



SENT VIA EMAIL

August 22, 2019

The Honorable Frank Pallone, Jr.
Chairman, Committee on Energy and
Commerce
United States House of Representatives
2107 Rayburn House Office Building
Washington, DC 20515

The Honorable Greg Walden
Ranking Member, Committee on Energy and
Commerce
United States House of Representatives
2185 Rayburn House Office Building
Washington, DC 20515

The Honorable Roger Wicker
Chairman, Committee on Commerce, Science
and Transportation
United States Senate
555 Dirksen Senate Office Building
Washington, DC 20510

The Honorable Maria Cantwell
Ranking Member, Committee on Commerce,
Science and Transportation
United States Senate
511 Hart Senate Office Building
Washington, DC 20510

RE: Feedback on Self-Driving Car Legislation

Dear Chairman Pallone, Chairman Wicker, Ranking Member Walden, and Ranking Member Cantwell:

The National Federation of the Blind appreciates the opportunity to provide feedback regarding the development of laws and regulations pertaining to level four and level five autonomous vehicles (herein referred to as “autonomous vehicles”). As the nation’s largest organization of blind people (representing fifty thousand Americans in all fifty states, the District of Columbia, and Puerto Rico) we are uniquely qualified to address the benefits that this new and exciting technology will offer. However, we would be remiss if we did not point out the potential shortcomings that may arise in the final products if the blind, and other people with disabilities, are not included in the initial research and design phases of their development.

According to the National Institutes of Health (NIH), in 2015 there were 1.02 million legally blind people in the United States and 3.22 million people, aged forty or older, with visual acuity of 20/40 or worse. Typically, a visual acuity of 20/40 is the point at which certain restrictions begin to be placed on drivers. The NIH predicts that by 2050 2.01 million Americans will be legally blind and 6.95 million people aged forty or older will have visual acuity of 20/40 or worse, more than double the current figure. The advent of autonomous vehicles holds the potential to give all of these people significantly greater travel independence. The sooner we are able to implement this technology in a way that is nonvisually accessible, the sooner we can ensure that growing numbers of blind and low-vision Americans will have the opportunity to retain and enhance their independence.

Additionally, this technology has the potential to improve employment prospects for blind working-age adults. We will have an additional transportation option that will provide the ability to travel to places that were previously difficult or impossible to access. We will have the freedom to work wherever our abilities and preferences take us, and not just wherever access is convenient. We will have the opportunity to commute to work from suburban, and even rural, homes. Autonomous vehicles have the potential to unlock an entire new world of opportunity and possibility, one that has previously been closed to many blind Americans.

For these benefits to be fully realized from the moment autonomous vehicles are mass-deployed, it is essential that all aspects of nonvisual accessibility are taken into consideration in the initial phases of lawmaking as well as research and design. An analogy we frequently use to illustrate this point is that it is much easier to construct an accessible high-rise building when the elevator is part of the initial blueprint than it is to remodel and make room for the elevator once the building is finished. To that end, blind Americans must be consulted during the design process for these vehicles to ensure that ease of use is equivalent to that of non-disabled Americans. We have identified four areas essential to full nonvisual accessibility for autonomous vehicles: vehicle location system, navigation and maintenance controls, interior environment controls, and exterior environment alerts. For more information on each of these topics please refer to Attachment A. Additionally, these features will enhance usability for other passengers.

To accomplish this, the forthcoming legislation must mandate that all elements (as outlined in Attachment A) involved in the use of autonomous vehicles be nonvisually accessible. Furthermore, we strongly urge that the legislation require automobile manufacturers to consult blind programmers and engineers during the design process to ensure full nonvisual accessibility. Blind individuals must also be thoroughly involved in the testing of the control interfaces, and the vehicles as a whole. If these requirements are enshrined within the law, then we are confident that all blind Americans will be able to benefit in tremendous ways from the promise of autonomous vehicles.

Outside of the design aspect, another area that will need to be addressed in order for blind Americans to fully benefit from autonomous vehicles is licensing requirements. Autonomous vehicles will render the traditional state issued driver's license, as we know it, obsolete. By definition, level four and level five autonomous vehicles will not require or provide for human intervention. Therefore, current licensing restrictions requiring a certain level of vision to drive will not only be obsolete, but also discriminatory. In the future, if autonomous vehicles are designed in a nonvisual manner, a minimum vision requirement to obtain an operator's license should not be necessary. This is something that will need to be regulated on a federal level to ensure that there is no patchwork of mismatched laws from state to state.

For these reasons, the topics of disability and accessibility must be included as subjects for any advisory committees that are created by any future legislation. Furthermore, the greatest benefit to an advisory committee would be to include members from major disability advocacy organizations where membership is predominantly comprised of people with disabilities, and where leadership is democratically elected by those people with disabilities to serve in their best interests. This would ensure that the requirements of people with disabilities are considered and included in the design of autonomous vehicles.

Chairman Pallone, Chairman Wicker, Ranking Member Walden, and Ranking Member Cantwell

August 22, 2019

Page 3

We appreciate the opportunity to provide feedback on the developments in this exciting new era of transportation and welcome any questions that you may have for us. If the National Federation of the Blind can be of assistance in any way, please do not hesitate to contact Stephanie Flynt, our government affairs specialist in the area of autonomous vehicles at sflynt@nfb.org or 410-659-9314, extension 2210.

Sincerely,

A handwritten signature in black ink, appearing to read "Mark A. Riccobono". The signature is fluid and cursive, with a long horizontal stroke at the end.

Mark A. Riccobono, President
National Federation of the Blind