

So Far, So Good

**What We Know About Marijuana Legalization
in Colorado, Washington, Alaska, Oregon
and Washington, D.C.**

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The logo for the Drug Policy Alliance, featuring the text "A Drug Policy Alliance release." in white and yellow on a red background.

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Introduction

Despite decades of prohibition and aggressive enforcement of criminal laws, marijuana remains widely consumed and universally available. Polls consistently show a majority of voters nationwide are in favor of the legalization of marijuana in the United States.¹ Four states and the District of Columbia have legalized the adult use of marijuana and voters in five other states – California, Arizona, Nevada, Massachusetts, and Maine – will vote on the legalization of marijuana on November 8, 2016.² As they consider the implications of legalization for their respective states, voters and policymakers alike look to how legalization has played out in Colorado, Washington, Alaska, Oregon, and Washington, D.C.

Not all state legalization laws and regulations are created equal.³ Wide disparity exists among these states in how they have sought to regulate marijuana for adult use.⁴ Some regulatory systems have been operating for more than two years (Colorado and Washington), while some are just beginning (Alaska and Oregon), and some do not have any regulatory system yet (Washington, D.C.).

Colorado and Washington legalized the adult use of marijuana on November 6, 2012. While the possession of small amounts of marijuana became legal soon thereafter for adults 21 and over, retail sales did not begin until January 1, 2014, in Colorado, and July 8, 2014, in Washington. Alaska, Oregon, and the District of Columbia similarly legalized marijuana on November 4, 2014. Retail sales have not yet begun in Alaska or Oregon, although existing medical marijuana dispensaries in Oregon may temporarily sell marijuana to adults 21 and over who are not patients. Retail sales are currently unlawful in the District of Columbia.

There has been little systematic evaluation of the legalization of marijuana since there are little data available and data collection across states and years is not uniform. It is too early to draw any line-in-the-sand conclusion about the effects of marijuana legalization. However, preliminary reports suggest that the effects of legalization have been either positive or negligible.⁵ This report will examine the data on legalization that currently exist in the following categories: youth use of marijuana; marijuana arrests; road safety; and tax revenue.

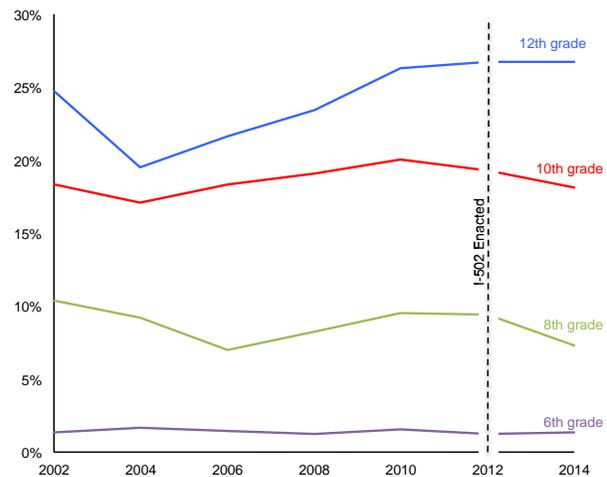
Ballot Measure	Date Ballot Measure Passed	Date Possession Legalized	Date Retail Sales Began	Number of Retail Stores in Operation as of 10/12/2016
Colorado (Amendment 64)	11/6/2012	12/10/2012	1/1/2014	454 ⁶
Washington (Initiative 502)	11/6/2012	12/6/2012	7/8/2014	442 ⁷
Alaska (Ballot Measure 2)	11/4/2014	2/24/2015	The first retail licenses were issued in September 2016.	While a few retail licenses have been issued, no stores are currently open.
Oregon (Measure 91)	11/4/2014	7/1/2015	Retail licenses are expected to be issued in Fall 2016; however, early retail sales of marijuana to adults 21 and over began at dispensaries on 10/1/2015. This provision will expire on 12/31/2016.	There are no retail stores in operation, but 376 of the 422 registered medical marijuana dispensaries have opted to sell to adults. ⁸
Washington, D.C. (Initiative 71)	11/4/2014	2/26/2015	Retail sales remain unlawful.	None.

