Documents for the Record
Committee on Energy and Commerce, Subcommittee on Commerce, Manufacturing, and Trade
Hearing Titled "Looking Under the Hood: The State of NHTSA and Motor Vehicle Safety"
June 26, 2025

1. Statement for the record from the American Chemistry Council, submitted by the Majority.
2. Statement for the record from American Vehicle Owners Alliance, submitted by the Majority.
3. Statement for the record from Drive Action Fund, submitted by the Majority.
4. Letter from Mr. John Bozzella, Alliance for Automotive Innovation, to Mr. David Hines, Acting Associate Administrator for Rulemaking, NHTSA, submitted by the Majority.
5. Statement for the record from Thomas M. Kowalick, Chair of the Institute of Electrical and Electronics Engineers, submitted by the Majority.
6. Statement for the record from the MEMA, the Vehicle Suppliers Association, submitted by the Majority.
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American Chemistry Council
Statement for the Record
House Energy & Commerce
Commerce, Manufacturing, and Trade
"Looking Under the Hood: The State of NHTSA and Motor Vehicle Safety"
June 26, 2025

The American Chemistry Council (ACC) is grateful to the Committee on Energy and Commerce's Subcommittee on Commerce, Manufacturing, and Trade for hosting this hearing. We appreciate the opportunity to provide this statement for the record highlighting the value of regulations in innovating safety measures and how lightweight plastics and plastic polymer composites can aid in improving vehicle safety.

The ACC is a national trade association representing U.S. companies that manufacture chemistry and plastics, including manufacturing lightweight plastics and polymer composites used by the transportation industry in automotive applications. ACC's Plastics Division represents the leading producers of plastics resins in the United States, as well as foremost companies throughout the entire plastics value chain. American chemistry is an innovative $517 billion enterprise that plays a critical role in delivering a more sustainable future through resource and fuel efficiency, material innovation, and continued advancements in our products and operations. Last year alone, America's chemistry industry spent approximately $11 billion in research and development, **created more than 537,000 U.S. manufacturing and high-tech jobs**, and supported 4.1 million related jobs that support families and communities.

The Role of Lightweight Materials in Vehicle Design

The lightweighting of vehicles by manufacturers has spurred a renaissance of innovation, and will continue to drive growth and competition in the U.S. automotive industry to meet consumer demands for stylish, safe, and affordable vehicles.

As vehicles evolve to meet consumer demand for autonomous capabilities, entertainment systems, and advanced propulsion systems, automotives are becoming heavier. Lightweight plastics and polymer composites can be used to offset weight within the vehicle's design, allowing the design to evolve alongside its embedded technology. Among other numerous benefits, automotive plastics and composites play an important role in improved safety, improved design, manufacturing efficiency, mass reduction, aerodynamic improvement, electrification and autonomous deployment and optimized component integration.[1] Today's

[1] EPA, NHTSA and CARB, "Draft Technical Assessment Report: Midterm Evaluation of Light-Duty Vehicle Greenhouse Gas Emission Standards and Corporate Average Fuel Economy Standards for Model Years 2022-2025, Appendix", pp. B-46-B-76 (July 2016), *available at* https://nepis.epa.gov/EPA/html/DLwait.htm?url=/Exe/ZyPDF.cgi/P100OYCH.PDF?Dockey=P100OYCH.PDF.

plastics make up 50% or more of the volume of an average vehicle but less than 10% of its weight, according to ACC calculations.

Polymer composites are a combination of tough plastic resins that are reinforced with glass, carbon fibers and other materials. These materials often weigh far less than traditional automobile materials yet maintain similar levels of tensile strength and resistance to corrosion. Lightweight plastic and polymer composites provide an economical way to sustainably lightweight vehicles while preserving important safety features and consumer preferences through improved design flexibility.

Safety Regulation and Vehicle Lightweighting

Research on the relationship between vehicle lightweighting and automotive safety has evolved significantly over the last several decades

Recognizing the safety and economic benefits of incorporating more advanced materials into automotives, the National Highway and Traffic Safety Administration (NHTSA) has worked over the last several decades years to better incorporate multi-material strategies into its safety standards to allow automakers to have as many choices as possible when it comes to the materials they use in their vehicles. Today, science about the role of vehicle design in ensuring automotive safety is evolving at a rapid pace. New research being conducted at Universities like George Mason University (GMU), alongside entities like the National Academies of Science (NAS) demonstrate these developments.

For example, the NAS/National Academies of Sciences, Engineering, and Medicine (NAS/NASEM) has published reports noting that future changes in technology and fleet composition could lead to different conclusions than those underlying NHTSA's current views about the relationship between mass reduction and safety[2,3]. Consequently, the 2021 NASEM report qualifies the general conclusions associated with mass disparity, noting that "new vehicle designs, continued effects associated with footprint-based fuel economy standards, changes in demand across vehicle classes, and increased demand for vehicles with (heavier) electrified powertrains could yield different safety relationships from those identified in relevant studies." ACC agrees with the assessment that vehicles have become safer through a combination of new regulations and safety improvements, including the expectation that this trend will continue as emerging technologies, such as ADAS and ADS, are incorporated into vehicles.

ACC has also collaborated with NHTSA, GMU, and participating member companies on some of these research efforts in the past. As another example, a project hosted at GMU aimed to

[2] National Research Council. 2015. Cost, Effectiveness, and Deployment of Fuel Economy Technologies for Light-Duty Vehicles. Washington, DC: The National Academies Press. https://doi.org/10.17226/21744.

[3] National Academies of Sciences, Medicine, and Engineering and Medicine. 2021. Assessment of Technologies for Improving Light-Duty Fuel Economy 2025-2035. Washington, DC: The National Academies Press. https://doi.org/10.17226/26092

lightweight a Chevrolet Silverado pickup truck using plastics and composites, including the utilization of finite element modeling, and the results reinforced that lightweight plastics can provide comparable safety benefits to heavier materials. In this project, the vehicle size was maintained while achieving a 19% weight reduction through lightweighted component replacements using plastics and CFRP composites as well as downsizing of the powertrain and suspension system, made possible by the reduced weight realized from the component lightweighting. The lightweighted vehicle provided equivalent safety performance as the baseline vehicle.

Because NHTSA's revised standards update old, outdated standards – new rules actually *enable* innovation.

In recent years, NHTSA's efforts to update its rules, standards, and regulations has opened doors to vehicle innovation. In particular, revised standards reflecting the evolving understanding of vehicle design can break down barriers to the integration of lightweight materials in relevant standards, test procedures, countermeasures, and within the occupant protections program would further jumpstart industry adoption of such materials. This would improve motor vehicle safety by returning vehicles to standard weights even with added components from new systems, increasing design flexibility, and improving crumple zones. Additionally, removing such restrictions on vehicle material use and design would increase consumer choice and spur competition to innovate safer motor vehicles.

ACC is supportive of NHTSA's work to date on updating its these standards to reflect the latest research regarding the introduction of lightweight materials in vehicle design and provide automakers with more tools to innovate.

Indeed, for decades, NHTSA's motor vehicle safety regulations have prompted industry to innovate. For example, Federal Motor Vehicle Safety Standards (FMVSS) for airbags and seatbelts spurred industry research, development, and deployment of safer, more advanced seatbelts and airbags that improve passenger safety. Plastics have been critical to improving these devices and their safety outcomes. Seatbelts composed of durable strands of polyester fibers saved nearly 15,000 lives in 2018 alone according to NHTSA data. Airbags, commonly made from high-strength nylon fabric, can reduce the risk of dying in a direct, frontal car crash by about 30 percent, according to NHTSA data. These innovations and associated outcomes would not have been possible without NHTSA intervention, positioning FMVSS regulations as tools for industry innovation rather than a burden on industry.

NHTSA can continue to use regulations to spur innovations and plastics can continue to advance automotive safety.

NHTSA's work to continue to update its crashworthiness standards will set performance-based standards based on the latest science that will encourage the automotive industry to create innovative vehicle designs, including new materials, to meet these standards. For example, NHTSA's work to update regulations on pedestrian safety – including head impacts and lower

body impacts - will help to enable greater adoption of plastics and polymer composites into bumpers and frontal assemblies in vehicles while improving safety outcomes.

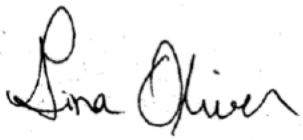
Finalizing updates to these and other key standards will open doors for American vehicle manufacturers. In particular, ACC supports finalization of standards reflecting NHTSA's research on frontal, side, rollover, front seatbacks and lower interior impacts for children and small adults, including women, as well as for pedestrian safety. ACC supports the use of crash test dummies that reflect impacts to children and small adults, and supports S. 161, the She DRIVES Act, which would require NHTSA to issue rules relating to the testing procedures used under the New Car Assessment Program (NCAP).

Conclusion

A final note on a critical topic for American consumers: ACC is aware vehicle affordability is front of mind for Americans today. Automotive lightweighting can help drive vehicle cost down without sacrificing on safety. Because of the mass compounding effect, as lightweight components are substituted for heavier alternatives, lighter structure weight allows other elements like tires to become lighter and cheaper as well, amplifying the relative power of lightweight materials in overall mass reduction and vehicle cost – all while also ensuring safety.

ACC appreciates the Subcommittee's attention to the topic of motor vehicle safety, and we look forward to supporting your efforts to improve safety while delivering on automotive cost, global competitiveness, and sustainability. Specifically, we welcome the opportunity to serve as a resource for Subcommittee Members on issues related to regulations that drive innovation and the safety benefits of lightweight polymers in automotive applications.

Sincerely,



Gina Oliver
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Statement for the Record
Submitted to the House Energy & Commerce Committee
Subcommittee on Commerce, Manufacturing, and Trade
Hearing Title: "Oversight of NHTSA: Roadway Safety and Agency Priorities"

Submitted by: American Vehicle Owners Alliance (AVOA)
June 26, 2025

Chairman Bilirakis, Chairman, Ranking Member Schakowsky and Members of the Subcommittee on Commerce, Manufacturing, and Trade:

On behalf of the American Vehicle Owners Alliance (AVOA), we respectfully submit this statement for the record regarding the Subcommittee's hearing on "Oversight of NHTSA: Roadway Safety and Agency Priorities."

AVOA represents the interests of America's vehicle owners—individual drivers, small businesses, rental car companies, fleet operators, and insurers—who believe that ownership should include the right to access, control, and share 100 percent of the data generated by their vehicles. We advocate for consumer rights, property rights, and vehicle safety in the era of connected cars. As vehicles become more connected, the data they produce has implications and relevance to safety, maintenance, and consumer choice.

We commend the Subcommittee for its leadership in examining how technology and innovation intersect with roadway safety and regulatory oversight. We urge Members to consider how owner access to and control of vehicle-generated data is fundamental to the safety, rights, and responsibilities of vehicle owners.

Vehicle Data Access and Motor Vehicle Safety

When a vehicle owner has access to their vehicle-generated data, they can:

- Monitor engine health, brake wear, and fluid levels in real time to help prevent mechanical failures that could lead to accidents.
- Use diagnostic data to guide timely repairs and enable preventative maintenance that improves long-term vehicle performance and enhances safety.

- Analyze driving patterns—such as hard braking or rapid acceleration—to encourage safer driving habits for themselves and their family members.

- Support innovation and the development of new approaches to enhance driver and vehicle safety and mobility, promotion competition, consumer choice, and economic growth.

Vehicle-generated data voluntarily shared by owners can also provide critical insights to local governments and traffic engineers, helping them identify high-risk intersections, optimize signal timing, and design safer roadways. Research has demonstrated the importance of data produced by connected vehicles to innovation and cybersecurity for vehicle owners and highlighted the risk posed by the current "gatekeeper" model employed by automakers, in which they decide which data to share with owners and others.[1]

Conversely, when vehicle owners are denied access to their data, they lose the ability to act on the very information that could prevent accidents and reduce costly breakdowns. For example, a fleet operator may be unable to detect a critical brake issue in time—simply because that data is held exclusively by the manufacturer.

Ownership Rights and Consumer Choice

In the past, owning a vehicle meant controlling the information it generated—such as fuel levels, tire pressure, location, and service history. Today, that relationship is being disrupted by manufacturers who increasingly act as gatekeepers to vehicle data. This undermines basic property rights and raises serious concerns about fairness, transparency, and competition in the automotive marketplace.

Whether you own a single car or operate a nationwide fleet, you should not need the manufacturer's permission to access your vehicle's data nor should that data be locked away in proprietary systems that prevent owners from using it unless they pay additional fees beyond the purchase price of the vehicle.

A Call for Congressional Action

Congress has a vital role to play in ensuring that vehicle owners—not manufacturers—retain control over the data generated by their vehicles. Legislation such as the Auto Data Privacy and Autonomy Act represents a step in the right direction.

AVOA urges the Subcommittee to:

- Recognize vehicle data access as a safety and consumer rights issue.

[1] Hoffman, D. A. (2024, June). The Protected Connected Car. Amer can Veh c e Owners A ance. https://amer canveh c eownersa ance.org/wp content/up oads/2024/11/Hoffman Protected Connected Car June 2024 F NAL.pdf

- Support bipartisan legislation that codifies the rights of vehicle owners to access and control their data.

- Promote policies that support transparency, interoperability, and fair competition—key factors in realizing the safety potential of vehicle data. Without these safeguards, manufacturers may limit timely diagnostics, hamper competition and innovation, reduce consumer choice, and compromise vehicle safety.

We stand ready to work with Members of this Subcommittee to ensure that the future of connected vehicle technology serves the people who own and operate the vehicles—not just the companies that manufacture them. Your leadership on this issue is essential to achieving a balanced, innovation-friendly, and safety-oriented policy framework.

Thank you for your consideration.

Respectfully submitted,

Richard J. Ward III
Executive Director, American Vehicle Owners Alliance (AVOA)
www.americanvehicleownersalliance.org

DRIVE ACTION FUND

June 25, 2025

The Honorable Gus Bilirakis, Chairman
The Honorable Jan Schakowsky, Ranking Member
Subcommittee on Commerce, Manufacturing, and Trade
United States House of Representatives
Washington, D.C. 20510

Dear Chairman Bilirakis and Ranking Member Schakowsky:

In advance of tomorrow's Commerce, Manufacturing, and Trade Subcommittee hearing titled Looking Under The Hood: The State Of NHTSA And Motor Vehicle Safety, Drive Action Fund submits this letter urging the Subcommittee to prioritize adopting advanced female crash test dummy technology into the New Car Assessment Program (NCAP) and Federal Motor Vehicle Safety Standards (FMVSS). On Monday, the Associated Press, the Washington Post, and ABC News published articles on this critical, fatal issue. Drive Action Fund respectfully requests this letter and the Associated Press story, "Women Face More Injury Risks in Car Crashes", be entered into the hearing record.

While we at Drive Action Fund are grateful that the Subcommittee is holding this hearing on "looking under the hood," it is imperative that we also look inside the car to effectively evaluate the nation's motor vehicle safety standards. Studies show that because American cars are safety tested and designed without an accurate female crash test dummy, women are significantly more likely to be injured and killed than men in the same collision. In 2013, the National Highway Traffic Safety Administration (NHTSA) found the collision fatality risk for women to be 17% higher than for men. Similarly, a 2019 study by the University of Virginia's Center for Applied Biomechanics (CAB) found that women are 73% more likely to be severely injured than men in the same crash.

In addition to the devastating human toll, these injuries and deaths have significant economic consequences. In 2023, crash fatalities cost nearly $79.8 billion in wage loss, medical and administrative expenses, vehicle damage, and employers' uninsured costs. The same year, 146,122 women were hospitalized for car crash injuries – requiring $11.3 billion in medical costs, and $3.72 billion and $22.9 billion in productivity and quality of life losses, respectively.

To resolve this lethal vehicle safety testing deficiency, Congress must pass legislation with regulatory deadlines and a requirement that female dummies are tested in the driver's seat, equally as male.

Fortunately, in January, Senators Fischer (R-NE), Murray (D-WA), Blackburn (R-TN), and Duckworth (D-IL) introduced the bipartisan She Develops Regulations in Vehicle Equality and Safety (She DRIVES) Act (S.161), which would require that all new vehicles are safety tested with the most advanced female crash test dummy available, the THOR 5F, in the driver's seat. The Senate Commerce, Science, and Transportation Committee advanced the legislation unanimously in February. Major safety organizations, including Mothers Against Drunk Driving (MADD), the National Safety Council (NSC), Families for Safe Streets, and others, have endorsed the legislation (see attached list of supporters below).

In May, President Trump's Fiscal Year 2026 NHTSA Budget Estimates asked specifically for funding to adopt the advanced THOR 5F female dummy. While we are grateful for President Trump and his Administration's support, a budget request is insufficient to mandate change. Historically, major

advancements in auto safety, whether standards requiring seatbelts, airbags, or rearview cameras, have required the enactment of legislation.

We are encouraged by your previous leadership on this life-and-death issue. In 2021, Subcommittee Chairman Bilirakis introduced the bipartisan Furthering Advanced and Inclusive Research for Crash Tests Act (FAIR Crash Tests Act), which prompted the Government Accountability Office to issue a report in March, 2023 titled *Vehicle Safety: DOT Should Take Additional Actions to Improve the Information Obtained from Crash Test Dummies*. In February 2022, Ranking Member Schakowsky sent a letter to then-Secretary of Transportation Pete Buttigieg urging him to take action on ending the fatal disparity.

We strongly request that the House of Representatives, under this Subcommittee's leadership, introduce a bipartisan companion bill to the She DRIVES Act and support its passage through Congress. We look forward to working with members of the Subcommittee to pass this effective legislation ensuring NHTSA action and to achieve life-saving protection for women and girls.

Sincerely,

Maria Weston Kuhn
Drive Action Fund, President

cc: Members of the U.S. House of Representatives Committee on Energy and Commerce

She Develops Regulations in Vehicle Equality and Safety (She DRIVES) Act (S.161) Supporters:

Joan Claybrook
Former Administrator
National Highway Traffic Safety Administration

Families for Safe Streets

FIA Foundation

Midwest Center for Traffic Safety

Mothers Against Drunk Driving (MADD)

National Association of Women Highway Safety Leaders

National Organization for Youth Safety (NOYS)

National Safety Council

Students Against Destructive Decisions (SADD)

Vision Zero Youth Council

ALLIANCE FOR AUTOMOTIVE INNOVATION

June 25, 2025

Mr. David Hines
Acting Associate Administrator for Rulemaking
National Highway Traffic Safety Administration
1200 New Jersey Avenue, S.E.
Washington, D.C. 20590

Dear Mr. Hines,

Alliance for Automotive Innovation (Auto Innovators) supports the goal of improving female occupant safety. [1] To that end, we strongly encourage NHTSA to make common sense and long-overdue changes to ensure that existing crash tests accurately reflect the driving public. This includes updating the New Car Assessment Program (NCAP) to include testing with the existing female dummy, already used in Federal Motor Vehicle Safety Standards (FMVSS), in the driver's seat.[2] Using the existing dummy offers a path to immediate and improved representation in crash testing. Use of new dummies that are still in the development stage will delay safety improvements that could be gained from more equitable testing.

