



House Committee on Energy and Commerce

Consumer Protection and Commerce Subcommittee

May 18, 2021

HEARING: PROMISES AND PERILS:
THE POTENTIAL OF AUTOMOBILE TECHNOLOGIES

Good morning. Thank you, Chairman Pallone, Chairwoman Schakowsky, Ranking Member McMorris Rodgers, and Ranking Member Bilirakis for holding this important hearing today. My name is Jason Levine, and I am the Executive Director of the Center for Auto Safety. Since 1970, the Center has been the nation's premier member-supported, independent, non-profit consumer advocacy organization dedicated to improving vehicle safety, quality, and fuel economy for all drivers, passengers, and pedestrians.

The topic of today's hearing is Promises and Perils: The Potential of Automobile Technologies. For fifty-one years, the Center for Auto Safety has urged utilizing proven vehicle safety technology to protect everyone inside and outside vehicles. The promise of such technology, in combination with smarter infrastructure, and a dedication to consumer rights, is a safer world for all starting right now. The perils are our continued acceptance of 115 deaths a day each year – the equivalent of everyone in a sold-out Washington Nationals Park being killed – and trying to explain to our grandchildren why we ignored a public health crisis for which solutions were readily available.

A lot has changed in the two years since I last had the honor of appearing before this Subcommittee. Obviously, last time we met in person – and today we are connected virtually. Sadly however, far too much has remained the same. Since May 2019, an estimated 80,000 lives have been lost due to vehicle crashes in the United States. Last year, an estimated 42,060 lives were taken, representing an incredible eight percent increase from the previous year and the greatest year-over-year increase since 1924.¹ Pedestrian, bicyclist, and other vulnerable road user deaths now number over 7,000 annually, including the death in November of Larry Willis, the President of Transportation Trades Department, one of today's panelists.² There are still an estimated 5,000 deaths involving heavy trucks annually, killing both truck drivers and other road users, such as six-month old Leo Wallace of South Bend, Indiana who was killed last week in a rear end collision.³ The fatality rate in rural communities remains twice as high as in America's urban areas.⁴

This ongoing public health crisis is in large part due to our vehicle safety policy remaining in pit row while the rest of the world laps us by focusing on using available safety technology right now.

Taylor Grace Warner died at seventeen months old when her parents' seatbacks collapsed,⁵

Sammy Cohen Eckstein was runover at age twelve in the street just outside his home by a speeding van,⁶

Jewel Brangman died at age 26, as a driver, when a defective recalled airbag deployed shrapnel in her face.⁷

These victims, and many thousands like them, derived no benefit from counting the number of state funded companies exposing Chinese citizens to the risks of unregulated automated vehicle technology. Their families took no comfort from discussions about the need to protect autonomous vehicle (AV) manufacturers from liability even after Elaine Herzberg – a pedestrian – was killed by an automated test vehicle in Arizona. Conversations about limiting common law liability make no one's funeral less awful.

However, instead of a debate about solutions to an actual crisis, victims must suffer through another round of Chicken Little commentary decrying that if we do not immediately put all our eggs in the driverless vehicle basket the U.S. will lose out in the race to be first to transportation and environmental nirvana. Yet, few AV proponents who claim to be motivated by vehicle safety mention that the twenty-nine foreign countries making up the European Union (EU) experienced record low vehicle related deaths just last year, without a single driverless vehicle on the road. The EU, despite a larger population, and an almost identical number of vehicles and land size, had fewer than 19,000 crash deaths last year, a total less than half of the U.S. death toll.⁸ This disparity is unacceptable.

There is a better way. We recommend a four-pronged approach to seize on the potential of existing and yet-to-come vehicle technologies to protect everyone on U.S. roads.

Federal Government Involvement: There must be federal government involvement to create rules and oversight fostering an environment that can iteratively introduce innovative vehicle technology safely to the market thus laying the groundwork for consumer confidence. Creating and enforcing safety standards is one of the most useful tools at the federal government's disposal to assist in achieving the National Highway Traffic Safety Administration's (NHTSA) core mission of saving lives, preventing injuries, and reducing economic costs due to road traffic crashes. By writing minimum performance standards for vehicles and components, NHTSA can provide a baseline on which both manufacturers and consumers know they can rely. Further, automotive history has repeatedly shown that absent regulation requiring the adoption of life-saving technology, safety is typically only available for an additional price – a price frequently paid by everyone on the road.

Data Collection: There must be data collected, and shared, from driverless test vehicles to provide not only the basis for needed rules but also to enable the public to differentiate between manufacturers who innovate for safety from those who do not. The need for such mandated data collection is why the Center petitioned NHTSA in 2018 to begin a rulemaking to require AV manufacturers testing on public roads to submit uniform data.⁹

Moreover, uniform data, shared with the public, is the basis upon which NHTSA's New Car Assessment Program (NCAP) is based. That the world has imitated our NCAP, better known as the 5 Star Crash Ratings, demonstrates that it is inarguably the greatest market-based, nonregulatory safety program in automotive history.¹⁰ Critically, due to a lack of useful comparative data, almost 100% of all new vehicles in the U.S. receive top ratings. NCAP's current state is akin to a youth soccer game where no one keeps score to avoid hurting feelings, but in this case consumers are losing. Updating NCAP would again incentivize safety innovation, as it has in Europe and around the world.¹¹

Gated Certification: There must be competent examination and oversight of AVs as they mature to assure that safety claims match the reality of manufacturer developments and objectively

supervised operational experience. Public safety currently demands that every motor vehicle operated on the nation's public roads be controlled by a licensed operator, qualified by examination, with no exceptions. This simple notion underlies all Federal, state, and local road laws; vehicular tort case law; commercial, for-hire, and private licensing; vehicular law enforcement; operator training and certification; and vehicular design.

Just as new human drivers must pass certain criteria, including age, paper exams, driving exams, driving experience, etc., prior to being permitted to legally operate a vehicle in all conditions, the same should be true for computers. Establishing objective operational safety standards which can be verified by an outside third-party prior to unfettered public deployment is a critical step in achieving long term driverless success.¹²

Requiring Performance Standards for Proven Advanced Driver Assistance Systems (ADAS): One of the most easily identifiable differences between the U.S. and the EU is the far greater number of vehicle safety features which are standard overseas. Heavy trucks are required to have automatic emergency braking (AEB), speed assist features, and underride guards. EU vehicles are currently rated on how well they protect pedestrians and other vulnerable road users, a comparison component unavailable in the US NCAP.¹³ By 2022, all new passenger vehicle models in the EU will come equipped with a suite of ADAS features that remain optional or non-existent equipment on US vehicles.¹⁴ In 2018, the National Transportation Safety Board (NTSB) issued eight safety recommendations to NHTSA addressing the need to include performance-based standards for vehicle headlight systems, development of performance test criteria for vehicle designs that reduce pedestrian injuries, and incorporation of pedestrian safety systems including pedestrian collision avoidance systems and other more passive safety systems into NCAP.¹⁵ More than 20,000 vulnerable road user deaths later, nothing has changed.

Further, many of today's ADAS features are unquestionably the building blocks of future vehicle automation. Creating performance standards and requiring features such as AEB, Lane Departure Warnings, Forward Collision Warnings, Blind Spot Detection, Cross Traffic Warning, Rear AEB, Smart Headlights, Driver Monitoring Systems, and Advanced Automatic Crash Notification, will not only save lives now but will be part of the slow climb to AVs which work hand in glove with human drivers. Driver Monitoring Systems alone have the potential to combat distracted, drowsy, drunk, drugged, and automation complacent driving, which combined lead to tens of thousands of deaths annually, but are currently not required by NHTSA or rated in NCAP.

The United States remains home to the greatest vehicle innovators in the world. The time is now to use proven safety innovations in a way that can save lives immediately.

We thank this Subcommittee for your ongoing focus on vehicle safety, an issue that impacts every single American. Please see below for more ideas and specifics on how Congress can improve vehicle safety and consumer protection. On behalf of our members, the Center for Auto Safety stands ready to assist however we can in the cause of safety.

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No single mistake should ever cost someone their life - especially when existing technology, available at reasonable price, can mitigate or eliminate potential tragedy and does not interfere with the utility of the vehicle. One of the greatest potentials for automobile technology is the opportunity to use it to prevent crashes before they occur. Conversely, consumers have their lives imperiled every day because instead of employing available technology, proven consumer protections, and targeted government involvement, manufacturers and policymakers find it easier to chase headlines and sound-bite solutions. Below we present a variety of additional immediately achievable policy, technical, and legal solutions to address critical vehicle safety issues and save lives as soon as possible.

