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A CONCEPTUAL FRAMEWORK FOR STATE EFFORTS TO LEGALIZE AND REGULATE CANNABIS

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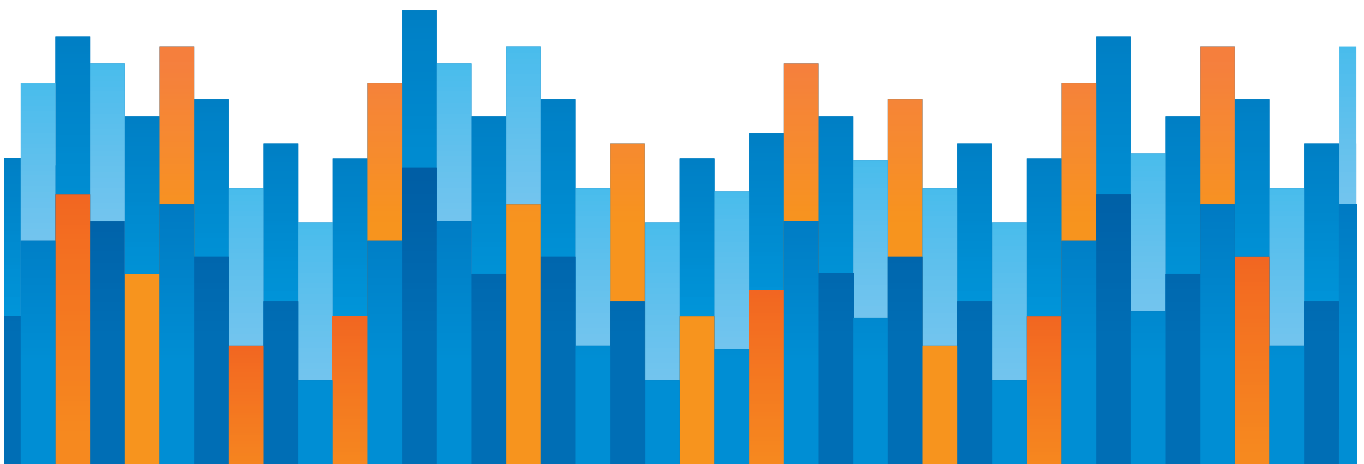


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1: INTRODUCTION

In November 2012, voters in Colorado and Washington took a historic step by approving Amendment 64 and Initiative 502, respectively. These were the first voter initiatives in the nation to assume state control over the regulation of marijuana for recreational purposes under certain circumstances.¹ Since these first state legalization efforts became effective, eight additional states plus the District of Columbia have passed laws to legalize marijuana for adult use.

Most, like those in Colorado and Washington, have been enacted by voter initiative. However, state lawmakers have taken increasing interest in legalizing marijuana through the legislative process. In 2018, Vermont became the first state to enact a legalization statute through the legislative process, and similar efforts are gaining momentum in Illinois, New Jersey and New Mexico. Meanwhile, voter initiatives to legalize marijuana continue apace with Michigan voters approving such a measure in November 2018. The perceived trend, then, is that more states are likely to enact laws to legalize marijuana.

This recognition sets forth important questions about how best to regulate these newly legal markets for marijuana. This effort is challenging because robust black market supply chains already existed to satisfy the demand for marijuana. Thus, policymakers and regulators are faced with the challenge of:

- establishing a legal market in an industry with which they are largely unfamiliar,
- balancing the tradeoffs between ensuring sufficient oversight and public safety
- generating public revenue through taxation, and
- simultaneously creating a business environment in which legal suppliers are not just able to compete, but, hopefully, to drive out black market suppliers. Since regulatory and tax burdens increase production costs for legal operators relative to black market suppliers, these goals are often in conflict.

To date, states have developed vastly different approaches for establishing their legal marijuana markets and balancing these competing objectives. No approach has been perfect in its totality, but states have experienced success to greater or lesser degrees within certain aspects of their regulatory frameworks. This brief compiles the approaches taken by states to date and develops a conceptual

¹ Previous efforts taken by states to assume control over the regulation of cannabis are detailed in: Lawrence, Geoffrey. "Cannabis and States' Power: A Historical Review of State Efforts and Authority to Regulate Cannabis." Reason Foundation. March 2019 [forthcoming]. <https://www.reason.org/Evolution-of-Cannabis-Regulation>.

framework of best practices that policymakers should use as a guide for either improving their existing marijuana markets or establishing new ones.

In addition, the brief highlights considerations specifically relevant to state-licensed medical marijuana programs. Policymakers should note that many consumer products commonly marketed as containing cannabis and, especially, cannabidiol (CBD) are created from federally licensed or imported hemp and do not fall within the scope of state marijuana regulations.

2: OVERVIEW AND NOTES ON TERMINOLOGY

When drafting, evaluating and implementing cannabis reform policies, policymakers face a myriad of detailed choices, from specific agency authority to issues like tracking and testing. While these details are often overlooked by many advocates and media, they can actually mean the difference between policy implementation success or failure.

Most states have stumbled and seen early hiccups in their regulated marijuana markets. Nevada, for instance, suffered a dearth of licensed distributors who could legally transport marijuana products from commercial cultivation facilities to dispensaries within the first few months of its program, resulting in sharp price increases and lack of availability. Both Colorado and Washington experienced delays, inefficiencies, cost overruns and revenues falling short of projections, resulting in a rollback of some of their more onerous initial mandates.

The framework developed in this paper seeks to inform this process so policymakers can avoid similar mistakes. The framework forges a successful and well-regulated market for legal, adult-use marijuana that can efficiently supply consumers and generate reliable tax revenue for state and local governments. This analysis does not examine every conceivable facet of regulating a legal marijuana market in detail. However, it provides a broad overview of possible approaches in each major aspect of a regulatory framework, and recommends to policymakers the preferred approach within each of five major components of marijuana regulation:

1. Administration
2. Fiscal Management
3. Demand
4. Supply-Side Entry
5. Governance of Supply-Side Operations

This brief analyzes each of these five components and their various subcomponents, presents a range of options, and identifies best practices for each. However, before addressing each policy component, we must be clear about the terminology used. Some states use slightly different terms or definitions, and those differences must first be reconciled before an analysis of state policy can ensue.

First, we use the term “marijuana” throughout the remainder of this paper to specify the product being regulated. Cannabis, the more widely used term, encompasses all strains of cannabis, including

both marijuana and industrial hemp. However, industrial hemp and any cannabinoids extracted therefrom, including CBD, are subject to a broadly different set of regulations not detailed herein. Generally speaking, however, strains of cannabis producing only small or trace amounts of tetrahydrocannabinol (THC – the inebriating chemical found in marijuana) by volume are legally classified as hemp. Pursuant to the 2018 Farm Bill, they are federally legal when grown under oversight by the U.S. Department of Agriculture and are permissible in interstate trade. Oils, creams and other cosmetics or health-food supplements containing CBD are usually manufactured from hemp. The regulatory environment for these products will be addressed separately in a future Reason Foundation brief.

Second, we refer here to the various license types granted by states as follows:

Cultivation: This license type allows the licensee to grow marijuana plants. The number of plants permitted under a license may be limited in some cases or tiered, with different classes of licenses permitting a greater number of plants or size of canopy space.

Manufacturing: A manufacturing license allows the licensee to extract essential oils from cannabis plants and package them for sale as extracts, or to further process those extracts into other product types including edibles, ointments, tinctures, vapes or other products.

Dispensary: A dispensary license allows the licensee to operate a retail marijuana store. Licensed dispensaries may purchase inventory from a licensed cultivator or manufacturer only, except that no marijuana products are allowed to be purchased from out-of-state suppliers or otherwise cross state lines. A licensed dispensary is the only type of marijuana facility that is open to the public.

