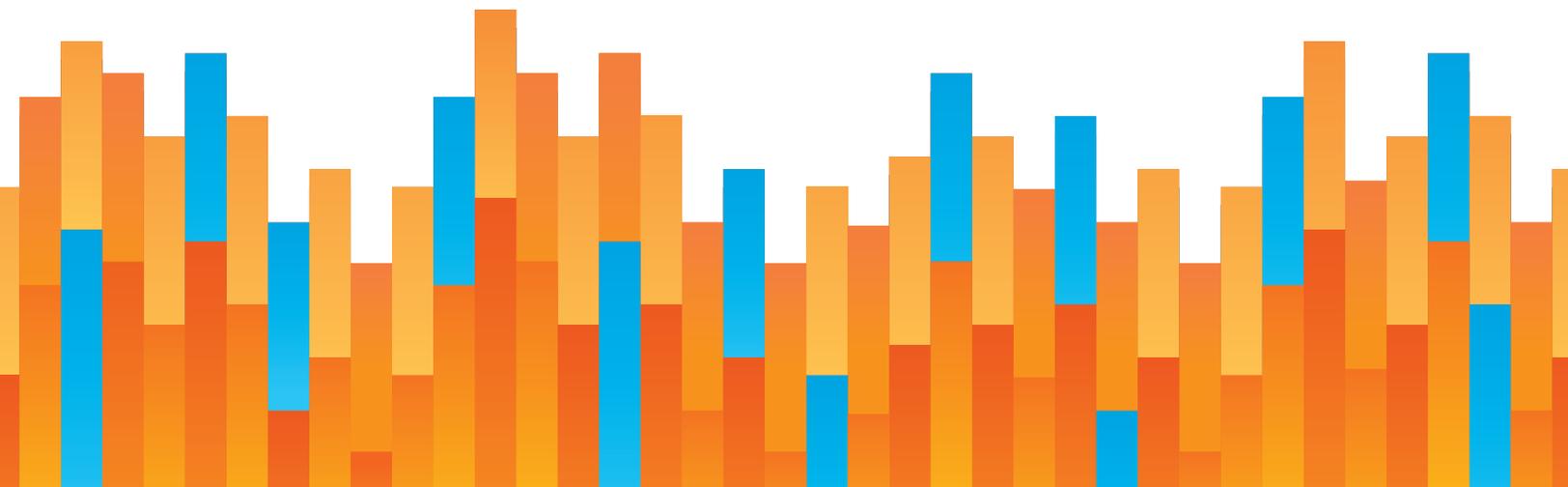




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DOES LEGALIZING MARIJUANA REDUCE CRIME?

by Julian Morris
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PART 1

DOES LEGALIZING MARIJUANA REDUCE CRIME?

Proponents of legalizing marijuana for recreational use say that it will reduce crime. Opponents say it will have the opposite effect. This brief explores the issue, addressing the several ways that marijuana legalization might affect crime.

1.1

EFFECTS ON CRIMES RELATED TO THE PRODUCTION, DISTRIBUTION AND USE OF MARIJUANA

Legalization might be expected to reduce the number of people involved in illegal activities related to marijuana production, distribution and use.

In Washington State, which legalized marijuana for recreational use in 2013, the number of low-level court filings for marijuana fell by 98% between 2012 and 2013.¹ The number of adults (over 21) convicted for misdemeanor possession fell from 297 in January to 0 in

¹ ACLU Washington. "Court Filings for Adult Marijuana Possession Plummet." March 19, 2014. <https://aclu-wa.org/news/court-filings-adult-marijuana-possession-plummet>

January 2013—and has remained there since.² Meanwhile, the number of those under 21 convicted for possession fell by about 50% between 2012 and 2013.³

In Colorado, the number of cases brought against people for cultivation, distribution and possession of marijuana fell by 85% in the first full year of legal sales (2014) compared to the average in the three years prior to legalization (2010–2012).⁴

Similar declines in charges and convictions were seen in jurisdictions that subsequently legalized recreational cannabis, including Oregon, Alaska, and Washington, D.C.⁵



From this evidence, it is clear that, while legalization does not necessarily eliminate illegal production, distribution and sale of marijuana, it tends to diminish it dramatically.



