STATEMENT OF CATHERINE CHASE
PRESIDENT
ADVOCATES FOR HIGHWAY AND AUTO SAFETY

ON

"LOOKING UNDER THE HOOD: THE STATE OF NHTSA AND MOTOR VEHICLE SAFETY"

SUBMITTED TO THE

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COMMITTEE ON ENERGY AND COMMERCE
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Motor Vehicle Crash Deaths and Injuries Remain Historically High

America's roads are moving an ever-increasing number of people and goods.[1] This increase comes with a significant human toll and price tag. On average, 112 people were killed every day on roads in the U.S., totaling nearly 41,000 fatalities in 2023.[2] This is a 24 percent increase in deaths in just a decade.[3] An additional 2.44 million people were injured.[4] Early projections for 2024 traffic fatalities remain at a similar historic high level; over 39,000 people are estimated to have been killed that year.[5]

In 2023, 7,314 pedestrians and 1,166 pedalcyclists were killed in traffic crashes.[6] Motorcycles continue to be the most hazardous form of motor vehicle transportation;[7] 6,335 riders were killed in 2023.[8] From 2013-2023, fatalities involving pedestrian increased 53 percent, pedalcyclists increased 55 percent and motorcycles increased 35 percent.[9] Additionally, in 2023, 5,472 people were killed and 153,452 were injured in large truck crashes.[10]

In addition to the physical and emotional repercussions due to motor vehicle crashes, the annual economic cost is approximately $340 billion (2019 dollars).[11] This figure equates to every person living in the U.S. essentially paying an annual "crash tax" of over $1,000. Moreover, the total value of societal harm from motor vehicle crashes in 2019, which includes loss of life, pain and decreased quality of life, was nearly $1.4 trillion.[12] When adjusted solely for inflation, this figure amounts to over $1.77 trillion.[13] Research from the Network of Employers for Traffic Safety (NETS), finds motor vehicle crashes cost employers $72.2 billion in direct crash-related expenses in 2019.[14]

Vehicle Safety Standards Prevent Motor Vehicle Crashes, Save Lives, Avert Injuries and Reduce Associated Costs

Since Advocates' inception in 1989, we have taken a comprehensive approach to improving roadway safety by advancing policy for safe vehicles, safe road users and safe roadway environments. The Safe System Approach (SSA) is similar in its comprehensive approach and focus. It is "an effective way to address and mitigate the risks inherent in our enormous and complex transportation system. It works by building and reinforcing multiple layers of protection to both prevent crashes from happening in the first place and minimize the harm caused to those involved when crashes do occur."[15] SSA assumes that humans will make mistakes and that we must anticipate this and make accommodations to account for limited human injury tolerances by focusing on five elements: Safe Vehicles, Safe Road Users, Safe Roads, Safe Speed and Post-Crash Care. Safe vehicles are a cornerstone of both our mission and the SSA.

Advocates always has enthusiastically championed proven vehicle safety technology and for good reason -- it is one of the most effective strategies for preventing deaths and injuries. According to the National Highway Traffic Safety Administration (NHTSA), "[t]he FMVSS [Federal Motor Vehicle Safety Standards] remain NHTSA's core way of ensuring that all motor vehicles provide the requisite level of safety performance and provide it within a technical timeframe."[16] In fact, the agency has estimated that from 1968 through 2019, NHTSA's safety standards have prevented more than 860,000 deaths, 49 million nonfatal injuries, and damage to 65 million vehicles.[17] In addition, during that time frame the comprehensive societal benefits amounted to $17.3 trillion, using 2019 dollars.[18]

In 1991, Advocates led a coalition that supported enactment of the bipartisan Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991[19] which included a mandate for front seat airbags as standard equipment. As a result, by 1997, every new car sold in the United States was equipped with this technology, and airbags have saved an estimated 50,457 lives from 1987 to 2017, according to NHTSA.[20]

Advocates continues to support proven lifesaving technologies as standard equipment in all new vehicles in federal legislation and regulatory proposals. This approach results in a thorough market penetration and safety impact, reduced costs of vehicle improvements due to economies of scale and ensures new cars buyers, regardless of their budget, will have access to the lifesaving vehicle safety upgrades. These upgrades will then be extended to the next generation of used car buyers. These efforts include: tire pressure monitoring systems;[21] rear outboard 3-point safety belts;[22] electronic stability control;[23] rear safety belt reminder systems;[24] brake transmission interlocks;[25] safety belts on motorcoaches;[26] rear-view cameras;[27] safer power window switches;[28] advanced driver assistance systems (ADAS);[29] advanced impaired driving prevention technology;[30] rear designated seating position alert (hot cars);[31] enhanced vehicle hood and bumpers to better protect vulnerable road users;[32] and, advanced head lamps.[33]

