020).

¹⁴ IIHS, Headlights improve, but base models leave drivers in the dark (Nov. 29, 2018).

intent to begin rollout in 2004.¹⁵ This voluntary agreement harkens back to that empty promise while children continue to needlessly die. The agreement also failed to include the critical component that the systems must detect and alert to the presence of children who have been unknowingly left in or gained access to hot cars.¹⁶ Moreover, at any time, any or all automakers could decide they no longer want to comply with the agreement without any ramifications, underscoring the importance of Congressional action.

Legislation already has been introduced in the 116th Congress which, if enacted, would achieve the goal of providing lifesaving technologies as standard equipment on new motor vehicles. The Protecting Roadside First Responders Act (S. 2700/H.R. 4871) directs the U.S. DOT to require certain crash avoidance technologies that meet a minimum performance requirement in all new vehicles. We thank Committee Member Senator Tammy Duckworth (D-IL) for her leadership in co-sponsoring this measure and urge the Committee to advance this legislation promptly. Congress should also enact the 21st Century Smart Cars Act (H.R. 6284), the Safe Roads Act of 2019 (H.R. 3773) and the School Bus Safety Act of 2019 (S.2278/H.R. 3959), legislation which would collectively require advanced technologies in new passenger cars, commercial motor vehicles (CMVs) and school buses. Again, we commend Senator Duckworth (D-IL) for sponsoring S. 2278. Additionally, we thank Senator Tom Udall (D-NM) for his career-long dedication to stopping impaired driving and urge the Committee to advance S. 2604, the Reduce Impaired Driving for Everyone (RIDE) Act, introduced with fellow Committee member Senator Rick Scott (R-FL), also a tremendously committed leader to end impaired driving. Lastly, we thank Chairman Wicker and Ranking Member Cantwell for their leadership on the Hot Cars Act (S. 1601/H.R. 3593), which will help prevent child hot cars fatalities. Action by this Committee to require the technologies addressed in these bills will save lives, reduce injuries and contain costs in the near-term.

On the path to AVs, requiring minimum performance standards for these foundational technologies will ensure the safety of all road users while building consumer confidence in the capabilities of crash avoidance technologies.

Industry Calls for Swiftly Moving AV Legislation are Fraught with Baseless Claims and Unfounded Assumptions

AVs, also known as driverless cars, are being developed and tested on public roads without sufficient safeguards to protect both those within the AVs and everyone sharing the roadways with them without express consent. An artificial rush to pass legislation is being fueled by AV manufacturers racing to be the first to market and recoup their substantial investments, already surpassing \$100 billion. Just this week, it was reported that Volkswagen finalized a deal with Ford to invest \$2.6 billion in Argo AI.¹⁷ Proceeding with legislation lacking commonsense minimum standards, protections and regulations will significantly undermine safety as well as risk public acceptance and the ultimate success of these vehicles. Most recently, some proponents of AVs have also been using the COVID-19 pandemic as a justification for rushing a

¹⁵ General Motors News Release, “General Motors Announces Important New Technology to Help Save Children Trapped in Hot Cars,” (April 26, 2001).

¹⁶ Auto Alliance Driving Innovation and Global Automakers, Helping to Combat Child Heatstroke, Automakers Commit to Introducing New Vehicles with Rear Seat Reminder Systems (Sept. 4, 2019).

¹⁷ Eric D. Lawrence, “VW completes \$2.6B self-driving deal connected with Ford,” Detroit Free Press (Jun. 2, 2020).

fatally flawed bill, even going as far as pushing it to be included in a future relief package. A group of 80 diverse stakeholders [wrote to Senate and House leadership on April 15, 2020](#) expressing staunch opposition to this path forward.

Numerous misguided and misleading arguments to fast-track AV legislation in response to the COVID-19 pandemic have been put forth. However, the inside-the-Beltway lobbying effort which is on overdrive should not be allowed to bulldoze well-founded and well-documented concerns including the following.

Public acceptance of AVs is critical to its development and success, but the public remains skeptical.

