

U.S. SENATE COMMITTEE ON COMMERCE, SCIENCE, & TRANSPORTATION

HIT THE ROAD, MAC: THE FUTURE OF SELF-DRIVING CARS

FEBRUARY 4, 2026

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I. Introduction

Chairman Cruz, Ranking Member Cantwell, and members of the Committee, thank you for the opportunity to testify before the Committee on this important issue. My testimony addresses how this Committee should use this year’s surface transportation reauthorization to advance a comprehensive federal policy framework for AVs, including by implementing the ideas outlined in *Securing American Leadership in Autonomous Vehicles*, released by the Autonomous Vehicle Industry Association in January 2025.¹ The autonomous vehicle (“AV”) industry appreciates the Committee’s sustained engagement on AV policy, and we remain committed to working closely with Congress to advance American leadership on autonomous technology.

The Autonomous Vehicle Industry Association (“AVIA”) is the unified voice of the AV industry, and we represent the world’s leading technology, rideshare, automotive, trucking, and transportation companies.² Our mission is to bring the tremendous safety, mobility, transportation, and economic benefits of AVs—i.e., SAE International Levels 4- and 5-capable vehicles—to consumers and businesses in a safe, responsible, and expeditious manner and ensure the United States is the global leader on AVs.³ As of May 2025, vehicles operated by AVIA members have driven over 145 million autonomous miles on U.S. public roads, a distance roughly equivalent to the average distance between the Earth and Mars or driving around the Earth over 5,600 times.⁴ That figure is growing every day.

Over the past two decades, AVs have gone from science fiction to aspirational to commonplace on America’s roads and highways, using advanced technology to perform all aspects of the driving task. In states as diverse as Arizona, Arkansas, California, Florida, Michigan, and Texas, AVs provide valuable transportation services, transporting both passengers through autonomous ride-hailing fleets and goods through trucking fleets and middle- and last-mile delivery operations. The U.S. Department of Defense has also embraced autonomous technology

¹ See *Securing American Leadership in Autonomous Vehicles*, AUTONOMOUS VEHICLE INDUS. ASS’N (Jan. 19, 2025), https://cdn.prod.website-files.com/67ee365c25e6530594bd40c2/683d8d2fa60ac22d542b1049_Securing%20American%20Leadership%20in%20Autonomous%20Vehicles1.pdf.

² AVIA members include Amazon, Aurora, AVRS, Avride, Bot Auto, Cavnue, Discount Tire, Doordash, Ford, Gatik, General Motors, Honda, International, Kodiak, Lyft, Motional, NGV, Nuro, Plus, Stack, Rivian, Tier IV, Torc Robotics, TaskUs, Terawatt, Uber, UPS, Volkswagen Group of America, Volvo Cars, Volvo Autonomous Solutions, Waabi, Waymo, and Zoox. See *Our Mission and Members*, AUTONOMOUS VEHICLE INDUS. ASS’N, <https://theavindustry.org/> (last visited Feb. 2, 2026).

³ SAE International’s J3016 standard, which has been adopted industry wide, establishes a taxonomy for vehicle automation technologies that includes six levels of driving automation, rising from “No Driving Automation” (Level 0) to “Full Driving Automation” (Level 5). Level 2 systems (often called advanced driver assistance systems or “ADAS”) are available on vehicles today and are capable of “partial driving automation,” though they require human supervision at all times. Level 3 vehicles have “conditional driving automation,” where the vehicle requires human interaction only in specific situations. Level 4 vehicles are defined as having “High Driving Automation.” Only Level 3, 4, and 5 vehicles are equipped with automated driving systems (“ADS”). See SAE INT’L, TAXONOMY AND DEFINITIONS FOR TERMS RELATED TO DRIVING AUTOMATION SYSTEMS FOR ON-ROAD MOTOR VEHICLES, J2016_202104 (2021).

⁴ *New Report: AV Industry Surges Past 145 Million Autonomous Miles as AVIA Urges Policymakers to Act*, AUTONOMOUS VEHICLE INDUS. ASS’N (May 19, 2025), <https://www.theavindustry.org/press-release/avia-releases-2025-state-of-av/>.

to keep America’s soldiers safer.⁵ AVs will play a pivotal role in addressing critical challenges facing our nation, including by reducing the persistent and unacceptable level of traffic fatalities in our country, increasing transportation access, enhancing supply chain efficiency, reviving our industrial capacity, creating new jobs, and expanding economic output.

When discussing AVs and roadway safety, it is critical to distinguish autonomous vehicles from other types of technology. “Driver-assistance technology”—which can be found in tens of millions of cars and trucks on our roads today—is important and helpful, but it is not *autonomous* driving. Rather, the term “autonomous vehicle,” or “AV,” indicates that the vehicle is capable of driving on its own, without relying on or having any expectation that a human will be supervising the vehicle’s actions. With an AV, the vehicle performs *all* aspects of the driving task on a sustained basis. These distinctions are vital to understanding AV technologies and have been laid out in detail within the SAE J3016 industry standard:

SAE INTERNATIONAL **SAE J3016™ LEVELS OF DRIVING AUTOMATION™**
 Learn more here: [sae.org/standards/content/j3016_202104](https://www.sae.org/standards/content/j3016_202104)

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	SAE LEVEL 0™	SAE LEVEL 1™	SAE LEVEL 2™	SAE LEVEL 3™	SAE LEVEL 4™	SAE LEVEL 5™
What does the human in the driver’s seat have to do?	You are driving whenever these driver support features are engaged – even if your feet are off the pedals and you are not steering			You are not driving when these automated driving features are engaged – even if you are seated in “the driver’s seat”		
	You must constantly supervise these support features; you must steer, brake or accelerate as needed to maintain safety			When the feature requests, you must drive	These automated driving features will not require you to take over driving	
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	These are driver support features			These are automated driving features		
What do these features do?	These features are limited to providing warnings and momentary assistance	These features provide steering OR brake/acceleration support to the driver	These features provide steering AND brake/acceleration support to the driver	These features can drive the vehicle under limited conditions and will not operate unless all required conditions are met	This feature can drive the vehicle under all conditions	
Example Features	<ul style="list-style-type: none"> • automatic emergency braking • blind spot warning • lane departure warning 	<ul style="list-style-type: none"> • lane centering OR • adaptive cruise control 	<ul style="list-style-type: none"> • lane centering AND • adaptive cruise control at the same time 	<ul style="list-style-type: none"> • traffic jam chauffeur 	<ul style="list-style-type: none"> • local driverless taxi • pedals/steering wheel may or may not be installed 	<ul style="list-style-type: none"> • same as level 4, but feature can drive everywhere in all conditions

The United States is presently the global AV leader and the pace of deployments in the U.S. has steadily increased in recent years. But this progress has occurred in the absence of a federal policy framework for AVs, leaving U.S. companies to fight with one hand tied behind their backs compared to competitors in China and other countries. In recent months, a broad consensus has emerged among stakeholders about the importance of a federal framework for AVs. As a result, in November 2025, a diverse group of stakeholders announced the formation of *United for Autonomy* to forge ahead on federal AV policy.⁶ *United for Autonomy* members include key stakeholders like the American Council of the Blind, Blinded Veterans Association, National

⁵ See *Accelerating Autonomous Vehicle Technology for the DoD*, DEF. INNOVATION UNIT (Apr. 3, 2024), <https://www.diu.mil/latest/accelerating-autonomous-vehicle-technology-for-the-dod>. AVIA member Kodiak Robotics is currently working with the U.S. Army’s Army Robotic Combat Vehicles program. See *U.S. Army Robotic Combat Vehicle (RCV Program)*, KODIAK ROBOTICS (Nov. 9, 2023), <https://kodiak.ai/news/us-army-robotic-combat-vehicle-program>.