Laboratory: Every state that has authorized the commercial production and sale of marijuana products has required those products to be tested by a licensed laboratory before they can be sold at retail. Laboratory licensees generally must maintain total independence from other license types. Laboratory license owners may not hold any ownership interest in any other type of licensed entity. Licensed laboratories typically test for the concentration of THC and other cannabinoids as well as the presence of potentially harmful impurities, such as bacteria, molds, mildews and dangerous chemicals.

3: ADMINISTRATION

3.1 AGENCY CHOICE AND STRUCTURE

When embarking upon a marijuana regulation program, policymakers at every level of government must select the agency that will be tasked with carrying out such regulation. Washington utilized the existing alcohol regulators by creating a cannabis division within those agencies. Other states have used public health, taxation and revenue, agriculture or even consumer protection agencies. Still others, like California, have divided authority among multiple agencies, creating potential coordination problems and difficulty for licensees to understand how to operate in a compliant manner.

Generally, existing state agencies are better able to assume new responsibilities in a timely manner than entirely new agencies, which must attend to internal administrative tasks such as obtaining physical office space, procurement, staffing, developing mission statements and the like. On the other hand, existing agencies may have institutional biases or conflicting missions that can affect the implementation process. While there is no universal panacea, best practice is to select the option with the most regulatory flexibility.

Additionally, the structure of a state's rulemaking process can have large implications on the effectiveness of marijuana regulation. Establishing a highly regulated industry from scratch is ambitious, and regulators may need to actively adapt their rules as problems arise. Therefore, the process and regularity of hearings to adopt proposed regulations can strongly influence the efficient operation of a marijuana industry. If it's difficult or impossible to make changes quickly, then regulators must be especially deliberative during the initial drafting phase, soliciting feedback from peers in other states, industry leaders, academics and other practitioners with specialized knowledge. To adapt quickly to unknown future circumstances, regulatory mandates and requirements should be flexible wherever possible.

3.2 SUBSTANCE VS. MICRO-MANAGEMENT

In most states, regulations governing commercial production and sales are highly prescriptive, including specific ratios to which licensees must adhere for testing of product, maintenance of seed-to-sale data, and other minutiae. However, regulators' primary concern should be that licensees adhere to regulatory intent rather than follow a prescriptive formula written by those who have never operated a licensed marijuana business. In other words, licensees should be given the latitude

to innovate, create new business models and explore different methods of satisfying regulatory intent.

California's recreational marijuana statute introduced a new directive for regulators that provides this needed flexibility and room for innovation. A reference within the law to the state's Business and Professions Code requires all adopted regulations to be necessary to achieve statutory purposes based on the best available evidence. This implies that regulatory provisions extending beyond explicit statutory objectives can be challenged. The provision also does not allow regulators to unreasonably prevent licensees from developing alternative methods to accomplish statutory requirements.² If licensees can develop new technology or business practices to satisfy those objectives at lower cost, then businesses and consumers alike may benefit from the innovation.³ We recommend that all states adopt similar provisions.

3.3 CRIMINAL REFORM AND RESENTENCING

Following the decriminalization and (especially) legalization of cannabis, it is appropriate for each jurisdiction to reconsider the status of prior marijuana-related convictions. Individuals with past criminal convictions on their records can face difficulty acquiring and maintaining employment, attending college, and engaging in other productive activities. In the worst cases, this hardship can lead to other crime and recidivism. Therefore, policymakers are obliged to consider alleviating these burdens through expungement of prior convictions for actions that are no longer crimes.

While expungements sound simple in theory, they may be complicated by incidents involving multiple charges, such as a marijuana-related conviction combined with related charges like firearms, fraud or racketeering. Some previous convictions may also be misleading because the individual agreed to a plea bargain that substituted a lesser marijuana charge for a more serious offense.

States have chosen different methods of dealing with these complexities. California, for instance, automatically removes all low-level charges for possession and sales and allows a manual review process for more serious charges. Massachusetts similarly allows for a blanket expungement of all prior convictions for possession of small amounts. Oregon, by contrast, directed its court system to re-examine all marijuana charges as if the underlying incidents occurred following legalization, and to downgrade to Class C misdemeanors any prior offenses that would now be legal.

² Matt Harrison. "Regulatory Scrutiny for California's Cannabis." Reason Foundation. <https://reason.org/commentary/regulatory-scrutiny-for-californias-cannabis/>.

³ In spite of this statutory flexibility, the implementing regulations under consideration contain a disturbing amount of micromanagement and restrictive details, in clear contravention of state law prohibiting such mandates. It remains to be seen whether real-world enforcement will correspond, and to what degree.

Manual reviews consume large amounts of manpower and therefore can require significant public resources. Policymakers must consider these tradeoffs when debating their approach to expungement. We recommend the maximum level of automation, with the highest degree of deference to the accused unless the cases involve serious and imminent risks to public safety (at the discretion of the applicable district attorney).

4: FISCAL MANAGEMENT

4.1 TAXES

Some policymakers support legalization as a possible fiscal boon to state and local budgets because of the potential to levy special excise taxes. Yet, high tax rates ultimately raise the final price to consumers on the legal market and allow the black market to remain competitive. Policymakers must recognize that licensed marijuana businesses already must pay all standard business and sales taxes within their jurisdiction and that they are penalized on federal income taxes because they are not permitted to deduct ordinary business expenses. Indeed, marijuana businesses can deduct only the direct cost of purchasing or generating inventory on their federal taxes, meaning their federal corporate income taxes are assessed on gross margin rather than net income.

Additional excise taxes on marijuana may be appropriate within limits, but complex systems that levy taxes at both the wholesale and retail levels combine to make the legal market uncompetitive. Regardless of any policymaker's desire for additional tax revenue, a legalization effort should not cede market share to black market sources due to high prices on the legal market, as this would negatively affect both public revenues and safety. In fact, legislators in California have explicitly recognized that high tax rates have adversely affected legal operators and resulted in state revenues falling far below expectations as consumers flee to black market providers. Legislation has recently been introduced in California to suspend the state's wholesale marijuana tax for three years and reduce the retail excise tax from 15% to 11% in order to strengthen the legal market.⁴

There is little uniformity of tax rates among the states that have launched a recreational market. Colorado levies a 15% excise tax at the wholesale level and an additional 15% sales tax at the retail level. Oregon and Washington each impose a special, statewide sales tax on marijuana at rates of 17% and 37%, respectively. California imposes a wholesale tax of \$9.25 per ounce of marijuana flower and a retail excise tax of 15%. Alaska taxes at the wholesale level only at a rate of \$50 per ounce of marijuana flower. Lawmakers in Nevada and Massachusetts decided to add additional taxes beyond what was included in the voter-approved initiatives to launch a recreational market. Nevada lawmakers added a 10% retail excise tax to the 15% wholesale excise tax that voters had approved while, in Massachusetts, the retail excise tax was raised from 3.75% to 10.75%.⁵

⁴ McGreevy, Patrick. "Lawmakers Want to Cut California's Pot Taxes to Help Lagging Legal Market." *Los Angeles Times*. 29 January 2019. <https://www.latimes.com/politics/la-pol-ca-california-pot-tax-cuts-20190128-story.html>.

⁵ Loughhead, Katherine and Morgan Scarboro. "How High Are Recreational Marijuana Taxes in Your State?" *The Tax Foundation*. 26 April 2018. <https://taxfoundation.org/state-marijuana-taxes-2018/>.

Policymakers should also consider the difficulty of assessing and enforcing any form of *ad valorem* tax at the wholesale level. If a licensee is vertically integrated, for example, it may invoice its dispensary far below cost for marijuana grown at a cultivation center under common management in order to avoid tax liability. Non-vertically integrated licensees will not have this option. To avoid this gamesmanship, states like Colorado and Nevada use a survey methodology to periodically estimate a value they determine to be the “fair market value” of marijuana. Wholesale transactions are then taxed by weight of the marijuana that is transferred and that weight is assessed at the fair market value per pound. This practice is administratively cumbersome for regulatory agencies and results in higher effective tax rates against inferior strains of marijuana—such as those containing lower concentrations of the inebriating compound tetrahydrocannabinol (THC)—that some consumers might otherwise enjoy.