These systems are not new but rather the U.S. is lagging behind other countries in taking action to set performance standards and requirements to protect their road users as well as normalize the consumer experience of driving with the technology. The European Union (EU) has demonstrated that a number of areas of vehicle and road safety can and are being addressed

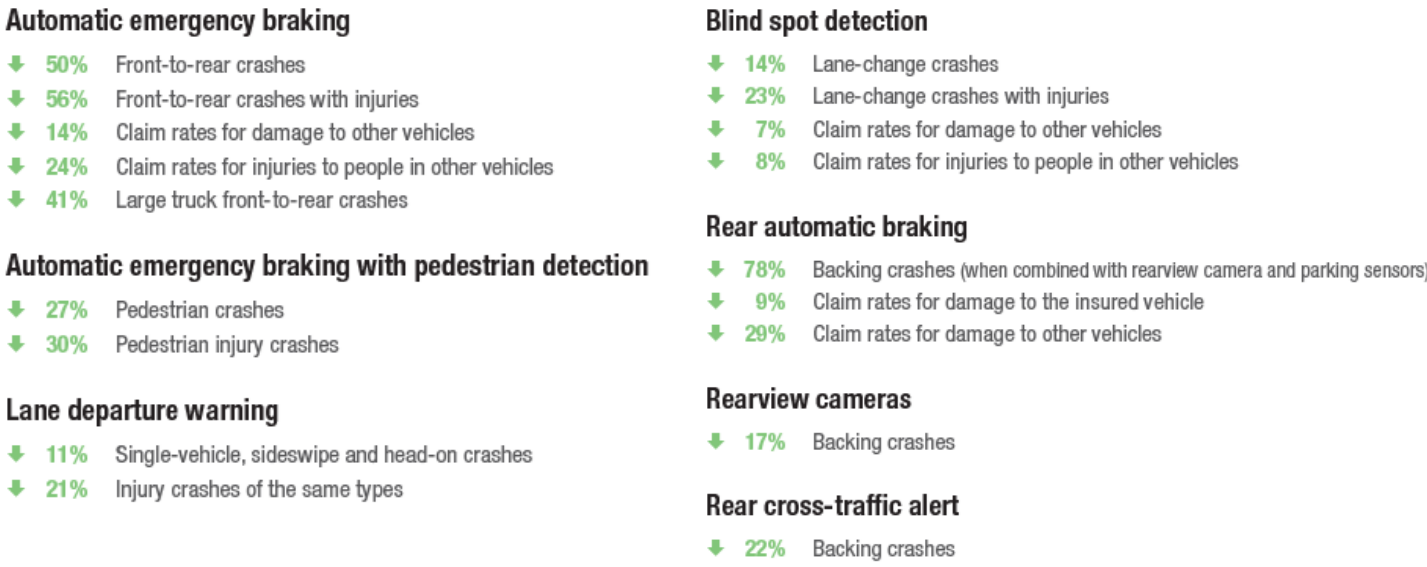
abroad. The U.S. should take steps to adapt their technologies and regulations to the crash experience on U.S. roads.

Major Contributors of Crashes Must be Addressed with Effective Solutions

With regard to the leading contributing factors to motor vehicle crashes in 2023: alcohol impaired driving resulted in 12,429 people killed;[34] speeding resulted in 11,775 people killed;[35] 10,484 vehicle occupants killed in crashes were unrestrained;[36] and, crashes in which at least one driver was distracted resulted in 3,275 fatalities.[37] Additionally, in 2021, the most recent year for which data is available according to the Non-Traffic Surveillance (NTS) system, an estimated 3,990 people were killed in non-traffic motor vehicle crashes, an increase of 26 percent from 2020.[38] These issues are persistent, and the solutions are known and available, yet remain underused, underfunded or are not required as standard equipment in vehicles.

Advanced driver assistance systems (ADAS) can mitigate the issues of impairment, speeding, distraction and fatigue

Crashes, including those due to some of the leading contributors to fatalities, can be prevented or mitigated by automatic emergency braking (AEB) and other ADAS systems. Research by the Insurance Institute for Highway Safety (IIHS) has demonstrated crash reductions:[39]



Congress directed a requirement and performance standard for AEB and lane keeping assist (LKA) in the Infrastructure Investment and Jobs Act (IIJA).[40] In May 2024, U.S. DOT issued a Final Rule to require passenger vehicles be equipped with AEB that detect pedestrians in all lighting conditions by 2029 up to 90.1 miles-per-hour (MPH) for forward crash warning and lead vehicle AEB and 45.4 MPH for pedestrian detection.[41] NHTSA estimates that this action will save 362 lives and mitigate over 24,000 injuries annually and result in a yearly cost benefit of between $5.8-$7.2 billion.[42] Based on NHTSA testing, vehicles being produced today can already meet the requirements in the Final Rule.[43]

U.S. DOT should issue the Final Rule for AEB in heavy vehicles and LKA in passenger vehicles, as Congressionally mandated. Additionally, we urge Congress to direct NHTSA to enhance the AEB rule by including bicycle and motorcycle rider detection and response in all lighting conditions. Research conducted by IIHS earlier this year found that clothing which makes pedestrians stand out to human drivers may make them invisible to automated crash prevention systems, so ensuring AEB operates properly in all lighting conditions is essential.[44]

The Magnus White Cyclist Safety Act, H.R. 3649, would advance this critical upgrade and we urge Congress to advance it.