Youth Use of Marijuana

For many years youth in the United States have believed that marijuana is easy to obtain. This was true well before states began to legalize marijuana. Since 1975, between 80 and 90 percent of 12th graders have said they could obtain marijuana easily.⁹ Although over the last several years, 8th and 10th graders have reported less and less accessibility.¹⁰ Despite the belief that marijuana is widely available, preliminary data, as explained below, show that the legalization of marijuana has had little to no impact on the overall rate of youth use of marijuana.¹¹ According to the 2015 Monitoring the Future Survey,¹² a nationwide study that surveys over 40,000 students in grades 8, 10, and 12 each year, since 2010, the annual prevalence of youth marijuana use has leveled out after rising for several years.¹³

The Washington Healthy Youth Survey, administered biennially in even-numbered years to a representative sample of Washington students in grades 6, 8, 10, and 12, found that there were no significant trends in youth marijuana use between 2002 and 2014, two years post-legalization (see Chart 1).¹⁴ Between 2012 and 2014 the rates of 8th and 10th graders who reported currently using marijuana in the last 30 days decreased slightly and rates for 6th and 12th graders remained unchanged. In both 2012 and 2014, 26.7 percent of 12th graders reported using marijuana within the last 30 days.¹⁵ In 2014, 18.1 percent of 10th graders reported using marijuana within the last 30 days compared to 19.3 percent in 2012.¹⁶ Lifetime use rates among all Washington youth also remained stable.¹⁷

Chart 1: Past 30 Day Marijuana Use Among Washington Youth

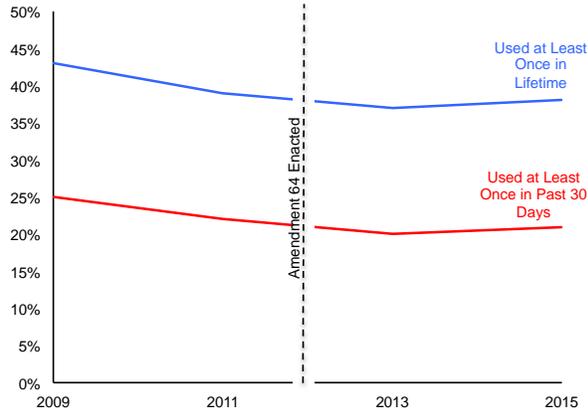


Source: Chart originally published in "I-502 Evaluation Plan and Preliminary Report on Implementation," Washington Institute for Public Policy, September 2015.

A large survey of students in Colorado similarly reports that youth marijuana use has remained stable since the state legalized marijuana for adult use. The Colorado Department of Public Health and the Environment administered the 2015 Healthy Kids Colorado Survey to a random sample of 17,000 middle and high school students in Colorado. The number of youth reporting that they had used marijuana in the last 30 days declined from 25 percent in 2009, three years prior to legalization, to 21.2 percent in 2015, more than two years after Colorado legalized marijuana.¹⁸ In addition, the rate of youth in Colorado who admitted to the use of marijuana in their lifetime, even just once, has remained stable.¹⁹ In 2009, 43 percent of youth in Colorado reported using marijuana at least once in their lifetime compared to 38 percent of youth in 2015 (see Chart 2).²⁰

“Despite the belief that marijuana is widely available, preliminary data show that the legalization of marijuana has had little to no impact on the overall rate of youth use of marijuana.”

Chart 2: Marijuana Use Among Colorado Youth



Source: Chart originally published in "Marijuana Use Among Youth in Colorado," Colorado Healthy Kids Survey (2015).