⁶ See UNITED FOR AUTONOMY, <https://www.unitedforautonomy.org/> (last visited Feb. 2, 2026).

Council on Independent Living, National Federation of the Blind, and United Spinal Association, as well as industry groups like AVIA, the American Trucking Associations, Alliance for Automotive Innovation, Consumer Technology Association, U.S. Chamber of Commerce, National Retail Foundation, and several other organizations. The breadth of membership in *United for Autonomy* speaks to the importance of AV technology for our country.

Today, policymakers are faced with a choice. We can maintain a void at the federal level, which would support China’s ambitions to dominate the global AV market and put U.S. states at the forefront of regulating a space that is calling out for federal direction. Or the Committee can lead the way on a federal policy framework that both supports safer roads, accessibility, and supply chains and answers key questions on AV design, construction, and performance. Advancing American AV leadership also serves to advance American artificial intelligence (“AI”) leadership. Autonomous vehicles are *the* exemplar of what AI becomes when it moves from the digital to the physical world—what many are calling “physical AI.” As with AI leadership, the stakes for leadership in AVs are high, and U.S. policymakers’ actions—and inactions—are being closely watched by our strategic competitors. In addition, establishing a federal policy framework will benefit an American public that increasingly is using AVs and loving the experience. Recent data demonstrates that passengers in AVs quickly become comfortable with the technology and want to experience it again.⁷ As we see more AV deployments, we can anticipate higher levels of public acceptance of the technology.

The AV industry is eager to engage with this Committee on AV-specific federal policies that supplement the U.S. Department of Transportation’s (“USDOT”) broad authority to regulate vehicles on public roads. We commend Secretary Duffy and his team at the Department for their early and significant attention to AVs. In April 2025, Secretary Duffy announced a new Automated Vehicle Framework as part of the Department’s Innovation Agenda, and this framework included early action items that are a welcome first step.⁸ It is imperative that this progress continues, and we are optimistic that under the leadership of Jonathan Morrison at the National Highway Traffic Safety Administration (“NHTSA”) and Derek Barrs at the Federal Motor Carrier Safety Administration (“FMCSA”), more is yet to come.

II. The State of Roadway Safety

A federal AV policy framework is especially needed at a time when the United States continues to face epidemic levels of fatalities on our nation’s roads. 2024 saw over 39,000 people die on America’s roads, only a slight decrease from 2023, which recorded 40,901 deaths in motor vehicle traffic incidents.⁹ 2023 was the third year in a row to see traffic deaths above 40,000,¹⁰ a number of fatalities that previously had not occurred since 2007.¹¹ To put this in context, the

⁷ See generally J.D. POWER, 2024 U.S. ROBOTAXI EXPERIENCE STUDY (2024).

⁸ See *Trump’s Transportation Secretary Sean P. Duffy Unveils New Automated Vehicle Framework as Part of Innovation Agenda*, U.S. DEP’T OF TRANSP. (Apr. 24, 2025), <https://www.transportation.gov/briefing-room/trumps-transportation-secretary-sean-p-duffy-unveils-new-automated-vehicle-framework>.

⁹ NAT’L HIGHWAY TRAFFIC SAFETY ADMIN., U.S. DEP’T OF TRANSP., DOT HS 813 710, EARLY ESTIMATE OF MOTOR VEHICLE TRAFFIC FATALITIES IN 2024 1 (2025), <https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/813710>.

¹⁰ *Id.*

¹¹ *Fatality Facts 2023: Yearly Snapshot*, INS. INST. FOR HIGHWAY SAFETY (2023), <https://www.iihs.org/topics/fatality-statistics/detail/yearly-snapshot>.

number of traffic fatalities each year is equivalent to the number of people at a sold-out baseball game at Nationals Park.

Pedestrian deaths have also risen; 2022 was the deadliest year for American pedestrians since 1981, with 7,508 people killed.¹² That trend continued into 2024, with an estimated 7,148 pedestrians killed, nearly 20% higher than the number killed in 2016.¹³ The increase in roadway fatalities is consistent across vehicle types. In 2022, 5,969 people died in crashes involving large trucks.¹⁴ This increase is part of a decade-long 40% increase in such crashes.¹⁵ Further, in 2023, 114,552 large trucks were involved in crashes that resulted in an injury, a 12% increase since 2016.¹⁶ The toll of these crashes on families and communities is immeasurable, but the toll of motor vehicle crashes is not measured in fatalities and injuries alone. According to the National Safety Council, “the total motor vehicle injury costs” in 2023 were estimated at \$513.8 billion.¹⁷ When quality-of-life valuations are considered, the total value of societal harm from motor vehicle crashes is even higher and was estimated to top \$1.37 trillion in 2019.¹⁸

Research continues to confirm that human behavior is overwhelmingly the most common factor in fatal accidents on our roads. A NHTSA study found that over 55% of all people injured or killed in a roadway incident tested positive for one or more drugs (including alcohol).¹⁹ Drivers are also frequently distracted by electronics; during daylight in 2023, 6.4% of all drivers were looking at or using their handheld device.²⁰ Studies have found that drivers manipulating cell phones are two to six times more at risk for a crash.²¹ Several categories of behavior-related fatalities have increased in recent years, including police-reported alcohol-involved crashes and deaths of unrestrained passengers.²² Vehicle crashes are also the leading cause of spinal cord injury, and emergency room surgeons are on the front lines dealing with those crises every day.²³

¹² GOVERNORS HIGHWAY SAFETY ASS'N, PEDESTRIAN TRAFFIC FATALITIES BY STATE 2022 PRELIMINARY DATA (JAN.–DEC.) (2023), <https://www.ghsa.org/sites/default/files/2024-12/2022-ped-report.pdf>.

¹³ GOVERNORS HIGHWAY SAFETY ASS'N, PEDESTRIAN TRAFFIC FATALITIES BY STATE 2024 PRELIMINARY DATA (JAN.–DEC.) (2025), <https://www.ghsa.org/resource-hub/pedestrian-traffic-fatalities-2024-data>.

¹⁴ NAT'L HIGHWAY TRAFFIC SAFETY ADMIN., U.S. DEP'T OF TRANSP., DOT HS 813 705, OVERVIEW OF MOTOR VEHICLE TRAFFIC CRASHES IN 2023 7 (2025), <https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/813705>.

¹⁵ Nat'l Safety Council, *Large Trucks*, NSC INJURY FACTS, <https://injuryfacts.nsc.org/motor-vehicle/road-users/large-trucks/> (last visited Feb. 2, 2026).

¹⁶ *Id.*

¹⁷ Nat'l Safety Council, *Motor Vehicles: Introduction*, NSC INJURY FACTS, <https://injuryfacts.nsc.org/motor-vehicle/overview/introduction/> (last visited Feb. 2, 2026).

¹⁸ NAT'L HIGHWAY TRAFFIC SAFETY ADMIN., U.S. DEP'T OF TRANSP., DOT HS 813 403, THE ECONOMIC AND SOCIETAL IMPACT OF MOTOR VEHICLE CRASHES, 2019 (REVISED) 4 (2023), <https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/813403.pdf>.

¹⁹ NAT'L HIGHWAY TRAFFIC SAFETY ADMIN., U.S. DEP'T OF TRANSP., DOT HS 813 399, ALCOHOL AND DRUG PREVALENCE AMONG SERIOUSLY OR FATALY INJURED ROAD USERS 2 (2022), https://rosap.nhtl.bts.gov/view/dot/65623/dot_65623_DS1.pdf.