Preventing crashes and resulting injuries and fatalities by using safety standards

In addition to the variety of ADAS features listed above, there are other long-standing opportunities for NHTSA to act to improve the safety of consumers in and around motor vehicles. To be able to successfully engage in these tasks, however, NHTSA needs both the will to take on the challenge and the resources to do so. Amongst the most important actions Congress can take to help NHTSA oversee advanced auto safety technologies, and improve vehicle safety overall, is to provide the agency with adequate funding.

Over the last 40 years, while the number of vehicles on the road and the number of drivers have both doubled, America's only federal safety agency with rulemaking and enforcement authority has seen its vehicle safety appropriations (adjusted for inflation) drop as much as forty percent. The Rulemaking, Enforcement, and Research and Analysis departments at NHTSA, which have been directly responsible for vehicle crashworthiness and other safety standards that have saved hundreds of thousands of lives since NHTSA's founding five decades ago, remain significantly underfunded.¹⁶ Such chronic underfunding only encourages the cynical narrative that NHTSA is incapable of overseeing the driverless vehicle industry due to a lack of resources. As discussed above, not only can the federal government play a significant role in the development of AVs, it must.

As also noted above, improving the safety of today's vehicles is a key building block for the vehicles of the distant future. Accordingly, NHTSA should flex its rulemaking muscles to begin the process of updating standards written for now-antique vehicles in order to provide today's road users optimal protection based on current technology. Additionally, the agency should create new standards to ensure the ADAS technology of today works to reduce crashes, which will lay the groundwork for the next generation of safer vehicles. The overdue rulemaking docket at NHTSA, from Congressional mandates, public petitions, and NHTSA's own research is too long to list here in its entirety. One area where the agency could begin to address the backlog would be with the safety of rear seat passengers.

Compel NHTSA to Update the Seatback Standard. Federal Motor Vehicle Safety Standard (FMVSS) 207, which specifies minimum seat and seatback crash performance levels, was written in 1967, published with a slight change in 1968. At the time it was possible to pass the test with the type of chair one might find at a banquet hall, and unlike many aspects of vehicle safety, it has never been modernized. Over the last fifty-four years, there have been thousands of rear end crashes resulting in horrific deaths and life-altering injuries often caused by a parent being thrust backward over their collapsed seat at such a speed and force as to kill or paralyze their own child. For decades, the Center for Auto Safety has urged both the industry and the agency to upgrade

the standard to save lives and stop catastrophic injuries, yet to no avail. Two petitions remain unanswered at NHTSA even now.

In July 2019, NHTSA released a study documenting changes to FMVSS 207 that would reduce seat back dynamic rotation and prevent injury to rear passengers.¹⁷ Included in the data analysis was a figure that shocks the conscience: an estimated cost of less than \$4.62 per automatic seat (\$1.92 for manual seats) to make the adjustments that could prevent many of these life-altering injuries from taking place.

It is the moral obligation of a society to use available, affordable, science-based solutions to limit risks that can kill or severely injure unsuspecting individuals. On behalf those whose precious lives were cut far too short as a result of seat failures and those whose catastrophic injuries dramatically changed their lives, including Taylor Grace Warner, Jayden-Faith Fraser, Emily Reavis, Owen Reavis, Teddy Schwab, Jaklin Romine, Russell Selkirk, Travis Oldhouser, Thomas Comella, Geneva Massie, Crystal Collins, Mary Portis, Dzemila Heco, Aaliyah George, Heikki Helava, and Clyde M. Sneed and so many thousands of others who should never have had to suffer from decades of auto industry delay and the government's unwillingness to upgrade the seatback design standard for less than the cost of a cup of coffee per seat, we ask that Congress step in and mandate the needed safety upgrade.

Require NHTSA Complete the Rear Seat Belt Reminder Rule: As part of the Moving Ahead for Progress in the 21st Century Act (MAP-21) (Pub. L. No. 112-141) on July 6, 2012, Congress mandated that NHTSA write a rule requiring a reminder for rear seat passengers to put on their seatbelt. According to NHTSA's own data, annually almost 1,000 deaths befall unbelted passengers in the rear seat of vehicles. Studies have suggested unbelted rear seat passengers may be as much as eight times as likely to be injured or killed in crash.

Congress required this rule to be in place by October 1, 2015. Unfortunately, NHTSA refused to act until litigation was brought by the Center for Auto Safety, and KidsandCars.org. However, instead of moving forward to finalize the rule as mandated by law, an Advance Notice of Proposed Rulemaking (ANPRM) was published on September 27, 2019.¹⁸ Nine years have passed without significant action on this rule, a rule based on pre-existing technology and mandated by Congress which could potentially help save a thousand lives a year.

Require NHTSA Establish Side Impact Performance Requirements for Child Restraint Systems: In recognition of the need to protect the most vulnerable passengers in motor vehicles, Congress mandated an update to FMVSS 213 in 2012 as part of MAP-21. These changes were necessary to improve the protection of children seated in child restraint systems (CRS) during side impacts. The agency issued an NPRM seven years ago, on January 28, 2014.¹⁹ While some rules regarding CRS have recently moved forward,²⁰ there has been no progress on side impact tests. The urgent need for clear federal leadership with CRS was only recently highlighted by recent allegations of false advertising and unsafe products in a Congressional report.²¹ We strongly urge that the 2014 NPRM be revived and movement towards a final rule be given priority.

Preventing crashes and resulting injuries and fatalities by using data

We are blessed to live in a moment when the analysis of large amounts of data by machines, programmed by people, has revealed amazing results. The ability of doctors and epidemiologists during the last year of the pandemic to isolate information and locate details related to infectious diseases has been something at which everyone can marvel.²² Even professional sports have

discovered the tremendous advantages provided by poring over large data sets.²³ Yet, when it comes to vehicle safety, our systems lag far behind.

The Center for Auto Safety has spent decades advocating for collecting, sharing, and analyzing crash data and other vehicle information, because such data has repeatedly proven to be critical in advancing safety for everyone who interacts with the vehicles on the road today. Better data can shed light on inequitable transportation outcomes in marginalized communities and provide new methods to improve the efficiency of America's vehicle network. There are a variety of opportunities for Congress to act to change our outdated data gathering and analytics systems for vehicle safety. Here are a few:

Require an Update to Event Data Recorders: In 2006, NHTSA published a final rule regarding Event Data Recorders (EDRs or "black boxes").²⁴ The rule set out data element requirements for vehicles in which the manufacturer chose to install an EDR but did not mandate EDRs in all vehicles. Six years later, in 2012, NHTSA published a Notice of Proposed Rulemaking, proposing that EDRs be required in all vehicles, yet did not update any of the data elements collected by the EDRs.²⁵ Seven years later, in February 2019, NHTSA's proposal to mandate EDR installation was withdrawn based on wide voluntary adoption of EDRs. However, the data elements required to be collected still have not been updated since 2006, long before the implementation of many of today's advanced vehicle technology systems.

Government investigators do not have the necessary tools to accurately reconstruct crashes based on currently available EDR data and often must rely on the least objective party after a crash – the manufacturer. By modernizing required EDR data elements to capture more data (data new vehicles are frequently already capturing unbeknownst to the owner) such information could be made readily portable to existing NHTSA databases, including the Fatality Analysis Reporting System (FARS) and other NHTSA crash data systems. Such a modernization could assist in assuring that new vehicle technologies function as intended to reduce crash death and injury and allow for a reduction in reliance on police crash report narratives that are often incomplete. Such a step could also significantly reduce burdens on states, police departments, and FARS analysts, and potentially speed up FARS data completion and data release, which is necessary in the face of rapidly changing technology.

An immediate expansion of EDR data elements to capture events where driver assistance technologies played a role in the crash is necessary. NHTSA would serve the motoring public, and the automotive and technology industries, well by expanding the role of EDRs to capture a broad range of advanced vehicle operation information to inform future research and rulemaking. It is often said that new vehicles are computers on wheels. Yet, these computers still crash, and determining what happened, and how to avoid it happening again, will require not only additions to traditional data elements, but may well necessitate the incorporation of data from video, LIDAR, RADAR and other sensors as well. Long-term consumer acceptance of advanced vehicle technology is dependent upon confidence in why crashes are happening. The best way to know is to have useful data from vehicles whether they are in person-driving mode, computer-driving mode, or anything in between.

