

# DRUG ALCOHOL FINDINGS *Research entry*

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## [▶ Effects of a 2009 Illinois alcohol tax increase on fatal motor vehicle crashes.](#)

**Wagenaar A.C., Livingston M.D., Staras S.S.**

**American Journal of Public Health: 2015, 105(9), p. 1880–1885.**

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*Though price rises would have been modest, still the increase in alcohol taxes in Illinois in 2009 significantly reduced fatal alcohol-related motor vehicle crashes by at least 15% over the following 28 months.*

**SUMMARY** In the state of Illinois in the USA, from 1 September 2009 the excise tax on beer increased to \$0.231 per gallon (an increase of \$0.046 per gallon), on wine to \$1.39 per gallon (an increase of \$0.66 per gallon), and on distilled spirits increased to \$8.55 per gallon (an increase of \$4.05 gallon).

Set against the context both of non-alcohol traffic deaths in the state and alcohol-related fatal crashes in a neighbouring state which did not change alcohol taxes during this period, the tax increases were estimated to have reduced fatal alcohol-related motor vehicle crashes by 119 per year from September 2009 to December 2011, 26% fewer than would have been expected without the tax changes. The effect was larger among drivers under 30 years of age (37%) than among older drivers (23%).

This reduction occurred despite the fact that the expected increase in the retail price of beer and wine following the tax increase was less than \$0.01 cent per drink, and in the retail price of spirits less than \$0.05 cents per drink. These results indicate that modest increases in alcohol taxes can reduce alcohol-related crash deaths, despite the long-standing and widespread trend for inflation-adjusted alcohol taxes to fall, making alcohol more affordable.

The quite large effects represented the first 28 months' experience after the tax increases, and may erode due to inflation. Another factor which might have contributed to unexpectedly large effects was the severe contraction in disposable incomes in 2008. Adjusting for what might have been an effect on alcohol consumption and related traffic deaths lowered the estimated reduction in traffic deaths due to tax rises from 26% to 15%.

Reductions in death rates were about the same for drivers found to have more or less than 0.15g alcohol per decilitre of blood, representing very heavy drinking which for most adults requires drinking about 84g (over 10 UK units) of alcohol within one hour, far exceeding typical thresholds for 'binge' drinking. These results suggest that increasing alcohol excise taxes reduces alcohol consumption among binge drinkers, reducing the risks of alcohol-impaired driving and alcohol-related crash deaths due to binge drinking as well as other drinking patterns. This observation of essentially equal effects of the tax change on lighter- and heavier-drinking drivers is noteworthy, because the conventional view among economists is that heavy drinkers, although still responding somewhat to price changes, are less responsive than those who drink in moderation.

The overall conclusion was that the 2009 increases in alcohol taxes in Illinois significantly reduced fatal alcohol-related motor vehicle crashes, with slightly larger effects on younger drivers than older drivers and equal effects on the heaviest drinkers and those who drank less. Replication of similar alcohol tax increases in other US states could prevent thousands of car crash deaths annually.

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