Research has shown women experience different injury outcomes in crashes compared to men. Although improvements in vehicle crashworthiness have generally shown a decline in serious and fatal injury risk for females, the data still shows women may still be at a higher risk of sustaining lower extremity injuries in certain crashes.[3] Other factors, such as the vehicle size and overall crash conditions, also contribute to differences in injury risk. Because of the differences between men and women, it is important that NHTSA ensure that its current regulatory and consumer information testing programs are as representative of the driving public as possible.

NHTSA already uses female dummies in both compliance testing for Federal Motor Vehicle Safety Standards and NCAP. These dummies have already contributed significantly to improving female occupant safety, with recent studies based on real-world data finding that the "estimated benefits of improved crashworthiness were similar or greater for females than for males for most injury outcomes."[4] However, these dummies are not used in all seating positions. We therefore recommend that NHTSA update current FMVSS and NCAP to expand the use of existing adult female test dummies to its full potential (e.g., to evaluate lower extremity injuries) in all seating positions where an adult male dummy is currently tested.

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[1] *Auto Innovators represents the full auto industry, including the manufacturers producing most vehicles sold in the U.S., equipment suppliers, battery producers, semiconductor makers, technology companies, and autonomous vehicle developers. Our mission is to work with policymakers to realize a cleaner, safer, and smarter transportation future and to ensure a healthy and competitive auto industry that supports U.S. economic and national security. Representing approximately 5 percent of the country's GDP, responsible for supporting nearly 10 million jobs, and driving $1 trillion in annual economic activity, the automotive industry is the nation's largest manufacturing sector.*

[2] The existing test dummy is known as the Hybrid III 5th percentile female (HIII-05F). See 49 CFR Part 572 "Anthropomorphic Test Devices."

[3] *Brumbelow, M. L. Jermakian, J. S., Injury risks and crashworthiness benefits for females and males: Which differences are physiological? Traffic Injury Prevention (TIP), December 2021. See https://www.iihs.org/research-areas/bibliography/ref/2219.*

[4] *See footnote 3*

This approach offers an expeditious and straightforward way to advance female occupant safety while the agency continues to examine the benefits of new dummies or other methods of evaluating injury data, including simulation. The NCAP roadmap already indicates NHTSA's intention to update its current crashworthiness program to include the current female dummy (i.e., the HIII-05F) in full frontal rigid barrier crash tests.[5] We urge that the decision to include a female dummy in NCAP not be delayed by concurrent plans to introduce the THOR 50th percentile male dummy (THOR-50M), which represents midsize male occupants, in front row testing as part of a single crashworthiness update.

We acknowledge that NHTSA's efforts to evaluate different test dummies – including the THOR 5th percentile female dummy (THOR-05F) which also represents smaller stature female occupants – are important. However, these test devices are still largely in a developmental phase and have not yet been demonstrated to provide clear improvements in crash safety. This is primarily due to limitations in their ability to predict real-world injury risks. NHTSA has noted that it will take several more years before these dummies can be included in NHTSA testing.[6]

More than 40,000 people die on our nation's roadways each year, and millions more are injured. We cannot afford for that number to increase by waiting until research on alternative test dummies is complete. NHTSA can take immediate steps to advance female occupant safety by moving quickly to incorporate existing federalized dummies, including the HIII-05 Female, into NCAP. We encourage the agency to publish a Request for Comment that proposes to include existing female dummies in NCAP as soon as reasonably possible.

Thank you, in advance, for your consideration of this request and look forward to continuing to work with you to address improved outcomes for all vehicle occupants.

Sincerely

John Bozzella
President & CEO
Alliance for Automotive Innovation

CC: Mr. Peter Simshauser, Chief Counsel, NHTSA
Mr. Cem Hatipoglu, Associate Administrator for Vehicle Safety Research, NHTSA

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[5] New Car Assessment Program Final Decision Notice-Advanced Driver Assistance Systems and Roadmap (89 FR 95916).
[6] NHTSA Advanced Anthropomorphic Test Devices Development and Implementation Plan (March 2024).

SUBMISSION TO THE HOUSE ENERGY & COMMERCE COMMITTEE

Date: June 26, 2025

To: The Honorable Chair Brett Guthrie, The Honorable Frank Pallone Jr. Ranking Member, and Esteemed Members House Energy & Commerce Committee U.S. House of Representatives Washington, D.C. 20515

From: Thomas M. Kowalick Chair, Institute of Electrical and Electronics Engineers (IEEE) 1616: Standard for Motor Vehicle Event Data Recorders (MVEDRs)

Subject: Updated Insights and Recommendations on Automobile Technologies, Safety, and the Critical Role of Whistleblower Protections.

Dear Chair [Chair, Brett Guthrie and Ranking Member Frank Pallone Jr., and Esteemed Members of the Committee,

I am writing to provide an updated perspective and key recommendations on the evolving landscape of automobile technologies, building upon my previous engagement with this Committee. My original testimony, delivered to the Subcommittee on Consumer Protection and Commerce on May 18, 2021, for the hearing titled "Promises and Perils: The Potential of Automobile Technologies," highlighted critical aspects of data recording, consumer protection, and safety within the automotive sector, particularly concerning Motor Vehicle Event Data Recorders (MVEDRs) and the IEEE 1616 standard.

Since that time, the rapid advancement of automotive technologies continues to present both immense opportunities for safety and efficiency, alongside complex challenges related to data privacy, cybersecurity, and the timely identification of safety defects. My work with IEEE 1616 remains committed to establishing robust and standardized approaches to event data recording, which are fundamental to crash reconstruction, vehicle performance analysis, and enhancing overall road safety.

In light of these ongoing developments and the paramount importance of public safety, I urge the Committee to consider an immediate and critical action:

Recommendation: Immediately Begin Making Auto Safety Whistleblower Awards as Per 49 CFR Part 513.

The Motor Vehicle Safety Whistleblower Act, enacted in December 2015 as part of the FAST Act, empowered the National Highway Traffic Safety Administration (NHTSA) to provide awards to individuals who provide original information leading to the successful enforcement of vehicle safety laws. After years of anticipation and a significant first award in November 2021, NHTSA has now formalized the program, with the final rule for 49 CFR Part 513 being published in December 2024 and officially becoming effective on January 16, 2025.

This program is an indispensable tool for uncovering critical safety defects that might otherwise go undetected or be unduly delayed in remediation. Whistleblowers often possess unique, insider knowledge vital to protecting the public from hazardous vehicles and components. Delays in fully operationalizing this program and promptly issuing awards undermine its intended deterrent effect and the incentive for individuals to come forward with crucial safety information.

Given the rule's finalization and effectiveness, there should be no further impediment to the immediate and proactive processing and issuance of these critical awards. Ensuring swift and decisive action on legitimate whistleblower claims will:

- **Accelerate the identification and recall of dangerous vehicles:** Saving lives and preventing injuries.
- **Enhance corporate accountability:** Encouraging manufacturers to prioritize safety and address issues promptly.
- **Foster a culture of transparency:** Reassuring the public that safety concerns are taken seriously and acted upon.
- **Fully realize Congress's intent:** Fulfilling the spirit and letter of the Motor Vehicle Safety Whistleblower Act.

I strongly recommend that the Committee exercise its oversight to ensure that NHTSA is immediately and fully implementing 49 CFR Part 513, actively soliciting and expediting the processing of whistleblower claims, and promptly issuing awards where warranted. This is a direct and impactful way to bolster auto safety and consumer protection.

I remain prepared to provide further information and assistance to the Committee on these vital matters. Thank you for your continued dedication to ensuring the safety and reliability of our nation's motor vehicles.

Sincerely,

\Thomas M. Kowalick/

Thomas M. Kowalick Chair, Institute of Electrical and Electronics Engineers (IEEE) 1616: Standard for Motor Vehicle Event Data Recorders (MVEDRs)

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Statement for the Record House Energy and Commerce

Subcommittee on Consumer Protection and Commerce Hearing

"Promises and Perils: The Potential of Automobile Technologies"

Tuesday, May 18, 2021, at 10:30 a.m. via Cisco Webex

Submitted by Thomas M. Kowalick

Chair, Institute of Electrical and Electronics Engineers IEEE 1616: Standard for Motor Vehicle Event Data Recorders (MVEDRs)

Thank you, Madam Chairwoman.

Today's hearing provides an opportunity to inform your committee about automotive technology being standardized by the Institute of Electrical and Electronic Engineers (IEEE) to reduce the risk of vehicle theft, odometer fraud, Vehicle Identification Number (VIN) cloning, crash data tampering and re-flashing of vehicle electronic networks towards greatly enhancing the cybersecurity of motor vehicles.

As the world's largest technical professional organization, IEEE plays a unique and crucial role in advancing technology for the benefit of humanity. Its core purpose is to foster technological innovation and excellence, a mission that enlightens and informs the global community. This unique role positions IEEE to significantly influence the standardization of automotive technology and enhance the cybersecurity of motor vehicles.

IEEE and its members, spread across more than 160 countries, inspire a global community to innovate for a better tomorrow. Through its highly cited publications, conferences, technology standards, and professional and educational activities, IEEE connects individuals and organizations, making them feel part of a larger, global community.

IEEE is the trusted voice for engineering, computing, and technology information around the globe.

IEEE and its organizational units engage in coordinated public policy activities at the national, regional, and international levels to advance the mission and vision of ensuring the benefits of technology contribute to the advancement of society.

The House Commerce and Energy Committee's jurisdiction includes consumer affairs and consumer protection; consumer privacy and data security, cybersecurity; consumer product safety; product liability; motor vehicle safety; the Federal Trade Commission; the Consumer Protection Safety Commission; and the National Highway Traffic Safety Administration this IEEE standard will be very valuable towards enhancing the cybersecurity of vehicle and highway safety.

No other standards-setting organizations cover the scope and purpose of this standard.

BACKGROUND

The vehicle DLC (OBD-II) is regulated by the Code of Federal Regulations (CFR) 40 CFR 86.094-17(h) (1) and subsequent revisions for model years. It is standardized by the Society of Automotive Engineers (SAE) Vehicle Electrical Engineering Systems Diagnostic Standards Committee. The physical configuration of the output plug is specified in SAE J1962-20072 and through the International Standards Organization (ISO) in ISO 15031-3:2004. It is increasingly used as an access point to other in-vehicle electronics systems, subsystems, computers, sensors, actuators, and an array of electronic control units (ECUs), including airbag sensing diagnostic modules (SDMs). The onboard DLC is also used as a serial port to retrieve data elements from onboard systems, subsystems, modules, devices, and functions that collect and store data elements related to a vehicle crash, such as a restraint control module (RCM) and an event data recorder (EDR) as per 49 CFR 563: Event Data Recorders. 3

An EDR is a device or function in a vehicle that records a vehicle's dynamic, time-series data just before or during a crash, intended for retrieval after the collision. The National Highway Traffic Safety Administration (NHTSA) is responsible for general EDR regulatory oversight and requires the installation of EDRs in vehicles to provide an accurate and unbiased understanding of crash events.

According to the Driver Privacy Act of 2015, when a vehicle owner purchases or leases a vehicle, they are considered the owners of the Event Data Recorder (EDR) data that the car generates and stores. However, the DLC port is so insecure that the FBI issued a public service announcement (available at https://www.ic3.gov/media/2016/160317.aspx and incorporated herein by reference in its entirety).

The IEEE 1616™ standard, under revision in 2021, is a key tool in enhancing vehicle cybersecurity. The revised standard defines a lockout protocol for EDR output data accessibility by securing the DLC. While it does not prescribe data security within the vehicle's electronic control units (ECUs) or the intra-vehicle communication and/or diagnostic networks, it does define ways. It means permitting uniform but controlled access to electronic scan tools for the DLC for the legitimate maintenance and/or repair of vehicle emissions status. This standard also defines a method for maintaining data security on the vehicle using a Near Field Communication (NFC) protocol.

1 https://www.govinfo.gov/app/details/CFR-2007-title40-vol18/CFR-2007-title40-vol18-sec86-094-17

2 https://www.sae.org/standards/content/j1962_201207/

3 https://www.govinfo.gov/app/details/CFR-2011-title49-vol6/CFR-2011-title49-vol6-part563

The Department of Homeland Security's US-CERT tasked the CERT Coordination Center (CERT/CC) at Carnegie Mellon University's Software Engineering Institute (SEI) to conduct a thorough study of OBD devices, aiming better to understand the cybersecurity impact on consumers and the public. The CERT/CC analyzed a representative sample of these devices for vulnerabilities and found widespread failure to apply basic security principles. If these devices are compromised, the potential impact includes loss of privacy, degradation or failure of vehicle performance, and possible injury. The goal of CERT/CC's research was to better inform consumers, enterprise fleet managers, insurance companies, and policymakers about the potential risks of these devices.

The NHTSA estimates that 91.6% of modern vehicles are equipped with EDRs.5 When the Haddon Matrix is applied to crashes, it categorizes events into pre-crash, crash, and post-crash phases. The crash mode is generally the crash site. The 'window of opportunity' to misuse EDR data is from the time of the crash until the data is downloaded by a trusted entity of the Court, such as law enforcement.

Additionally, the CERT/CC report notes, "In enterprise IT environments, the majority of attackers are assumed to be remote, attacking the systems over the Internet. Identifying a specific automobile on the Internet would be difficult, if not impossible if it is not directly accessible. Attackers are also likely to use computer security vulnerabilities as enablers of other, more physical crimes. Therefore, the threat actors are likely to be local to a targeted vehicle, generally within Wi-Fi or Bluetooth range. This doesn't rule out remote attacks, as a compromised mobile device with Internet connectivity could be connected to the car via an OBD-II device, USB, Bluetooth, or Wi-Fi. A secondary risk of using these devices is that compromise of the manufacturer or operator's back-end server may allow an attacker to access any device connecting to its network. When a consumer decides to plug one of these devices into their vehicle, they are unintentionally moving the security boundary from the vehicle itself to the device manufacturer's network, associated services, and any other connected device."

The House Commerce and Energy Committee is well aware that aftermarket OBD-II devices have the potential to introduce serious safety and security risks to an automobile. The design of the OBD-II port allows such a device to have unlimited access to some or all of a car's internal networks. These OBD-II devices also have an external interface that is accessible from outside the vehicle, typically via Wi-Fi, Bluetooth, or cellular.

Thus, there remains a need to secure a vehicle's EDR data from cybersecurity attacks, particularly before, during, and after a crash event, while also maintaining a chain of custody for the vehicle's EDR data.

In some states, EDR data is not protected by the Fourth Amendment and may be obtained without a warrant. See Mobley v. State, 346 Ga.App. 641 (2018).

4 https://www.kb.cert.org/vuls/

5 https://www.reginfo.gov/public/do/eAgendaViewRule?pubId=201210&RIN=2127-AK86

6 https://republicans-energycommerce.house.gov/news/press-release/board-diagnostic-obd-ii-ports-within-your-car-potential-gateway-hackers.

Thus, the IEEE standard provides a system and method for installing a device to prevent unauthorized access to the EDR data or provide permission for others to install the device after a crash event.

In a recent letter, NHTSA Deputy Administrator James C. Owens stated:

It is worth noting that NHTSA does not take issue with efforts relating to data ownership, privacy, or serviceability to the extent that they do not affect motor vehicle safety. NHTSA's published Cybersecurity Best Practices for Modern Vehicles document, section 9, recommends that the automotive industry provide strong vehicle cybersecurity protections that do not unduly restrict access by authorized alternative third-party repair services.7

NHTSA's Cybersecurity Interests

As background, NHTSA's statutory authorities center on motor vehicle safety.8 Accordingly, NHTSA's primary interest focuses on cybersecurity vulnerabilities that present potential vehicle safety consequences, which is a subset of the universe of cybersecurity. The increased use of software-intensive motor vehicle components, including telematics systems, introduces new and distinct risks to motor vehicle safety. Risks include the potential for technological methods, tools, and capabilities to be compromised and used in ways that create unintended and, at times, unsafe outcomes. The specific possibility of a

software vulnerability being exploited by malicious actors to cause a crash or incident is the primary cybersecurity concern for the NHTSA, the safety oversight agency for the automotive industry. The NHTSA has the authority to order vehicle recalls based on unreasonable risks to safety, including those that cybersecurity vulnerabilities may cause.

For years, the NHTSA has worked to encourage the industry to adopt improved cybersecurity practices, recognizing that cybersecurity risks are real and that protecting safety-critical vehicle systems from malicious hacking attempts is vital to the safety of the motoring public. Telematics systems pose a significant concern to the agency, as they could enable actors to remotely receive and/or send information to vehicles, potentially interfacing with multiple vehicles simultaneously, without requiring physical access to the cars.

NHTSA published a *Cybersecurity Best Practices for Modern Vehicles* document to guide manufacturers and suppliers in developing strategies to make their vehicles more secure against malicious attacks and more resilient if such attacks are successful. This guidance encouraged manufacturers to harden safety-critical systems, identify and evaluate risks during system and vehicle development processes, and develop layers of protection throughout vehicles to protect against unauthorized third-party access, which is appropriate for the identified risks.

7 https://www.nhtsa.gov/sites/nhtsa.gov/files/documents/vehicle_cybersecurity_best_practices_01072021.pdf

8 49 U.S.C 30101 et seq.

See Existing Federal guidance and cybersecurity best practices 9

SCOPE of IEEE-1616™: Standard for Motor Vehicle Event Data Recorders (MVEDRs)

1. Motor Vehicle Event Data Recorders (MVEDRs) collect, record, store, and export data related to predefined motor vehicle events in the usage history.
2. This standard defines a protocol for MVEDR output data compatibility and export protocols of MVEDR data elements.
3. This standard does not prescribe which specific data elements shall be recorded but instead provides a data dictionary of data attributes.
4. This standard also defines a means of maintaining data security on the vehicle via a motor vehicle diagnostic link connector lockout apparatus (MVEDRCLA) by securing the vehicle output diagnostic link connector (DLC).

5. This standard does not prescribe data security within vehicle electronic control units (ECUs) or the intra-vehicle communication and/or diagnostic networks; instead, it defines ways and means to permit uniform but controlled access of electronic scan tools to the DLC for legitimate purposes, such as vehicle emissions status, maintenance, and/or repair.
6. This standard also defines a motor Vehicle Event Data Recorder Connector Lockout Apparatus (MVEDRCLA) and a Near Field Communication (NFC) protocol for safeguarding access to a vehicle's event data recorder (EDR) data by securing the vehicle output diagnostic link connector (DLC).
7. This standard is without prejudice to the requirements of national or regional laws related to privacy, data protection, and the processing of personal data.
8. This standard does not directly address related issues concerning human health or safety.
9. It applies to vehicles and their respective event data recorders for all types of motor vehicles licensed to operate on public roadways, whether offered as original or aftermarket equipment, whether stand-alone or integrated within the car.

