RESEARCH
PROJECT CAPSULE [18-2SA]

September 2018

Louisiana's Alcohol-Impaired Driving Problem: An Analysis of Crash and Cultural Factors

POINTS OF INTEREST:

Problem Addressed / Objective of Research / Methodology Used Implementation Potential

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PROBLEM

Alcohol-impaired driving fatalities have decreased over the past several years, but these tragic events continue to be a major problem. Despite the reduction, alcohol-impaired driving still accounts for more than 30% of all vehicle fatalities in Louisiana.

Associating impaired driving with social and cultural factors must be considered. Behavior regarding alcohol consumption varies among areas of the state. Although rates of alcohol use for parishes in North Louisiana are lower than those in the south, several northern parish rates still exceed the national average.

There is a need for the Louisiana Department of Transportation and Development (DOTD), law enforcement agencies, and other highway safety stakeholders to achieve a thorough understanding of the individual and system-wide influences that contribute to alcohol-impaired driving.

Table 1
Total traffic fatalities with alcohol involvement

Year	National/State	Total Fatalities	BAC=.00		BAC=.08+		BAC=.15+	
		Number	Number	Percent	Number	Percent	Number	Percent
2014	U.S.	32,675	20,856	64%	9,967	31%	6,852	21%
	Louisiana	737	435	59%	253	34%	178	24%
2015	U.S.	35,092	22,912	65%	10,265	29%	6,865	20%
	Louisiana	726	439	61%	245	34%	159	22%
2016	U.S.	37,461	24,851	66%	10,497	28%	7,052	19%
	Louisiana	757	488	64%	225	30%	155	20%

OBJECTIVE

Three specific objectives of this project are to synthesize and document existing resources that can be used to assess alcohol-impaired driving; to identify individual, community, and cultural influences that contribute to impaired driving in Louisiana; and to develop an interactive web tool for systemic risk assessment.

METHODOLOGY

The research team will use information sources, including online searches of libraries, catalogs, and databases, to gather and review available documentation regarding alcohol-impaired driving and crashes.

The research team will also explore behavioral data systems, such as those maintained by the Louisiana Department of Health and the Substance Abuse + Mental Health Services Administration, to develop an understanding of attitudes toward alcohol-impaired driving among Louisianans.

An online survey will be created and administered across Louisiana households to determine driver attitudes about risk taking and impaired driving. Focus groups will be formed from the various areas of the state with intent to capture the major cultural differences between North and South Louisiana. Extending the range of participants beyond the college campus demographic, the focus groups will target 18-34 year olds.

Risk factors associated with alcohol-impaired driving and crashes will be identified, using crash records and the Behavioral Risk Factor Surveillance System (BRFSS) managed by the Centers for Disease Control and Prevention. An initial list of high-risk factors will be identified.

Time-based and spatial statistical methods will be used to compare time, location, and severity of alcohol-impaired and non-impaired crashes. Crash prediction models will be developed to quantitatively assess the effect of alcohol consumption on the occurrence of crashes.

A web-based interactive tool which will be integrated with BRFSS information and a map interface will be developed to assist analysts when assessing risk of alcohol-impaired driving.

IMPLEMENTATION POTENTIAL
This study will identify the cultural and risk factors associated with alcohol-impaired driving. Louisiana highway safety will be enhanced by continued reduction of alcohol-impaired traffic crashes.