

# Marijuana Legalization, Government Revenues, and Public Budgets

## Ten Factors to Consider

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**The RAND Corporation**

***Marijuana Legalization, Government Revenues, and Public Budgets***  
***Ten Factors to Consider<sup>2</sup>***

**Before the Committee on Finance**  
**Vermont State Senate**

**January 19, 2016**

Chairman Ashe, Vice Chairman MacDonald, and other distinguished members of the Senate Finance Committee, thank you very much for the opportunity to testify before you today. I am a senior policy researcher at the RAND Corporation, where I also serve as the co-director of the RAND Drug Policy Research Center.<sup>3</sup>

In May 2014, Governor Peter Shumlin signed Act 155, which required the Secretary of Administration to produce a report about various consequences of legalizing marijuana. In response to that legislation, my colleagues and I prepared a report for the Secretary.<sup>4</sup> It aims to inform the debate but does not make a recommendation about whether Vermont should change its marijuana laws. A finding of special interest for this committee is that Vermonters spend between \$125 million and \$225 million annually on marijuana.

Throughout the report, we noted the difficulties associated with projecting the effects of legalization on state revenues and public budgets, especially when it is unknown what the regime

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<sup>4</sup> J. Caulkins, B. Kilmer, M. Kleiman, R. MacCoun, G. Midgette, P. Oglesby, R. Pacula, and P. Reuter, *Considering Marijuana Legalization: Insights for Vermont and Other Jurisdictions*, Santa Monica, Calif.: RAND Corporation, RR-864, 2015. As of January 13, 2016: [http://www.rand.org/pubs/research\\_reports/RR864.html](http://www.rand.org/pubs/research_reports/RR864.html)

will look like. However, after extensive analysis, we placed the budgetary effects for Vermont into four categories, in terms of their order of magnitude:

- Less than \$1 million per year: The current cost of enforcing marijuana prohibition in Vermont against those 21 and older
- Low to middle single-digit millions: The one-time cost of creating a regulatory system for legal marijuana in Vermont. It is also the ongoing annual cost of maintaining that system, based on what it costs to regulate liquor in the state
- Double-digit millions: The potential annual tax revenue from Vermont residents once the black market is largely eliminated and if neighboring states do not legalize with a lower tax rate
- Triple-digit millions: The theoretical potential annual tax revenue from non-Vermont residents in the perhaps unlikely event that no other state in the northeastern United States legalizes and the federal government does not intervene.

Today, I will focus my comments on marijuana legalization, government revenues, and public budgets. My hope is that they are useful to those here in Vermont as well as to those in other jurisdictions who are considering marijuana legalization.

**First, it is hard to predict revenues from legal marijuana, since they will depend on actions of the federal government and nearby states.** Marijuana is a federally prohibited drug that is classified as Schedule I by the Controlled Substances Act. While the Obama administration has decided not to block the implementation of state-level marijuana legalization,<sup>5</sup> the federal approach could change after the next president is inaugurated in January 2017. The next president could shut down the state-legal commercial industries—thus eliminating the tax revenues. There could likely be political costs;<sup>6</sup> but, practically speaking, it would not be difficult for the Drug Enforcement Administration to close overt, tax-paying businesses that did not respond to a court order.

Another threat to marijuana tax revenues could come from national legalization that allows the industry to concentrate production in a handful of counties that have the most favorable climate (not just in terms of weather, but also with respect to having low taxes and regulatory burden). Indeed, all of the THC consumed in the United States could probably be grown on less than

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<sup>5</sup> James M. Cole, Deputy Attorney General, “Guidance Regarding Marijuana Enforcement,” memorandum for all U.S. Attorneys, Washington, D.C.: U.S. Department of Justice, Office of the Deputy Attorney General, August 29, 2013. As of January 10, 2016:  
<http://www.justice.gov/iso/opa/resources/3052013829132756857467.pdf>

<sup>6</sup> This could be less controversial if the state was obviously producing more than what could be consumed in the state; thus, suggesting that it was implicitly allowing exports.

10,000 acres.<sup>7</sup> If large corporations (especially those with national distribution networks) are allowed to enter the market and concentrate production (and/or national mail order is allowed), most states would be limited to taxing retail sales; not production or processing. Vermont does not seem like the natural place for the industry to locate large-scale production in the long run. One could imagine a local industry focused on producing boutique strains and products; however, it is unclear what the market would be for Vermont-grown marijuana after federal legalization.

