

To: National Governors Association  
From: Allison Haugen and Lauren Janssen  
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Subject: Assessing Marijuana Legalization and Taxation

### Executive Summary

In the past decade, numerous states have passed laws legalizing the recreational use of marijuana. Designing an effective tax structure on marijuana has the potential to generate millions of dollars in revenue for states around the country. Many states, such as Connecticut, are on the precipice of enacting legislation legalizing recreational “adult use” marijuana in the coming year. After evaluating research from other states that have legalized marijuana, such as Colorado, Washington state, and California, we will offer recommendations for state legislatures considering marijuana legalization.

States should debate recreational marijuana legalization in the state legislature, which will allow the state to enact appropriate regulations and make changes should legalization become final. Establishing an excise tax similar to neighboring states will ensure the state has a competitive market, particularly for smaller states where it is easy to cross borders. Geographically larger states with a high population may not face this hurdle. States should consider equity issues and the negative effects on public health in the legalization process. Decriminalizing marijuana, expunging marijuana-related records, and promoting marginalized groups’ access to licenses will help to address equity concerns. Legislation that directs a portion of revenue to substance abuse prevention programs or prevents the sale of marijuana products targeting children should also be adopted. Overall, marijuana legalization and taxation will not solve a given state’s budget problems, but it has the potential to raise some much-needed revenue on a product with a high, inelastic demand.

### History and Background on the Legalization of Marijuana

Marijuana has been regulated in the United States since the passage of the Marihuana Tax Act in 1937. Under the supervision of Harry Anslinger, the first commissioner of the U.S. Treasury Department's Federal Bureau of Narcotics, marijuana became illegal to use recreationally. Due to the passage of new legislation during the 1970s under President Nixon, marijuana became a restricted narcotic drug (U.S. Customs and Border Protection, 2015).

Marijuana legalization in the United States started with a proposition to legalize medical cannabis in California in 1996. After California’s successful passage of the proposition, thirty-three additional states have passed laws either legalizing recreational or medical use of marijuana. During the late 00s and early 10s, the legalization of marijuana for both recreational and medical use has been a controversial topic. In 2012, the legalization of recreational marijuana passed in both Colorado and Washington state. After the legalization of recreational use in two states passed, eight other states, including D.C., have followed suit, legalizing the use of recreational marijuana. However, the use of marijuana, both for medical and recreational use remains illegal under federal law.

## Tax Structures in States with Recreational Marijuana Markets:

### Taxation of Marijuana in Colorado

Marijuana is taxed similar to other taxable goods, by using a sales tax rate. Colorado currently levies a 15 percent excise tax on both medical and recreational marijuana at point of sale in addition to the Colorado sales tax rate of 2.9 percent. Producers pay an additional excise tax directly to the Department of Revenue on the first sale to a retail marijuana facility or a retail store. Colorado has earned a total of about \$949 million since 2014. This is above the state's projections made prior to the legalization of marijuana. Colorado's initial projections were about \$70 million per year and they exceeded that expectation. Colorado allocates revenues at a local level, not at the state level. Special projects funded by marijuana tax revenue will be detailed below.

### Taxation of Marijuana in Washington State

Washington state was one of the first two states to legalize recreational marijuana, doing so by referendum in 2012. Sales began in 2014. Washington state currently uses an excise tax structure, taxing marijuana at point of sale at 37 percent. In fiscal year 2017 alone, Washington collected about \$319 million in legal marijuana income and licensing fees. Additionally, the sales of legal marijuana have reached about \$1.3 billion in 2017, up from \$786 million in fiscal year 2016. The initiative that legalized marijuana specified that revenue collected from sales and licenses would be set aside for education, healthcare, and substance abuse prevention. About two-thirds of revenue is currently allocated to public health programs in the state such as: Medicaid, substance abuse programs, and community health centers (Santos, 2017).

