



U.S. Department
of Transportation
**National Highway
Traffic Safety
Administration**

1200 New Jersey Avenue SE.
Washington, DC 20590

Administrator

December 14, 2016

The Honorable John Thune
Chairman
Committee on Commerce, Science,
and Transportation
United States Senate
Washington, DC 20510

Dear Mr. Chairman:

This letter report was prepared in response to a request contained in Section 4013 of the Fixing America's Surface Transportation (FAST) Act, Pub. L. 114-94. The FAST Act directed the National Highway Traffic Safety Administration (NHTSA) to report to the House and Senate Authorization Committees on the use of wireless communications devices while driving. In particular, Congress asked NHTSA to "submit a report that identifies any legal and technical barriers to capturing adequate data on the prevalence of the use of wireless communications devices while driving and provide recommendations on how to address such barriers."

A. Summary

NHTSA's research shows that 94 percent of motor vehicle traffic crashes are due to human error, including distraction. Distraction of any type can hinder a driver's ability to react quickly and appropriately to an unstable situation that may lead to a crash. Distraction can stem from many internal and external factors, but given the widespread use of wireless communications devices—in particular, cell phones—NHTSA is very interested in accurately quantifying and understanding the prevalence of wireless communications device use by the driving public. NHTSA currently gathers data on cell phone use through observational studies, through its major crash data collection systems, and through periodic naturalistic driving studies. Each method has its own limitations, and NHTSA is continually working to reduce limitations where possible.

B. Current NHTSA Efforts

Outlined below is a description of the collection tools currently used by NHTSA, as well as the legal and technical barriers encountered by the agency when collecting information on the use of these devices while driving.

1. National Occupant Protection Use Survey (NOPUS)

NHTSA conducts the National Occupant Protection Use Survey (NOPUS), the only source of nationwide probability-based observational data on wireless communications device use in the United States. Each year since 2000, NOPUS has provided an annual estimate of wireless communications device use in three categories: 1) drivers holding phones to their ears while driving, 2) drivers speaking with visible headsets on while driving, and 3) drivers visibly manipulating hand-held devices while driving. The data are collected in the daytime by trained observers posted at controlled intersections (intersections governed by either a traffic signal or stop sign).

The most recent estimates from the 2013 NOPUS¹ show:

- 4.6 percent of drivers were using hand-held cell phones,
- 0.5 percent of drivers were speaking on visible headsets while driving, and
- 1.7 percent of drivers were visibly manipulating hand-held devices.

There are some practical limitations of NOPUS data worth noting. First, since NOPUS is observational in nature and collected in the daytime, its estimates inherently exclude wireless device use at night. Driver wireless device use might be different at night. Second, NOPUS only observes passenger vehicles that stop at a stop sign or traffic signal. It is conceivable that driver wireless device use may be different at intersections, where a driver is more likely to make a short phone call or read and send texts during a stop at a red light, as compared to moving traffic. Third, NOPUS is a snapshot in time. NOPUS does not observe the driver for the duration of the trip, so it is conceivable that the driver may have used the device at another point during the same trip. Finally, as wireless devices transition to voice control rather than manual control, it is increasingly difficult to observe and record the interaction between a driver and wireless devices.

2. Crash Data Collection

NHTSA collects information on cell phone use in each of its major crash data collection systems—the Fatality Analysis Reporting System (FARS), the Crash Investigation Sampling System (CISS) and the Crash Report Sampling System (CRSS).² Information recorded in the police crash report by the police officer on the scene of a crash is the main source for data in NHTSA’s FARS and CRSS. NHTSA’s CISS relies on driver or witness interview data in addition to the crash report to determine cell phone use. In 2014, NHTSA estimated that 404 people died in crashes in which a distracted driver was using a cell phone.³

¹ See: <http://www-nrd.nhtsa.dot.gov/Pubs/812114.pdf> (last accessed May 26, 2016).

² In 2016, NHTSA replaced the National Automotive Sampling System Crashworthiness Data System with CISS and replaced the National Automotive Sampling System General Estimates System with CRSS. Both CISS and CRSS collect similar information on cell phone use as their predecessor systems.

³ *Traffic Safety Facts Research Note: Distracted Driving 2014* (DOT HS 812 260). Available at <http://www-nrd.nhtsa.dot.gov/Pubs/812260.pdf> (last accessed May 26, 2016).

NHTSA believes that this number may underestimate the actual number of distraction-affected crashes, including distraction attributable to wireless communications devices. Challenges exist with both the crash report and interview data when determining cell phone use following a crash for reasons such as:

- Police may only report cell phone use when they have very strong evidence that the cell phone was in use at the time of the crash.
- The person involved in the crash may not want to admit device use if it is illegal in the State where the crash occurs. In some instances there may not be any witnesses to provide information about the crash.
- Police reports may not be made available to NHTSA.
- Police reports are not standardized and do not uniformly capture data on cell phone use. In some States, cell phone use may only be captured in the narrative and not in a specific variable.