Require Improvements to the Fatality Analysis Reporting System: NHTSA's Fatality Analysis Reporting System (FARS) is a blunt instrument for the vital task of helping to track vehicle crash related fatalities as well as assisting researchers and regulators in determining causality and spotting trends. The FARS system, along with the Model Minimum Uniform Crash Criteria (MMUCC), desperately need data element expansion to provide more useful analytical

information for crashes involving pedestrians, non-motorized vehicles, and ADAS. States must be encouraged to modernize and standardize their crash reporting systems as well.

Unfortunately, when created, FARS was set up to only include fatalities which occur on public roadways, (or “traffic”) and to only capture deaths which occur within thirty days of the crash. As a result, thousands of vehicle related deaths every year on private roads, in driveways, parking garages, and workplaces are not captured in the federal government’s official vehicle related death toll. The last time a Non-Traffic Surveillance (NTS) report was completed (in 2018) it counted 2,125 vehicle related deaths, including children backed-over in front of their homes, asphyxiated in the back seat by heat stroke, crashes in parking lots, senior citizens killed by Carbon Monoxide poisoning, and employees killed on the job on private property.²⁶ It is long past time that FARS be updated to include NTS data on a permanent basis.

Moreover, for the purpose of not just counting the dead, but preventing their deaths, FARS should be expanded to include crashes with severe injuries or damage even without deaths. Finally, with vehicle crash related deaths in the United States on the rise, the necessity of more quickly compiling and releasing improved FARS data to the public has never been greater. Currently this information is officially released only annually. The goal should be a quarterly data drop.

Require the Modernizing of the Early Warning Reporting System: In 2000, the Transportation Recall Enhancement, Accountability, and Documentation Act (TREAD Act) was passed in response to hundreds of fatalities involving defective Firestone tires on Ford Explorers, defects that should have been discovered earlier by NHTSA, and deaths that could have been prevented by that discovery. One of the most significant programs mandated by the TREAD Act was an Early Warning Reporting (EWR) system requiring auto manufacturers to submit information to NHTSA on all the vehicle death and injury claims the car makers received. Unfortunately, the system developed by Congress in the TREAD Act when implemented by NHTSA failed to serve its intended purpose. This was demonstrated by the government’s inability to detect and act on even the most widespread deadly defects, including GM ignition switches and Takata airbag inflators. EWR can be a vital tool for safety but to be effective it must include more information about each serious injury or fatality from manufacturers and provide more transparency to the public about these incidents, allowing for essential external oversight.

Autonomous Vehicles (AVs)

With full confidence of the ability of an adequately resourced and focused Department of Transportation to tackle the challenge of introducing current technology while overseeing the safe development of new technology, we believe the time for Congressional leadership that gives the best chance for the safe development of AV technology is now. The timing for such action - before the public decides all this talk of driverless cars is just more misleading advertising by the car industry – is critical. If Congress chooses to allow the market to figure it out on its own, today’s outlandish “Full Self Driving” and “Autopilot” claims by companies like Tesla may soon seem tame. Worse still, the generational opportunity to change transportation safety for everyone on the road will be inevitably delayed by legitimate public fear.

Hyperbolic claims by some auto manufacturers and their new Silicon Valley partners aside, most drivers do not routinely kill their fellow motorists and pedestrians. The reality is that technological changes to design and safety features, in combination with holding irresponsible manufacturers liable for dangerous products; educational and legal efforts to reduce distracted, drowsy, drunk, and drugged driving; and significant and periodic improvements in required minimum vehicle

performance standards have saved hundreds of thousands of lives and can save even more. The idea that tens of thousands of unproven and unregulated AVs deployed quickly and without oversight, or a significant upgrade in highway and road infrastructure, will automatically be safer than what we have now may make for a good talking point in a quarterly earnings report – but is not good transportation policy.

It is also worth noting, that while competition is a healthy driver of innovation, particularly in the automobile market, contrary to the claims of some the United States is not losing the race for driverless vehicle development to China. The KPMG 2020 Autonomous Vehicles Readiness Index ranks the preparedness of nations for AV development. The United States is ranked sixteen places ahead of China's 20th place finish.²⁷ According to the Index, over 400 AV companies call the U.S. home. Instead of panic, what is needed is a clear vision for how to safely introduce automated driving in a way that will provide benefits to all involved, not just shareholders. This is where legislators come in.

As Congress undertakes the vital task of writing our nation's first autonomous vehicle law, we urge this Subcommittee to keep in mind the need to protect consumers in order to successfully move the needle forward for AV safety and deployment in the decades ahead. In addition to the criteria mentioned above, such as mandatory standards, data collection, and a gated certification regime, any AV legislation must include cyber security standards, a vision test, updated occupant protection standards, pedestrian and other vulnerable road user protection standards, while maintaining current state, local, and common law rights and authorities.²⁸ It is vital that an AV law does not preempt protections provided by state and local rules of the road regarding the operation of vehicles on their streets, as the cavalier attitude of some in the auto industry is well documented. Access to courts, for innocent victims killed by an experiment for which they did not volunteer, remain the final consumer protection backstop in an unregulated environment. Further, as it remains likely that AV companies will treat contracts involving automated technology like software or smartphone agreements, binding arbitration must be forbidden in direct-to-consumer contracts.

Finally, some have suggested a preference for voluntary, industry written, standards. Following a voluntary standard model for AVs is a fool's errand. Industry voluntary standards, created for commercial purposes, can be a nice benchmark but can also be easily ignored or subverted at any time by any participant. To act as a bridge between testing and performance standards, we recommend taking a gated certification style approach. Voluntary standards for AVs are not an acceptable substitute for stringent mandatory performance standards which allow for innovation while protecting populations.

Consumer Protection & Corporate Oversight

Today's hearing is focused on the "Potential of Automobile Technologies," a topic which we believe is inextricably linked with consumer protection and corporate oversight. After all, the purpose of advanced vehicle technology is to protect consumers, particularly those who may be bystanders to a vehicle possessing the latest unproven features. Further, amongst the essential roles for government is to be a watchdog over the for-profit entities in the vehicle marketplace. A well-functioning automobile ecosystem will include the checks and balances of consumer protection and corporate oversight along with the push and pull of profit and loss reports.

Compel NHTSA to Immediately Implement the Motor Vehicle Safety Whistleblower Act: In recognition of the importance of corporate whistleblowers to transparency and safety, Congress

included incentives and protections for vehicle whistleblowers in the FAST Act in December 2015.²⁹ The new law required the Transportation Secretary to promulgate regulations related to the Act within 18 months of passage (June 4, 2017). Few industries are historically so in need of such internal oversight mechanisms as is the auto industry. It is worth remembering that the NHTSA whistleblower program is focused on finding misdeeds that can not only cost consumers their money – but take their lives. NHTSA has so far failed to flesh out the details of the process, thus disincentivizing good corporate citizens from coming forward to protect the public.

In recent years alone, whistleblowers have risked their careers to make the public aware of auto industry malfeasance. Takata's defective airbag inflators, which have killed dozens, injured hundreds, and led to the largest recall in automotive history, were exposed by multiple whistleblowers in 2014.³⁰ In 2017, a Kia whistleblower revealed the manufacturer had an engine defect leading to millions of vehicles being recalled in the United States, and millions more around the world, for potential engine failures and fire risk.³¹ The need for such a program has been repeatedly demonstrated by other federal agencies and should have been in place four years ago. The lack of this rule may at this very moment be delaying a potential whistleblower from bringing forth safety information regarding the next mass recall. The time for NHTSA to implement the Motor Vehicle Safety Whistleblower Act is now.

Provide NHTSA with Imminent Hazard Authority: It remains an enduring mystery in auto safety oversight that the NHTSA does not have the authority to declare a particularly dangerous vehicle an imminent hazard and get it off the road, to protect consumers. Congress should authorize the NHTSA Administrator to immediately remove vehicles from the road that pose an unreasonable risk to safety. Currently, the Federal Motor Carrier Safety Administration has the authority to immediately prohibit individuals, vehicles, and fleets of vehicles from operating commercially.³² NHTSA remains unable to appropriately respond should an imminent hazard threaten vehicles in the US transportation network.

