



KANSAS

DEPARTMENT OF TRANSPORTATION

HIGHWAY SAFETY ISSUES OF OLDER DRIVERS IN KANSAS

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R E S E A R C H

Introduction

The older population (>65 years) numbered 36.8 million in the United States in 2005. By 2030, the number is estimated to be 71.5 million, almost twice as many. An increase in the older population means an increase in older drivers as well. As a result of the natural aging process, the possibility of older drivers being involved in crashes and sustaining severe injuries increases, according to past findings.

Project Objective

The objective of this study was to identify characteristics of older drivers involved in crashes in Kansas as well as associated safety issues, which can be used to suggest potential countermeasures for improving safety.

Project Description

A detailed characteristic analysis was carried out for older, middle-aged, and younger drivers involved in crashes, using crash data obtained from the Kansas Department of Transportation (KDOT), and comparisons were made among the groups. However, the characteristic analysis had no basis with regard to injury severity and hence, univariate statistical analysis was carried out to highlight these severities. In addition, a survey was conducted focusing on identifying older-driver behaviors, potential problems, and level of exposure to various conditions. From the severity analysis, it was found that injury severity of older drivers in crashes occurring on rural roads were significantly higher compared to those on urban roads. Therefore, a detailed analysis was carried out using the decomposition method and ordered probit modeling to identify contributing factors leading to the situation.

Project Results

According to the findings, the number of older male drivers involved in crashes was higher compared to older female drivers, even though older driver licensees' data indicate the opposite. Most of the older-driver-involved crashes occurred under good environmental conditions and at intersections. A majority of older drivers had difficulties associated with left-turn maneuvering and preferred to avoid high-traffic roads and other demanding conditions. Exposure to inclement weather conditions and difficulties associated with merging, diverging, and identifying speeds and distance of oncoming traffic have lead to higher crash propensity. Crashes occurring at rural arterials and at hill crests were critical in causing severe injuries. In rural areas, driving in the wrong direction, failing to comply with traffic signs and signals, and speeding were identified as frequent contributing factors in severe crashes.

Report Information

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