

Societal Impacts of Cannabis Dispensaries/Retailers

Compiled by

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Retail cannabis facilities are not positively associated with increased criminality

- "There were no observed cross-sectional associations between the density of medical marijuana dispensaries and either violent or property crime rates in this study. These results suggest that the density of medical marijuana dispensaries may not be associated with crime rates or that other factors, such as measures dispensaries take to reduce crime (i.e., doormen, video cameras), may increase guardianship such that it deters possible motivated offenders."

Exploring the ecological association between crime and medical marijuana dispensaries, Journal of Studies on Alcohol and Drugs, 2012

- "Tobacco shops, medical marijuana dispensaries (MMD), and off-sale alcohol outlets are legal and prevalent in South Los Angeles, California—a high-crime, low-income urban community of color. This research is the first to explore the geographic associations between these three legal drug outlets with surrounding crime and violence in a large low-income urban community of color. ... Results indicated that mean property and violent crime rates within 100-foot buffers of tobacco shops and alcohol outlets—but not MMDs—substantially exceeded community-wide mean crime rates and rates around grocery/convenience stores (i.e., comparison properties licensed to sell both alcohol and tobacco)."

The geography of crime and violence surrounding tobacco shops, medical marijuana dispensaries, and off-sale alcohol outlets in a large, urban low-income community of color, Preventive Medicine, 2017

- **RESOURCES:** LAPD Chief: Pot clinics not plagued by crime, Los Angeles Daily News | Springs finds no tie between crime and marijuana shops, Denver Post | Medical dispensaries effect on crime unclear, Denver Post | No, legalizing medical marijuana doesn't lead to crime, according to actual crime stats, Washington Post | Have medical marijuana dispensaries increased crime in other towns? The Suffolk Times | Medical marijuana stores impact neighborhoods in Denver no more than coffee shops, study says, Westword | Medical marijuana dispensaries and their effect on crime, MPP factsheet | Do medical marijuana dispensaries increase crime? California NORML factsheet

By contrast, dispensary closures are associated with increases in crime

- "The results presented above show that temporary dispensary closures increase crime in the short-run. ... Analyzing medical marijuana dispensary closures in the City of Los Angeles, we find no support for the idea that closing dispensaries reduces crime. Rather,

temporary closures deter some types of Part I crime. ... Our findings have direct policy implications for regulating marijuana sales in the U.S. They imply that dispensary closures, and potentially the closure of other types of retail establishments, exert a significant negative externality in terms of neighborhood criminality. A quick back of the envelope cost calculation using the change in larceny theft at 1/3 of a mile and crime costs ... suggests that an open dispensary provides over \$30,000 per year in social benefit in terms of larcenies prevented."

Going to pot: The impact of dispensary closures on crime. Journal of Urban Economics, 2017

Retail cannabis facilities are associated with rising housing values

- "In this paper we contribute to the debate on the impacts of recreational marijuana legalization on local communities by examining the effects of retail marijuana stores on nearby house prices in Denver, Colorado. ... Using a difference-in-differences model, we compare houses that are in close proximity to a retail conversion to those that are slightly farther away from a retail conversion before and after the legalization of recreational sales. We find that after the law went into effect at the end of 2013, single family residences close to a retail conversion (within 0.1 miles) increased in value by approximately 8.4% relative to houses that are located slightly farther from a conversion (between 0.1 miles and 0.25 miles) in 2014 compared to the previous year."

Contact high: The external effects of retail marijuana establishments on house prices, Real Estate Economics, 2017

- "Does legalizing retail marijuana generate more benefits than costs? This paper addresses this question by measuring the benefits and costs that are capitalized into housing values. We exploit the time-series and cross-sectional variations in the adoption of Colorado's municipality retail marijuana laws (RMLs) and examine the effect on housing values with a difference-in-differences strategy. Our estimates show that the legalization leads to an average 6 percent increase in housing values, indicating that the capitalized benefits outweigh the costs. ... In conclusion, this paper provides convincing causal evidence that legalizing retail marijuana generates net benefits, as measured through the housing market."

The effect of legalizing retail marijuana on housing values: Evidence from Colorado, University of Mississippi working paper series, 2016

Dispensary clients tend to be older, value access to specific strains of cannabis, and tend to require greater quantities of cannabis to treat their therapeutic condition

- "Regarding age, respondents who used dispensaries were older than those not using dispensaries, perhaps reflecting that services that these dispensaries provide, such as storefront access and personalized service, may be particularly appealing to older adults. ... A larger proportion of dispensary clients considered access to their preferred strain to

be important than those not using dispensaries. ... With regard to cannabis use, dispensary users were more likely to use larger amounts of cannabis. ... [D]ispensaries were widely used and well rated by respondents. Given this high level of endorsement by patients, future regulations should consider including storefront dispensaries as an authorized source of cannabis for therapeutic purposes."

