

Legalizing Marijuana Hasn't Made Roads Less Safe

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- In California, Maine, Massachusetts, and Nevada – four states that fully legalized marijuana in 2016 – traffic fatalities declined or remained the same in the three years that followed, compared to a slight increase in states where it remained illegal.
- A comprehensive study of traffic data in the U.S. and Canada failed to find a statistically significant change in accidents and fatalities after legalization.
- Alcohol, which remains fully legal in all 50 states and D.C., is a factor in nearly a third of all automotive fatalities.

Each year, more states are added to the list of those that are legalizing marijuana for medical and recreational use. Currently, the federal government is considering “rescheduling” the plant – a move that wouldn’t legalize it entirely, but would be a step in that direction. With voters in several states considering legalization this year at the ballot box, we wanted to know whether states that have legalized in the past have seen their roads become less safe as a result.

Our team studied car accident data in states throughout the country before and after they legalized marijuana to see if legalization correlated with higher accident rates. We also spoke to state officials to gain their perspective on the effects of legalization on their roads.

Our Methodology

For clarity and consistency, we chose four states – California, Maine, Massachusetts, and Nevada – that fully legalized marijuana in 2016 to study vehicle death rate trends. We used deaths per 100,000,000 vehicle miles as our primary metric, [sourced from the National Safety Council \(NSC\)](#). Our team examined individual vehicle death rates and aggregated fatality rates in these four states during the years following 2016 and compared them to the U.S. national average. We also compared these numbers with those of Idaho, Indiana, Kansas, Nebraska, and Wyoming – five states that have not legalized marijuana.

While the evidence put forth by this data is not meant to be conclusive about the effects of marijuana legalization on road safety, it does provide a degree of insight into the relationship between the two.

Traffic Fatality Data Paints a Nuanced Picture About Legalization

Vehicle death rates from the NSC were the most reliable data available to us in our research. It is important to recognize that there are countless factors that can influence traffic fatality rates in a given area or the country as a whole.

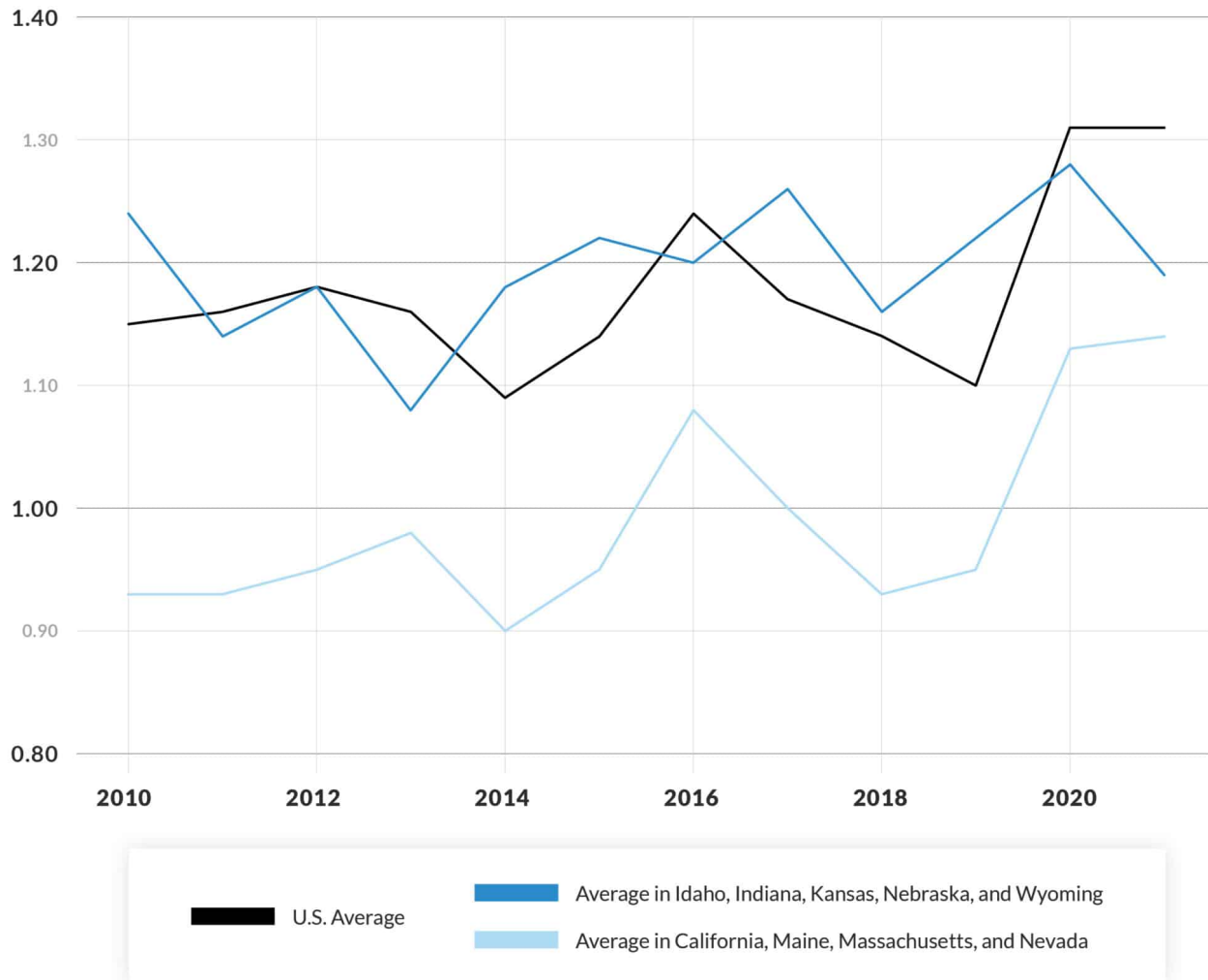
However, if legalized marijuana did lead to drivers being less safe on the road, one would expect to see some degree of positive correlation with vehicle death rates for states that chose to legalize compared to those that didn't, and to the national average as a whole. The results we got from the data comparisons did show some of the expected correlation at first pass. But when examined more closely, it revealed a more complex picture.