For these reasons, we caution strongly against wholesale taxes on marijuana and urge policymakers to focus only on retail taxation. Washington learned this lesson the hard way and changed its marijuana tax policy in July 2015 from a 25% tax at each stage of production (cultivation, manufacturing and dispensary) to a single retail tax of 37%.⁶

Additionally, states should consider the extent to which local governments will be permitted to levy additional marijuana excise taxes. Local taxes can combine with state taxes to quickly make legal marijuana uncompetitive with black-market marijuana, so states should either reserve the taxing power to local governments entirely or limit the ability of local governments to levy marijuana taxes in addition to those imposed at the state level. Nevada, for instance, caps the wholesale tax rate local governments may assess on cultivation to 3% of gross receipts. California requires voter approval for local governments to assess new taxes, and regulatory fees must be reasonably related to the cost of regulation.

Finally, many states also levy taxes on medical marijuana production or sales. Given that these products are explicitly recognized as medicine necessary to treat the health conditions of patients, there is little justification for any special excise tax to be levied on these products.

⁶ Hansen, Benjamin, Keaton Miller and Caroline Weber. “The Taxation of Recreational Marijuana: Evidence from Washington State.” National Bureau of Economic Research Working Paper No. 23632. July 2017. <https://www.nber.org/papers/w23632>.

TABLE 1: Recreational Marijuana Tax Rates, by State		
State	Wholesale Tax	Retail Tax
Alaska	\$50 per ounce	
California	\$9.25 per ounce	15%
Colorado	15%	15%
Massachusetts	10.75%	
Nevada	15%	10%
Oregon		17%
Washington		37%

4.2 TAX COLLECTION

Provisions of the federal Banking Secrecy Act generally make financial services of any kind unavailable to marijuana businesses. As a result, virtually all marijuana transactions are made in cash. This means policymakers need to consider carefully the process by which licensees will remit cash payments to regulators in satisfaction of tax liabilities. The safety of both licensees and public employees may be put at risk by cash management policies that do not adequately account for both physical risks and risk of financial loss due to poor cash management. All cash transactions should take place in a secure, interior room with multiple individuals present and able to sign for receipt of cash. These cash logs need to be reconciled with management in ways that meet internal control requirements for financial reporting to safeguard public assets.

Policymakers should also consider which party to a transaction will assume the onus of remitting tax payments. Most tax structures require the selling party to report and pay tax liabilities. However, current California regulations obscure this custom by making licensed distributors remit cultivation taxes for marijuana they purchased from licensed cultivators. The cultivator can remain liable for these taxes if the distributor fails to pay, unless the distributor has signed a form affirming it received the tax amount from the cultivator and is responsible for its remittance. This deviation from the norm of making the selling party responsible for tax remittance causes unnecessary confusion and tax inefficiency.

4.3 REVENUE USES

Lawmakers' plans for the use of marijuana tax proceeds are hugely complicated by the difficulty of accurately forecasting what level of revenues to expect. This is because the historical data regarding the size of the marijuana market and its determinative trends simply do not exist. Estimates have been developed using household surveys of marijuana use and anonymous, crowdsourced data collected on the internet, but true, observable market data are largely unavailable due to marijuana's

previously illicit nature. As a result, several states have built marijuana tax revenues into their budget for ongoing programs, only to be frustrated when their revenue projections proved inaccurate.

For this reason, we suggest that states do not appropriate marijuana tax revenues to fund ongoing programs until a track record of receipts has been established over a period of two to five years. We urge the approach taken by Nevada, which allocated all proceeds from its retail marijuana tax to the state rainy day fund for its first two years of operation. Alternatively, marijuana tax revenues could be dedicated to pay down long-term debts, such as those found within public employee pension plans.

5: DEMAND

5.1 ACCESS TO SAFE, QUALITY PRODUCTS

Perhaps the most relevant question relating to the legalization of cannabis, whether for medical or recreational purposes, is the method by which consumers will be able to procure the cannabis products they have gained the right to use. Many medical marijuana laws approved in the 1990s, including those in California, Nevada and elsewhere, legalized possession for registered patients, but provided no specific means for patients to purchase cannabis products commercially. Similarly, statutes legalizing adult use in Vermont and the District of Columbia currently provide no means for commercial production or sales. These oversights encourage participants to resort to the black market to procure the products they are legally allowed to possess, thereby falling short of a key objective of legalization—eradicating the black market. This approach also makes it difficult to track the location of cannabis products, ensure their quality and to collect taxes on their sale.

Therefore, it is not sufficient to simply remove criminal penalties for the possession of marijuana. Any effort at legalization should include provisions to authorize the commercial production and sale of marijuana products. Further, statutory language should make clear which marijuana product types will be permitted, without being inflexible or exhaustive in ways that could quash innovation within the industry. For example, language should reference the legality of marijuana, its resins, waxes or byproducts, and any preparation derived therefrom.

Two states with medical marijuana programs—Florida and Louisiana—restrict the range of allowable products to those that are manufactured from low-THC strains of cannabis and are non-smokable. Low-THC cannabis is defined in Florida as cannabis containing less than 0.8% THC by volume. Cannabis with this concentration level of THC would be considered industrial hemp in some jurisdictions. However, a Florida court has determined that the ban on smokable products violates the state constitutional protection for medical marijuana use, and the current administration has demanded a legislative fix.⁷

Several states, including Nevada and California, additionally restrict licensed dispensaries from selling non-marijuana products. Dispensaries in these states may be permitted to sell promotional items such as t-shirts or lanyards (with prior state approval), but are generally prohibited from selling bottled water, food items or other consumer goods. From a public safety standpoint, there is little

⁷ Gross, Samantha J. “Florida Lawmakers Clash on Smoking Ban on Medical Pot.” *Tampa Bay Times*. 31 January 2019. <https://www.tampabay.com/florida-politics/buzz/2019/01/31/florida-lawmakers-clash-on-smoking-ban-on-medical-pot/>

justification for these provisions. If anything, a restriction against selling bottled water might endanger public safety when customers become dehydrated and water is not available. Restrictions against other consumer goods also serve no legitimate public policy purpose other than to protect incumbent retailers of those items from competition. Regulators should avoid these restrictions.

As the legal marijuana industry gains legitimacy, regulating marijuana like alcohol becomes conceivable, with general retailers applying for and receiving a dispensary license for marijuana products in the same way they now sell alcohol. In states where the retail function for liquor is not run by a state-owned monopoly, general retailers such as convenience stores, grocery stores and other outlets may apply for and receive a retail liquor license, even if liquor sales constitute only a small share of their overall business. Eventually, regulated marijuana may be treated similarly, with large department stores able to dispense small amounts provided they maintain proper controls on inventory, just as is now required for alcohol. No state has yet adopted this approach, but it should constitute the next stage in the evolution of marijuana licensing.

5.2 LEGAL CONSUMPTION OPPORTUNITIES

Most existing marijuana legalization laws restrict the physical location of legal consumption to an individual's private residence. This restrictive condition contrasts sharply with rules governing alcohol consumption, despite the explicit statutory intent in most states to "regulate marijuana like alcohol." Individuals are generally free to consume alcohol in designated social settings like bars. Restricting marijuana consumption to a private residence also prevents tourists in Las Vegas, for instance, from consuming any marijuana they have legally purchased within their hotel rooms.

