What Will Adult-Use Marijuana Legalization Mean for Ohio?: Lessons from Research and Other States

Introduction
On November 7, 2023, Ohio became the 24th state to legalize adult-use cannabis with 57% of voters voting in favor of Issue 2, also known as An Act to Control and Regulate Adult Use Cannabis. This site aims to address questions that many people may be asking, such as when will recreational dispensaries open their doors or how much product will an individual be allowed to purchase, as well as more complex questions, such as what is the expected tax revenue going to be and how might marijuana legalization affect public health and public safety.

The question-and-answer section of this resource is divided into the following subsections: adult-use recreational users, medical marijuana patients, cannabis industry, general questions, public safety impact and public health impact. Each subsection aims to help Ohioans better understand what cannabis legalization could mean for their communities.

It is important to note that the information below reflects the language of the initiated statute. The Ohio General Assembly can make significant changes to any aspect of the statute at any time.

Adult recreational consumers

Can I grow my own marijuana?

- **Ohio Medical Marijuana Control Program—EXISTING LAW:** NO – patients and caregivers are not allowed to cultivate their own marijuana.
- **An Act to Control and Regulate Adult Use Cannabis—APPROVED INITIATIVE:** YES – as of December 7, 2023, adult users are allowed to grow six plants per individual, with a limit of 12 plants total per residence where two or more adult-use consumers reside at one time.

The vast majority of other states (17 of 23) that have legalized adult use allow their residents to grow a limited number of plants for personal use, ranging between two (Montana) and 12 plants (Michigan). In our previous research, we heard from regulators who stressed that effectively managing home grow is necessary for public safety and for limiting the possibility of diversion to the illicit market. Regulators suggested two strategies to limit the potential negative effects of home grow provisions: giving law enforcement agencies clear and enforceable directions and keeping the allowed number of plants relatively low while also incorporating residency limits (limiting the number of plants that can be grown in a residence regardless of how many adults reside there).

**Pros:**
- Enables patients to grow their own supply to avoid the uninsurable cost of marijuana
- Consumers can grow specific strains that might otherwise be hard to find in dispensaries
- Potentially creates downward pressure on pricing in the market

**Cons:**
- Home cultivation makes enforcement to prevent illegal grows in residential settings more difficult and creates uncertainty among law enforcement as well as the public
• Plants cultivated at home are not tested for harmful pollutants
• Access to marijuana by underage persons may be harder to prevent

For more information, see From Medical to Recreational Marijuana: Lessons for States in Transition

How much marijuana can I possess?
Possession limits across legalized states vary, but they are generally between 1 - 2.5 oz of cannabis flower in public, with some states having higher limits for concentrates or cannabis infused solid products. The state with the highest permitted possession limit is New Jersey, which permits possession of 6 oz.

• Ohio Medical Marijuana Control Program—EXISTING LAW: The amount of medical marijuana possessed by a registered patient shall not exceed a ninety-day supply:
  o Tier I of med. Marijuana – 8 oz (226.8g)
  o Tier II of med. Marijuana – 5.3 oz (150.3g)
  o 26.55 grams of Tetrahydrocannabinol (THC) content in lotions, patches, creams, ointments
  o 9.9 g of THC content in oil, tinctures, capsules or edible form
  o 53.1 g of THC content in oil for vaporization
  o Terminally ill patients have higher limits.

• An Act to Control and Regulate Adult Use Cannabis—APPROVED INITIATIVE: 2.5 ounces in any form except extract, 15 grams of adult use extract. May purchase 2.5 ounces from dispensary per day.

Are there restrictions on how I can consume marijuana?

• Ohio Medical Marijuana Control Program—EXISTING LAW: The smoking or combustion of medical marijuana is prohibited. Any form or method that is considered attractive to children is prohibited. With respect to tetrahydrocannabinol content: plant material cannot have more than 35% of THC content, and extracts are limited to 70% THC content.