In 2015, the Oregon Healthy Teens Survey, administered biennially in odd-numbered years to 8th and 11th graders statewide, reported that current marijuana use among youth remained stable after the state legalized marijuana in 2014. In 2015, 9 percent of Oregon 8th graders reported using marijuana at least once in the last 30 days compared to 9.7 percent of 8th graders in 2013.²¹ In 2015, 19.1 percent of 11th graders reported using marijuana at least once in the last 30 days compared to 20.9 percent of Oregon 11th graders in 2013.²²

The Alaska Youth Risk Behavior Survey, administered biennially in odd-numbered years to students in grades 9 to 12 statewide, also reports that the percentage of high school students who reported current marijuana use in the last 30 days remained statistically stable after legalization. The adult use of marijuana became legal on February 24, 2015,²³ which has not allowed for much time to study and compare youth use rates before and after legalization. However, in the spring of 2015, 19 percent of high school students in Alaska reported using marijuana at least once in the last 30 days.²⁴ This number is consistent with previous surveys measuring current use in the last 30 days – in 2013, 19.7 percent of high schoolers reported current use,²⁵ and in 2011, 21.2 percent reported current use.²⁶ Lifetime use rates also remained stable among high school students in Alaska – 38.8 percent of high school students in 2015 reported they had used marijuana at least once in their lifetime compared to 39 percent in 2013.²⁷

Marijuana Arrests

Arrests in all states and Washington, D.C. for the possession, cultivation and distribution of marijuana have plummeted since voters legalized the adult use of marijuana, saving those jurisdictions millions of dollars and preventing the criminalization of thousands of people.

In Colorado, the total number of marijuana arrests decreased by 46 percent between 2012 and 2014, from 12,894 to 7,004 (see Chart 3a). The number of court filings declined 81 percent between 2012 and 2015, from 10,340 to 1,954, with felony marijuana filings declining by 45 percent (see Chart 3b).²⁸

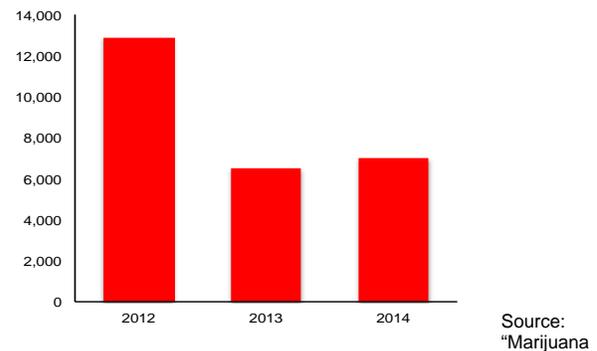
The total number of low-level marijuana court filings in Washington fell by 98 percent from 6,879 in 2011 to 120 in 2013.²⁹

In Washington, D.C., marijuana arrests decreased 85 percent from 2014 to 2015, with possession arrests falling by 98 percent from 1,840 in 2014 to 32 in 2015 (see Chart 3c).³⁰

Marijuana charges and arrests in Alaska decreased by 59 percent between 2013 and 2015 even though retail sales of marijuana have not yet begun.³¹

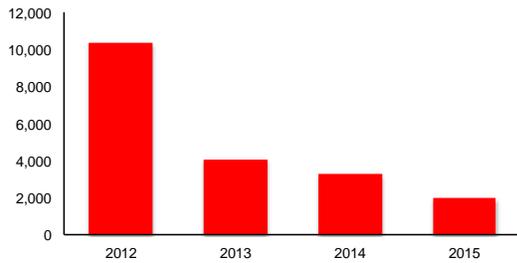
Marijuana arrests in Oregon declined by 50 percent from 2011 to 2014. There were 4,223 arrests for all marijuana offenses in 2011, which dropped to 2,109 in 2014.³²

Chart 3a: Total Marijuana Arrests in Colorado



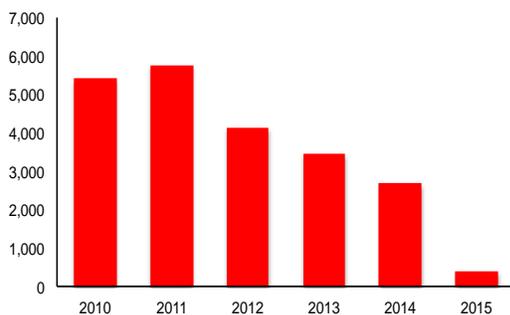
Source: "Marijuana Legalization in Colorado: Early Findings, Report Pursuant to Senate Bill 13-283," Colorado Department of Public Safety, March 2016.

