

Less driving linked to a decrease in roadway fatalities

February 9 2017

Each year, more than 30,000 people die in car crashes in the U.S. Despite safety improvements, motor vehicle fatalities continue to be a leading cause of early mortality. A new study in the *American Journal of Preventive Medicine* shows that a significant decrease in automobile travel from 2003-2014 correlated with a decrease in the number of crash deaths, with the largest reduction among young men. The study also discovered that at the same time, there was no increase in how active Americans were, meaning physical activity did not replace driving for many people.

Although car use had steadily increased since the invention of the [internal combustion engine](#), the early 2000s marked the beginning of a decline. Between 2004 and 2014, per-capita driving shrank by nearly 600 miles annually. Young adults, millennials born in the 1980s and early 1990s, saw the largest decline. This cutback seemed to correspond with the [global economic crisis](#), rising gas prices, and a general shift in lifestyle habits, including evolving attitudes about travel. Some researchers theorized that the decrease of automobile use might lead to Americans being more physically active as they looked to replace driving as their mode of transport.

Noreen McDonald, MCP, PhD, Chair and Associate Professor in the Department of City and Regional Planning at the University of North Carolina at Chapel Hill, wanted to analyze how the decline in driving time had affected two key areas: changes in [physical activity](#) and number of motor vehicle fatalities. She found that while less driving did mean a

decrease in deaths, it did not have an impact on activity levels.

"My analysis shows a drop in automobile travel from 2003 to 2014 with the largest decreases among [young adults](#), particularly men," explained Dr. McDonald. "Despite predictions to the contrary, a substantial decline in auto use has not been accompanied by an increase in time spent in active travel nor in reallocating travel time to exercise. These results accord with analyses from the transport literature that show the drop in driving occurred because Americans were going fewer places, not because they were switching from cars to travel by bus, foot, or bicycle."

The study found that auto travel decreased by 9.2 minutes per day from 2003-2014. Men aged 20-29 years saw the largest drop. Consequently, motor vehicle fatalities showed significant declines among [young men](#), but also across all ages. "Fatalities to motor vehicle occupants dropped significantly during the study period, particularly among millennials," said Dr. McDonald. "Safer cars and better driving training could explain this decline, but the decrease could also be explained by the large and significant drop in driving. Analyses of exposure-adjusted death rates show small declines, suggesting that decreased exposure explains much of the decline in the population-adjusted death rate."

The amount of time people spent exercising remained unchanged during the study period. "Americans have stayed home more in the recent decade for a complex set of inter-related factors," stated Dr. McDonald. "Technologic advances have eliminated the need for some face-to-face interaction. High gas prices, rising debt, stagnant incomes, and increases in unemployment have made driving more costly. Finally, delays in employment, partnering, and parenthood have lowered the need for certain types of trips."

As some of those economic barriers have begun to fade away, people have started to get back behind the wheel. In future, a major challenge

for public health policy makers will be to try and mitigate the undesired effects of increased driving time. In 2015, for example, 2,348 more people died in [car crashes](#) than in 2014. "Our analysis shows that the nearly unprecedented decade-long decline in fatalities that the U.S. experienced through 2014 was connected to declining [driving](#)," concluded Dr. McDonald. "This greatly benefited [public health](#) through reduced roadway fatalities. The challenge that we must all now work towards is how to maintain the safety record on American roads as population growth, low [gas prices](#), and an improving economy lead to more travel."

More information: "Trends in Automobile Travel, Motor Vehicle Fatalities, and Physical Activity: 2003-2015," by Noreen C. McDonald, MCP, PhD, *American Journal of Preventive Medicine*, volume 52, issue 5 (May 2017) [DOI: 10.1016/j.amepre.2016.12.012](https://doi.org/10.1016/j.amepre.2016.12.012)

Provided by Elsevier

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