The COVID-19 pandemic has sparked renewed interest in remote work arrangements, which also could help improve occupational and traffic safety, according to a study by researchers at Florida Atlantic University and the University of Miami.

Gulcin Gumus, Ph.D., an associate professor in FAU's College of Business, and Michael T. French, Ph.D., a professor and chair of UM's Health Management and Policy department, examined the effect of economic business cycles on traffic deaths in the U.S., with a special emphasis on work-related crashes. Those are defined as crashes involving at least one vehicle registered to a business, company or government agency.

The study, recently published in the journal *Social Science & Medicine*, revealed that traffic deaths tied to the workplace increase during robust economic times and decline during recessions, a clear indication that fewer workers on the roads leads to better traffic safety.

Gumus and French estimated that a one percentage point decline in the state unemployment rate is tied to a 4.7 percent increase in work-related traffic fatalities. The researchers noted the estimate of lives lost is likely conservative, given data availability and other study limitations.

The findings could help convince U.S. employees and employers that some amount of remote work should become a permanent option. Some major organizations already are doing this. At Facebook, for example, CEO Mark Zuckerberg announced last week he intends to spend more time working remotely and said he will allow full-time employees to do the same if their jobs can be completed out of the office.

In the earliest days of the pandemic last spring, state and local leaders nationwide issued stay-at-home orders to curtail the spread of COVID-19. That left much of the American workforce to set up home offices and conduct meetings over Zoom and other virtual platforms. Despite occasional hassles, many workers eventually found they are more productive at home, in part because they do not have time-consuming and stressful commutes.

Long before the pandemic, the Centers for Disease Control and Prevention recommended that employers adopt programs to buy safe vehicles and promote safe driving, but more needs to be done to protect lives, according to the researchers of the new study.

"If the pandemic leads to more remote work, we're likely to see economic business cycles have less of an impact on work-related traffic crashes in the years ahead," said Gumus, whose specialties include health economics, public health and health policy. "This is important not only for workers and employers, but also for bystanders, who make up the great majority of fatalities in such collisions."

The professors' research spanned all 50 states.
from 2004 to 2012, focusing on the Great Recession of 2007 to 2009. In the Great Recession, the average state unemployment rate increased by 4.24 percentage points, according to the study. The professors found that the rate of work-related traffic fatalities decreased by 20 percent over the recession's seven quarters, one of the most significant unintended positive consequences of the economic downturn, the researchers concluded.

"Considering the highly preventable nature of traffic crashes, this is a public health issue that can be approached through actions taken by drivers, policymakers and employers," the study stated.

Gumus and French did not study the recession caused by the pandemic because the data is not yet complete.

"The economic collapse in 2020 and the early part of 2021 was different than the Great Recession and is certain to reveal new insights on how business cycles affect work-related traffic fatalities," French said.


Provided by Florida Atlantic University

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