PURPOSE of IEEE-1616™

9 https://csrc.nist.gov/News/2019/nist-publishes-nistir-8228

1. Many light-duty motor vehicles and increasing numbers of heavy commercial vehicles are equipped with some form of MVEDR.
2. These systems, which are designed and produced by individual motor vehicle manufacturers and component suppliers, are diverse in function and proprietary in nature. However, the SAE J1962 vehicle DLC has a standard design and pinout and is thus universally used to access event data recorder information.
3. Data access via the DLC can be achieved using scan tools, microcomputers, and network interfaces.
4. This same DLC and network interface is also used for re-calibrating electronic control units on a vehicle.
5. Such ECU applications can include restraint controls, engine controls, stability control systems, braking controls, and more.
6. This standard defines a protocol to protect against the misuse of electronic tools that utilize the DLC to erase, modify, or tamper with electronic controller or odometer readings or to download data improperly.
7. The implementation of MVEDRCLA provides an opportunity to voluntarily achieve DLC security by standardizing an MVEDRCLA that will act to prevent vehicle tampering, which can include odometer fraud, illegal calibrations leading to emissions violations, and theft of personal data.
8. The adoption of this standard will, therefore, enhance the security and credibility of the common MVEDR/DLC data while still permitting access to legitimate end-users.

9. The continued implementation of MVEDR systems presents an opportunity to voluntarily standardize data output and retrieval protocols, facilitating analysis and promoting compatibility of MVEDR data.
10. The adoption of the standard will, therefore, make MVEDR data more accessible and useful to end-users.

Introduction to IEEE-1616™

Crash information is crucial for understanding the causation leading up to the crash, occupant kinematics and vehicle performance during the crash, and post-crash events. Manufacturers, engineers, policymakers, researchers, and others rely on crash information to enhance vehicle design, inform regulatory policy, develop injury criteria, identify vehicle defects, and resolve investigations and litigation.

Motor vehicles have undergone a marked transition from mechanical machines with mechanical controls to highly technological vehicles with integrated electronic systems and sensors.

Modern automobiles

Generate, utilize, and analyze electronic data to improve vehicle performance, safety, security, comfort, and emissions. Surrounding a crash, capturing a subset of vehicle data on an MVEDR makes essential information readily available for medical responders, crash investigators, and researchers. The degree of societal benefit from MVEDRs is directly related to the number of vehicles operating with an MVEDR and the ability to retrieve and utilize these data. Having standardized data definitions and formats allows the capture of vehicle crash information.

The P1616 Working Group of IEEE recognizes the value of improved crash information in enhancing the knowledge of what happens before, during, and after a motor vehicle crash. Such insights will provide significant benefits to society and significantly improve the science of motor vehicle crashes. This standard defines a protocol for MVEDR output data compatibility and export protocols of MVEDR data elements.

The impact of improved crash data goes beyond just understanding the dynamics of a crash; it affects a myriad of critical societal and business functions. With that in mind, the Working Group solicited input from a range of end-users to help identify essential data elements and the necessary uses of motor vehicle crash data. Both individual crash events and aggregate data have value for end users, depending on the application and data used.

Some users and uses include the following:

– Automotive industry: Data-driven design of vehicles, using larger numbers of crashes across a continuum of severity; early evaluation of system and vehicle design performance; and international harmonization of safety standards.

– **Insurance industry:** Help to identify fraudulent claims, costing more than $20 billion annually; improve risk management; expedite claims and decrease administrative costs. Insurers require accurate crash data for the subrogation of claims and recovery of expenses.

– Government: Promulgating and evaluating standards; identifying problem injuries and mechanisms; stipulating injury criteria; and investigating defects. State and local officials require crash information to identify problem intersections and road segments, determine hazard mitigation measures, and assess the effectiveness of safety interventions.

– Researchers: Human factors research, such as the man-machine interface, crash causation, the effects of aging and medical conditions, and fatigue; biomechanics research on human response to crashes, harmonized dummy development, and injury causation.

– Medical providers: On-scene field triage of motor vehicle crash victims, improved diagnostic and therapeutic decisions, automatic notification of emergency providers, and better organization of trauma and EMS system resources.

– The Public: Better policies, vehicle design, emergency response, roadway design, and driving habits; lowered insurance costs, decreased possibility for fraud; fewer crashes; and more efficient systems.

In the United States, an estimated 80 million motor vehicles already use event-recording equipment that collects not only acceleration and deceleration speed but also braking and steering data. Proponents of standard data recorders hope the crash data they collect will be a valuable complement to accident information gathered from victims and eyewitnesses.

However, the implementation of event data recorders (EDRs) has not been without controversy.

The United States Department of Transportation (USDOT) Docket Management System (DMS) contains over 1,000 submissions reflecting the pros and cons of a decade-long debate among automakers, government regulators, safety and privacy advocates, and the public.

The National Highway Traffic Safety Administration (NHTSA) Rule on Event Data Recorders (49 CFR 563 does not address issues generally within the realm of state law, such as the following:

– The ownership of EDR data

– How EDR data can be used/discovered in civil litigation

– How EDR data may be used in criminal proceedings

– Whether the police may obtain EDR data without a warrant

– Whether EDR data may be developed into a driver-monitoring tool

– The nature and extent to which private parties will have or may contract for access to EDR

The Congressional Research Service (CRS) Report R43651 "Black Boxes" in Passenger Vehicles: Policy Issues cites IEEE standards. Can technology also protect privacy? While the NHTSA was studying EDR technology, the Institute of Electrical and Electronics Engineers (IEEE) issued its first universal, voluntary standards in 2004, specifying the minimal performance characteristics for memory devices in autos, trucks, buses, ambulances, and fire trucks. IEEE Standard 1616 is an international protocol designed to help manufacturers develop black boxes with up to 86 data elements that can survive in crash situations. IEEE and others have argued that NHTSA's pending EDR regulation does not go far enough to protect owners' privacy. In 2010, IEEE issued a new Standard 1616a, which specifies a lockout system to block unauthorized access that could otherwise lead to data tampering, odometer fraud, and vehicle identification number (VIN) theft. It argued that such steps are necessary to ensure that motorists embrace the EDR technology in the long run. With this lockout standard, a motorist would have a separate key that locks access to the OBD-II connector (as well as the EDR). Note. IEEE-1616™a is being incorporated into IEEE-1616™-2021.

REGULATION & ADVOCACY

Petitions were denied on this basis: "Despite the purported availability of such devices, we have still not seen evidence of tampering during our real-world data collections, and the petitioner provided no new information that would suggest that we should reconsider our previous denial of this request."

Providing new evidence: Since NHTSA denials, there have been motor vehicle event data recorders (EDRs) installed in 91% of U.S. light vehicles, hundreds of YouTube videos were created showing how to erase crash data and reset air bags, worldwide there were increases in vehicle theft, and examples of data tampering on major news networks The FBI issued a public service announcement about OBD ports and the USDOJ announced numerous large scale odometer fraud convictions. Tragically, the NHTSA's research on cybersecurity is largely reactive rather than proactive.

To date, NHTSA has denied all letters of recommendations submitted to the docket, recommendations via meetings at NHTSA headquarters, petitions and petitions for reconsideration to enhance vehicle cybersecurity.10 11 12 13 14 15 16 17 18 19 20 21

The Electronic Privacy Information Center (EPIC) website, located at https://www.epic.org/privacy/edrs/, is updated frequently.

CONCLUSION

NHTSA's 'BLIND-SPOT' is BALANCING TECHNOLOGY FORESIGHT UNCERTAINTIES AND CONSUMER PROTECTION IN EDR REQUIREMENTS

The NHTSA's "safety only" mandate overlooks consumer protection, acceptance, and privacy issues. Simply put, the NHTSA erroneously requires quantitative evidence that a sizable problem exists (regarding tampering with EDRs and odometer rollback) before it will act. In reality, the NHTSA would create a sizable problem by mandating EDRs in light vehicles without providing owners of these cars with basic consumer protection. The owner of the vehicle, not the automaker, should control access to this device (EDR) since it is widely known that In-vehicle electronic modules are subject to tampering, spoliation of evidence, undetectable surveillance, unauthorized access, misuse of data, and mischief.

10 https://www.regulations.gov/document/NHTSA-2008-0019-0006

11 https://www.regulations.gov/document/NHTSA-2006-25666-0438

12 https://www.regulations.gov/document/NHTSA-2008-0004-0007

13 https://www.regulations.gov/document/NHTSA-2008-0004-0012

14 https://www.regulations.gov/document/NHTSA-2008-0004-0013

15 https://www.regulations.gov/document/NHTSA-2012-0177-1046

16 https://www.regulations.gov/document/NHTSA-2008-0004-0014

17 https://www.regulations.gov/document/NHTSA-2008-0004-0001

18 https://www.regulations.gov/document/NHTSA-2008-0004-0015

19 https://www.regulations.gov/document/NHTSA-1999-5218-0009

20 https://www.regulations.gov/document/NHTSA-2006-25666-0457

21 https://www.reginfo.gov/public/do/eAgendaViewRule?pubId=201010&RIN=2127-AK71

Thus, common sense dictates that more emphasis is needed on sealing access to the data at the federally mandated Onboard Diagnostics (OBD-II) download connector port, located under the dash in virtually all modern vehicles, thereby establishing a chain of custody and preventing tampering.

The NHTSA should adhere to the National Technology Transfer Advancement Act (NTTAA) and incorporate IEEE 1616 by reference into 49 CFR 563: Event Data Recorders. The IEEE EDR standards offer vehicle owners, fleets, renters, and lessors accountability, protection, and security. The use of IEEE standards would be consistent with applicable law and would improve motor vehicle safety by preventing a consumer backlash against the implementation of EDR technology. The use of IEEE EDR standards would be practical. The IEEE EDR standard provides a promising countermeasure addressing the safety promises and challenges of 21st-century in-vehicle automotive networks and vehicular electronics. Specifically, vehicle owners must "own" the EDR data, become "aware "of EDR's existence and functioning, and must "control access" to the EDR data in their vehicles.

Given these goals, it is recommended that the House Energy and Commerce Committee direct NHTSA to amend 49 CFR 563: Event Data Recorders by adding the following:

563.13 Motor Vehicle Event Data Recorder Connector Lockout Apparatus (MVEDRCLA). Each manufacturer of a motor vehicle equipped with an EDR shall ensure that a motor vehicle event data recorder connector lockout apparatus (MVEDRCLA) as standardized by

the Institute of Electrical and Electronics Engineers (IEEE 1616-2021) to help protect the security, integrity, and authenticity of the data that are required by this part is attached to the vehicle's SAE J1962 (150/015 15031-3) vehicle diagnostic link connector (OLC) at the point of motor vehicle sale, including leased and rented vehicles.

Definition: Connector Lockout Apparatus (CLA) is a device or mechanism to secure a vehicle diagnostic link connector (DLC) as standardized by IEEE-1616™-2021.

IEEE 1616 will be issued in 2021 at https://www.ieee.org/standards/buy-standards.html

ADDITIONAL RESOURCES:

American Civil Liberties (ACLU) AMICUS Brief see https://www.aclu.org/legal-document/mobley-v-state-amicus-brief.

Code of Federal Regulation (CFR) 563: Event Data Recorder. See https://www.govinfo.gov/content/pkg/CFR-2011-title49-vol6/pdf/CFR-2011-title49-vol6-part563.pdf

Congressional Research Service (CRS) Report R43651 "Black Boxes" in Passenger Vehicles: Policy Issues. See https://crsreports.congress.gov/product/pdf/R/R43651

Congressional Research Service (CRS) IF Autonomous Vehicles: Emerging Policy Issues at https://crsreports.congress.gov/product/pdf/R/R44940

ECE/TRANS/WP.29/2020/123: 01 Series of Amendments for UN Regulation No.[XXX], UN Regulation on uniform provisions concerning the approval of motor vehicles about the Event Data Recorder. See https://unece.org/fileadmin/DAM/trans/doc/2020/wp29grva/GRVA-07-60e.pdf

European Commission (EC) VERONICA II Final Report at https://ec.europa.eu/transport/road_safety/sites/roadsafety/files/pdf/projects/veronica.pdf

Electronic Privacy Information Center (EPIC) Cahen v. Toyota Motor Corporation: Whether drivers can sue for privacy and security vulnerabilities in connected cars at https://epic.org/amicus/cahen/

Electronic Privacy Information Center (EPIC) COMMENTS OF THE ELECTRONIC PRIVACY INFORMATION CENTER TO THE NATIONAL HIGHWAY TRANSPORTATION SAFETY ADMINISTRATION (NHTSA) see

https://epic.org/privacy/edrs/EPIC-Coal-NHTSA-EDR-Cmts.pdf

National Conference of State Legislatures (NCSL) Privacy of Data from Event Data Recorders: State Statutes at

https://www.ncsl.org/research/telecommunications-and-information-technology/privacy-of-data-from-e vent-data-recorders.aspx

National Institute Standards Technology (NIST) Automotive and Industrial Data Security presentation https://csrc.nist.gov/CSRC/media/Presentations/Automotive-and-Industrial-Data-Security/images-media

/presentation-2_weimerskirch.pdf

National Research Council (NRC) of the National Academies of Sciences (NAS) Transportation Research Board (TRB) Special Report 308: The Safety Challenge and Promise of Automotive Electronics [ISBN 978-0-309-22304-1] see

https://www.nap.edu/catalog/13342/trb-special-report-308-the-safety-challenge-and-promise-of-autom live-electronics

U.S. Congress

https://www.scribd.com/document/401616402/Internet-of-Things-IoT-Cybersecurity-Improvement-Act- of-2019

U.S. Congress DRIVER'S PRIVACY ACT OF 2015 see

https://epic.org/privacy/edrs/EPIC-Coal-NHTSA-EDR-Cmts.pdf

Federal Bureau of Investigation (FBI) see https://www.ic3.gov/Media/Y2016/PSA160317
Federal Trade Commission (FTC) See

https://www.ftc.gov/policy/advocacy/advocacy-filings/2016/11/comment-jessica-l-rich-director-bureau- consumer-protection

Society of Automotive Engineers (SAE) Automotive Cybersecurity at https://www.sae.org/cybersecurity/

USDOT/NHTSA: Vehicle Cybersecurity at https://www.nhtsa.gov/technology-innovation/vehicle-cybersecurity

U.S. Congress https://www.scribd.com/document/401616402/Internet-of-Things-IoT-Cybersecurity- Improvement-Act-of-2019

U.S. Congress DRIVER'S PRIVACY ACT OF 2015 see https://epic.org/privacy/edrs/EPIC-Coal-NHTSA- EDR-Cmts.pdf

Respectfully Submitted

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The Vehicle Suppliers Association

Written Statement from MEMA. The Vehicle Suppliers Association
Submitted to the U.S. House of Representatives Committee on Energy and Commerce
Subcommittee on Commerce, Manufacturing, and Trade
"Looking Under the Hood: The State of NHTSA and Motor Vehicle Safety"
June 26, 2025

Background

Thank you for the opportunity to submit testimony on behalf of MEMA, The Vehicle Suppliers Association. MEMA represents the motor vehicle supplier industry—the largest sector of manufacturing jobs in the United States—employing over 930,000 people nationwide. Vehicle suppliers operate facilities in all 50 states and in more than 350 Congressional districts. MEMA's member companies design and manufacture components, systems, technology, and software for all types of vehicles, leading innovation across both the original equipment and aftermarket sectors.

The Supplier Industry's Central Role in Vehicle Safety

Vehicle suppliers are the designers and innovators at the forefront of motor vehicle safety technology development. They play a foundational role in creating, testing, and manufacturing many of the critical safety systems integrated into today's vehicles. From traditional safety features such as airbags, seat belts, braking systems, and electronic stability control, to the newest generation of advanced driver assistance systems such as automatic emergency braking (AEB), lane-keeping assistance, and blind spot detection, suppliers bring the technical expertise and manufacturing precision essential to saving lives on U.S. roads.

Suppliers invest heavily in research and development, addressing real world scenarios and pioneering technologies that are then incorporated into vehicles. Their deep understanding of component design, integration challenges, and operational dynamics allows suppliers to innovate solutions that improve crash prevention, reduce the severity of accidents, and enhance occupant protection. Many safety innovations first emerge at the supplier level before being adopted as standard equipment by Original Equipment Manufacturers (OEMs), underscoring the supplier industry's pivotal role in advancing vehicle safety and keeping the U.S. at the forefront of mobility design and technology.

Beyond engineering and innovation, suppliers are integral partners throughout the vehicle lifecycle. They collaborate closely with OEMs, regulatory agencies like the National Highway Traffic Safety Administration (NHTSA), and other stakeholders to ensure that new safety technologies meet rigorous performance standards and regulatory requirements. This partnership ensures that components and systems are not only effective, but also reliable and durable under diverse driving conditions.

Suppliers also contribute significantly to safety validation and testing. Through extensive laboratory testing, simulation, and real-world evaluation, they help verify that safety systems perform as intended

under a wide range of scenarios. This testing expertise supports regulatory compliance and provides critical data used to refine and enhance safety standards and consumer information programs such as the New Car Assessment Program (NCAP).

Moreover, suppliers are actively engaged in ongoing monitoring and improvement of vehicle safety post-production to identify emerging safety issues quickly and develop corrective measures. This continuous improvement cycle enables faster response to potential defects, supports efficient recall processes, and fosters the ongoing enhancement of vehicle safety technologies.

The complex, interconnected nature of modern vehicle systems requires a collaborative safety framework. No single entity—OEM, supplier, regulator, or infrastructure provider—can fully ensure vehicle safety alone. MEMA believes that a modern, effective motor vehicle safety framework must recognize and support the shared responsibility among all stakeholders, with suppliers playing a critical and proactive role in every stage from design to deployment and beyond.

As the industry embraces transformative technologies such as greater levels of automation, greater vehicle connectivity and advanced human machine interfaces, the role of suppliers becomes even more crucial. Suppliers develop the cameras, sensors, software, cybersecurity protections, and advanced electronic systems that enable these innovations to function safely and reliably. MEMA and its members are committed to working closely with Congress, federal agencies, and industry partners to ensure that these cutting-edge safety technologies are rigorously tested, properly regulated, and widely deployed to protect all road users.

Federal Motor Vehicle Safety Standards (FMVSS) and Needed Updates:

Vehicle suppliers play a critical role in the development and deployment of life-saving advanced safety technologies. To that end, MEMA supports consistent, evidence-based standards, which are essential to protecting the public and enabling industry-wide innovation.