The possibility of legalization in nearby states also makes it hard to project tax revenues. The large number of marijuana users who live close to Vermont (about 40 times the size of the Vermont market within 200 miles of its border), creates the theoretical possibility of generating hundreds of millions of dollars in annual tax revenues. Of course, this assumes that (1) Vermont is the only state in the northeast to legalize marijuana and (2) the federal government does not attempt to block production that is obviously targeted for out-of-state residents. Conversely, if a neighboring state legalized with a lower tax rate, that would not only significantly reduce Vermont's tax revenues from tourists, some Vermonters (especially heavy users) might find it more economical to purchase in the lower-tax state.

**Second, revenues from legal marijuana go beyond sales and excise taxes on marijuana.** A comprehensive analysis should also consider income taxes<sup>8</sup> for those participating in the new industry and revenues from those who provide professional services to the new industry, in addition to the ancillary revenues associated with tourism. Depending on the size of the industry, there could also be effects on the construction and real estate markets. The legalization of marijuana may also influence the consumption of other taxable goods, such as alcohol and tobacco, but at this point it is unclear what the magnitude, or even the direction, of these effects will be.

**Third, producer and consumer fees could generate additional revenue as well as limit interstate leakage and potential harms from marijuana tourism.** Additional revenue may be generated by charging license fees. Large fees on producers will tend to favor larger producers, and having a smaller number of larger producers has advantages and disadvantages. Likewise, a user-fee structure that imposed larger fees on nonresident marijuana buyers could reduce some tourism and interstate leakage. There is a precedent for this in many states with licenses for

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<sup>7</sup> J. Caulkins, B. Kilmer, and M. Kleiman, *Marijuana Legalization: What Everyone Needs to Know* (2nd ed.), New York: Oxford University Press, forthcoming (April 2016).

<sup>8</sup> Appendix B of the report looks at the Vermont income tax, which, in conformity with federal tax code section 280E, denies state income tax deductions for many expenses of marijuana businesses, such as advertising and marketing. For additional insights on 280E, see Pat Oglesby, "How Bob Dole Got America Addicted to Marijuana Taxes," *FixGov* blog, Brookings, December 18, 2015. As of January 13, 2016: <http://www.brookings.edu/blogs/fixgov/posts/2015/12/18-marijuana-advertisement-tax-280e-oglesby>

hunting, fishing, and trapping; for example, nonresidents of Vermont have to pay \$50 to hunt small game, while residents do not have to pay anything. Determining the appropriate license fee will depend on a number of factors. Indeed, if it is too large for out-of-state residents, it could create incentives for residents to make straw purchases.<sup>9</sup>

**Fourth, criminal justice “savings” are not the same as new revenues, and they are sometimes exaggerated.**<sup>10</sup> Criminal justice agencies devote time and resources to enforcing marijuana prohibition, but these figures are sometimes exaggerated.<sup>11</sup> Indeed, a number of states and cities—like Vermont—have decriminalized possession of small amounts of marijuana, making a violation a civil infraction—tantamount to a parking ticket. Legalization will reduce some of the costs to criminal justice agencies (and possibly the revenue from fines), but they will not be eliminated. There may still be tickets issued for public consumption as well as underage consumption and there could be serious costs if attempts are made to quickly shut down the existing black market. However, even if this does lead to a net reduction in enforcement, this money will likely remain within the criminal justice agencies (unless an explicit attempt is made to reduce the size of their budgets, which seems unlikely). While it is sometimes claimed that this will allow these agencies to focus their efforts on more-serious crimes, I am not aware of any studies that have rigorously analyzed whether reducing criminal justice expenditures on enforcing marijuana prohibition improves public safety in these communities. It may have an effect on police-community relations, trust, and perceptions of police legitimacy, but these are untested hypotheses.

For Vermont, the resources devoted to enforcing marijuana prohibition are currently small. In the year after marijuana possession was decriminalized in July 2013, we estimated that state and local criminal justice agencies spent between \$1 million and \$1.3 million enforcing laws, but also collected approximately \$200,000 in marijuana-related fines and surcharges.