Compel NHTSA to Complete Corporate Responsibility Rules: New rules for corporate reporting to NHTSA were required by MAP-21, in 2012, yet have not been completed. Corporate actors should be responsible for their own defective and dangerous products. Congress enacted exactly such a requirement, requiring auto manufacturers submitting information in response to a NHTSA safety investigation have a senior official certify that the information submitted to the government is accurate and true. Logically speaking, NHTSA should have a self-interest in ensuring the agency does not receive false information in safety investigations, yet the rule remains incomplete. Similarly, Congress should provide NHTSA with criminal penalty authority to further discourage false reporting/delayed reporting.

Recalls

For over fifty years, the Center for Auto Safety has been involved with identifying dangerous vehicles and working to have them recalled from the road to protect everyone's safety. From exploding gas tanks to faulty tires and deadly airbags, defective vehicles need to be recalled to limit injuries and deaths. Making sure manufacturers agree to recalls – and repairs that resolve the safety defect – is no easy task. Yet even when a recall is agreed upon and announced, far too many vehicles remain unrepaired. It is important for consumers to understand that safety recalls are never cosmetic in nature, and are only undertaken by manufacturers because the vehicle has a defect which can impair safe operation, or the vehicle does not comply with a Federal Motor Vehicle Safety Standard. Nevertheless, millions of vehicles remain in use even once they have been recalled. In 2020, there were 55 million such vehicles on U.S. roads, subject to recall but remaining unrepaired.³³

Below are recommendations to address the recall completion gap:

Cease Federal Government Sale, or Use, of Vehicles with Unrepaired Recalls: The Federal Government, for the benefit of its employees, owns and uses over 600,000 motor vehicles. Stuningly, there is no specific prohibition on the continued use of unrepaired, dangerous, recalled vehicles by federal personnel. An independent investigation found more than 25,000 of these unsafe vehicles being driven every day by federal employees across the government, often without their knowledge.³⁴ When an agency chooses to upgrade its vehicle fleet, or no longer needs a specific vehicle, it will often sell that vehicle to the public at auction. For example, the General Services Administration (GSA) sells tens of thousands of used vehicles every year. Based on analysis of information made public by GSA, many of these vehicles are sold with open actionable recalls. In fact, over ninety percent of the time when GSA sells vehicles with open recalls the free repairs were available prior to being put on the auction block. Nevertheless, the Federal Government fails to undertake these critical and free safety repairs, thereby forcing the safety burden onto the purchaser and the danger onto all road users.

Recently a dozen consumer groups along with multiple national federal employee unions joined in asking the Biden Administration to direct all departments and agencies to end the unsafe practice of federal employees using unrepaired recalled vehicles and to prohibit the public sale of unrepaired recalled federal vehicles.³⁵ We urge Congress to act if the administration will not. Federal leadership with respect to its own fleet will set an excellent example for the rest of the marketplace on the importance of recall repairs.

Make selling a recalled real car as illegal as selling recalled toy car: currently there are explicit federal prohibitions on the sale of new cars with unrepaired recalls, the sale of previously rented cars with unrepaired recalls, and the rental of cars with unrepaired recalls, but no such federal prohibition exists for the sale of used cars. Amazingly, it is legal to resell a used vehicle with an unrepaired ignition switch, defective airbag, or faulty set of tires, but it is illegal to sell a recalled French fry cutter, a recalled coffee press, or even a recalled toy car. The same is true for food, medicine, and cosmetics. It is long past time for Congress to recognize the danger posed by defective, recalled, vehicles.

Address the Use of Recalled Cars being used Commercially to Transport Consumers: When a consumer hails a taxi or uses an app to call for a rideshare vehicle, they expect and deserve a minimum level of safety in that vehicle. For example, they presume the vehicle will be in good working order and will be operated by a licensed driver. They also deserve the ability to avoid vehicles that have been recalled for a safety defect but remain unrepaired. While taxi and rideshare vehicles are generally regulated at a state and local level, there is a role for Congress to play. Collecting and providing national level data to help track how many recalled vehicles are carrying unsuspecting consumers, working with companies to notify vehicle drivers of recalls, and urging states to find ways to protect consumers in rideshare vehicles and taxis from unsafe defects, would all be appropriate actions for Congress.

Require NHTSA to Complete the Recall Notification by Electronic Means Rule: One step towards removing recalled vehicles from the road is to ensure that consumers receive the recall notice. In 2015 as part of an effort to reach consumers by modern means, Congress changed the law regarding how recall notifications were required to be distributed to vehicle owners for the first time since 1974. The FAST Act mandated NHTSA write a rule requiring the use of electronic notification for recalls by early 2016, intended to be a supplement to the existing system of using

the U.S. mail. An ANPRM was published January 25, 2016.³⁶ An NPRM was published September 1, 2016.³⁷ In an era when almost every consumer always carries a smart phone on their person, and there are over 55 million vehicles with unrepaired recalls³⁸ on the road, it is long past time to add this tool to close the recall completion gap. Yet six years later NHTSA has failed to act.

Provide NHTSA the Means to Work with States to Notify Consumers Directly About Recalls: As mentioned above, over 55 million dangerous unrepaired recalled vehicles remain on our roads today, posing a danger to all drivers, passengers, and pedestrians. Too often, these vehicles remain unrepaired because owners are unaware of a defective vehicle sitting in their driveway. Congress should work with the Department of Transportation to offer technical assistance to the motor vehicle administration in every state to be sure that owners are notified at registration of the recall status of their vehicle.

Extend the Manufacturer Recall Completion Reporting Period. Congress could also extend the reporting period for manufacturer recall completion data. Currently, car companies only report to NHTSA regarding the status of their recall efforts for six calendar quarters. The average life of span of a car is almost twelve years and it is likely to have multiple owners. Accordingly, the period for reporting recall completions should be extended to at least five years from the recall. Also, NHTSA should publish an annual scorecard of recall completion rates for each manufacturer, to incentivize poor performers and hopefully improve their safety recall performance.

Over-the-Air Updates must be Monitored for Safety-Related Modifications. Unfortunately, the practice of manufacturers attempting to disguise a vehicle problem as a quality issue, when it should likely be classified as a safety defect, remains far too common. As we enter the era of over-the-air (OTA) service updates where manufacturers can interact directly with a vehicle and bypass the vehicle's owner in the process, the Center urges Congress to ensure that NHTSA monitors this area to avoid manufacturer use of OTA updates to hide safety defects. Transparency will remain a key ingredient to providing safety either in person or over the air.

Fuel Economy

We support the Biden Administration paying significant and appropriate attention to addressing the previous administration's rollback of the Corporate Average Fuel Economy (CAFE) standard which resulted in a short-lived final rule.³⁹ The CAFE standards set in 2012 were arguably the biggest single step our nation had ever taken to cut global warming pollution. Further, the manner in which NHTSA promulgated the SAFE rule raised issues of arbitrary and capricious action under the Administrative Procedure Act, and blatantly ignored the science provided by the career experts at the Environmental Protection Agency. Accordingly, the Center was pleased to see the recent actions withdrawing plans to restrict individual state efforts to act to protect citizens.

This poorly written measure, unsupported by evidence, will lead to neither an improved climate nor an upgrade in vehicle safety, and should never have been introduced. The Center for Auto Safety has been an advocate for improved fuel economy standards on behalf of consumers – and the environment in general – since the conception of the Clean Air Act. The historical record is clear: improving fuel economy without sacrificing safety is achievable and has frequently been accomplished over the last few decades. As the regulatory process continues to develop, we will be monitoring it closely.

Provide Public Confidence in the Safety of Battery Electric Vehicle (BEV) Technology: The successful integration of safer and more efficient vehicles has consistently been a result of recognizing the need to build in safety from the beginning. Accordingly, the Center wants to be sure to bring to this Subcommittee's attention a growing concern that as BEVs proliferate and increase their miles per charge capacity, it will be critical not to trade range anxiety for fire anxiety.

In January, NHTSA's Enforcement division announced an Electric Vehicle Battery Safety Initiative.⁴⁰ We applaud this step as it highlights the need for the agency to engage on the safety issues regarding BEVs at this early stage in the technology's mass deployment. We urge a rapid endorsement of this Initiative from the office of the Secretary and throughout the federal government, plus a detailed engagement with industry, along with public and first responder education.

