

March 31, 2021

U. S. Department of Transportation  
1200 New Jersey Avenue SE,  
Washington, DC 20590

**Re: Docket NHTSA-2020-0106, NHTSA Framework for Automated Driving System Safety 4.1.21**

To whom it may concern:

The United Spinal Association thanks you for this opportunity to comment on docket NHTSA-2020-0106, a Framework for Automated Driving System (ADS) Safety.

Celebrating our 75th anniversary this year, our vision is to build an inclusive world and embrace the talents of all people with physical disabilities to achieve their full potential. Founded by paralyzed veterans, United Spinal Association is dedicated to enhancing the quality of life of all people living with spinal cord injuries and neurological disorders (SCI/D), including veterans, and providing support and information to loved ones, care providers and professionals. United Spinal has 75 years of experience educating and empowering over 2 million individuals with SCI/D to achieve and maintain the highest levels of independence, health and personal fulfillment. United Spinal has over 58,000 members, 50 chapters, close to 200 support groups and more than 100 rehabilitation facilities and hospital partners nationwide, including 10 distinguished Spinal Cord Injury Model System Centers that support innovative projects and research in the field of SCI. United Spinal Association is also a VA-accredited veterans service organization (VSO) serving veterans with disabilities of all kinds.

While United Spinal appreciates the fact that congressional direction is forthcoming, and that seamless policy clarity would well serve all stakeholders in the automated vehicle (AV)/ADS universe, and especially our national economy, NHTSA's current efforts in developing even a framework for Automated Driving Systems needs to look more closely at the future of AV and needed updated regulations that incorporate AV into the new transportation infrastructure. However, we concur with NHTSA that it should help lead a national conversation about an ADS Framework. To illuminate that leadership role, United Spinal offers the following comments.

Like NHTSA, United Spinal believes AV/ADS "have the potential to enhance accessibility (e.g., through allowing personal transportation to people with disabilities or people incapable of driving), and improve productivity (e.g., by allowing people to work while being transported and allowing platooning or entirely automated operation of commercial trucks)." But one abundantly clear fact is, that without accessible ADS vehicles, America's transportation safety is severely compromised not only for the 61 million Americans with disabilities but for generations of aging Americans. And we would be remiss, were we not to mention how accessible vehicles could assist parents and care providers with safety transporting young Americans. In fact, United Spinal cannot imagine one American whose safety ultimately could not be enhanced by an accessible vehicle.

Yet, despite NHTSA's prescient recognition of the enhanced transportation potential ADS holds at least for people with disabilities, our nation's premier transportation safety guardian fails to even address the concept of accessibility in its call for a Framework, not even as it relates to the agency's most sacred and fundamental

mandate, safety. Surely, NHTSA accepts the common-sense principle that accessibility is an inherent prerequisite to safety?

Given the repeated comments that United Spinal and our fellow disability organizations have provided the United States Department of Transportation, and to NHTSA specifically, over the last several years about ADS and the essential importance of accessibility, we are exceedingly dismayed at the glaring exception of even the most basic nod to the utility of accessibility as it relates to everyone's transportation safety. Be assured that if NHTSA does not want to be part of picking "winners and losers among available and anticipated technologies," the agency will most definitely be picking people with disabilities as transportation losers unless you make accessibility a fundamental consideration in your future array of administrative mechanisms for implementation and oversight of ADS.

NHTSA rightly references "the three primary ADS guidance documents issued in recent years by DOT (i.e., ADS 2.0, Preparing for the Future of Transportation: Automated Vehicles 3.0 (AV 3.0), and Ensuring American Leadership in Automated Vehicle Technologies: Automated Vehicles 4.0 (AV 4.0))." These ever-evolving guidance documents increasingly express the benefits of accessibility. United Spinal hopes the progress achieved in including the concerns and aspirations of people with disabilities within these documents will not be forgotten.

To refresh NHTSA's recollections, United Spinal would like to submit recommendations suggested previously. With the promise of the revolutionary change that ADS offers, a new era of independence for people with disabilities certainly includes opportunities in pursuing greater education, excelling in gainful employment and professional careers and in further contributing to our economy. ADS is a game changer for every American citizen with disabilities and for their families and friends. With the graying of America, the number of people with disabilities is going to increase exponentially. And when you serve the disability community, you also serve their families and friends.