²⁰ NAT'L HIGHWAY TRAFFIC SAFETY ADMIN., U.S. DEP'T OF TRANSP., DOT HS 813 660, DRIVER ELECTRONIC DEVICE USE IN 2022 11 (2024), <https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/813660>.

²¹ *Distracted Driving*, INS. INST. FOR HIGHWAY SAFETY, <https://www.iihs.org/research-areas/distracted-driving> (last visited Feb. 2, 2026).

²² NAT'L HIGHWAY TRAFFIC SAFETY ADMIN., U.S. DEP'T OF TRANSP., DOT HS 813 298, EARLY ESTIMATES OF MOTOR VEHICLE TRAFFIC FATALITIES AND FATALITY RATE BY SUB-CATEGORIES IN 2021 1 (2022), <https://www.nhtsa.gov/press-releases/early-estimate-2021-traffic-fatalities>.

²³ Jonathan Slotkin, *The Data on Self-Driving Cars Is Clear. We Have to Change Course*, N.Y. TIMES (Dec. 2, 2025), <https://www.nytimes.com/2025/12/02/opinion/self-driving-cars.html>.

America’s roads are a dangerous place for drivers, passengers, and other road users, in large part due to the deficiencies of human drivers. However, the United States does not need to accept this status quo. By removing human error from the equation, AVs offer a vital tool for improving roadway safety.

III. AV Technology as a Vital Tool for Improving Roadway Safety

Improving road safety is the primary goal of the AV industry. Automated driving systems (“ADS”) are the heart and brain of an AV and are equipped with suites of sensor systems (including lidar, radar, and cameras) with sensitivities, capabilities, and reaction times well beyond those of a human driver. These sensors grant an ADS a 360-degree field of vision which can detect, track, and react to objects and people even when hidden from human perception due to vehicles, buildings, and other obstructions. For example, AVs are developed to specifically detect vulnerable road users—such as motorcycles, pedestrians, and cyclists—and then predict and safely respond to their unique behavior (e.g., motorcycle lane splitting). Included below are examples of what an AV “sees” when it encounters a vulnerable road user:

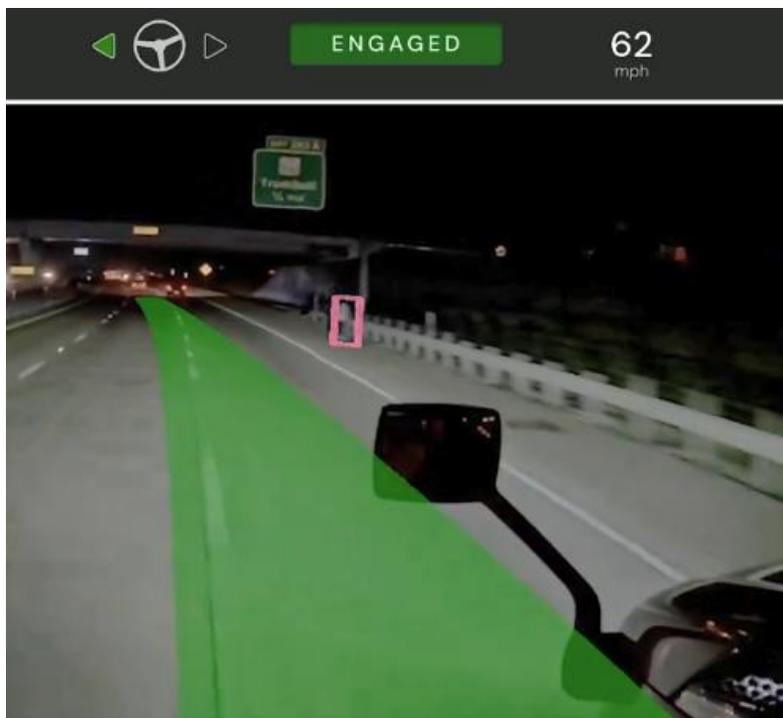


An Aurora autonomous truck safely and accurately detects an emergency vehicle, slows down, and changes lanes.²⁴

²⁴ Aurora (@aurora_inno), X (Jan. 18, 2024, 5:01 PM), https://x.com/aurora_inno/status/1748103257128374548



A Waymo vehicle recognizes and adheres to a police officer directing traffic at a Los Angeles intersection.²⁵



A Kodiak autonomous truck recognizes a pedestrian on a highway from over 130m away at night, shifting to another lane to give the pedestrian extra space.²⁶

Human error, including speeding and fatigue, is a major contributor to roadway incidents. AVs are designed to remove that error from the equation, as they do not drive distracted, angry,

²⁵ Dmitri Dolgov (@dmitri_dolgov), X (Jan. 18, 2024, 7:04 PM), https://x.com/dmitri_dolgov/status/1748134215265456444.

²⁶ Kodiak (@KodiakRobotics), X (Mar. 21, 2024), <https://twitter.com/KodiakRobotics/status/1770870645116833872>.

impaired, or tired. AVs have built a compelling safety record, supported by data collected by NHTSA via the agency’s Standing General Order 2021-01, through more than a decade of development, testing, and deployment, with over 145 million autonomous miles driven by AVIA members on public roads in the United States alone.²⁷

AVs also have quantifiable safety benefits. In January 2026, AVIA released its *Robotaxi Report* which released new data quantifying the safety-related economic savings.²⁸ The findings reveal substantial economic benefits from AV deployments. In San Francisco, where human-driven vehicles experience an injury crash rate of 8.04 per million miles driven on surface streets, Waymo’s AVs demonstrated a rate of 0.87 injury crashes per million miles—an 89 percent reduction.²⁹ In San Francisco, from March 2022 through June 2025, Waymo rider-only operations covering 29.88 million miles resulted in an estimated \$71 million in safety-related economic savings for city residents.³⁰

Reinsurer Swiss Re published an analysis of 3.8 million autonomous miles driven by passenger AVs operated by Waymo. The analysis found that when compared to baseline human drivers, Waymo AVs reduced property damage claims by 76 percent.³¹ These results led Swiss Re to conclude that Waymo’s AVs are “significantly safer towards other road users than human drivers are[.]”³² Waymo’s own review of over 56.7 million rider-only autonomous miles found that the company’s AVs demonstrated a 96% reduction of injury-involving intersection crashes and an 85% reduction in crashes with suspected serious or worse injuries when compared to human drivers.³³

A recent Chamber of Progress study found that replacing even 1.3% of California drivers with AVs could have prevented 411 fatalities between 2020 and 2022, while replacing 13% of California drivers could have prevented 1,342 fatalities in that same three year period.³⁴ Another study by the Virginia Tech Transportation Institute found that the full scale deployment of occupantless AVs for delivery services could reduce roadway deaths by 58.2%.³⁵

AVs are poised to improve roadway safety and help combat the glut of roadway deaths facing the United States today. By removing human error, AVs avoid the risks associated with driver distraction, fatigue, and incapacitation. Ongoing AV deployments are demonstrating the

²⁷ AUTONOMOUS VEHICLE INDUS. ASS’N, *supra* note 4.

²⁸ AUTONOMOUS VEHICLE INDUS. ASS’N, AVIA ROBOTAXI REPORT (2026), https://cdn.prod.website-files.com/67ee365c25e6530594bd40c2/6930ab29af2f0cc7461e061b_Robotaxi%20Report.pdf.

²⁹ *Id.* at 14.

³⁰ *Id.*

³¹ LUIGI DI LILLO ET AL., COMPARATIVE SAFETY PERFORMANCE OF AUTONOMOUS- AND HUMAN DRIVERS: A REAL-WORLD CASE STUDY OF THE WAYMO ONE SERVICE (2023), <https://arxiv.org/ftp/arxiv/papers/2309/2309.01206.pdf>.

