



Date: Aug. 20, 2019

To: U.S. House of Representatives Committee on Energy and Commerce and U.S. Senate Committee on Commerce, Science, and Transportation

RE: Joint Request for Automated Vehicle Legislative Considerations

The Honorable Roger Wicker
Chair
Committee on Commerce, Science, & Transportation
United States Senate
Washington, D.C. 20510

The Honorable Maria Cantwell
Ranking Member
Committee on Commerce, Science, & Transportation
United States Senate
Washington, D.C. 20510

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

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

Dear Chairs Wicker and Pallone and Ranking Members Cantwell and Walden:

In this letter, the [Community Transportation Association of America](https://ctaa.org) (CTAA) responds to the joint request of the Senate Committee on Commerce, Science, & Transportation and the House Committee on Energy and Commerce for feedback regarding the drafting of Automated Vehicle (AVs) legislation. In 2018, CTAA released its four [AV Principles](https://ctaa.org/wp-content/uploads/2018/12/CTAA_AV_Principles_10-26-18.pdf): Accessibility, Equity, Rural Connectivity, and Safety (at https://ctaa.org/wp-content/uploads/2018/12/CTAA_AV_Principles_10-26-18.pdf). We focus on these priorities in this letter.

CTAA represents the public and community transportation industry. CTAA members are in the business of moving people – efficiently and cost-effectively – by transit, paratransit, volunteer transportation, and specialized transportation. These rides are offered in conventional buses, cars and vans, or, when necessary, in vehicles retrofitted to be accessible for persons with disabilities. CTAA members provide transportation across the entire country, in every type of geography, in big cities, small towns, and out to isolated households.

<u>CTAA AV PRINCIPLES</u>
Accessibility
Equity
Rural Connectivity
Safety

Introduction

CTAA envisions AVs as having great potential to significantly enhance the mobility of millions of Americans who rely on CTAA members to provide their transportation. CTAA supports the development of AVs and the Association is a leader in providing resources and analysis about AVs and their likely impact on the American transportation network. CTAA is

educating transportation professionals across the United States, providing AV technical assistance, presenting at conferences, and engaging in discussions with companies developing different aspects of AVs and associated software. CTAA staff monitor AV issues daily to stay abreast of technological, legislative, and regulatory updates, and collaborate with other national organizations that have interests in AV development. CTAA's AV work focuses on emerging business models, public-private partnerships, and shared-use experimentation and advances.

All of CTAA's [AV Principles](#) – accessibility, equity, rural connectivity, and safety – significantly affect interstate commerce. Improving transportation and expanding modal choices will provide millions of Americans with better access to economic opportunity by increasing their prospects for reaching jobs, health care, and education.

Rural Connectivity

Metropolitan planning organizations and large cities are actively contemplating what communities should look like when AVs arrive in terms of land use, transit, walkability, biking and other zero-emission modes, shared-use transportation choices, public spaces, and, perhaps most importantly, altered revenue streams that reflect the partial loss or complete disappearance of gas taxes, parking fees, and fines from motor vehicle code violations. Any exploration of AV pilot programs will reveal that passenger transportation discussions revolve around cities, urban areas, campuses and first-mile/last-mile mobility at destinations. Pilots are being conducted in the small cities and suburbs of metropolitan areas.

Unfortunately, rural areas are getting and giving scant attention to AV planning – with the exception of commercial trucking on the highways that bypass their communities. With the advent of AV transportation, rural communities are at risk for falling far behind their urban counterparts. Rural America must prepare for the predominant models of projected AV use: shared-use modes and transit. That preparation must reflect the economic reality that AV service might not be sufficiently profitable in rural areas to sustain AV service. Even without paying drivers, more miles driven will still mean higher costs to operate service and to maintain AVs in rural areas.

CTAA supports Congressional creation of incentives and technical assistance programs for rural areas. Rural America will then be set to thrive with a more connected and flexible transportation system that features increased and improved choices for shared, on-demand service, public transit, and freedom from driving for the growing populations of people who are elderly or have disabilities. Solutions for rural connectivity – for transportation and economic progress – must deliver scalable AV services equivalent to cities.

It is quite possible to achieve rural transportation and information dissemination equivalency with urban counterparts. For generations, rural Americans have received comprehensive postal service, private delivery service, electricity delivery, and school bus service. These services brought the 19th and 20th century information ages to rural areas. Now is the time to rethink time-tested models for 21st century transportation challenges.

As a nation, we have decided that for essential services, we do not discriminate based on where people live; rather we deliver service in partnerships that reflect both national and local values.

