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## **A SOCIAL NETWORK ANALYSIS OF ALCOHOL-IMPAIRED DRIVERS IN MARYLAND: AN EGOCENTRIC APPROACH**

### **Problem**

Alcohol-related fatalities on Maryland roads for the past few years have been about 30 percent of all highway fatalities. Various public information and education programs have been implemented to reduce alcohol-related fatalities, but success has been elusive. Many of these programs, particularly those relying on mass media or lecture programs, have been ineffective. Programs that have been more successful at promoting safe driving behavior have involved face-to-face encounters and interactions.

### **Objectives**

Human behavior is influenced by personal, household and social network characteristics. The primary objective of the study was to identify how these characteristics influence the behavior of alcohol-impaired drivers in Maryland.

### **Description**

The study used an egocentric approach of social network analysis, relying on survey research to unveil the underlying social network structure of first-time DUI offenders. This approach concentrated on specific actors (alcohol-impaired drivers), called *egos*, and those with whom the actors interact, called *alters*. It required driver-level data and ego-alter level data.

The study population was first-time DUI offenders in Maryland from 2008 to 2009. The Maryland Motor Vehicle Administration (MVA) invited 6,212 first-time DUI offenders to participate in the study. In response, 214 people sent back a signed consent form, indicating their agreement to participate in the study. Of those, 163 were available for interview along with 82 alters. Each ego was given \$25 and each alter received \$15 for participating in the study. The interviews were conducted on the telephone by trained student interviewers

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## Results

Both egos and alters have people in their social networks who received citations and engage in risky driving. Despite this driving behavior, there is clear evidence that egos and alters influence each other to drink less. A significant percentage of alters offered egos rides back home. In sum, egos and alters are similar in many aspects of their driving, drinking behavior and background. They influence each other mostly in positive ways. The size of social networks affects the context of drinking behavior and the number of traffic violations. Receiving citations does show some deterrent effect. Thus, there are implications for intervention programs.

## Report Information

Please contact Dr. Andrew Farkas at 443-885-3761 or [Andrew.farkas@morgan.edu](mailto:Andrew.farkas@morgan.edu) or Dr. Ashraf Ahmed at 443-885-4398 or [ashraf.ahmed@morgan.edu](mailto:ashraf.ahmed@morgan.edu) for information about this study.