Municipalities in California and Colorado have attempted to solve this problem independently of state regulations by licensing marijuana social clubs. In November 2016, for instance, Denver municipal voters approved Initiative 300, which allowed businesses to apply for a cannabis consumption license.⁸ California cities like San Francisco and Oakland have also created similar licenses.⁹ Similarly, a legal opinion from Legislative Counsel in Nevada has determined that marijuana lounges are not specifically prohibited by Nevada law and therefore are within the jurisdiction of local governments to create.¹⁰

⁸ "A New Frontier: Denver Passes Social Cannabis Use Ballot." PotGuide.com. 16 November 2016. <https://potguide.com/pot-guide-marijuana-news/article/a-new-frontier-denver-passes-social-cannabis-use-ballot/>.

⁹ Downs, David. "A Day in the Life of a Cannabis Lounge." *Leafly*. 6 September 2018. <https://www.leafly.com/news/lifestyle/a-day-in-the-life-of-a-cannabis-lounge>.

¹⁰ Erdoes, Brenda. Legal Opinion on Marijuana Social Lounges, Response to Request by Sen. Richard Segerblom. 10 September 2017. Available at: https://www.scribd.com/document/358620398/Legal-Opinion-Nevada-Marijuana-Lounges#from_embed.

Despite these actions by some local governments to solve a dilemma that state laws have failed to address directly, lawmakers at the state level should affirmatively authorize marijuana consumption in designated places other than a personal residence that conform to designated standards, such as proper zoning and distance from sensitive locations such as schools.

5.3 HOMEGROW

Most states with medical or recreational marijuana laws permit consumers to cultivate their own marijuana at home within certain limits. The most common provisions allow an individual to cultivate as many as six plants at home provided they are grown and maintained in a secured area. Michigan allows an individual to cultivate up to 12 mature plants at home. Arizona and Rhode Island match that limit within their medical programs. Arizona and Nevada also impose distance requirements prohibiting home cultivation if the individual's residence is within a 25-mile radius of the nearest licensed dispensary.

States have created confusion within the law by failing to specify the number of allowable plants for a household when there is more than one adult living in the household. In addition to the individual limits, Colorado and Nevada also specify a per-household limit of 12 plants to make this clear. When a per-household limit is not specified, enforcement agents may be unable to determine when a household is growing illegally.¹¹

It is appropriate and necessary to permit home cultivation within state marijuana laws. This ensures consumers and medical patients can gain access to the marijuana products they need, even when financial hardship or distance to a licensed dispensary precludes those individuals from purchasing marijuana products at retail. In several jurisdictions, such as Vermont and the District of Columbia, home cultivation is the only means of procuring legal marijuana products since there are no commercial sales permitted. Finally, some consumers may wish to create products that are not available commercially and which they can create safely and inexpensively at home.

¹¹ Leafly. "Home Cannabis Cultivation Laws: A State-by-State Guide." Updated: 15 January 2019. <https://www.leafly.com/news/cannabis-101/home-cannabis-cultivation-laws-a-state-by-state-guide>.

6: SUPPLY-SIDE ENTRY

6.1 LICENSE TYPES AND ISSUANCE

The majority of legalization efforts for adult use have the stated intent of regulating marijuana like alcohol and have simply transplanted the traditional three-tier regulatory structure adopted in most states to govern the alcohol industry. Although significant variation remains in state laws governing alcohol, the three tiers generally consist of: producers, distributors and retailers. Licensed producers (brewers and distillers) must sell only to distributors, and distributors may sell to retailers, but retailers generally may not purchase directly from producers. In some states, the distribution and/or retail functions may be operated by a state-owned monopoly while in others all entities may be private, but there are generally restrictions on vertical integration of the licenses. For instance, a distiller generally may not open a liquor store and sell its products directly to customers.

A key advantage to the three-tier system is that it is easy for state authorities to track inventory and ensure that excise taxes are correctly calculated at each stage of the supply chain. Additionally, state regulators are generally familiar with this form of regulation, which makes its adaptation to cannabis relatively seamless.

The first adult-use marijuana laws in Washington adapted these provisions strictly. Upon satisfaction of license requirements, including background checks of owners, Washington awards applicants a license to act as a cultivator, manufacturer, or dispensary. However, no dispensary licensee may also operate a cultivation or manufacturing license, meaning they must purchase all inventory from a non-affiliated business.

Colorado, however, slightly modified the traditional three-tier system as it applies to alcohol for its regulation of marijuana. Colorado allows, but does not require, licensees to become vertically integrated. In other words, the same applicant can apply for and receive a license to operate cultivation, manufacturing and dispensary licenses. This approach offers obvious advantages to a licensee by allowing the licensee to cultivate, package and sell their own products directly to customers. Colorado's approach has been more widely replicated among the states that have since established a regulatory structure to govern commercial production and sales, whether for medical or recreational purposes. Only West Virginia's medical licensing structure has followed Washington's approach, whereas more than a dozen states have followed Colorado's approach in either their recreational or medical programs, or both.

TABLE 2: State Licensing Structures		
<i>Prohibits Vertical Integration</i>	<i>Allows But Does Not Require Vertical Integration</i>	<i>Issues Single, Vertically Integrated License</i>
Washington State (recreational)	Alaska	Arizona (medical)
West Virginia (medical)	California	Colorado (medical)
	Connecticut (medical)	Delaware (medical)
	Colorado (recreational)	Florida (medical)
	Illinois (medical)	Hawaii (medical)
	Maryland (medical)	Maine
	Michigan (medical)	Massachusetts (medical)
	Nevada	New Hampshire (medical)
	New York (medical)	New Jersey (medical)
	North Dakota (medical)	New Mexico (medical)
	Ohio (medical)	Rhode Island (medical)
	Oregon	Vermont (medical)
	Pennsylvania (medical)	

Source: Hansen, Jolene. "The Pros and Cons of Vertical Integration." *Cannabis Business Times*. 21 September 2017, <https://www.cannabisbusinesstimes.com/article/the-pros-and-cons-of-vertical-integration/>

A third approach, also pioneered in Colorado when regulators first designed the state's medical program, was to grant a single license that included the rights to cultivate, manufacture and dispense cannabis products. This automatic granting of vertical integration conceivably allows for easier tracking of inventory from seed to sale, as data formatting issues are less likely to create complications when inventory is transferred internally within the same license, and it otherwise allows licensees the full benefits of vertical integration. However, critics of this approach have complained that vertically integrated dispensaries tend to offer a narrower array of products than non-integrated dispensaries, since they have minimal incentive to carry the products of third parties. Regardless, this approach has been followed in at least a dozen states, as shown in Table 2. One curious element of this approach is that it essentially discards the three-tier system as applied to alcohol, which perhaps explains why it has not been adopted in states where the authorizing statutes had the explicit purpose of regulating marijuana like alcohol. In fact, nearly all frameworks for licensing commercial production and sales in this manner are in the context of a medical program only.

Ultimately, a Washington-style restriction against vertical integration may be intended primarily to replicate the three-tier system used for alcohol, but for both alcohol and marijuana, the restriction is arbitrary and needlessly limits the choices available to both business owners and consumers. Business owners should have the freedom to operate at a scale and level of integration they can

manage based on their own expertise, access to capital, and market demand. This might be accomplished by a single, vertically integrated license like those awarded in most medical programs, but not all successful retailers have the knowledge and ability to operate as cultivators or manufacturers of extracts. So long as licensees in this scenario are able to purchase products wholesale from other licensees and vice versa, then the additional rights to cultivate or manufacture products under their license would simply become superfluous and go unused. On the other hand, if a licensee is only permitted to sell their own products at retail, this could both hinder a licensee's success and needlessly limit the choices available to consumers. For these reasons, Colorado's approach to recreational marijuana, which permits but does not require vertical integration, is the superior licensing structure.