Several public opinion polls show a high level of skepticism and fear about the technology, and for good reason. For example, earlier this year Advocates commissioned an [independent public opinion poll](#) from ENGINE INSIGHTS which revealed that 85 percent of respondents said they would be concerned about sharing the road with driverless cars as a motorist, bicyclist or a pedestrian.¹⁸ Notably, 68 percent said their concerns would be allayed if performance requirements were in place. Even a recent industry-sponsored poll showed a majority of people have concerns about AVs that do not have some type of government approval.¹⁹ This is consistent with previous polling including an April 2019 Reuters/Ipsos opinion poll which found that 64 percent of Americans said they would not buy a self-driving car²⁰ and one by the American Automobile Association (AAA) in March 2019 which found that 71 percent of U.S. drivers surveyed would be afraid to ride in a fully self-driving vehicle.²¹ As Congress moves forward with legislation addressing the development and deployment of driverless cars, these critical findings about public attitudes should be informative, illuminating and instructive, and most certainly not ignored.

The National Transportation Safety Board has issued sound and salient recommendations. They must be used to inform policy decisions.

Several serious crashes involving cars equipped with autonomous technology have already occurred, many of which have been subject to investigation by the NTSB. These investigations have, and will continue to identify safety deficiencies, determine contributing causes, and recommend government and industry actions to prevent future deadly incidents. Advocates urges Congress to heed critical information from our Nation's preeminent crash investigators. Findings from all these investigations should be released and incorporated as applicable into any proposed legislation. The findings are essential to developing sound and safe public policies. As stated by NTSB Chairman Robert Sumwalt during a November 19, 2019, meeting, "our entire purpose for being here is to learn from tragic events like this so that they can be prevented in the future... This investigation has the ability to have far reaching implications down the road."²²

During this meeting, the NTSB considered the probable cause of the tragic crash that occurred on March 18, 2018, in Tempe, Arizona, in which Elaine Herzberg was killed by an Uber test vehicle

¹⁸ Advocates for Highway and Auto Safety, Engine Insights CARAVAN Survey: Public Concern about Driverless Cars is Strong, and the Support for Performance Requirements is Clear, January 2020.

¹⁹ Partners for Automated Vehicle Education (PAVE), Survey USA Poll, February-March 2020.

²⁰ Americans still don't trust self-driving cars, Reuters/Ipsos poll finds, April 2019.

²¹ AAA Annual Automated Vehicle Survey, March 2019.

²² NTSB Board Meeting: Collision Between Vehicle Controlled by Developmental Automated Driving System and Pedestrian (Nov. 19, 2019).

equipped with self-driving features. Among the key issues the NTSB identified was the glaring need for sensible safeguards, protocols and regulations for AVs which are not yet being sold but are being tested on public roads. Some relevant and compelling quotes from the NTSB hearing buttress the views of consumer and safety groups:

The lessons of this crash do not only apply to Uber ATG [Advanced Technologies Group] and they're not limited to just simply something went wrong and now it's fixed. Rather, it's something went wrong and something else might go wrong unless its prevented...This crash was not only about Uber ATG test drive in Arizona, this crash was about testing the development of automated driving systems on public roads. Its lessons should be studied by any company testing in any state. If your company tests automated driving systems on public roads, this crash, it was about you. If you use roads where automated driving systems are being tested, this crash, it was about you. And if your work touches on automated driving systems at the federal or state level, guess what, this crash, it was about you.

- NTSB Chairman Robert Sumwalt²³

NHTSA's mission is to save lives, first and foremost, to prevent injuries and to reduce economic costs due to road traffic crashes through education, research, safety standards, which we are lacking here, and enforcement activity but first and foremost it's to save lives...In my opinion, they have put technology advancement here before saving lives.

- NTSB Board Member Jennifer Homendy²⁴

The U.S. is not falling behind other countries in development of AVs.