We also urge Congress to direct U.S. DOT to issue standards and requirements for other vehicle safety technologies shown by research to reduce crashes and impacts, including as noted by IIHS research, blind spot detection, rear AEB and rear cross traffic alert.

Impaired Driving

According to NHTSA, between 2011-2020, an average of almost 10,500 people were killed each year due to alcohol impaired driving crashes.[45] Together with Mothers Against Drunk Driving (MADD) and others, Advocates was a leading supporter in federal and state efforts to reduce blood alcohol concentration (BAC) laws from .10 to .08 percent and achieve a national law.[46] Advocates also has long supported a .05 percent BAC threshold for drunk driving and the enactment of all-offender ignition interlock device (IID), child endangerment and open container laws, and measures to curb marijuana impaired driving such as extending zero tolerance for under age 21 and open container laws to include marijuana use and products.

The IIJA directed NHTSA to issue a FMVSS requiring passenger motor vehicles to be equipped with impaired driving prevention technology by 2024.[47] IIHS research estimates that passive impaired driving prevention technology will save more than 10,000 lives each year, once widely deployed.[48] The agency issued an Advanced Notice of Proposed Rulemaking (ANPRM) in January 2024 but has taken no further regulatory action.[49] Until NHTSA completes this overdue rulemaking, lives will continue to be needlessly lost, injuries suffered and associated costs

expended. Advocates continues to work with our safety partners on the Technical Working Group on Advanced Impaired Driving Prevention Technology (TWG) and others to ensure this requirement and its lifesaving benefits are fulfilled.[50]

The U.S. public agrees with this approach. A 2023 public opinion survey commissioned by MADD found, "Nearly two-thirds of respondents, or 64.9%, either agreed or strongly agreed that vehicle impairment prevention technology should be available on all new vehicles. Nearly the same percentage of respondents (63.4%) said they support the mandate for the technology that is included in the Infrastructure Law."[51] We urge Congress to exercise its oversight authority to ensure the U.S. DOT advances a performance standard for the technology, as Congressionally directed, to meaningfully reduce one of the leading killers on our roadways.[52] Conversely, the measure to repeal the requirement for impaired driving prevention technology, H.R. 1137, is inconsistent with the urgent need to curb impaired driving.

In addition to advancing the passive impaired driving prevention technology, laws requiring alcohol ignition interlock devices (IID) for all impaired driving offenders reduce fatal crashes.[53] An IID consists of a breath-testing unit connected to a vehicle's ignition. To start the vehicle, the driver must blow into the device and register a blood alcohol reading that is below a predetermined level. If the blood alcohol reading exceeds this level, the interlock prevents the vehicle from starting.[54] State laws requiring IIDs for all convicted drunk driving offenders which are supported by a compliance-based removal offer the most effective means for denying them the opportunity to get behind the wheel after consuming alcohol.[55] Nationwide between 2006 and 2020, IIDs prevented 3.78 million attempts to drive drunk, according to a 2022 report from

MADD. This figure included 390,456 attempts in 2020, which is equivalent to more than 1,000 every day.[56] Research shows that IIDs reduce recidivism among both first-time and repeat driving while impaired (DWI) offenders, with reductions in subsequent DWI arrests ranging from 50 to 90 percent while the IID is installed on the vehicle.[57]

The bipartisan End DWI Act, H.R. 2788, encourages states to enact and enforce an IID law meeting certain specifications. Currently, at least 24 states and the District of Columbia would meet the proposed IID law, and we urge Congress to advance it without delay.