¹ National Safety Council, *Motor Vehicle Deaths in 2020 Estimated to be Highest in 13 Years, Despite Dramatic Drops in Miles Driven*, March 4, 2021, <https://www.nsc.org/newsroom/motor-vehicle-deaths-2020-estimated-to-be-highest>

² Michael Laris, *Larry Willis, head of federation of transportation workers, dies in bike accident*, Washington Post, November 30, 2020, https://www.washingtonpost.com/local/trafficandcommuting/larry-willis/2020/11/30/0380b182-3346-11eb-b59c-adb7153d10c2_story.html

³ Ibrahim Samra, *Military medic tried to save baby who died in semi truck crash; vigil held for family*, WNDU-TV, May 10, 2021, <https://www.wndu.com/2021/05/11/south-bend-baby-dies-in-car-crash/>

⁴ See, e.g., Insurance Institute for Highway Safety, *Fatality Facts 2019 - Urban/rural comparison*, March 2021, <https://www.iihs.org/topics/fatality-statistics/detail/urban-rural-comparison>

⁵ Megan Towey & Kris Van Cleave, *Bill Could Force Automakers to Confront Safety Hazard Blamed for Dozens of Child Deaths a Year*, CBS News, July 4, 2020, <https://www.cbsnews.com/news/car-seat-safety-manufacturers-hazard/>

⁶ N.R. Kleinfeld, *After a Son's Death, Parents Channel Their Grief Into Activism*, N.Y. Times, January 24, 2014, <https://www.nytimes.com/2014/01/26/nyregion/after-a-sons-death-parents-turn-their-grief-to-activism.html>

⁷ Amy Martyn, *When a Broken Car Part Causes a Senseless Death*, Consumer Affairs, January 22, 2018.

⁸ European Commission, Directorate-General, Mobility and Transport: *Road safety: 4,000 fewer people lost their lives on EU roads in 2020 as death rate falls to all time low*, April 20, 2021,

https://ec.europa.eu/transport/modes/road/news/2021-04-20-road-safety_en and European Automobile Manufacturers Association (ACEA), *Vehicles in Use*, <https://www.acea.be/statistics/tag/category/vehicles-in-use>

⁹ Center for Auto Safety, *Petition for Rulemaking*, October 19, 2018, <https://www.autosafety.org/wp-content/uploads/2018/10/Center-for-Auto-Safety-Petition-for-Rulemaking-to-mandate-Safety-Assessment-Letter.pdf>
This petition remains unanswered in violation of agency rules.

¹⁰ Aaron Gordon, *The US Invented Life-Saving Car Safety Ratings. Now They're Useless.*, Vice, March 4, 2021, <https://www.vice.com/en/article/4ade9p/the-us-invented-life-saving-car-safety-ratings-now-theyre-useless>

¹¹ See, e.g., Anastasia Tsapi, et al., *How to maximize the road safety benefits of ADAS?*, Fédération Internationale de l'Automobile (FIA), December 14, 2020: discussing sensitivity of manufacturers to Euro NCAP ratings, https://www.fiaregion1.com/wp-content/uploads/2020/10/FIA-Region-I-ADAS-study_18122020.pdf

¹² See Center for Auto Safety response to ANPRM; *Pilot program for collaborative research on motor vehicles with high or full driving automations*, Dec. 10, 2018 for description of a Gated Certification program,

<https://www.autosafety.org/wp-content/uploads/2018/12/AV-Pilot-Program-Comment-Final.pdf>

¹³ Euro NCAP, *Vulnerable Road User (VRU) Protection*, Updated 2013, <https://www.euroncap.com/en/vehicle-safety/the-ratings-explained/vulnerable-road-user-vru-protection/>

¹⁴ European Union, European Parliament, Regulation (EU) 2018/858, October 18, 2019, <https://data.consilium.europa.eu/doc/document/PE-82-2019-INIT/en/pdf>

¹⁵ NTSB Public Meeting of September 25, 2018, Highway Special Investigation Report Pedestrian Safety NTSB/SIR-18/03, <https://www.nts.gov/news/events/Documents/2018-DCA15SS005-BMG-abstract.pdf>

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¹⁶ NHTSA, Annual Vehicle Recalls Since 1996,

<https://www.nhtsa.gov/sites/nhtsa.dot.gov/files/documents/annualvehiclerecallssince1996.pdf>

¹⁷ NHTSA, *Front Seat Modeling in Rear Impact Crashes: Development of a Detailed Finite-Element Model for Seat Back Strength Requirements*, July 1, 2019 at: <https://rosap.ntl.bts.gov/view/dot/41839/Email>

¹⁸ Advance Notice of Proposed Rulemaking: Occupant Crash Protection, Sept. 27, 2019, 84 FR 51076.

<https://www.federalregister.gov/documents/2019/09/27/2019-20644/federal-motor-vehicle-safety-standards-occupant-crash-protection>

¹⁹ Notice of Proposed Rulemaking: Child Restraint Systems, Child Restraint Systems-Side Impact Protection, Incorporation by Reference, Jan. 28, 2014, 79 FR 4569.

²⁰ Final Rule: Anthropomorphic Test Devices; Q3s 3-Year-Old Child Side Impact Test Dummy; Incorporation by Reference, Nov. 3, 2020, 85 FR 69898.

²¹ House Committee on Oversight and Reform, Subcommittee on Economic and Consumer Policy, Staff Report, *Booster Seat Manufacturers Give Parents Dangerous Advice: Misleading Claims, Meaningless Safety Testing, and Unsafe Recommendations to Parents About When They Can Transition Their Children from Car Seats to Booster Seats*, Dec. 10, 2020, <https://oversight.house.gov/sites/democrats.oversight.house.gov/files/2020-12-10%20Subcommittee%20on%20Economic%20and%20Consumer%20Policy%20Staff%20Report%20on%20Booster%20Seat%20Investigation.pdf>, See also: Daniela Porat & Patricia Callahan, *Evenflo, Maker of the “Big Kid” Booster Seat, Put Profits Over Child Safety*, Propublica, Feb. 6, 2020, at:

<https://www.propublica.org/article/evenflo-maker-of-the-big-kid-booster-seat-put-profits-over-child-safety>

²² See, e.g.: Joseph Menzin & Peter Neumann, *How Real-World Data Can Help Us Better Prepare for the Next Pandemic*, Scientific American, April 22, 2021, <https://www.scientificamerican.com/article/how-real-world-data-can-help-us-better-prepare-for-the-next-pandemic/>

²³ University of Wisconsin Data Science Team, *The Story of Moneyball Proves Importance of Both Big Data and Big Ideas*, August 24, 2016, <https://datasciencegree.wisconsin.edu/blog/moneyball-proves-importance-big-data-big-ideas/>

²⁴ 49 CFR 563, at 71 Fed. Reg. 50998 (Aug. 28, 2006).

²⁵ 77 Fed. Reg. 74144

²⁶ <https://crashstats.nhtsa.dot.gov/Api/Public/Publication/812515>

²⁷ KPMG, 2020 Autonomous Vehicles Readiness Index, <https://home.kpmg/uk/en/home/insights/2020/07/2020-autonomous-vehicles-readiness-index.html>

²⁸ For more on concepts to help promote the safety of all road users, guarantee accessibility and equity, preserve consumer and workforce rights, ensure local control and sustainable transportation with respect to AV, see *Autonomous Vehicle (AV) Tenets*, November 30, 2020, <https://saferoads.org/wp-content/uploads/2020/11/AV-Tenets-11-24-20-1.pdf>

²⁹ 49 U.S.C. Sec. 30172.

³⁰ <https://www.consumerreports.org/car-recalls-defects/takata-airbag-recall-everything-you-need-to-know/>

³¹ Ben Foldy, *Whistleblower Program for Auto Safety Has Yet to Launch, Years After Congress Mandated It*, Wall Street Journal, April 4, 2021, <https://www.wsj.com/articles/whistleblower-program-for-auto-safety-has-yet-to-launch-years-after-congress-mandated-it-11617541200>

³² See 49 USC 13905(f)

³³ *New Recall Numbers From CARFAX Demonstrate Growing Safety Risk On Roads*, September 25, 2020.