No demonstrable evidence has been put forth to support the fear-inducing claim that the U.S. is falling behind other countries in AV development. Rather, according to KPMG's 2019 *Autonomous Vehicle Readiness Index*, the U.S. is ranked 4th in the world, behind the Netherlands, Singapore, and Norway. China, by comparison is ranked 20th, down from 16th in the index the prior year.²⁵ Other countries are taking a more calculated, careful and cautious approach. For example, in China, AV operations generally remain experimental. In fact it was just recently reported that they have delayed the goal of widespread self-driving deployment to 2025.²⁶ Articles and analyses describing plans by China to lead technology development identify setting standards as key.²⁷ Moreover, no country is selling fully automated vehicles to the public and by many accounts, none will do so for decades.²⁸ Recently, many companies have suspended on-the-road testing due to the COVID-19 outbreak.²⁹ While the U.S. is not behind other countries in developing and deploying AVs, where we do significantly lag other countries is in establishing reasonable and comprehensive safeguards. This is essential to assuring that the

²³ *Id.*

²⁴ *Id.*

²⁵ 2019 Autonomous Vehicles Readiness Index, KPMG.

²⁶ Jill Shen, China delays self-driving car deployment goal to 2025, Technode (Feb. 24, 2020).

²⁷ Power is 'up for grabs': Behind China's plan to shape the future of next-generation tech, A. Kharpal, CNBC Markets, Apr. 26, 2020.

²⁸ Lawrence Ulrich, Driverless Still a Long Way From Humanless, N.Y. Times (Jun. 20, 2019); Level 5 possible but "way in the future", says VW-Ford AV boss, Motoring (Jun. 29, 2019).

²⁹ Andrew J. Hawkins, Coronavirus shows there's no such thing as a totally human-free self-driving car (Mar. 18, 2020).

progress of AV development to a market ready product occurs without needlessly jeopardizing or diminishing public safety.

Industry leaders confirm that widespread sale and deployment of AV technology are still decades away.

There is an alarming disconnect between the readiness of the technology and the contrived urgency to pass legislation to allow for widespread sale and deployment. Numerous industry executives and technical experts have stated that the technology is not ready now and may not be ready for years to come. Just last week, it was reported that Bloomberg New Energy Finance “doesn’t expect vehicles with Level Four automation to start gaining traction until 2034.”³⁰ In a March 9, 2020, open letter, Starsky Robotics founder Stefan Seltz-Axmacher shared his observations on the race to driverless vehicles, “There are too many problems with the AV industry to detail here: the professorial pace at which most teams work, the lack of tangible deployment milestones, the open secret that there isn’t a robotaxi business model, etc. The biggest, however, is that supervised machine learning doesn’t live up to the hype,” and “[t]he consensus has become that we’re at least 10 years away from self-driving cars.”³¹ When even experts with tremendous professional and financial stake acknowledge the shortcomings, challenges and elongated timeline for AV delivery, Congress should be paying heed to this prognosis.

The potential benefits of widespread use of unmanned delivery vehicles are currently unknown. But, the concerns and challenges with unproven self-driving technology lacking safeguards are clearly known.

Removing passengers from an AV does not improve safety for those sharing the road with them, especially vulnerable road users such as bicyclists and pedestrians. In 2018, 6,227 pedestrians were killed on U.S. roads marking the highest number of pedestrian deaths in thirty years. That year, 857 pedalcyclists were also killed; a six percent increase over 2017, according to NHTSA. To date, there has been no evidence that AVs will correctly “see” and respond to these populations. In fact, bicyclists have reported being “clipped” or hit by AVs even with “safety drivers” behind the wheel. Without proper safeguards, it is possible road conditions will worsen, especially if AVs lead to more overall vehicles on the roads.