Chart 3b: Marijuana Court Filings in Colorado



Source: "Marijuana Legalization in Colorado: Early Findings, Report Pursuant to Senate Bill 13-283," Colorado Department of Public Safety, March 2016.

Chart 3c: Total Marijuana Arrests in D.C.



Source: Metropolitan Police Department, Washington, D.C.

The reduction in arrests has resulted in substantial savings for law enforcement and the judiciary. For example, Washington spent over \$200 million on marijuana enforcement between 2000 and 2010.³³ By no longer arresting and prosecuting possession and other low-level marijuana offenses, states are saving hundreds of millions of dollars and thousands of adults are no longer getting stopped, arrested, charged, or convicted for the unlawful possession of marijuana.

It is widely acknowledged that racial disparities exist in the enforcement of marijuana laws in this country – blacks and Latinos are more likely to be arrested for marijuana crimes than whites.³⁴ Initial data from Colorado and Washington show that while legalization substantially reduces the total number of blacks and Latinos arrested for marijuana offenses, it does not eliminate the forces that contributed to the disparity in the first place.³⁵ A recent report found that in both states the post-legalization arrest rate for blacks was double the arrest rate for other races and ethnicities.³⁶ Similarly, in Washington, D.C., out of 128 total arrests for consuming marijuana in public in 2015, 108 arrests were

of black people.³⁷ More reform is needed to address law enforcement practices that produce such racial disparities in enforcement.

Road Safety

It is unlawful to drive while impaired by (or under the influence of) marijuana in every state in the country.³⁸ How states define or set limits on impairment varies substantially from state to state, including within the group of states that have legalized marijuana.

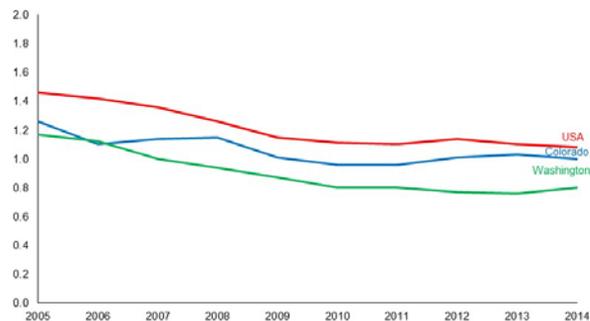
Washington and Colorado both rely on blood tests to determine the concentration of tetrahydrocannabinol (THC), the main psychoactive ingredient in marijuana, in a driver's system as a measure of impairment. Washington establishes a legal threshold of five nanograms of THC per milliliter of a driver's blood – results that meet or exceed that amount means the driver has violated the law.³⁹ Colorado also establishes a threshold of five nanograms of THC per milliliter of a driver's blood, but anything at or above that concentration only triggers a presumption of impairment. A driver may rebut this presumption at trial with evidence of non-impairment.⁴⁰ In contrast, Oregon, Alaska, and Washington, D.C., all rely on trained observations of police officers to determine a driver's impairment.⁴¹ According to the Oregon State Police, law enforcement only collects blood samples in fatal or near fatal accidents.⁴²

Unlike the widely accepted, and scientifically proven, link between blood alcohol concentration and impairment, there is no similar link between concentration of THC in a driver's system and impairment. Studies by the National Highway Transportation Safety Administration ("NHTSA"), the AAA Foundation for Traffic Safety, and academic researchers have all found that, unlike with alcohol, there is no clear correlation between specific levels of THC in the bloodstream and impairment.⁴³ Variations in body weight, frequency, quantity of use and tolerance affect the extent to which a person may be impaired by marijuana.⁴⁴ For example, studies have shown that regular users do not show signs of impairment after using marijuana.⁴⁵ Tests for THC concentration in the blood only show whether a driver has used marijuana within the past few hours, days or weeks; they do not objectively establish whether the driver is impaired and unsafe to drive.⁴⁶