From this evidence, it is clear that, while legalization does not necessarily eliminate illegal production, distribution and sale of marijuana, it tends to diminish it dramatically. As a result, it relieves the burden placed on courts, law enforcement and prisons, allowing for greater focus on violent crime. It also appears to have reduced use of marijuana by minors.

² Darnell, A.J. and K. Bitney. *I-502 Evaluation and Benefit-Cost Analysis: Second Required Report*. (Document Number 17-09-3201). Olympia: Washington State Institute for Public Policy. 2017. 31. http://www.wsipp.wa.gov/ReportFile/1670/Wsipp_I-502-Evaluation-and-Benefit-Cost-Analysis-Second-Required-Report_Report.pdf

³ Ibid. 32.

⁴ Gettman, Jon. *Marijuana Arrests in Colorado After the Passage of Amendment 64*, New York: Drug Policy Alliance. https://www.drugpolicy.org/sites/default/files/Colorado_Marijuana_Arrests_After_Amendment_64.pdf Note that the right for individuals to possess, cultivate and use marijuana in Colorado came into effect on December 10, 2012, but legal sales did not begin until January 1, 2014. Arrests and convictions fell significantly in 2013 but since commercial cultivation and sales were still illegal, this brief omits that year from the analysis.

⁵ Drug Policy Alliance, *From Prohibition to Progress: A Status Report on Marijuana Legalization*.

1.2

EFFECTS ON OTHER DRUG USE

Fears have been raised about the prospects that legalizing marijuana might lead to an increase in demand (and hence, production and distribution) for other “harder” drugs, such as opioids. However, several studies have found that medical marijuana legalization (MML) and legalization for recreational use are associated with a reduction in opioid use:

- A 2014 study found that opioid overdoses were about 25% lower in states that had introduced MML—and that this effect was larger the longer the MML law was in place.⁶
- A 2016 study found that in states with MML, Medicare prescriptions for drugs to treat a range of ailments, including pain, depression and anxiety, were significantly lower.⁷ Two studies published in 2018 found a similar effect—and one of those papers found that legalization of marijuana for recreational use had an even stronger effect.⁸
- Surveys in Michigan and California found significant reductions in use of opioids for pain management following the introduction of MML.⁹
- A 2017 study found that the legalization of marijuana for recreational use in Colorado was associated with a significant reduction in the number of deaths from opioids, reversing what had been an upward trend in deaths in the state (a trend that continued in most states where recreational marijuana remains illegal).¹⁰

⁶ Bachhuber, Marcus A. et al. “Medical Cannabis Laws and Opioid Analgesic Overdose Mortality in the United States, 1999-2010.” *JAMA Internal Medicine*. Vol. 174(1). 2014. 1668-1673. <https://jamanetwork.com/journals/jamainternalmedicine/fullarticle/1898878>

⁷ Bradford, Ashley C. and David Bradford. “Medical Marijuana Laws Reduce Prescription Medication Use In Medicare Part D.” *Health Affairs*. Vol. 35(7). 2016. <https://www.healthaffairs.org/doi/abs/10.1377/hlthaff.2015.1661>

⁸ Bradford, Ashley C. et al.. “Association Between US State Medical Cannabis Laws and Opioid Prescribing in the Medicare Part D Population.” *JAMA Internal Medicine*. Vol. 178(5). 2018. 667-672; Wen, Hefei and Jason M. Hockenberry. “Association of Medical and Adult-Use Marijuana Laws With Opioid Prescribing for Medicaid Enrollees.” *JAMA Internal Medicine*. Vol. 178(5). 2018. 673-679 (which found the stronger effect for legalization of marijuana for recreational use).

