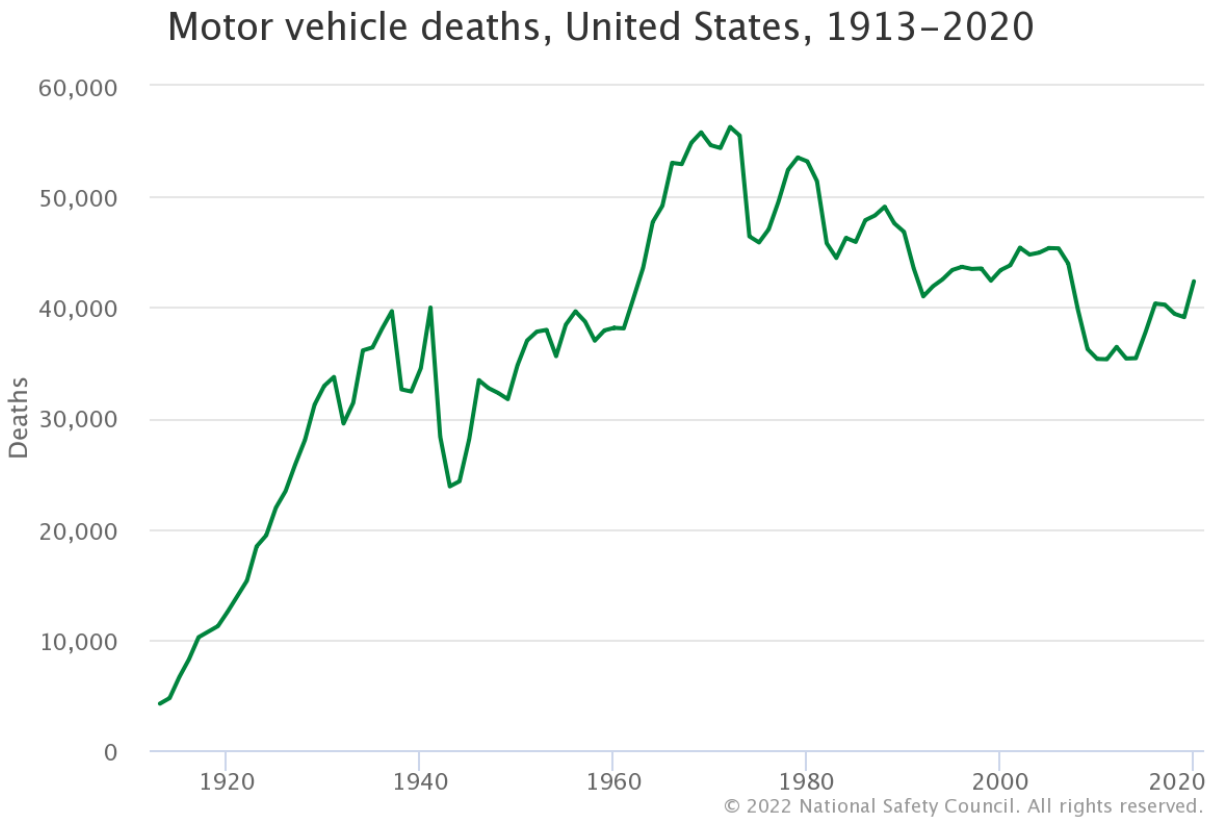
Statement of the National Safety Council
U.S. House of Representatives
Committee on Transportation & Infrastructure
Subcommittee on Highways and Transit
Hearing on,
"The Road Ahead for Automated Vehicles"
Wednesday, February 2, 2022

Thank you for allowing the National Safety Council (NSC) to submit this statement for the record. NSC is a nonprofit organization with the mission of eliminating preventable deaths from the workplace to any place through leadership, research, education and advocacy. Our 15,500 member companies represent employees at nearly 50,000 U.S. worksites.