³² *Id.*

³³ *New Study: Waymo is Reducing Serious Crashes and Making Streets Safer for Those Most at Risk*, WAYMO (May 1, 2025), <https://waymo.com/blog/2025/05/waymo-making-streets-safer-for-vru>.

³⁴ KAITLYN HARGER, ANALYSIS: AVS IN CALIFORNIA COULD HAVE SAVED UP TO 1,300 LIVES, PREVENTED UP TO 5,000 MAJOR INJURIES OVER PAST THREE YEARS (2024), <https://progresschamber.org/wp-content/uploads/2024/03/AV-Safety-Research-California-Traffic-Fatality-Analysis-03-24.pdf>.

³⁵ CHRISTINA WITCHER ET AL., ESTIMATING CRASH CONSEQUENCES FOR OCCUPANTLESS AUTOMATED VEHICLES (2021), <https://vtechworks.lib.vt.edu/server/api/core/bitstreams/a28aa936-8f89-4302-8859-ee54d34358e2/content>.

safety benefits of AVs, and the wider deployment of AVs will bring these benefits to communities across the country while helping to end thousands of tragic roadway deaths.

IV. Social and Economic Benefits of Widespread AV Deployments

In addition to increasing safety, the continued expansion of AV deployment will bring economic, supply chain, and social benefits to American communities. For millions of elderly Americans and individuals with travel-limiting disabilities, AVs can provide greater independence compared to mass transit or paratransit systems, opening the door for new employment opportunities, improved access to medical care, and better connection to their communities. AVs are poised to bring economic benefits at both societal and individual levels, and they can help grow the U.S. economy and support the economic competitiveness of American businesses across many industries.³⁶

A. Connecting People and Protecting Communities

By increasing transportation access and improving safety, AVs will serve many Americans who are left behind by today's transportation options. The USDOT estimates that 25.5 million Americans face travel-limiting disabilities³⁷ and roughly 560,000 people with disabilities never leave their homes due to transportation difficulties.³⁸ Over 7.6 million Americans live with significant vision impairment,³⁹ conditions which can leave them unable to operate a vehicle. This lack of mobility can contribute to a lack of economic opportunity. Only 22.7% of people with disabilities are employed, compared to 65.5% of people without a disability.⁴⁰ A study by the National Disability Institute found that the wider deployment of AVs could result in 4.4 million jobs for people with disabilities, which could create a 3.8% increase in U.S. GDP (nearly \$867 billion).⁴¹ Whether personally owned, serving as on-demand taxis, or as part of local paratransit services, AVs can provide greater autonomy to people with disabilities, letting them dictate how, where, and when they move through the world.

AVs also can provide vital connections to “transit deserts,” where there is a high demand but low supply of transportation. Access to transportation and average length of commute are connected to upward mobility,⁴² and studies have found links between public transit access,

³⁶ Jack Caporal, William O'Neil, and Sean Arrieta-Kenna, *Bridging the Divide: Autonomous Vehicles and the Automobile Industry*, CTR. FOR STRATEGIC & INT'L STUDIES (Apr. 14, 2021), <https://www.csis.org/analysis/bridging-divide-autonomous-vehicles-and-automobile-industry>.

³⁷ *ADA at DOT: Accessibility Initiatives*, U.S. DEP'T OF TRANSP. (Feb. 13, 2025) <https://www.transportation.gov/accessibility>.

³⁸ BUREAU OF TRANSP. STAT., TRANSPORTATION DIFFICULTIES KEEP OVER HALF A MILLION DISABLED AT HOME (2012), https://www.bts.gov/archive/publications/special_reports_and_issue_briefs/issue_briefs/number_03/entire.

³⁹ *Blindness Statistics*, NAT'L FED'N OF THE BLIND, <https://nfb.org/resources/blindness-statistics> (last visited Feb. 2, 2026).

⁴⁰ Economic News Release, U.S. Bureau of Labor Stat., Persons with a Disability: Labor Force Characteristics Summary (Feb. 25, 2025), <https://www.bls.gov/news.release/disabl.nr0.htm>.

⁴¹ DOMINIC MODICAMORE ET AL., ECONOMIC IMPACTS OF REMOVING TRANSPORTATION BARRIERS TO EMPLOYMENT FOR INDIVIDUALS WITH DISABILITIES THROUGH AUTONOMOUS VEHICLE ADOPTION (2022), <https://www.nationaldisabilityinstitute.org/wp-content/uploads/2023/02/ndi-economicimpactsofremovingtransportationbarriers.pdf>.

⁴² Mikayla Bouchard, *Transportation Emerges as Crucial to Escaping Poverty*, N.Y. TIMES (May 7, 2015), <https://www.nytimes.com/2015/05/07/upshot/transportation-emerges-as-crucial-to-escaping-poverty.html>.

income, and unemployment.⁴³ A 2011 study showed that an average person can access only about 30% of all jobs and 25% of low- and middle-skilled jobs in a given metropolitan area via public transit within 90 minutes.⁴⁴ AVs can improve integration with mass transit by servicing direct trips to workplaces and other endpoints, providing first-mile and last-mile connections to transit, and by broadly increasing the overall supply of transportation services in a given area. Projections indicate that the transportation connections facilitated by the adoption of AVs would increase access to jobs within a metropolitan area by 45% by 2040.⁴⁵

Additionally, AVs can help alleviate inequalities in food access. A 2017 report by the U.S. Department of Agriculture's Economic Research Service ("ERS") estimated that 54 million individuals, or 17.1 percent of the total U.S. population, had limited access to a supermarket or grocery store within 10 miles from their home.⁴⁶ AVs can improve access to food, both by transporting people to previously inaccessible grocery stores and by bringing food directly to their doors. With widespread deployment, AVs could improve access to fresh food for fourteen million low-income households living in "food deserts," roughly 70% of the total low-income population.⁴⁷

B. Moving Goods and Growing the American Economy

The integration of AVs into America's commercial fleets will help optimize the transportation of freight nationwide, bringing goods directly to consumers faster and strengthening at-risk supply chains. Autonomous trucking offers a means to address supply chain inefficiencies by filling workforce gaps, enhancing fleet flexibility, and reducing travel times.

The growth in autonomous trucking is poised to run in parallel with an ever-growing market for freight trucking, with the Bureau of Transportation Statistics estimating that freight activity in the United States will grow fifty percent from 2020 to 2050, reaching a projected value of \$36.2 trillion.⁴⁸ With trucking representing roughly 72% of all freight transportation tonnage,⁴⁹ the number of trucks on the road will need to grow as well. As demand for freight hauling continues to grow, AVs can help shippers keep up with that demand by supplementing and augmenting human driven fleets. With AVs hauling long-haul freight, more opportunities will be created for truck drivers in their communities. This will allow companies to strategically place drivers where

⁴³ Gillian D. White, *Stranded: How America's Failing Public Transportation Increases Inequality*, THE ATLANTIC (May 16, 2015), <https://www.theatlantic.com/business/archive/2015/05/stranded-how-americas-failing-public-transportation-increases-inequality/393419/>.

⁴⁴ Adie Tomer et al., *Missed Opportunity: Transit and Jobs in Metropolitan America*, BROOKINGS (May 11, 2011), <https://www.brookings.edu/research/missed-opportunity-transit-and-jobs-in-metropolitan-america/>.

⁴⁵ RICHARD EZIKE ET AL., WHERE ARE SELF-DRIVING CARS TAKING US? 6 (2019), <https://ucsusa.org/sites/default/files/attach/2019/02/Where-Are-Self-Driving-Cars-Taking-Us-web.pdf>.

