

Pandemic's effects on traffic crashes linger

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Credit: Scott Meltzer/public domain

Despite a drop in vehicle crashes this year in the state, fatal crashes have increased slightly, possibly because of lingering effects of the pandemic, according to research from The University of Alabama.

When comparing the first half of 2021 to the first half of 2019, the last



full year before the global <u>pandemic</u> started, there are close to 10% fewer vehicle crashes in Alabama, but a 1% increase in <u>fatal crashes</u>, boosted by more crashes caused by speeding, impaired driving and aggressive driving, according to the study. The recent analysis of state <u>traffic</u> crash records by researchers at the Center for Advanced Public Safety at UA has established that the pandemic had some lasting effects on <u>traffic crashes</u>.

"Aggressive driving was significantly higher over the COVID-19 period, and this was thought to be the result of drivers' frustration with the imposed restrictions," said Dr. David Brown, a researcher with CAPS who directed the study. "Once those restrictions were relaxed, it was expected that this factor would diminish, but it continues, so this might also be considered a holdover from the COVID period."

The study employed the Critical Analysis Reporting Environment, or CARE, a software analysis system developed by CAPS research and development personnel to automatically mine information from existing databases. The software allows comparisons among crash subsets to mine the information for over-representations, which are items significantly higher than what would be expected compared to all crashes during the control period, which for this study was 2019. The Alabama Law Enforcement Agency, or ALEA, provided crash records for the study.

In the first few weeks after the pandemic became publicized in mid-March 2000, overall traffic was cut almost in half, and overall crashes, including fatal crashes, were similarly reduced. Mirroring a national trend, though, the fatal crash rate per million vehicle miles in Alabama increased in the latter half of 2020 so that the number of fatalities was not significantly different from what it was in 2019, according to a series of reports Brown led on the effects of the pandemic on crashes during 2020 and available on the Safe Home Alabama website.



Since traffic patterns of 2020 were greatly influenced by the pandemic, crashes in the 2019 year were considered the norm against which different aspects of the 2021 crashes were compared. Differences observed could be attributed to one or more of the following:

- Driver habits established during the 2020 COVID period that seem to have lasting effects.
- Roadway and economic differences between 2019 and 2021.
- Unexplainable, purely random variations.

For the first half of 2021, all crashes were down 9.8% compared to the same time period in 2019; however, some crash causes increased such as impaired driving, up 3.7%; speeding, up 5.3%; and aggressive driving, up 3.8%. These contributed to the uptick in fatal crashes when compared to 2019, Brown said.

Even though the number of fatal crashes is up only 1%, the reduced traffic, as measured by total crashes, indicates a significantly higher fatal crash rate, according to the report.

"It is our goal in this regard that individual drivers will learn from these factors and change their behaviors accordingly," Brown said.

Provided by University of Alabama in Tuscaloosa

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