<https://www.carfax.com/press/new-recall-numbers-from-carfax-demonstrate-growing-safety-risk-on-roads>

³⁴ <https://wjla.com/news/spotlight-on-america/investigation-25000-government-cars-have-open-safety-recalls-that-could-endanger-drivers>

³⁵ Center for Auto Safety, *Consumer Safety Groups and Three Federal Employee Unions Call for the end of Government Use and Sale of Unsafe Recalled Cars*, April 15, 2021, <https://www.autosafety.org/consumer-safety-groups-and-three-federal-employee-unions-call-for-the-end-of-government-use-and-sale-of-unsafe-recalled-cars/>

³⁶ Advance Notice of Proposed Rulemaking: Update Means of Providing Notification; Improving Efficacy of Recalls, January 25, 2016, 81 FR 4007. <https://www.federalregister.gov/documents/2016/01/25/2016-01291/update-means-of-providing-notification-improving-efficacy-of-recalls>

³⁷ Notice of Proposed Rulemaking: Update Means of Providing Recall Notification, September 1, 2016, 81 FR 60332. <https://www.federalregister.gov/documents/2016/09/01/2016-20926/update-means-of-providing-recall-notification>

³⁸ *Id.* at FN 33.

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³⁹ <https://www.federalregister.gov/documents/2020/04/30/2020-06967/the-safer-affordable-fuel-efficient-safe-vehicles-rule-for-model-years-2021-2026-passenger-cars-and>

⁴⁰ <https://www.nhtsa.gov/electric-vehicles-battery-safety-initiative>

Attachment—Additional Questions for the Record

Subcommittee on Consumer Protection and Commerce Hearing on “Promises and Perils: The Potential of Automobile Technologies.” May 18, 2021

Mr. Jason Levine, Executive Director, Center for Auto Safety

The Honorable Janice D. Schakowsky (D-IL)

- 1. During the hearing there was a lot of discussion about the potential for automated vehicle technologies to address car crash deaths and injuries, yet most of these technologies remain in the development stage. What steps could Congress take now to both accelerate the safe deployment of these lifesaving technologies and improve vehicle safety in the near future?**

This Subcommittee, as well as Congress at large, have a unique opportunity to level the playing field for motor vehicle safety today and in the future. Sooner, rather than later, Congress will take on the vital task of writing our nation’s first autonomous vehicle law. When it does, for the first time, Congress can help cultivate technological innovation in a way that provides safety for everyone on the road regardless of whether they are a driver, passenger, or pedestrian and no matter their income. To begin with, it is time for the National Highway Traffic Safety Administration (NHTSA) to write performance standards for existing vehicle safety technology and it is long past time for those technologies to become mandatory equipment on new vehicles.

Advanced driver assistance systems (ADAS) - from automatic emergency braking (AEB) to lane keeping assist features, to driver monitoring systems and adaptive driving beam technology - have tremendous potential to save lives. However, until now NHTSA has done little to introduce minimum performance standards to ensure that each of these features work effectively to prevent crashes. Without minimum standards to ensure proper function of these features, and little appetite to recall faulty performers producing clearly unsafe outcomes, as we have seen in our work to recall faulty AEB systems, NHTSA continues to display minimal interest in ensuring these features work, whether through its enforcement or rulemaking authorities, which only accelerates the need for minimum performance standards.

Far too often in recent years, NHTSA has chosen to rely on its consumer information program, the New Car Assessment Program (NCAP), to incentivize manufacturers to keep up with the pack in vehicle safety. Unfortunately, if the pack is not held to a minimum standard of function, keeping up with it provides little benefit to consumers, and zero assurance that any particular ADAS system will function as intended or advertised. Congress can do more by insisting that NHTSA update the NCAP program for the first time over a decade to ensure consumers have a way to assess ADAS performance. Additionally, requiring the agency to set minimum

performance standards for ADAS technologies would provide a baseline from which NCAP can assess ADAS performance. One prominent form of ADAS, driver monitoring systems, have great potential to reduce drunk, drowsy, or distracted driving, provided that the technology works properly, as could be incentivized by NCAP ratings. Mandating that these technologies be deployed fleetwide, and not simply deployed in luxury automobiles, will ensure maximum safety gains in the future.

By some estimates, combining features such as driver monitoring systems, automatic emergency braking and lane keeping assistance systems to combat impaired driving (drunk, drugged, drowsy, and distracted) could help to dramatically mitigate 10,000, or more, crash deaths every year.

In addition to the potential to saving tens of thousands of lives, a side benefit of wide deployment of ADAS will be public comfort with the type of technology that will eventually become the foundation of driverless vehicles. Moreover, the data gathered from such vehicles, in combination with data collected from all automated test vehicles, can be used to craft reasonable regulations that set minimum thresholds for safety to better protect consumers and ensure a robust marketplace.

While any autonomous vehicle (AV) law should certainly require performance standards, expansive data collection, and a gated certification regime, it must also include cybersecurity standards, vision tests, updated occupant protection standards, and pedestrian and other vulnerable road user protection standards, while maintaining current state, local, and common law rights and authorities. It is vital that an AV law does not preempt protections provided by state and local rules of the road regarding the operation of vehicles on their streets. There is no doubt that access to courts, for innocent victims killed by an experiment for which they did not volunteer, will remain the final consumer protection backstop in a potentially lengthy unregulated environment.

Finally, as it remains likely that AV companies will treat contracts involving automated technology like software or smartphone agreements, binding arbitration must be forbidden in direct-to-consumer contracts. A generation of legal precedent and consumer understandings regarding the legal relationship between a vehicle manufacturer and the end user may not have been perfect, but it has generally prevented vehicle manufacturers from attempting to bind end users into giving up their rights to seek civil justice. To do away with such a protection based on legalese buried in small print will neither engender trust in the AV industry nor will it encourage the type of transparency that is needed to keep large corporations incentivized to do the right thing.

2. The United States pioneered the concept of sharing vehicle crash data with consumers to allow the market to drive safety decisions with the New Car Assessment Program in 1980. As I understand it, that program has not been updated in over a decade. How important is it to make sure NCAP remains up to date and what should the next version of NCAP contain to allow consumers to determine which vehicles are the best for them and their families?

The New Car Assessment Program (“NCAP” or “5 Star Crash Rating”) is arguably the greatest market-based, nonregulatory safety program in automotive history. Until NCAP, the concept of the public having access to crash information about vehicles by make and model did not exist. Today, consumers expect to have detailed information about the performance of their new vehicle when it comes to safety. NCAP proved that safety does sell. Unfortunately, because the program has not been updated in over a decade, what manufacturers are currently advertising when they claim a Five Star rating is an impression of safety, instead of the real thing.

Today, almost every single new vehicle rated by NCAP receives a top safety rating. This is not because all of the vehicles are equally safe, it is because they are all being scored on ratings that have not been updated since 2010. It is self-evident that if 98% of cars achieve superior ratings, it is impossible to distinguish between them in any significant way. Updating NCAP is essential to ensure consumers have access to relevant and useful safety information, allowing them to make informed decisions while also pushing auto manufactures to pursue innovation in safety technology. Currently, virtually every car in the NCAP system receives 4 or 5 stars, rendering NCAP ineffective for consumers who hope to make an informed decision about the safety of a vehicle.

There are many areas where NCAP can be improved, including by following some of the recommendations issued by the National Transportation Safety Board (NTSB) in 2018. The NTSB issued eight safety recommendations to NHTSA addressing the need to include performance-based standards for vehicle headlight systems, development of performance test criteria for vehicle designs that reduce pedestrian injuries, and incorporation of pedestrian safety systems into NCAP, including pedestrian collision avoidance systems and other more passive safety systems.

Specifically, pedestrian safety is a pressing issue that NHTSA must address, and NCAP must play a key role in NHTSA’s consumer outreach. In 2020, despite a 13% reduction in vehicle miles travelled, pedestrian deaths on public roads hit a critical and historic figure of 6,721, which averages to one crash-related pedestrian death every 80 minutes. Additionally, an estimated 173,000 pedestrians were treated in emergency departments for non-fatal crash-related injuries in 2020. These tragedies could be dramatically reduced by incentivizing automakers to include more protective pedestrian safety features in new cars, and NCAP can be an effective means to assist in accomplishing this important task.

Currently, the US NCAP has no rankings or information available regarding emerging technology to protect vulnerable road users, whether that be pedestrian crash avoidance features or pedestrian protective designs built into hoods and bumpers on some new vehicles. However, Pedestrian Safety is factored into the rating given by The European New Car Assessment Programme (“Euro NCAP”). Euro NCAP has recognized this need and includes in its vehicle ratings both ADAS technologies and automobile design features that protect pedestrians and minimize injury and death in an accident.