MEMA has long been supportive of updates to FMVSS to drive innovation, allow for the deployment of advanced vehicle technology and systems and improve roadway safety. MEMA encourages NHTSA to address implementation challenges stemming from the 2022 final rule on advanced driving beam (ADB) headlights. MEMA is also supportive of efforts to advance braking performance for commercial vehicles and urges NHTSA to incorporate industry feedback in a final rulemaking for Advanced Emergency Braking systems.

MEMA urges further regulatory updates on battery system safety—such as addressing risks associated with water submersion and overcurrent protection—as vehicles continue to adopt new propulsion and storage platforms.

We also support updates to vehicle design standards that allow camera-based systems to replace traditional side-view mirrors. These technologies offer significant safety and aerodynamic benefits, and we urge streamlining the waiver process to accelerate their broader adoption.

MEMA is supportive of continuing efforts to adapt FMVSS to accelerate autonomous vehicle deployment. Vehicle suppliers are developing cutting edge technologies which sometimes are unsuited to the established FMVSS and related test procedures. Updating the FMVSS ecosystem would be an important step in addressing the bottleneck experienced in the waiver and exemption process.

Modernizing Vehicle Safety Programs and Standards

MEMA supports the modernization of NHTSA's flagship safety programs which are a critical source of information for consumers and drivers. MEMA notes that, despite bipartisan support in Congress and widespread request from across the mobility industry, the recent update to the NCAP did not include a rating system in order to provide credit for the presence of advanced safety technologies. Without changes to the rating and credit system, these updates do not translate to improved consumer knowledge. MEMA continues to urge Congress' leadership in working with NHTSA to ensure a significant overhaul of NCAP. Consumers deserve to have ready access to relevant and transparent vehicle safety information. As advanced driver assistance systems become more prevalent, the NCAP program must evolve to clearly communicate the presence and performance of these technologies to the public. At this time, the U.S. NCAP program remains significantly behind other regional NCAP programs around the world.

As vehicle automation continues to develop, MEMA encourages NHTSA to move beyond the current voluntary pilot program on automated driving systems and establish a comprehensive regulatory framework for deployment. This framework must recognize and include suppliers as key participants in the automated vehicle ecosystem, with defined roles relative to testing, validation, and safety assurance. It is imperative that vehicle suppliers be able to test automated driving systems (ADS) and automated vehicle (AV) technologies separate from OEMs to allow for parity in the creation, testing and validation of new innovations.

Many key AV innovations—such as sensors, perception algorithms, and control systems—originate with suppliers. Suppliers develop both ADS components and systems, playing a crucial role in ADS development. Granting them independent testing authority would allow suppliers to improve their systems in real-world conditions without being entirely dependent on OEM partnerships. This autonomy not only fosters innovation and technical advancement but also helps establish robust safety benchmarks earlier in the development pipeline. Broader inclusion of suppliers in these programs would encourage greater collaboration across the ecosystem while maintaining clear regulatory oversight and accountability.

The Vehicle Suppliers Association

Cybersecurity and Safety-Related Vehicle Data

Vehicle cybersecurity is a fundamental element of vehicle safety. Suppliers lead in the development of secure embedded systems and digital controls that power critical safety functions. MEMA supports updating NHTSA's Cybersecurity Best Practices, which was intended to serve as a living document, to reflect current threats and technological developments.

Access to detailed, accurate, and timely vehicle data is essential for safety analysis, component design improvement, and recall effectiveness. Suppliers frequently face challenges accessing this data—data generated by the components they design and build. MEMA urges Congress to support policies that provide suppliers with secure, standardized access to operational and crash-related data, governed by clear rules around consumer privacy and safety.

Safety Priorities in Highway Reauthorization

As Congress prepares for the next surface transportation reauthorization, MEMA urges the Subcommittee to prioritize programs within its jurisdiction that strengthen vehicle safety through advanced technologies, system interoperability, and component innovation. This includes continued investment in vehicle-to-everything (V2X) safety applications, safety-related technology deployment programs, and cybersecurity research initiatives.

MEMA supports policy that prioritizes continued research, development, and deployment of these advanced safety technologies. A regulatory environment that encourages innovation will drive investments and allow suppliers and industry partners to pilot, scale, and continuously produce improved safety innovations that prevent crashes and protect roadway users.

Conclusion

Vehicle suppliers are a driving force behind the safety technologies that protect millions of Americans every day. MEMA and its members are proud to serve as partners in the development, deployment, and continuous improvement of these life-saving systems. We urge Congress and this Subcommittee to support data-driven regulation, modernization of safety standards, robust collaboration across the automotive ecosystem, and policies that recognize the supplier industry's essential role in achieving national vehicle safety goals.

National Motorists Association

THE VOICE OF REASON FOR DRIVING FREEDOM

[redacted]

https://www.nhtsa.gov/sites/nhtsa.gov/files/2023-12/anprm-advanced-impaired-driving-prevention-technology-2127-AM50-web-version-12-12-23.pdf
https://www.nhtsa.gov/book/countermeasures-that-work/speeding-and-speed-management/countermeasures/other-strategies-1

https://www.nhtsa.gov/press-releases/nhtsa-fmvss-127-automatic-emergency-braking-reduce-crashes
https://www.consumerreports.org/cars/car-safety/automatic-emergency-braking-guide-a1780056935

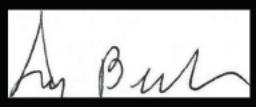
https://www.nhtsa.gov/book/countermeasures-that-work/speeding-and-speed-management/countermeasures/enforcement/speed-safety-camera-enforcement

https://www.nhtsa.gov/sites/nhtsa.gov/files/2024-11/NCAP-Final-Decision-Notice-Crashworthiness-Pedestrian-Protection-11182024-web.pdf
https://www.nhtsa.gov/sites/nhtsa.gov/files/2024-06/CAFE-2027-2031-HDPUV-2030-2035_Final-Rule_web_0.pdf

https://www.federalregister.gov/documents/2023/02/06/2023-01819/uniform-procedures-for-state-highway-safety-grant-programs
https://www.nhtsa.gov/speeches-presentations/tribal-traffic-safety-event-opening-remarks
https://en.wikipedia.org/wiki/Vision_Zero
https://www.stamfordct.gov/home/showpublisheddocument/41365/638773944138200000

National Motorists Association

THE VOICE OF REASON FOR DRIVING FREEDOM



[redacted]

June 25, 2025

Representative Gus Bilirakis
Chairman
Subcommittee on Commerce,
Manufacturing, and Trade
U.S. House of Representatives
2125 Rayburn House Office Building
Washington, DC 20515

Representative Jan Schakowsky
Ranking Member
Subcommittee on Commerce,
Manufacturing, and Trade
U.S. House of Representatives
2322 Rayburn House Office Building
Washington, DC 20515

RE: SEMA Letter on the Current State of NHTSA and Motor Vehicle Safety

Dear Chairman Bilirakis, Ranking Member Schakowsky, and members of the Subcommittee,

Thank you to the Subcommittee on Commerce, Manufacturing, and Trade for holding this important hearing on the current state of the National Highway Traffic Safety Administration (NHTSA) and motor vehicle safety.

The Specialty Equipment Market Association (SEMA) is a non-profit trade association that represents over 7,500 mostly small businesses around the country that drive innovation in the specialty automotive aftermarket industry. SEMA is proud to represent manufacturers, distributors, retailers, and installers of specialty automotive parts and accessories, which support over 1.3 million jobs in the U.S. and contribute nearly $337 billion to the American economy each year. You may also know SEMA from the world-famous SEMA Show in Las Vegas, the largest trade show in North America, hosting 2,500 exhibitors and 160,000 industry attendees, recently dubbed by one publication as 'the center of the automotive universe.'

While the economic strength SEMA represents is noteworthy, our member companies value their contribution to the automotive culture even more. SEMA members enable vehicle owners to do everything from safely modifying their SUVs and trucks for camping and off-roading, to customizing cars to participate in shows and parades, to retrofitting older vehicles with safety equipment, to celebrating human feats of engineering at local racetracks around the country. Our members are not only a vital economic force in communities nationwide, but they also play a key role in teaching professional skills, building confidence, driving innovation, strengthening relationships, and turning automotive passions into rewarding careers.

I am especially proud of the association's work to ensure our members and vehicle owners can safely customize, modify, repair, and service vehicles with Advanced Driver Assistance Systems (ADAS).

SEMA members and vehicle owners face a growing challenge: they lack clear pathways to maintain the safety and performance integrity of ADAS from

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production through post-sale service, repair, and modification. This includes ensuring vehicles remain safe and reliable after undergoing changes, including ADAS calibration. Even simple modifications, such as adding bike racks, wrapping a vehicle, adding a winch to the front bumper, and lifting a vehicle, which is especially important for driving off-road, can impact the sensors and cameras that make up ADAS.

ADAS calibration – the precise physical alignment, testing, and electronic aiming of sensors that collect data to inform vehicles' ADAS features such as forward collision warning (FCW), lane departure warning (LDW), automatic emergency braking (AEB) – must be supported for the benefit of all.

Vehicle owners have the right to modify their vehicles. SEMA strongly supports that right. The ability to calibrate is deeply intertwined with the right to modify, as it is the key to maintaining vehicle quality and keeping owners and other road users safe. When vehicle owners and service professionals aren't able to access the vehicle information needed to properly calibrate and validate ADAS performance, those barriers impede vehicle owners' rights.

SEMA is doing everything it can to resolve this issue. Underscoring its commitment to helping the specialty automotive aftermarket understand and properly work with ADAS, SEMA made its largest capital expenditure in the association's history in 2022 when it expanded the SEMA Garage program (originally launched in 2012 to help product manufacturers navigate regulatory compliance) to include a 45,000 square foot, state-of-the-art engineering facility complete with an ADAS R&D Technology Center. The facility includes two dedicated ADAS labs built to perform OEM-level and independent aftermarket calibrations, as well as system diagnostics for stock and modified vehicles.

Through the hard work of the SEMA Garage and our engagement with SEMA members and other industry professionals, we have learned the following:

1. **Information, Standards, & Transparency -- Critical to Realizing Safety Benefits of ADAS**

ADAS features are standard in most newer model-year vehicles, providing peace of mind to safety-conscious consumers and offering the potential to significantly reduce crashes and road fatalities. ADAS is an important solution to the problem of vehicle crashes. However, without reasonable pathways to calibration and validation, it is unknown if these lower-level systems of automated technologies can be maintained to the proper levels of functionality throughout a vehicle's lifecycle.

In addition, ADAS is a foundational technology for higher levels of autonomous vehicles (AVs), including fully automated vehicles. If we don't solve the issue of maintaining ADAS functionality throughout the lifecycle of motor vehicles, it is unclear whether the American people will understand and fully embrace automated vehicles.

While most people are aware their vehicle has ADAS features, owners do not have a standardized way of knowing if the driver assistance technology in their vehicle is functioning as intended and is properly calibrated. This is a safety issue for all drivers and is especially important for vehicles that have been customized, modified, serviced, or repaired after an accident.

The lack of information on ADAS functionality impacts automotive service businesses, including collision repairers, independent repair businesses, and shops that customize and modify vehicles. The technology automakers employ to support ADAS systems, including radar, cameras, and LiDAR, varies greatly both from model to model and by vehicle manufacturer.

At present, most original equipment manufacturers (OEMs) do not share ADAS calibration information, data, and testing procedures/information. For many automotive businesses, the cost of ADAS dynamic validation testing is simply too expensive -- testing one vehicle make, model, and trim with a single modification can range from $25,000 to over $100,000.

Vehicle manufacturers are not currently required to provide full vehicle lifecycle support for ADAS, including instructions, application guides, proper mounting or functionality tolerances, or the access needed to safely make modifications. This presents a challenge to correctly and safely calibrate ADAS and ensure optimal performance after basic, common modifications, such as installing larger tires and wheels, lift kits, lowering kits, bumpers, grills, push bars, light bars, bike racks, and winches.

Accordingly, there is a strong desire in the aftermarket for performance standards for ADAS and the creation of testing procedures for service providers to validate that ADAS is functioning properly.

2. **There are Solutions to Maintain ADAS Functionality**

Below are some potential solutions for the committee to consider:

- Require motor vehicles to offer a standardized Malfunction Indicator Lamp (MIL) that would inform drivers and businesses servicing vehicles whether ADAS is working properly or not. For example, indicators like "ADAS Service Needed," "Check ADAS," or "ADAS Malfunction" could help determine ADAS status pre- and post-service.
- Require ADAS calibration and functionality validation information to be made available to vehicle owners and the aftermarket, supporting the vehicle's lifecycle.
- Create a standard practice to ensure full-functionality validation of ADAS after a vehicle has been modified, customized, or has been repaired after a collision.

Thank you again to the Subcommittee for holding this important hearing on the current state of NHTSA and motor vehicle safety. SEMA is committed to resolving the issue of ADAS calibration in order to help everyone on our roads remain safe.

I appreciate your consideration of these comments and would ask that the Subcommittee examine the matter of ADAS functionality by soliciting feedback from a wide variety of automotive industry stakeholders. SEMA welcomes the opportunity to work with the committee and other segments of the automotive industry to improve ADAS functionality for the lifecycle of each motor vehicle.

Sincerely,

Mike Spagnola
President & CEO
Specialty Equipment Market Association (SEMA)

March 5, 2025

Members of the House of Representatives:

We write in support of HR 1566, the Right to Equitable and Professional Auto Industry Repair Act (REPAIR Act). This legislation ensures vehicle owners, independent repair shops, and aftermarket manufacturers have secure access to vehicle repair and maintenance data. This access is critical to the independent aftermarket industry's ability to provide safe, reliable, and affordable repairs for your constituents, and we respectfully request that you cosponsor this legislation.

As vehicle technology grows more complex, repairing and maintaining today's vehicles requires access to vehicle repair data, compatible replacement components, training, and sophisticated diagnostic tools. The REPAIR Act guarantees the rights of owners and their designated repair facilities to maintain and repair their vehicles while maintaining the same cybersecurity standards, intellectual property protections and vehicle safety standards that exist today.

Vehicle owner and independent shop access to vehicle repair data is increasingly at risk as Original Equipment Manufacturers (OEMs) tighten control over its availability. Today, OEMs collect terabytes of data from their vehicles wirelessly and store it in their cloud servers. The OEMs then unilaterally decide to whom they give access to this data and under what terms and conditions. (Comment from Alliance for Automotive Innovation to the Bureau of Industry and Security ("BIS") in its *Securing the Information and Communications Technology and Services Supply Chain: Connected Car Advance Notice of Proposed Rulemaking*).[1]

These potentially anticompetitive practices leave independent repairers unable to service vehicles and prevent aftermarket suppliers from offering high-quality, safe, and affordable replacement parts to consumers. In fact, an independent survey conducted last year demonstrated that 63% of repair shops report having difficulties making routine repairs on a daily or weekly basis.[2] Moreover, 51% of shops report sending up to 5 cars per month to the dealer due to data restrictions, resulting in an estimated $3.1 billion cost to consumers.[3]

This issue will only get worse as the U.S. vehicle fleet ages. According to S&P Global Mobility, the "average age of cars and light trucks in the United States has risen again to a new record of 12.6 years in 2024, up by two months over 2023."[4] Over 70% of out of warranty vehicle repairs are done in the aftermarket and are generally 36% less expensive than dealerships. Car owners appreciate independent repair shops for their "trustworthiness, reasonable prices, knowledgeable mechanics, and good reputation."[5]

The independent aftermarket is an essential economic engine in every congressional district and state across the nation, with more than 4,900,000 employees and a fiscal impact of more than $500 billion annually. The REPAIR Act eliminates an existential threat to these jobs and the economy, while ensuring

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[1] Comment from Alliance for Automotive Innovation to the Bureau of Industry and Security ("BIS") in its *Securing the Information and Communications Technology and Services Supply Chain: Connected Car Advance Notice of Proposed Rulemaking (*Regulations.gov)

[2] https://www.autocare.org/news/latest-news/details/2024/04/10/survey-84-of-independent-repair-shops-view-vehicle-data-access-as-top-issue-for-their-business

[3] https://www.autocare.org/docs/default-source/market-intelligence/04-10-2024_auto-care_research-memo_april-2024.pdf

[4] https://www.spglobal.com/mobility/en/research-analysis/average-age-vehicles-united-states-2024 html

[5] Car Owners Favor Independent Repair Shops - Consumer Reports April 2024. "The survey results show the experiences of 10,973 Consumer Reports members with 11,670 repairs at 36 auto repair chains, independent shops analyzed as a group, and dealerships."

a robust ecosystem of repair options. Consumers and fleet owners will be able to select their repair facility of choice and have access to a variety of aftermarket parts. Independent repair shops will continue to be able to provide timely and quality repair and maintenance choices to their customers.

We express our sincere gratitude to Representatives Dunn, Gluesenkamp Perez, Davidson, and Boyle for continuing to support consumers through this legislation, and we encourage you to join them in doing so as a cosponsor of HR 1566, the REPAIR Act.

Sincerely,

Alabama Tire Dealers Association
Alliance of State Automotive Aftermarket Associations
American Motorcyclist Association
Association of Diesel Specialists
Auto Care Alliance
Auto Care Association
Automotive Aftermarket Association Southeast, Inc.
Battery Council International
CAWA – Representing the Automotive Parts Industry
Commercial Vehicle Solutions Network
Consumer Access to Repair Coalition
iFixit
MEMA Aftermarket Suppliers
Midwest Auto Care Alliance
National Federation of Independent Business
New England Tire & Service Association
New Jersey Gasoline, C-Store, Automotive Association
Preventative Automotive Maintenance Association
Service Station Dealers of America and Allied Trades
The Repair Association
Tire Industry Association

June 24, 2025

The Honorable Brett Guthrie
Chair
Committee on Energy and Commerce
United States House of Representatives
Washington, D.C. 20515

The Honorable Frank Pallone Jr.
Ranking Member
Committee on Energy and Commerce
United States House of Representatives
Washington, D.C. 20515

The Honorable Gus M. Bilirakis
Chair
Subcommittee on Commerce,
Manufacturing, and Trade
United States House of Representatives
Washington, D.C. 20515

The Honorable Jan Schakowsky
Ranking Member
Subcommittee on Commerce,
Manufacturing, and Trade
United States House of Representatives
Washington, D.C. 20515

Dear Chairs Guthrie and Bilirakis, and Ranking Members Pallone and Schakowsky,

The National Consumers League applauds you for holding a hearing on motor vehicle safety and the National Highway Traffic Safety Administration (NHTSA). We urge you to ensure that NHTSA has the necessary resources, personnel, and authorities to address the auto safety crisis.