6.2 NUMBER OF LICENSES AND METHOD OF AWARD

About a dozen states with medical or recreational marijuana programs have established an arbitrary limit to the number of licenses they will award. This forces applicants to either compete for those licenses according to a predetermined merit system or enter all qualified applicants into a random lottery for the licenses available. For instance, Nevada's licensing framework limits the number of dispensaries allowed within the state to 120, and requires state regulators to adopt an impartial, numerically scored system for evaluating applications. Those applicants receiving the highest scores are the first to be awarded a dispensary license.¹²

By contrast, Arizona's medical program uses a random lottery for all applicants who meet the minimum qualifications. "We stress that we're not doing a merit-based process," says Tom Salow, who oversees medical marijuana licensing for the states, "We're doing it by chance."¹³

A key consideration for states that adopt either of these methods is how licenses will be apportioned geographically across a state. Geographic apportionment relates directly to the access consumers have to safe, legal cannabis products and, if an apportionment plan is not considered ahead of time, many patients and consumers may not have access to the products they need or desire. In Florida, for instance, where a single license confers the right to operate as many as 25 dispensaries, the locations of those dispensaries must be scattered across several statutorily defined geographic areas within the state. By contrast, when Maryland failed to give adequate consideration to geographic apportionment in its early regulations, the state became subject to a series of lawsuits. Maryland's medical marijuana commission had attempted to rectify this shortcoming after the fact by selecting

¹² Nevada Revised Statutes, 453D.

¹³ Beitsch, Rebecca. "Licensing Medical Marijuana Stirs Up Trouble for States." The Pew Charitable Trusts. Stateline Article. 22 December 2016. <https://www.pewtrusts.org/en/research-and-analysis/blogs/stateline/2016/12/22/licensing-medical-marijuana-stirs-up-trouble-for-states>

lower-ranked applicants within its numeric scoring system to receive some of its limited licenses in order to achieve better geographic diversity. This invited higher-scoring applicants who were denied a license to sue the state for financial damages resulting from its failure to abide by its own regulations.¹⁴

An obvious way of avoiding these complications is to not limit the number of licenses available, but to award them to all applicants who meet certain minimum criteria, such as the lack of a criminal history. Many of the largest marijuana markets in the country have adopted this approach, including California, Colorado, Oregon and Washington. This approach minimizes the barriers to entry, political gamesmanship among applicants, and exposure to lawsuits by the states that adopt it. It also more closely mirrors the regulatory approach to alcohol; states generally do not impose an arbitrary statewide limit on the number of liquor stores, for instance. The total supply of growhouses and dispensaries in this scenario is ultimately limited by consumer demand—just as is the case in most other industries operating within a market economy. Although some policymakers may express concern over the proliferation of licensed cannabis dispensaries, it is worth noting that there is no limit to the amount of bicycle repair shops permitted by law and, yet, they remain finite in number. In the event more bicycle repair shops open than can be supported by consumer demand, some will close until a balance is reached. The same is true of marijuana businesses.

This means the superior approach to awarding marijuana licenses is to allow the basic market forces of supply and demand to prevail and not impose arbitrary limits on the number of licenses available. In the case that licenses are limited in number, they should be awarded on an unbiased, merit-based system that considers the business acumen and achievements of the applicant, including experience operating compliant marijuana businesses. This at least gives some assurance that the limited available licenses will go to applicants who will make the best use of them and provides the applicant a set of conditions within their control, rather than subjecting all applicants to pure chance. In both of these latter cases, however, a clear plan of geographic apportionment must be articulated prior to a state licensing authority accepting applications.

6.3 APPLICATION REQUIREMENTS

Most states impose special requirements on applicants before they can satisfy the minimum eligibility to receive a cannabis license. While the absence of a criminal record as demonstrated by an FBI background check might be a desirable requirement for a safe, regulated marijuana market, many other conditions serve no purpose but to narrow the field of applicants. For instance, Florida, Nevada and several other states have or plan to impose residency requirements during the initial round of licensing that preclude out-of-state firms from applying. These provisions may exclude the most

¹⁴ Beitsch. “Licensing Medical Marijuana Stirs Up Trouble for States.”

knowledgeable and competent operators, including publicly traded marijuana companies, from even applying in jurisdictions that impose these requirements. As a result, states may deprive their nascent industries of the few individuals in the world who already possess expertise in operating a regulated marijuana business, potentially exacerbating compliance violations or misunderstandings by novice operators.

Along the same lines, Florida requires a licensee to retain a licensed medical physician on staff rather than allowing third-party physicians to recommend cannabis treatment to patients. A handful of states also impose capitalization requirements that preclude an applicant from procuring a license unless they can demonstrate proof of available funds in a minimum amount. These minimum capitalization requirements fail to recognize that applicants may choose to operate at vastly different scales, according to the means available to them. They also serve as a barrier to entry that unnecessarily favors large firms over small firms. When combined with residency requirements that preclude large, out-of-state firms from applying, the population of eligible applicants may be dramatically reduced.

States should impose no special application requirements beyond a standard criminal background check of the applicant(s).

6.4 CARVEOUTS OR PREFERENCES

Some states that have limited the number of licenses available have created carveouts or preferences for applicants from particular demographic groups or special interests. Florida, for instance, created a sizable preference within its merit-based scoring system for applicants who plan to refurbish a citrus processing facility for marijuana cultivation or extract manufacturing. The obvious intent of this provision is to reward an interest group with lobbying clout. Any openness of lawmakers to this form of carveout only invites political gamesmanship.

Similarly, New Jersey and Nevada created a preference for applicants whose owners or board members are racial minorities. While the intent of these provisions might be to accomplish some form of social justice by rewarding historically marginalized minority groups, the preferences are arbitrary and there is no assurance that the specific recipient of a license, even if originating from minority lineage, was ever herself marginalized based on that factor.

It is therefore recommended that special carveouts or preferences not be included within the merit-based scoring system of any state that chooses to arbitrarily limit the number of available licenses.

6.5 LICENSE TERM AND RENEWAL

Applicants must invest a significant amount of time and expense in the process of preparing an application for a marijuana license, so the license term and renewal provisions can weigh heavily on a prospective applicant's decision to apply, as well as that applicant's decision to invest in the fixed assets necessary to operate a marijuana license. Nearly all states with existing programs have established the term of a marijuana license, regardless of type, at one year. All current programs also boast automatic renewal provisions, provided the applicant is current on all tax obligations and licensing fees and otherwise compliant with regulatory provisions. Any deviation from these parameters that could cast the likelihood of renewal in doubt would likely dissuade many talented and experienced entrepreneurs from applying for a license. All jurisdictions should adopt automatic renewal provisions for licensees who are compliant.

6.6 LOCATION RESTRICTIONS

Most states with a medical or adult-use marijuana program impose some restrictions on the physical proximity of a licensee to certain other locations, such as a school, daycare, community swimming pool, gymnasium or other facility. The extent of these restrictions may significantly limit the number of parcels usable for any form of licensed marijuana operation, regardless of whether that operation is even open to the public. Cultivation facilities, for instance, are typically required to have restricted access and cannot permit any entry of minors. In most jurisdictions, consumption of marijuana in any form is also strictly prohibited on the premises of a licensee. Thus, there is minimal likelihood that third parties will witness marijuana or be subject to unwanted marijuana smoke because of physical proximity to a licensed facility.

If states wish to enforce restrictions on the physical location of a marijuana licensee, those restrictions should be limited to their proximity to a school. Not every conceptual "community center" should be included within those proximity restrictions. Further, these restrictions should apply only to license types that are open to the public and invite foot traffic, such as a dispensary.

6.7 TRANSFER OF OWNERSHIP

Some entrepreneurs are uniquely adept at building startup businesses; others are better at managing established firms and steering them into periods of sustained growth. Very frequently in market economies, these actors cross paths to transact the sale of a business that has succeeded through the startup phase and is ripe for the leadership and experience of a new management team. However, some states have created restrictions on the transfer of ownership of marijuana licenses such that these transactions become difficult or impossible.