• An Act to Control and Regulate Adult Use Cannabis—APPROVED INITIATIVE: No limitation on how cannabis can be consumed. The Division of Cannabis Control will set rules regarding allowable THC content. The language from the initiative provides additional detail:
  o Section 3780.03. Establishment and authority of division of cannabis control; adoption of rules. (C) The division of cannabis control shall adopt, and as advisable and necessary shall amend or repeal, rules on the following: (21) Establishing a tetrahydrocannabinol content limit for adult use cannabis, which for plant material the content limit shall be no less than thirty-five per cent and for extracts the content limit shall be no less than ninety per cent, but that such content limits may be increased or eliminated by the division of cannabis control

Are there employment and other protections for marijuana users?
Employment protection for marijuana use is a complex issue, shaped partially by the continued federal prohibition on marijuana as well as the challenge of detecting how and when past marijuana use may impair job performance. In our annual survey of medical marijuana patients, the fear of losing one’s employment has consistently ranked high as a reason why people abstain from using marijuana. Ohio’s employment rules are not unique; the majority of states that have legalized marijuana do not provide employment protections. Three states, Nevada, New York and New Jersey, have enacted laws preventing employers from taking action solely based on the presence of cannabinoid metabolites in

the employee’s system or refusing to hire based on individual’s use of marijuana outside of the workplace. However, in all three states employers can continue with drug free workplace policies.

- **Ohio Medical Marijuana Control Program—EXISTING LAW**: NO – employers are allowed to continue workplace drug policies prohibiting consumption.
- **An Act to Control and Regulate Adult Use Cannabis—APPROVED INITIATIVE**: NO – employers are allowed to continue workplace drug policies prohibiting consumption. Act creates additional protections for:
  - Concealed Carry Licenses
  - Adjudicatory hearings to determine shelter care placement
  - Parental Rights and Responsibilities
  - Parenting Time Orders
  - Eligibility for any public benefit program administered by the state or locality
  - Right to medical care and/or inclusion on a transplant waiting list
  - Users cannot be rejected as a tenant but owner can prohibit smoking on premises.
  - Officers must have an independent, factual basis giving reasonable suspicion that an individual is operating a vehicle under the influence or a test from the person’s blood, blood serum, plasma, breath, or urine.

**Medical marijuana patients**

**Will there be separate modes of production and sales for patients?**

Under the current language of the ballot initiative, existing medical marijuana licensees would get preferential treatment in regard to adult use licenses. However, the question of whether there will be separate dispensaries for adult-use and medical use is not addressed, and neither is the question of whether separate cultivator locations will be required.

**Will patients be excluded from excise tax?**

Under the current Ohio Medical Marijuana Control Program (OMMCP) patients are only required to pay existing state and local sales taxes usually ranging between 5.25% and 7.50%. Under the ballot initiative, an additional 10% tax would be levied on purchases of recreational marijuana. The initiative is silent in respect to medical patients, which presumably means that medical marijuana purchases would not be subjected to the additional excise tax. Most states that have legalized adult use marijuana recognize the different nature of use between medical and recreational user and do not impose any additional taxes on patients beyond the standard state sales tax.

**Will patients have access to higher THC content marijuana?**

Under OMMCP rules, plant material cannot exceed a THC content of more than 35% and extracts cannot exceed THC content of 70%. The initiative proposal would give regulators the power to regulate concentration levels but its text explicitly states that concentration limits cannot be set below 35% of THC content for plant material and 90%, which are the same or higher than the existing OMMCP rules. State regulators will have to make a decision as to whether they want to increase potency limits for medical marijuana patients (assuming that the Ohio General Assembly will not act to change the limits).