Each year, approximately 40,000 lives are lost and 2.6 million people are injured in traffic crashes.[1] That's enough fatalities to fill the average Major League Baseball stadium—enough injuries to affect nearly every resident of the state of Alabama.[2] Traffic crashes cost society nearly a trillion dollars in medical bills, emergency services, lost productivity, insurance costs, workplace loss, legal expenses, and property damage.[3] That's enough money to purchase more than 26 million mid-size SUVs, ten million more than the total number of cars sold in 2024.[4]

The death and destruction on our nation's roads does not have to be the price we pay for commuting to work, dropping the kids off at school, or picking up groceries. By harnessing revolutionary safety technologies, educating the motoring public, and improving the design, construction, and performance of motor vehicles, we can make our roadways safer.

[1] Centers for Disease Control. "Transportation Safety." https://www.cdc.gov/transportation-safety/about/index.html. Accessed 16 April 2025.

[2] Baseball Bible. "Biggest MLB Stadiums by Capacity." *31 October* 2023. https://www.baseballbible.net/biggest-baseball-stadiums-united-states/; Census Bureau. "State Population Totals and Components of Change: 2020-2024." *December 2024*. https://www.census.gov/data/tables/time-series/demo/popest/2020s-state-total html#v2024.

[3] Centers for Disease Control. "Web-based Injury Statistics Query and Reporting Systems." https://wisqars.cdc.gov/create-tables/. Accessed 23 June 2025.

[4] Federal Reserve Bank of St. Louis. "Light Weight Vehicle Sales: Autos and Light Trucks (ALTSALES)." FED, *May 2025*. https://fred.stlouisfed.org/series/ALTSALES.

Fortunately, there is a federal agency responsible for carrying out these efforts. NHTSA is our nation's principal automobile safety regulator, charged with reducing deaths and injuries associated with traffic crashes. NHTSA carries out its lifesaving mission by establishing safety standards, investigating defects, enforcing recalls, and providing states with resources for driver education, risky driving countermeasures, and roadside safety.

NHTSA has delivered. Safety features that were once rare and novel are now common and conventional—seatbelts, airbags, and crumple zones, to name a few. Many of these features were adopted to comply with increasingly ambitious safety standards. The result: fewer fatalities and injuries on our nation's roads.

From 1968 through 2019, NHTSA's safety standards prevented over 860,000 deaths, 49 million injuries, and damage to 65 million vehicles, generating over $17.3 trillion in societal benefits.[5] In 2019 alone, standards prevented 40,000 deaths, 1.9 million injuries, and damage to 3.8 million vehicles.[6]

NHTSA has also successfully removed unsafe vehicles from our nation's roadways. Since 1968, NHTSA has overseen the recall of more than 390 million vehicles, 66 million pieces of motor vehicle equipment, 46 million tires, and 42 million car seats due to safety defects.[7] NHTSA has compelled manufacturers to replace tens of millions of volatile and explosive airbags, millions of defective tires prone to tread separation, and millions of sticky car seat buckles that entrap children.[8] The agency has facilitated the remedy of millions of vehicles with incidents of unintended acceleration, millions of faulty ignition switches that deactivate the engine and airbags while a vehicle is in motion, and "self-driving" technology that cannot safely perform the driving task.[9]

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[5] National Highway Traffic Safety Administration. "NHTSA: 50 Years of Vehicle Safety Standards Saved Hundreds of Thousands of Lives, Prevented Millions of Injuries." 17 December 2024. https://www.nhtsa.gov/press-releases/50-years-vehicle-safety-standards#:~:text=From%201968%20through%202019%2C%20NHTSA's,damage%20to%203.8%20million%20vehicles.

[6] *Id*.

[7] National Highway Traffic Safety Administration. "Motor Vehicle Safety Defects And Recalls." *U.S. Department of Transportation*, August 2017. https://www nhtsa.gov/sites/nhtsa.gov/files/documents/mvdefectsandrecalls_808795.pdf.

[8] National Highway Traffic Safety Administration. "Takata Recall Spotlight." https://www nhtsa.gov/vehicle-safety/takata-recall-spotlight. Accessed 16 April 2025.; National Highway Traffic Safety Administration. "Engineering Analysis Report and Initial Decision Regarding EA00-023: Firestone Wilderness AT Tires." *Department of* Transportation, October 2001. https://www nhtsa.gov/sites/nhtsa.gov/files/firestonereport.pdf.; The Associated Press. "Graco Recalls 3.8 Million Car Seats With Sticky Latches." *NBC News*, 11 February 2014. https://www nbcnews.com/health/kids-health/graco-recalls-3-8-million-car-seats-sticky-latches-n27781.

[9] Department of Transportation. "U.S. Department of Transportation Releases Results from NHTSA-NASA Study of Unintended Acceleration in Toyota Vehicles." 1 August 2019. https://www.transportation.gov/briefing-room/us-department-transportation-releases-results-nhtsa-nasa-study-unintended-acceleration.; Pulmer, Brad. "The GM Recall Scandal of 2014." *Vox*, 11 May 2015. https://www.vox.com/2014/10/3/18073458/gm-car-recall.; Walz, Eric. "NHTSA Opens Safety Probe for Up to 2.4M Tesla Vehicles." *AutomotiveDrive*, 22 October 2024. https://www.automotivedive.com/news/nhtsa-opens-investigation-tesla-fsd-odi-crashes-autopilot/730353/.

NHTSA is on the cusp of ushering in new transformational safety technologies that could surpass the lifesaving effects of seatbelts and airbags. The Bipartisan Infrastructure Law mandates that NHTSA support the deployment of several sophisticated safety technologies:

- **Drunk and impaired driving prevention technology**: More than 13,000 people were killed in drunk driving crashes in 2022.[10]

- **Crash avoidance systems**: Lane departure warnings could reduce single-vehicle, sideswipe, and head-on crashes causing injury by 21 percent.[11] Blind-spot detection has been shown to reduce lane-change crashes that result in injuries by 23 percent.[12]

- **Driver monitoring features:** Distracted driving claimed an estimated 12,405 lives in 2021.[13] Drowsy driving caused 664 deaths that same year.[14]

Many of these requirements are actively being implemented but are not yet finalized.

With NHTSA on the beat, safety is a priority and not an afterthought. It must be built into the design, construction, and performance of each vehicle. It must be ingrained in every bolt, sensor, and line of code of all automobiles.

The National Consumers League welcomes the opportunity to work with Congress to improve traffic safety. Attached is an addendum detailing several proposals to address the unacceptable number of deaths and injuries associated with traffic crashes. If you have any questions or would like additional information, please contact johnb@nclnet.org.

Sincerely,

The National Consumers League

[10] National Highway Traffic Safety Administration. "Drunk Driving." https://www nhtsa.gov/risky-driving/drunk-driving#:~:text=Overview,These%20deaths%20were%20all%20preventable. Accessed 16 April 2025.
[11] Insurance Institute for Highway Safety, Highway Loss Data Institute. "Real-World Benefits of Crash Avoidance Technologies." July 2023. https://www.iihs.org/media/290e24fd-a8ab-4f07-9d92-737b909a4b5e/HvQHjw/Topics/ADVANCED%20DRIVER%20ASSISTANCE/IIHS-HLDI-CA-benefits.pdf.
[12] *Id*.
[13] National Highway Traffic Safety Administration. "Advanced Impaired Driving Prevention Technology." *Department of Transportation*. https://www.nhtsa.gov/sites/nhtsa.gov/files/2023-12/anprm-advanced-impaired-driving-prevention-technology-2127-AM50-web-version-12-12-23.pdf. Accessed 16 April 2025.
[14] *Id*.

National Consumers League Traffic Safety Recommendations

The National Consumers League welcomes the opportunity to collaborate with Congress on enhancing automobile safety. NCL has developed several policy proposals to address the unacceptable number of deaths and injuries resulting from traffic crashes.

Ride-Share Recalls

Investigations by Consumer Reports and the Government Accountability Office reveal that nearly one in six Uber and Lyft vehicles are operating under an active recall. These ride-share vehicles pose serious threats not only to passengers and drivers, but also to the general public.

- *Policy Recommendation:* Mandate that ride-share platforms notify their drivers of any outstanding safety recalls affecting the driver's vehicle. Prohibit such vehicles from operating on the platform if a recall has not been addressed within 5 days if a "do not drive warning" has been issued. If a stop driving warning has not been issued, prohibit such vehicles from operating on the platform if the recall has not been addressed within 60 days of notification, provided a remedy is available.

Safety is Not for Sale

A 2020 Consumer Reports analysis found that some advanced driving assistance systems (ADAS) are sold as luxury items that must be purchased for an extra fee or as part of expensive add-on packages. These additional costs may put these life-saving technologies out of reach for many Americans. Currently, Toyota's LE Convenience Package and LE Premium Package bundle rear cross-traffic alert systems with push-to-start capabilities and keyless open features. Ford bundles adaptive cruise control, evasive steering assist, and intersection assist with sophisticated touchscreens and voice recognition systems.

- *Policy Recommendation:* Make it unlawful for sellers of optional ADAS systems to bundle those systems with non-safety-related equipment.

Combating Vehicle Theft

Engine immobilizers, which are anti-theft devices that prevent vehicles from being hot-wired, are standard equipment on nearly all vehicles. But between 2011 and 2021, only 26 percent of Kias and Hyundais deployed in the United States were equipped with immobilizers. In comparison, nearly 96 percent of model year 2015 vehicles deployed by other manufacturers were equipped with immobilizers. In 2021, this gap led to a surge in thefts after viral TikTok videos showed that these vehicles could easily be stolen using just a screwdriver and USB cable. While Canada mandates immobilizers by law, the United States does not. NHTSA currently permits manufacturers meeting Canada's immobilizer standards to be exempt from NHTSA's vehicle theft standards.

- *Policy Recommendation:* By statute, harmonize America's immobilizer standards with Canada's. Permit NHTSA to modify such standard if doing so mitigates the risk of theft.

Excessive Speeders

Excessive speeders present a dire threat to traffic safety. In 2023, 11,775 people were killed in speed-related traffic crashes, accounting for 29% of all fatalities. Individuals with more speeding offenses are more likely to be involved in crashes. One study found that drivers charged with speeding over 20 miles per hour over the speed limit at least three times were far more likely to be involved in a fatal crash.

- *Policy Recommendation:* Encourage states to adopt excessive speeder laws, which permit repeat speeders and reckless drivers whose licenses have been suspended to operate a motor vehicle with a temporary restricted license, provided that the vehicle is equipped with an intelligent speed assistance system.

Closing the Pipeline of Safety Defects

E-commerce sites have become a significant platform for the sale of motor vehicle equipment. In 2021, approximately half of all business-to-business automotive and equipment sales were conducted on e-commerce sites. By the end of the century, the global online market for vehicle and vehicle equipment is projected to reach $722.79 billion, far exceeding the $237.93 billion market value in 2020. While NHTSA has the authority to compel manufacturers of motor vehicle equipment to perform recalls and remedies, it does not have the power to compel e-commerce sites to take down product listings of defective equipment. NHTSA has found it difficult to locate many international fly-by-night sellers who flood e-commerce sites with defective products.

- *Policy Recommendation:* Grant NHTSA the authority to compel e-commerce sites to take down postings of defective motor vehicle equipment and notify the purchasers of such equipment.

E&E NEWS By POLITICO

Auto experts doubt Duffy's CAFE standards review will lower prices

By Chris Marquette , Alex Guillén

01/30/2025 06:13 AM EST

Transportation Secretary Sean Duffy wasted no time after being sworn in Tuesday, quickly ordering a review of fuel economy standards Republicans blame for surging vehicle costs.

But easing the standards won't give consumers much price relief because supply chain constraints, tight inventories, the expansion of new technologies like autonomous driving and consumer preference for larger, heavier vehicles are more influential contributors to increasing vehicle costs, auto experts say.

Duffy signed a memo directing the National Highway Traffic Safety Administration to start a rulemaking to rescind or replace current and future Corporate Average Fuel Economy standards, which require passenger cars and light trucks to get 50.4 miles per gallon by model year 2031.

President Donald Trump and other Republicans have lambasted the standards as part of a de facto Biden-era electric vehicle "mandate" that they argue has driven up prices for consumers. DOT blamed a 15 percent increase in the average price of new vehicles between 2021 and 2024 on the Biden standards.

"This government mandate has dramatically increased the average price of a new car to nearly $48,000, driving up the cost and making it unaffordable for American consumers," the department said in a press release announcing Duffy's order.

But auto analysts said the standards aren't the driving force behind increasing vehicle costs — and they questioned whether lowering them would meaningfully impact prices.

"Do the CAFE standards factor into it someway, somehow? Sure," said Erin Keating, an executive analyst at Cox Automotive. "But are they a main contributor? I would doubt that."

Much more impactful to prices over the past few years was the Covid-19 pandemic, which caused supply chain disruptions and production stops throughout the auto industry.

Lots of other factors are outside the government's control as well, including a general consumer preference for bigger, more luxurious cars that use more fuel. Interest rates are another factor — although the Fed's rate, which it kept level Wednesday, matters less to auto financiers.

"I think it would just be hyperbolic to say that any specific regulatory move has caused" the price increase cited by DOT, Keating said. "It's just way more complicated than that."

Dan Becker, director of the Safe Climate Transport Campaign at the Center for Biological Diversity and a vocal advocate for stronger standards, pointed to data that shows average new vehicle prices have essentially plateaued since 2022, when the earliest Biden policies would have started taking effect.

Blaming vehicle prices on fuel economy standards is misdirection, Becker said. "This is all just made up and thrown at the wall to see if [the administration] can get away with it."

There's also little evidence that easing regulatory standards now will have any meaningful effect on lowering vehicle prices, experts said.

It's not likely "a repeal of CAFE standards will result in any noticeable change in vehicle prices for consumers," said Chris Harto, a senior policy analyst at Consumer Reports.

Robust standards resulted in “no detectable increase in inflation-adjusted vehicle prices over a nearly 20-year period” and saved about $9,000 in tangible fuel savings over the lifetime of the average new vehicle sold today compared with 2001, Harto said.

Mark Schirmer, the director of industry insights for Cox Automotive, noted that many factors contribute to a vehicle's ultimate cost — including loan rates, fuel prices and safety requirements.

In fact, easing fuel economy standards could have the opposite effect, he argued. “What often happens, when CAFE standards are relaxed, vehicles get bigger and that adversely impacts overall prices.”

Schirmer also argued that lower production volumes and computer chip shortages in the wake of the pandemic meant that manufacturers prioritized making more expensive models over cheaper ones with less profit margin.

The Zero Emission Transportation Association, an organization that advocates for EVs, contends lowering the CAFE standards will increase costs for drivers.

“Changing CAFE standards is unlikely to lower car prices. Variables touching the supply chain are much more impactful, such as the price of materials and tariffs. Lowering CAFE standards would likely increase the fueling costs for [internal combustion engine] drivers who will have less efficient cars,” said Alex Gibson, a spokesperson for the group.

Automakers tentatively backed reconsidering the standards — despite generally supporting EPA's emissions rule, Reg. 2060-AV49, and the NHTSA's CAFE rule, Reg. 2127-AM55, for 2027 and beyond when they were unveiled last year.

The Alliance for Automotive Innovation, the industry's main trade group, praised Duffy's order.

John Bozzella, president and CEO of the Alliance for Automotive Innovation, said in a statement it's “reasonable” to review the standards, noting they are “extremely challenging to achieve” and “expose automakers to billions of dollars in civil penalties.”

Experts noted that automakers plan out their vehicles for compliance as many as three to five years in advance, dulling the effect of rolling back rules.

"Ultimately, most regulatory changes take time to work through automotive production cycles," Kevin Roberts, director of economic and market intelligence at the research firm CarGurus, said in an email. "Automakers have invested heavily into more fuel efficient options and have found that consumer interest is there if the price is right."

Automakers will still benefit from lighter standards since they have already prepared for more stringent ones, and it will give them more time to ramp up EV offerings to match growth in consumer demand.

But the money companies have already invested in new power-train designs and other compliance efforts was still well spent, according to Keating.

"Any one regulation — especially when it's politically motivated and it may change in four years — isn't going to necessarily swing a business's decision on what they need to do for the bottom line,” she said.

Rep. Debbie Dingell (D-Mich.), who represents an area with a heavy automaker footprint, said the industry needs certainty to be able to succeed and "to stop being a political football.”

“I want our industry to remain at the forefront. For that we need domestic and global alignment," Dingell said. "The global market wants EVs, so how do you rationalize this? We need to bring all the stakeholders together and reach a consensus about how we support a strong stable auto industry and support the autoworker.”

Becker argued that automakers can't afford to ease up on designing more fuel-efficient and electric vehicles because of rapidly growing demand in Asia and Europe. He pointed to BYD, a Chinese manufacturer that sold over 3 million EVs and hybrids in 2023 and increased that to over 4.2 million in 2024 — none in the U.S.

In five years, Trump may have pulled back on domestic standards, but China will be selling more and more EVs, Becker said. And if U.S. manufacturers can't compete overseas, "the Chinese will be more than happy to eat their lunch."

MADD IMPAIRED DRIVING ENDS HERE.

June 25, 2025

The Honorable Gus Bilirakis
Chairman
House Committee on Energy and Commerce
Subcommittee on Commerce, Manufacturing, and Trade
United States House of Representatives
2125 Rayburn House Office Building
Washington, DC, 20515

The Honorable Jan Schakowsky
Ranking Member
House Committee on Energy and Commerce
Subcommittee on Commerce, Manufacturing and Trade
United States House of Representatives
2322A Rayburn House Office Building
Washington, DC 20515

Submission for Record: "Looking Under the Hood: The State of NHTSA and Motor Vehicle Safety"

Dear Chairman Bilirakis and Ranking Member Schakowsky:

On behalf of Mothers Against Drunk Driving (MADD), thank you for holding a hearing on the critical issue of motor vehicle safety and the role of the National Highway Traffic Safety Administration (NHTSA) in protecting the lives of American road users. We respectfully request that this statement be entered into the official record for the Subcommittee's hearing titled *"Looking Under the Hood: The State of NHTSA and Motor Vehicle Safety."*

Our country is facing a roadway safety crisis. Each day, 34 people are killed and another 988 are injured - approximately one person every 87 seconds - in drunk driving crashes. In 2023 alone, 12,429 lives were lost to drunk driving, marking a 22% increase since 2019. An additional 360,441 individuals were injured in these preventable tragedies. Nearly one-third of all traffic fatalities in the United States involve a drunk driver.

MADD's mission is to eliminate drunk and other substance-impaired, illegal driving. This mission encompasses advocating for and advancing the development and implementation of lifesaving vehicle technologies, including those required by the bipartisan law, the Honoring the Abbas Family Legacy to Terminate (HALT) Drunk Driving Act, which was enacted in 2021 as Section 24220 of the Infrastructure Investment and Jobs Act (IIJA) (P.L. 117–58). We thank the Chairman and Ranking Member for your leadership and support for

this landmark bipartisan law, which directs the National Highway Traffic Safety Administration (NHTSA) to issue a Federal Motor Vehicle Safety Standard (FMVSS) mandating the inclusion of advanced impaired driving prevention technology in all new vehicles. The goal is simple and clear: if a driver is illegally impaired, the vehicle should be rendered inoperable.