But in order for the disability community to realize the maximum potential ADS hold, we must be part of the conversation and fully engaged in the development of the ADS era of transportation safety. To this end, we request that NHTSA officials establish a Federal Advisory Committee (FAC) on ADS with a subcommittee on Disability Access, as well as reach out to the U.S. Access Board for their consideration and recommendations. The FAC and the Board will help ensure that the concerns of and opportunities for people with disabilities are more fully addressed as NHTSA develops a regulatory environment in which ADS can be fully employed in the nation's transportation commerce. Further, the FAC and Board could also serve as central conduits for NHTSA in terms of identifying and working with research resources that are experienced in the provision of equal access issues for the disability community.

Clearly, for people with disabilities to have equal access to a national highway system and the other modes of transportation system that utilize ADS technologies, it will be necessary to create a fully seamless infrastructure for members of our community. A seamless infrastructure supporting travel will allow us to move freely and safely onto, to transfer inter-modally and to likewise depart the nation's multimodal transportation system with access just like everyone else. The last thing people with disabilities need to contend with in transportation is a patchwork of 50 sets of state laws, regulations and policies. United Spinal continues to advocate for federal statutory, regulatory and policies that support a national seamless multi-modal, inter-modal transportation ecosystem.

A prerequisite of seamless multimodal travel is one basic central concept, develop autonomous vehicles using universal design principles to accommodate people with disabilities, particularly wheelchair users.

While major automakers and various ADS related companies are working towards creating accessible vehicle platforms, federal guidance on uniform accessibility design requirements should come sooner than later. NHTSA should broaden its regulatory review to include both related infrastructure and universal design for people with disabilities. NHTSA should not view ADS advancement as a regulatory process that simply clears a path for testing new technology. United Spinal posits that even in the testing stages of ADS, safety, as past ADS-related fatalities demonstrate, must steadfastly remain NHTSA's primary objective.

United Spinal strongly supports NHTSA's review of related infrastructure to include human presence outside the ADS vehicle. ADS recognition of and response to people who use mobility assistance devices, especially wheelchairs is an obvious concern. As with the above-mentioned federal guidance on uniform accessibility design requirements, this guidance for ADS and related infrastructure developers must come sooner than later.

We in the disability community applaud efforts to remove barriers to our independence, both physical ones that exclude us from riding in vehicles because of a lack of innovative "unconventional interior designs" as well the economic barriers that exclude us from being able to afford retrofitting a vehicle that will accommodate our wheelchairs. It is incumbent upon NHTSA, and all of the related agencies of the U. S. Department of Transportation, to broaden the regulatory discussion on ADS to include the "unconventional interior design" (a previously used phraseology by NHTSA) with America's vehicles so that a fundamental universal design that specifically accommodates wheelchairs is inherently anchored in our national transportation policy and regulatory foundation.

United Spinal believes a good starting point for universal design is reflected in the Disability Rights Education and Defense Fund's (DREDF) checklist for full accessibility which can be reviewed at: <https://dredf.org/wp-content/uploads/2018/12/DREDF-Fully-Accessible-Vehicle-Checklist-110718.pdf>. The disability community is acutely aware that ADS ultimately will necessitate the creation of a wholly new regulatory framework for NHTSA. United Spinal, along with other organizations within the disability community can assist in forging partnerships and creating pathways to greater accessibility for people with disabilities, their family and those in their individual and collective universes. These efforts should facilitate the DOT's responsibilities and obligations.

Likewise, we are already partnering and working with the private sector on ADS inclusion and related issues such as 5G development and deployment. Such efforts will surely increase the size and scope of the private sector's potential customer base and make a significant contribution to our economy. One study, The Ruderman White Paper on Self-Driving Car Technologies: The Impact on People with Disabilities, suggests, two million employment opportunities could result and \$19 billion in annual healthcare costs saved if people with disabilities had access to basic transportation needs that autonomous vehicles could provide. These economic benefits may well prove just to be the tip of the iceberg regarding benefits that ADS can yield. We repeat that while major automakers and various ADS related companies are working towards creating accessible vehicle platforms, federal guidance on uniform accessibility design requirements should come sooner than later.

Additionally, further analysis should be given to the impact the growing number of seniors in the nation referenced above, and how their abilities to safely, efficiently and effectively access America's transportation

system will be adversely affected by the onset of varying degrees of disability. Our community can be a significant resource for all ADS sectors in this issue.

Thank you for considering these comments. Please do not hesitate to contact Kent Keyser, Public Policy Fellow, with any questions at (718) 803-3782 or [kkeyser@unitedspinal.org](mailto:kkeyser@unitedspinal.org).

Sincerely,

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