

# ESTIMATING HOW MANY CRASHES INVOLVE DROWSY DRIVING USING DATA AVAILABLE IN STATE AND NATIONAL CRASH DATABASES

## INTRODUCTION

Drowsy driving is known to be a substantial contributor to motor vehicle crashes, injuries, and deaths. While official government statistics derived from police reports of crashes indicate that drowsiness is a factor in approximately 1-2% of crashes and fatalities each year, previous research by the AAA Foundation has estimated that the true percentage of crashes involving drowsy driving may be up to 10 times as high. These estimates, however, are now more than 10 years old, and the traffic landscape has changed a great deal in the past decade.

## PROJECT GOAL AND PLAN

The goal of this project is to produce updated estimates of the contribution of drowsy driving to motor vehicle crashes, injuries, and deaths. The project will be conducted in three phases:

1. Phase 1. Foundation staff will identify and review literature relevant to estimating the probability that a crash involved drowsiness and/or the percentage of all crashes that involve drowsiness.
2. Phase 2: Potential sources of data will be explored. These will include national crash databases from NHTSA as well as states.
3. Statistical modelling. At a minimum this research will produce an updated estimate of the proportion of crashes, injuries, and deaths involving driver drowsiness in the most recent 5 years of data available (i.e., 2017-2021). The research will also attempt to develop a method that could be used to produce more frequent and granular estimates.

## Project Team

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## Period of Performance

February 2023 –  
January 2024