

Project Title: Assessing Impact of Driving Simulator Experience on Reduction of Cell-Phone Distraction among Adult Drivers

Principal Investigator:

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TRB Keywords: Driver Distraction, Driving Simulator, Cell Phone Distraction, Reduction of Driver Distractions, Driver Education, Self-Reported Driver Distraction.

NCITEC Funds: \$153,206

Matching Funds: \$153,219

Project Summary:

In modern society, usage of the personal electronic devices is increasing every day including during driving. This increased usage of in-vehicle devices (cell phone, navigation systems, etc.) leads to regular and very risky distraction that could potentially impair the primary task of driving. Furthermore, future advances in personal electronic devices are likely to increase driver distraction taking away more attention from the primary task of driving. Distractions caused by electronic devices are relatively new, hence, not well understood especially among adult drivers. One of the most distracting devices in today's vehicles is the smart cell phone with web-browsing, email, and text messaging capabilities. Studies have shown that cell phone distraction is responsible for high fatalities especially among young drivers in the U.S. It is largely considered a "teen-driver problem" due to propensity to use of cell-phone based text-messaging by young drivers. However, some recent studies have shown that a large number of adult drivers also use text messaging, emailing, and web-browsing while driving. Being a recent phenomenon, the cell-phone based adult distraction has not been studied in-depth and understood very well.

This proposed research is an attempt to understand adult driver distraction caused by use of cellphones. The objectives of this study are (1) to assess the cell phone use by the adult drivers, and (2) to assess the impact of driver simulation experience on changing cell phone usage by adults during driving. The research will focus upon the working adult population in the Hampton Roads area. It will compare drivers' responses based on two different instruments administered before and after their experience in the driving simulator. The basis of expected improvement is that once a driver visualizes impairment caused by the cell phone usages during driving, the driver is likely to modify his/her behavior. The results will be used to identify the factors that would be useful while designing educational and public service announcements targeted at the distracted adult drivers. This study will utilize results from previous driver distraction studies conducted by the Eastern Seaboard Intermodal Transportation Application Center (ESITAC) in the Commonwealth of Virginia. Due to the long term nature of the project, a longitudinal study will be required. This study will serve as a first part of the long-term assessment of distracted driving among adult drivers.