California, for instance, does not permit the transfer of a marijuana license, but requires the purchaser of a marijuana business to apply for a new license from scratch. This approach is needlessly costly and time-consuming, and hampers the natural development of the market. Massachusetts, by contrast, anchors its transfer of ownership provisions to the regulations applicable to alcohol by declaring that transfer of a marijuana license cannot be more restrictive than that of a liquor license. Florida splits the middle by allowing transfer of ownership provided state authorities are served with 60 days' advance notice and that the acquirer meets all the application requirements imposed on the original licensee.

To ensure market efficiency, transfer of ownership provisions should be liberally written, construed and applied, so that marijuana markets remain dynamic and growth-oriented.

6.8 RESTRICTIONS ON SIZE

Several states have debated restrictions on the size, structure or market share of a marijuana licensee. Arizona, for instance, requires all licensees to operate as non-profit entities rather than for-profit corporations.¹⁵ California offers special vertically integrated licenses to entities that operate as a "microbusiness," as a means of offering a special benefit to firms of small size.¹⁶ Nevada prohibits any licensee from obtaining more than 10% of the total dispensary licenses allocated to any particular county.

Since operating a legal marijuana business requires a privileged license, policymakers should ensure they do not award a monopoly franchise to a particular licensee. This anti-competitive approach could damage consumer welfare through monopoly pricing and the restriction of supply. It is therefore reasonable, in cases where the number of available licenses is limited, to take measures to ensure a large proportion of licenses are not awarded to a single applicant or affiliated group of businesses. However, as is the case in many forms of manufacturing, economies of scale can also lead to lower per-unit costs in marijuana. Businesses that are allowed to operate at scale can sometimes offer greater value to consumers in both the medical and recreational markets. Therefore, decisions about the size and structure of a marijuana business should be left to business owners to determine in response to market forces.

¹⁵ Randazzo, Ryan. "How Arizona's 'Non-Profit' Medical Marijuana Industry Makes Millions." *Arizona Central*. 26 January 2018. <https://www.azcentral.com/story/money/business/consumers/2018/01/26/how-arizonas-non-profit-medical-marijuana-industry-makes-millions/907082001/>.

¹⁶ Fox, Hayley. "Will 'Microbusiness' Licenses Let Craft California Cannabis Flourish in California?" *Leafly*. 5 October 2017. <https://www.leafly.com/news/industry/will-microbusiness-licenses-let-craft-cannabis-flourish-in-california>.

7: GOVERNANCE OF SUPPLY-SIDE OPERATIONS

7.1 INVENTORY TRACKING

Every state that has created a regulatory framework for the commercial production and sales of marijuana products has required licensees to employ some form of inventory tracking software to account for the whereabouts of every plant or packaged product. These systems typically utilize radio frequency identification (RFID) tags that each contain a unique identifier. The entire inventory of plants and packaged goods located in a cultivation or manufacturing facility or dispensary must be continuously catalogued within this system. Meanwhile, state regulatory agencies aim to maintain constant access to this data on the back end of the software to match sales and purchase records and monitor harvesting schedules. This allows regulators to run forensic accounting programs that look for discrepancies in the data that indicate marijuana products have been accounted for incorrectly and therefore may be subject to unlawful diversion. For instance, when a cultivator records the sale of 800 grams of marijuana flower to a dispensary, but the dispensary only records the receipt of 600 grams, forensic software should immediately flag the discrepancy.

This process gives assurance to regulators and the public alike that all legal marijuana product is constantly accounted for and that no marijuana products are unlawfully diverted to minors or the black market. Building these systems and maintaining their data, however, are complex and labor-intensive endeavors. First, regulators must ensure that they, or the contractors they select, possess technology capable of performing this data collection and analysis on a reliable basis. Secondly, licensees must adopt a software platform compatible with the one adopted by state regulators so that data are formatted in such a way that regulators can read and process it. Finally, both regulators and licensees must ensure their data systems possess adequate protections against security breaches and safeguard any personally identifiable information of customers.

These tasks are significant. Further, the continual need to log new data every time a plant or package is moved imposes substantial labor and materials costs on licensees. The required radio frequency identification tags, for instance, may cost nearly one dollar each and they cannot be reused. So when they are applied to every plant, the materials costs alone can become significant. Although the assurance provided by these systems may be beneficial and may increase the public's willingness to support legal marijuana sales, it is notable that the same level of inventory control is not required of alcohol licensees. Certainly, most businesses benefit from an inventory control procedure because it minimizes the risk of financial loss due to theft or diversion—an incentive shared by every business

owner. However, the granular detail of tracking every single plant or package, rather than a pallet or batch, may impose more costs than benefits for the typical marijuana business.

Further, the requirement to attach an RFID tag to every growing plant renders outdoor cultivation impracticable in locations where climate might otherwise be conducive, because wind and rain may wash away the identification tags. As a result, cultivators may be forced to grow indoors or in a greenhouse environment, adding significantly to the production cost and final prices facing consumers.

Seed-to-sale tracking requirements should be continued into the foreseeable future so states can prove to federal authorities that they are taking measures to ensure state-licensed marijuana products do not cross state lines and are not diverted to the black market. However, these requirements would become more economically efficient if they were applied at a batch level rather than for each individual item. Most jurisdictions already require continuous video surveillance and archiving of all areas where marijuana is growing or stored, so the likelihood of diversion is already small. Batch-level RFID tagging, combined with this continuous video surveillance, should provide ample assurance against diversion of licensed marijuana products.

7.2 LABOR AND STAFF

Most state marijuana programs understandably restrict individuals with a substantial criminal history from owning or working in a licensed marijuana establishment. However, in cases where the individual's criminal history is only marijuana-related, criminal background checks should be structured to avoid prohibiting the most experienced operators the market needs. For instance, California allows applicants with criminal backgrounds to petition for acceptance based on statutory criteria.

Several states have gone further than requiring a criminal background check and imposed additional restrictions or conditions on the personnel that marijuana licensees are permitted to employ. Colorado and Nevada, for instance, require any employee of a licensee to obtain a state-issued occupational license. Proposals for similar requirements have emerged in Arizona and New Jersey. The general intent of occupational licensing is to provide assurance to the public that a practitioner has achieved a satisfactory level of knowledge and skill so as not to present a risk of serious physical or financial harm to the public through malpractice. However, occupational licensing requirements have proliferated to such an extent that they now apply to many trades that pose no such risk to the public if performed incorrectly, such as interior design or music therapy.¹⁷

¹⁷ For a review of occupational licensing issues, see Carpenter, Dick M. et. al. "License to Work: Second Edition." Institute for Justice. November 2017. <https://ij.org/report/license-work-2/>.

It is unclear what risk an unlicensed budtender may pose to the public as a result of recommending different strains of marijuana flower. While it is understandable that regulators may want to require identification cards for all persons working on location for a marijuana licensee, California's approach in this regard is preferable. California requires licensees themselves to perform criminal background checks of job applicants and to issue photo identification to each employee that clearly states the employee's affiliation with the specific licensee.¹⁸ Given the frequency of employee turnover, this approach is superior to waiting for state authorities to approve and issue an occupational license before any new hire may begin work. States that require a state-issued license for every employee have quickly experienced administrative backlogs that are costly to both licensees and state regulatory agencies.

However, other aspects of California's labor regulations for marijuana licensees pose potential problems. Although still in draft form, California proposes to require all licensees to negotiate with a union representative for their workers and enter into a union contract once they exceed 19 total employees. Other states have considered similar requirements.

For business reasons, some employers may wish to enter into a union contract and some employees may wish to be represented by a union while others may not. However, California's draft regulations and similar proposals in other states would illegally attempt to usurp the federal government's exclusive authority to regulate private-sector labor relations through the National Labor Relations Act. State policymakers must be mindful of their proper realm of authority vis-a-vis the federal government.

Ultimately, satisfaction of a basic criminal background check is the only restriction states should place on individuals seeking employment with a marijuana licensee. One exciting aspect of the emerging legal marijuana industry is the employment opportunity and chance for upward mobility that it will create for many individuals. It would be unwise to hamper this growth opportunity by placing unnecessary barriers in the paths of both employers and employees.

