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# **Fiscal Analysis of the Commercial Cannabis Industry**

**Prepared for  
the  
City of Monterey**

**February 10, 2021**

**Table of Contents**

I.	Introduction	Page 3
II.	The Cannabis Industry in the Monterey County Region	Page 5
III.	Common Cannabis Tax Rates	Page 6
IV.	Cannabis Retailers	Page 7
V.	Cannabis Manufacturers	Page 13
VI.	Cannabis Distributors	Page 14
VII.	Cannabis Cultivation	Page 15
VIII.	Appendix	Page 17
	a. Legal and Regulatory Background for California	Page 18
	b. State Tax Considerations	Page 21
	c. General Economic Impacts	Page 23
	d. References	Page 25

## I. Introduction

The City of Monterey currently prohibits all types of commercial cannabis businesses within the City limits. This prohibition was most recently affirmed through Urgency Ordinance No. 3613, which extended the City's existing moratorium on cannabis businesses through February 4, 2021. The moratorium specifically prohibits "the establishment, maintenance, and/or operation of any commercial cannabis activity in any zoning district in the City of Monterey". The moratorium provides an exception for a single cannabis testing laboratory and allows licensed cannabis retailers located outside of the City to deliver to addresses within the City as authorized by state law.

The Monterey City Council has expressed interest in exploring the possibility of allowing certain commercial cannabis businesses within the City, with a particular interest in allowing cannabis retailers in tourist-oriented districts where they may be able to capture significant sales tax and cannabis tax revenue from visitors.

To inform these discussions, the City has requested that HdL provide this fiscal analysis of the potential revenues that could be generated by commercial cannabis retailers within the City. Our analysis is focused on potential cannabis retailers in selected locations, including Cannery Row, Old Monterey and the Lighthouse District, but also considers the revenue potential for retailers in other non-tourist areas of the City. We have provided a discussion of the unique market dynamics of each location and the degree to which each location may attract a unique subset of consumers.

Legalization and regulation of commercial cannabis has exposed this industry to competitive free-market forces from which it was previously shielded due to prohibition. Licensing, permitting, and regulatory costs, combined with State and local taxes, have added significantly to the operational costs of commercial cannabis businesses. The net effect of these forces is that wholesale prices have dropped significantly at the same time that regulatory costs are climbing. High tax rates may have been acceptable to the industry when it enjoyed high profit margins and few regulatory costs, but those same rates become prohibitive for what is now one of the most highly regulated, and most competitive, industries in the State.

Discussion of regulating and taxing the cannabis industry can too often overshadow the larger jobs and economic development issues that typically accompany efforts to attract new industry. Word that a new business or industry is looking to bring hundreds of new jobs to a community is more commonly met with open arms and offers of tax incentives. The cannabis industry is perhaps completely unique in that the inherent jobs and economic development benefits are welcomed more grudgingly and met with the disincentive of special taxes. While the tax revenue potential is attractive to local governments, imposing excessively high rates may reduce the number of businesses that step forward and decrease the likelihood that they will succeed in the regulated market.

Equally important to tax rates is setting a clear and unambiguous direction for regulatory policy. As with any other industry, the cannabis industry desires regulatory certainty. Clear regulatory policies and competitive tax rates will be essential for attracting or holding on to this industry sector, and for helping these businesses to outcompete the persistent black market.

## Summary

From our analysis, we anticipate that allowing cannabis retailers in the City's tourist-oriented districts presents the opportunity to capture significant revenue from cannabis taxes or community benefit fees that may be assessed on such businesses. These retailers would also capture regular sales tax revenue for the City. Cannery Row attracts some 5.8 million visitors annually, which is roughly equivalent to a resident population of 57,206 people. Because of the unique setting of these tourist districts, we believe that retailers in these locations would have these customers largely to themselves and would not have to compete with retailers in other nearby cities. If anything, these retailers may recapture some portion of sales (and sales tax) currently lost through leakage to stores in other cities.

We project that cannabis retailers in the City's tourist-oriented areas could generate combined gross receipts of \$10 million to \$22 million. Applying HdL's recommended range of retail cannabis tax/fee rates, we anticipate that these cannabis retailers could generate between \$400,000 and \$1,300,000 in annual revenue for the City through either cannabis taxes or community benefit fees.

