March 5, 2018

The Honorable Mitch McConnell, Majority Leader
The Honorable Charles E. Schumer, Democratic Leader
United States Senate
Washington, D.C. 20510

Dear Majority Leader McConnell and Democratic Leader Schumer:

Our diverse group of safety, public health, bicyclists, pedestrians, smart growth, consumer and environmental groups, law enforcement and first responders, representatives of disability communities and individuals affected by motor vehicle defects and crashes write to convey our strong objections to the lack of safety protections in the Senate driverless car legislation (AV START Act, S. 1885). Essential and urgent improvements are needed especially because of new information contradicting industry assertions about the time frame for the development and deployment of driverless cars.

Baseless and exaggerated predictions about the readiness and reliability of driverless car technology are propelling legislation that significantly strips the current federal regulatory system of its appropriate authority and oversight thereby endangering the safety of everyone – both motorists and non-motorists. At the recent Bloomberg New Energy Finance's Future of Mobility Summit, an informal poll of 300 automotive, energy and technology executives found that 75 percent do not believe Level 5 fully autonomous vehicles will be available to the public before 2030.[i] This view already has been endorsed by several leading industry experts this past January at the Consumer Electronic Show (CES) held in Las Vegas as well as the Detroit Auto Show.[ii] Furthermore, the public in numerous opinion polls have expressed serious concerns about the safety of driverless cars as passengers and as motorists sharing the road.

The legislation attempts to solve a "problem" that doesn't exist. The deployment of driverless cars is not impeded by regulatory requirements. Rather, the industry is faced with the complex challenge of developing driverless technologies and solving a myriad of operational problems including weather, traffic signals, and cybersecurity, among others. Additionally, experts have identified the difficult and potentially fatal flaw of autonomous vehicle technology to accurately detect and react to bicyclists on the road.[iii] Today, more people are using bicycles for transportation[iv] and unfortunately, more cyclists are dying on our streets due to crashes.[v] Most of these deaths are in urban areas[vi] where driverless cars are expected to be used first. Without resolving this problem, driverless cars will pose an even bigger threat to the safety of bicyclists.

Allowing the public sale of unproven autonomous vehicle technologies, granting automakers broad and unsafe exemptions from existing federal standards, and ignoring the need for the U.S. Department of Transportation (DOT) to issue minimum safety requirements to address real problems will have disastrous consequences for public safety and public acceptance of driverless cars. We therefore urge you to put public safety first and reject the bogus claims of urgency by some automakers. The following crucial improvements to the bill are needed.

Reduce the number of vehicles allowed exemptions from safety standards. The bill currently allows for millions of vehicles to be exempt from safety standards set by the U.S. DOT, including those that protect the driver and passengers in a crash. The exemption provision in current law, 49 USC Section 30113(d), provides that manufacturers may receive an exemption from compliance with the Federal Motor Vehicle Safety Standards (FMVSS) for the sale of 2,500 vehicles in any 12-month period. There is no evidence or data that the development and deployment of AVs requires that an untold number should be exempt from critical federal standards that are essential to protecting public safety including crash

worthiness standards. These exemptions will be for cars to be *sold* to the public, not just used in *testing*. More development and testing should be done before consideration of an increase to the current exemption level. In a recent CARAVAN public opinion poll, nearly two-thirds (63%) of respondents were opposed to Congress increasing the number of driverless cars which do not meet existing federal vehicle safety standards to be sold to the public.[vii] The number of exemptions permitted must be significantly reduced to prevent public roads from being turned into corporate proving grounds.

Remove Section 7 which allows AV manufacturers to "turn off" vehicle systems at their unfettered discretion, including the steering wheel and brakes. Manufacturers are currently prohibited from rendering safety systems inoperable without adequate justification and approval from the U.S. DOT. Section 7 is a significant reversal from this law and gives auto manufacturers sole discretion to ignore existing safety standards rather than the U.S. DOT evaluating the request for an exemption and determining the safety impact. Three-quarters (75%) of CARAVAN poll respondents were opposed to allowing manufacturers to disconnect vehicle equipment such as the steering wheel and brake pedal without prior approval from U.S. DOT.

Establish minimum performance standards. The AV START Act will allow for the sale of AVs which will not have to meet any standards on critical issues. At a minimum, AV manufacturers should provide all relevant information about the safe operation of their AVs to the public in writing and on videos available on the internet and, if requested, by mail at no charge. However, providing consumer information cannot be a substitute but rather should be a complement to issuing essential federal safety standards. Again, public opinion strongly supports regulatory actions by the U.S. DOT including: cybersecurity to prevent hacking of AVs (81% support such a rule); driver engagement when a human is required to be available to take over (84% support such a rule); safety standards for new features related to the operation of driverless cars (73% support such a rule); and, minimum performance requirements for the computers that operate AVs, similar to those by the FAA for commercial airlines (80% support such a rule). Additionally, while human drivers must pass a vision test to get a license, there is no minimum requirement for assessing the detection and reaction capabilities of driverless vehicle technologies. We urge you to include a minimum "vision test" for the AV system to make sure it can properly identify its surroundings including other cars, pedestrians and cyclists, and road markings and traffic signs.