There are presently no federal regulations to ensure that driving automation systems of unmanned vehicles in use on our Nation’s roads are safe to operate. The use of vehicles with autonomous driving systems for delivery (food, medical and other critical supplies) during the COVID-19 pandemic has been extremely limited and is occurring with significant human oversight and intervention because these systems are not capable of fully autonomous driving even on roads devoid of most traffic.³² Media reports of unmanned AV operations note that they are occurring at low speeds, yet the risk for serious injury or death for pedestrians and bicyclists is significant. At 23 mph the average risk of serious injury for pedestrians is 25 percent and the risk of death is 10 percent.¹ This risk is elevated for older populations. Use of shared AVs, or possibly even unmanned delivery vehicles, during a pandemic could potentially be a means of

³⁰ Alex Webb, Amazon will take robot cars to a whole new level, The Seattle Times (May 31, 2020).

³¹ Seltz-Axmacher, Stefan, “The End of Starsky Robotics”, *Medium*, March 19, 2020.

Available here: <https://medium.com/starsky-robotics-blog/the-end-of-starsky-robotics-acb8a6a8a5f5>

³² Autonomous shuttles help transport COVID-19 tests at Mayo Clinic in Florida, Ford, T., Apr. 2, 2020, Mayo Clinic News Network; Cruise redeploys some of its self-driving cars to make food deliveries in San Francisco, Hawkins, A.J., Apr. 29, 2020, The Verge.

transmitting the virus, rather than a panacea, without proper procedures and oversight to ensure vehicles are sanitized between use or delivery.

The disruption to the American economy by the widespread deployment of AVs could be permanent.

AVs are not guaranteed to create the promised amount of new jobs but they certainly have the potential to eliminate many. One thing is certain, if AVs develop to the point that the technology can assume the entire driving task and are deployed widely, driving occupations will be decimated. This will have a painful impact on our economy as driving jobs employ a significant number of American workers. According to the 2018 Census data, more than five million Americans aged 16 and over work as drivers or motor vehicle operators.³³ Policies to ensure that drivers of trucks, buses, taxis and limousines; transit and delivery workers; and, transportation network company (TNC) drivers and others are not economically side-lined in the process of introducing self-driving technology will need to be carefully implemented.

Once proven to be safe, AVs may improve access and mobility for some, but not for all without policy to ensure this is achieved.

While AVs have the potential to improve mobility for people with disabilities, seniors and others, it is imperative that AVs are both accessible and safe for everyone. Simply equipping a traditional vehicle with an automated driving system will do little to improve mobility access for certain members of the disability community. In order for AVs to improve access for all, the needs of all types of users must be incorporated into the design of vehicles and the implementation of services. For example, TNCs, such as Uber and Lyft, were widely touted to hold the promise of improving the mobility of all individuals. However, limitations of the number of vehicles with access for wheelchair users has already resulted in lawsuits by users underserved by these companies.³⁴ Moreover, if an AV transporting a person with limited mobility or a disability is in a crash, sufficient crashworthiness and occupant protection standards must be in place to prevent dangerous or even deadly outcomes.

NHTSA's recall authority cannot be the stopgap to keep dangerous AVs on the roadways.

NHTSA's insistence that it will rely on its defect authority to police AV performance is too little, too late after a serious flaw has been identified. This view was recently voiced by the NTSB, which found that the NHTSA's approach is, "misguided, because it essentially relies on waiting for problems to occur rather than addressing safety issues proactively." Furthermore, the timeline to issue a recall can be excessively long. For example, the GM ignition switch defect was first identified in 2001 but NHTSA was not notified of the issue until 2014 at which time a recall was then issued. At least 124 people died as a result of the defect. Even still, NHTSA remains egregiously under-resourced and under-funded for the myriad of challenges the Agency faces to protect safety on our roadways. Congress should ensure NHTSA has adequate resources, funds, staff and enforcement authority to successfully carry out its statutory mission.

³³ United States Census Bureau, 2018 American Community Survey Data, Detailed Occupation For the Civilian Employed, Population 16 Years and Over, Table B24114.

