

# Older drivers often involved in daytime crashes more severe than younger drivers' crashes

April 15 2010

---

Kansas State University researchers are discovering the challenges aging creates for drivers.

To help improve [traffic safety](#), K-State engineers identified the characteristics of older drivers in Kansas and the types of crashes they are involved in. Their research found most car accidents involving older drivers occur during the daytime and are more severe, often ending in injury or [fatality](#), than those for younger populations.

With this knowledge, the researchers will follow up with a study to learn what changes can be made to improve these difficulties for older drivers. The focus will be on countermeasures to reduce the number of crashes involving older drivers and the severity of the crashes.

"[Highway safety](#) of older drivers is an issue," said Sunanda Dissanayake, K-State associate professor of civil engineering. "If you live in an area like Kansas, there's not much public transportation, so drivers have to rely on a personal vehicle. The older population should be able to drive. It's a significant predictor of their quality of life."

Dissanayake started the project, which is funded by the Kansas Department of Transportation, in 2008 with Loshaka Perera, a former K-State graduate student in civil engineering. Dissanayake presented the research in March at the Institute of Transportation Engineers Annual

## Meeting

For the study, older drivers were defined as people 65 years and older. The researchers analyzed Kansas crash data from 1997 to 2006, which included crashes based on involvement and severity. The data were analyzed and compared among drivers aged 15 to 25, drivers aged 25 to 65, and older drivers.

"If you look at the number of total crashes in Kansas involving older drivers, it's not that much. That's because they don't drive as much as the rest of the population," Dissanayake said. "But if you look at crash involvement per mile driven, that's very high for older drivers."

The crash analysis showed that the severity of crashes for older drivers also is very high compared to the rest of the population. When looking at the categories of crash severity, older drivers have the highest incidents in fatal crashes, as well as incapacitating and non-incapacitating crashes. Older drivers also had a higher percentage of crashes occurring at intersections and accidents happening during daylight.

"That doesn't necessarily mean it's more dangerous during daytime," Dissanayake said. "It could be because older drivers do most of their driving during the daylight hours."

Most of the older-driver crashes involved colliding with another vehicle while in traffic. Few involved running off the road and hitting something, which is more common for young drivers, Dissanayake said. Right before their crashes, most of the older drivers were driving straight ahead, but a significant amount were making a left turn. Dissanayake said making a left turn is especially difficult when there is no green arrow, leaving the maneuver to the driver's judgment.

The study also identified the personal opinions and experiences of older

drivers. The researchers distributed a survey for older drivers around Kansas at places like senior centers, retirement communities and churches. The results showed that more than 92 percent of the participants had more than 50 years of driving experience. Most of them reported driving cars, and 41 percent said they drove every day. However, the majority of older drivers said they drove less than 100 miles per month. The survey also showed that 65 percent of participants had never taken a driver education course, and 18 percent of the participants were involved in a crash in the last 10 years.

The survey also asked questions regarding the drivers' perceptions of the difficulties for different driving conditions. The participants said they don't mind driving in windy or rainy conditions, though they try to avoid driving in snow. Men reported to be more willing to drive in bad weather compared to women.

Only 38 percent of the drivers said they are likely to drive during the night, and 39 percent said they are likely to drive on freeways. Participants also answered questions regarding factors of driving that have become more difficult as they have gotten older.

"One of the most difficult things for them is identifying the speed and distance of oncoming traffic," Dissanayake said. "This is important for making a left turn, and looking at the crash data, we see a lot of left-turn [crashes](#)."

The participants also said they have difficulty and feel less comfortable making sudden, unexpected stops while driving, as well as merging and changing lanes. Fifty percent said they would like to avoid high-traffic roads, as well as freeways and two-lane undivided highways.

One of the challenging situations that could be improved is the safety at intersections, Dissanayake said.

"In areas where there are more older drivers, I think we should always look at the possibility of having the green arrow indication at left turns," Dissanayake said. "Additionally, for driver education perhaps we need to have a closer look at the driver license renewal process, such as its frequency and what is covered."

She said the fonts and sizes of road signs also could be further improved to ensure older driver safety.

"As the older population gradually increases in the United States, so will the number of [older drivers](#)," Dissanayake said. "We need to be taking steps to improve their safety while driving, which also would be beneficial to all road users."

Provided by Kansas State University

Citation: Older drivers often involved in daytime crashes more severe than younger drivers' crashes (2010, April 15) retrieved 25 April 2024 from <https://phys.org/news/2010-04-older-drivers-involved-daytime-severe.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--