⁹ Boehnke, Kevin F. et al. “Medical Cannabis Use Is Associated With Decreased Opiate Medication Use in a Retrospective Cross-Sectional Survey of Patients With Chronic Pain.” *The Journal of Pain*. Vol. 17. 2016. 739–744; Reiman, A. et al. “Cannabis as a Substitute for Opioid-Based Pain Medication: Patient Self-Report.” *Cannabis and Cannabinoid Research*. Vol. 2. 2017. 160-166.

¹⁰ Livingston, Melvin D. et al. “Recreational Cannabis Legalization and Opioid-Related Deaths in Colorado, 2000-2015.” *American Journal of Public Health*. Vol. 107(11). 2017. 1827-1829. <https://ajph.aphapublications.org/doi/full/10.2105/AJPH.2017.304059>

These studies strongly suggest that legalization of marijuana reduces demand for opioids and possibly other drugs. However, legalization of marijuana does not appear to be associated with a reduction in non-marijuana drug crimes. Among the various possible explanations, one likely candidate is that when marijuana is legalized, drug enforcement agencies shift their efforts toward other drugs.

1.3

EFFECTS ON PROPERTY CRIME

Concerns have been raised about the possibility that legalizing marijuana retailers might result in an increase in property crimes in their neighborhoods. However, studies have generally found no increase in property crime around medical marijuana dispensaries. A 2017 study found that crime rates *fell* significantly in the neighborhood of dispensaries in Denver, Colorado, following the legalization of recreational marijuana (crime in adjacent neighborhoods was not affected).¹¹ The authors suggest that this beneficial effect arises from enhanced security and policing around such dispensaries.

“

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”

Another 2017 study found no evidence of an effect of MML on property crime at a national level, but found that MML was associated with a reduction in property crime in California of 20%.¹²

¹¹ Brinkman, Jeffrey and David Mok-Lamme. “Not in My Backyard? Not So Fast. The Effect of Marijuana Legalization on Neighborhood Crime.” Working Paper No. 17-19. Federal Reserve Bank of Philadelphia. 2017. <https://www.philadelphiafed.org/-/media/research-and-data/publications/working-papers/2017/wp17-19.pdf>

¹² Chu, Yu-Wei Luke and Wilbur Townsend. “Joint Culpability: The effects of medical marijuana laws on crime.” Wellington, NZ: Victoria University. SEF Working Paper 04/2017. https://www.victoria.ac.nz/sef/research/pdf/2017-papers/SEF-WP_04-2017.pdf

1.4

EFFECTS ON VIOLENT CRIME

Some studies have found a relationship between heavy marijuana consumption by adolescents and subsequent violent behavior.¹³ However, most studies suggest that marijuana use does not lead to an increase in violent crime.¹⁴ Some more recent studies suggest that legalization might reduce violent crime.



A 2014 study found that the introduction of MML in a state was associated with a reduction in the overall incidence of a “Part 1 offenses” (homicide, rape, robbery, assault, burglary, larceny, and auto theft).



A 2014 study found that the introduction of MML in a state was associated with a reduction in the overall incidence of a “Part 1 offenses” (homicide, rape, robbery, assault, burglary, larceny, and auto theft).¹⁵ The effect seems to have been largely driven by reductions in homicide and assault, which fell by approximately 2.4% for each additional year the MML law was in effect. Meanwhile, the incidence of rape, robbery, burglary, and larceny did not significantly change (and may have fallen). The effect on the incidence of auto theft was also small and insignificant (but it might have risen).

¹³ Arseneault, L. et al. “Mental disorders and violence in a total birth cohort.” *Archives of General Psychiatry*. Vol. 57. 2000. 979–986; Monshouwer, K. et al. “Cannabis use and mental health in secondary school children.” *British Journal of Psychiatry*. Vol. 188. 2006. 148–153; Brady, S.S. et al. “Violence involvement, substance use, and sexual activity among Mexican-American and European-American adolescents.” *Journal of Adolescent Health*. Vol. 43. 2008. 285–295.