Cannabis retailers located away from the City's tourist-oriented districts would face strong competition from 13 existing retailers in nearby cities. Our analysis assumes significant leakage to these other retailers as well as to unlicensed black-market delivery services operating in the area. We anticipate that a cannabis retailer located in the City's non-tourist areas may generate gross receipts of between \$1.8 million and \$4.0 million. Applying the same range of cannabis retail tax or fee rates yields a range of revenue projections of between \$72,000 and \$237,000.

Combined, we anticipate that cannabis retailers in the City of Monterey could potentially generate between \$472,000 and \$1,537,000 in annual revenue for the City, as shown below in Figure 1. The City would also incur regulatory costs associated with the development and implementation of a cannabis regulatory program, including staff and consultant time for the development of ordinances, initial permitting for businesses, compliance monitoring, annual permit renewals and regulatory enforcement as necessary. These costs would all be fully recoverable<sup>1</sup> from the businesses through initial and annual permit fees, leaving all revenues generated by a cannabis tax or community benefit fee available for any purposes that may be desired by the City.

**Figure 1**

Cannabis Retailers Revenue Summary		
Location	Estimated Gross Receipts	Estimated Tax or Fee Revenue
Tourist-oriented districts	\$10,000,000 to \$22,000,000	\$400,000 to \$1,300,000
Non-tourist areas	\$1,800,000 to \$4,000,000	\$72,000 to \$237,000
Total	\$11,800,000 to \$26,000,000	\$472,000 to \$1,537,000

<sup>1</sup> Costs for development of a cannabis tax ordinance or related ballot measure would not be recoverable.

## II. The Cannabis Industry in the Monterey Region

The amount of revenue that a city or county may be able to generate from a cannabis business tax depends upon the type, number and size of cannabis businesses that may choose to locate within the City. Cannabis retailers, cultivators, manufacturers, distributors and testing facilities are each interdependent upon a network of other cannabis businesses, so understanding the extent of the industry in the region provides some basis for estimating the number of businesses which may seek to locate in Monterey.

We generally assume that wholesale cannabis businesses such as cultivators, manufacturers and distributors would primarily interact or do business with other cannabis businesses within a one-hour radius. This would extend roughly from Santa Cruz and Gilroy to the North, and to King City in the South. A survey of license data from the State's 3 licensing agencies shows that there is a robust cannabis industry within this region. In Monterey County, alone, there are 457 cultivation licenses, 48 nurseries, 66 distributors, 30 manufacturers, 23 retailers and 1 testing laboratory. Filtering the license data shows that the 505 cultivation and nursery licenses in the County are held by 142 separate companies<sup>2</sup>. These numbers are shown in Figure 2, below.

**Figure 2:**

Active Cannabis Licenses in Monterey County								
City/County	Cultivation	Nursery	Distributor	Manufacturer	Retailer	Microbusiness	Testing Laboratory	Total
Castroville	0	0	0	0	1	0	0	1
Carmel	0	0	0	0	2	0	0	2
Del Rey Oaks	0	0	3	1	1	0	0	5
Salinas	281	30	34	9	8	0	0	362
Marina	0	0	0	0	1	0	0	1
Moss Landing	0	0	7	4	1	0	0	12
Greenfield	19	2	3	1	0	0	1	26
King City	11	2	9	7	2	0	0	31
Seaside	1	0	5	6	6	0	0	18
Monterey (County)	145	14	5	2	1	0	0	167
<b>Total</b>	<b>457</b>	<b>48</b>	<b>66</b>	<b>30</b>	<b>23</b>	<b>0</b>	<b>1</b>	<b>625</b>
Note: The number of licenses may not denote the number of businesses, as individual businesses may hold multiple licenses.								

This concentration of cannabis businesses establishes the Monterey County region as a strong presence within California's commercial cannabis industry, with a large and diverse industry cluster that can both support and provide competition for additional cannabis businesses. We anticipate that the number of cannabis businesses in the region will continue to increase over time. As this occurs, we would expect the decisions as to where these businesses choose to locate will be increasingly driven by the same market-based factors that influence such decisions for other types of businesses, including access to markets and consumers, available and appropriate industrial or commercial space, competitive lease rates, a ready talent pool, and a network of supporting businesses and industries. Differences in regulations and taxes (within reason) will cease to be the sole, overarching consideration.

<sup>2</sup> The number of cultivation licenses does not indicate the number of individual businesses, as it is common for a single cultivation business to hold many individual licenses.

### III. Common Cannabis Tax Rates

Cannabis tax rates have been settling and stabilizing around the State since the beginning of 2018. Many cities instituted cannabis taxes prior to the implementation of statewide regulations, with a wide range of tax structures and rates as high as \$30 per square foot (for cultivation) or 18% of gross receipts. Some of these “early adopter” cities have since reduced their rates to be more competitive with common rates that are now emerging around the State.