### Taxation of Marijuana in Massachusetts

Massachusetts serves as an example to what could be the outcome of legalization of recreational marijuana in Connecticut. Massachusetts taxes marijuana using a 17 percent tax on each sale, made up of a 6.25 percent sales tax and a 10.75 percent excise tax on the product. Massachusetts estimates revenues from \$44 million to \$82 million in fiscal year 2019. The 6.25 percent sales tax revenue goes to the state government's general fund while the 10.75 percent excise tax revenue will go towards a newly created Marijuana Revenue Fund (DeCosta-Klipa, 2018). The Marijuana Revenue Fund will use its revenues towards the creation of the Cannabis Control Commission (CCC). The CCC is dedicated to promoting and fund public awareness campaigns, substance abuse prevention and treatment, local grants for youth education, public safety, municipal police training, as well as donating revenues towards Massachusetts' already existing Prevention and Wellness Trust Fund. The CCC has created a social equity program for communities adversely affected by the high arrest rates and incarcerations from cannabis (DeCosta-Klipa, 2018). Neighboring states, like Connecticut, should set a similar excise tax rate of 10.75 percent to compete with Massachusetts.

### Special Projects Funded by Legal Marijuana Revenue

Each state has its own set of rules regarding marijuana taxation and what to do with the revenue earned from the sales of recreational marijuana. Colorado left it up to the local government to decide. In Colorado specifically, the revenues earned from the marijuana excise tax are directly allocated to the "B.E.S.T" funding resource at the state level (Colorado Department of Education). The "Building Excellent Schools Today" fund is benefiting from the state excise tax levied in Colorado. This is a specific project the state primarily funds through their lottery

program and now the state excise taxes on marijuana. At the state level, Colorado has not created a specific project after the legalization of marijuana, they are adding to their current funding resources. At the local level, the City of Aurora built a \$1.5 million homeless shelter with the revenues earned. This was a project Aurora created out of the legalization of recreational marijuana. In the example of Colorado, the state government has decided to go a different route than the local governments by allocating the funding towards an already in place program while the local governments are creating pet projects for their local communities.

The benefits of the special projects funded by excise taxes are almost entirely political. In Massachusetts, the state created the CCC to promote substance abuse prevention and treatment when Massachusetts already has a health department that was capable of carrying out that task. Politicians are using the revenues from the excise marijuana taxes to provide tangible proof of the benefits of legalizing recreational marijuana.

#### Marijuana Regulation: Washington State

Washington merged marijuana regulation with the state's liquor board creating the Liquor and Cannabis Board (LCB). This board regulates business permits, sale, and rules regarding marijuana consumption in the state. It implements some of the strictest rules in the country to avoid any federal interference in the state. There are advocates in the legislature who argue the state should relax some of these rules because the federal government has taken a hands-off approach to marijuana legalization in the states (House Bill 1237). To track the cultivation, testing, processing, and retail sales of marijuana throughout the state, the LCB implemented the Marijuana Traceability System. The seed-to-sale system tracks each step in the supply chain, enabling regulators to collect taxes and prevent diversion to the black market. Compliance is enforced through random inventory audits, backed by penalties ranging from fines to inventory seizure and destruction. Products are tested to ensure quality and safety and level of potency.

Marijuana producers in Washington state must go through distributors rather than having the option to obtain retail licenses. This prohibits vertical integration from taking place - the producer and supplier must remain separate entities (Hill, 2019). Prior to July 1, 2015, a 25 percent gross receipts tax was assessed at each transfer of marijuana. After July 1, the only tax collected was a 37 percent excise tax at retail. Higher prices due to a high tax or high prices set by the retailer, results in a significant decrease in the potency of marijuana purchased by consumers. Consumers reacted to the 2015 reform in part by substituting toward lower quality products. Consumers bear about 44 percent of the retail tax burden. Researchers find Washington is near the peak of the Laffer curve: higher taxes on the margin may not increase revenue (Hansen et al, 2017).

#### Marijuana Regulation: California

California legalized recreational marijuana in 2016 by voter proposition and sales began in 2018. California's recreational marijuana market has not fared as well as Colorado or Washington state (Vance, 2017). The tax revenue for the industry was about \$100 million below projections in the first six months of 2018 (Fuller, 2019). That year, \$2.5 billion of legal cannabis was sold in California, half a billion dollars less than in 2017 when only medical marijuana was legal. Researchers argue that a 'fragmented and uncoordinated' enforcement has allowed the black market to flourish, threatening licensed business with unfair competition. Governor Newsom has announced an expansion of efforts by the California National Guard to work with federal

officials to target the black market, including illegal drug grows in Northern California operated by international drug cartels (McGreevy, 2019). As much as 80% of marijuana grown in California comes from the black market.