³⁴ Independent Living Resource Center, a Judith Smith, Julie Foller, Sascha Bittner, Tara Ayres, and Community Resources for Independent Living vs Lyft, Available here https://dralegal.org/wp-content/uploads/2019/03/001_P_Complaint_Accessible.pdf
[https://dralegal.org/wp-content/uploads/2019/06/Uber-O'Hanlon vs Uber Technologies, Inc. Available here https://dralegal.org/wp-content/uploads/2019/06/Uber-Pittsburgh-Complaint.docx](https://dralegal.org/wp-content/uploads/2019/06/Uber-O'Hanlon-vs-Uber-Technologies,-Inc.-Available-here-https://dralegal.org/wp-content/uploads/2019/06/Uber-Pittsburgh-Complaint.docx)

Testing of AVs without compliance with FMVSS is unlimited, and the exemption process already allows for deployment of vehicles not in compliance with FMVSS.

Vehicles for testing purposes are not required to comply with safety standards, and there are no limits on the number of vehicles tested by manufacturers.³⁵ If manufacturers desire an exemption from current FMVSS to pursue their new innovations, a process to request an unlimited number of exemptions is already available in current law.³⁶ In fact at least two companies, Nuro and General Motors, have applied for exemptions, and Nuro's was granted.³⁷ In order to obtain an exemption from existing federal safety standards, the law requires manufacturers to prove that the vehicle will provide an "equivalent level" of safety.³⁸ The exemption process does not even require that a vehicle be built prior to applying for or receiving the exemption.

Arguments claiming that the exemption process is onerous are unfounded as the testing process allows ample opportunity to solve any problems and ready the concept for "prime time." If a manufacturer is unable to prove that its product can meet this low bar of equivalency even after the opportunity for unlimited testing without compliance with any safety standards, it should not be on the market. While current regulations will need to evolve for AV systems, the process must be accomplished through a careful, considered and transparent approach and not by allowing large and wholesale exemptions for industry without ensuring that the same level of public safety is met. This has been the successful approach used for new vehicle technology. Establishing minimum safety standards will ensure certainty and safety for innovation, production and public sale.

States should not be preempted especially in the absence of federal regulation.

States have the authority to uphold safety on their roads and Congress should not pass legislation to prohibit meeting this obligation. Governors and Mayors across the country are leading efforts to protect their citizens from COVID-19 and advance safety policies. However, legislation proposed in the last Congress and current draft proposals would prevent states and localities from ensuring the safety of their citizens on their roads even in the absence of federal regulations. Now more than ever, the critical role of states and localities in protecting the health and safety of its citizens should be recognized and upheld.

Proposals to provide for the safe deployment of AVs have been offered.

In conclusion, Advocates and our safety partners have made detailed and comprehensive recommendations in response to specific AV policies and legislative language. For a complete analysis of legislative proposals to-date, we refer you to our [written testimony](#) submitted to the Committee for the November 20, 2019 hearing "Highly Automated Vehicles: Federal Perspectives on the Deployment of Safety Technology" as well as our submission in response to the four tranches of staff draft text released.

³⁵ 49 USC § 30112.

³⁶ 49 USC § 30113.

³⁷ 85 FR 7826 (Feb. 11, 2020); 84 FR 10182 (Mar 19, 2019).

³⁸ *Id.*

Upgrades to America’s Infrastructure Are Required for the Safe Deployment of AVs

AVs will not be operating in closed environments. In fact, they are already being tested on public roads in Washington D.C., San Francisco and Pittsburgh, among others. According to the University of Florida Transportation Institute, at least 80 companies are currently testing autonomous technology and AVs in the U.S.³⁹ It is therefore critical that our Nation’s infrastructure accommodate the safe and successful deployment of AVs. America’s crumbling infrastructure poses significant safety and economic concerns. The AV industry has often claimed that the introduction of these vehicles will reduce congestion, improve environmental quality, and advance transportation efficiency.⁴⁰ However, it is possible, if not probable, that the outcome may be the opposite. AVs may bring about so-called “hyper-commuters” who work from their vehicles on long commutes to enable living farther from offices and/or city centers. Likewise, the possibility of empty AVs adding substantial miles on the roads as they re-position autonomously after dropping off riders could undermine many of the benefits claimed.⁴¹