The National Highway Traffic Safety Administration (NHTSA) projects that an estimated 31,720 people were killed in motor vehicle crashes in the first nine months of 2021 between January and September.[1] These entirely preventable crashes have a tremendous human toll and cost the American economy over $463 billion a year.[2]



[1] https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/813240
[2] https://injuryfacts.nsc.org/motor-vehicle/overview/introduction/

NSC would like to add information to the hearing record on the following topics:

1. Automated vehicle (AV) technologies have the potential to save thousands of lives each year but will require federal leadership to set minimum national safety standards and requirements.
2. Consumers are confused about the advanced driver assistance system (ADAS) safety features vehicles currently have. As such, consumer education about these safety features should be enhanced and manufacturers should be required to clearly communicate the limits of existing safety technologies.
3. Connected vehicles are an important part of safe implementation of AVs, and federal Communications Commission (FCC) action could undermine full implementation of connected vehicles.
4. There will be a range of technologies on the roads for decades, representing everything from existing non-automated vehicles to the as yet unseen full autonomous, which will bring yet unknown additional safety issues to the fore.

Understanding that the Committee's jurisdiction is commercial vehicles, NSC uses the term vehicle to refer to both personal and commercial throughout the statement.

Federal Leadership Needed to Advance the Lifesaving Potential of Advanced Technology

NSC believes advanced vehicle technology, up to and including fully automated vehicles, can provide many benefits to society if deployed responsibly and with safety as a primary goal. Most importantly, advanced vehicle technology has the potential to greatly reduce the number of fatal crashes on our roadways. However, federal leadership and action on motor vehicle safety is required to realize these benefits and ensure one level of safety across the United States regardless of the technology enjoyed by consumers. Consumers need confidence in the safety of their vehicles regardless of where they reside, and manufacturers need certainty in order to invest in design and production. States do not possess the expertise or resources to replicate design, testing and reporting programs. Further, a patchwork of requirements will result in confusion for consumers and an increase in cost for manufacturers and operators. Finally, the absence of safe, workable standards will drive development, testing and deployment overseas, resulting in the flight of innovation and the jobs that accompany it to locations outside of the U.S. The absence of these standards also contribute to avoidable safety risks and could contribute to the already high number of preventable deaths on our roadways.

Transparency

As Congress evaluates potential legislation on AVs and other automated safety advances, transparency regarding this technology is key. Previous bills have included requirements for reporting to DOT by AV developers on safety metrics. NSC supports such required reporting. Congress should add this level of transparency and require topics including, but not limited to, crashworthiness, human-machine interface data, post-crash behavior, capabilities and limitations of the vehicle, operational design domain, and consumer education efforts to be reported. This information should be reported regularly and presented clearly in a way for the public to be able to digest.

Data are key to transparency and safety. NSC believes that data on electronic logging devices (ELDs) and electronic data recorders (EDRs), which provide a window into the human-machine interface with advanced vehicles, can be key to improve safety. The knowledge gained from

these devices allows manufacturers to be nimbler and make adjustments in near real time to improve safety based on what is actually occurring in operation, rather than making changes based on assumptions and estimations that must be accommodated in a later model year. To this end, Congress should facilitate data sharing as widely as possible and require that manufacturers provide accessible, standardized data to law enforcement, state highway safety officers, investigators, insurers, and/or other relevant stakeholders. Collecting and sharing de-identified data about near misses and other relevant problems could also help to aggregate useful information for the motor vehicle industry. It will allow the industry to take proactive steps based on leading indicators, rather than waiting for a crash or a series of crashes to occur. Finally, the data will be useful to researchers and the safety community in analyzing the safety benefits – and potential drawbacks – of these technologies as they continue to mature.

Acquiring an understanding of what happens when systems perform as intended, fail as expected, or fail in unexpected ways yields valuable information for manufacturers – some of whom have common suppliers. Further, in-service data, near miss and post-crash information sharing can help civil engineers and planners design better and safer roadways. It will also help safety and health professionals design better interventions to discourage risky driving or affect the behaviors of other roadway users.

NSC has long supported de-identified data sharing similar to what the aviation industry does, and we are pleased to see the PARTS (Partnership for Analytics Research in Traffic Safety) proceeding. Analysis of de-identified data in the vehicle industry will provide windows into leading indicators, increasing the potential to save lives.