Vehicle Deaths Increased In Legalized States and Decreased in Illegal States From 2016 – 2021

The first dataset we looked at was the average traffic fatality rate in the four states that legalized marijuana in 2016, the five that have never legalized, and the U.S. as a whole from 2016 to 2021 – the last year for which NSC data were available. These results did show an increase in vehicular deaths in legalized states paired with a decrease in illegal states.

Effects Of Marijuana Legalization On Traffic Fatalities

Traffic Fatalities Per 100 Million Miles Traveled, 2010 To 2021



Among the states that legalized marijuana in 2016, the vehicle death rate increased by 6.0% between 2016 and 2021. While this is an increase, it is slightly less of an increase than the national average, which saw a 6.2% increase in the traffic fatality rate over the same period. The vehicle death rate dropped by an average of 0.7% in the five states that have not legalized cannabis during this period.

Removing 2020 and 2021 Traffic Fatality Data Changes the Picture

In many ways, 2020 and 2021 were anomalies, and this remains true in the case of vehicular accident trends. After decades of declining accident rates in the U.S., traffic fatalities picked up in 2020 and stayed high through 2021. The U.S. as a whole saw traffic fatality rates spike 18.9% from 2019 to 2021. States that legalized marijuana in 2016 saw a similar increase of 19.9%. States that have not legalized – and are notably more rural than ones that did – saw the vehicular death rate fall 2.3% over that period.

Percent Change In Traffic Fatality Rates From 2016 To 2019

Group	2016–2019
U.S. Average	-10.6%
Average in States With Illegal Marijuana	1.7%
Average in States Where Marijuana Was Legalized in 2016	-11.6%

Because of this, we thought it was important to see what rates looked like with 2020 and 2021 removed from the data set. And it turns out, they look quite different. The average traffic fatality rate for the U.S. as a whole fell by 10.6% between 2016 and 2019. In states that legalized cannabis in 2016, vehicle death rates fell at a slightly higher rate of 11.6%. States that have not legalized saw a slight increase of 1.7% from 2016 to 2019.

In fact, the traffic fatality rate did not increase in any of the four states that legalized in 2016 during that three-year period. Three of the four states saw a significant decrease in vehicle deaths over that span, while the rate in Maine showed no change. Massachusetts saw the biggest drop, as rates fell 28.6% in the three years following legalization.

Have Government Agencies Observed Correlations Between Cannabis Legalization and Traffic Safety?

The data we used in our research provides an interesting and nuanced – but ultimately limited – set of observations. For a different perspective and more information, we reached out to officials in state insurance regulatory agencies. Insurance regulators have to stay on top of constantly-evolving trends that influence coverage rates and policy decisions from insurance providers. Therefore, these regulators have a high degree of insight into changes to accident rates and other trends.