Ensure adequate consumer information. Consumers need to be made aware and understand the limitations and capabilities of the AV they are considering purchasing, as well as any exemptions a vehicle may have been granted from safety standards. Section 12 should be improved to make this an immediate requirement at the point of sale as well as in the vehicle's owner manual. Additionally, the bill should require the establishment of an AV database, similar to SaferCar.gov so that consumers can look up important safety information on their own vehicle, or one they may buy used. Nearly nine-in-ten (87%) respondents support this type of basic online information.

Provide NHTSA with the resources and tools it needs to effectively do its job. Today, 94 percent of transportation-related fatalities and 99 percent of transportation injuries involve motor vehicles on our streets and highways.[viii] Yet, the National Highway Traffic Safety Administration (NHTSA) receives only one percent of the overall U.S. DOT budget.[ix] NHTSA is responsible for the safety of over 321 million Americans who drive or ride in more than 281 million registered motor vehicles and all those who use the public roadways.[x] The NHTSA's current budget is grossly insufficient given the multitude of new responsibilities and duties the agency will have as AVs are deployed in mass, and they must be given additional funding and staff to be able to ensure the safety of AVs. Further, NHTSA must be given tools such as imminent hazard authority and criminal penalties to intervene in potentially widespread and catastrophic failures of AV systems.

Include Level 2 AVs in critical safety provisions. In 2016 in Florida, a Tesla Model S "Autopilot" system failed to recognize a tractor-trailer crossing the road, allowing the vehicle to go under the side of the trailer – fatally injuring the occupant.[xi] Additionally, in January of this year another Tesla Model S was travelling at 65 miles per hour on an Interstate in California when it slammed into the back of a parked fire truck responding to another crash.[xii] The Tesla "Autopilot" mode is widely agreed upon to be a Level 2 system and at a minimum, these AVs should be covered by the safety evaluation report (SER), consumer information disclosure and cybersecurity provisions in the bill.

Address the needs of members of disability communities. While autonomous technology is touted as a means to increase access to mobility, the AV START Act does not address the varying needs of diverse disability communities. For instance, the bill fails to remove barriers to wheelchair users, such as cost or vehicle design, that inhibit mobility. Further, current designs of vehicles do not easily allow for the integration of a ramp or lift system or for the storage of a wheelchair. The difficulties facing disabled individuals will not be changed simply by installing an automated system in a vehicle or removing the driver. For the benefits of the technology to be shared among the disability community as a whole, these barriers must be resolved. Additionally, people with some disabilities may be particularly vulnerable when AVs are involved in a crash, do not function as intended, or have a defect.

Remove provisions that preempt states and localities from protecting their motorists. The bill prohibits states and localities from regulating the autonomous driving system even when it is functioning as the driver of the vehicle. Until the U.S. DOT issues safety standards and regulations, state and local governments have a right to protect their citizens.

We urge you to disregard the industry's artificial urgency about eliminating what they label as "regulatory roadblocks" and allow time to make needed improvements to the AV START Act. These changes will not prevent the deployment of driverless cars in any way, but they will prevent major mistakes that could result in flawed decision-making, faulty technology, avoidable fatalities and public rejection.

Sincerely,

Jeff Solheim, 2018 President
Emergency Nurses Association

Ralf Hotchkiss, Co-Founder
Whirlwind Wheelchair International

Robert Weissman, President
Public Citizen

Dominick Stokes, Vice President for Legislative Affairs, Federal Law Enforcement Officers Association

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Steve Owings, Co-Founder
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Andrew McGuire, Executive Director
Trauma Foundation

Christopher Michetti, MD, President
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Brent Hugh, Executive Director
Missouri Bicycle & Pedestrian Federation

cc: Senator John Thune, Chairman
Senator Bill Nelson, Ranking Member
Members of the U.S. Senate Committee on Commerce, Science, and Transportation

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[v] U.S. Department of Transportation, National Highway Traffic Safety Administration, "Traffic Safety Facts Research Note 2016 Fatal Motor Vehicle Crashes: Overview," DOT HS 812 456, October 2017.

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[viii] National Transportation Statistics 2015, U.S. DOT, RITA, BTS, Tables 2-1, and 2-2 (2017).

[ix] Budget Highlights Fiscal Year 2018, U.S. DOT.

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[xii] Jack Stewart, Why Tesla's Autopilot Can't See a Stopped Firetruck, Wired, January 25, 2018, https://www.wired.com/story/tesla-autopilot-why-crash-radar/