¹⁴ Green, K.M. et al. “Does heavy adolescent marijuana use lead to criminal involvement in adulthood? Evidence from a multiwave longitudinal study of urban African Americans.” *Drug and Alcohol Dependence*. Vol. 112. 2010. 117–125. Pedersen, W. and T. Skardhamar. “Cannabis and crime: Findings from a longitudinal study.” *Addiction*. Vol. 105. 2010. 109–118.

¹⁵ Morris, Robert G., et al. “The Effect of Medical Marijuana Laws on Crime: Evidence from State Panel Data, 1990–2006.” *PLoS ONE*. Vol 9(3). 2014.
<http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0092816>

A 2016 study sought to distinguish the effect of MML laws from laws that removed penalties for possession.¹⁶ The rationale is that when possession is decriminalized, demand for marijuana rises. But if production, distribution and sale remain illegal, supply will not increase proportionately, so the price of marijuana will rise, increasing both profits and the motivation of those involved in the supply chain to exert control over the market. The authors found that when the effects of depenalization were taken into account, MML laws were associated with a reduction in robberies, larcenies and burglaries of between 4% and 12%. They also found that depenalization in the absence of legalization of production, distribution and sale may have led to an increase in crime.

A 2017 study found that the introduction of MML in states bordering Mexico led to significant reductions in homicides and aggravated assaults in those states—and that the strongest effect occurred in counties closest to the border.¹⁷ The authors suggest this is evidence that because MML results in legitimate sources of marijuana, it reduces demand for marijuana smuggled illicitly from Mexico and thereby reduces the activity of Mexican drug trafficking organizations and affiliated gangs, along with the violence these organizations use to maintain control of the market.



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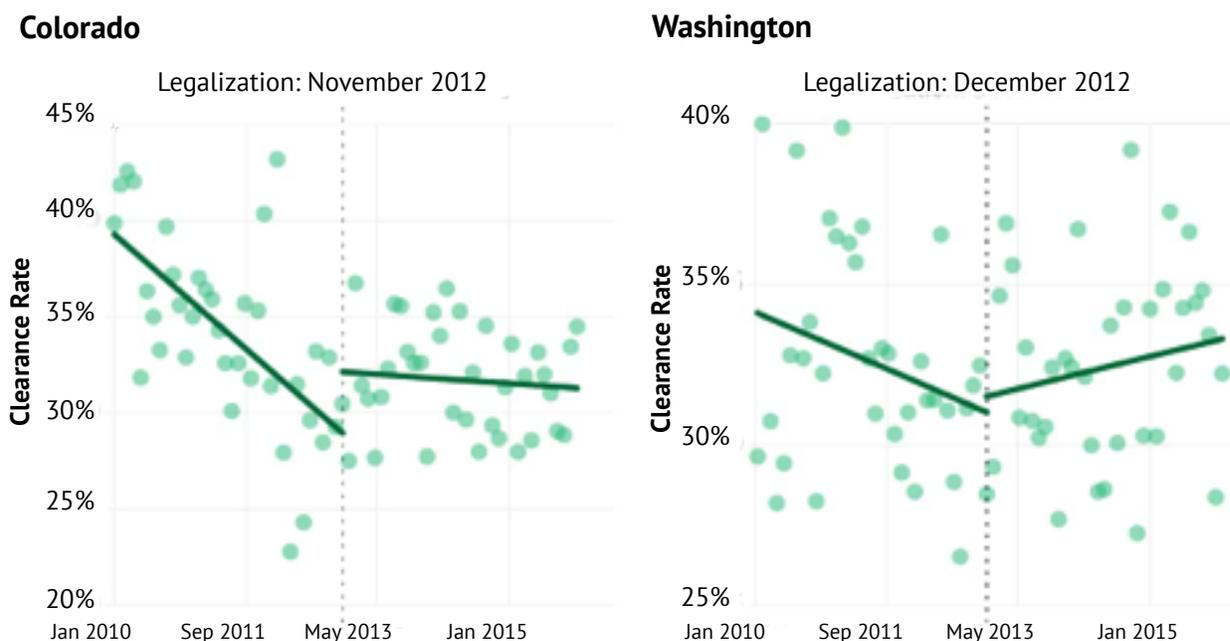