The total number of arrests for driving under the influence, including both alcohol and other drugs, has declined in Colorado and Washington. According to the Colorado State Patrol (CSP)ⁱ the number of DUI citations issued by CSP declined by 18 percent from 5,546 in 2014 to 4,546 in 2015, the first year after legal sales of marijuana.⁴⁷ According to the Washington State Patrol, all DUI arrests declined by 8 percent from 2013 to 2014.⁴⁸ While it is too soon to know the reason for this decline, some studies suggest that some people use marijuana as a substitute for substances like alcohol and opiates, which are more clearly correlated with driving impairment.⁴⁹ Very few of the overall number of DUI arrests in both states involved marijuanaⁱⁱ as the only drug (approximately 8 percent in Colorado and 4 percent in Washington).⁵⁰ In addition, in Colorado (2015 data are not yet available in Washington) marijuana was actually involved in slightly fewer DUI arrests in 2015 than in 2014.⁵¹

In Colorado and Washington the post-legalization traffic fatality rate has remained statistically consistent with pre-legalization levels, is lower in each state than it was a decade prior, and is lower than the national rate (see Chart 4).⁵² According to a recent report analyzing available post-legalization data, no obvious increases in traffic fatalities occurred after legalization or after the opening of retail stores in Colorado and Washington.⁵³ In Oregon and Alaska, data are limited, but early indications show that traffic fatality rates have remained stable since legalization.⁵⁴ Legalization has not led to more dangerous road conditions.

Chart 4: Traffic Fatalities Rate per 100 Million Vehicle Miles Traveled



Source: Fatalities and Fatality Rates by STATE 1994 – 2014: USA National Highway Transportation Safety Administration, NCSA Data Resource Website, Fatality Analysis Reporting (FARS) Encyclopedia (2016).

While THC has been detected in more drivers involved in fatal crashes in Washington, the link between this increase and driver impairment is unknown. In 2014, there were 72 drivers in fatal crashes who tested positive for THC, alone or in combination with alcohol or other drugs, compared to 44 drivers in 2010.⁵⁵ Only 20 of the drivers in fatal crashes in 2014 tested positive for THC alone, compared to 9 drivers in 2010.⁵⁶ However, the increase by itself does not show that more people are driving while impaired by marijuana or that the fatalities were caused by impaired driving.⁵⁷

Instead, this may be a result of changes to THC screening and data reporting procedures post-legalization. For example, prior to legalization, Washington did not routinely test drivers to determine whether THC was involved in a fatal crash and researchers had to retroactively and manually abstract this information. This methodology is subject to a high error rate and cannot be accurately compared to the real time THC tests conducted post legalization.⁵⁸ National data from the NHTSA are also limited by wide variations in testing procedures and testing and reporting policies.⁵⁹ Post legalization, the NHTSA Fatality Analysis Reporting System data had to be manually appended to include THC toxicity information as well. For these reasons and the lack of historical comparison value, NHTSA warns against comparing these numbers across years or jurisdictions.⁶⁰ An increase in drivers testing positive for THC may also demonstrate an as-expected increase in marijuana use by adults over 21 years of age in the states that have legalized.⁶¹ The data only illuminate that tested drivers consumed marijuana hours, days, or weeks prior to the test, possibly long

ⁱ According to the “Marijuana Legalization in Colorado: Early Findings” report published by the Colorado Department of Public Safety, the Colorado State Patrol is “the best agency to use as a benchmark for issues related to impaired driving in Colorado,” because it accounts for 20 percent of all DUI arrests in the state; it began collecting information on the perceived impairing substance(s) of drivers in early 2014, and it has the most drug recognition experts of any law enforcement agency in Colorado.

ⁱⁱ “Involving marijuana” refers to instances in which a driver may have tested positive for THC but is not actually impaired.

before the impairment effects wore off—they cannot state whether a driver was impaired by marijuana.