¹⁸ California Bureau of Cannabis Control. "Proposed Text of Regulations: Title 16, Division 42." California Code of Regulations. October 2018 Draft. https://www.bcc.ca.gov/law_regs/cannabis_text.pdf.

8: GOVERNANCE OF SUPPLY-SIDE OPERATIONS

8.1 LOCAL GOVERNMENT CONTROL

A critical element of any state framework for regulating marijuana is the amount of control given to local governments. Understandably, some communities may not wish to host marijuana dispensaries or cultivation centers. Those holding the minority view within those communities, however, may still need or desire access to safe marijuana products within a reasonable distance of their homes. These conflicting desires create the need for a delicate balance between allowing local communities the autonomy to self-govern, while also ensuring those with minority views do not become marginalized.

In California in early 2018, for instance, many local governments passed ordinances banning marijuana dispensaries, resulting in 40% of the state being at least 60 miles from the nearest licensed dispensary.¹⁹ State authorities responded by proposing regulations to allow statewide deliveries so that residents in jurisdictions that have imposed bans on dispensaries have access to safe, legal products. The League of California Cities has criticized this proposal and threatened lawsuits, claiming the authorizing statute allows cities to ban all recreational sales within their jurisdictions.²⁰

Confrontations like this can be avoided by placing careful language into the authorizing statute to clarify the precise extent of local government authority. States have taken a variety of approaches to this issue, ranging from allowing an outright ban of recreational marijuana sales, as in California, to strictly limiting local governments' allowable scope of action. For instance, Massachusetts allows local governments to pass ordinances to govern allowable hours and manners of operation and zoning restrictions, but ordinances cannot be "unreasonably impracticable" to run a successful marijuana business. Similarly, local governments in Michigan may limit the number of dispensaries to 20% of the number of liquor store licenses granted within the same jurisdiction, and may prohibit on-site consumption of marijuana, but they may not ban marijuana businesses entirely.

Between these extremes is a range of alternate approaches. Some states have considered giving local governments a limited window of time, such as six months from the effective date of a statute

¹⁹ Branan, Brad and Nathaniel Levine. "Weed is Legal. But This Map Shows Just How Much of California is a 'Pot Desert,'" *Sacramento Bee*. 22 March 2018. <https://www.sacbee.com/news/state/california/california-weed/article205524479.html>.

²⁰ Melley, Brian. "California Rolling Forward with Pot Delivery Regulations," *The Associated Press*. 19 October 2018. <https://www.apnews.com/dd09a60a42fd444b8cafe6dd22d011c2>.

authorizing a legal marijuana market, to enact a ban or otherwise forego it. Michigan's medical marijuana laws require a local government to pass an ordinance affirmatively approving each license type before it can be allowed within that jurisdiction. Florida allows local governments to ban dispensaries outright but otherwise prohibits them from limiting the number of dispensaries. Licensing fees and zoning restrictions in Florida also cannot be greater than what is imposed on pharmacies.

Local governments' level of autonomy for marijuana licensing must be balanced against the needs of patients and recreational consumers. The Massachusetts approach is arguably best at achieving this balance because it gives local jurisdictions the ability to regulate and control for activities they wish to discourage, while simultaneously giving patients and consumers needed access to safe marijuana products.

8.2 PRODUCT TESTING

Marijuana products are intended for human ingestion. This recognition has led policymakers to consider testing requirements of all products for both public safety and quality control purposes. From a public safety standpoint, consumers and regulators need assurance that the products are free from harmful chemicals, pollutants and bacteria. Ensuring products are free of these harmful contaminants is especially critical for users with sensitive health conditions, including medical patients. Testing for quality control is meant to assure both customers and regulators that the cannabinoid content displayed on packaging is accurate and relatively homogenous, so that consumers can measure their cannabinoid dosages with confidence.

Typically, testing must be performed on all marijuana products before a wholesale licensee, such as a cultivator or producer, is permitted to transfer those products to any retail dispensary, with the test results affixed to the packaging so that dispensary receives a final, sellable product. In most cases, states have created a special license type for testing facilities and restricted the owners of those facilities from having any financial interest in a marijuana license of any other type, so as to maintain strict independence. Laboratory testing procedures are then approved and monitored by state authorities. In a few cases, state regulatory agencies may perform testing directly.

States have taken varying approaches to the extent and types of testing required of marijuana products. Arizona, for instance, has no requirement for testing marijuana products within its medical program, although this does not preclude a licensee from doing so voluntarily to attract customers. Delaware requires its medical dispensaries to develop a plan for testing the products on their own shelves and submit the plan to state regulators for approval, but does not dictate in extensive, codified detail how those testing procedures should be performed. Some states, like Illinois, require products to be tested for potentially harmful pollutants or chemicals, but do not require potency

tests to verify the concentration of cannabinoids. Among states in this group, Connecticut and Illinois also stand out for referencing objective, third-party standards of health and safety regarding the presence of chemicals, heavy metals and pollutants, such as those set forth by the federal Environmental Protection Agency. A fourth category of states are those, like Massachusetts, that require testing for both chemicals and cannabinoid potency and reference objective, third-party standards. A fifth group are those states, like California, that establish extensive, highly prescriptive testing requirements for both contaminants and cannabinoid potency, without adhering to any objective third-party standard.²¹

A final category of testing regime is headlined by Colorado, which, like California, sets forth extensive testing requirements not referencing a third-party standard. However, Colorado also grants its regulatory agency the discretion to determine which products are unsuitable for sale and require their destruction, even when the objective lab results indicate that all requirements have been satisfied. This level of arbitrary discretion introduces unnecessary amounts of uncertainty into the marketplace for licensees.

There are legitimate public safety and consumer welfare concerns regarding the potential presence of contaminants in marijuana products just as there are in food items. However, testing requirements can also become overly burdensome and prescriptive in ways that unnecessarily add to the final cost of products. This is particularly true when standards appear arbitrary or are not based on objective third-party standards. Generally, we recommend that states require testing procedures for marijuana products, but also allow licensees the latitude to adapt those procedures to fit within their unique production methods so long as they satisfy certain objective safety standards. This approach, as practiced in Delaware, facilitates the types of innovation necessary to drive the industry forward. In all cases, states should avoid saddling their own regulatory agencies with the burden of performing laboratory tests directly, as this can cause delays and generally falls outside the core competence of government.

8.3 PACKAGING AND LABELING

In addition to testing requirements, nearly all states with recreational or medical marijuana programs impose minimum labeling requirements on marijuana products. The most common of these include disclosures of the amount of THC contained in the product and regulations intended to prevent access to marijuana products by children. To achieve this latter objective, most states require marijuana products to be dispensed in opaque, child-proof packaging. Some states go further by prohibiting any form or branding, packaging or advertising that may resemble items commonly

²¹ Leafly. "State-by-State Guide to Cannabis Testing Regulations." 4 March 2016 (Updated: 24 August 2017). <https://www.leafly.com/news/industry/leaflys-state-by-state-guide-to-cannabis-testing-regulations>

marketed to children, such as candy, or that contain images like cartoon characters that may appeal to children. Some states have also created a universal marijuana symbol that must be printed on all packaging to easily indicate it contains a marijuana product.

Other labeling requirements may include the date of harvest or production of the marijuana product and the name, address, or license number of the cultivator or manufacturer that produced it. A list of chemical additives, including all pesticides, biocides or fertilizers is required in a handful of states, although these tend to be states where laboratory testing of products is either not required or where a failing laboratory report does not require destruction of the product. A minority of states require nutritional information to be displayed on edible marijuana products or a panel displaying instructions for use of the product. Finally, certain states require the display of special phrases and disclosures, also known as “magic words,” to be printed on all products. This may include a phrase such as “THIS IS A MARIJUANA PRODUCT,” or disclosures regarding use by pregnant women. Nearly all state medical marijuana programs require a statement that the product is non-transferrable and intended for medical use only; that requirement is not included in the tabulation of state requirements in Table 3.