The State of California applies two separate taxes to cannabis: a cultivation tax of \$9.65 per ounce of dried flower (\$2.87 per ounce of dried leaf or trim) and an excise tax of 15% on the purchase of cannabis and cannabis products. These two separate State taxes can add up to 26% to consumer cannabis prices, even before any local taxes are contemplated. This leaves very little room for local jurisdictions to work within if they wish to remain under the total cumulative tax rate of 30%. This is an important benchmark to allow the local industry to compete against the illicit market and against other regulated cannabis businesses from around the State (see Attachment C; *State Tax Considerations*).

Figure 3, below, shows the cannabis tax rates from a number of nearby jurisdictions, as well as the standard rates that HdL commonly recommends to those local agencies that we work with. The initial range of tax rates for cannabis businesses other than cultivation commonly runs from 2% of gross receipts for distributors, to 2.5% for manufacturers and 4% for retailers. These rates may be adjusted up to a maximum of 3%, 4% and 6%, respectively.

**Figure 3:**

Cannabis Taxes in Nearby Jurisdictions						
	Cultivation	Nursery	Retail	Manufacture	Distributor	Testing
Watsonville	\$20/sf	\$1/sf	5.0%	2.5%	NA	NA
Salinas	\$15/sf	NA	5.0%	5.0%	5.0%	NA
Pacific Grove	NA	NA	7.0%	NA	NA	NA
Marina	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
Hollister	\$7/sf	5.0%	5.0%	5.0%	5.0%	5.0%
Santa Cruz County	6.0%	7.0%	7.0%	6.0%	7.0%	7.0%
Monterey County	\$8/sf	\$1/sf	4.5%	3.5%	3.0%	1.0%
HdL Recommended	\$7/sf	\$1/sf	4.0%	2.5%	2.0%	1.0%
Gilroy and Morgan Hill currently prohibit all commercial cannabis activities.						
San Juan Bautista has a cannabis regulatory and tax program, but currently prohibits all commercial cannabis.						

The development and implementation of a cannabis regulatory program also carries costs for the host jurisdiction. These costs may include staff and consultant time for the development of ordinances, initial permitting for businesses, compliance monitoring, annual permit renewals and regulatory enforcement as necessary. These costs vary depending on the desired level of regulatory oversight, the use of consultants, involvement of law enforcement officers and other considerations. Annual permit fees commonly range between \$10,000 and \$30,000, with an average around \$20,000. These costs would all be fully recoverable from the businesses through initial and annual permit fees, leaving all revenues generated by a cannabis tax or community benefit fee available for any purposes that may be desired by the City.

#### IV. Cannabis Retailers

Retailers are the only cannabis business type that specifically serves the local community, rather than feeding into the statewide market, and so the number of retailers can be assumed to be somewhat proportional to the local population. Cannabis retailers address a local market demand which is generally assumed to exist within a given community regardless of whether there is any legal access. Consumer demand for cannabis is assumed to generally be a constant regardless of its legal status or the availability of retailers, so it's reasonable to expect that more retailers would mean fewer customers for each and, thus, lower gross receipts.

It is anticipated that providing greater access to retailers would initially facilitate a shift in cannabis purchases happening through legal, regulated means rather than through the illicit market. Eventually, though, the local cannabis market will reach saturation, at which point new cannabis retailers will simply cannibalize sales from existing retailers. Essentially, both licensed and unlicensed cannabis retailers all divide the same finite pie. The taxable amount of gross sales will likely plateau at some point, regardless of the number of retailers.

Under California's regulatory program, it is anticipated that consumers will have little reason to purchase cannabis in the medical segment rather than buying in the adult use segment. Both medical and adult use cannabis will pay the State cultivation tax and excise tax, with the only advantage being an exemption from regular sales tax for qualifying patients with a State-issued identification card. Currently there are only 6,172 such cardholders in California, and just 193 cards were issued in all of Monterey County in FY 2017/2018<sup>i</sup>. Eligibility for this limited sales tax exemption will cost consumers approximately \$100 per year, plus time and inconvenience, for a savings of 9.25% in the City of Monterey. It's anticipated that this will provide no price advantage for the majority of cannabis consumers<sup>ii</sup>.