Representative Debbie Dingell championed the HALT Drunk Driving law in honor of the Abbas family – Rima, Issam, AJ, Isabella and Giselle – who were senselessly and needlessly killed by a wrong-way drunk driver in January 2019. The Abbas family, along with thousands of others across the country, should still be here. Drunk driving crashes are entirely preventable.

The Insurance Institute for Highway Safety estimates that more than 10,000 lives will be saved each year once this technology is fully deployed, based on preventing drivers with a blood alcohol concentration (BAC) of 0.08 percent or higher from operating a vehicle. The benefits of the law cannot be understated: the HALT law is one of the most significant transportation safety laws ever passed by Congress. When fully implemented, it will eliminate drunk driving as the leading cause of road fatalities in the United States. After decades of combatting drunk driving through enhanced enforcement measures and public awareness campaigns, MADD believes that anti-drunk driving technology is the final key to ending the scourge of drunk driving once and for all.

However, the promise of HALT will only come to fruition if NHTSA effectively implements the law and promulgates an FMVSS in accordance with its statutory timeframe. It stands to reason that if the HALT law is one of the most significant transportation safety laws ever passed, then NHTSA's requisite rulemaking is one of the most significant – if not ***the*** most significant – regulatory proceedings ever undertaken by the agency. Unfortunately, given NHTSA's history of failing to promulgate mandatory FMVSS in accordance with other statutory deadlines, MADD is concerned that the agency has been derelict in implementing the HALT law by both insufficiently prioritizing its statutory mandate and neglecting to dedicate the necessary resources and enthusiasm to complete the rule.

The HALT law is technology-neutral, which allows multiple proven and emerging technologies to fulfill its statutory requirement. These include advanced breath- and touch-based sensors, as well as driver monitoring systems. One such initiative is the Driver Alcohol Detection System for Safety (DADSS) program, a public-private partnership funded by taxpayers and the auto industry over the past 15 years to develop in-vehicle technologies that can passively detect driver intoxication. The DADSS program is expected to deliver a reference design package to vehicle manufacturers later this year, allowing

automakers to begin integrating this or similar technologies into their fleets. Other promising technologies consist of driver monitoring systems that visually detect driver intoxication. Given this landscape, it is imperative that NHTSA aggressively and thoroughly explore all technological options that could fulfill the HALT law's tech-neutral mandate.

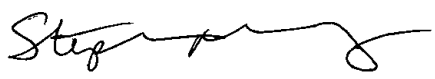
While NHTSA must proactively explore the above technological options, it is also imperative that auto manufacturers do their part to contribute to the regulatory process. Industry must be an active part of the solution; auto companies must not passively wait for NHTSA to act. Global automakers have the talent and the resources to fulfill HALT's promise and end drunk driving on our roads. Moreover, existing anti-drunk driving technologies will be cost effective. As an example, DADSS has been estimated to cost $100-$200 per motor vehicle; given that the average vehicle transaction price is $48,000, MADD firmly believes that implementing the HALT law will not be prohibitively costly to American consumers.

Despite the clear benefits, MADD acknowledges that implementing the HALT law faces ongoing challenges, including concerns related to privacy and data protection. MADD firmly believes that these concerns must not be allowed to delay or weaken the implementation of this transformative safety measure. Reasonable solutions exist for each of the issues raised, and MADD unequivocally supports the inclusion of robust privacy safeguards in both regulation and legislation.

MADD does not support the tracking of vehicles or the collection, storage, or sale of driver or vehicle data. The HALT law is not a prosecutorial tool; it is a preventive measure. Its purpose is solely to prevent a vehicle from operating when the driver is illegally impaired. Protecting the lives of all road users, drivers, passengers, and pedestrians, need not come at the expense of privacy. These objectives are not mutually exclusive.

We appreciate your leadership in vehicle safety and your continued attention to this urgent public health issue. Thank you for the opportunity to submit this testimony. Should you have any questions or need further information, please do not hesitate to contact me at **Stephanie.Manning@madd.org**.

Sincerely,



Stephanie Manning
Chief Government Affairs Officer

Building a Bicycle Friendly America for everyone

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Statement for the Record of the League of American Bicyclists

House Committee on Energy and Commerce,Subcommittee on Commerce, Manufacturing, and Trade

Looking Under the Hood: The State of NHTSA and Motor Vehicle Safety

June 26, 2025

Introduction

The League of American Bicyclists (League) appreciates the opportunity to submit a statement to the House Energy and Commerce Committee Subcommittee on Commerce, Manufacturing, and Trade for its hearing, "Looking Under the Hood: The State of NHTSA and Motor Vehicle Safety" and provide our perspective based on decades of experience working to make our roads safer for everyone. This hearing comes at an important time as the number of people biking killed in crashes with motor vehicles increased to a record 1,166 in 2023, which is a tragic 87 percent increase since the all-time low was reported in 2010. This reversal of bicyclist safety over the last 13 years demands attention from Congress and National Highway Traffic Safety Administration (NHTSA), and many signs point towards safer motor vehicles playing an important role in correcting this terrible trend.

Since 1880, the League of American Bicyclists has been people-powered, with a goal to make bicycling safer and easier as a means of transportation and recreation. Today, the League continues to improve lives and strengthen communities through bicycling. We are more than 200,000 members and supporters strong with over 1,000 state and local advocacy groups and bike clubs as well as thousands of businesses, universities, and communities together leading the movement to create a Bicycle Friendly America for everyone.

The League of American Bicyclists' Advocacy for Bicyclist Safety Testing and Standards for Vehicles

The League has advocated for bicyclist safety in testing and standards for vehicles at every opportunity with NHTSA since 2015. Given our history of advocacy and experience with NHTSA, we believe that the best action Congress can take to improve bicyclist safety through its motor vehicle safety authority is to adopt H.R.3649 - the Magnus White Cyclist Safety Act of 2025, which requires NHTSA to adopt a bicyclist-Automatic Emergency Braking (AEB) Federal Motor Vehicle Safety Standard (FMVSS) within three years.

In 2015, NHTSA proposed updates to the New Car Assessment Program (NCAP) with a focus on crash avoidance systems. In that comment period, the League and affiliated commenters provided more than 60 percent of all comments submitted asking for bicyclists to be included in the testing of crash avoidance systems. In 2018, NHTSA hosted a public meeting and publicly recognized the large number of comments submitted by members of the League. In 2022, NHTSA again proposed updates to the NCAP and the League and its supporters contributed roughly 15 percent of comments out of more than 14,000 comments. However, NHTSA has been slow to test for bicyclist safety in the NCAP, despite the League's comments, and the adoption of testing by global NCAPs.

The League's comments have often prioritized testing for bicyclist-Automatic Emergency Braking (AEB), a technology that has the potential to mitigate or prevent up to 26 percent of

vehicle-bicycle crashes and 52 percent of fatal vehicle-bicyclist crashes based on the most commonly occurring and tested crash scenarios.[1]

NHTSA has been slow to test for bicyclist safety in the NCAP, despite Congressional encouragement. Section 24213(b) of the Infrastructure Investment and Jobs Act (IIJA) required that NHTSA publish a notice "to establish a means for providing to consumers information relating to pedestrian, bicyclist, or other vulnerable road user safety technologies" within one year of enactment. To its credit, NHTSA did take several actions to address pedestrian safety technologies. However, four years after the passage of the IIJA, NHTSA has yet to propose a means for providing consumers information related to bicyclist safety technologies.

Based on NHTSA's most recently published roadmap for NCAP, there will be no testing for bicyclist-AEB until Q4 2027 and scenarios currently tested by EuroNCAP will not be tested until at least 2030. If NHTSA meets these published timelines, NHTSA will be about a decade behind their international counterparts in testing for the safety of bicyclists.

In light of NHTSA's inaction, Congress should act to adopt H.R.3649 - the Magnus White Cyclist Safety Act of 2025.[2] Magnus White was a 17 year old cyclist who was struck and killed during a training ride for a world championship race where he would represent the United States on the Junior Men's National Team. The Magnus White Cyclist Safety Act of 2025 would require NHTSA to issue a final rule to establish minimum performance standards requiring that an automatic emergency braking system functions in daylight and low light conditions and detects and responds to vulnerable road users, including bicyclists and motorcyclists. Requiring a FMVSS for bicyclist-AEB is necessary to ensure that NHTSA acts and that its actions reach the most Americans possible.

The League of American Bicyclists' Guidelines for Automated Driving System Development

The League of American Bicyclists has been a long-time believer that automated vehicles have the potential to improve bicyclist safety. In 2014, we conducted a survey of our members and followers and found that respondents were almost equally split between believing that automated vehicles will improve safety and that they did not have enough information to answer. Since that time, the League has worked with a variety of Automated Driving System (ADS) developers to better understand the technology, communicate it with our constituents, and advocate for practices that will ensure that ADS development leads to better safety outcomes for bicyclists.

The League has engaged in comment periods from NHTSA on ADS, from the first Automated Vehicle policy proposal through the most recent, but our more substantive engagement has been with ADS developers such as Argo.ai, Cruise, and Waymo. Through directly engaging with the companies developing ADS technology, we developed six guidelines for good development

[1] https://www.iihs.org/news/detail/bicycle-crash-study-could-guide-design-of-bicyclist-detection-systems

[2] https://www.congress.gov/bill/119th-congress/house-bill/3649/text/ih

that treats protecting people biking, walking, and rolling as a core competency of ADS technology rather than as a mere edge case. Our six guidelines are:

1. Bicyclists should be a distinct object class so that bicyclists, pedestrians, and scooter users are differentiated and their distinct patterns of behavior are incorporated into the ADS.
2. Typical bicyclist behavior should be expected so that the ADS can prioritize substantive safety over normative expectations about how bicyclists should behave.
3. Bicyclist infrastructure and local laws should be mapped so that the ADS can anticipate and adhere to local laws, and anticipate bicyclist behavior based on infrastructure or laws.
4. An ADS should drive in a consistent and understandable way so that bicyclists can understand ADS-driven vehicle intentions and safety is consistently prioritized.
5. An ADS should prepare for uncertain situations and proactively slow down so that safety is prioritized in the face of uncertainty and any potential crash is mitigated by slower movement.
6. Bicyclist scenarios should be tested continuously so that ADS continue to learn through virtual and physical testing and rarer situations are identified and incorporated.

Regulating the safety of an ADS is a complicated endeavor that will require Congress to act and for NHTSA to develop capacity that it currently does not have. In the League's advocacy for ADS safety we have chosen a straightforward priority for regulation that is squarely within the traditional authority of NHTSA to regulate the components of motor vehicles. Based on our experience with ADS developers and other traffic safety organizations, we believe that a technology-neutral "vision test" requiring minimum performance standards for sensors and ADS perception so that there is an objective minimum safety standard for detecting, identifying, and responding to a vulnerable road user is the best path forward.

For several years, we have advocated for a "vision test" for all ADS, including SAE (formerly the Society of Automotive Engineers) Level 2 systems and above. Below is the text we have proposed to Congress in the past and reiterate our support for now:

> VISION TEST PERFORMANCE STANDARD
>
> (a) IN GENERAL.—The Secretary shall initiate a rulemaking proceeding to require automated driving systems, including SAE Level 2 automated driving systems, to meet a minimum vision performance standard.
>
> Such a rule shall specify requirements that the automated driving systems are able to detect and respond to all roadway users such as other vehicles, pedestrians, bicyclists, and wheelchair users as well properly read and interpret, roadway signage and highway markings.
>
> (b) FINAL RULE.—The Secretary shall issue a final rule under subsection (a) within 3 years after the date of enactment of this Act.
>
> (c) LEAD-TIME.—The standard prescribed under subsection (a) shall provide not more than 2 model years of regulatory lead-time.

The New Car Assessment Program

In addition to the League's specific issues with NCAP not including bicyclist safety testing, there are broader problems with NCAP that suggest a look under the hood is needed. In the 2019 report, "NCAP at 40: Time to Return to Excellence," former NHTSA Administrator Joan Claybrook and the organization Advocates for Highway and Auto Safety noted that the budget for NCAP "represents a paltry 46 cents spent for every car and light truck sold in the United States for essential consumer information" and that EuroNCAP, at the time, had more than four times the number of tests.[3] Since that 2019 report, the budget for NCAP has decreased by nearly two-thirds from $16 million in Fiscal Year (FY) 2019 to $6.47 million in FY2023 and EuroNCAP has added numerous tests, including four tests specific to bicyclist safety.[4]

In recent years, Congress has asked NHTSA to add tests to NCAP and NHTSA has in fact added tests to NCAP so it makes little sense that the budget for the NCAP has decreased dramatically and continues to decrease. The FY2026 Budget Estimate[5] requests a further 4.4 percent decrease in funding for NCAP even as four new tests are implemented and eight updates progress through their final decision phase according to the Roadmap for Mid-Term Potential Updates to NCAP Evaluations published in 2024.[6] More than thirteen updates exist on the Roadmap for Long-Term Potential Updates to NCAP Evaluations, with several updates involving multiple tests such as "enhanced AEB for bicyclists and motorcyclists in intersection crashes." With a lower and lower budget, it is hard to see how NCAP will implement these updates or how NHTSA is accounting for their progress.

Regardless of NCAP, there are clear signs that consumers have a great demand and interest in motor vehicle safety testing, especially for Advanced Driver Assistance Systems (ADAS) and ADS. One Youtube video showing a "test" of a Tesla vehicle to see whether it would recognize and avoid a crash with a wall with a fake road scene has received more than 23 million views since its publication earlier this year.[7] Advocacy groups like the Dawn Project have received thousands of views for "tests" of scenarios that are currently a standard part of EuroNCAP, including a child pedestrian running out from behind a vehicle.[8] These non-scientific tests are filling the void left by NHTSA and the NCAP failing to invest in public testing and marketing so that consumers have scientific, unbiased, data on vehicle performance.

Federal Motor Vehicle Safety Standards

While the League strongly believes that the NCAP is an important program and deserves greater support, there is no substitute for safety standards. The League sees NCAP, and the tests done by the Insurance Institute for Highway Safety (IIHS), as a natural pipeline for developing tests and competencies that inform Federal Motor Vehicle Safety Standards (FMVSS). As NHTSA has been slow to adopt additional testing for NCAP, it has also been slow

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[3] https://saferoads.org/wp-content/uploads/2019/10/NCAP-at-40-Time-to-Return-to-Excellence-by-Joan-Claybrook.pdf

[4] https://www.euroncap.com/en/car-safety/the-ratings-explained/vulnerable-road-user-vru-protection/aeb-cyclist/

[5] https://www.transportation.gov/sites/dot.gov/files/2025-05/NHTSA_FY_2026_Budget_Estimates_CJ.pdf

[6] https://www.nhtsa.gov/sites/nhtsa.gov/files/2024-11/NCAP-Roadmap-11182024-web.pdf

[7] https://www.youtube.com/watch?v=IQJL3htsDyQ

[8] E.g. https://www.youtube.com/watch?v=Xr_xOsK-Meg

to adopt new FMVSS. The pipeline is currently empty for bicyclist safety and there is no publicly available data to understand NHTSA's competency in adopting any bicyclist-related FMVSS.

With limited experience adopting FMVSS, the FMVSS that NHTSA has adopted in recent years have been somewhat controversial and subject to challenge:

- FMVSS 108 updated the FMVSS for adaptive driving beam headlamps. The League commented in favor of the update based on industry analysis that showed potential safety benefits for people biking and walking. The FMVSS as adopted by NHTSA has been criticized for not allowing headlights that are commonly available in other countries with substantially better safety records. After adoption of FMVSS 108, NHTSA received twelve petitions for reconsideration of the FMVSS. Two years after the adoption of FMVSS 108, a CNN article lamented that "after a decade of work on it, America's National Highway Traffic Safety Administration finalized regulations for adaptive beam headlights. But because the US regulations are so different from those in other countries, with requirements so difficult to meet, automakers still can't offer it here. It will be years before they can offer new, redesigned ADB headlights that meet the standards, auto industry sources say.[9]"
- FMVSS 127 created the first motor vehicle safety standard for pedestrian safety by requiring pedestrian-AEB systems on light vehicles. The League commented in favor of FMVSS 127 and strongly believes that it is a positive step forward for pedestrian safety. FMVSS 127 will not apply to new vehicles until September 1, 2029[10] providing an adequate time for manufacturers to comply with its provisions. However, it has still been the subject of a lawsuit from automotive manufacturers and it is unclear how the administration will defend FMVSS 127 or if it will modify it. The FY2026 Budget Estimate lists "Provide regulatory impact analysis for proposed rule to amend FMVSS No. 127 Light Vehicle AEB[11]" as an anticipated FY2026 accomplishment suggesting that the first-ever standard for pedestrian safety in motor vehicles will likely be changed.

The slow and uneven rollout of new safety technologies in the FMVSS does not meet the needs of the American public, which sees consistently high levels of motor vehicle-related fatalities and continued promises that technology will reduce those fatalities. If the United States seeks to be a leader in automotive technology, then it needs a more functional safety testing and standards pipeline. New technologies should be publicly tested and proven so people can benefit from them becoming standard equipment.