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<sup>9</sup> As argued in our report: “If the state allows local option for any decision about marijuana legalization, it might let localities experiment with amounts of license fees and with price advantages for Vermont residents. To be sure, high local fees or taxes could result in de facto prohibition, so, if the state seeks uniformity, it could ban or limit local license fees or limit Vermont residents’ price advantage. Or it could share in the revenue that border jurisdictions collect from nonresidents.” (Caulkins et al., 2015, p. 97)

<sup>10</sup> Since this hearing is about government revenues, I will not focus on the potential harms associated with having a criminal record for a drug offense, issues of net-widening, or the potential costs and benefits associated with criminal justice referrals to marijuana treatment.

<sup>11</sup> B. Kilmer, J. Caulkins, R. Pacula, R. MacCoun, and P. Reuter, *Altered State? Assessing How Marijuana Legalization in California Could Influence Marijuana Consumption and Public Budgets*, Santa Monica, Calif.: RAND Corporation, OP-315-RC, 2010. As of January 13, 2016: [http://www.rand.org/pubs/occasional\\_papers/OP315.html](http://www.rand.org/pubs/occasional_papers/OP315.html); J. Caulkins and B. Kilmer, “Criminal Justice Costs of Prohibiting Marijuana in California,” in K. Tate, J. Taylor, and M. Sawyer, eds., *Something’s in the Air: Race and the Legalization of Marijuana*, New York: Routledge, 2013, pp. 13–30.

**Fifth, legalization regimes committed to protecting public health will require significant expenditures before any tax revenues are collected.** You will need to spend money to make money. Developing a new regime for regulating and monitoring marijuana can require significant resources, especially if public health is a priority. Burdensome activities can include developing rules, hiring and training regulators and administrators, tracking inventory, developing a testing program, and updating prevention messaging and programming. In addition, there can be important costs associated with enforcing the regulations and punishing non-compliers, especially if quickly eliminating the black market is a priority. In Chapter Seven of our report, we document that from mid-2012 through Fall 2014, the Washington State Liquor and Cannabis Board spent about \$9 million to develop the proposed regulations, meet with stakeholders and the public, process and distribute licenses, conduct trainings, pay consultants to help them think about the size of their market and regulatory issues, and obtain licensing software and a traceability system. These costs did not include the development of prevention campaigns or law enforcement, and many were incurred before the retail stores opened in July 2014.

**Sixth, jurisdictions looking to generate revenues while minimizing threats to public health should seriously consider middle-ground options.** One of the main messages in our report is that jurisdictions considering alternatives to prohibiting marijuana have many options from which to choose. While the for-profit commercial model passed by voters in Colorado and Washington is now being replicated in Alaska and Oregon, this is only one approach. Since daily and near-daily marijuana users account for 80 percent of all marijuana expenditures,<sup>12</sup> for-profit companies can be expected to focus on creating and maintaining heavy users; dependence is good for the bottom line. This is a special concern in the United States where it is difficult to restrict advertising because of our commercial-free speech doctrine.

In the report, we identified 12 alternatives to status quo supply prohibition, with a special focus on “middle-ground” approaches between maintaining prohibition and implementing a for-profit “regulate marijuana like alcohol” market. These middle-ground approaches can be divided into small-scale approaches that only allow home growing or co-ops and other options that allow large-scale production but not the alcohol-style commercial model that we see in Colorado and Washington.

A government-run monopoly offers four potential benefits: (1) control of diversion, (2) reversibility, (3) minimizing advertising and product innovation, and (4) preventing a price collapse. It would also keep most of the money with the government instead of going to commercial businesses.

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<sup>12</sup> B. Kilmer, S. Everingham, J. Caulkins, G. Midgette, R. Pacula, P. Reuter, R. Burns, B. Han, and R. Lundberg, *How Big Is the U.S. Market for Illegal Drugs?* Santa Monica, Calif.: RAND Corporation, RB-9770, 2014. As of January 13, 2016: [http://www.rand.org/pubs/research\\_briefs/RB9770.html](http://www.rand.org/pubs/research_briefs/RB9770.html)

But federal prohibition of marijuana complicates this approach. Some argue that creating a public authority offers many of the advantages of a government monopoly without having state employees directly violate federal laws. I hope these options are the subject of serious debate in Vermont and elsewhere.