The Bureau of Cannabis Control projects that more than half of the adult use purchases currently in the illicit market will transition to the legal market to avoid the inconvenience, stigma and risks of buying unknown product through an unlicensed seller<sup>iii</sup>. Essentially, the easier, cheaper and more reliable it is for consumers to access quality cannabis legally, the less reason they will have to purchase it through the illicit market. That same study projects that 60% of those currently in the legal, medical cannabis market will shift to the adult use market, for the reasons noted above. The availability of legal adult use cannabis is also anticipated to produce a small 9.4% increase in consumer demand. It must be noted, though, that this transition to legal sales is dependent upon the availability of legal access. The majority of cities and counties in California do not allow or permit cannabis retailers, which has buoyed a persistent black market.

The shift from medical to adult use sales is not expected to change the overall volume of sales, only the category into which they fall. Once the legal, adult use market is properly functioning and available throughout the state, it is anticipated to capture about 61.5% of the overall cannabis market in California. The legal medical cannabis market is projected to decline to just 9% of the overall market, though this projection may change due to the increasing popularity of CBD products. The other 29.5% is expected to remain in the illicit market<sup>iv</sup>. The vast majority of retail licenses issued by the Bureau of Cannabis Control are for retailers who will operate both medical and adult use from the same premises.

Sales tax is collected at the point of purchase, which allows storefront cannabis retailers to capture sales tax dollars from outside of their host cities. This applies to cannabis retail taxes, too. Retail studies show that 93% of consumers are willing to travel 15 to 20 minutes to make most routine purchases<sup>v</sup>, meaning that storefront retailers in Monterey may be able to capture sales tax (and cannabis tax) from the surrounding area. For our analysis, we believe that the communities on Monterey's coastal plain form a distinct and self-contained market. This includes the cities of Marina, Seaside, Del Rey Oaks, Pacific Grove and Carmel-by the Sea.

For purchases made via delivery, however, the point of purchase is considered to be the location where the goods trade hands. Thus, while storefront retailers may capture sales and cannabis tax dollars from outside of the City, delivery services cannot. For this reason, revenue projections for storefront retailers would include walk-in customers from other nearby communities as well as tourists, while revenue projections for cannabis delivery services would be limited to the City's population of 28,000.

The Monterey coastal plain is already well-served by a large number of cannabis retailers. Data from the Bureau of Cannabis Control shows that there are 13 licensed cannabis retailers within this area, serving an estimated population of just 107,000 people. This works out to one retailer for every 8,231 people, which is more than double the concentration of one retailer per every 18,000 to 20,000 people we generally see around the state. This suggests that any additional retailers would likely have to compete for sales with these existing retailers. The locations of these nearby retailers are shown in Figure 4.

**Figure 4**

Retail Licenses in Nearby Communities	
City/County	Retailers
Marina	1
Del Rey Oaks	1
Pacific Grove	1
Seaside	6
Carmel	2
Monterey (County)	2
<b>Total</b>	<b>13</b>

However, this population-based model does not account for tourists and visitors. Comparing confidential sales tax information between cannabis retailers on the Monterey coastal plain and those in the County's inland areas shows a stark difference in the gross receipts being generated at these locations. Cannabis retailers in Monterey's coastal areas averaged gross receipts of \$4 million per year, while those in inland areas averaged just \$1.3 million. This difference becomes even more pronounced when we consider the relative population within each of those regions.

**Figure 5**

Retail Sales Comparison; Coastal v. Inland			
Region	Population	Avg. Gross Receipts	Gross Receipts per Capita
Inland	327,000	\$1,500,000	\$4.59
Coastal	107,000	\$4,000,000	\$37.38

We have estimated a population of 107,000 for the communities along Monterey's coastal plain, and 327,000 for the rest of the County. When we adjust the average gross receipts of cannabis retailers on a per-capita basis, we find that sales among retailers in the coastal plain are more than eight-times higher per-capita than those inland.



While some portion of this difference may likely be explained by demographics such as age, income level and general social acceptance, we believe that this difference is primarily evidence of sales to tourists and other visitors attracted to Monterey County's coastal communities.

The City of Monterey has expressed an interest in the potential revenue that could be generated from one or more cannabis retailers located in various tourist-oriented districts within the City, including Cannery Row, the Lighthouse District, Old Monterey and the Del Monte Shopping Center. While the City and its residents may see each of these as distinct locations, we believe that tourists likely do not distinguish between Cannery Row and the Lighthouse District and see these instead as one tourist-oriented area. Given this, our analysis of the revenue potential for each of these locations groups Cannery Row and the Lighthouse District together as a single location, and similarly groups together Downtown and Old Monterey. We do not anticipate that the Del Monte Shopping Center is a tourism draw, so we have grouped it with the remainder of the City outside of the two tourist-oriented areas.