Speeding

Excess speed can contribute to both the frequency and severity of motor vehicle crashes. At higher speeds, additional time is required to stop a vehicle, and more distance is traveled before corrective maneuvers can be implemented. Speeding reduces a driver's ability to react to emergencies created by driver inattention, unsafe maneuvers of other vehicles, roadway hazards, vehicle issues (such as tire blowouts) or perilous weather conditions. Increases in speed also can mean life or death for VRUs who lack the protective structure of a vehicle. While many drivers have a proclivity to exceed posted speed limits or may approve of higher speed limits, AAA has found that raising speed limits leads to a very minimal reduction in time on the road noting, "Raising speed limits is often thought of as a way to improve traffic flow and to allow drivers to get to their destinations more quickly. However, AAA research shows that driving at higher speeds increases risk which can outweigh the potential benefits of saving a few minutes of time."[58]

Intelligent speed assistance (ISA) can provide information to drivers about present speed limits, warn drivers when a vehicle speed is above the limit, prevent a vehicle from exceeding the speed limit, or maintain a set speed.[59] Advocates supports the installation of these systems into vehicles in the U.S. as well as grant funding opportunities for localities to equip their fleet vehicles with ISA systems and for states that enact laws requiring use of ISA by certain reckless driving and speeding offenders. Virginia and Washington enacted such laws in 2025, and the District of Columbia did so in 2024. The U.S. DOT Volpe Center released research, "New York City Intelligent Speed Assistance Pilot Evaluation," in 2024 which showed "ISA produced a 64 percent reduction in overall speeding and an 82 percent decrease on high-speed roads."[60] The IIHS found that more than "60% of drivers would find it acceptable if their vehicle provided an audible and visual warning when they exceeded the posted speed limit."[61] The National Transportation Safety Board (NTSB) has recommended that NHTSA require ISA in all new vehicles that, at a minimum, warns drivers when they exceed the speed limit. The NTSB also recommended that NHTSA develop guidelines for states to pilot ISA interlock programs for repeat speeding offenders.[62]

Rating this technology in new vehicles should be part of an improved U.S. New Car Assessment Program (NCAP), as is already done in the EU, and could incentivize automakers to equip more U.S. models with ISA systems. ISA is required on all new vehicles sold in Europe as of July 2024.[63] We urge Congress to direct the U.S. DOT to take action to incentivize use of ISA in the U.S. on the road to requiring the technology in new vehicles.

Occupant Protection

Seat belt use is a proven lifesaver. From 1975 to 2019, seat belts prevented over 403,000 fatalities and saved society approximately $2.5 trillion in economic costs.[64] Seat belts serve as the first line of defense against injury or death for vehicle occupants when crashes occur. According to NHTSA, the combination of an airbag plus a lap and shoulder belt reduces the risk of death in frontal crashes by 61 percent.[65] Sadly, for passenger vehicle occupant fatalities in 2023, it is estimated that nearly half (49 percent) were unrestrained.[66]

Seat belt reminder systems have been proven to improve seat belt use and save lives.[67] Congress as part of the Moving Ahead for Progress in the 21st Century Act (MAP-21) directed NHTSA to amend federal safety standards to require these systems in the rear seats of passenger vehicles (previously these systems were only required for the front driver's seat although most automakers also equipped the front passenger seat).[68] NHTSA recently issued a Final Rule requiring a seat belt use warning system for rear seats by September 1, 2027. The rule also updates and enhances the current seat belt warning requirements for the driver's seatbelt and extends these requirements to the front outboard passenger seat by September 1, 2026.[69] It must be implemented without delay to improve vehicle occupant safety.

Currently, 21 states and the District of Columbia require seat belt use by all occupants and permit primary enforcement of those laws.[70] Primary enforcement laws are regular laws in which an officer does not need to witness an additional driving offense to enforce the seat belt law (known as secondary enforcement). Primary enforcement laws are clearer and act as a deterrent to non-seat belt use; when an occupant perceives the law as enforceable, they are more likely to

comply.[71] We urge Congress to establish an incentive grant to encourage the remaining states to upgrade their seat belt laws and better encourage all occupants to buckle up.

Additionally, we urge Congress to advance the She Develops Regulations In Vehicle Equality and Safety (She DRIVES) Act, S. 161, to direct U.S. DOT to use the most advanced testing devices available and update crash testing standards to reduce gaps in crash protections for females.

Distracted Driving

Driver distraction is known to be a principal cause of motor vehicle crashes.[72] However, the true impact of distracted driving remains unclear due to issues with the underreporting of crashes involving distraction, including differences in police crash report coding and database limitations.[73]

In 2023, over two trillion text and multimedia messages were sent or received in the U.S. Mobile wireless data traffic has risen dramatically over the last decade, from 3 trillion megabytes in 2010 to 100.1 trillion in 2023.[74] Research has shown that because of the degree of cognitive distraction these devices cause, the behavior of drivers using mobile phones (whether handheld or hands-free) is equivalent to the behavior of drivers at the threshold of the legal limit for alcohol in most states (0.08 percent BAC).[75] Crash risk increases dramatically – as much as four times higher – when a driver is using a mobile phone, with no significant safety difference between handheld and hands-free phones observed in many studies.[76] A study by the Virginia Tech Transportation Institute found that text messaging increased the risk of a safety-critical

driving event (i.e., crashes, near-crashes, crash-relevant conflicts and unintentional lane deviations) by 23.2 times.[77] Sending or receiving a text message causes the driver's eyes to be off the road for an average of 4.6 seconds. When driving 55 miles per hour (mph), this is the equivalent of driving the entire length of a football field with one's eyes closed.[78]

The IIJA directed U.S. DOT to conduct research regarding the installation and use of driver support systems, also known as driver monitoring systems, to minimize or eliminate driver distraction and automation complacency within three years and report to Congress within six months of the completion of the research.[79] The U.S. DOT Secretary then must determine if one or more rulemakings are required.

