Letter for the Record
Consortium for Citizens with Disabilities Transportation Task Force Co-Chairs

Hearing on
Autonomous Vehicles: Promises and Challenges of Evolving Automotive Technologies

Before the Consumer Protection and Commerce Subcommittee
Committee on Energy and Commerce
U.S. House of Representatives

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The Consortium for Citizens with Disabilities (CCD) Transportation Task Force Co-Chairs are pleased to submit this letter for the record. CCD is the largest coalition of national organizations working together to advocate for Federal public policy that ensures the self-determination, independence, empowerment, integration and inclusion of children and adults with disabilities in all aspects of society. CCD Task Force Co-Chairs are grateful for the opportunity to offer its views on the promises and challenges of evolving automative technologies. We urge you to consider the following:

Safety

The development of autonomous vehicles (AV) holds great promise for the disability community. However, with the advent of this new technology, the safety of persons with disabilities must not be forgotten. The safety of this community must be considered both from the pedestrian and passenger perspective.

First, as passengers, several elements of the design of the automobile must be thought-out to ensure the safety of the disabled passenger. When a wheelchair user enters an AV, securement equipment is essential to keep the passenger safe while en route to the intended destination. If a vehicle is truly autonomous, it may lack a human driver or assistant. Consequently, the wheelchair securement process must be fully accessible for an individual to use independently. AVs will need to include a ramp for a wheelchair user to safely enter the vehicle. The ramp deployment must also be done in the safest environment possible for the passenger.

For persons with sensory disabilities, the human machine interface (HMI) must be fully accessible to ensure safety for blind and deaf passengers. For instance, if the HMI is only partially accessible, vital information may be missed that could put the safety of the passengers

at risk. Every last piece of information that comes from the AV must be conveyed to the passenger.

The safety of pedestrians with disabilities is also a crucial thing to consider with the advent of AVs. Persons with disabilities interact with the environment in different ways. For instance, blind pedestrians listen to the flow of traffic before crossing a street; and persons who use wheelchairs are lower to the ground than ambulatory pedestrians. Such variables are necessary to consider when assessing the interactions between AVs and individuals with disabilities. No one wants a disabled pedestrian, or any pedestrian, to be struck by an AV.

Privacy

The privacy of persons with disabilities must also be protected as the use of AVs becomes more widespread. It can be presumed that the development of AVs will include electronic communications among different vehicles and computers. This makes the possibility of data sharing more likely, which in turn puts persons at risk of having their private information shared. Specifically, the health and disability status of a passenger must not be shared without the permission of the passenger. Data is commonly stored and used for tracking purposes; this must be prevented in AVs.

Accessibility

AVs must be designed with full accessibility for all disabilities. AVs have the potential to offer new transportation access for people with disabilities that has not existed before. For instance, the blind and visually impaired community generally cannot drive. However, if vehicles become fully autonomous, blind and visually impaired persons will have the ability to independently travel in a passenger vehicle. But, this will only be possible if such vehicles are fully accessible.

Full accessibility demands vehicle design address every aspect of a passenger's trip. For persons who have sensory disabilities, HMI must be fully accessible. For instance, a visually impaired person may not generally be able to read a screen on a dashboard. Thus, to make the screen accessible, it must also be available audibly and in large print. To accommodate deaf or hard-of-hearing passengers, the vehicle must include a screen and not just an audible speaker.

For passengers with physical disabilities, full access to boarding and disembarking the vehicle is necessary. AVs must include automated ramps. Once the passenger is inside the vehicle, as previously mentioned, adequate securement design is necessary to keep the passenger safe while traveling to a destination. Therefore, accessibility features need to be baked into the creation of the vehicle. Often, once a product is designed and deemed inaccessible, manufacturers go back and attempt to retrofit a product to make it accessible for users with disabilities. However, such products are less safe, effective and prove to be inferior. If accessibility is built into the original framework of the vehicle, it is more likely to provide the necessary access. If accessibility is not considered from the beginning along with all other facets of the vehicle design, accessibility will likely be disregarded.

Thank you again for your commitment to the development of autonomous vehicles. We look forward to remaining engaged in these vital conversations. Please do not hesitate to contact Claire Stanley, cstanley@acb.org, with any questions.

Sincerely,

<u>Consortium for Citizens with Disabilities Transportation Task Force Co-Chairs</u>

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