

Statewide Traffic Safety Study: Phase 1

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Duration: 7 months
End Date: 12/31/2004
Funding: State Planning
(Safety)

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Problem

Louisiana's roadway fatality rate has consistently ranked among the eight highest in the country for the last decade. Of the approximately 160,000 automobile crashes that occur every year in Louisiana, over 90,000 take place on the state-maintained highway system. On average, more than 900 people are killed and nearly 80,000 injured in crashes in Louisiana every year. In 2001, Louisiana's fatality rate was 2.3 per 100 million miles traveled, while the national average was 1.5.

This alarming crash rate has significant economic and social costs for Louisiana. Property damage, lost pro-

ductivity, medical expenses, and inflated motor vehicle insurance rates imposed an estimated \$5.3 billion burden on the state in 2002, according to the 2002 Louisiana Traffic Records Data Report. While improving road safety is a national objective, the conditions in Louisiana justify an independent study of conditions and opportunities for improvement in the state.

Objective

Because of the state's traffic safety situation, the Louisiana Department of Transportation and Development (LADOTD) and the Louisiana Highway Safety



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Commission (LHSC) have implemented several road safety initiatives, including this research project.

The main objective of this study is to identify and quantify the factors contributing to highway crashes in Louisiana. A secondary objective, which would be addressed in the project's second phase, is to recommend measures to counter Louisiana's poor crash record.

Description

First, researchers will conduct a thorough review of literature regarding the factors influencing roadway safety and remedial procedures that have been effective in the past. This review will assess the cost of road crashes and compare funding provided to each state for performance-based highway safety programs. While the review will be national in nature, emphasis will be placed on research findings, practice, and experience that relate to Louisiana.

Next, current federal and state highway safety legislation will be reviewed, and discussions with LADOTD and LHSC officials will further identify legislation both directly and indirectly related to roadway safety. Examples of such legislation are laws permitting overloading of sugar cane trucks at certain times of the year, or laws permitting the burning of sugarcane fields that do not require safety measures to address the reduced

visibility caused by the smoke. Researchers will also review the focus and intensity of the enforcement of these laws over the past decade.

After literature and legislation reviews, a specific effort will be made to review the strategies, obstacles, and achievements of programs and projects designed to promote highway safety. For example, the National Highway Traffic Safety Administration's Safe Community program has been successful in the past. This review will also identify which aspects of highway safety are responsive to treatment through programs of this nature.

Researchers will then create an inventory of crash-related data, including data on drivers, vehicles, roadways, and the environment. This data will be used to establish a relational database that can combine information from individual databases, thus establishing a richer description of the conditions surrounding crashes. Possible databases will be reviewed for several factors, including coverage, sample size, accuracy, and the frequency of updates.

Finally, using the information gathered in the aforementioned tasks, investigators will develop a research program to identify the major causes of Louisiana's high crash rate. This research program will be executed in the project's second phase. Using principles of scientific inquiry, the program will describe what data manipulation will be necessary, what analysis

will be conducted, how the results will be tested and interpreted, how solutions will be generated, and the basis for selecting the potential solutions for implementation.

At this point, researchers will prepare an interim report detailing their findings and the proposed research program for the second phase so that the client can make an informed assessment of the merits of the research. The methodology, schedule, and cost will be described as well as the products that will be delivered.

Implementation Potential

The results from this study will provide a valuable foundation for possible further research on roadway safety. The research program designed in this phase should incorporate implementation as part of the project's objectives.