⁴⁶ Alana Rhone et al., *Low-Income and Low-Supermarket-Access Census Tracts, 2010–2015*, U.S. DEP'T OF AGRIC.: ECON. RSCH. SERVS. 12 (2017), <https://www.ers.usda.gov/publications/pub-details?pubid=82100>.

⁴⁷ Sola Lawal, *Serving America's Food Deserts*, MEDIUM (July 15, 2020), <https://medium.com/nuro/serving-americas-food-deserts-a7442e922053>.

⁴⁸ *Freight Activity in the U.S. Expected to Grow Fifty Percent by 2050*, BUREAU OF TRANSP. STATS. (Nov. 22, 2021), <https://www.bts.gov/newsroom/freight-activity-us-expected-grow-fifty-percent-2050>.

⁴⁹ *ATA Truck Tonnage Index Increased 2.4% in May*, AM. TRUCKING ASS'NS (June 20, 2023), <https://www.trucking.org/news-insights/ata-truck-tonnage-index-increased-24-may>.

they are needed most and ensure America’s truck drivers can remain in and near their communities and sleep in their own beds.

For consumers, AVs are positioned to reduce personal transportation costs and reduce the cost of transporting goods across the economy. Studies have shown that the cost savings from the wider deployment of autonomous trucks could reduce the cost-per-mile of shipping goods by between 20% for 300-mile trips and 30% for 900-mile trips when factoring in other operational costs.⁵⁰ Savings from lower freight costs can then be passed on to consumers through lower prices on goods overall. Additionally, through the introduction of shared AV fleets, transportation costs—which amount to the second-largest expense for most households—could be reduced by as much as \$5,600 per year.⁵¹

C. Providing New Jobs

American workers stand to benefit from the greater adoption of AV technologies. One recent analysis found that AV companies are:

[I]ncreasingly seeking talent that not only develops cutting-edge technology but also manages large programs, ensures safety compliance, and builds resilient supply chains and operational infrastructures. . . The AV industry is moving in the opposite direction to the wider jobs market in North America. Talent needs are high, hiring is aggressive, and the industry is growing significantly. [H]iring in operations, corporate infrastructure, and safety illustrates an industry moving beyond the lab and into the real world.⁵²

NGV Talent has conducted additional research that demonstrates the AV operations career pathway for Americans. As demonstrated below, the AV industry is offering Americans high-quality jobs with abundant opportunities for advancement:

⁵⁰ RYAN JONES ET AL., ECONOMIC BENEFITS OF AUTONOMOUS TRUCKS (2024), https://advance.sagepub.com/users/912115/articles/1285791/master/file/data/2_Economic%20Benefits%20of%20Autonomous%20Trucks_Interim%20Report/2_Economic%20Benefits%20of%20Autonomous%20Trucks_Interim%20Report.pdf?inline=true.

⁵¹ SECURING AMERICA’S FUTURE ENERGY, *FOSTERING ECONOMIC OPPORTUNITY THROUGH AUTONOMOUS VEHICLE TECHNOLOGY* (2020), <https://safe2020.wpenginepowered.com/wp-content/uploads/2020/07/Fostering-Economic-Opportunity-through-Autonomous-Vehicle-Technology.pdf>.

⁵² NGV TALENT, AV TALENT DEMAND REPORT 2, 12 (2025), <https://ngvtalent.com/wp-content/uploads/2025/05/AV-Industry-Talent-Demand-Report-2025.pdf>.



Additionally, a USDOT-funded study found that autonomous trucking will increase U.S. employment by up to 35,000 jobs per year on average.⁵³ AVs will coexist with America’s truck drivers, and the AV industry is committed to creating more opportunities for all Americans. A growing AV industry will continue to create new job opportunities for workers with a range of educational backgrounds and experiences, including local drivers, technicians, fleet managers, safety operations specialists, sensor calibrators, operations center workers, transportation planners, and more. Indeed, the same USDOT study found that most autonomous trucking adoption scenarios would not lead to layoffs for existing truckers.⁵⁴

The AV industry has already created new jobs and brought new investment, tax revenue, resources, and human capital to states across the country, including Arkansas, California, Alabama, Arizona, Arkansas, Kansas, Nevada, New Mexico, Oklahoma, Pennsylvania, Michigan, Florida, Washington, Colorado, and Texas. Texas offers an ideal case study for how AV deployments can support the U.S. job market. Today, several hundred Texans are employed directly by AV companies. Opportunities for employment are rapidly growing where AVs are deployed. An AVIA analysis of its members demonstrates at least 118 active AV industry job openings right now in Texas, with a median wage approximately 208% higher than median wage for Texans.⁵⁵ As AV deployments grow, jobs will grow with them, with an estimated 190 workers needed for manufacturing and servicing every 1,000 AVs produced and deployed.⁵⁶ Nationwide,

⁵³ ROBERT WASCHIK ET AL., JOHN A. VOLPE NAT’L TRANSP. SYS. CTR., FHWA-JPO-21-847, MACROECONOMIC IMPACTS OF AUTOMATED DRIVING SYSTEMS IN LONG-HAUL TRUCKING 1 (2021), <https://rosap.ntl.bts.gov/view/dot/54596>.

⁵⁴ *Id.*

⁵⁵ See *QuickFacts: Texas*, U.S. CENSUS BUREAU (2025), <https://www.census.gov/quickfacts/fact/table/TX/BZA210223> (citing \$78,476 as median households income (in 2024 dollars), 2020 to 2024).

⁵⁶ STEER, OPPORTUNITY AV: HOW MANY AND WHAT TYPES OF JOBS WILL BE CREATED BY AUTONOMOUS VEHICLES? 6 (2024), <https://progresschamber.org/wp-content/uploads/2024/03/Opportunity-AV-How-Many-and-What-Type-of-Jobs-Will-Be-Created-by-Autonomous-Vehicles.pdf>.

AVs could create over three million new jobs by 2035, all while expanding access to affordable delivery services, according to a study conducted by Steer.⁵⁷

AVs will bring myriad benefits to communities and individuals across the country. From connecting underserved communities and people with disabilities, to creating new opportunities for employment and independence, to boosting the economy by lowering transportation costs, AVs can help address a diverse set of challenges. To ensure the many benefits of AVs are realized, now more than it is critical ever to institute a supportive federal policy framework that unlocks further pathways to widespread AV deployment nationwide.

V. Competition with China for AV Leadership

America's leadership is integral to securing the economic growth, job creation, safety, and societal benefits offered by AVs. That leadership, however, is increasingly challenged by significant foreign competition, especially from China.

The Chinese government has invested heavily in AV development in recent years as part of its strategy to overtake and replace foreign market leaders. The Chinese market for AVs is estimated to grow from \$17.23 billion in 2024 to \$170.57 billion by 2033.⁵⁸ Research indicates that the total available market for Chinese robotaxis will increase to \$47 billion by 2035, up from \$54 million in 2025, driven by decreasing costs of hardware and algorithms and lowering operating costs for fleet owners. China is also expected to see revenues per robotaxi reach up to \$31,000 per year by 2035, higher than current revenues of up to \$9,000 per year.⁵⁹ Reflecting this potential, the Chinese government has supported the growth of the Chinese AV industry. A 2020 national strategy prioritized AV development and called for at least 20% of all new vehicles sales to have SAE Level 4 capabilities by 2030.⁶⁰ Then, in 2022, China's Ministry of Transportation released rules in an effort to commercialize driverless mobility.⁶¹ Beijing considers AVs a strategic sector; with government support, Beijing intends for China to become a world leader in AV technology by 2035.⁶²

More than 50 different Chinese cities are testing AVs and over 20 cities are actively testing both robotaxis and autonomous buses.⁶³ In August 2024, the Chinese government announced it

⁵⁷ STEER, ECONOMIC IMPACTS OF AUTONOMOUS DELIVERY SERVICES IN THE U.S. XI (2020), https://www.steergroup.com/sites/default/files/2020-09/200910_%20Nuro_Final_Report_Public.pdf.