CTAA supports legislation that encourages rural innovation and public-private partnerships. Two practices worthy of AV and rural transportation pilot projects are ones that allow for local control: rural

cooperatives and Mobility as a Service (MaaS). Rural cooperatives present a business model that has been adapted to various rural contexts and it is a seasoned one that has saved Rural America more than once after it fell behind with a technological revolution.

Much like today with transportation services, in the 1920s and 30s rural areas found themselves unattractive to businesses that correctly saw that they would be unable to reap anything near city-level profits from delivering electricity, something urban residents had come to expect as a basic service. Rural cooperatives literally came to the rescue to solve a significant 20th century problem that threatened rural economic development, equivalent delivery of information, and affording students a modern education. [Center for Cooperatives, University of Wisconsin-Madison – Cooperatives in the US: History](http://www.uwcc.wisc.edu/whatisacoop/History/) at <http://www.uwcc.wisc.edu/whatisacoop/History/>. The Rural Electrification Administration (REA) was created to support – not supplant – rural leadership. Technical assistance and loans disseminated the knowledge and funding to make rural electrification happen.

Likewise, the new idea of Mobility as a Service (MaaS) is worthy of support for pilot projects. This concept is itself a reconfiguration of the cooperative concept of a common platform to achieve a focused economic purpose. MaaS would allow for transportation choices to be available on a common platform – by app, website, and telephone – and even priced as a monthly package of service. CTAA supports the use of MaaS as a way of making transit and transportation services more widely available in rural areas.

CTAA leadership would be happy to discuss with the committees, any members, or their staff the ways in which cooperatives have been employed in rural areas for such diverse uses as delivering broadband to expanding healthcare capacity. We would also welcome a discussion of the promise that MaaS holds for rural areas.

AVs show real potential to place Rural America on an even economic playing field with the rest of our great nation. The promise of AVs for Rural America is significant because these areas are home to a disproportionate share of ill and disabled residents, “higher poverty rates, lower-income adults, and lower levels of insurance coverage. The rural health care system, in turn, is burdened by under-financed primary care, geographically isolated rural providers, and general health care access challenges.” (Rural Policy Research Institute, Health Policy webpage at <http://www.rupri.org/areas-of-work/health-policy/>.) Transportation is a major barrier for rural communities for access to healthcare. (*Rural Innovation Profile Integrated Care in a Frontier Community* (2017) (<https://ruralhealthvalue.public-health.uiowa.edu/files/Southeast-Health-Group.pdf>), Rural Policy Research Institute Center for Rural Health Policy Analysis. See also Rural Health Information Hub (<https://www.ruralhealthinfo.org/toolkits/rural-toolkit/1/rural-issues>.) AVs can help alleviate the rural healthcare access gap that primarily affects older and disabled rural residents by alleviating transportation challenges for those who are permanently or temporarily unable to drive.

To achieve the promise of AVs, however, rural municipalities, counties, and planning organizations need technical assistance, resources, and incentives to invest in efficient transportation choices that serve all residents.

AV transportation in rural areas also presents tremendous safety implications. Rural residents traveling in automobiles and light trucks currently experience twice the rate of injuries and fatalities as people traveling on urban roads. Legislation that encourages rural-public sector innovation and public-private

partnerships for AV local and long-distance passenger transportation to connect rural areas could very well close a life-and-death safety gap between metropolitan areas and Rural America.

Accessibility

A critical challenge that Congress must confront at the cusp of the AV Age is how to ensure that the next transportation revolution brings equal mobility to transportation-challenged individuals. While many policymakers, corporate executives, and tech leaders are declaring AVs will mean independence for such groups as older adults and people with disabilities, there are important issues to resolve in order to achieve that goal.

Data from the Bureau of Transportation Statistics, in [Travel Patterns of American Adults with Disabilities](#), (2018), documents for people with disabilities lower rates of travel for employment, social events, and recreation than for people without disabilities. Every year, millions of people with disabilities confront barriers to voting, with transportation problems a leading reason why people with disabilities do not exercise their most fundamental right as American citizens. L. Schur and D. Kruse, *Fact sheet: Disability and Voter Turnout in the 2018 Elections*, Rutgers School of Management and Labor Relations ((July 10, 2019 at <https://smlr.rutgers.edu/sites/default/files/2018disabilityturnout.pdf>, summary at <https://smlr.rutgers.edu/news/voter-turnout-surges-among-people-disabilities>).

