

Researchers see significant reduction in fatal car crashes after increase in alcohol taxes

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Increasing state alcohol taxes could prevent thousands of deaths a year from car crashes, say University of Florida Health researchers, who found alcohol-related motor vehicle crashes decreased after taxes on beer, wine and spirits went up in Illinois.

A team of UF Health researchers discovered that fatal [alcohol-related car crashes](#) in Illinois declined 26 percent after a 2009 increase in [alcohol tax](#). The decrease was even more marked for young people, at 37 percent.

The reduction was similar for crashes involving alcohol-impaired drivers and extremely drunken drivers, at 22 and 25 percent, respectively. The study was released online in the *American Journal of Public Health* in March and will be published in a forthcoming issue.

"Similar alcohol tax increases implemented across the country could prevent thousands of deaths from car crashes each year," said Alexander C. Wagenaar, Ph.D., a professor in the department of health outcomes and policy at the UF College of Medicine. "If policymakers are looking to address dangerous drivers on our roads and reduce the number of fatalities, they should reverse the trend of allowing inflation to erode alcohol taxes."

Alcohol-related motor vehicle crashes account for almost 10,000 deaths and half a million injuries every year in the United States. Alcohol is more affordable than ever, a factor researchers say has contributed to

Americans' widespread drinking and driving.

Drinking more than 10 drinks per day would have cost the average person about half of his or her disposable income in 1950 compared with only 3 percent in 2011. Alcoholic beverages have become so inexpensive because alcohol tax rates have declined substantially, after taking inflation into account.

In August 2009, Illinois raised its excise tax on beer by 4.6 cents per gallon, on wine by 66 cents per gallon and on distilled spirits by \$4.05 per gallon. Assuming the entirety of the taxation cost is passed on to the consumer, that would result in a .4 cent increase per glass of beer, a .5 cent increase per glass of wine and a 4.8 cent increase per single serving of spirits.

The research team, which also included Melvin D. Livingston, Ph.D., an assistant research scientist, and Stephanie S. Staras, Ph.D., an assistant professor, both of the UF department of health outcomes and policy, used detailed records of fatal crashes from the National Highway Traffic Safety Administration from January 2001 to December 2011. They looked at the 104 months before the tax was enacted and the 28 months after it was enacted to see whether the effects of the tax change differed according to a driver's age, gender, race and [blood alcohol concentration](#) at the time of a fatal [motor vehicle crash](#).

The research team defined an impaired driver as having a blood alcohol level of less than .15 percent and an extremely drunken driver as having a [blood alcohol level](#) of more than .15 percent, which translates to roughly six drinks within an hour for an average adult.

To control for multiple other factors that can affect [motor vehicle](#) crash rates, such as traffic safety programs, weather and economic conditions, the researchers compared the number of alcohol-related fatal crashes in

Illinois with those unrelated to alcohol during the same time period as well as alcohol-related fatal crashes in Wisconsin, which did not change its alcohol taxes. Results confirmed that the decrease in [crashes](#) was due to the tax change, not other factors.

The larger-than-expected size of the effects of this modest tax increase may be because the tax change occurred at the same time as the Great Recession—a time when unemployment was high and personal incomes lower, according to the study.

"While our study confirms what dozens of earlier studies have found—that an increase in alcohol taxes reduces drinking and reduces alcohol-related health problems, what is unique is that we identified that alcohol taxes do in fact impact the whole range of drinking drivers, including extremely drunk drivers," Wagenaar said. "This goes against the conventional wisdom of many economists, who assert that heavy drinkers are less responsive to tax changes, and has powerful implications for how we can keep our communities safer."

Provided by University of Florida

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