Vehicle Size and Weight

While technology can do a lot to make us all safer as we travel our nation's roads, the fundamentals of physics suggest that America will continue to suffer a high level of traffic deaths due to increasing vehicle size and weight. According to data from the Environmental Protection

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[9] https://www.cnn.com/2024/02/15/cars/headlights-tech-adaptable-high-beams-cars

[10] https://www.federalregister.gov/documents/2024/05/09/2024-09054/federal-motor-vehicle-safety-standards-automatic-emergency-braking-systems-for-light-vehicles

[11] https://www.transportation.gov/sites/dot.gov/files/2025-05/NHTSA_FY_2026_Budget_Estimates_CJ.pdf (p. 46)

Agency, vehicle weight has increased roughly 13 percent from 3,914 pounds in 2009 to 4,419 pounds in 2024. Looking back further, pickups averaged 3,526 pounds in 1987 and 5,397 pounds in 2024, a more than 53 percent increase. While these increased weights may help keep some occupants safe, they pose a grave threat to people outside of vehicles and in smaller vehicles, contributing to an arms race that may further increase weights, forces in collisions, and wear and tear on our roads. According to the Economist, "for every life that the heaviest 1 percent of SUVs and trucks save, there are more than a dozen lives lost in other vehicles.[12]"

Vehicle size is poorly understood in the United States because we do not currently have any testing or publicly available data on the height of vehicle front ends. NHTSA adopted a pedestrian crashworthiness test as part of NCAP, but it will not go into effect until next year. The adopted NCAP test is also a "pass-fail assessment approach [that] is intended to be temporary and eventually will be replaced with a more refined comparative rating approach in the future.[13]" One aspect of the NCAP test that was the subject of numerous comments was vehicles with a lower bumper reference line (LBRL) greater than 500 mm (19.7 inches) and NHTSA chose to automatically issue a lower legform test of zero for any vehicle with a LBRL greater than 500 mm. It would be valuable to have publicly available data on LBRL heights and leading hood (or bonnet) edge heights as high front end vehicles pose significant risks to people outside of vehicles and shorter vehicles. According to IIHS, "vehicles with hoods more than 40 inches off the ground were about 45% more likely to cause pedestrian fatalities than vehicles with hood heights lower than 30 inches and sloped front ends.[14]"

Recommendations

The League strongly recommends that Congress and NHTSA:

- Adopt a bicyclist-AEB FMVSS so that all vehicles in the United States meet a minimum standard of safety for bicyclists
- Accelerate the roadmap for updates to NCAP so that the US NCAP is harmonized with global competitors and US consumers have the information needed to understand and purchase safer vehicles that use AEB, ADAS, ADS, and other safety technologies.
- Increase the budget for NCAP so that it matches the increase in testing and the public communication opportunities afforded by the modern internet, including videos of test procedures.
- Create a roadmap for FMVSS adoption so that the pipeline of technologies and standards is clear to Congress and the American people.
- Research the impact of vehicle size and weight on traffic safety, and consider policy options for reducing average vehicle size and weight over time.
- Adopt NCAP testing that gives comparative ratings based on front end vehicle designs and their safety impact in crashes with people biking and walking.

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[12] https://www.economist.com/interactive/united-states/2024/08/31/americans-love-affair-with-big-cars-is-killing-them

[13] https://www.federalregister.gov/documents/2024/11/25/2024-27446/new-car-assessment-program-final-decision-notice-crashworthiness-pedestrian-protection

[14] https://www.iihs.org/research-areas/pedestrians-and-bicyclists

Conclusion

When we look under the hood, the state of NHTSA and motor vehicle safety is not good. If "The National Highway Traffic Safety Administration is responsible for keeping people safe on America's roadways[15]" then it has not successfully held up its responsibility. Instead, it has been slow to respond to America's traffic safety crisis and is decades behind international peers and competitors - leaving Americans more likely to be killed on roadways than in any other wealthy country.

In 2023, the year of NHTSA's most recent traffic fatality data, there were 40,901 people killed in crashes with a moving motor vehicle on a public road in the United States. Those 40,901 people represent 12.2 deaths per 100,000 people, higher than all but two countries (Colombia and Costa Rica) in the International Transport Forum's annual report and more than twice the per capita death rate of Canada.[16]

In the face of an astonishing 87 percent increase in bicyclist deaths between 2010 and 2023 to an all-time high of 1,166 bicyclist deaths, NHTSA has yet to propose any motor vehicle safety testing or standards to improve bicyclist safety. NHTSA has not even published research on any aspect of motor vehicle design, technology, or other vehicle-related factors that might account for the dramatic increase in bicyclist deaths.

To fix NHTSA and capitalize on the promises of technology to improve motor vehicle safety, there needs to be clear directives towards action from Congress to NHTSA. NHTSA has not shown an ability to act absent clear directives and even with clear directives the agency often misses statutory deadlines.[17] The agency is in need of a jump start and we hope Congress provides it.

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[15] https://www.nhtsa.gov/about-nhtsa

[16] https://www.itf-oecd.org/sites/default/files/docs/irtad-road-safety-annual-report-2024.pdf

[17] https://www.gao.gov/products/gao-22-104635 ("Legislation in 2012 and 2015 required the agency to issue 19 reports for Congress and publish 22 rules. As of April 11, 2022, the agency completed all the reports but almost all of them were late. It completed 6 rules.")

National Safety Council

Statement of the National Safety Council
to
House Committee on Energy and Commerce
Subcommittee on Commerce, Manufacturing, and Trade
on
"Looking Under The Hood: The State of NHTSA and Motor Vehicle Safety" Hearing
June 26, 2025

The National Safety Council (NSC) appreciates the opportunity to submit this statement for the record in advance of today's hearing titled: "Looking Under The Hood: The State of NHTSA and Motor Vehicle Safety." This hearing is especially opportune as Congress begins the process of reauthorizing the National Highway Traffic Safety Administration (NHTSA) through the surface transportation reauthorization process. It is the belief of NSC that a strong NHTSA is imperative to ensuring more lives are not lost on our roadways. Through its mission to initiate light vehicle safety rulemakings, issue recalls and inspect defects, NHTSA helps the average American consumer have peace of mind when they enter their vehicle.

National Safety Council

The National Safety Council (NSC) is America's leading nonprofit safety advocate – and has been for over 110 years. As a mission-based organization, we work to eliminate the leading causes of preventable death and injury, focusing our efforts on the workplace and roadway. We create a culture of safety to protect people from hazard and injury in the workplace and beyond so they can live their fullest lives. Our more than 13,000 member companies and federal agency partners represent employees at nearly 41,000 U.S. worksites.

The State of the Roadway Safety Crisis

Our current road safety metrics are deeply troubling. According to Injury Facts, 44,762 people died in fatal motor vehicle crashes in 2023.[1] Medically consulted injuries in motor vehicle crashes totaled 5.1 million in 2023, and total motor vehicle injuries cost the United States economy an estimated $513.8 billion that year.[2] Risky driving behaviors such as speeding, alcohol-impaired driving, drugged and distracted driving continue to be the leading causal factors behind crashes. 2023 fatality estimates for vulnerable road users (VRUs) suggest a slight decline, but these estimates are still above 2019 levels.[3] It's high time that we do better in the United States to keep people safe on our roadways.

[1] https://injuryfacts.nsc.org/motor-vehicle/overview/introduction/
[2] Ibid.
[3] https://www.ghsa.org/sites/default/files/2024-06/2023%20Pedestrian%20Traffic%20Fatalities%20by%20State.pdf

National Safety Council

The United States desperately needs a long-term vision, which should be required by statute, that engages United States Department of Transportation leadership with transportation stakeholders that are committing to reaching zero fatalities and serious injuries by 2050. This vision or action plan should allow technology providers, motor vehicle manufacturers and safety advocates the ability to think collaboratively about safety measures that will make long term impacts and save lives.

Vehicle Technology as a Solution to the Roadway Safety Crisis

To enable change in our roadway safety culture, a major shift is needed at our regulatory agencies. Agencies, such NHTSA, have become risk averse – thus keeping our technological innovation at a standstill. The in-vehicle technology to eliminate alcohol-impaired driving exists. The in-vehicle technology to prevent pediatric vehicular heatstroke exists.[4] The in-vehicle technology to prevent motor vehicle crashes exists. Congress must work together with NHTSA to ensure motor vehicles are the safest they can be on our roads, while supporting behavioral programs to ensure drivers make good decisions behind the wheel.

The Infrastructure Investment and Jobs Act (IIJA) was a landmark piece of legislation which included numerous rulemakings for NHTSA to complete by statutory deadlines. These rulemakings would utilize technology to advance safety and mitigate crash risk from motor vehicles. Sadly, many of these rulemakings have not been started or seen to completion. In a 2024 letter to then NHTSA Deputy Administrator Sophie Shulman, Senator Edward Markey and eight other Senate colleagues addressed the backlog of vital rulemakings where NHTSA had fallen short of completion.[5]

While addressing its backlog of regulatory requirements, NHTSA must also be forward looking in advancing vehicle safety for the American people. These forward-looking safety technology measures should directly address the crash risks that we see today. An example where states are already moving in the right direction is Intelligent Speed Assistance (ISA) technology to curb speeding deaths.

Speeding killed 11,775 people in the United States in 2023.[6] ISA is a technology that alerts a driver to when they have engaged a vehicle above the designated speed threshold set by a municipal, local, or state government. This technology can either be passive, solely alert the driver through haptic or audiovisual alerting, or active through automatically preventing speeding above a designated speed limit. NHTSA recommends this technology through a three-star effectiveness rating in its *Countermeasures That Work* for speeding and speed management.[7]

[4] https://www.kidsandcars.org/news/post/examples-of-available-technology-to-prevent-hot-car-deaths
[5] https://www.markey.senate.gov/imo/media/doc/nhtsa_traffic_safety_letter2.pdf
[6] https://www.nhtsa.gov/risky-driving/speeding
[7] https://www.nhtsa.gov/book/countermeasures-that-work/speeding-and-speed-management/countermeasures/other-strategies-1

The District of Columbia, Virginia and Georgia have all passed legislation which would require ISA technology in the vehicles of habitual reckless drivers.[8] Furthermore, bills have been introduced in New York, Arizona, Maryland and California to also require this technology.[9] Congress should build off of this momentum and require NHSTA to complete a rulemaking which requires ISA technology on all newly manufactured vehicles sold in the United States. This requirement would be in line with the European New Car Assessment Program (Euro NCAP) promotion of "installation of speed assistance systems that support drivers to control their speed" and the 2022 NHTSA Request for Comment (RFC) on inclusion of ISA in NCAP which the National Transportation Safety Board (NTSB) recommends.[10,11]

ISA technology, in conjunction with passive impaired driving prevention and detect to prevent technologies, would ensure speeding, impaired driving and pediatric vehicular heatstroke (PVH) become a risky driving behavior of the past – making both our roads and our vehicles safer. Congress must require NHTSA to advance these measures.

Autonomous Vehicles on American Roads

Every day there are new headlines covering partnerships and deployments of passenger vehicle autonomous vehicles in the United States.[12] While NSC supports the adoption of autonomous passenger vehicles (AV) to offer additional mobility options for consumers, there are still robust concerns around the current safety measures of these vehicles and potentially new safety risks with the adoption of waivers for novel designs. Congress should support this burgeoning industry, but NHTSA cannot cede its role as an active regulator in ensuring vehicles on the road comply with Federal Motor Vehicle Safety Standards (FMVSS). Moreover, vehicles granted waivers should not result in an increase in safety risks for passengers, and vehicles with defects or software issues should be immediately grounded until fixes are in place.

In comments to NHTSA on their proposed Automated Driving System (ADS) Equipped Vehicle, Safety, Transparency and Evaluation Program (AV STEP), NSC proposed numerous focuses for NHTSA to ensure safety is at the forefront of deployments. These focuses include:

1. A strong and mandatory ADS FMVSS that can be complied with and enforced;
2. Required fallback personnel for ADS passenger vehicle operations; and
3. NHTSA should not cede its authority to independent assessors for ADS technology.

[8] https://visionzeronetwork.org/accelerating-safety-states-champion-intelligent-speed-assistance/
[9] Ibid.
[10] https://www.euroncap.com/en/car-safety/the-ratings-explained/safety-assist/speed-assistance/
[11] https://www.nhtsa.gov/sites/nhtsa.gov/files/2024-04/NHTSA-NTSB-Response_April-2024_Intelligent-Speed-Assistance_ISA-Interlock_Speeding_NCAP.pdf
[12] https://www.cnbc.com/2025/06/24/uber-waymo-robotaxi-service-opens-to-passengers-in-atlanta.html

Recently, U.S. Transportation Secretary Sean Duffy has highlighted AV deployment as a critical component of his "Innovation Agenda."[13] Part of this agenda is the inclusion of exemptions for AVs with novel designs, including the elimination of steering wheels, pedals, and front seating systems.[14] While these exemptions need to be proven to be in the public interest, NSC believes there is no safety reason as to not require these systems today. In the event a vehicle malfunctions, the traveling public must not bear the brunt of technology's failures and should have the chance to reengage the vehicle through the driving task. This becomes impossible when there are no steering wheels or pedals. As ADS technology matures, novel designs may become commonplace, but today the technology is too immature.

Conclusion

Congress must continue to hold NHTSA accountable for completing required rulemakings which will keep everyday Americans safe inside of their vehicles. NSC looks forward to continuing to partner with the Committee to decrease the death and serious injuries that occur on our roads. By bringing together safety stakeholders, manufacturers and technologists, we will solve the road safety challenges that we face today.

[13] https://www.transportation.gov/innovation-agenda
[14] https://www.nhtsa.gov/press-releases/streamline-exemption-process-noncompliant

Transport Workers Union of America, AFL-CIO

"AMERICA'S FIGHTING DEMOCRATIC UNION"

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The most complicated and consequential technology facing regulators today is automated driving systems (ADS), which utilize a number of new technologies networked together and operated by an artificial intelligence. The lack of federal leadership in regulating this technology has forced many states and localities to implement their own limitations on these vehicles, creating a patchwork of standards across the country and encouraging a counter-productive competition between states for driverless vehicle projects. The current structure is unsustainable. Congress must act to provide NHTSA and the other modal agencies with the framework to establish clear, national, pro-safety, pro-worker standards to ensure the autonomous vehicle (AV) industry is raising the level of safety and creating good jobs.

New technologies like AVs should be viewed as part of a larger innovation policy across all of DOT

TWU members have been at the forefront of new transportation technology for generations.[1] Our experience as frontline workers implementing, operating, and maintaining new equipment, processes, and modes leads us to believe that innovation can and should have a positive outcome for working families. Such outcomes are not guaranteed, but can be achieved when policymakers take steps to:

- Maintain existing safety & security standards, i.e., require new technologies to demonstrate that they meet or exceed our standards rather than lower standards to meet a current technology's capabilities
- Require transparent planning & reporting (both to effected workers and to safety regulators)
- Mandate workforce involvement in planning and implementing new technology, including as an integral part of any government advisory bodies.

AVs are not unique in this regard, they are simply another innovation in a long line of transportation technologies stretching back to the wheel. These principles, if fully expressed as part of any AV legislative framework, will ensure that American workers benefit from this potential technological transition.

We are deeply concerned that the major AV developers have an unambiguous plan to rush driverless vehicles onto our roads and into our public transit systems without safety standards or adequate failsafes such as human oversight and intervention. These companies are asking the state and federal policymakers to sidestep the tough safety questions and sanction these deployments with very limited oversight or regulation. This "trust me" approach pretends that this technology is somehow independent of the realities of every other innovation over the past

[1] The TWU has commented extensively on this issue over the past several years, including testimony before the House Transportation and Infrastructure Committee. We would also draw your attention to the Worker-first AV Legislative Framework and the AV Tenants led by the Advocates for Highway and Auto Safety, both of which the TWU has strongly endorsed.

two centuries. It would defy decades of federal transportation safety policy and places the public and workers at significant and unnecessary risk. It is also the exact opposite approach that we have learned through countless accidents across multiple modes: federal oversight is essential to ensure the safety of transportation systems. The proactive approach taken by the Department of Transportation ensures the transportation technologies we sanction across the multi-modal network are safe by demanding these innovations demonstrate their safety capabilities BEFORE widespread deployment. We know that even the most advanced technologies fail on a regular basis and that the best protection is strong regulation, redundancy, and well trained workers.

Many of the policies the TWU believes must be included in an AV legislation would need to be implemented by the Federal Motor Carrier Safety Administration (FMCSA) and the Federal Transit Administration (FTA). These areas require partnership between the Transportation and Infrastructure Committee and the Energy and Commerce Committee. Any legislation which does not include fulsome titles from both jurisdictions will not properly regulate the industry and will undermine workers' futures.

Human oversight and the ability for humans to intervene are essential to safe operations

No matter how well-delveoped a technology is, failures happen. There is no reason to believe AVs will not, on occaision, break or underperform to create an unsafe condition. Likewise, automations fail when faced with circumstances beyond their programmed purpose – in the case of AVs, this often referred to as leaving the vehicle's Operational Design Domain (ODD). When faced with a novel situation, there is a chance that AVs will make bad decisions. In both cases, building in failsafes which provide for human oversight and intervention prevent incidents from becoming tragedies.

These are not theoretical concerns in our transportation systems. In two crashes in 2019 and 2020, automated systems on the Boeing 737-MAX aircraft overrode human commands after failing to correctly respond to the environment, crashing at full speed and killing 346 people.[2] In 2009, 14 people were killed on the Washington, DC Metro's Red Line when the positive train control system ignored the operator's command to brake and accelerated into a parked train just north of the U.S. Capitol.[3] In both of these instances, had humans been allowed to intervene the crashes would have been avoided. U.S. airline pilots were trained to turn off Boeing's automated system when it malfunctioned – a tactic that, while cautioned against by Boeing, proved to be a life saving element.

In addition to the obvious safety benefits of allowing human oversight and intervention in automated systems, AV developers must face a practical matter that many commercial vehicles

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[2] https://transportation.house.gov/imo/media/doc/2020.09.15%20FINAL%20737%20MAX%20Report%20for%20Public%20Release.pdf

[3] https://www.ntsb.gov/investigations/AccidentReports/Reports/RAR1002.pdf

will continue to require humans onboard even in cases where they are not expected to operate their vehicle. Public transportation systems are obligated to provide services for the disabled community. Tour bus operators and other service companies may continue to want humans present to provide the services they do today for paying customers. In these cases, disallowing workers from accessing the controls to these vehicles would effectively hold them hostage. These workers would be trapped, entirely at the mercy of their employer and the competency of the automated system. It seems obvious that such situations should be prohibited.

While the TWU has no doubt that controls for operating vehicles will change over time, we strongly believe that vehicles must have means for qualified workers to manuever these vehicles during times when the system would otherwise fail to move itself safely.

Allowing robotaxis to profit from testing exemptions will slow innovation

Several AV developers have proposed allowing companies to profit from commercial use of their vehicles operating under a statutory exemption meant for research and investigations (49 USC 30114A(a)). NHTSA already has a separate exemption process in place for vehicles intended for commercial use (49 USC 30113), which the DOT recently committed to streamlining to facilitate AV deployment.[4] Enabling test vehicles to make a profit would remove the most significant incentive for AV developers to improve ther safety of their products and likely decrease the overall safety on our roads.

Vehicles operating under the testing exemption have no requirement to demonstrate either an overall level of safety or any specific alternative safety measures in place of the existing standards. These exemptions are intended for new or novel safety approaches that, if successful, can eventually be applied to fully compliant vehicles without the need for an exemption. The expectation has always been that successful technology on vehicles operating under 30114(a) exemptions will eventually be applied to fully compliant vehicles – either by adaptation into existing FMVSS or the adoption, by NHTSA, of new safety standards. Allowing research vehicles to generate profits stalls and perverts this process. Companies would have less incentive to develop their technology into truly market ready forms if they have no limit on what they can do under the overly broad exemptions.

True road tests are necessary for safety regulators to determine whether a new technology will eventually be viable. Unless these tests are barred from revenue service, bad actors will be able to rush unsafe components, software, and vehicles into service seeking a quick infusion of cash for their early investors. This is a very common strategy for many forms of technology, but it has never been an acceptable practice in transportation, where the bare minimums are generally considered unsafe. Both Congress and DOT should reject calls to disincentivize innovation by allowing commercial use of research vehicles.