Advocacy efforts, lawsuits, and political campaigns attest to the growing impatience of people with disabilities to accept second-class transportation. While it was a good first step, the Americans with Disabilities Act (ADA) has proven to be an inefficient mechanism for guaranteeing equitable transit and transportation services. See Disability Rights Advocates, *Cases* (2019 at <https://dralegal.org/cases/>) (listing cases brought in 2017-19 that alleged ADA violations of lack of access to transit and ridehailing); A. Rodriguez and J. Mark, *New coalition of activists demands more equitable transportation in SF*, Mission Local (Feb. 4, 2019 at <https://missionlocal.org/2019/02/transit-activists-demand-more-equitable-transportation-in-sf/>); J. Taylor, *John Godwin's 'accessibility plan' targets transportation and housing*, Florida Politics (Jan. 31, 2019 at <https://floridapolitics.com/archives/287026-john-godwins-accessibility-plan-targets-transportation-and-housing>).

Private-sector mobility-on-demand services, such as Uber and Lyft's ride-hailing businesses, are consistently unable to live up to the promise of the ADA to provide accessible rides to people with disabilities. (The term "mobility-on-demand" (MOD) refers to both traditional taxis and other for-hire vehicles, such as limousines, car services, ride-hailing provided by Uber and Lyft, and microtransit, such as Via.) In New York City, for example, a study found that only 0.5 percent of all for-hire vehicles are accessible. The study noted, according to an article in Intelligent Transport (T. Nolan, *Uber and Lyft failing to support those with reduced mobility in New York*, Intelligent Transport (May 30, 2018 at <https://www.intelligenttransport.com/transport-news/68597/uber-lyft-failing-support-reduced-mobility-new-york/>)), that "Via, Juno and Gett do not offer any wheelchair-accessible vehicle (WAV) services in New York, leaving only Uber and Lyft with the necessary vehicles for transporting PRMs [persons with reduced mobility]. However, an investigation found that 70 percent of the time, there were no available WAVs from either ride-hailing company." (*Left Behind: New York's For-Hire Vehicle Industry Continues to Exclude People with Disabilities* (2018 at <http://www.nylpi.org/wp-content/uploads/2018/05/Left-Behind-Report.pdf>), prepared by New York Lawyers for the Public Interest (at <http://www.nylpi.org/>).

It should be noted that these terrible numbers for accessible ridehailing vehicles are for New York City; in many rural and exurban areas, there is no ridehailing service available, and sometimes, no publicly available accessible vehicles, not to mention the cost-disparities (and legal implications) for purchasing and then retrofitting a conventional vehicle to be accessible.

Congress has a unique opportunity at the advent of the AV Age to remedy the *separate but equal* transportation system that we have today. *Plessy v. Ferguson*, 163 U.S. 537, 552 (Harlan, J., dissenting, 1896). *Plessy* was a transportation case that revolved around "providing two or more passenger coaches for each passenger train, or by dividing the passenger coaches by a partition so as to secure separate accommodations." *Id.* For decades after *Plessy*, our nation saw segregated policies that provided substantially unequal services to a significant portion of Americans in transit, intercity transportation, housing, loans, and education, to name a few examples.

Later in his dissenting opinion, Justice Harlan articulated an idea that the US Supreme Court later embraced: "The arbitrary separation of citizens on the basis of race while they are on a public highway is a badge of servitude wholly inconsistent with the civil freedom and the equality before the law established by the Constitution. It cannot be justified upon any legal grounds." *Id.* at 562. So, it is currently with people with particular disabilities who are unable to operate a motor vehicle or, in many cases, even to be a passenger in vehicle products of our automobile. Across the U.S., there are substantial gaps in transit service and intercity transportation that effectively segregate and isolate persons with disabilities, rendering it impossible for a portion of our population to earn a living, to access medical care, and to engage in the civic lives of their communities.

An accessibility requirement and the engineering of vehicle design will also benefit travelers with luggage, people with strollers, and people transporting soccer gear, groceries, or other heavy items.

If Congress required, that for every AV made, sold, leased, rented, providing shared-rides, or otherwise in any way entering into interstate commerce, it be a fully accessible vehicle, the benefits to the U.S. economy would be enormous. People with disabilities and older adults would be on equal footing to travel to employment, entertainment, health care, houses of worship, and to the homes of friends and family. Imagine how many caretakers would not need to take off time from work – or who would be able to hold a job – were independent travel possible for non-driving family members.

AV technology has the potential to positively alter life for American families, but to realize that potential, Congress must mandate that every AV produced, sold, leased, rented, providing shared-rides, or otherwise in any way entering into interstate commerce be accessible for people with disabilities. The physical vehicle as well as the human-machine interfaces (HMI) must be accessible so that all travelers will be able to use all transportation modes.

