

A RANDOMIZED FIELD TRIAL OF SMARTPHONE-BASED FEEDBACK DESIGNED TO ENCOURAGE SAFE DRIVING

INTRODUCTION

In recent years, numerous smartphone apps designed to encourage safe driving have entered the marketplace. Some of these apps are offered by automobile insurers with the potential to earn a discount, some are used by employers to monitor employee driving behavior, and others are marketed directly to consumers as a tool to promote safer driving habits. The AAA Foundation for Traffic Safety is working with researchers at the University of Pennsylvania to examine whether a safe driving app can measurably reduce rates of speeding, hard acceleration and braking, and cellphone use among a representative sample of drivers.

PROJECT GOAL AND PLAN

This study will investigate whether a smartphone-based intervention, consisting of weekly feedback and small incentives designed to mimic a usage-based insurance program, is effective in reducing risky driving behaviors including speeding, hard braking, hard acceleration, and cellphone use. The effectiveness of three alternative approaches will be compared. A representative sample of drivers will be recruited to participate in a study in which they will be assigned at random to one of four groups:

- One group will receive feedback on all four driving behaviors and incentives based on a measure averaged over all four behaviors.
- One group will be assigned a specific behavior on which to focus and will receive feedback and incentives based on the assigned behavior.
- One group will be allowed to choose a behavior they wish to improve and will receive feedback and incentives based on their chosen behavior.
- One group will be a control group whose driving will be monitored but will not receive any feedback or incentives.

The effectiveness of the three different intervention strategies will be evaluated by comparing changes in driving behavior over the course of the study in each group relative to the control group. The study will also examine the extent any measurable effects remain after feedback and incentives are discontinued.

Project Team

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Period of Performance

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