**Industry**

**How many licenses will be issued and how long will it take?**

- **Ohio Medical Marijuana Control Program—EXISTING LAW**:
  - Cultivation - Level I Cultivator (25K sqft) & Level II Cultivator (3K sqft) - 37 licenses awarded, 23 Level I and 14 Level II. Initial cap was 12 licenses for each tier. As of August 17, 2023, 13 cultivators received permission to expand. This includes four Level I cultivators who can expand to up to 50,000 sq/ft, and nine Level II cultivators who can expand to up to 6,000 sq/ft.
o Processor – 44 operational processors, plus two with provisional license; initial cap set at 40.
o Testing Laboratory - No limit place on testing laboratory licenses.
o Dispensary – 92 operational dispensaries, plus 41 provisional licenses issued.

• An Act to Control and Regulate Adult Use Cannabis—APPROVED INITIATIVE: There are no official caps on the number of licenses, however, the Division of Cannabis Control will be able to decide whether to issue additional licenses based on the balance of supply and demand in the market. Licenses to current medical marijuana licensees should start being issued within 9 months of enactment.

States have varying regulations for different types of licenses with some limiting how many licenses one entity or one individual can hold at one time to mitigate fears of market domination by large actors. Of the previous 23 states that have legalized adult-use marijuana, ten have enacted license limits based on an established cap or contingent on county population. Arizona limits licenses relative to the total number of pharmacies operating in the state.

Pros:

• Ability to charge higher licensing fees to support effective regulatory structure
• Because only well capitalized businesses can enter market due to high fees, creating more stable market
• Ability to regulate supply of product and react to changing conditions in the market to prevent oversaturation
• Allows for preferential treatment of certain classes of applicants

Cons:

• Limits how many entities can enter the industry
• Gives advantage to well capitalized individuals/business, limiting diversity in the industry
• By restricting supply, creates potential for higher prices to consumers
• Necessitates creation of government selection process which can create controversy

For more information, see From Medical to Recreational Marijuana: Lessons for States in Transition

How much will licenses cost?

The licensing fees assessed by states for adult-use businesses vary widely from state to state and license to license. In some states, such as Alaska, fees can be as low as $1,000 while other states, such as New York, can assign fees as high as $200,000. There are many considerations that go into determining license fees – states want to ensure that their regulatory structures can be wholly funded by the proceeds from the marijuana industry while at the same time they also need to consider the barrier high fees can create for small and minority-owned businesses. Transparency about the costs of administering a marijuana program and how fees are spent can be helpful in ensuring that fees are not set too low or too high.

• Ohio Medical Marijuana Control Program—EXISTING LAW:
o Cultivator Level 1: $20,000 Application fee, $180,000 Licensure fee, and $200,000 Renewal Fee.
o Cultivator Level 2: $2,000 Application Fee, $18,000 Licensure Fee, $20,000 Renewal Fee.
o Processor: $10,000 Application Fee, $90,000 Licensure Fee, $100,000 Renewal Fee.
o Dispensary: $5,000 Application Fee, $70,000 Licensure Fee, $70,000 Renewal Fee.

• An Act to Control and Regulate Adult Use Cannabis—APPROVED INITIATIVE: The licensing and application fees have not been established. The responsibility to set fees upon implementation was given to the Division of Cannabis Control.

For more information, see From Medical to Recreational Marijuana: Lessons for States in Transition

2 Ibid.
3 Ibid.
Will existing medical marijuana operators get a preference?

- An Act to Control and Regulate Adult Use Cannabis—PROPOSED INITIATIVE: YES
  - Each medical dispensary will be issued one adult-use dispensary license
  - Level I Cultivator shall be issued three adult use dispensary licenses and one Level I Adult use cultivator license
  - Level II Cultivator shall be issued one adult use dispensary and one level II adult use cultivator license
  - Each dispensary shall be issued one adult use dispensary license at different location if dispensary does not have common ownership or control of any Level I, II, or processor license
  - Processor shall be issued one adult use processor license
  - Testing lab shall be issued one adult use laboratory license

Most states that have undergone a transition from medical to recreational marijuana market have treated existing medical marijuana licensees as having a preferred status compared to the general population, whether by being able to submit applications ahead of others, having a fast-tracked approval process or being automatically eligible for licenses within the recreational sphere. As with any other policy choice, this carries with it both benefits, such as shorter implementation time, and drawbacks such as limiting the ability of new entrepreneurs and entrepreneurs from communities most affected by prohibition to get involved or be prioritized.