Tax Revenues

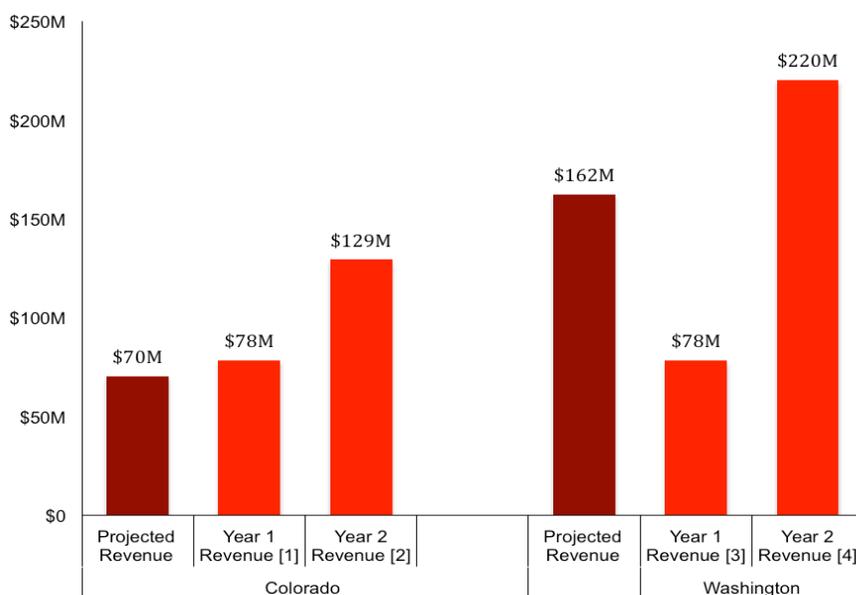
Taxes imposed on marijuana for adult use in Colorado and Washington have been overwhelmingly successful in generating revenue.⁶² While revenue collection began slowly during the first year of retail sales – as state and local governments and consumers became familiar with the new system – revenue exceeded initial estimates by the second year.⁶³ Oregon has only just begun to collect taxes on marijuana and Alaska has not yet started.⁶⁴

Colorado was initially projected to bring in \$70 million in annual tax revenue.⁶⁵ Excluding taxes on medical marijuana, the state went on to collect \$78 million in the first full fiscal year after retail sales began (June 1, 2014, to May 31, 2015) and \$129 million in the second full fiscal year (June 1, 2015, to May 31, 2016).⁶⁶ These revenues fund school construction, marijuana enforcement and general state needs. The state has scheduled a tax reduction for July 2017, which will reduce the 10 percent special marijuana sales tax on retail marijuana sales to 8 percent.⁶⁷ In addition to the 10 percent tax, there is a 15 percent excise tax on wholesale marijuana, a standard 2.9 percent state sales

tax, adding up to an effective tax rate of 29 percent, excluding any additional local taxes.⁶⁸

Revenue analysts predicted the taxation of marijuana in Washington would bring in \$162 million annually for the first two years.⁶⁹ In its first fiscal year (July 1, 2014, to June 30, 2015), Washington collected almost \$65 million in excise taxes,⁷⁰ \$11.5 million in retail sales tax, and \$1.4 million in business and occupation tax for a total of nearly \$78 million.⁷¹ In its second fiscal year (July 1, 2015 to June 30, 2016) the state collected \$186 million in excise taxes, \$30 million in retail sales tax, and \$4 million in business and occupations tax for a total of \$220 million.⁷² The state initially imposed a complicated tax structure that imposed a tax at each point in the supply chain on producers, processors, and retailers. Beginning in July 2015, the state changed this to impose an effective 37 percent tax on adult use marijuana, which includes a 25 percent excise tax at the point of sale, business and occupation tax, and retail sales tax.⁷³ This tax revenue is used to fund substance abuse prevention and treatment programs, youth and adult drug education, community health care services, and academic research and evaluation on the effects of marijuana legalization in Washington.⁷⁴

Chart 5: Marijuana Tax Revenue in Colorado and Washington



Sources & Notes:

- [1] Sale of retail marijuana began on Jan. 1, 2014, in Colorado. For purposes of comparison, these numbers do not include revenue from the first five months of retail sales (Jan. 1, 2014, to May 31, 2014), which was \$22.5 million. Year 1 Revenue is reported from June 1, 2014, to May 31, 2015. "Marijuana Tax Data," Colorado Department of Revenue.
- [2] Year 2 revenue is reported from June 1, 2015, to May 31, 2016. Ibid.
- [3] Sale of retail marijuana began on July 8, 2014. Year 1 revenue is reported from July 1, 2014, to June 30, 2015. "Recreational Marijuana Tax Table," Department of Revenue, Washington State (retail sales and business and occupation tax); "Weekly Marijuana Report," Washington State Liquor and Cannabis Board (excise tax).
- [4] Year 2 revenue is reported from July 1, 2015, to June 30, 2016. Ibid.