The average (mean) number of people in the travel party visiting Monterey is 3.1 people, but the percentage of travel parties that include children is just 13.3%<sup>vi</sup>. While families traveling with children may be unlikely to visit a cannabis store, these numbers suggest to us that a high proportion of tourists or visitors are adults traveling together, which would include couples, work colleagues and groups of friends. Indeed, visitor data shows that the single largest age demographic for visitors to Monterey County is young adults ages 25 to 34 (21.8%). This generally tracks with the age demographic most likely to use cannabis (young adults ages 19 to 29<sup>vii</sup>). Other age demographics for tourists and visitors also seem to generally align with potential cannabis consumers (younger adults without kids and older "empty nesters", with a notable reduction in cannabis use during child-rearing years).

Visitor data provided by the City shows that Cannery Row had a total of 5.8 million visitors in FY 2015/2016<sup>viii</sup>. As discussed above, we assume that a substantial portion of these visitors would also have visited the Lighthouse District. The average (mean) length of stay in Monterey is 3.6 days and 2.7 nights.<sup>ix</sup> Adjusting the number of visitors by the average length of stay suggests that these 5.8 million visitors provide an economic impact equivalent to 57,204 year-round residents.

As discussed above, we generally assume a concentration of one cannabis retailer for every 18,000 to 20,000 residents for any particular City or region. With this in mind, we anticipate that the 5.8 million visitors to Cannery Row and the Lighthouse District could potentially sustain 3 cannabis retailers, even with little or no consumer support from local residents.

We note that the visitor data that we were able to access for this study did not generally differentiate between Cannery Row, the Lighthouse District, Fisherman's Wharf and Old Monterey. For this reason, we have assumed that 5.8 million visitors referenced previously is an overarching figure that applies to all of the City's tourist districts. Visitors to Old Monterey and Fisherman's Wharf would generally be a subset of the 5.8 million annual visitors to Cannery Row.

In our analysis of cannabis retailers generally we noted the high concentration of cannabis retailers among communities in Monterey's coastal plain. With 13 cannabis existing retailers serving a population of 107,000 people, the opportunities for new retailers would be slim and subject to intense competition. We generally assume a population base of 18,00 to 20,000 people for each cannabis retailer, but the existing competition in this region reduces this figure to a population base of just 8,231 people for each

retailer. Applying a range of estimates for the percentage of the population that uses cannabis yields between 1,287 and 2,817 cannabis users to support an additional cannabis retailer within this area. We generally assume a customer base of approximately 2,500 cannabis consumers to support one cannabis retailer.

Figure X, below, provides an estimate for the cannabis tax revenue that could be generated by a single retailer located away from the City's tourist districts. We have derived a leakage factor of 54% to account for sales that may be lost to the 13 existing retailers in the general area. We also assume an additional 20% leakage to unlicensed cannabis retailers in the area. Estimates of the percentage of the population that uses cannabis on a regular basis vary from around 10% to 13%<sup>x</sup>, up to as high as 22%<sup>xi</sup>. This percentage is influenced by social acceptance of cannabis within the local community. Applying these estimates to the City's population of 28,000 would yield between roughly 1,287 and 2,817 potential cannabis consumers.

**Figure 6**

Revenue Projections for Cannabis Retailers; Resident Population Only			
	Low Estimate	"Best" Estimate	High Estimate
Monterey population	28,000	28,000	28,000
Population of surrounding area (est.)	79,000	79,000	79,000
Total population of service area	107,000	107,000	107,000
Existing or proposed retailers in service area	13	13	13
Population per retailer	8,231	8,231	8,231
Average population per retailer	18,000	18,000	18,000
Leakage factor	54%	54%	54%
Monterey population adjusted for leakage	12,803	12,803	12,803
Percentage of population that uses cannabis	10%	13%	22%
Number of cannabis users	1,287	1,664	2,817
Average transaction amount	\$73	\$73	\$73
Transaction frequency (per month)	2	2	2
Monthly gross receipts	\$187,865	\$243,009	\$411,246
Annual gross receipts	\$2,254,375	\$2,916,107	\$4,934,950
Leakage to black market (20%)	\$450,875	\$583,221	\$986,990
Adjusted annual gross receipts	\$1,803,500	\$2,332,885	\$3,947,960
Cannabis business tax rate:			
4.00%	\$72,140	\$93,315	\$157,918
5.00%	\$90,175	\$116,644	\$197,398
6.00%	\$108,210	\$139,973	\$236,878

Cannabis retailers typically average around 120 customers per day<sup>xii</sup>, with an average transaction amount of \$73 and an average frequency of twice a month<sup>xiii</sup>. This would suggest a range of annual gross receipts generated by a cannabis retailer of between \$1.8 million and \$4.0 million. Applying HdL's recommended range of cannabis retail tax rates to these projections yields a range of revenue projections of between \$72,000 and \$237,000. These projections are shown in Figure 6, above.