Significant consideration must be given to how AV driving could change wear patterns on roadways. The lower variance of an AV’s position within a lane could lead to accelerated wear in lanes, and condensed convoys of automated trucks, commonly known as platooning, could place further strain on roads and bridges. For example, the spacing between automated commercial motor vehicles (ACMVs) in a platoon could have wide-ranging implications. If these large vehicles travel too closely together, their combined weight load could place severe stress on a bridge. In addition, lengthy platoons that consist of many ACMVs could be difficult to pass and affect merging and exiting from roadways. These are just a few of many critical concerns that must be evaluated to consider operational constraints for AVs before further damage is inflicted upon our Nation’s roads and bridges.

Taking into account the long-term ramifications, the budgetary constraints, and necessary coordination among a diverse group of interested parties when it comes to infrastructure projects at any level, research is needed now more than ever on the impact of AVs on our roads and public transit systems. Already, TNCs or ride hailing companies have been creating congestion and diverting ridership from transit to single use vehicles in certain cities. The early deployment of AVs has been predicted by some to follow the TNC model but at lower costs as a driver will not need to be compensated. Lessons learned from the growth of TNCs must be applied to the future of AVs. In addition, further research is required to examine the differing infrastructure upgrades that will be needed for urban, suburban and rural regions. More consideration must be given to these complex issues before AVs can be deployed on a large scale.

As Truck Crash Deaths Rise, Policies to Improve Safety for Truck Drivers and All Road Users Languish

The heroic efforts of truck drivers during the COVID-19 pandemic have benefited consumers throughout the country. Congress must make certain that they are protected from contagion as well as from being pushed beyond physical limitations to fulfill their job. While Advocates appreciates and understands the necessity of a short-term suspension of certain policies to allow

³⁹ Brookings Institution, Autonomous cars: Science, technology, and policy (Jul. 25, 2019).

⁴⁰ Self-Driving Coalition For Safe Streets, FAQs.

⁴¹ Bliss, L., Even Shared Autonomous Vehicles Could Spell Traffic Disaster, Citylab, May 10, 2017.

for the movement of essential goods, including medical supplies and food, these exemptions must be narrowly tailored with appropriate safeguards to protect all road users. Specifically, as exemptions have been sought from hours of service, truck size and weight limits, and licensing requirements, it is paramount that any potential negative consequences to safety are minimized. This can be achieved by: 1) exemptions should be granted for 180 days or the duration of the national emergency declaration, whichever is shorter; 2) exemptions must not be overly broad and instead constructed in a way that clearly delineates goods and services that are essential for direct pandemic response; and, 3) exemptions cannot be used to justify future rollback or repeal of truck safety rules. Any data generated during this time must not be used as the basis for any permanent policy changes. With circumstances on the roads far from normal, any data would be skewed and not indicative of potential ramifications.

While a number of identified and persistent problems are contributing to deaths and injuries resulting from large trucks crashes, unfortunately many of the known solutions and safety advances are pushed aside. Worse yet, certain segments of the industry are relentless in their efforts to roll back, weaken and degrade essential rules and regulations. This deadly and costly trend will only be reversed with proactive action taken by our Nation's leaders.

Congress should require essential safety systems as standard equipment in all new CMVs including automatic emergency braking, speed limiting devices and advanced rear and side underride guards. All these life-saving technologies have proven safety benefits. In addition, to obtain a Commercial Driver's License (CDL), a candidate should be required to undergo uniform adequate training including a minimum number of hours of behind-the-wheel training. Moreover, all data on carrier performance collected by FMCSA's Compliance, Safety, Accountability (CSA) program should be made publicly available. With fatal truck crashes continuing to occur at an alarmingly high rate unhampered by appropriate accountability, there is insufficient incentive for unsafe carriers to improve their operations.