Pros:

- Shorter implementation timeline due to already established growers and retailers
- Smoother start of adult-use regime due to greater levels of familiarity with marijuana regulations and established record of compliance
- Increases perceived legitimacy of the new industry as existing medical participants have already undergone public scrutiny

Cons:

- Limits the ability of new entrepreneurs to get involved in the industry, possibly limiting involvement of underrepresented communities
- Possibility of greater concentration of the industry in fewer hands, limiting competitiveness of the market

For more information, see From Medical to Recreational Marijuana: Lessons for States in Transition

Will there be any preference for in-state businesses?

- Ohio Medical Marijuana Control Program—EXISTING LAW: The 2016 Ohio medical marijuana law required 15% of all licenses for growing, processing, and selling marijuana be awarded to minority-owned businesses. This part of the law was subsequently struck down in 2018 (for cultivators and processors) and in 2019 (for dispensaries). There are currently no provisions for preferential treatment for minority owned businesses.

- An Act to Control and Regulate Adult Use Cannabis—APPROVE INITIATIVE: Division of Cannabis Control shall issue up to 40 Level III adult use cultivator licenses with preference provided to applicants who have been certified as cannabis social equity and jobs program participants. Division of Cannabis Control shall issue up to 50 additional adult use dispensary licenses who have been certified as cannabis social equity and jobs program participants. The initiative does not appear to have any provisions giving preferential treatment based on residence alone.

Requirements for licenses have changed through the years with multiple states removing in-state residency requirements for their adult-use licenses. States were initially concerned with large corporations entering the market and

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4 Ibid.
leaving less economic opportunity for state residents. Currently, six states have provisions requiring resident status to qualify for a specific marijuana license. A majority of states have enacted license provisions granting social equity applicants preference for certain license types. Three states, New York, New Mexico and Connecticut, have implemented social equity programs that require 50% of all licenses must be allocated to a social equity registered applicant.

Pros:

- Can limit the ability of out-of-state investors to enter the market
- Protects existing small businesses from capture by large players
- Provides opportunity for state residents
- Eliminates a potential red flag that could trigger federal enforcement action

Cons:

- Limits the amount of capital available to the industry
- Can delay the growth of the industry in localities that lack sufficient capital
- Could expose states to legal challenges from out-of-state business owners

For more information, see *From Medical to Recreational Marijuana: Lessons for States in Transition*\(^5\)

**General questions**

**How much will the state tax marijuana?**

The taxation levels under the legalization initiative falls in the mainstream when compared to other states. Most states impose an excise tax on cannabis of 10-15% in addition to their regular sales tax. Based on available information, New Jersey appears to have the lowest tax burden of 6.625% plus a variable local tax of up to 2%; the state of Washington, on the other hand, levies a 37% excise tax, plus 6.5% state sale tax and additional local state tax.

- **Ohio Medical Marijuana Control Program—EXISTING LAW:** No special tax levied on medical marijuana purchases. Patients are subjected to regular state (5.25%) and local sales tax (0.25 – 2.25%).
- **An Act to Control and Regulate Adult Use Cannabis—APPROVE INITIATIVE:** 10% Excise tax, plus regular state and local sales tax, totaling between 15.25% - 17.5% tax levy.

**How much tax revenue would Ohio collect from adult-use marijuana?**

Advocates for cannabis reform in Ohio and in other states often stress the tax revenue that can be raised through legalization. While predicting future tax revenue is always subject to unforeseen circumstances, our center estimates that by year five of operation, Ohio could see between $276 million to $403 million in annual tax revenues if the tax structure is not altered by the General Assembly. These numbers are small compared to the overall size of the state budget, which for fiscal year 2023 stands at $81.1 billion. In other words, similar to other legalized states, even if tax revenues exceeded our estimates, it is unlikely that they would reach beyond 1% of the overall state budget.