The Euro NCAP is already evaluating these systems including for non-fatigue impairment detection.[80] In addition, several major automakers include some type of driver monitoring/ driver support technologies in their vehicles sold in the U.S. The IIHS has started rating safeguards for partial driving automation systems.[81] The U.S. DOT should release the study and advance a Final Rule with a compliance date for driver support systems to prevent driver distraction, disengagement and automation complacency including for vehicles equipped with partial automated driving system (ADS) and to ensure driver capability. The U.S. DOT also should issue standards for nomadic devices and in-vehicle systems to limit driver distraction. We urge Congress to conduct oversight on U.S. DOT to complete the Congressional directives and address the plague of distracted driving. Moreover, we urge Congress to enact the Driver Technology and Pedestrian Safety Act of 2025, H.R. 3360, to study in-vehicle communication system distraction and prescribe standards to limit such.

Vulnerable Road User (VRU) Safety

In addition to enhancing the AEB rule to detect all VRUs, as the Magnus White Cyclist Safety Act, H.R. 3649, would help to accomplish, other vehicle safety improvements should be pursued.

Lack of conspicuity is a roadway safety issue, especially for VRUs. Of the 7,522 pedestrians killed in traffic crashes in 2022, 78 percent occurred in dark conditions.[82] Also in 2022, there were 1,105 pedalcyclists fatalities, and 51 percent occurred in dark conditions.[83] Improvements to vehicle lighting would afford drivers additional time to identify and respond accordingly to pedestrians, bicycle riders and other VRUs in the roadway. The IIJA directed U.S. DOT to issue a Final Rule updating the headlamp standard (FMVSS 108) and permitting adaptive driving beam (ADB) headlamps within two years. ADB headlights are a lighting technology which uses headlight beam modification to increase illumination of the road while avoiding glare to other traffic. While the U.S. DOT has taken action to allow use of ADB, it should improve the standard and require them.[84] This action has been recommended by the NTSB and others.[85] According to IIHS, 44 percent of headlight systems tested on model year 2024 vehicles earned a good rating.[86] About 23 percent of the systems tested were rated marginal or poor because of inadequate visibility, excessive glare from low beams for oncoming drivers, or both.[87]

Additionally, the IIJA included a provision directing NHTSA to issue a Notice for Public Comment on updating hood and bumper standards for passenger vehicles to "to reduce the number of injuries and fatalities suffered by pedestrians, bicyclists, or other vulnerable road users."[88] In September 2024, NHTSA issued a Notice of Proposed Rulemaking (NPRM) to

establish a new FMVSS to ensure passenger vehicles are designed to mitigate the risks of serious injuries and fatalities in crashes involving pedestrians including children.[89] The standard proposed in the NPRM would save 67 lives annually with the benefits far outpacing the costs by establishing test procedures simulating a head-to-hood impact and performance requirements to minimize the risk of head injury.[90] We urge Congress to conduct oversight on U.S. DOT to complete the rulemaking with a compliance date for hood and bumper standards to protect all VRUs and to take additional actions. A driver must be able to see all road users in the roadway environment (direct vision), especially in vehicles with high hoods and bumpers, and technology can help to prevent or mitigate interactions with VRUs including at very low speeds and with small children.

Motorcycle riders continue to be overrepresented in fatal traffic crashes.[91] IIHS evaluated on-road data and found motorcycle anti-lock braking systems (ABS) were associated with a 22 percent reduction in the rate of fatal crash involvements.[92] Requiring ABS as standard equipment via a FMVSS on new motorcycles will prevent and mitigate crashes. EU GSR has required ABS fitment on motorcycles since 2016. IIHS most recently filed a Petition for Rulemaking to require ABS on motorcycles with NHTSA in 2023.[93] Advocates filed a letter with the Agency in support of the Petition.

Additionally, we urge Congress to advance the Preventing Roadside and Work Zone Deaths Act, H.R. 2992, to improve data collection and implement solutions to prevent crashes with people and vehicles on the roadside and in work zones.