We have provided a separate range of projections for the cannabis tax revenue that could be generated by cannabis retailers in the City's tourist districts. As discussed previously, we have adjusted the 5.8 million annual visitors based on the average length of stay to indicate an equivalent resident population of 57,206 people. We have applied the same range of estimates for the percentage of people who use cannabis, as well as the same average transaction amount and frequency of purchase.

However, we anticipate that cannabis retailers in these tourist areas would primarily capture new sales from visitors who may not otherwise be purchasing cannabis during their visit. These sales could perhaps be categorized as opportunistic or "impulse" buys made by visitors who encounter a cannabis store and decide to check it out. There is still both a novelty to walking into a store to purchase cannabis and a stigma about being seen doing so. The anonymity of purchasing cannabis while on vacation away from home may make cannabis users more likely to do so. We believe that sales in these tourist areas would likely not be competing with cannabis retailers elsewhere in the City or in the surrounding area. For these reasons we have kept our leakage factor for both other jurisdictions and the black market at 0%.

**Figure 7**

<b>Revenue Projections for Cannabis Retailers; Tourist Districts</b>			
	<b>Low Estimate</b>	<b>"Best" Estimate</b>	<b>High Estimate</b>
<b>Annual visitors</b>	5,800,000	5,800,000	5,800,000
<b>Average length of stay (days)</b>	3.6	3.6	3.6
<b>Equivalent resident population</b>	57,206	57,206	57,206
<b>Percentage of population that uses cannabis</b>	10%	13%	22%
<b>Number of cannabis users</b>	5,749	7,437	12,585
<b>Leakage to other jurisdictions (0%)</b>	0	0	0
<b>Total customer base</b>	5,749	7,437	12,585
<b>Average transaction amount</b>	\$73	\$73	\$73
<b>Transaction frequency (per month)</b>	2	2	2
<b>Monthly gross receipts</b>	\$839,383	\$1,085,770	\$1,837,456
<b>Annual gross receipts</b>	\$10,072,600	\$13,029,234	\$22,049,473
<b>Leakage to black market (0%)</b>	\$0	\$0	\$0
<b>Adjusted annual gross receipts</b>	\$10,072,600	\$13,029,234	\$22,049,473
<b>Cannabis business tax rate:</b>			
<b>4.00%</b>	\$402,904	\$521,169	\$881,979
<b>5.00%</b>	\$503,630	\$651,462	\$1,102,474
<b>6.00%</b>	\$604,356	\$781,754	\$1,322,968

Figure 7, above, applies the same range of recommended cannabis tax rates using the assumptions above. We project that cannabis retailers in the City's tourist-oriented areas could generate combined gross receipts of \$10 million to \$22 million. Applying HdL's recommended range of cannabis retail tax rates to these projections yields a range of revenue projections of between \$400,000 and \$1,300,000.

The projections in this report assume that the City would allow both medicinal and adult use sales by cannabis retailers. Limiting businesses to only medicinal cannabis would significantly reduce these numbers. Statewide, M-type (medicinal only) licenses make up less than 10% of all licenses for each cannabis business type. Just 78 retailer licenses are for medicinal-only, out of a total of 973 statewide. This is consistent with a 2017 CalCannabis study which anticipated that medical cannabis sales would decline to just 9% of the overall market after legalization.

## V. Cannabis Manufacturers

The manufacturing sector is still evolving and expanding, which presents significant opportunities for innovation, business development and job growth. The range of products being produced includes an ever-increasing variety of edibles such as candies, cookies, dressings, and infused (non-alcoholic) drinks. Manufacturers may produce their own extract on site, or they may buy extract from other Type 6 or Type 7 licensees. Much like any other industry, cannabis manufacturers often depend upon other businesses to supply them with the various materials or components that go into their final product. These suppliers do not have to be located in or even near the same jurisdiction as the final manufacturer, and may be located anywhere throughout the state.