While in the future, fully autonomous technology may offer the promise of significantly reducing crashes involving CMVs, protections and regulations are necessary to ensure it is deployed safely including the presence of a properly-licensed human driver for the foreseeable future. Furthermore, the advent of this technology must not be used as a pretext to eviscerate essential safety regulations administered by the Federal Motor Carrier Safety Administration (FMCSA). The public safety protections provided by the Federal Motor Carrier Safety Regulations (FMCSRs) become no less important or applicable simply because a CMV has been equipped with an autonomous driving system (ADS). In fact, additional substantial public safety concerns are presented by autonomous commercial motor vehicles (ACMVs).

If the serious crashes involving passenger motor vehicles equipped with automated systems of varying levels noted above had involved ACMVs, the results could have been even more catastrophic and the death and injury toll could have been much worse. Some of the most pressing safety shortcomings associated with autonomous vehicle technology, which include the ADS properly detecting and reacting to other road users, driver engagement and cybersecurity, are exponentially amplified by the greater mass and force of an ACMV. As such, it is imperative that ACMVs be subject to comprehensive regulations. The development and deployment of these experimental vehicles must also be subject to robust safeguards including sufficient data collection and sharing, performance requirements and enhanced operating authorities, at a minimum.

Any Erosion of Current Truck Safety Protections Should be Rejected

Several policies that would jeopardize safety for truck drivers and those with whom they share the roads have been put forth which Advocates and others staunchly oppose. Our rejection of these proposals, as well as our recommendations for proactive policy proposals, are detailed in the [testimony Advocates submitted](#) to the Committee for the February 4, 2020 hearing “Keep on Truckin’: Stakeholder Perspectives on Trucking in America.”

Bigger trucks mean bigger problems for safety and infrastructure.

Advocates urges the Committee to oppose any effort to increase or circumvent truck size limits including lengthening double trailer trucks, providing state or industry-based exemptions from safety regulations, or establishing pilot programs which often de facto turn into permanent policy.

Driver fatigue is dangerous and deadly.

The NTSB has repeatedly cited fatigue as a major contributor to truck crashes and included reducing fatigue related crashes in every edition of its Most Wanted List of safety changes since 2016. A barrage of legislative and regulatory proposals also continues to target ELDs and HOS rules. One such proposal was recently finalized despite strong objections from safety advocates, and various entities continue to seek exemptions from the hours of service (HOS) rules with the U.S. DOT.⁴²

“Teen Truckers” pose a major safety threat.

Some segments of the trucking industry are pushing to allow teenagers to operate CMVs in interstate commerce in order to alleviate the alleged “driver shortage” despite a March 2019 U.S. Bureau of Labor Statistics (BLS) analysis finding that “the labor market for truck drivers works about as well as the labor markets for other blue-collar occupations” and “a deeper look [at the truck industry labor market] does not find evidence of a secular shortage.”⁴³ Advocates strongly opposes the “DRIVE-Safe Act” (S. 569/H.R. 1374) which would severely jeopardize the safety of all road users by putting teenagers, who have higher fatal crash rates, behind the wheel of large trucks in interstate commerce.

Conclusion

As our Nation grapples with the ongoing pandemic and the devastation and uncertainties it has created, we turn to our elected officials to lead us on a path to recovery. This daunting responsibility is also an opportunity to build a safer, stronger country including our transportation network.

Developing AV technology and protecting public safety are not incompatible goals. When this Committee moves forward with AV legislation, we urge you to ensure that the U.S. DOT conducts thorough oversight, issues minimum safety performance standards and requires industry accountability before driverless cars are available in the marketplace and sold to the public.

⁴² 85 FR 33396 (Jun. 1, 2020).

⁴³ United States Department of Labor, Bureau of Labor Statistics, Is the U.S. labor market for truck drivers broken? (Mar. 2019).

Similarly, this precarious time in our Nation's history should not enable the permanent erosion of current truck safety protections. Advocates lauds the heroisms of truck drivers during the COVID-19 pandemic and urges Congress ensure they are protected from the disease and from being pushed beyond physical limitations to fulfill their job.

Without question, this is a transformational time in transportation history. Again, we thank the Committee for holding this hearing and look forward to continuing to work together to make vehicles and roadways safer for all.