Equity

The history of modern transportation networks across the United States is one that has prioritized automobile travel, while subjecting millions to inadequate transportation and consequent loss of economic opportunity. AVs have the potential to greatly reduce the cost of transportation and to provide mobility to many communities that have been traditionally underserved. As with rural connectivity, CTAA requests that Congress provide research and technical assistance that will encourage the development and dissemination of promising practices that will make the AV transportation revolution one that is equitable for all Americans.

Safety

Right now, the public harbors a very [skeptical attitude toward AVs](#). News coverage conflates driver-assist technology and AV operating systems¹. As the example of Tesla shows, people are misled into believing that “autopilot” means full or almost complete automation. A warning in a vehicle manual might be sufficient to absolve a company of legal liability, most drivers do not carefully study an owner’s manual. We do not know whether driver-assist systems are safer than conventional vehicles. To ensure the collection of valuable data, CTAA requests that for both driver-assist and full AV technology, companies should be required to provide standard data and to meet standard performance requirements.

Data will lead to improved safety, which will build public trust. The National Highway Transportation Safety Administration (NHTSA) needs that data to determine whether and which driver-assist technologies are safe, and which AV technologies are sufficiently safe to operate on US roads. Congress should mandate that technology-agnostic performance standards be set by an objective standards body that has no ties to industry.

CTAA specifically recommends that AVs be permitted to operate or that companies be granted Federal Motor Vehicle Safety Standards (FMVSS) exemptions according to the following conditions relating to safety:

- (1) Prior to operation on public roads, any AV granted an exemption be tested for general safety within the proposed operational design domain (ODD) and in any specific geo-fenced area where the AV will be operated;
- (2) The AV manufacturer documents or otherwise demonstrates that the exempted AV is capable with the ODD and any specific geo-fenced area of safely reaching a minimal risk condition;
- (3) Any AV granted an exemption be fitted with speed-limiting and emergency braking technology (The European Union will be requiring the installation of “speed-limiting and emergency braking technology in all new car models starting in 2022, along with dozens of other technical features to improve road safety.” P. Karasz, [If You Won’t Stop Speeding, Your Car Will Do It for You, E.U. Tells Drivers](#), N.Y Times (Mar. 27, 2019).);
- (4) Cybersecurity information about the exempted AV would be either made public or shared with a professional community or governmental body that is working to establish such standards;
- (5) The AV manufacturer collect and share with a professional community or governmental body data related to safe operation and any crashes or near crashes; and
- (6) All AVs entered into interstate commerce must be equipped with a data recorder that produces a video record of operation, and that the AV manufacturer retain any record of a crash, which would specifically include data recordings of operations between 10 seconds prior to a crash through five seconds following.

While many companies, such as all of the AV shuttle firms, Waymo, and Voyager, as examples, are proceeding carefully and safely, American consumers and passengers, and the people on the roads beside them, should feel secure that there is a regulatory framework to protect them. Congress should

¹ CTAA uses the term AV to mean full automation of an SAE level 4 and 5 automated driving system, and one that is able to reach a minimal risk condition on its own, without a human operator.

increase the capacity and expertise at the NHTSA for effective regulation, testing, and enforcement regarding partial through full vehicle automation.

Every Senator and every Representative has a constituent, perhaps many constituents, who has lost a child, a parent, a sibling, a neighbor, a teacher, or a friend to the everyday violence on our roads. We lose an airplane-equivalent full of Americans – each and every week. SUVs are increasing the seriousness and likelihood of fatalities for crashes involving pedestrians and bikers. Millions suffer long-term injuries sustained in crashes.

These tragedies ripple through the lives of families and communities. We are certain that Members of Congress join CTAA in looking forward to the day when it will no longer be business as usual to go to the funeral of a young person killed in a car crash and to witness the endless sadness in the eyes of those parents. CTAA asks for Congressional oversight of AV implementation as the key to making this happen.

Conclusion

CTAA asks that Congress proceed with full deliberation to encourage AV innovation and to make sure that it will be safe, available, and accessible to all Americans in all communities.

Thank you for the opportunity to participate as your committees consider the important issues surrounding AVs. CTAA welcomes discussing these issues with you, with your constituents, and with our members across the country. If you have any questions, please don't hesitate to reach out to CTAA's Executive Director Scott Bogren at bogren@ctaa.org or 202.247.1921, or to CTAA's AV staff specialist Sheryl Gross-Glaser at grossglaser@ctaa.org or 202.386.1669. Thank you for your consideration.

Sincerely,

A handwritten signature in black ink, appearing to read "Scott Bogren", with a long horizontal flourish extending to the right.

Scott Bogren,
Executive Director, Community Transportation Association of America