

# IDENTIFYING OUTCOME MEASURES TO EVALUATE EFFECTIVENESS OF CONSUMER EDUCATION AND TRAINING FOR VEHICLE AUTOMATION

## INTRODUCTION

To reap the benefits of partial vehicle automation technology, it is important that drivers understand how to use the systems appropriately. Education and training have been touted as critical to increasing users' knowledge and understanding of these new vehicle features. Users' knowledge can be assessed using an array of measures, ranging from questionnaires to driving simulation or in-vehicle observation to data about crashes, each with benefits and drawbacks. The AAA Foundation for Traffic Safety is working cooperatively with researchers at the University of Massachusetts Amherst, through the SAFER-SIM University Transportation Center, to examine potential outcome measures that could be used to evaluate education and training for new vehicle technologies.

## PROJECT GOAL AND PLAN

The primary objective of this proposed research is to identify outcome measures that can be used to assess effectiveness of education and training for advanced vehicle technologies. The specific aims of the project are to:

- (1) Enumerate measures of driving safety and performance via a review of the scientific literature, engineering standards, existing data, and from domain experts.
- (2) Leverage a multi-site experimental study to identify and validate outcome measures that can be implemented in research to measure drivers' knowledge and understanding of advanced vehicle systems.

This research will be focus on measuring drivers' knowledge and safety in the context of advanced driver assistance and partial automation systems available to consumers today; however, implications of these identified outcome measures will also be discussed in the context of higher levels of automation.

## Project Team

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## Period of Performance

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