Are dispensaries indispensable? Patient experiences and access to cannabis from medical cannabis dispensaries in Canada. International Journal on Drug Policy, 2017

The prevalence of cannabis dispensaries is not positively associated with increased teen use

- "[T]he presence of recreational marijuana retail store(s) was not associated with perceived easy access to marijuana, controlling for perceived ease of access before the retail sales. There was no significant change in past 30-day marijuana use in bivariate analysis or in a multivariate model including presence of a recreational marijuana store."

Adolescent marijuana use and perceived ease of access before and after recreational marijuana implementation in Colorado, Substance Use & Misuse, 2017

- "[W]e did not find empirical evidence showing the availability of medical marijuana dispensaries is associated with [the] current use of marijuana among adolescents. ... It is also suggestive that the dispensaries may not have spillover effects on neighborhood social norms or marijuana availability overall."

The availability of medical marijuana dispensary and adolescent marijuana use, Preventive Medicine, 2016

Cannabis retailers are not selling to minors and their products are not being diverted to the underage market

- "On December 19, 2017 OLCC [the Oregon Liquor Control Commission] marijuana inspectors visited 20 marijuana retailers in central Oregon, and all of the 20 businesses visited in Bend and La Pine passed a check for prohibiting sales to a minor volunteer. 'That our licensed retailers in central Oregon scored 100 percent on refusal to sell marijuana to a minor is a sign that this segment of our regulated industry understands the importance of compliance,' said Steve Marks, Executive Director of the OLCC."

"OLCC Launches Marijuana Retailer Minor Decoy Checks," Oregon Liquor and Control Board press release, December 20, 2017

- Among state-licensed Colorado retailers, "Compliance with laws restricting marijuana sales to individuals age 21 years or older with a valid ID was extremely high and possibly higher than compliance with restrictions on alcohol sales. ... "The retail market at present may not be a direct source of marijuana for underage individuals."

Pseudo-Underage Assessment of Compliance With Identification Regulations at Retail Marijuana Outlets in Colorado, Journal of Studies on Alcohol and Drugs, 2016

Retail cannabis access is associated with reduced opioid consumption by the general public

- "[S]tates providing legal access to marijuana through dispensaries reduce deaths due to opioid overdoses. ... We provide complementary evidence that dispensary provisions lower treatment admissions for addiction to pain medications. ... In short, our findings that legally protected and operating medical marijuana dispensaries reduce opioid-related harms suggests that some individuals may be substituting towards marijuana, reducing the quantity of opioids they consume or forgoing initiation of opiates altogether. ... At a minimum, however, our results suggest a potential overlooked positive effect of medical marijuana laws that support meaningful retail sales."

Do medical marijuana laws reduce addictions and deaths related to pain killers? Journal of Health Economics, 2018

- "This paper uses a unique marijuana dispensary dataset to exploit within- and across-state variation in dispensary openings to estimate the effect increased access to marijuana has on narcotic-related admissions to treatment facilities and drug-induced mortalities. [It] finds that core-based statistical areas (CBSAs) with dispensary openings experience a 20 percentage point relative decrease in painkiller treatment admissions over the first two years of dispensary operations ... [and] provides suggestive evidence that dispensary operations negatively affect drug-induced mortality rates."

The effects of marijuana dispensaries on adverse opioid outcomes. SSRN Working Paper, 2017

- "Using both standard differences-in-differences models as well as synthetic control models, we find that states permitting medical marijuana dispensaries experience a relative decrease in both opioid addictions and opioid overdose deaths compared to states that do not."

Do medical marijuana laws reduce addictions and death related to pain killers? NBER Working paper No. 21345, 2015

The prevalence of cannabis dispensaries is inversely associated with traffic fatalities

- "Both MMLs (medical marijuana laws) and dispensaries were associated with reductions in traffic fatalities, especially among those aged 25 to 44 years. ... On average, MML states had lower traffic fatality rates than non-MML states. Medical marijuana laws were associated with immediate reductions in traffic fatalities in those aged 15 to 24 and 25 to 44 years, and with additional yearly gradual reductions in those aged 25 to 44 years."