¹⁶ Huber, Arthur III et al. “Cannabis Control and Crime: Medicinal Use, Depenalization and the War on Drugs.” *BE Journal of Economic Analysis and Policy*. Vol. 16(4) 2016. <https://www.degruyter.com/view/j/bejeap.2016.16.issue-4/bejeap-2015-0167/bejeap-2015-0167.xml>

¹⁷ Gavrilova, Evelina et al. “Is Legal Pot Crippling Mexican Drug Trafficking Organisations? The Effect of Medical Marijuana Laws on US Crime.” *The Economic Journal*. June 2017. <https://onlinelibrary.wiley.com/doi/full/10.1111/econj.12521>

A recent study found that legalization of marijuana for recreational use in Colorado and Washington was associated with an improvement in the rate of clearance of cases relating to violent crimes, reversing a previously worsening trend—see figure below.¹⁸ This may be evidence that legalization has led to an improvement in the prioritization of police resources.

FIGURE 1: VIOLENT CRIME CLEARANCE RATES IN COLORADO AND WASHINGTON, 2010 TO 2015



Source: Makin, David et al. "Marijuana Legalization and Crime Clearance Rates: Testing Proponent Assertions in Colorado and Washington State." *Police Quarterly*. July 2018.

<http://journals.sagepub.com/doi/abs/10.1177/1098611118786255?journalCode=pqxa>

¹⁸ Makin, David et al. "Marijuana Legalization and Crime Clearance Rates: Testing Proponent Assertions in Colorado and Washington State." *Police Quarterly*. July 2018.
<http://journals.sagepub.com/doi/abs/10.1177/1098611118786255?journalCode=pqxa>

1.5

EFFECTS ON TRAFFIC CRIMES

Several studies have investigated the effect of marijuana legalization on intoxication and on traffic fatalities, which is relevant here because a traffic fatality that results from driving while intoxicated is a criminal offense.

In general, legalization was associated with an increase in the number of drivers who test positive for THC (9-tetrahydrocannabinol—the main psychoactive components of marijuana). However, this does not necessarily translate into higher rates of traffic crimes—in part because having detectable levels of THC does not correlate well with impairment (see our longer brief reason.org/cannabis-traffic on the subject for more detail¹⁹).

A 2013 study found that traffic fatalities *declined* in states that introduced medical marijuana legalization (MML) laws.²⁰ Two subsequent studies came to the same conclusion.²¹ The authors of these studies provide evidence that the reduction in fatalities is primarily a result of a reduction in drunk driving. This is consistent with earlier findings that marijuana is often used instead of alcohol (it is acting more as a substitute than a complement) and that while alcohol consumption is strongly correlated with dangerous driving, marijuana is not.²² As such, MML appears to reduce the incidence of criminal driving offenses.