[4] https://www.nhtsa.gov/press-releases/streamline-exemption-process-noncompliant

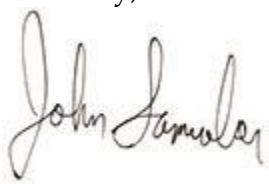
Regulators need good, transparent data in order properly oversee the industry

Unlike traditional cars, AVs are and will be capable of tracking and reporting performance and safety metrics in significant and detailed ways. For the vehicles on the roads today, this data is already being collected and sent back to the developers, often as proprietary information. Some AV companies have argued that this approach is essential to their business model - Waymo even sued the state of California to keep its data away from the public[5] - but denying safety regulators and publicly interested groups access to this data is producing negative safety outcomes. Unless safety regulators can independently and accurately assess unbiased datasets, they will not be able to make important decisions on which pieces of technology are truly ready for deployment and which are just marketing material.

NHTSA's existing policy on AV data collection and transparency (currently effectuated through Standing General Order on Crash Reporting for incidents involving ADS and Level 2 ADAS) has been invaluable to policymakers and safety researchers. The TWU strongly supports this policy, which was issued by the Biden administration and reiterated by the Trump administration. We hope that Congress will codify and improve upon these reporting requirements as part of the next surface transportation reauthorization.

We appreciate the subcommittee's continued oversight and attention to these issues.

Sincerely,



John Samuelsen
International President

CC: The Honorable Brett Guthrie
The Honorable Frank Pallone

[5] Waymo sues California to hide its AV crash data: https://www.theverge.com/2022/1/28/22906513/waymo-lawsuit-california-dmv-crash-data-foia

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June 25, 2025

Congressman Gus Bilirakis (FL-12)
Chairman
Subcommittee on Commerce, Manufacturing, and Trade
House Committee on Energy & Commerce

Congresswoman Jan Schakowsky (IL-9)
Ranking Member
Subcommittee on Commerce, Manufacturing, and Trade
House Committee on Energy & Commerce

RE: Subcommittee Hearing - Looking Under the Hood: The State of NHTSA and Motor Vehicle Safety

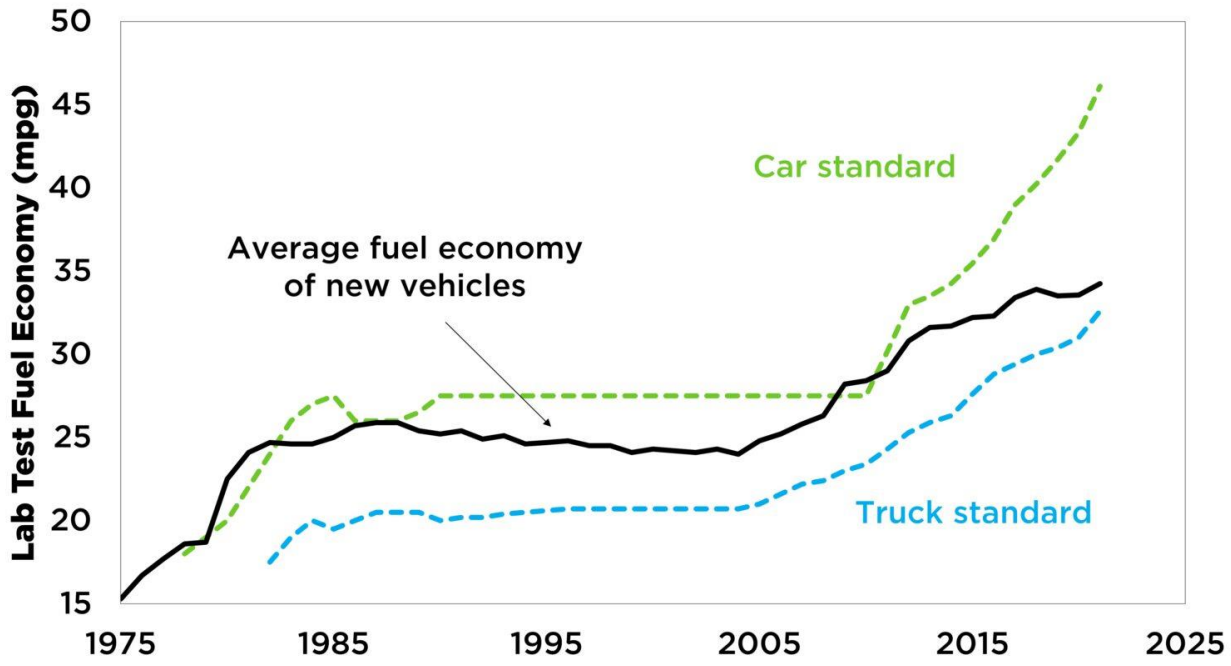
Chairman Bilirakis, Ranking Member Schakowsky, and Members of the Subcommittee on Commerce, Manufacturing and Trade-

UCS is a national, science-based advocacy organization putting science into action to build a healthier planet, a safer world, and a more equitable society. On behalf of our more than half a million members and supporters, we offer the following information on the importance of strong standards for clean car and trucks promulgated by the National Highway Traffic Safety Agency (NHTSA) in coordination with other federal and state agencies.

1. **Strong CAFE standards must be upheld.**

In the wake of the 1970s oil embargo that resulted in gasoline shortages and rationing, the country started to recognize the harm of a daily life reliant upon oil. In response, Congress put in place regulations to cut oil use from new passenger vehicles, known as the Corporate Average Fuel Economy (CAFE) program. Established in 1975, these rules require that the vehicles a manufacturer sells in a given model year must meet an annual target.

In the first years of the CAFE program, new vehicle fuel economy rocketed upwards, improving on-road fuel economy for new cars and trucks from 13 miles per gallon (mpg) to 21 mpg in less than a decade. However, with the oil crisis in the rear-view mirror, then-President Ronald Reagan acceded to requests from Ford and General Motors to reduce fuel economy standards for a few years, and the political will to strengthen the program petered out. For about two decades, not only did progress on fuel economy stall, but growth in SUV sales in the 1990s caused the fuel economy of passenger vehicles, on average, to get worse year after year.



Caption: CAFE standards drove manufacturers to dramatically improve fuel economy in the first few years, but stagnant standards through the 1990s resulted in fuel economy getting worse thanks to an increase in SUV sales. While fuel economy has again risen with increasing standards, an increasing share of SUV sales has once again resulted in a petering out of overall fleet improvement, amplifying the need for even tougher standards.

By the 2000s, a Congressional hold on funding preventing work on fuel economy standards finally broke, and NHTSA staged the first increase in fuel economy in over two decades, requiring the SUVs and pickups that had exploded in sales to finally use less fuel. Shortly thereafter, the Supreme Court ruled that EPA had the authority to regulate carbon dioxide emissions from passenger cars and trucks under *Massachusetts v. EPA*, and Congress finalized the Energy Independence and Security Act (EISA) of 2007, requiring increasing fuel economy standards. Since then, EPA and NHTSA have jointly set standards to improve fuel economy and reduce emissions from new vehicles through a series of rules that, together, are the single biggest program the United States has implemented to cut petroleum use and heat-trapping emissions.

Fuel economy (CAFE) standards targeting improvement in miles per gallon efficiency for passenger cars, light trucks, heavy-duty pickup trucks, and vans were updated and finalized by the NHTSA in June 2024, in coordination with the Environmental Protection Agency's Multi-Pollutant Passenger Vehicle Emission Standards.

Unfortunately these CAFE standards are under threat by the Trump administration, which has falsely labeled them as an "EV mandate." In reality, NHTSA is prohibited by law from considering or requiring the adoption of alternative fueled vehicles, like EVs, in setting CAFE standards. NHTSA's recently issued final interpretive rule – and its notice of enforcement discretion pending a new rulemaking – lays the initial groundwork for the administration's attempts to get rid of the CAFE program. And now automakers, who notably did not file a suit challenging the final rule in 2024, are calling for the standards to be reviewed.

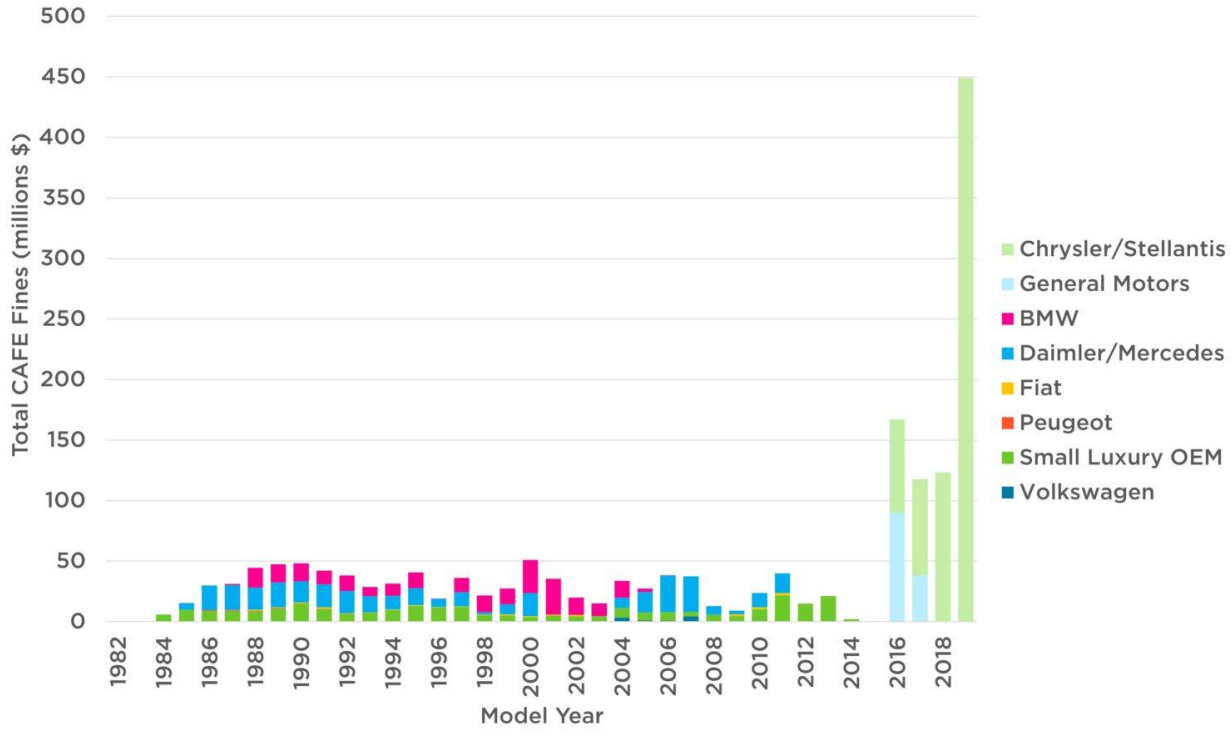
The only party that would benefit are oil companies. Decisionmakers must reject these short sighted calls for repeal. Rolling back these commonsense standards would increase fuel costs by $23 billion, increase gasoline consumption by 70 billion gallons through 2050, while adding more than 700 million metric tons (CO_2e) of climate pollution, according to NHTSA.

For more information, see "Stronger Fuel Economy Standards Are Needed to Clean Up Combustion Vehicles" by Dave Cooke.

2. **Robust CAFE civil penalty rates must be upheld**

Weak penalties make for weak protections. One of the shortcomings of the CAFE program is that automakers can buy their way out of compliance with the regulations, choosing to simply pay a fine in lieu of improving their vehicle fleet. If CAFE fines are lowered, or zeroed out as proposed by the Senate Finance Committee's reconciliation text, drivers could lose out on billions of dollars of expected savings at the gas pump.

For many years, these fines were so low as to be toothless. Manufacturers, particularly luxury brands but more recently including GM and Stellantis, have incorporated the payment of fines directly into their business model, opting to pay fines rather than make the required improvements in efficiency.



Caption: For most of the history of the CAFE program, fines were almost exclusively utilized by luxury automakers who chose to apply technologies towards performance rather than efficiency. However, recently two mass market automakers have adopted the payment of fines as a part of their business model to focus on selling high-margin trucks and SUVs without devoting extra effort to improving the efficiency of those same vehicles. (UCS graph based on NHTSA data)

The fines under the CAFE program had remained virtually fixed since 1975 at $50 per mile-per-gallon shortfall per vehicle, increasing once in the 1990s to $55, and now bookmarked to inflation due to the Federal Civil Penalties Inflation Adjustment Act Improvements Act passed by Congress in 2015. The fine for model year 2024 vehicles is now $170 per mile-per-gallon shortfall per vehicle. Automakers pressed President Trump in his first term to undo the update, and later fought the increase in penalties in court. While automakers eventually lost the case, they successfully delayed the fine increase to the 2019 model year. But even that larger fine amounts to roughly $1,000 per vehicle in violation, and it's clear that at least some in the industry are more willing to pay fines, or try to convince decisionmakers to reduce fines, rather than make improvements needed to comply and avoid those penalties in the first place.

Congress should not give into efforts to defang the CAFE standards by weakening their enforcement mechanism. A vast body of evidence shows that the technology is available and viable for manufacturers to continue improving fuel economy. For instance, the most recent EPA Trends Report (Figure 4.3) shows that a number of "off-the-shelf" technology options still have not been adopted across the fleet, which only leaves money on the table for drivers. Now is not the time to let laggards determine the fate of the industry.

For more information, see "Automakers Opt Out of Cleaning Up Their Vehicles…But at What Cost?" by Dave Cooke.

3. **Minimum domestic passenger car standard must be upheld to promote resiliency**

In the 2000s, Chrysler and other domestic manufacturers had invested heavily in SUV and light truck production in the United States, essentially ignoring investment in passenger cars. When oil prices rose, they were completely unprepared for the market shift away from these big gas guzzlers and towards the more efficient passenger cars made by their competitors. The result of this negligence were massive layoffs of domestic workers.

In 2005, General Motors announced the closure of 12 manufacturing plants, resulting in the loss of 30,000 jobs across North America. In 2006, Ford announced eliminations of up to 30,000 jobs and 14 factories. In 2007. Chrysler announced cuts to 13,000 jobs in North America and at least partial closures of 4 plants. This massive economic catastrophe was the result of a business strategy that ignored the possibility of a changing market and the inherent fluctuations resulting from a volatile oil market, putting short-term profits over smarter, longer-term investments.

The long-reaching impact of these lay-offs is apparent in Michigan today, even as many of these jobs have returned. And in 2007, Congress sought to put an end to the detrimental behavior that cost the public so much.

In the 2007 Energy Independence and Security Act (EISA), Congress set a mandatory limit for a manufacturer's domestically produced passenger car fleet—no longer would a manufacturer be allowed to ignore investment in a robust portfolio of efficient vehicles produced in North America. In order to make sure the bailouts, layoffs, and economic turmoil brought about by shortsighted investment strategies, the law requires that every manufacturer's domestically produced passenger car fleet achieves an average fuel economy no more than 8 percent worse than the average car sold in the United States.

We cannot ignore the history that lead to this policy. And the need to keep the domestic auto industry resilient remains – for the benefit of workers, drivers, and communities. Congress should not weaken the minimum domestic passenger car standard.

For more information, see "EPA Head Lies about Fuel Economy Fines in Push for Weaker Car Standards" by Dave Cooke.

4. **The caps on the transfer of credits between a manufacturer's compliance fleets must be upheld to prevent stagnation**

The CAFE standards were changed in EISA from fixed fleetwide values to size-based values. Under the new system, cars and trucks are measured on different curves as individual fleets and each fleet is expected to improve fuel economy along its curve. To enhance flexibility in the program, auto manufacturers are allowed to trade some credits between their fleets to allow for a slightly more efficient fleet to offset a shortfall in the other. The credit transfers are subject to a cap instituted by Congress in EISA (Sec. 104) to ensure fuel economy improvements for all vehicles, regardless of their size. For model years 2018 and beyond the cap is 2 mpg by statute, meaning that if a manufacturer makes cars more efficient than they need to, they can make trucks up to 2 mpg less efficient than they're supposed to.

Eliminating the cap allows auto manufacturers to choose what fleet – cars or light trucks – to make less efficient. This undermines the promise to consumers that all types of vehicles—cars, trucks, and SUVs—would become more efficient over time as a result of the fuel economy standards.

We need to move forward, not backwards on clean transportation. Decisionmakers should not greenlight policies that would allow fuel economy for whole segments of vehicles to stagnate, as this would undermine the purpose of the CAFE standards and reduce consumer choice.

See "NGO Response to AAM-AGA Petition" submitted on behalf of the American Council for an Energy-Efficient Economy, Natural Resources Defense Council, Safe Climate Campaign, Sierra Club and Union of Concerned Scientists for a discussion of similar issues in response to automakers' 2017 petition to EPA and NHTSA.

5. **States' authority to protect the health and welfare of their residents must be respected**

For over 50 years, California has led the nation in improving air quality by setting strong air pollution standards, which other states have opted into to protect the health and welfare of their residents.

California has done this with authority provided by the Clean Air Act, which allows the state to apply for and receive waivers to set stricter air quality standards than the federal government. In the more than 50-year history of the Clean Air Act, California has yet to fully meet EPA's national air quality standards for all pollutants.

The pollution from refueling and driving gasoline and diesel-powered vehicles harms public health, primarily from the formation of fine particulate matter. This pollution causes lung diseases such as asthma, is linked to low birth weight, and kills people with cardiovascular diseases like stroke and heart attacks. And of course, burning gasoline and diesel produces carbon dioxide, leading to further damage from climate change such as excessive heat and increased severe wildfires.

Both the Government Accountability Office and the Senate Parliamentarian determined that the Clean Air Act waivers cannot be revoked through the Congressional Review Act, which lowers the threshold to rescind waivers from 60 to 50 votes. Some in Congress ignored those rulings and moved forward, setting a dangerous precedent by disregarding the rulings of the Government Accountability Office, a non-partisan agency charged with monitoring Congress, and the Senate Parliamentarian, a non-partisan body charged with interpreting U.S. Senate rules and procedure.

This overreach is bound to harm millions of people across the country. Over 150 million people in the United States are already exposed to unhealthy levels of air pollution. Vehicle emission standards are key to reducing that pollution. The standards are based on the best available science. They were developed over a 2-year period, with extensive study for feasibility and ample opportunities for input from all automakers. They are projected to significantly reduce climate warming emissions and air-pollution related illnesses and death. Revoking the waivers will increase pollution-related illnesses and premature deaths and slow down the electric vehicle transition crucial for protecting the planet.

Sincerely,

Alyssa Tsuchiya
Director of Policy and Government Affairs
Clean Transportation Program
Union of Concerned Scientists