Child Passenger Safety

Since 1990, over 1,100 unattended children have been killed in "hot cars," and 7,500 more have been injured.[94] Cost effective technology exists to prevent these tragedies now. The IIJA directed U.S. DOT to issue a Final Rule within two years requiring all new passenger motor vehicles weighing less than 10,000 pounds to be equipped with a system to alert the operator to check rear-designated seating positions after the vehicle engine or motor is deactivated by the operator. The U.S. DOT has not taken regulatory action and should issue a Final Rule which requires the system to detect occupants in the entire passenger compartment rather than rely on reminder systems which are less effective. Of note, Euro NCAP added testing of child detection systems in 2023 (protocol), and from 2025 onwards will only be assigning points for direct sensing systems.[95]

Improvements to child passenger safety seats to protect our most vulnerable occupants are also needed including to upgrade crash testing, update product labeling and identify clear metrics for use.

Automated Driving System Safety

In addition to having the potential to save lives now, crash avoidance technologies are foundational building blocks for a potentially automated driving future. An autonomous vehicle (AV) will need to detect and respond to all road users, vehicles and infrastructure in the roadway environment in all lighting conditions and speeds (AEB), to monitor blind spots and take appropriate action (blind spot detection with intervention), to stay within its lane of traffic (LKA), to follow speed limits (intelligent speed assistance), and to know if the vehicle is

occupied (occupant detection), especially if deployed as a shared system, among other responsibilities. For partial ADS, the technology also will need to ensure that an alert and attentive driver is ready and able to take over at a moment's notice when the system is unable to continue the driving task (driver support/monitoring systems).[96] In March 2024, IIHS introduced a ratings program for safeguards for partial driving automation systems.[97] Of the first 14 systems tested, only one earned an acceptable rating. Two were rated marginal, and 11 received a poor rating.[98]

The EU has established requirements for automated lane keeping systems (Level 3), including driver availability monitoring, fail-safe, object and event detection response (OEDR), cyber security, and data storage.[99] These if-equipped requirements applied beginning in July 2024. Additional EU regulations establish specifications for type approval of fully automated vehicles (which are currently allowed only in limited numbers in the EU).[100] The EU also is developing rules to address driver control assistance systems (DCAS) which go beyond the functions already covered as well as aspects of operations such as the system only being available in their operational conditions, ensuring the engagement of the driver, compliance with applicable traffic laws, and achieving a minimum risk condition / stop, among others.[101] The U.S. should take steps to adapt related technologies and regulations to the crash experience on U.S. roads.

New Car Assessment Program (NCAP)

By any measure NCAP has been exceedingly successful. The program has been copied the world over and has provided necessary safety information to consumers for decades. NCAP is an invaluable tool in helping to ensure car buyers have the information they need to purchase safe

vehicles that will protect them and their families. As NHTSA has stated, "[f]rom its inception, NCAP has played a significant role in educating consumers on vehicle safety as a key factor in their vehicle purchasing decisions."[102] In addition, the program has served as an important incentive for automakers to improve crashworthiness and place the latest safety technologies into their vehicles. While NHTSA did implement some important updates to NCAP in recent years, the program remains woefully outdated, particularly its five-star rating program and is in need of substantial upgrades to ensure that the program is both keeping pace with the current state of technology and maximizing its benefits to safety.[103]

Experimental Autonomous Driving Technology Remains Unproven, and the U.S. is Not Lagging Behind Other Countries in Deployment

In stark contrast to the effectiveness of federal standards and proven safety technology, cars equipped with various levels of autonomous technology, which is unregulated, already have been involved in numerous serious and deadly crashes, many of which have been subject to investigation by the NTSB and NHTSA.[104] As NHTSA noted in the 2025 NPRM on the ADS-Equipped Vehicle Safety, Transparency, and Evaluation Program (AV STEP), vehicles equipped with automated driving systems (ADS) "…often struggle with driving tasks that humans consider relatively simple."[105] Furthermore, according to data collected by NHTSA's Standing General Order (SGO) 2021-1 requiring manufacturers to report certain crashes involving vehicles equipped with ADS or SAE Level 2 ADAS, there have been approximately 1,315 crashes involving ADS and 2,477 with ADAS. These include 51 crashes resulting in a fatality.[106] Revisions made to the SGO by NHTSA in the Third Amendment effective earlier this month will result in concerning gaps in the reporting of certain crashes. The SGO should be strengthened, not weakened, to improve public safety. We greatly appreciate the efforts of Members of

Congress including from this Subcommittee who have advocated for such by conducting oversight of the U.S. DOT or developing legislation.