We asked Judi Watters, public information and consumer outreach specialist for the [Maine Bureau of Insurance](#), about the effect that Maine’s decision to legalize marijuana in 2016 has had on the state’s insurance industry. She told us that, for the most part, there hasn’t been one. “There have not been any changes to how insurance laws are administered, relative to cannabis use being legalized in Maine,” she confirmed.

Watters mentioned that the Casualty Actuarial Society (CAS), which studies statistical data related to property and casualty insurance, released a report in December 2022 on the topic. The report, titled “[Assessing the Impact of Marijuana Decriminalization on Vehicle Accident](#)

Experience,” uses accident data from the U.S. and Canada from 2016 to 2019 to examine the effects of legalization on traffic safety. This study was far more exhaustive than our data analysis and controlled for more factors, such as weather and annual patterns.

In its executive summary, the report concludes that legalization and decriminalization have not made roads more dangerous in either the U.S. or Canada.

“The tests for the decriminalization effect on fatalities failed to detect a statistically significant change,” the report says about its findings for the U.S. Similarly, it states that, “The analysis showed no statistically significant changes in the average cost per claim and claim frequency after marijuana legalization in Canada. The quarterly data available for Québec led to similar findings.”

Marijuana Use May Have Little Impact on Driving Behavior

While there is no evidence to suggest that legalizing or decriminalizing marijuana makes roads more dangerous, that is not to say that it is safe to drive while under the influence of cannabis. Numerous studies have concluded that marijuana impacts cognitive function and motor skills, which can alter how people operate a vehicle.

A study published in The American Journal of Addictions (AJA) examined the effects of marijuana impairment on driving behavior. It found that being intoxicated on marijuana had a significant impact on subjects’ cognitive functioning, stating, “a meta-analysis of 60 studies concluded that marijuana causes impairment in every performance area that can reasonably be connected with safe driving of a vehicle, such as tracking, motor coordination, visual functions, and particularly complex tasks that require divided attention.”

This conclusion is reiterated by the CAS executive summary, which states that, “... marijuana impairment affects driving behaviour.”

However, the summary goes on to provide an important point of clarification, stating that while the substance has an observed effect on driving-related functions, “the behaviour is not always riskier; for example, slower speeds and longer following distances of impaired drivers have been reported.”

This may provide some insight into why decriminalized – and therefore more easily accessible – marijuana has not resulted in higher accident rates in any significant way, despite the substance’s observed cognitive and motor effects. The AJA study also observed that cognitive impairment from marijuana use doesn’t necessarily translate into unsafe driving behavior.

“Surprisingly, given the alarming results of cognitive studies, most marijuana-intoxicated drivers show only modest impairments on actual road tests,” it says. The report maintains that the effects are even less pronounced in people who use marijuana regularly, stating,

“Experienced smokers who drive on a set course show almost no functional impairment under the influence of marijuana.”

Traffic Safety Should Not Be a Significant Concern For Marijuana Legalization Initiatives

It has now been over a decade since Colorado and Washington became the first states to legalize cannabis for recreational use in 2012. Recreational marijuana use is now legal in 23 states and the District of Columbia. It is possible that as more time passes and more data become available, the statistics will tell a different story. But as of yet, studies have failed to show that legalization of cannabis has resulted in any significant increase in traffic fatalities in the places where it has been legalized.

However, the same cannot be said for alcohol, an intoxicant that remains legal, widely-available, and deeply ingrained in our culture – albeit regulated by state and local governments. The [statistics around alcohol and driving](#) from the National Highway Traffic and Safety Administration (NHTSA) paint a harrowing picture of the drug’s impact on road safety. Between 2012, when the first U.S. states legalized recreational marijuana, and 2021, the U.S. saw a total of 327,514 traffic deaths. During that period, alcohol was a factor in 97,597 – or 29.8% – of those fatalities.

The NHTSA also frames this data in a more immediate way, saying, “Every day, about 37 people in the United States die in drunk-driving crashes – that’s one person every 39 minutes.” Despite this, alcohol remains legal while marijuana, which has not been shown to have a negative impact on traffic safety, is still illegal in more than half of the country.

There are legitimate concerns around the marijuana legalization debate. Cannabis has been shown to affect cognitive development in young people and to pose a risk of psychosis to certain people. The water used in growing marijuana en masse presents significant environmental concerns. However, based on our research and the research of others, the effect that legal marijuana could have on traffic safety should not be one of those concerns.