⁵⁸ RENUB RESEARCH, CHINA AUTONOMOUS VEHICLES MARKET REPORT BY LEVEL OF DRIVING, HARDWARE, SOFTWARE, VEHICLE TYPE, APPLICATION, PROPULSION, AND COMPANIES ANALYSIS 2025–2033 1 (2025), <https://www.researchandmarkets.com/reports/5562699/china-autonomous-vehicles-market-report-by-level>.

⁵⁹ ALLEN CHANG ET AL., ROBOTAXI: CHINA'S ROBOTAXI MARKET - THE ROAD TO COMMERCIALIZATION 9 (2025), <http://www.goldmansachs.com/pdfs/insights/goldman-sachs-research/robotaxi/report.pdf>.

⁶⁰ Takashi Kawakami & Naoshige Shimizu, *China's self-driving car push hits legal and cost roadblocks*, NIKKEI ASIA (Jan. 19, 2023), <https://asia.nikkei.com/Business/Automobiles/China-s-self-driving-car-push-hits-legal-and-cost-road-blocks>.

⁶¹ *Id.*

⁶² Linda Lew, *Chinese robotaxi companies outnumber Waymo in global push*, L.A. TIMES (Oct. 27, 2025), <https://www.latimes.com/business/story/2025-10-27/chinese-robotaxis-race-waymo-to-take-driverless-cars-global>.

⁶³ Xinhua, *Autonomous Driving Shifts into High Gear in China*, CHINA DAILY (Aug. 13, 2024), <https://global.chinadaily.com.cn/a/202408/13/WS66bace6da3104e74fddb9b9e.html>; Cao Yingying, *Testing on Public Roads a Leap*

had issued a total of 16,000 test licenses for AVs and approved 32,000 kilometers of roadway for AV testing.⁶⁴ Chinese technology company Baidu operates a fleet of about 1,700 vehicles, with roughly 400 robotaxis tested in Wuhan alone and over 900 AVs deployed in Beijing. Another Chinese robotaxi company, Pony.ai, currently provides over 26,000 trips every week in China. These robotaxi companies have plans to expand operations outside of China to places like Singapore, Dubai, and Abu Dhabi. Chinese robotaxi companies are also looking to Europe, considering launches in Germany, the United Kingdom, and elsewhere.⁶⁵ WeRide, for example, has obtained autonomous driving licenses in five countries and is performing autonomous driving R&D, testing, and operations in more than 10 countries.⁶⁶

Much of the AV growth in China has been government-driven, defined by policy support from the national to city level.⁶⁷ Industry growth in the U.S., on the other hand, has been market-driven. The U.S. should not seek to emulate Chinese policy. There is, however, a clear and present need for domestic policy that will allow innovators to flourish while prioritizing safety. Avoiding being outpaced by the Chinese AV industry will require partnership between American AV developers and federal and state governments. This can be achieved through the creation of a federal AV policy framework, as laid out in AVIA's *Securing American Leadership in Autonomous Vehicles* and by instilling public trust in AV technologies.

VI. Building Public Trust in AVs

Public trust in AVs is critical to bring AV technology's benefits to communities across the United States. AV deployments have shown that public trust can be built through greater public exposure to the technology and transparency in operations.

A. Growing Public Trust in AVs

AV deployments have grown public trust in AV technology. For example, a study by J.D. Power surveyed residents of cities where AVs have been deployed and found that 77% of riders were comfortable with AVs being tested on streets and highways, compared to 35% of non-AV riders in the same city and 21% of individuals nationally.⁶⁸ According to the same study, 76% of non-riders expressed a desire to hear about others' experiences with AVs.⁶⁹ This demonstrates opportunities for public education to pave the way for expanded AV deployments that, in turn, benefit more people.

Forward for L3 Autonomous Vehicles in China, CHINA DAILY (June 17, 2024), <https://www.chinadaily.com.cn/a/202406/17/WS666f8a64a31095c51c5092fb.html>.

⁶⁴ Press Release, State Council of the People's Republic of China, 16,000 Test Licenses for Autonomous Vehicles Issued in China (Aug. 27, 2024), https://english.www.gov.cn/news/202408/27/content_WS66cd745ac6d0868f4e8ea485.html#:~:text=At%20a%20press%20conference%20in,senior%20official%20from%20the%20ministry.

⁶⁵ Lew, *supra* note 62.

⁶⁶ CHANG ET AL., *supra* note 59, at 18.

⁶⁷ *Id.*

⁶⁸ J.D. POWER, *supra* note 7.

⁶⁹ *Id.*

B. AVIA's TRUST Principles

The AV industry believes that public trust goes hand-in-hand with AV deployment, and that we must earn and maintain that trust. AVIA has created a set of TRUST Principles to guide our work with government, communities, and the public at large.⁷⁰ The TRUST Principles, when combined with the policy proposals in *Securing American Leadership in Autonomous Vehicles*,⁷¹ will help instill public trust and ensure benefits of AV technologies can reach more American communities. AVIA's TRUST Principles are:

- **Transparent Interactions with Government Officials and the Public.** This includes responding in a timely manner to appropriate questions and data requests from lawmakers and regulators, making experts available to address potential concerns, sharing incident information with regulatory officials as required under state and federal regulatory frameworks, disclosing crash-related information as required by law, and fully participating in any formal crash investigations conducted by government officials. This also includes making safety evaluation reports public, engaging communities prior to commencing AV operations and on an ongoing basis, and providing public education on AVs through a variety of channels.
- **Responsible Integration into Communities and Deep Engagement with Law Enforcement and First Responders.** This includes early engagement with law enforcement and first responders prior to operating on public roads and implementing first responder interaction plans to provide important information about AVs to first responders. To further these efforts, AVIA formed the Law Enforcement and First Responder Engagement Council, designed to strengthen collaboration between the AV industry and first responders.⁷² The Council is comprised of law enforcement officials, first responders, and AV industry representatives, all of whom share the goal of ensuring AVs are deployed in a safe, responsible manner.
- **Upholding Cybersecurity and Privacy Standards.** AV developers should review and implement relevant cybersecurity and privacy best practices and standards for AV design, testing, and deployment, including conducting regular risk assessments, as appropriate.
- **Safety-First Culture and Governance.** By building safety-first cultures, AV developers prioritize safety in all aspects of vehicle design and operation. This can be supported through the development of regulatory standards for ADS design and performance, e.g., those relevant to safety cases and behavioral competency testing.
- **Transportation Policies that Will Increase Safety and Public Trust of AVs.** AVIA supports state and federal policies that will increase public trust in AV technologies,

⁷⁰ See *Trust Principles*, AUTONOMOUS VEHICLE INDUS. ASS'N, <https://theavindustry.org/trust-principles> (last visited Feb. 2, 2026).

⁷¹ AUTONOMOUS VEHICLE INDUS. ASS'N, *supra* note 1.