US Traffic Fatalities, 1985-2014, and Their Relationship to Medical Marijuana Laws, American Journal of Public Health, 2017

Marijuana Regulation and Teen Use Rates

Since the mid-1990s, self-reported lifetime use of cannabis has fallen 46 percent among 8th-graders, 25 percent among 10th-graders, and ten percent among 12th-graders.

- Thirty states have legalized the medical use of cannabis, and eight of those states have also regulated the adult use of marijuana, since that time.

Monitoring the Future, Trends in Lifetime Prevalence of Use of Various Drugs, 2016

Since 2002, perceived availability of marijuana among young people has fallen dramatically nationwide.

- "Between 2002 and 2015, we observed a 27% overall reduction in the relative proportion of adolescents ages 12-17-and a 42 percent reduction among those ages 12-14-reporting that it would be "very easy" to obtain marijuana. This pattern was uniformly observed among youth in all sociodemographic subgroups. ... Despite the legalization of recreational and medical marijuana in some states, our findings suggest that ... perceptions that marijuana would be very easy to obtain are on the decline among American youth."

Trends in perceived access to marijuana among adolescents in the United States: 2002-2015, Journal of Studies of Alcohol and Drugs, 2017

- "From 2002 to 2014, ... the perceived availability decreased by 13 percent among persons aged 12-17 years and by three percent among persons aged 18-25 years."

United States Centers for Disease Control, National Estimates of Marijuana Use and Related Indicators - National Survey on Drug Use and Health, United States, 2002-2014, 2016

Rates of problematic cannabis use by young people has declined 24 percent between 2002 and 2013.

- [Declining Prevalence of Marijuana Use Disorders Among Adolescents in the United States, 2002 to 2013](#), Child & Adolescent Psychiatry, 2016 | See also: [Recent Trends in the Prevalence of Marijuana Use and Associated Disorders in the United States](#), JAMA Psychiatry, 2016

The enactment of medical cannabis laws is not associated with any causal upticks in youth marijuana use

- "This systematic review screened 2999 unique papers retrieved from 17 sources, yielding 21 unique studies. Ultimately, 11 studies passed secondary exclusion criteria designed to ensure optimal study quality. ... [A]ll estimates of pre–post changes in past-month marijuana use within MML (medical marijuana law) states from these studies were non-significant. ... In summary, current evidence does not support the hypothesis that MML passage is associated with increased marijuana use prevalence among adolescents in states that have passed such laws."

Medical marijuana laws and adolescent marijuana use in the United States: A systematic review and meta-analysis, Addiction, 2018

- "Of 17 large surveys using difference-in-difference methods spanning different states, periods, and specifications, 16 indicated no MML (medical marijuana laws) effects on adolescent use. Despite differences in methodology, the findings were very consistent: post-MML adolescent cannabis use did not increase compared to pre-MML levels and to national trends in non-MML states during the corresponding years."

U.S. epidemiology of cannabis use and associated problems, Neuropsychopharmacology, 2017

The passage of adult use cannabis laws is not associated with any causal upticks in youth marijuana use in those jurisdictions that have enacted them

- "With legalization of retail marijuana in Colorado, and the opening of dispensaries in January 2014, two key questions were how legalization would impact marijuana use and whether there would be an increase in adverse health events. Legalization did not noticeably impact marijuana use rates among adolescents or young adults. Past-30-day use among adolescents remained steady for more than ten years, pre- and post-legalization."

Marijuana use and related health care encounters in Colorado before and after retail legalization, International Journal of Mental Health and Addiction, 2018

- "Certainly the worst things that we had great fear about (the legalization of marijuana for adults in Colorado) – spikes in consumption, kids, people driving while high – we haven't seen any of that. We saw a little increase in teenagers and that came down within a couple years. ... We were very worried that by legalizing, we were making this more somehow more psychologically available to kids. We haven't seen that. If anything, we've seen less drug dealers."

Comments from Colorado Gov. John Hickenlooper, April 9, 2018

Marijuana Regulation: Impact on Health, Safety, Economy

The enactment of adult use cannabis regulation is not associated with upticks in marijuana use by adolescents

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Comments from Colorado Gov. John Hickenlooper, April 9, 2018

The establishment of cannabis retailers is not associated with upticks in criminal activity

- "[W]e find no support for the idea that closing dispensaries reduces crime. Rather, temporary closures deter some types of Part I (serious) crime. ... "An open dispensary provides over \$30,000 per year in social benefit in terms of larcenies prevented."