For more information, see *What Tax Revenues Should Ohioans Expect If Ohio Legalizes Adult-Use Cannabis?*\(^6\)

**How will money be spent?**

Every state with legalized adult-use marijuana has established a plan to allocate marijuana revenue generated through the tax and fee collection. The plans vary widely, with some states focusing on funding education and law enforcement, while others distribute resources to localities, substance abuse programs, social equity programs, research, veteran services and others.

\(^5\) Ibid.

• **Ohio Medical Marijuana Control Program—EXISTING LAW:** Sales tax from marijuana products goes to the state general fund. There are no designated expenditure areas.

• **An Act to Control and Regulate Adult Use Cannabis—PROPOSED INITIATIVE:** Adult Use Tax fund - all funds will be initially deposited in this fund and distributed quarterly as follows: 36% for the Cannabis Social Equity and Jobs fund, 36% for the Host Community Cannabis Fund, 25% for the Substance Abuse and Addiction Fund and 3% for the Division of Cannabis Control and Tax Commissioner Fund.

### What social equity provisions are incorporated?

Over the last decade, social equity has slowly become a major concern. States whose initial regulations did not include social equity provisions have amended the original legislation to include provisions assisting communities and individuals disproportionately impacted by marijuana enforcement. Almost every state, besides Alaska and Maine, have implemented some form of expungement or record sealing for past marijuana offenders, with 16 states providing for some form automatic record relief for a marijuana-related offense. Additionally, some states have set aside licenses for social equity applicants and established funds to help communities negatively impacted. 18 states have established funds to assist these communities either through reduced licensing fees, loan programs, business assistance, or programs to aid youth development and violence prevention.

Though providing earmarked funds and a list of activities for the cannabis social equity and jobs program, the initiative does not create a clear set of instructions for the use of funds nor specific details on how various activities will be pursued.

• **Ohio Medical Marijuana Control Program—EXISTING LAW:** No social equity provisions incorporated beyond the 15% set aside for minority-owned businesses that was subsequently struck down in court.

• **An Act to Control and Regulate Adult Use Cannabis—APPROVED INITIATIVE:** The initiative includes establishment of the cannabis social equity and jobs program in the interest of remedying the harms resulting from the disproportionate enforcement of marijuana-related laws and to provide financial assistance and license application support to individuals most directly and adversely impacted by the enforcement of marijuana-related laws who are interested in starting or working in cannabis business entities. Additionally, Division of Cannabis Control shall issue up to 40 Level III adult use cultivator licenses and 50 additional adult use dispensary licenses with preference provided to applicants who have been certified as cannabis social equity and jobs program participants.

### Will my locality be able to prohibit marijuana businesses?

Almost every state has adopted laws enabling localities to completely prohibit or significantly limit adult-use marijuana establishments from operating within their jurisdiction. Localities can prohibit establishments through ordinances or opt-out through voter referendum. Unlike the rest of adult-use states, New Mexico is the only state where the legislation included provisions preventing local jurisdictions from completely prohibiting adult-use licenses from operating.

• **Ohio Medical Marijuana Control Program—EXISTING LAW:** YES - The legislative authority of a municipal corporation may adopt an ordinance, or a board of township trustees may adopt a resolution, to prohibit, or limit the number of, cultivators, processors, or retail dispensaries licensed under this chapter within the municipal corporation or within the unincorporated territory of the township, respectively.