Table 3: Marijuana Labeling Requirements, by State																
	AK	AZ	CA	CO	CT	DE	DC	FL	HI	IL	ME	MD	MA	MI	MN	MT
Date of Production	X		X	X	X				X	X			X		X	
“Magic Words”	X	X	X	X									X		X	
Opaque, Child-Resistant Packaging	X			X	X			X	X	X	X	X	X		X	X
License or Name of Grower/Producer	X	X	X	X	X	X	X	X	X	X	X	X	X			
Amount of THC	X		X	X	X	X	X	X	X	X	X	X	X		X	X
List of Chemical Additives		X		X							X					
Special MJ or Store Symbol		X	X	X				X			X					
Nutritional Information			X								X					
Instructions for Use			X					X	X		X	X	X		X	
Ban on Images Attractive to Children			X						X		X	X	X		X	X
Ban on Imitation of Candy Packaging			X									X	X		X	X

Table 3 (Cont’d): Marijuana Labeling Requirements, by State									
	NV	NH	NJ	NM	NY	OR	VT	WA	

Date of Production	X		X	X	X	X		X
“Magic Words”	X				X	X	X	X
Opaque, Child-Resistant Packaging	X				X			X
License or Name of Grower/Producer	X		X	X	X	X		X
Amount of THC	X	X			X	X		X
List of Chemical Additives	X		X					X
Special MJ or Store Symbol	X					X		X
Nutritional Information				X				
Instructions for Use				X				
Ban on Images Attractive to Children	X					X		
Ban on Imitation of Candy Packaging	X							

Source: *Leafly*. “A State-by-State Guide to Cannabis Packaging and Labeling Laws.” 22 September 2015 (Updated: 1 November 2017). <https://www.leafly.com/news/industry/a-state-by-state-guide-to-cannabis-packaging-and-labeling-laws>.

9: ADDITIONAL CONSIDERATIONS RELEVANT ONLY TO MEDICAL MARIJUANA PROGRAMS

A host of issues unique to states' medical marijuana programs have limited applicability to their recreational markets. These center on the circumstances under which a patient might secure a physician's recommendation to use marijuana as a medical treatment and patients' subsequent ability to legally access the recommended treatment.

9.1 DOCTOR'S RECOMMENDATION REQUIREMENT

The basic goal of all medical marijuana programs is to allow a physician to recommend marijuana to a patient in circumstances where the physician believes that marijuana could be an effective treatment for that patient's condition. Even stretching back into the early waves of state cannabis regulation in the 20th century, and later in the 1970s, this was a primary goal. It is important to note that any legislation seeking to authorize a medical marijuana program, however, should reference only a physician's ability to *recommend* marijuana as a medical treatment rather than to *prescribe* marijuana as a treatment. This distinction is due to the federal government's regulatory authority over medical prescriptions, whereas a simple recommendation is not subject to federal regulation.

Nonetheless, states typically require a formal, written recommendation from a physician before a patient is able to purchase marijuana for medical purposes. The recommending physician typically must be registered with the state regulatory agency overseeing the medical marijuana program and must record the recommendation made to each patient within a state database. This authorizes the patient to apply for a state-issued medical marijuana card, whereupon the patient also becomes registered within the state database. In cases where the patient suffers from a physical infirmity that limits mobility, most state programs also allow a designated caretaker to be registered within the state database and linked to a specific patient or set of patients. This registry allows the caretaker to

produce or purchase marijuana on the patient's behalf and deliver it to their home, rather than forcing the infirm patient to procure their medicine on their own.

In nearly all states, the requirement for a doctor's recommendation is simple and straightforward, although in at least one instance, policymakers have chosen to make it unnecessarily burdensome on patients. Prior to regulatory changes made in September 2018 that struck these rules, Louisiana had precluded physicians from recommending marijuana to more than 100 patients and also required a recommendation to be renewed every 90 days. These thresholds were arbitrary and had no basis in medical practice. Policymakers should leave discretion over recommendations for medical treatment to licensed physicians.

9.2. ELIGIBLE MEDICAL CONDITIONS

Every state medical marijuana program specifically enumerates a number of medical conditions for which doctors may recommend marijuana as treatment. While some states allow the use of marijuana to treat conditions that may result from a variety of causes, such as pain or nausea, many medical programs permit only very specific conditions. Generally, these include conditions for which marijuana has a documented ability to treat the disease or its associated symptoms, including Crohn's disease, seizures and convulsive disorders, including epilepsy, cancer, glaucoma and HIV/AIDS. At a minimum, states should allow marijuana as a treatment for these conditions.

However, policymakers should also allow marijuana use by terminally ill patients and those suffering from chronic pain and other conditions that are otherwise likely to be treated with more-dangerous prescription drugs such as opioids.²² Beyond these conditions, some states have permitted the use of marijuana to treat relatively minor conditions such as nausea, arthritis or migraine headaches.²³

9.3 AVAILABILITY

In several states, medical marijuana statutes have been passed either by initiative or legislation that removes state criminal penalties for the cultivation or possession of marijuana by registered patients, but that also make no provision for how patients could legally procure their medicine. Voters in

²² Multiple recent studies have found that marijuana can be a safe, effective substitute for prescription opioids in the treatment of chronic pain. For a summary of these studies, see: "Is Marijuana Safe and Effective as Medicine?" National Institutes of Health. Updated June 2018. <https://www.drugabuse.gov/publications/research-reports/marijuana/marijuana-safe-effective-medicine>

²³ For a detailed summary of qualifying conditions by state, see: "Qualifying Conditions for a Medical Marijuana Card by State." *Leafly*. Updated October 2018. <https://www.leafly.com/news/health/qualifying-conditions-for-medical-marijuana-by-state>

Nevada, for instance, passed a state constitutional amendment authorizing medical marijuana by initiative in 2000, but state lawmakers provided no formal means for patients to legally procure the marijuana recommended by a physician until medical dispensaries were approved 13 years later. Any medical marijuana statute should provide a legal, workable means for patients to procure the medicine they have been recommended within a reasonable distance of their homes.

9.4 RECIPROCITY

Some states recognize a patient’s valid medical marijuana card issued in another state for the purchase of medical marijuana in their state as well. This provision is important because it allows individuals with a recognized medical need for marijuana to procure their medicine even when they are travelling. A reciprocity provision should be included in every medical marijuana statute.

TABLE 4: States with Medical Marijuana Programs: Stance on Reciprocity

No Reciprocity	Recognizes Out-of-State Patients’ Ability to Possess Marijuana, but Does Not Allow In-State Purchases	Recognizes Out-of-State Patients’ Ability to Possess Marijuana and Allows In-State Purchases
Arkansas	Arizona	Alaska
Connecticut	District of Columbia	California
Delaware	New Hampshire	Colorado
Florida		Hawaii
Hawaii		Maine
Illinois		Massachusetts
Louisiana		Michigan
Maryland		Nevada
Minnesota		Oregon
Missouri		Rhode Island
Montana		Vermont
New Jersey		Washington
New Mexico		
New York		
North Dakota		
Ohio		
Oklahoma		
Pennsylvania		
Utah		
Vermont		
West Virginia		

10. CONCLUSION

Policymakers should consider a wide range of issues when establishing either a medical or recreational marijuana program within their states. This conceptual framework provides a foundational reference for any policymaker interested in marijuana reform and should help to guide legalization efforts at the state level. Transitioning marijuana away from black markets and into a legal, regulated market that ensures product safety can be a difficult and highly technical process. Most policymakers who take on this goal will have almost no experience or expertise in the technical issues involved, but can learn from the experiences of other states, including both their successes and shortcomings.

Many of those experiences are detailed herein, but reform-minded policymakers are encouraged to contact Reason Foundation for additional expertise on how to establish a successful marijuana program in their home states.

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