⁷² *Autonomous Vehicle Industry Association Introduces Law Enforcement and First Responder Engagement Council*, AUTONOMOUS VEHICLE INDUS. ASS'N (Sept. 25, 2024), <https://www.theavindustry.org/press-release/autonomous-vehicle-industry-association-introduces-law-enforcement-and-first-responder-engagement-council>.

including requiring first responder interaction plans, and requiring AVs be capable of complying with all applicable traffic laws and relevant federal safety standards. This can also include crash reporting (and the creation of a National AV Safety Data Repository), increased funding for NHTSA and the FMCSA to reinforce their ability to administer federal regulatory processes.

VII. Building a Strong AV Policy Framework That Complements State Regulation

In recent years, U.S. states have taken the lead on AV policymaking as the federal government has struggled to move forward with a federal policy framework. Today, 26 states have put in place AV deployment statutes.⁷³ Many of these laws follow common themes of authorizing Level 4 or 5 AVs within the state; requiring that AVs abide by traffic regulations; establishing appropriate protocols with law enforcement and first responders; and addressing state insurance requirements. The AV industry commends state policymakers for their interest in this life-saving technology and we hope to see more states pass AV deployment statutes in the coming years.

While state deployment laws are helpful, they are inherently limited to motor vehicle policy matters that can be regulated by U.S. states. Only the federal government can implement uniform, nationwide rules governing vehicle design, construction, and performance. To advance American transportation and technological excellence, the federal government must move forward on AV policy within its lane of authority that complements the policymaking of state governments. Leadership from the federal and state governments is needed, and both must be working together to move AVs forward.

This year's surface transportation reauthorization presents an important opportunity for the Congress to advance a federal policy framework on AVs and we encourage this Committee to seize the opportunity. In January 2025, AVIA released *Securing American Leadership in Autonomous Vehicles*,⁷⁴ which details a comprehensive set of federal policy recommendations that would accelerate the safe and timely deployment of AV technology and solidify the U.S. as the global leader in this transformative field.

The intent of these recommendations is not to create an entirely new regulatory structure for AVs, but instead ensure that the existing regulatory structure, including the Federal Motor Vehicle Safety Standards ("FMVSS"), include considerations for the nature of ADS-equipped vehicles. AVs remain subject to the same self-certification process and recall requirements that traditional vehicles are subject to under the Motor Vehicle Safety Act. Importantly, NHTSA would still retain its authority to conduct investigations and inspections, as well as request records, from ADS manufacturers, just as it can for manufacturers of traditional vehicles and vehicle equipment.⁷⁵ The agency's traditional powers to investigate defects related to motor vehicle safety or non-compliance with FMVSS would likewise remain applicable to ADS.⁷⁶

⁷³ The following states represented by Committee members have an AV deployment law in place: Texas, South Dakota, Mississippi, Nebraska, Kansas, Tennessee, North Carolina, Utah, Montana, West Virginia, Michigan, Nevada, New Mexico, Colorado, and Pennsylvania.

⁷⁴ AUTONOMOUS VEHICLE INDUS. ASS'N, *supra* note 1.

⁷⁵ See 49 U.S.C. § 30166.

⁷⁶ See 49 U.S.C. § 30118.

To maintain and strengthen American leadership in the AV industry, Congress should enact federal legislation that outlines the necessary statutory and regulatory elements that are critical to the industry's success. This legislation should include the full universe of AV use cases, from small delivery vehicles, to robotaxis, to commercial motor vehicles. Many of AVIA's policy priorities have been incorporated into the SELF DRIVE Act of 2026,⁷⁷ the AMERICA DRIVES Act,⁷⁸ and the AV Accessibility Act.⁷⁹ AVIA strongly encourages this Committee to consider these priorities as it considers its own AV legislation.

To best support the further development of the AV industry, federal AV legislation should:

- **Require an “ADS Safety Case.”** As directed by Congress, NHTSA should initiate rulemaking, informed by industry and the work of existing standards setting bodies, to require that commercially deployed ADS manufacturers develop, and provide upon request, a detailed record (often described as a “safety case”)⁸⁰ of the basis for the manufacturer's conclusion that the design, construction, and performance of an ADS protects against an unreasonable risk to motor vehicle safety, as defined in 49 U.S.C. § 30102(a)(9). Safety cases have been used as part of safety assurance in a number of other fields, including energy,⁸¹ aviation,⁸² and defense,⁸³ and have been proposed for use with AI systems.⁸⁴ The ADS safety case would include: (1) a technical description of the ADS's parts, capabilities, and integration into the vehicle platform, (2) explanation of how the ADS performs all elements of the driving task, (3) engineering methodologies used to design and assess the ADS's performance and ensure the absence of unreasonable risk to motor vehicle safety, (4) a description of ADS's safety performance, (5) evidence supporting the manufacturer's claim for validating the ADS's performance competencies, and (6) an explanation of how the ADS detects and responds to crashes.
- **Establish ADS Competencies.** Public trust in AVs is essential to their successful deployment. As part of the required safety case, ADS manufacturers should explain how

⁷⁷ See Safely Ensuring Lives Future Deployment and Research in Vehicle Evolution Act of 2026, H.R. _____, 119th Cong., discussion draft available here: https://d1dth6e84htgma.cloudfront.net/03_H_R_SELF_DRIVE_Act_c6810113bc.pdf.

⁷⁸ AMERICA DRIVES Act, H.R. 4661, 119th Cong. (2025), available here: <https://www.congress.gov/bill/119th-congress/house-bill/4661/text>.

⁷⁹ AV Accessibility Act, H.R. 4419, 119th Cong. (2025), available here: <https://www.congress.gov/bill/119th-congress/house-bill/4419/text>.

⁸⁰ See, e.g., *Welcome to Safety Case 101*, AURORA (Mar. 8, 2022), <https://aurora.tech/newsroom/welcome-to-safety-case-101>.

⁸¹ See, e.g., *What are Safety Cases? A Historical Overview*, SYNERGENOG (Dec. 12, 2024), <https://synergenog.com/what-are-safety-cases-history/> (explaining the history and the safety benefits of using safety cases when managing high-risk oil and gas energy and industrial facilities, including onshore processing plants, offshore fixed platforms, and floating vessels).

⁸² See, e.g., *Safety Case Development*, VA. TECH, <https://maap.ictas.vt.edu/capabilities/safetycases.html> (last visited Feb. 2, 2026) (explaining the robust development of safety cases for aviation operations).

⁸³ See, e.g., DSA 03.OME PART 1: DEFENCE CODE OF PRACTICE (DCOP) 103, U.K. DEF. SAFETY AUTH. (Aug. 2024), https://assets.publishing.service.gov.uk/media/689f2414cc5ef8b4c5fc44b4/DSA_03.OME_Part_1_DCOP_103_-_OME_Safety_and_Environmental_Case_-_SEC.pdf (describing the extensive requirement to use safety cases for the U.K. Ministry of Defence).

⁸⁴ See Geoffrey Irving, *Safety cases at AISI*, AI SEC. INST. (Aug. 23, 2024), <https://www.aisi.gov.uk/blog/safety-cases-at-aisi>.

their ADS meets a set of key competencies, including: (1) the ability to perform the entire dynamic driving task (“DDT”) within its Operational Design Domain (“ODD”) and to recognize and appropriately respond to the boundaries of its ODD; (2) accurately detecting and responding to relevant road users, including vulnerable road users and emergency vehicles and personnel; (3) transferring control back to human driver when necessary for Level 3 systems; (4) achieving a “minimal risk condition” as defined by SAE J3016 for Level 4 and 5 systems, when necessary; and (5) complying with applicable local traffic laws and laws relevant to the performance of the DDT.