• **An Act to Control and Regulate Adult Use Cannabis—APPROVED INITIATIVE:** YES - Localities may adopt ordinances to prohibit adult-use dispensaries but may not prohibit or limit existing operational medical marijuana cultivators, processors, or dispensaries; or an adult use cultivator or an adult use processor, or an adult use dispensary who is co-located with adult use cultivator and an adult use processor, who have, or whose owner have, a medical marijuana certificate of operation at the same location as of the effective date of the act. A municipal corporation or township may vote to prohibit the operation of an adult use dispensary within 120 days of the dispensary license being issued.
Public Safety and Public Health

Marijuana reform, especially legalization for recreational purposes, raises important questions about how such policy change might impact public safety and public health. Because marijuana legalization is a new development and takes various forms in different locales, rigorous research into questions related to effects on crime, impaired driving, youth use of marijuana and other impacts on health and safety has only just begun. To date, research results do not yet paint a clear picture on most of these important questions. The small sample of studies presented in the sections below were selected to demonstrate that, while researchers are starting to explore these questions, data limitations and the relative recency of these changes means that continuing and sustained research is needed to help policymakers design regulations and policies to minimize potential harms and maximize potential benefits.

Will we see an increase in traffic accidents?

To date, researchers have found mixed results when looking at the question of whether marijuana legalization results in higher number of traffic accidents or higher rates of impaired driving.

To assess the effect of legalization on traffic fatalities in Colorado and Washington, a 2020 study by Hansen, Miller, and Weber\(^7\) used a synthetic control approach with data on fatal traffic accidents between 2000 and 2016. The authors found little evidence to support the idea that recreational legalization dramatically increased traffic fatalities. Specifically, synthetic control groups had similar changes in marijuana- and alcohol-related traffic fatality rates, as well as a similar change in overall traffic fatalities, despite not having legal marijuana.

On the other hand, a 2023 study by Adhikari, Maas and Trujillo-Barrera\(^8\) found that legalization of recreational marijuana resulted in an increase of 1.2 traffic death per a billion of miles traveled, which translates roughly into 1000 excess fatalities on annual basis for all states that have legalized recreational marijuana.

Most studies that have looked at the question of road safety note important data limitations as well as lack of clear understanding of marijuana impairment. For example, Windle and co-authors\(^9\) found that marijuana legalization and decriminalization were correlated with an increase in positive cannabis tests among drivers. However, they determined that many of these studies were at risk of bias due to potential confounders and measurement error. The authors also emphasized that while more drivers may have tested positive for cannabis, this does not necessarily mean they were driving impaired as tetrahydrocannabinol (THC) can be detected for long periods of time after consumption.

For more information, see Effects of Drug Policy Liberalization on Public Safety: A Review of the Literature\(^10\)

Will we see an increase in crime rates?

Whether marijuana legalization is linked to an increase or decrease in crime is of great interest to policymakers and researchers. Unfortunately, this question is also very difficult to study due to data limitations that exist in our criminal justice system, the relative recency of legalization and the number of confounding factors present. Nevertheless, several studies have tried to ascertain the relationship between marijuana legalization and crime.

A 2019 study focusing on Colorado found that the opening of medical and recreational dispensaries decreased violent crime in nearby neighborhoods with incomes above the median although it had virtually no impact on aggregate rates of violent and property crimes overall\(^11\). The authors also found a decrease in non-cannabis drug- and alcohol-related crimes near dispensaries. While they found that vehicle break-ins were elevated within a mile of dispensaries, they


concluded that marijuana legalization had a net benefit with regard to crime rates. An additional study\textsuperscript{12} focusing on recreational legalization in Washington and Oregon found that legalization likely caused a drop in crime. Specifically, the authors found that legalization resulted in a significant reduction in rape and property crime on the Washington side of the border compared to both the Oregon side and the pre-legalization years. Furthermore, while marijuana consumption increased, use of other drugs and alcohol decreased.

