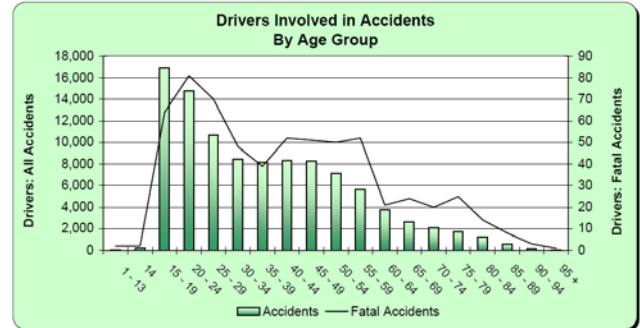


## I. RESEARCH PROJECT TITLE

Improving Safety of Teenage and Young Adult Drivers in Kansas

## II. RESEARCH PROBLEM STATEMENT

Motor vehicle crashes are one of the leading causes of death among teenage/young Kansans. They experience the **highest crash involvement rate than any other age group** in Kansas as indicated in the Figure. In terms of fatality involvement as well, young driver group is the **most critical age group**. Driving a motor vehicle is a complex task that requires many skills and knowledge that are gathered through experience. Young drivers' lack of experience combined with many other factors might be causing this situation.



(Source: KDOT- 2006 Kansas Traffic Accident Facts)

Kansas Strategic Highway Safety Plan (SHSP) has identified Teen/Young driver safety issue as one of the six key emphasize areas representing the biggest potential for reducing fatalities and serious injuries on Kansas Roadways. It is therefore **important to identify the factors associated with this overly representation** in crashes by young drivers so that an attempt could be made in improving this alarming situation. Additionally, it is necessary to **identify the factors that are contributing towards increased severity** as well, because a less severe injury crash or property damage only crash is certainly better than losing a young life. This project is proposed to serve both those purposes by analyzing and modeling young driver related crashes in Kansas and will provide recommendations for improving teenage/young driver safety in Kansas.

## III. RESEARCH OBJECTIVES

Main objectives of this proposed project are to identify the characteristics of highway crashes by teenage/young drivers in Kansas and to identify most effective countermeasures in addressing the safety of this vulnerable group. In doing so, the factors that contribute towards increased crash severity of young drivers will also be identified.

Following are the major tasks that will be completed in achieving the above objectives.

- Task 1. Conduct a detailed literature review on the subject issue.
- Task 2. Collect all data related to teenage and young driver crashes that have occurred in Kansas over the last several years. Also decide on the age group to be considered.
- Task 3. Analyze the collected crash data and identify the characteristics of young driver crashes in Kansas. This will include but will not be limited to the identification of more critical locations (eg. intersections close to schools as identified by SHSP), types of facilities, types of maneuvers immediately prior to the crash, time of the day (eg. nighttime), days, types of crashes, contributing causes, effect of other passengers particularly teenagers, safety belt usage, drunk driving etc.

- Task 4. Conduct statistical modeling of crash data to identify the factors that contribute towards increased crash severity in an effort to reduce the alarming fatality rate.
- Task 5. Based on the findings of tasks 3 and 4 identify and recommend countermeasure ideas and focus areas needing particular attention for improving the safety situation of teenage/young drivers in Kansas.
- Task 6. Provide recommendations on key issues and important details that need to be addressed through driver education programs, brochures etc., need for an enhanced Graduated Licensing Program
- Task 7. Document the details of the study and its findings in a final report.

#### **IV. ESTIMATE OF FUNDING AND RESEARCH PERIOD**

*Research Period:* 18 months from the beginning of the project.

*Funding:* Estimated project cost is \$ 23,000.

#### **V. URGENCY AND PAYOFF POTENTIAL**

The Bureau of Traffic Safety at KDOT has identified this as an area that needs attention. Losing young lives is a huge loss to the state and improving the safety of this vulnerable group has become a high priority. Due to the very high economic costs associated with fatal motor vehicle groups this project is expected to have a very high payoff potential.

#### **VI. IMPLEMENTATION STRATEGY**

Through the findings of this project, KDOT safety bureau will be able to develop more focused teenage education programs where the attention could be paid more on the identified critical factors.

#### **VII. PROJECT PERSONNEL**

The principal investigator of this project will be Dr. Sunanda Dissanayake (Assistant Professor in Civil Engineering) who has many years of experience in the areas of traffic engineering, safety, crash data analysis and access management related issues.

In addition, one Graduate Research Assistant will work on this project whose master thesis will be focused on this study.

#### **VIII. SUBMISSION INFORMATION**

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