- **Establish a National AV Safety Data Repository.** As directed by Congress, NHTSA should establish, implement, and maintain a National AV Safety Data Repository, to collect safety-relevant data about AV incidents and expand AV data reporting to include state-level location of AVs. This repository would provide timely information to the public and regulators to promote AV transparency and accountability. The database should include only material and relevant data and specify a meaningful minimum damage threshold for reportable crashes. NHTSA should further ensure that all information shared in the repository is subject to strict confidential business information protections.
- **Clarify and Modernize the FMVSS.** Whether by legislation or through congressionally directed action by NHTSA (by interpretation and/or regulatory changes) it should be clarified that the FMVSS requirements for manually operated driving controls and certain indicators and telltales are not applicable to Level 4 or Level 5 ADS-dedicated vehicles, since they are intended for an in-vehicle human driver only. Such action would support AV innovation by avoiding imposing requirements that do not advance safety and hamper the opportunity to re-imagine what motor vehicles look like and how they are designed, paving the way for greater accessibility, safety, and societal utility.
- **Revise the “Make Inoperative” Prohibition.** Existing federal law prevents manufacturers, dealers, distributors, and repair businesses from disabling any safety-related device or design element required by an FMVSS in a vehicle for any purpose after its first sale. To ensure that innovative safety and technical features can be adopted, AV legislation should clarify that making a vehicle’s manual controls inaccessible or altering their functionality for safety reasons during autonomous operation does not run afoul of the “make inoperative” provision of the Motor Vehicle Safety Act (49 U.S.C. § 30122).
- **Expand the FAST Act Testing Exception.** An exemption included in the FAST Act (49 U.S.C. § 30112(b)(10)) permits only qualifying original equipment manufacturers to test and evaluate vehicles that do not conform to the FMVSS. AV legislation should further include a means for AV developers to conduct commercial operations, including the carrying of members of the public as passengers and transporting freight as part of that testing or evaluation.
- **Move Forward with an AV Demonstration Program.** Direct NHTSA to move forward with a voluntary AV demonstration program that offers uniform federal rules that provide oversight for the safe design, construction, and deployment on public roads for ADS-equipped vehicles manufactured and operated by participants admitted into the program.

Such a program would benefit AV developers seeking to demonstrate innovative vehicle designs while also providing NHTSA with additional data on AV operations beyond the safety data collected under the National AV Safety Data Repository proposed above.

- **Advance AV Cybersecurity and Privacy.** Congress should include in its comprehensive AV legislation language requiring AV manufacturers to develop cybersecurity and privacy plans for their technologies. Cybersecurity plans should include a written cybersecurity policy describing the manufacturer’s practices for detecting and responding to cyberattacks, unauthorized intrusions, and false and spurious messages or vehicle control commands. For privacy, AV manufacturers should be required to develop a plan with respect to the collection, use, sharing, and storage of personal information collected by an AV and a method for providing notice to vehicle owners or occupants about the privacy policy.
- **Promote AV Accessibility.** Congress should support access to AVs for people with disabilities by passing the AV Accessibility Act.⁸⁵ The Act would prohibit states from issuing motor vehicle operator licenses in a manner that prevents people with disabilities, or other individuals without a driver’s license, from riding as a passenger in an ADS-equipped vehicle. This Act also requires the Secretary of Transportation, in collaboration with the National Academies of Science, to conduct an accessible infrastructure study to determine the best practices for public transportation to improve the ability of Americans with blindness and other disabilities to find, access, and use ride-hail AVs, including during pickup and drop off.

AVIA is a partner of the United Spinal Association’s SecureRide Coalition,⁸⁶ and would encourage Congress to provide funding for the testing and development of the Universal Docking Interface Geometry (“UDIG”) wheelchair securement standard, which helps wheelchair users automatically and safely secure their wheelchairs in a motor vehicle. Funding is needed to expand UDIG testing to a wide array of vehicle configurations, including ADS-equipped vehicles with nontraditional seating arrangements, to ensure wheelchair users can secure their wheelchairs across vehicle designs, greatly expanding overall accessibility.⁸⁷

- **Support the Wider Deployment of ADS-Equipped Commercial Motor Vehicles.** To ensure uniform, national rules for operating autonomous commercial motor vehicles (“CMVs”) in interstate commerce, AVIA recommends codifying the USDOT’s 2018 interpretation that the Federal Motor Carrier Safety Regulations (“FMCSRs”) do not assume that a CMV driver is always a human or that a human is necessarily present onboard a CMV, and that when a CMV does not require a human operator, none of the human-specific FMCSRs (i.e., drug testing, hours-of-service, commercial driver’s licenses, and

⁸⁵ Autonomous Vehicle Accessibility Act, H.R. 7126, 118th Cong. (2024) <https://www.congress.gov/bill/118th-congress/house-bill/7126/text>.

⁸⁶ See *SecureRide Coalition*, UNITED SPINAL ASS’N, <https://unitedspinal.org/secureride/> (last visited Feb. 2, 2026).

⁸⁷ For more details on UDIG research, see AVIA’s recent response to a request for comment from the USDOT’s Office of the Assistant Secretary for Research and Technology. See Comment Letter on Request for Information-Research Ideas To Support Nationwide Automated Vehicle (AV) Deployment from the Autonomous Vehicle Industry Association (Oct. 17, 2025), <https://www.regulations.gov/comment/DOT-OST-2025-1029-0026>.

physical qualification requirements) apply.⁸⁸ Further, to reduce barriers to interstate commerce, AV legislation should include a provision that when operating in interstate commerce, a CMV equipped with a Level 4 or Level 5 ADS is expressly allowed to operate without a human driver on board.

- **Streamline and Update Regulations to Accommodate the Integration of ADS into CMVs.** This includes updating vehicle width limits to provide flexibility for the placement of sensors and other key safety technologies. This also includes updating regulations to allow for the use of cab-mounted beacons as a warning device, which would update antiquated regulations and improve safety for both autonomous CMVs and human drivers. In October 2025, FMCSA issued a waiver that allows ADS-equipped CMVs to use cab-mounted beacons on their vehicles rather than physically place warning devices on the roadway.⁸⁹ That waiver should be codified to ensure its benefits are available permanently.

VIII. Conclusion

The continued deployment of AV technologies will improve roadway safety and deliver substantial economic benefits across the country. To ensure these benefits are realized across the United States, we must preserve American leadership in the AV industry and implement a forward-looking federal policy framework for AVs. I thank the Committee for its leadership on these important issues. The Autonomous Vehicle Industry Association stands ready to serve as a resource to the Committee on technical and policy matters and to work collaboratively to make safe autonomous vehicles a reality for Americans nationwide.

⁸⁸ U.S. DEP'T OF TRANSP., PREPARING FOR THE FUTURE OF TRANSPORTATION: AUTOMATED VEHICLES 3.0 (AV 3.0) 9 (2018), <https://www.transportation.gov/sites/dot.gov/files/docs/policy-initiatives/automated-vehicles/320711/preparing-future-transportation-automated-vehicle-30.pdf>.

⁸⁹ See Letter from Fed. Motor Carrier Safety Admin. to Aurora Operations, Inc. (Oct. 10, 2025), <https://www.fmcsa.dot.gov/sites/fmcsa.dot.gov/files/2025-10/Letter%20to%20Aurora%20Operations%2C%20Inc.%20-Waiver%20of%20Warning%20Device%20Requirements%20Terms%20and%20Conditions.pdf>; see also OFF. OF SCI. & TECH. POLICY, WHITE HOUSE, TRUMP ADMINISTRATION SCIENCE & TECHNOLOGY HIGHLIGHTS: YEAR ONE 48 (2026), <https://www.whitehouse.gov/wp-content/uploads/2026/01/WHOSTP-2025-Wins.pdf>.