Going to pot: The impact of dispensary closures on crime. Journal of Urban Economics, 2017

- "There were no observed cross-sectional associations between the density of medical marijuana dispensaries and either violent or property crime rates in this study. These results suggest that the density of medical marijuana dispensaries may not be associated with crime rates or that other factors, such as measures dispensaries take to reduce crime (i.e., doormen, video cameras), may increase guardianship such that it deters possible motivated offenders."

Exploring the ecological association between crime and medical marijuana dispensaries, Journal of Studies on Alcohol and Drugs, 2012

Neither medical use nor adult use legalization is associated with adverse effects on traffic safety

- "We find that states that legalized marijuana have not experienced significantly different rates of marijuana- or alcohol-related traffic fatalities relative to their synthetic controls. ... In summary, the similar trajectory of traffic fatalities in Washington and Colorado relative to their synthetic control counterparts yield little evidence that the total rate of traffic fatalities has increased significantly as a consequence of recreational marijuana legalization."

Early Evidence on Recreational Marijuana Legalization and Traffic Fatalities, National Bureau of Economic Research, 2018

- "We (the state of Colorado) have not experienced any significant issue as a result of legalization. ... We have actually seen an overall decrease in DUI's since legalization. So, the short answer is: There has been no increase since the legalization of marijuana here."

Comments from Larry Wolk, Chief Medical Officer of the Colorado Department of Public Health, October 23, 2017

Marijuana regulation is not associated with adverse effects on workplace performance or safety

- "There is no or insufficient evidence to support ... a statistical association between cannabis use and occupational accidents or injuries."

National Academy of Sciences, Engineering, and Medicine, The Health Effects of Cannabis and Cannabinoids: Committee's Conclusions, 2017

- Reducing criminal penalties for marijuana offenses is associated with increased probability of employment, particularly for young males, and an average increase of 4.5 percent in weekly earnings. "This data provides suggestive evidence that marijuana decriminalization laws improve extrinsic labor market outcomes. ... This result is consistent with existing literature that suggests black adults, especially men, stand to benefit the most from removing these penalties."

Economic Self-Sufficiency Policy Research Institute, Marijuana decriminalization and labor market outcomes, 2016

Marijuana regulation is associated with declining alcohol consumption

- "We use data on purchases of alcoholic beverages in grocery, convenience, drug, or mass distribution stores in US counties for 2006-2015 to study the link between medical marijuana laws and alcohol consumption and focus on settling the debate between the substitutability or complementarity between marijuana and alcohol. ... We find that the legalization of medical marijuana reduces alcohol consumption. We find consistent

evidence across different specifications and alcohol products (i.e. alcohol in general, beer and wine). States legalizing medical marijuana use experience significant decrease in the aggregate sales of alcohol, beer and wine. Moreover, the effects are not short lived, with significant reductions observed up to 24 months after the passage of the law."

Helping settle the marijuana and alcohol debate: Evidence from scanner data. SSRN Working Paper, 2017

- "Research firm Cowen & Company analyzed the state of the beer industry in Colorado, Oregon and Washington—states where both recreational weed is legal and craft beer has become popular. In those states, beer markets have "collectively underperformed" over the last two years, trailing behind beer sales around the country."

Time.com. "Legal weed is hurting the beer business." December 6, 2016

Marijuana regulation is associated with increased tax revenue and job creation

- "Here's a striking figure for the nascent cannabis industry that only recently began to operate legitimately: It supports 125,000-160,000 full-time jobs in the U.S. To put that in perspective, the marijuana industry now supports approximately the same numbers of full-time workers as there are librarians and kindergarten teachers in the country – and roughly three times the number of employees in the U.S. coal industry. Over the next five years, the number of full-time marijuana workers is expected to more than double as large markets including California ramp up and new states come online."

Marijuana Business Daily. "Cannabis industry supports up to 160,000 full-time jobs, with more growth on the horizon." June 4, 2018

- "According to ZipRecruiter data, the total number of industry job posts increased by 445% in 2017. ... Our data also shows that the cannabis industry is growing more rapidly than some of today's fastest-growing fields. Year over year growth of job posts in the cannabis industry is outpacing both tech (254% growth) and healthcare (70% growth). ... Not only does the legalization of cannabis create a safer and more stable market for medical and recreational users, but it also significantly drives job growth."

ZipRecruiter.com, Will cannabis job growth continue to outpace tech job growth?, 2018