Legalization of recreational marijuana might be expected to have a similar effect. However, studies so far are inconclusive. One study by the Highway Loss Data Institute found a small

¹⁹ "Does Marijuana Legalization Increase Traffic Accidents?" Policy Brief. Los Angeles: Reason Foundation, September 2018. <http://reason.org/cannabis-traffic>

²⁰ Anderson, D. Mark et al. "Medical Marijuana Laws, Traffic Fatalities, and Alcohol Consumption." *The Journal of Law and Economics*. Vol. 56(2). 2013. 333-369. <https://www.journals.uchicago.edu/doi/abs/10.1086/668812>

²¹ Pacula, Rosalie Liccardo, "Assessing The Effects Of Medical Marijuana Laws On Marijuana And Alcohol Use: The Devil Is In The Details" NBER Working Paper 19302. 2013; Santaella-Tenorio, Julian et al. "US Traffic Fatalities, 1985–2014, and Their Relationship to Medical Marijuana Laws." *American Journal of Public Health*. Vol. 107(2). 336–342. 2017.

²² See e.g. Sewell, Andrew R., James Poling, and Mehmet Sofunglu. "The Effect of Cannabis Compared with Alcohol on Driving." *American Journal of Addiction*. Vol. 18(3). 2009. 185–193. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2722956/> Also see Richard P. Compton and Amy Berning. "Drug and Alcohol Crash Risk." Department of Transportation. National Highway Traffic and Safety Administration. DOT HS 812 117. <https://www.nhtsa.gov/behavioral-research/drug-and-alcohol-crash-risk-study>

increase in the number of reported crash claims following marijuana legalization in Colorado, Washington and Oregon.²³ But a more recent study published by the National Bureau of Economic Research, which looked only at Colorado and Washington but better controlled for confounders, found no effect.²⁴ It may be too early to tell: to the extent that MMLs contributed to reductions in fatality rates, they did so over several years, so the same could be expected for recreational legalization.

1.6

SUMMARY AND CONCLUSIONS

The evidence presented in this brief suggests that legalization of marijuana for medical or recreational use results in:

1. Patients substituting marijuana for other drugs, including opiates.
2. Marijuana consumers substituting legitimate marijuana for illicit marijuana.
3. A significant reduction in crimes associated with marijuana production, distribution, sale and possession.
4. Reductions in other crimes, including some property and violent crimes.

These effects vary by location, with reductions in property and violent crimes being most pronounced in locations close to the Mexican border due to the diminution of activities of Mexican drug trafficking organizations and affiliated gangs.

Medical marijuana legalization also appears to be associated with a reduction in drunk driving. The effects of legalization of marijuana for recreational use are less clear.

In addition, there is evidence that depenalization of possession increases demand for marijuana. In states that have not also legalized marijuana either for medical or recreational use, this may lead to increases in crime (though the evidence is weak). However, in states that have legalized marijuana for either medical or recreational use, any adverse effects of such increased demand are more than offset by reductions in crime associated with legalization.

²³ "HIGH CLAIMS: Legalizing recreational marijuana is linked to increased crashes." Insurance Institute for Highway Safety. Highway Loss Data Institute. *Status Report*. 52 (4). June 22, 2017. <http://www.iihs.org/iihs/sr/statusreport/article/52/4/1>.

²⁴ Hansen, Benjamin et al. "Early Evidence On Recreational Marijuana Legalization And Traffic Fatalities." NBER Working Paper 24417. 2018. <http://www.nber.org/papers/w24417>

The largest benefits in terms of crime reduction, with the possible exception of traffic-related crimes, come from legalization of marijuana for adult recreational use. Moreover, given the strong relationship between the reduced price of marijuana and reduced criminal activity associated with marijuana production, distribution and supply, these benefits are likely to be stronger in markets that are more competitive.

ABOUT THE AUTHOR

Julian Morris is executive director of the International Center for Law and Economics, a non-profit that produces scholarly work on a broad range of issues related to economic and legal policy. Julian is also a Senior Fellow at Reason Foundation.

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Julian graduated from the University of Edinburgh with a master's in economics. Graduate studies at University College London, Cambridge University and the University of Westminster resulted in two further master's degrees and a Graduate Diploma in Law (equivalent to the academic component of a JD).

Julian is the author of dozens of scholarly articles on issues ranging from the morality of free trade to the regulation of the internet.