At the same time, some studies found increases in crime rates after cannabis legalization. For example, using UCR data from 2007 to 2017 to examine the effect of marijuana legalization on crime rates in Oregon, one study\textsuperscript{13} found increases in crime rates for several types of offenses, including property and violent crime. In another study pertaining to crime in Oregon, Wu and Willits\textsuperscript{14} found that the rate of simple assault had increased following legalization. However, they noted that their post-legalization time frame was fairly short and should be reassessed by future research.

Other research found no significant changes in crime following marijuana legalization. For example, using UCR data, Lu \textit{et al.}\textsuperscript{15} conducted a quasi-experimental study to examine crime rates in Colorado and Washington. They found no statistically significant effects of marijuana legalization on violent or property crime. Similarly, a review study\textsuperscript{16} looking at data from several legalized states indicated that violent crime neither increased nor dropped dramatically following cannabis legalization.

Overall, the literature exploring the relationship between liberalization of marijuana policies and crime seems to suggest that legalizing marijuana is not a threat to public safety.

For more information, see \textit{Effects of Drug Policy Liberalization on Public Safety: A Review of the Literature}

\textbf{Will we see an impact on arrest rates?}

Unlike other public safety questions around marijuana legalization, whether there is an impact on arrest rates is fairly straightforward. Numerous studies indicate significant drops in the number of arrests following the legalization as well as decriminalization of adult-use marijuana. Firth and co-authors\textsuperscript{17} used National Incident Based Reporting System (NIBRS) data on marijuana-related arrests and found that marijuana arrest rates among people over 21 fell dramatically after legalization of marijuana possession in Washington State, and that rates stayed at similar levels following the opening of the retail market. However, while marijuana-related arrest rates for both White and Black adults decreased, relative disparities increased. African Americans previously had an arrest rate 2.5 times higher than the White arrest rate, but this increased to 5 times higher after the opening of the retail market. Similarly, recent research\textsuperscript{18} on Colorado and Washington has also found that while cannabis-related arrest rates generally declined after legalization, racial disparities persisted. Thus, while legalization lessens the absolute number of people who come into contact with the criminal justice system overall, more needs to be done to specifically address racial disparities.

For more information, see \textit{Effects of Drug Policy Liberalization on Public Safety: A Review of the Literature}

\begin{itemize}
  \item \textsuperscript{14} Wu, Guangzhen and Dale W. Willits. 2022. “The Impact of Recreational Marijuana Legalization on Simple Assault in Oregon.” \textit{Journal of Interpersonal Violence} 0(0):1-22.
  \item \textsuperscript{17} Firth, Caislin L., Julie E. Maher, Julia A. Dilley, Adam Darnell, and Nicholas P. Lovrich. 2019. “Did Marijuana Legalization in Washington State Reduce Racial Disparities in Adult Marijuana Arrests?” \textit{Substance Use & Misuse} 54(9):1582-1587.
  \item \textsuperscript{18} Willits, Dale W., Brittany Solensten, Mikala Meize, Mary K. Stohr, David A. Makin, Craig Hemmens, Duane L. Stanton, and Nicholas P. Lovrich. 2022. “Racial Disparities in the Wake of Cannabis Legalization: Documenting Persistence and Change.” \textit{Race and Justice} 0(0):1-18.
\end{itemize}
Will we see an increase in youth consumption of marijuana?

As with questions about public safety, the research findings on many questions related to public health are mixed. In respect to rate of use, some research indicates an increase in marijuana use overall, while other research shows decreased rates of use among teens. According to a 2021 study19 that reviewed existing research on the topics, use in states where marijuana is legal tends to be higher than the average rate of use in the United States, however, this difference mainly pre-dates legalization.

In a 2019 report20 from the Journal of the American Medical Association, the enactment of adult-use legalization laws showed no significant association with marijuana use or marijuana use frequency among high school students. Similarly, medical cannabis laws did not impact youth usage rates. A 2020 study21 that looked at teen use in California and Washington found that both states recorded a drop in teen use post-legalization, which was consistent with data from non-legalized states suggesting an overall national drop in teen use of marijuana. This was later supported by a 2023 survey by the Centers for Disease Control and Prevention, which highlighted that past 30-day cannabis use among U.S. high school students in 2021 was the lowest since 1991, with male teens experiencing a significant decrease from 26% in 2011 to 14% in 2021, and female students use remaining relatively stable with 18% using in 2011 and 16% reporting use in 2021.