In addition, several San Francisco transportation agencies submitted comments to the California Public Utilities Commission in 2023 detailing numerous dangerous incidents involving AVs operating in the city.[107] These events include:

- Interfering with emergency response operations including 18 incidents documented by the San Francisco Fire Department in which AVs put firefighters and the public at risk.
- Making planned and unplanned stops in travel lanes that have interfered with transit service and blocked traffic.
- Intrusions into construction zones where City employees were working.
- Obstructions caused by AVs having to interpret and respond to human traffic control officers.
- Erratic driving.[108]

According to recent media reports, similar issues continue to occur.[109]

Many promises have been touted about AVs bringing reductions in motor vehicle crashes and resultant deaths and injuries, lowering traffic congestion and vehicle emissions, expanding mobility and accessibility, improving efficiency, and creating more equitable transportation options and opportunities.[110] However, as auto industry leaders have acknowledged, these outcomes are far from certain.[111]

AV manufacturers and proponents of the technology often claim that AVs are safer because they don't get tired, distracted or drive impaired. However, every single day most of the millions of licensed drivers in the United States operate their vehicle safely. In the entire totality of AV testing and operations, these vehicles have "driven" 145 million miles as of May 2025 which is 0.004 percent of what humans drove in the U.S. in a single year.[112] While some AVs may be readily able to avoid crashes caused by those human drivers who operate impaired, fatigued or distracted, they also may cause crashes that sober, alert and engaged drivers would routinely avoid. AVs, which are essentially billion-dollar pieces of equipment with years of research, should not drive better than only the worst drivers on the road.

Additionally, supporters of AVs often assert that these vehicles will improve roadway safety by inaccurately stating that 94 percent of crashes are due to human error pointing to a report from NHTSA as support for this misleading claim. However, the agency stated in the same document with this statistic that "[a]lthough the critical reason is an important part of the description of events leading up to the crash, **it is not intended to be interpreted as the cause of the crash nor as the assignment of the fault to the driver, vehicle, or environment."[113]** [*Emphasis added*.] In addition, NTSB Chair Jennifer Homendy has declared that using the statistic in such a manner is "dangerous" and "[a]t the same time it relieves everybody else of responsibility they have for improving safety, including DOT."[114] Proponents of AVs also have made the claim that these vehicles will prevent 90 percent of crash fatalities.[115] Yet, as NHTSA states in the AV STEP NPRM, "[t]his proposal recognizes that the potential of ADS is still largely unproven."[116]

In sharp contrast to what is happening in the U.S., other countries are taking a more calculated, careful and cautious approach to the development of AVs.[117] Often-repeated claims about the U.S. "falling behind" other countries in the "race" for AVs are simply not true nor supported by research. For example:

- China continues to require permits or restricts operations of AVs on its roads to only those areas approved by the authorities.[118]
- Germany continues to require permits, approvals, and limits areas of operation for AVs.[119]
- In Japan, the introduction of Level 4 vehicles will be controlled and limited to specific, lightly populated areas.[120]
- The latest United Nations Economic Commission for Europe (UNECE) regulations will limit operations to restrict risks and oversee approval through testing and other requirements.[121]

In sum, no country is selling fully automated vehicles for unfettered use to the public and by many accounts, none will be for a significant amount of time.[122] According to the most recent KPMG analysis, the U.S. ranks fourth in the world for AV readiness, while China stands at number twenty.[123] The U.S. is not lagging other countries in allowing AVs to go to market, but we are behind in establishing comprehensive regulations to ensure public safety will not be jeopardized or diminished.

The statutory mission of the DOT established by Congress in 1966 is to regulate the performance of motor vehicles to ensure public safety, which now includes AVs.[124] In keeping with existing law and practice, the federal government should prescribe regulations for the performance of these vehicles, leaving regulation of the operation of these vehicles to the states. Even after federal regulations are in place regarding AVs, existing federalism practices demand that states retain a legal right and a duty to their residents to develop proposals and implement solutions to ensure public safety. In addition, state and local governments have the authority to manage the operation of vehicles on their streets to address concerns such as safety, noise, local air quality and congestion. Any action on the regulation of AVs should not preempt states and localities from regulating the operation of these vehicles just as they do for traditional motor vehicles. Similarly, Advocates opposed proposals being considered by Congress to preempt state action on artificial intelligence (AI) which includes AVs.

The AV Tenets Offer a Sound and Sensible People-and-Safety-First Approach to AV Deployment

To identify a people-and-safety-first path forward on AVs, Advocates and numerous stakeholders developed the "AV Tenets."[125] These sound and sensible policy positions should be a foundational part of any national AV policy. The AV Tenets are based on expert analysis, real-world experience, and public opinion. They have four main categories including: 1) prioritizing safety of all road users; 2) guaranteeing accessibility and equity; 3) preserving consumer and worker rights; and, 4) ensuring local control and sustainable transportation. They are supported by a coalition of more than 65 organizations representing consumers, public health and safety experts, pedestrians, bicyclists, disability rights activists, emergency responders, law enforcement, labor and others. Requiring that AVs meet minimum performance standards,

including for cyber security and a "vision test" to ensure the vehicle can respond to all people, vehicles and objects in the roadway environment, is essential. In addition, AV operations must be subject to adequate oversight, including a comprehensive database accessible by vehicle identification number (VIN) with basic safety information. These are fundamental prerequisites to prevent crashes caused by AVs and boost consumer confidence in this burgeoning technology.