### Consumption of Marijuana in the Licit and Illicit Markets

Consumption of marijuana varies state by state. In Colorado and Washington state licensed sales soared post-legalization, but California has had a different experience because production is so high compared to other states. There are not enough consumers to meet supply. Most excess marijuana produced in California is smuggled across the Rockies and Mississippi River where the wholesale price nearly triples. A lesson to draw is that smaller states, with a less robust pre-legalization market, will likely have a higher demand for licensed sales than larger states that are already producing marijuana for the illicit marijuana market (Fuller, 2019). Until all states legalize marijuana, there will be an illicit market for marijuana. Illicit growers in states such as California will exploit this loophole to sell their product at a high profit margin in states without legalization.

### Legalization by Proposition vs. Legislation

States that legalize marijuana via proposition may find it difficult to make substantive changes to the initiatives once they are passed, handing control of the initiative to whichever group wrote the proposition. States that choose to legalize through traditional legislative channels can more effectively enact regulations and changes in the future. Connecticut's decision to hold the process through legislative channels will enable the state to more effectively enact regulations and adopt changes.

### Efficiency of Recreational Marijuana

The efficiency of the recreational marijuana market varies depending on several factors. One important factor is the existence of a medical marijuana market prior to legalizing recreational marijuana. States with existing medical marijuana markets, particularly if those markets have a multi-year history, are more likely to implement a more efficient market following recreational legalization than states without (Hunt and Pacula, 2017). Prices in medical marijuana markets on average began to fall 3 years after markets opened. In recreational markets, with a history of medical markets, prices will fall to their true value in a shorter period, as evidenced by Washington state and Colorado.

### Considering Equity in Legalization

Proponents of marijuana legalization contend that legalization will help promote social justice and equity by decriminalizing possession which disproportionately affected poor and minority communities and by reinvesting in these communities with proceeds from sales. Legislation in New York would create inexpensive small-business licenses and make them available for people with drug convictions. Connecticut is looking to address equity concerns by granting minority business entrepreneurs first access to cultivation and other types of licenses. This can be done by designating a certain number of licenses to entrepreneurs who live in low-income areas. Using demographic data, the legislature could reserve a set number of slots for applicants who come from low-income or high minority areas. States should also consider expunging low-level marijuana offenses under recreational marijuana bills. States can further address equity by directing a portion of revenue towards investment in low-income communities.

### Adequacy of Legalization

Proponents of legalization tout it as a potential great source of funds that could be distributed toward many state programs like youth programs focused on substance use disorder, prevention, and treatment or programs designed to reduce driving under the influence of alcohol, marijuana, and other drugs. The benefits of legalization must outweigh the potential drawbacks in order to be implemented. States considering legalization should study the impact legalization has had on states such as Colorado or Washington state before legislating change.

### Recreational Marijuana Drawbacks

#### Impacts on Public Health

An increase in car collisions has been tied to marijuana legalization. According to the Highway Loss Data Institute (HLDI), collision car claims were 12.5 percent higher in Colorado, compared to bordering states with no legalization, and 9.7 percent higher in Washington state. Both results were statistically significant. There is currently no field sobriety test, similar to a breathalyzer, for marijuana. Levels of THC in someone's system is only detectable via a blood draw (NHTSA). More research is required to create a way for law enforcement to test impaired drivers on the scene. Recent data from Colorado shows a decline in marijuana use among teenagers, but states should continue efforts to ensure young people are restricted from access to marijuana and other drugs. Legislators must include appropriate tax revenues designed to address these public health impacts, potentially including a ban on gummies, cartoon packaging, and other promotion that might appeal to children and young adults.