In addition to the NTSB’s safety recommendations, numerous ADAS safety features are not rated in NCAP and therefore information regarding their impact on a vehicles safety is not readily available to consumers. Having NCAP include information on features such as AEB, Lane Departure Warning, Forward Collision Warning, Blind Spot Detection, Cross Traffic Warning, Rear AEB, Smart Headlights, Driver Monitoring Systems, and Advanced Automatic Crash Notification will not only save lives now but is a critical part of the development of future automated vehicle systems that could work hand in glove with human drivers.

Furthermore, NCAP must be improved to protect occupants of all sizes and ages, no matter what vehicle position they occupy. The current tests and crash dummies simply do not account for the size of Americans, nor do they allow for enhanced analysis that could provide better ratings for use by the elderly, women, and passengers of larger or smaller sizes than currently represented. Additionally, NCAP provides very little in the way of safety ratings for occupants, particularly those in rear seats. As more Americans travel by rideshare, and with an eye towards a future where many predict we will all be relegated to occupants, protection in all seating positions has clearly becomes a more pressing task. NCAP could lead the way by ensuring that consumers are able to distinguish vehicles that offer advanced protection for occupants in the rear seats, from those that do not.

3. While Congress can pass laws regarding vehicle safety, implementation of these laws is usually delegated to the Department of Transportation and the National Highway Traffic Safety Administration (NHTSA). Unfortunately, NHTSA has fallen behind in fulfilling some Congressional mandates. How should NHTSA balance their existing requirements with future Congressional obligations? What can Congress do to assist in this task?

Amongst the most important actions Congress can take to help NHTSA oversee advanced auto safety technologies, and improve vehicle safety overall, is to provide the agency with adequate funding. Over the last 40 years, while the number of vehicles on the road and the number of drivers have both doubled, America’s only federal safety agency with rulemaking and enforcement authority has seen its vehicle safety appropriations (adjusted for inflation) drop as much as forty percent. The Rulemaking, Enforcement, and Research and Analysis departments at NHTSA, which have been directly responsible for vehicle crashworthiness and other safety standards that have saved hundreds of thousands of lives since NHTSA’s founding five decades ago, remain significantly underfunded. Such chronic underfunding only encourages the cynical

and reoccurring narrative that NHTSA is incapable of overseeing the safe development of advanced vehicle technology, and ultimately the driverless vehicle industry, due to a lack of resources.

Additionally, Congress could assist NHTSA by mandating it take steps to improve vehicle safety when the agency has failed to use its existing authority. As described above, requiring an update to NCAP would benefit all consumers, and those manufacturers who want to compete to have the safest vehicle in the showroom and on the road. Also, requiring NHTSA to update its seatback safety standard (FMVSS 207), which has remained the same since 1967, would prevent the horrific deaths and life-altering injuries often caused by a parent being thrust backward over their collapsed seat at such a speed and force as to kill or paralyze their own child during a rear end collision. These incidents represent a well-known problem to both the industry and the agency that remains unresolved to this day, despite recent a NHTSA study documenting changes to FMVSS 207 that would reduce seat back dynamic rotation and prevent injury to rear passengers. Included in the data analysis was a figure that shocks the conscience: an estimated cost of less than \$4.63 per automatic seat (\$1.94 for manual seats) to make the adjustments that could prevent many of these life-altering injuries from taking place. It is time Congress steps in and mandates the needed safety upgrade.

Furthermore, by exercising legitimate oversight into the agency's failure to complete existing mandates, Congress could ensure that the rule of law is respected and the will of the people is heard. For example, multiple NHTSA rulemakings remain in limbo years after Congressional deadlines have passed. These include a whistleblower rule to ensure that vehicle manufacturer employees are able to come forward with defect information, a rule to provide recall notices to consumers electronically, a rule to help prevent children from being unbelted in rear seats, and a rule to establish side impact requirements to protect children in child restraints. Congress must ensure that NHTSA promptly acts on these and other items on the agency's long list of overdue rulemakings.

The Honorable Bobby L. Rush (D-IL)

- 1. Mr. Levine, the Federal Trade Commission just released a report that criticized commercial practices that restricts auto repair options for consumers. For many Americans, their vehicles are the largest assets they have, and they rely on their cars to get them to work and to the supermarket. The report was approved by all 4 sitting Commissioners, Democrats and Republicans, and calls for legislation to expand repair and maintenance options for consumers. I am currently drafting such a bill. Are you familiar with the report? What is your opinion of the findings?**

The Federal Trade Commission Report, “Nixing the Fix: An FTC Report to Congress on Repair Restrictions,” was issued in May 2021, in response to a Congressional directive requiring the Commission examine anticompetitive practices related to repair markets. We have reviewed the Report, focusing our attention on the areas related to auto repair. With an estimated 280 million registered passenger motor vehicles on American roads, there is plenty of repair work to go around.

The Center for Auto Safety was founded in 1970 to stand as an advocate for consumer safety and consumer protection when it comes to motor vehicle related issues. Vehicle safety is often dependent upon vehicle maintenance and repair. Historically speaking, competition for consumer business in the vehicle repair field has led to a greater consumer choice and better prices. Moreover, it has long been the Center’s position that such competition is an excellent incentive to ensure the quality of repairs at both independent and manufacturer licensed repair shops.

Therefore, assuring consumers have access to reliable mechanics and the opportunity to choose which mechanics will service their vehicle is an important element of vehicle safety. Historically speaking, competition for consumer business in the vehicle repair field has led to a greater consumer choice and better prices. Moreover, it has long been the Center’s position that such competition is an excellent incentive to ensure the quality of repairs at both independent and manufacturer licensed repair shops.

As a general matter, we agree with the Commission’s unanimous conclusion that repair restrictions are rarely adequately justified and believe that consumer choice is beneficial to the safety of every driver, passenger, and pedestrian on the road. More specifically:

With respect to telematics: Automakers exert unreasonable control over telematic information collected from vehicles – this includes performance and status information necessary to perform proper repairs and maintenance. As vehicles continue to require more software (and software updates) and possess more computer systems the average vehicle has 50+ electronic control units, each with its own processor, access to this data is critical for independent repair shops in order to effectively repair the vehicle. Most relevant repair data is available on the open-source CAN bus, but this access is not guaranteed, and OEMs are

currently free to use proprietary protocols that would completely lock out access to everyone except those included under their proprietary umbrella. Even when ECU status is available, OEMs may restrict access to critical ECUs, main processors, or software to drive business to their own licensed repair centers. While the CAN bus protocol for ECU communication and programming is widely used, it is not universal. OEM use of proprietary data bus architectures that are not readily accessible by independents and individuals erects yet another barrier to economical repairs.

Currently, OEMs are free to use proprietary network protocols in their vehicles and engage in what amounts to a monopolistic practice in order to prevent independents from even diagnosing problems. Only the open-source CAN bus data is ordinarily available to independent repair shops. Deviation from the CAN bus without providing alternative data access to independents and owners is another expensive barrier to repairs, again disenfranchising owners, independents, and people of limited means who are often uniquely dependent on their vehicles for employment, child care, and the necessities of life. OEMs that do not use a CAN bus should provide alternative low-cost access to individuals and independent businesses to encourage maintenance visibility and proper repairs. These barriers, limited access to data and restricted access to software/hardware components needed to diagnose and repair vehicles, may put independent shops in the untenable position of attempting to diagnose vehicle problems, or perform maintenance, without a full set of vehicle data on which to base their conclusions, putting both motorists and independent businesses at risk. It also places an extra burden on component suppliers who would lose the ability to sell their products to independent repair shops, unfairly restricting consumer choice as well.

At the Center, we have frequently seen the tragic results of unrepaired or improperly repaired vehicles, and believe that the negative safety impacts of limiting independent repair access to needed vehicle data and components must be part of the conversation, in addition to the economic benefit of ensuring that consumers are free to choose their place of repair.

With respect to Parts - Original Equipment Manufacturers (OEMs) have long held a virtual monopoly in the area of repair parts that has served to restrict consumer choice and increase prices for repair. Not only does current law allow OEMs to restrict access to and availability of repair parts, but a perhaps more pressing issue is that in the context of modern cars, OEMs possess an unreasonable level of control over an increasingly more important part of the vehicle – software and data systems – and who may access them.