Oregon, too, has surpassed tax revenue expectations. The state legalized marijuana on November 4, 2014, although sales at adult use retail stores are not expected to begin until this fall. However, beginning on October 1, 2015, the legislature allowed sales to adults 21 and older at registered medical marijuana dispensaries.⁷⁵ The legislature also switched from a weight based tax at wholesale to a 17 percent retail tax on adult use sales of marijuana.⁷⁶ Until the latter tax takes effect when retail stores start operation, the state has been collecting a temporary 25 percent retail tax since January 4, 2016, on sales to adults 21 and older at medical marijuana dispensaries.⁷⁷ There is no state sales tax in the state. In 2014, the state Legislative Revenue Office predicted the state would collect an average of \$23 million gross revenue per year. The same office recently increased this expectation to \$31 million per year based on the lower tax, stronger than anticipated sales, and a movement away from the illicit market.⁷⁸ Oregon has been receiving about \$4 million per month in marijuana tax revenues, collecting \$22.5 million in just the first six months of adult use sales at medical marijuana dispensaries.⁷⁹ Revenues will fund schools, mental health and drug treatment, and law enforcement.

The first retail license was issued in Alaska on September 8, 2016, but no retail stores are currently open. Marijuana will be taxed at \$50 an ounce for flowers and \$15 an ounce for other parts of the plant at the point of transfer from a marijuana cultivation facility to a retail marijuana store or manufacturing facility.⁸⁰ The Alaska Department of Revenue estimates the state will collect \$12 million annually, which will fund drug treatment and community residential centers.⁸¹

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- 11 Over the last ten years, during a time of decriminalization, legalization, and shifting attitudes on marijuana, the prevalence of marijuana use disorders among youth has significantly declined. A recent study reported that the number of youth with marijuana-related use disorders declined by 24 percent from 2002 to 2013. Christian Hopfer, "Declining Rates of Adolescent Marijuana Use Disorders During the Past Decade May Be Due to Declining Conduct Problems," *Journal of the American Academy of Child & Adolescent Psychiatry*, 55(2016): 439-440, accessed September 27, 2016, doi: 10.1016/j.jaac.2016.03.013.
- 12 The federal government relies on three national surveys to track use of alcohol, tobacco, and illicit drugs among youth: (1) Monitoring the Future ("MTF"), sponsored by the National Institute on Drug Abuse ("NIDA"); (2) the Youth Risk Behavior Survey ("YRBS"), sponsored by the Centers for Disease Control and Prevention ("CDC"); and (3) the National Survey on Drug Use and Health ("NSDUH"). Multiple methodological differences exist among the surveys. For example, MTF and YRBS are school-based surveys, while NSDUH is conducted at households with parental permission. While significant differences in levels of use are frequently observed among the surveys, the surveys reflect similar trends across the years. "Comparing and Evaluating Youth Substance Use Estimates from the National Survey on Drug Use and Health and Other Surveys," Substance Abuse and Mental Health Services Administration, December 2012, <http://www.samhsa.gov/data/sites/default/files/NSDUH-M9-Youth-2012/NSDUH-M9-Youth-2012.pdf>.
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- 22 Ibid.
- 23 In 1975, the Alaska Supreme Court ruled that the Alaska Constitution’s right to privacy protected an adult’s ability to use and possess a small amount of marijuana in the home. See *Ravin v. State*, 537 P.2d 494 (Alaska 1975). While subjected to various ballot and legislative challenges over the years, Alaska courts have repeatedly upheld the right to possess and consume up to four ounces of marijuana in a private home. Any statute that seeks to criminalize this constitutionally protected conduct is unconstitutional. For an exhaustive review of *Ravin* and its progeny, see Jason Brandeis, “The Continuing Vitality of *Ravin v. State*: Alaskans Still Have a Constitutional Right to Possess Marijuana in the Privacy of Their Homes,” 29 Alaska L. Rev. 175 (2012).
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