#### Teenage Use of Marijuana

Proponents against recreational marijuana legalization argue that legalizing marijuana will lead to higher use of the drug among teenagers because it is more accessible in the home. However, recent scholarship in Colorado and Washington state, the first two states to legalize recreational marijuana, show use among teenagers in 8th and 10th grade is declining (Dilley et al, 2019). More scholarship is needed, but these preliminary findings may indicate that teenagers are less motivated to use a licit vs. illicit substance. States can further discourage use among youth by setting the legal age of consumption at 21, banning edibles that appeal to children, like cookies and candies, and targeting teenagers and adolescents with public health awareness campaigns.

#### Not a Budget Deficit Cure

Revenue gained from marijuana taxation will not resolve any state's budget deficit. For example, Connecticut is projected to run a \$2 billion deficit in the next fiscal year and \$2.4 billion deficit in 2020-2021. Depending on the tax structure adopted, Connecticut could generate an estimated \$180 million in revenue. Legalization and taxation will help address Connecticut's budget deficit, but will no way resolve existing issues. Recreational marijuana taxation should be viewed as a way to recapture lost tax revenue (to the black market) and provide citizens a legal and safe way to enjoy a product they already use.

#### Marijuana Substitution for Other Revenues

According to a recent study, states that have legalized recreational marijuana have seen a 15 percent decrease in sales of alcohol per month (Baggio et al, 2018). The research has been split on the actual substitution effects of alcohol for marijuana. Another study examined the effect of

the legalization of marijuana on alcohol and tobacco sales specifically in Washington state (Miller and Seo, 2018). This study found that during the time of the legalization of recreational marijuana, tobacco sales decreased by 11.4 percent and alcohol sales decreased by 1.35 percent (Miller and Seo, 2018). The research is suggesting customers are substituting away from tobacco and alcohol which could potentially include recreational marijuana (Miller and Seo, 2018).

### The Problem of Excess Supply

States are currently constrained by what they can do with their excess product. In states such as California and Oregon, supply vastly outweighs demand, causing the price to fall precipitously and driving out small businesses in favor of larger corporations who are better equipped to handle lower prices (Stangel, 2018). The future of licit and illicit prices and market depends on whether action is taken on a federal level to legalize recreational marijuana. Federal legalization will allow states to engage in interstate commerce and sell excess supply, raising the price equilibrium.

### Vertical Integration

States also must consider whether to incorporate vertical integration into their markets. There are pros and cons of vertical integration. Vertical integration allows the producer and supplier to be the same entity, reducing costs for the entity, resulting in lower prices for the consumer. However, prohibiting vertical integration, as some states have, allows for more companies to enter the industry, ensuring that smaller companies are able to compete. It also encourages industry diversification, providing more options for the consumer. Prohibiting vertical integration may help states ensure competition for a more diverse array of businesses, creating more equity in the market. (Hansen, 2017).

### Potential for Federal Legalization of Marijuana

Public approval of marijuana has dramatically risen in the past decade, finding majority approval in nearly every age group (Hartig, 2018). If the United States government decided to nationally legalize marijuana, the federal government could potentially generate up to \$7 billion in revenues if utilizing a federal tax rate of \$23 per pound of cannabis product (Ekins and Bishop-Henchman, 2018). If marijuana was legalized nationwide, states collectively might receive between \$5 billion and \$18 billion in tax revenue annually. States could use this money to offset major deficits or dedicate it to other projects. Along with increasing collected tax revenue, the marijuana industry could create 782,000 jobs with projections to increase to 1.1 million jobs by 2025 (Ekins and Bishop-Henchman, 2018).

### Recommendations

- 1) States considering recreational marijuana legalization should legalize via the legislature. This will allow states to craft rules and regulation upfront and make it easier to make changes later on. Legalizing recreational marijuana via a proposition hands control of the process to special interests who write the proposition. Legalizing through legislative channels allows states to address various concerns over equity, revenue, and public health.
- 2) States preparing to legalize should prohibit vertical integration in first three years. This will allow more companies to enter the industry, ensuring smaller companies are able to compete. It also encourages industry diversification, providing more options for the

consumer. Prohibiting vertical integration may help states ensure competition for a more diverse array of businesses, creating more equity in the market. This ensures large companies aren't able to completely create a market monopoly. States should reassess vertical integration after three years.