Some manufacturers may handle all steps from extraction to packaging the end product in the form of vape pens or other such devices. Others may handle only discreet steps, such as making the raw cannabis concentrate, which is then sold either directly to retailers or to a Type N manufacturer who will package it into vapor cartridges or other end consumer products. Manufacturers also produce a wide variety of tinctures, as well as topicals such as cannabis infused lotions, salves, sprays, balms, and oils.

As of December 30<sup>th</sup>, 2020, the Manufactured Cannabis Safety Branch (MCSB) of the California Department of Public Health shows 1,029 cannabis manufacturing licenses statewide. Of these, 577 are for non-volatile extraction, 246 are for volatile extraction, 159 are for non-extraction manufacturing, 29 are for packaging and labeling, and 18 are for manufacturers using a shared-use facility. These 1,029 businesses are owned by 993 separate companies.

In its 2017 regulatory impact analysis, the MCSB estimated that there may ultimately be as many as 1,000 cannabis manufacturing businesses in California, employing around 4,140 people. This would indicate an average of 4 new jobs per manufacturer, though this figure likely varies significantly depending on the size and nature of each business. Though the total number of manufacturers projected by this study was very close to the current number of existing licenses, we believe these figures for both the potential number of cannabis manufacturing businesses and for the average number of employees are both on the low side. HdL is aware of individual manufacturers which have over 100 employees. While this may not be the norm, it demonstrates that cannabis manufacturers have the potential to far exceed the MCSB's early predictions.

In addition, some 70% of cities and counties in California continue to ban cannabis businesses outright<sup>xiv</sup>, which greatly limits the size of the overall market available to legal businesses. As more jurisdictions allow and permit commercial cannabis businesses, the number of cultivators, manufacturers, distributors and retailers should increase accordingly to supply this growing market.

HdL has reviewed pro-formas for numerous cannabis manufacturers seeking permits in counties and cities throughout California. From our review we have seen a range of gross receipts from around \$1 million to well over \$20 million, with an average in the range of \$2 million to \$3 million.

## VI. Cannabis Distributors

Perhaps more than any other part of the cannabis supply chain, distributors are greatly dependent upon the number and variety of other cannabis business types within their service area. Essentially, distributors need a certain “critical mass” of other cannabis businesses for them to serve. Because of this, distributors tend to be located in cities or regions which have a large base of cultivation or manufacturing, as well as a large surrounding customer base.

As a very general figure, the number of cannabis distributors statewide is roughly 1/4 of the number of all other cannabis licenses, combined, or 1 distributor for every 4 other cannabis businesses. In addition, virtually all (266 out of 271) licensed microbusinesses in California include distribution as one of their licensed activities. We can reasonably extrapolate from this to assume that a similar ratio of distributors to other businesses is necessary within any defined region.

The business model for distributors is based on a percentage markup on the price paid to their suppliers. This markup commonly averages 20% to 30%, though this depends upon the actual services being provided. However, it is important to note that the distributor category may include a variety of services, not all of which are provided by all licensed distributors. Just under 11% of distributors hold Type 13 licenses that allow self-distribution or transport only. A distributor which is only buying and reselling cannabis at wholesale may make as little as 10% on a transaction, while a distributor which is purchasing raw flower and packaging it as pre-rolls for retail sale may make 50% or more on such a value-added transaction.

Distributors may have annual revenues ranging from less than \$1 million to over \$70 million. The vast majority of distributors would fall at the lower end of that range, with those at the high end qualifying as outliers. While there is not yet an abundance of data to determine the average gross receipts for distributors, HdL has reviewed a number of pro-formas for distributors seeking licenses in other jurisdictions. These indicate anticipated gross receipts commonly in the range of \$2 million to \$3 million per year, with an average of \$2.5 million.

Figure 3 showed that there are 625 state-issued cannabis licenses within Monterey County, of which 66 are for distributors and 559 are other cannabis business types. This gives a ratio of 1 distributor to every 8.5 other cannabis licenses, which is well below the 1-to-4 ratio we generally see around the state. However, the 505 cultivation licenses in the county are held by just 142 separate businesses. Adjusting for this gives a total of 196 separate cannabis businesses being served by 66 distributors, or a ratio of one distributor for every 3 other cannabis businesses. This suggests that the local cannabis industry is already well-served by distributors. Due to this relatively high concentration of distributors, we would not expect to see a high demand for additional distributor licenses in the Monterey region. Any new distributors in the region would likely be a division of an existing cultivation or manufacturing business established primarily to self-distribute their own product, rather than a free-standing business.