Jurisdictions seeking marijuana revenue without allowing businesses that are solely focused on maximizing profits have other options besides creating a government monopoly or public authority. For example, they could limit participation in the market to non-profit organizations, perhaps with a focus on public health and/or children's issues. Another option would be to only allow marijuana businesses that have been designated as "for-benefit corporations" or "B-Corps," which incorporate social and environmental goals into their business practices.

**Seventh, retail price is a key parameter that will influence government revenues and other outcomes.** If the goal is to eliminate the black market as quickly as possible, low prices and low taxes are desirable. However, those concerned about dependent users and youth consumption will want to keep retail prices higher, perhaps just under those of the black market. Over time, we would expect the production and distribution costs to dramatically decrease with legalization (but, of course, this will be shaped by the supply architecture), and there are a number of ways to inflate the retail prices. That makes legislating minimum prices appealing from a public health perspective: Retailers could choose to charge more, but they could never charge less.

**Eighth, retain flexibility to change tax rates or alter the tax base.** Next to the decision about who will get to produce and possibly sell legal marijuana, the most important decision shaping government revenue will be about taxes; namely, what will be the tax base and tax rate? Simplicity favors taxes based on price or weight; however, the former will produce less revenue as prices fall<sup>13</sup> and the latter creates incentives to produce and sell more-potent products. One might wish to levy taxes as a function of THC content or some combination of cannabinoids, but it would require significant resources to set up and maintain such a regime.

There are a number of options for adjusting taxes, including indexing, scheduling future rate increases, and a staggering start for tax bases (i.e., start with one that's easiest to implement and/or hardest to evade).<sup>14</sup>

Since no one knows the best way to tax marijuana and the science is still emerging about cannabinoids, it seems unwise for states to lock themselves into a tax base and rate that they

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<sup>13</sup> It can also provide taxpayers with opportunities for manipulation and avoidance.

<sup>14</sup> Chapter Five of our report provides a richer discussion of these options and others.

may regret. This is especially true in a regime where a neighboring state could legalize and it could have an important effect on your market. Indeed, it may be wise to keep the marijuana tax choice largely outside of the political process and allow an independent commission or entity make these decisions.

**Ninth, if you are going to allow concentrates and edibles, consider a THC-based tax on cannabis extracts at the processor level.** The decision about whether to allow concentrates and edibles will influence tax revenues and government expenditures. Allowing them could add several layers of regulation, but not allowing them could create an unregulated black market that would require law enforcement resources to shut down. While Colorado and Washington already had thriving concentrate/edibles markets because of liberal medical marijuana regimes that were in place before legalization, this is not the case in many other parts of the United States. Indeed, if states such as Vermont decide to prohibit or delay legal concentrates/edibles, it is not clear that a significant black market would develop.

The federal government taxes liquor by its power to intoxicate (i.e., its alcohol content). This makes sense from a public health perspective, since those who are intoxicated tend to impose more harm on themselves and others. A similar argument could be made for marijuana and taxing marijuana as a function of THC.<sup>15</sup> While the raw plant material is not homogenous, many other cannabis products are derived from liquid extracts that could be easier to test and tax. However, this approach would require significant resources and there could be legal issues surrounding the federal prohibition.

**Tenth, until standards are developed for taxing cannabinoid-levels in marijuana flowers, jurisdictions may want to consider using the company-stated THC level as a base for an alternative minimum tax.** Indeed, if a state is going to take labeling seriously and rigorously test the products being sold, applying a tax on marijuana flowers might not be that difficult. However, until rigorous methods are developed to test the heterogeneous plant material, the company-stated THC content could be used as a tax. Of course, sellers may try to dodge the tax by falsely understating the THC content. To help reduce gaming, the reported THC could be used as an alternative minimum tax base; that is, it could only apply when the primary tax base (e.g., price or weight) yielded a low tax that was inconsistent with high-stated THC. The tax that would be paid would be the larger of (1) the tax computed using the primary base and (2) the tax computed using the stated THC.

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<sup>15</sup> See, for example, Jonathan P. Caulkins, "The Real Dangers of Marijuana," *National Affairs*, No. 26, 2016, pp. 21–34.

In closing, I'd like to stress to the committee and other jurisdictions considering legalization that marijuana policy changes do not need to be permanent. Since no one knows whether legalization will ultimately be a net positive or negative, it may make sense to start with incremental change and/or incorporate a sunset provision. I would add that it is especially important to consider this type of flexibility in states like Vermont, whose marijuana market will likely be shaped by the actions of other states.