As with previous questions, continued rigorous research focused on rates of use among adults and adolescents is needed to ensure that policymakers and regulators have the necessary information to effectively regulate legal cannabis markets. Special attention should be paid to harmful levels of use.

Will we see an increase in emergency room visits?

A number of studies have noted an increase in the number of cannabis-related emergency room visits over the last two decades. For instance, a CDC study from 202322 noted an increase in cannabis-involved emergency room visits for people under the age of 25 during the COVID pandemic, while also noting a statistically significant increase prior to pandemic. However, this study was not specifically focused on states with legalized recreational marijuana or on tracking the impact of such legalization on emergency room visits.

A recent study23 looked at cannabis positivity rates in 17 emergency departments across the US with different stages of marijuana legalization. According to the authors, most states experienced a significant increase in cannabis positivity rates as legalization progressed, however, the positivity rates differed. In most states with no cannabis legalization, there was still a significant, albeit smaller, increase in cannabis positivity rates in emergency room visits. Additionally, a study24 conducted at two Boston medical centers from 2012 to 2019 showed an increase in both positive THC IA results and cannabis-related ICD-10 codes in the ED, particularly among females, patients aged 30-39, older adults (>59 years), and the highest income bracket. Similarly, a 2018 study25 from Colorado noted an increase in emergency room

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visits for patients between 13 and 21 years of age from 2005 to 2015.

In summary, there has been an observed increase in emergency room visits related to marijuana use in states that have legalized marijuana. It is important to keep in mind though that even states that have not legalized marijuana have seen an increase in emergency room visit, and studies that were conducted in legalized states had some significant limitations. While these limitations are worth noting, there also appears to be a consensus among scholars that regulators should pay specific attention to mandating child-proof containers for cannabis product and prohibiting marketing of products whose packaging mimics popular child-friendly snacks and candy.

Impact on the Workplace

The connection between marijuana legalization and the labor market is of great interest to employers and policymakers alike, prompting questions about changes to the prevalence of workplace incidents, changes in productivity and labor participation, and impact on worker compensation costs. But as with many other questions surrounding marijuana reform, the research to date provides mixed evidence, with very little research being available on the impact of recreational adult use legalization specifically.

In respect to workplace injuries, majority of research to date focuses on whether there is a link between use of marijuana and workplace accidents, rather than on the link between marijuana legalization and injuries. In a 1990 study, prior to any state legalizing an adult-use or medical program, researchers found that individuals that tested positive for marijuana through a urine analysis had 55% more industrial accidents, 85% more injuries, and a 78% increase in absenteeism.26 A 2023 study found that individuals that consumed marijuana on the job, were nearly twice as likely to experience some form of workplace injury, although there was no negative effect for consumption of marijuana outside of the workplace.27 In respect to medical marijuana legalization, some research actually showed a positive impact, with a 2018 study finding that legalization of medical marijuana was associated with a 19.5% reduction in expected workplace fatalities for individuals 25-44.28

In regard to labor supply, a 2019 study found a positive relationship between medical marijuana laws and labor supply among older adults. For adults 51 years and older, the study showed an increase in probability of full-time employment as well as hours worked.29 Another study from 2018 found no changes in the labor market following medical marijuana legalization, with employment status, hours worked and wages remaining unaffected.30

When it comes to research focused on recreational marijuana legalization, the results are also mixed. While a 2017 study by Maclean et al.31 found an increase in disability claim applications and longer disability periods after recreational marijuana legalization, another study from 2021 by Abouk et al. showed reductions in workers’ compensation claims and benefits32.

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