



# RESEARCH PROJECT CAPSULE [19-5SA]

November 2019

TECHNOLOGY TRANSFER PROGRAM

## Young Driver Crashes in Louisiana: Understanding the Contributing Factors to Decrease the Numbers

### JUST THE FACTS:

**Start Date:**

August 1, 2019

**Duration:**

21 months

**End Date:**

April 30, 2021

**Funding:**

SPR: TT-Fed/TT-Reg

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Sponsored jointly by the Louisiana  
Department of Transportation and  
Development and Louisiana State  
University

### POINTS OF INTEREST:

Problem Addressed / Objective of  
Research / Methodology Used /  
Implementation Potential

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### PROBLEM

Most vehicle crashes are attributed to driver behaviors, and age of the driver is substantially linked to these behaviors. Young drivers, generally categorized as 15-20 years old, are involved in more crashes than drivers of any other age group, and, as of 2016, the rate of fatal crashes per 100,000 licensed drivers in the U.S. is highest for young drivers when compared to any other age group.

According to the National Highway Traffic Safety Administration, 1,886 young drivers were killed and an estimated 195,000 were injured in motor vehicle crashes on U.S. roadways in 2015. While total fatalities in crashes with young drivers decreased 43 percent over the 10-year period between 2006 and 2015, the most recent data available from the National Center for Health Statistics shows that motor vehicle crashes are still a leading cause of death for young drivers.

According to state-level data, young drivers, defined as 15-24 years old in the Louisiana Strategic Highway Safety Plan (SHSP), are overrepresented in fatal crashes (27.8 percent of all roadway fatalities in 2016). The "Young Driver Emphasis Area" of the SHSP aims to reduce fatalities and injuries involving young drivers by 50 percent. Currently, the annual frequency of young driver fatalities is on track for achieving this reduction by 2030.

One strategy that has been proven to be effective in addressing vehicle crashes with young drivers is Graduated Drivers Licensing (GDL) programs. Each state in the U.S. currently uses some version of a GDL program. A GDL program is a three-stage approach to granting young drivers full license privileges, categorized as three different levels of driving restrictions. A typical GDL program includes a learner stage (supervised driving), an intermediate stage (limited unsupervised driving), and the full-privilege stage.

Louisiana implemented the GDL program in the form of the RYAN (Reduce Youth Accidents Now) Act on January 1, 1998, aiming to reduce the number of traffic deaths and injuries in the teenage driving group. Despite the early adoption of this strategy in Louisiana, teens and young adults continue to experience crashes at higher rates.

### OBJECTIVE

The primary objectives of this study are to identify contributing factors associated with young driver crashes in Louisiana and to evaluate the effectiveness of Louisiana's GDL program.

## METHODOLOGY

Initially, the research team will review past and current studies regarding young driver crashes and GDL programs. The team will identify key components of GDL programs throughout the U.S. and analyze how these can contribute to the escalation of certain types of crashes

Researchers will conduct an investigation of young driver crash characteristics using 5-10 years of the most recent crash data for the analysis. Special focus will be placed on human factors to determine if any driver conditions or specific violations contributed to the frequency of young driver crashes. The analysis will be stratified by crash severity.

A time series analysis of crashes and their attributes will be conducted in order to assess the impact of the Louisiana GDL program. Young drivers will be separated into three age groups so that the program's effect in terms of higher or lower crash rates can be compared between groups.

In addition to the aggregated state-level analysis, the crash analysis will be conducted at the regional level. There are nine regional safety coalitions in the state and each may have a different focus area. The research team will investigate the impact of the GDL program in each region through crash analysis to see if there is a relationship between program specifics and young driver crash characteristics.

Crash countermeasures will be targeted according to the possible contributing factors. Information gathered from other states will also help with recommendations for crash reduction.

## IMPLEMENTATION POTENTIAL

Recommendations from this study will guide the implementation of effective countermeasures to reduce and prevent young driver crashes. This research is significantly relevant to Louisiana's vision toward Destination Zero Deaths, providing insight into the factors that contribute to young driver crashes and the impact of a GDL program on these crashes.

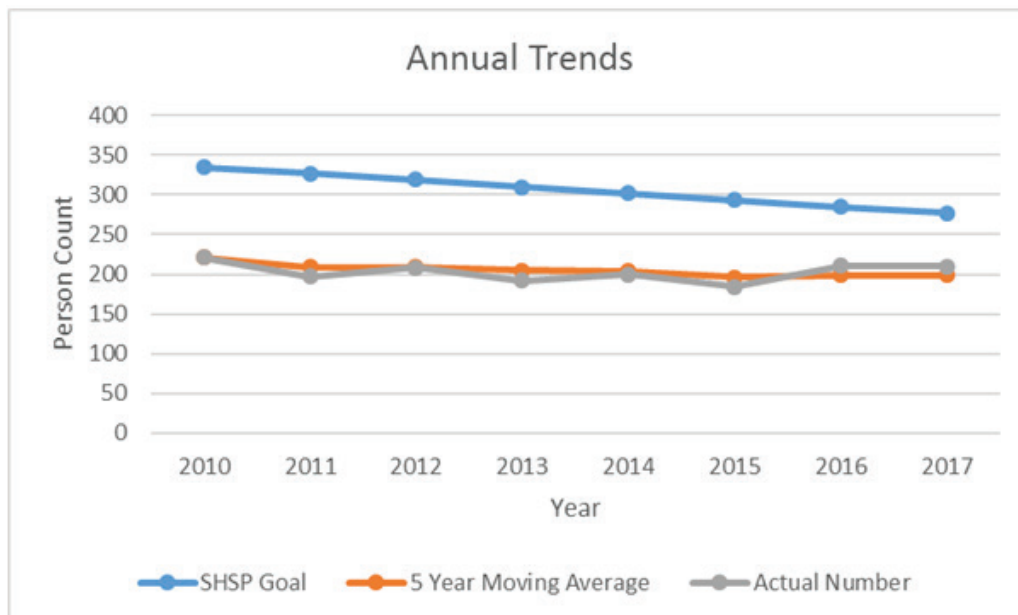


Figure 1  
Young driver fatalities in Louisiana  
along with the SHSP target setting  
and 5-year moving average

Source: <http://datareports.lsu.edu/SHSPLevel2.aspx>