The Need for Adequate Staffing, Resources and Funding for NHTSA

Congress established NHTSA in the Highway Safety Act of 1970.[126] The agency's mission is "to save lives, prevent injuries, and reduce economic costs due to road traffic crashes."[127] Moreover, "NHTSA's work touches nearly every American. All road users – by foot, bicycle, motor vehicle, or public transit – are impacted, and NHTSA's mission is to keep everyone, especially the most vulnerable among us, safe."[128]

Sufficient staffing, resources and funding for NHTSA can be the catalyst for implementing effective safety countermeasures to prevent crashes, save lives, reduce injuries and contain costs. Vehicle safety upgrades remain a key component of a comprehensive and effective approach to improving traffic safety. The issuance of vehicle safety standards and requirements for technology and systems are proven to prevent crash fatalities and curb costs. In addition, NHTSA collects and analyzes important crash data, maintains regional offices, institutes vehicle safety recalls and conducts important research. The Agency's ability to effectively protect the public and minimize potential safety risks necessitates additional funding and resources, including for hiring staff with essential skills and expertise.

Traffic fatalities continue to be a public health crisis, yet the funding for NHTSA's lifesaving mission has fallen woefully short for more than four decades as costs and statutory responsibilities have increased. While 96 percent of transportation-related fatalities involve motor vehicles, NHTSA historically receives only one percent of the overall U.S. DOT budget.[129] Despite persistently high crash deaths and injuries, increasingly complex vehicle technology and related issues, consistently high numbers of vehicle safety recalls, overdue motor vehicle and motor carrier safety rules mandated by Congress, and more requirements, the NHTSA's actual spending for vehicle safety programs has dramatically declined based on inflation, as illustrated by the chart below.

For Over 40 Years NHTSA's Vehicle Safety Budget Shrinks While Program Needs Escalate: Comparison of NHTSA's Safety Budget 1977 vs. 2024[130, 131]

Account	Appropriations (millions)			Change in Spending Power	Percent Change
	1977	1977 ($2024)	2024		
Vehicle Safety	$72	$380	$110	-$270	-71%
State & Community Grants	$89	$469	$795	$326	70%

The above table clearly demonstrates the disparity in funding for vehicle safety which should be increased at a rate commensurate with State and Community Grant funding.

Count (millions)	1977	2022	Change in Count	Percent Change
Licensed Drivers	138	235	+97	70%
Vehicle Registrations	135	303	+168	124%

As we approach the final year of the five-year span of the bipartisan IIJA, a majority of the directives to NHTSA to establish performance standards for critical vehicle safety technology are

overdue or unfulfilled. Moreover, the Agency is responsible for a range of initiatives aimed at reducing risky driving decisions such as speeding, and distracted, drunk, drugged, and drowsy driving, improving occupant protection and bolstering the safety of vulnerable road users, among others. The Section 402 Highway Safety Program and Section 405 National Priority Safety Program, in combination with state adoption of essential traffic safety laws, can assist these ongoing efforts. Additionally, the Agency's Operations and Research (O&R) budget is crucial to important activities related to data collection, consumer information and identification of vehicle safety defects. All these safety objectives can and should be realized by an adequately funded budget.

Conclusion

Roadway deaths and injuries are not only preventable, but they also result in long-lasting impacts which often are not accounted for in statistics alone. For every single death and serious injury, there is a horrific ripple effect forever changing the lives of children, parents, friends and communities. The public is aware and rightly worried about roadway safety. In December 2024, Advocates released a public opinion poll that found 9 of 10 adults surveyed are concerned about themselves or their loved ones getting into motor vehicle crashes.[132] It also found the public is very concerned about the leading traffic safety issues as well as sharing the road with driverless cars and trucks.[133] These results were consistent across regions and regardless of political affiliation. The trepidation expressed about driverless vehicles is similar to an earlier poll commissioned by Advocates which also identified that the public wants action. In fact, the poll found "64% of Americans feel that their concerns could be adequately addressed by minimum government safety requirements."[134]

As this Subcommittee and Congress in general begin to prepare for the next surface transportation reauthorization legislation, it is a vital and urgent time to address the horrific motor vehicle crash, fatality and injury toll which also presents a significant financial burden to all taxpayers. The U.S. can and must do more to make our roadway infrastructure safer for all road users, and NHTSA has an essential role to play and must be given the necessary resources to do so. We thank the Subcommittee for holding today's hearing and for the opportunity to testify, and we look forward to continuing to work together to advance proven safety solutions.

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