The Center for Auto Safety
1825 Connecticut Ave. NW Suite 330 Washington, DC 20009
www.autosafety.org

July 19, 2019

Docket Management Facility
U.S. Department of Transportation
1200 New Jersey Avenue SE
West Building Ground Floor, Room W12-140
Washington, DC 20590

Submitted electronically via www.regulations.gov

RE: Agency Information Collection Activity; Notice and Request for Comments; Driver Interactions With Advanced Driver Assistance Technologies; Docket Number. NHTSA–2019-0037

The Center for Auto Safety (Center) appreciates the opportunity to comment on the National Highway Traffic Safety Administration's (NHTSA) Information Collection Activity regarding research regarding how drivers who are inexperienced compare to drivers with experience using driver assistance features including advanced cruise control and lane keeping assistance. The Center has long been a supporter of the introduction and use of advanced safety technology to improve the safety of all drivers, passengers, and pedestrians.[1] Where feasible, the Center has also endorsed NHTSA writing relevant performance standards and making such features mandatory.[2]

The Center, founded in 1970 and headquartered in Washington, D.C., is a membership-driven non-profit consumer advocacy organization dedicated to improving vehicle safety, quality, and fuel economy. The potential for advanced driver assistance systems, (ADAS) when they work as advertised, to save lives is clear. However, as the Notice states, drivers understanding and responding to the ADAS will be key to successful use of the technology. Yet, with more than 200 million registered drivers in the United States ranging in ages from 16 to over 90, ensuring the technology will be understood by all types of drivers will be key. Accordingly, the Center is concerned the information collection is being limited to only age groups 25-54, without a stated rationale. The Center requests the age group be expanded to cover a wider variety of drivers with more varied driving and life experiences.

[1] Center for Auto Safety Testifies Before Congress on Safety Technology, May 23, 2019 https://www.autosafety.org/center-for-auto-safety-testifies-on-safety-technology/

[2] Requesting a Regulation to Require the Use of Automatic Emergency Braking Systems for Passenger Motor Vehicles, January 13, 2016, https://www.autosafety.org/wp-content/uploads/import/NHTSA%20CWD%20Petition%20for%20Rulemaking%20v4.pdf

The Choice of Age Range 25-54 is not Explained

As stated in the announcement's Summary of the Collection of Information, "The research will involve on-road, semi-naturalistic driving experimentation in which participants who are members of the general public will drive government-owned instrumented production vehicles equipped with driver assistance technologies."[3] However, no justification is provided for selecting age and experience restrictions that are unrepresentative of the general public. Drivers under 25 and 55 or older collectively comprise 49% of the driving population.[4] Moreover, one of the fastest growing cohorts in the United States are people aged 65 and older. By 2030, they are expected to make up 26% of the US population.[5]

Studies have shown disparities in the ability of age-defined driver cohorts to transfer control from ADAS to human control.[6] By restricting recruited participants to the "aged 25-54" cohort who may already be proficient in transitioning from automated to manual control, the study results could potentially be biased away from results more representative of the general public. Further, the reliance on ADAS for younger drivers may be as important, if not more important, than for older drivers. The driver age group under age 25 is disproportionately killed in motor vehicle crashes representing 20% of driver deaths while only making up 17% of the general US driving age population.[7] It may well be this group is most of need of this technology.

Further, the announcement provides no justification for restricting the recruited driver pool to drivers, "…who drive at least 14,000 miles annually, are in good health, and do not require assistive devices to safely operate a vehicle and drive continuously for a period of 3 hours." The excluded cohorts are also members of the 'general public' and may disproportionately benefit from ADAS capabilities.

---

[3] 84 Fed. Reg. 23155

[4] DISTRIBUTION OF LICENSED DRIVERS – 2017 BY SEX AND PERCENTAGE IN EACH AGE GROUP AND RELATION TO POPULATION, Federal Highway Administration, Highway Statistics 2017, https://www.fhwa.dot.gov/policyinformation/statistics/2017/dl20.cfm

[5] Projected population size and births, deaths, and migration , United States Census Bureau 2017 National Population Projections Tables, https://www2.census.gov/programs-surveys/popproj/tables/2017/2017-summary-tables/np2017-t1.xlsx

[6] Alessandra Malito, *Why self-driving cars may not help older drivers as much as some anticipate,* Market Watch, July 5, 2019, https://www.marketwatch.com/story/why-older-drivers-might-have-trouble-with-self-driving-cars-2019-07-05?TrucksFoT; Molnar et al., *Age-Related Differences in Driver Behavior Associated with Automated Vehicles and the Transfer of Control between Automated and Manual Control: A Simulator Evaluation,* Among drivers aged 16-75 with high levels of technology use, "These results show some age differences in driver behavior in the automated driving context when taking age into consideration," University of Michigan Transportation Research Institute, May 2017, https://deepblue.lib.umich.edu/bitstream/handle/2027.42/137653/UMTRI-2017-4%20.pdf?sequence=3&isAllowed=y

[7] NHTSA FARS Database, 2017 data, https://www-fars.nhtsa.dot.gov/QueryTool/QuerySection/SelectOptions.aspx , US Census National Population by Characteristics 2010-2018, http://factfinder.census.gov/bkmk/table/1.0/en/PEP/2018/PEPSYASEXN?#

If the study is to represent the general public, then driver recruitment should be representative of the general public. If the study objectives require a restricted cohort, then the rationale for the restrictions should be provided in the announcement along with the rationale for a test cohort unrepresentative of the general population.

The Purpose of Collecting ADAS Data

There is much to commend about the proposed ADAS study. Advanced safety technology, from automatic emergency braking to lane keeping assist features, to driver monitoring systems to adaptive driving beam technology have tremendous potential to save lives. Many of these technologies rely upon a "Human-Machine-Interface" or a car-to-driver handover. Understanding how current drivers are most likely to interact with these technologies can only further the likelihood of their success when widely implemented.

However, if one of the long term values of collecting this information is for it to be used as a foundation for rule making or regulation development related to ADAS safety, it is important that the test subjects be representative of the general public, not a selected subset potentially biased toward exceptional performance as compared to their peers.

In the interest of maximizing the value of this effort the Center recommends the group of potential participants is widened to more fully reflect the variety of age groups and health status of today's drivers.

Sincerely,

Jason Levine
Executive Director