In order to properly perform repairs and maintenance on consumer vehicles, independent repair shops (and consumers) must have the ability to access manufacturer service and diagnostic software, hardware, official service information or other tools necessary for an OEM repair. OEMs are continually issuing service bulletins and other updates to their dealer repair facilities to ensure that safe and proper repairs are made to consumer vehicles, and

access to these bulletins has historically also been limited, to the detriment of consumers seeking honest repairs.

Further, extending the current restrictive model to the modern context where vehicle repairs are as likely to be a software update as a physical part creates an environment where consumers have only one place to go – the dealer service facility – to continue operating their vehicle safely and efficiently both during and after the warranty period.

For example, most vehicle designs rely on the CAN bus for communication among the multiple electronic control units and main computer in a vehicle. The CAN bus in its native form is intrinsically insecure. No regulations exist that require OEMs to either develop or avail themselves of available technology to harden the CAN bus. This is a much graver cybersecurity exposure than presented by independent repairs which rely on the same suppliers as the OEM for replacement parts. What is most important when it comes to maintaining the cybersecurity of vehicles is for manufacturers to harden their attack surfaces, including such seemingly benign components as wireless tire pressure sensors, and isolating their vehicle control systems from infotainment and data gathering systems, to enable any qualified individual who wishes to repair the vehicle (including consumers) to do so in a way that minimizes the risks of cyber tampering and quarantines any actual instance of a breach. NHTSA must write cybersecurity standards for new vehicles that require both defensive strategies and offensive test and verification considerations when it comes to external threats. After all cybersecurity threats do not start at the repair shop and do not stop at the dealership door.

Finally, the Center recognizes the value of repairs being undertaken by experienced and qualified mechanics in the automobile field. However, we have yet to see objective data demonstrating that such experience and qualified repairs can justifiably be limited to OEM franchised dealership repair facilities instead of allowing consumers to benefit from competition.

2. Mr. Levine, the FTC’s report states that “the burden of repair restrictions may fall more heavily on communities of color and lower-income communities. Many Black-owned small businesses are in the repair and maintenance industries, and difficulties facing small businesses can disproportionately affect small businesses owned by people of color.” My bill will allow independent repair shops to repair and maintain cars in their own communities. Do you have any thoughts on this aspect of the FTC report?

As you note in the question above, for many Americans, their personal motor vehicle is the most expensive purchase they will ever make. Therefore, keeping their vehicle in good service, for both utilitarian and financial reasons, is extraordinarily important. Having access to a local repair shop not only provides convenience (and thus a greater likelihood of vehicles being regularly serviced) it can help to encourage regular repairs based on a relationship of

trust with a local, independently owned, merchant. As the FTC Report details, restricting repairs exclusively to larger, manufacturer licensed facilities can have a deleterious effect on small businesses which can have a significant impact on smaller communities. Presuming the accuracy of the FTC's data, such restrictions could have a disparate impact on communities of color and lower income communities which historically have relied upon small, locally owned businesses. Keeping vehicles in safe condition, and fully repaired, is vital to the safety of everyone on the road. With over 100 Americans being killed every day by vehicle crashes any steps that can be taken to ensure that vehicles are being repaired is important for safety. The right to repair will mean little without convenient access to vendors who can provide such service based on a relationship of quality and trust.

The Honorable Lori Trahan (D-MA)

- 1. I represent Massachusetts, the first state to pass automobile right to repair in 2012. As we move towards a world with more connected vehicles, the importance of data protection and cybersecurity increases. And while this is true, we have seen large companies use privacy and cybersecurity as an excuse to increase repair restrictions. Fortunately, the FTC recently released a comprehensive report examining repair markets.**

The report found that, “[t]he record contains no empirical evidence to suggest that independent repair shops are more or less likely than authorized repair shops to compromise or misuse customer data. Furthermore, although access to certain embedded software could introduce new security risks, repair advocates note that they only seek diagnostics and firmware patches.” Do you agree with these conclusions? Why is ensuring that independent repair shops can maintain vehicles important for public safety?

As a general matter, we agree with the Commission's unanimous conclusion that repair restrictions are rarely adequately justified and believe that consumer choice is beneficial to the safety of every driver, passenger, and pedestrian on the road.

The Center for Auto Safety was founded in 1970 to stand as an advocate for consumer safety and consumer protection when it comes to motor vehicle related issues. Vehicle safety is often dependent upon vehicle maintenance and repair. Therefore, assuring consumers have access to reliable mechanics and the opportunity to choose which mechanics will service their vehicle is an important element of vehicle safety. Historically speaking, competition for consumer business in the vehicle repair field has led to a greater consumer choice and better prices. Moreover, it has long been the Center's position that such competition is an excellent incentive to ensure the quality of repairs at both independent and manufacturer licensed repair shops. At the Center, we have frequently seen the tragic results of unrepaired or improperly repaired vehicles, and there can be negative safety impacts of limiting

independent repair access to needed vehicle data and components, to say nothing of the economic benefit of ensuring that consumers are free to choose their place of repair.

- 2. Additionally, the report found that, “replacing a part on a device with an identical OEM part or functionally equivalent aftermarket part is unlikely to create a cybersecurity risk.... the record supports arguments that consumers and independent repair shops would be equally capable of minimizing cybersecurity risks, as are authorized repairers.” As technology changes, do you think we can achieve the goals of safety and cybersecurity, while maintaining competition in repair markets?**

As a threshold matter, the Center takes the position that NHTSA should, either of their own accord or because the agency is required by statute, provide minimum cybersecurity performance requirements for automakers and suppliers to enable validation of design approaches that assure long-term cybersecurity effectiveness and vehicle safety throughout a connected vehicle’s life cycle.

It may never be possible to implement 100% effective prophylactic cybersecurity measures, thus NHTSA should endeavor to promote full life cycle vehicle cybersecurity. In order to assure sufficient information for post-incident forensic analysis and the ability to share lessons learned with the entire connected vehicle community, including the public, a robust data set will be required. NHTSA should mandate that vehicle software, logic-bearing devices, sensors, and data processing equipment configuration are embedded in vehicle data records in the event of a successful attack causing a life-threatening or deadly incident.

NHTSA should be determining the needed scope and means of cyber testing to enhance public safety and enabling the auto industry to realistically validate their cybersecurity designs, ensure that capabilities have been validated, and make certain that validation results are available to the public. The results of cybersecurity testing and validation should be incorporated into the information available to consumers to assist their evaluation of various modern vehicle offerings.

The argument that such NHTSA capabilities do not currently exist does not absolve NHTSA of its legal duty to act in the face of clear threats to vehicular safety. The need to address connected vehicle cybersecurity is new and NHTSA’s response to that need must also be entirely new.

Yet, as the FTC noted, “the record contains no empirical evidence to suggest that independent repair shops are more or less likely than authorized repair shops to compromise or misuse customer data.” And, as the question notes, the FTC concludes “[w]ith appropriate parts and repair information, the record supports arguments that consumers and independent repair shops would be equally capable of minimizing cybersecurity risks as are authorized

repairers.” The reverse is also true of course, authorized repairers and independent repair shops are equally capable of creating a cybersecurity risk.

Until such standards and steps are taken by NHTSA, however, without much evidence it is often posited that restricting the right to repair will somehow improve cybersecurity for consumers in passenger vehicles. For example, most vehicle designs rely on the CAN bus for communication among the multiple electronic control units and main computer in a vehicle. The CAN bus in its native form is intrinsically insecure. No regulations exist that require OEMs to either develop or avail themselves of available technology to harden the CAN bus. This is a much graver cybersecurity exposure than presented by independent repairs which rely on the same suppliers as the OEM for replacement parts. What is most important when it comes to maintaining the cybersecurity of vehicles is for manufacturers to harden their attack surfaces, including such seemingly benign components as wireless tire pressure sensors, and isolating their vehicle control systems from infotainment and data gathering systems, to enable any qualified individual who wishes to repair the vehicle (including consumers) to do so in a way that minimizes the risks of cyber tampering and quarantines any actual instance of a breach. NHTSA must write cybersecurity standards for new vehicles that require both defensive strategies and offensive test and verification considerations when it comes to external threats. After all cybersecurity threats do not start at the repair shop and do not stop at the dealership door.