Enhancing Consumer Understanding of Advanced Driver Assistance Systems

The potential safety benefits of automated vehicles and other advanced safety technologies could be incredible. However, to be clear, it will be decades before there is meaningful AV fleet penetration on U.S. roadways. In the meantime, there are significant safety technologies currently available in vehicles today that should be made more widely available. Advanced Driver Assistance Systems (ADAS) can prevent or mitigate crashes, and NSC is working to expand consumer education around these new technologies, which is critical in realizing their full potential. NSC created the first and largest ADAS national education campaign, MyCarDoesWhat.org. The purpose of MyCarDoesWhat.org is to educate the public about these assistive safety features in order to maximize their potential lifesaving benefits. Visitors to MyCarDoesWhat.org learn about dozens of existing safety features on their vehicles, including lane departure warning, blind spot monitoring, backup cameras, and automatic emergency braking.

In 2019, NSC, in collaboration with AAA, Consumer Reports, and J.D. Power, released "Clearing the Confusion: Recommended Common Naming for Advanced Driver Assistance Technologies."[3] Since release, more organizations have joined in support of standard, simple, and specific names for ADAS technologies in an effort to reduce consumer confusion. Safety features may change over time as software and hardware updates in turn modify the operational parameters for vehicle systems. Providing education throughout the life of vehicles can help consumers better understand how these features can advance safety. Today, 93 percent of new vehicles offer at least one ADAS feature, and the terminology often seems to prioritize

[3] https://www.sae.org/binaries/content/assets/cm/content/miscellaneous/adas-nomenclature.pdf

marketing over clarity.[4] DOT endorsed the naming recommendations, and we urge other safety organizations, automakers, journalists and lawmakers to join us in adopting these terms.[5]

NSC recommends that, at the very least, systems that are not fully automated (level five), should not be described as such. ADAS, with emphasis on "driver assist," are the only technologies commercially available in vehicles today and each and every one of those vehicles requires the driver to remain fully engaged in the driving task. That fact is often lost in marketing, media reports and consumer expectations. Labeling a motor vehicle as "automated" or "autonomous" today, or even using terms such as "autopilot" or "self-driving," only confuses consumers and can contribute to loss of situational awareness around the driving task. Marketing is not education. It will take a commitment to standard nomenclature and clear performance outcomes promulgated by DOT to ensure that consumers better understand how to engage with and what to expect from these technologies.

5.9 GHz

Connected vehicles are an important part of safely implementing AVs to provide safety redundancy. FCC actions to reallocate the 5.9GHz "safety band" away from its intended use for transportation safety to unlicensed use, such as Wi-Fi derail this effort to save lives. NSC strongly believes that FCC action to diminish the safety band to be a grave mistake. The federal government, numerous automakers and suppliers have proven this band is viable for vehicle communications, and some are beginning to deploy to this dedicated spectrum.

Improvements in technology and safety in transportation have historically gone hand-in-hand. Setting aside this spectrum for transportation safety was done with the goal of reducing or mitigating fatal transportation incidents, some of which were at least partially attributable to predictable and preventable human behavior. The FCC action nullifies this foresight and removes the full benefit that technology provides.

Motor vehicle crashes are an epidemic in the U.S., and operating a motor vehicle remains one of the deadliest things we do on a daily basis in spite of much improved, safer vehicle designs and record-setting seat belt use rates across the nation. The FCC should be part of the solution to saving lives. NSC urges the Subcommittee to seek answers from the FCC about the safety impacts of this proposal and ensure that roadway safety remains our top priority.

Conclusion

Today, we have millions of drivers behind the wheel and spend millions of dollars on education and enforcement campaigns. Yet, we still recognize billions in economic loses as a result of motor vehicle crashes. The integration of automated vehicle technologies will likely be messy as we deal with a complex and ever-changing human-machine interface. That is why federal leadership is needed. There is no need to repeat mistakes of the past.

NSC appreciates this Committee's leadership on vehicle technology and safe roadway transportation. If safety for the traveling public is the ultimate goal, advanced technology provides a promising opportunity to achieve that outcome and will go a long way to take us down the road to zero.

---

[4] https://www.aaa.com/AAA/common/AAR/files/ADAS-Technology-Names-Research-Report.pdf

[5] https://www.transportation.gov/briefing-room/us-transportation-secretary-elaine-l-chao-announces-new-initiatives-improve-safety