3. Naturalistic Driving Studies

Naturalistic driving studies can provide invaluable observations of how drivers engage in distracting activities, including wireless communications device use. In these studies, with consent from participants, people's personal vehicles are instrumented with a variety of sensor systems and cameras to record vehicle kinematics and driver behavior. One of the first naturalistic driving studies was sponsored by NHTSA, and is commonly known as the 100-Car Study.⁴ Analyses of recorded video data allowed researchers to determine whether the drivers were distracted in the moments leading up to the crashes or near-crashes. The researchers also analyzed video clips when the drivers were engaging in secondary tasks (i.e., those tasks not directly related to the safe operation and control of a vehicle). By comparing distractions during normal driving to distractions during crashes and near-crashes, NHTSA was able to make estimates as to the relative risk of crashes/near-crashes when drivers are distracted.

The 100-Car Study suggested that distraction is a common occurrence while driving. Many distractions appear to increase the relative risk of crashes and near-crashes. In addition, distractions that require drivers to take their eyes off the road are potentially more of a safety problem than distractions that do not require drivers to take their eyes off the road. The researchers used the data to estimate the odds ratio or increased risk of engaging in various secondary tasks.

In 2013, NHTSA completed another naturalistic driving study with users of hand-held phones, portable hands-free phones, and integrated hands-free cell phone systems built into the vehicle.⁵

⁴ Klauer, S. G., T. A. Dingus, V. L. Neale, J. D. Sudweeks, and D. J. Ramsey. 2006. *The Impact of Driver Inattention on Near-Crash/Crash Risk: An Analysis Using the 100-Car Naturalistic Driving Study Data*. National Highway Traffic Safety Administration, U.S. Department of Transportation.

⁵ Fitch, G. A., S. A. Soccolich, F. Guo, J. McClafferty, Y. Fang, R. L. Olson, M. A. Perez, R. J. Hanowski, J. M. Hankey, and T. A. Dingus. 2013. *The Impact of Hand-Held and Hands-Free Cell Phone Use on Driving*

The study estimated the frequency of use and the distraction potential associated with each interface type. Over 200 drivers (who reported talking on a cell phone while driving at least once per day) were continuously recorded for an average of 31 days. A unique aspect of the study was that drivers provided their cell phone records (calls and text messages) for analysis. The overall results from the study presented a clear finding: visual-manual subtasks, including dialing and texting, performed on hand-held cell phones degraded driver performance and increased risk.

Naturalistic driving studies provide accurate and realistic data regarding individual driving habits. However, they are costly to conduct and it is difficult to produce national estimates of cell phone use from this data.

C. Additional Legal and Technical Considerations

As previously highlighted in this report, there are certain limitations to the methods by which NHTSA collects data on the use of wireless communications devices while driving. The following paragraphs expand on two key considerations affecting NHTSA's ability to obtain adequate data.

First, the inability of researchers to readily access police crash reports is a significant barrier to assessing the use of wireless communications devices while driving. As mentioned earlier, police crash reports are a key source of critical information about whether cell phones or other devices were a contributing factor in a crash. Federal law provides comprehensive privacy protections to personal information (like that found in State driver registrations and State and local police crash reports) and affirmatively prohibits NHTSA from releasing personal information from crash reports. Nevertheless, some State and local agencies decline to release, or otherwise restrict NHTSA's access to crash reports. While the Federal Drivers Privacy Protection Act (DPPA) pre-empts State and local data access laws and provides NHTSA with a firm basis for accessing driver records in furtherance of recalls and other highway safety activities, the DPPA does not explicitly cover crash reports. For this reason, NHTSA must rely on the willingness of State and local police to share their crash reports and cannot, in some cases, obtain reports that would assist on our assessment of the extent of wireless communications device use while driving.

Additionally, even when NHTSA can obtain the police crash reports, often the police do not record wireless communications use or if they do, the information lacks uniformity. In many instances, the lack of information or uniform reporting might lead to crashes potentially attributable to wireless communications device use being categorized improperly or not counted whatsoever. The agency continues to work with the Governors Highway Safety Association on the Model Minimum Uniform Crash Criteria (MMUCC), which serve as guidance for the uniform collection of crash characteristics in police crash reports. The fifth edition of MMUCC

will be released next summer and will likely include recommendations to improve the collection and consistency of distraction coding on police reports. Under the FAST Act, States may use highway safety grant funds under Section 402 and Section 405(c) to improve their conformance to the MMUCC guidelines.

D. Conclusion

NHTSA gathers data on wireless communications device use and other safety issues through observational studies, through its major crash data collection systems, and through periodic naturalistic driving studies. While each method has certain limitations, NHTSA continues to work to improve data quality through efforts such as MMUCC. In addition, NHTSA being able to access all State police crash reports would potentially enhance the agency's ability to more quickly and comprehensively identify current and emerging safety problems, including distraction.

I have sent a similar letter to the Ranking Member of the Senate Committee on Commerce, Science, and Transportation and to the Chairman and Ranking Member of the House Committee on Transportation and Infrastructure. If you have any questions regarding this information, please contact me or Alison Pascale, Director of Governmental Affairs, Policy and Strategic Planning, at 202-366-2386.

Sincerely,

Mark R. Rosekind, Ph.D.