- 3) Black and brown communities have disproportionately been affected by criminal convictions related to marijuana. States should consider expunging previous marijuana-related convictions or reclassifying felonies to misdemeanors. States should also consider implementing a quota system when issuing licenses, for instance reserving a certain number of licenses for retailers from low-income communities. This will help balance the legalized marijuana industry which currently skews wealthy and white.
- 4) States must enforce rules against the black market. Legal marijuana has to be the only game in town. This may raise enforcement costs, but it will also ensure the state is not losing tax revenue to the black market.
- 5) Public health should also be considered in legislation. Tax revenue should be specifically set aside for substance abuse funding, public health campaigns targeting teenagers and adolescents, and training for law enforcement to spot impaired drivers.

### Conclusion

Because it has the potential to raise millions of dollars in revenue and is supported by the public and elected officials alike, it is time for states to consider enacting legislation that legalizes and taxes the sale of marijuana. Legalizing through state legislatures ensures the correct regulations are enacted to appropriately raise revenue, direct funding toward public health and law enforcement initiatives, and address equity concerns associated with prior penalties on low-income and minority communities. States should compare their market, including population density and geography, to surrounding states when setting excise taxes, and adjust rates as appropriate.

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This article was posted on Colorado Public Radio's website. It provides graphs and charts relating to where the revenues of marijuana taxation are going. Additionally, it provided insight and examples of the types of things Colorado is doing at the local level with the additional revenues earned.

Baggio, Michele and Chong, Alberto and Kwon, Sungoh, "Marijuana and Alcohol Evidence Using Border Analysis and Retail Sales Data" 23 August, 2018. Available at SSRN: <https://ssrn.com/abstract=3063288>

This study was one of the only studies we found providing evidence of a substitution effect between marijuana and alcohol sales. The studies uses a difference-in-difference statistical model to prove their theory. The authors of this study represent accredited universities such as the University of Connecticut and Georgia State University. Their data was provided by The Nielsen Company, LLC and the marketing databases is provided by the Kilts Center for Marketing Data Center at The University of Chicago Booth School of Business. There is a limitation noted in the study. The findings may be underreported since under the usage of medical marijuana, only a select few people have access to the substance.

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The legislature in Vermont passed a legislation requiring the Secretary of Administration to report on the consequences of legalizing marijuana. RAND corporation was selected to write the study. The RAND corporation is a non-profit, nonpartisan, research organization that provides solutions to public policy challenges. This report provides research on the marijuana industry analysis in Vermont.

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The Tax Foundation is an independent tax policy nonprofit organization. Their goal is to "improve lives through tax policies that lead to greater economic growth and opportunities". This article provides insight into the revenue impact of state legalization of marijuana, the estimated revenue impact on legalization marijuana, and the effect of legalization on the current marijuana market.

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This New York Times article examines California's marijuana market one year after voters approved a referendum legalizing recreational marijuana. It contextualizes recreational marijuana sales reports from the licit and illicit markets, comparing the lackluster performance of California's licit market with that of Colorado and Washington state and draws conclusions the disparity between them. It also details California's enforcement efforts so far to combat the illicit market.

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House Bill 1237, “Reforming the Compliance and Enforcement Provisions for Marijuana Licenses.” 1 March 2019. <http://lawfilesexternal.wa.gov/biennium/2019-20/Pdf/Bills/House%20Bills/1237-S2.pdf>

This bill, currently in committee proposes providing amnesty for violations made by entrepreneurs prior to April 20, 2017, provided the actions did not pose a direct threat to public health and safety, and to reform enforcement penalties to better align with state priorities. It underscores the idea that the legislation first passed, or referendums approved by voters may have to be amended as marijuana legalization is implemented

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The State of Colorado, Department of Education, "What is B.E.S.T.?"

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*The Washington Post* is a reputable news organization. *The Washington Post* used a study by New Frontier Data to report on the growing marijuana market. New Frontier Data is a research organization that focuses specifically on the cannabis industry. This specific study is about legalizing recreational marijuana on the federal level and what the potential effects would be on the U.S.’s economy. This article is a little over a year old, so estimates could have changed during that time.