## VII. Cultivation

The CalCannabis Division of the California Department of Food and Agriculture has been issuing temporary cultivation licenses since January 1, 2018. As of November 4<sup>th</sup>, 2019 CalCannabis shows 5,576 active cultivation licenses statewide, held by 3,161 distinct businesses<sup>3</sup> comprising 1,072 acres of cultivation which are conservatively estimated to be capable of producing just under 10 million pounds of cannabis per year. This is more than four times the estimated 2.5 million pounds per year consumed by all Californians, combined.

The cannabis cultivation market in California has already far exceeded its saturation point, which suggests that there is not enough room for those growers already licensed, much less new entrants into the market. Entry into this highly competitive marketplace can be filled with risk and requires ample capitalization and a clear strategy to win shelf space. It is not uncommon for cannabis producers and manufacturers to have to pay for retail shelf space just to get their product in front of consumers.

Cannabis cultivation taxes are most commonly assessed on a square-footage basis. As with other cannabis business types, HdL recommends that cities consider tax rates for cultivation that are consistent with the rates discussed in Section III; *Common Cannabis Tax Rates*, and as shown in Figure 4. For indoor cannabis cultivation, that would mean an initial rate of \$7 per square foot and a maximum rate of \$10 per square foot.

Cannabis cultivation taxes may also be assessed on gross receipts or by weight. Any of these methods can be accommodated, and each can be adjusted to generate an equivalent amount of revenue. Each method also has its advantages and disadvantages.

A tax based on square footage can be seen essentially as a tax on area of impact, under the assumption that the greater the size of the operation, the higher the impact on the surrounding neighborhood and City services. A square footage tax has the advantage that the amount of annual tax liability is generally known in advance by both the City and the tax-paying business, as it is keyed to the permitted amount of cultivation area. This allows both parties to budget accordingly. Variances in the actual amount of cultivation area being planted per cycle can be accommodated through advance notification, monitoring and regular inspections or audits. The amount of tax paid does not automatically increase with inflation, making it necessary to include a mechanism to adjust the tax rate annually in accordance with the Consumer Price Index (CPI).

Taxing cannabis cultivation by weight is essentially a tax on production. The tax is on the volume of product, rather than on the size of the operation or the profits generated. This method assumes that the volume of cannabis being produced creates a commensurate impact on the community. The State tax rate for cultivation is set by weight at \$9.65 per ounce of dried flower or \$2.87 per ounce of dried leaf. Because these rates are set by weight, rather than as a percentage of price paid, the tax is the same whether the cultivator is producing commercial-grade cannabis at \$500 per pound or top-grade cannabis at \$2,500 per pound. Reporting and remittance for a weight-based tax can be tied to the figures being

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<sup>3</sup> The actual number of distinct businesses is somewhat lower, as minor typos or inconsistencies in how a name is written appear as separate business names in the CalCannabis database.

reported to the State. As with the square-footage tax, it is necessary to annually adjust the tax rate to reflect changes in the CPI.

A tax on gross receipts taxes the gross income of the business, not the actual profits. As such, a gross receipts tax is effectively a tax on conducting business, regardless of the physical size of the operation, the volume of cannabis being produced, or the profitability of the business. A gross receipts tax has the advantage of increasing or decreasing in accordance with income and automatically adjusting for inflation. Because the cannabis industry largely operates on a cash basis, annual financial audits are highly recommended to ensure that all receipts have been properly reported and all taxes fairly remitted.

Cultivation yield is generally assumed to average one pound of cannabis flower for every 10 square feet of cultivation area. This metric is drawn from a 2010 study by the Rand Corporation<sup>xv</sup>. Though the study is fairly old for such a young industry, its findings remain generally consistent with more recent studies. Some cultivation facilities can yield one pound for every eight square feet, and others cite yields that are much lower (more square feet per pound), but 10 square feet remains a commonly used metric which provides for conservative estimates. Using this figure, a 10,000 square foot cultivation facility operating 4 cycles would produce around 4,000 pounds of cannabis per year.

The price per pound is conservatively assumed to be \$1,000. This figure is somewhat lower than the current average for indoor-grown cannabis, but there is still great variability in the market and, over the long term we anticipate that wholesale prices for raw cannabis will continue to decline. Applying this figure, our 10,000 square foot facility would generate \$4 million in gross receipts.

Attachment C in the appendix, *State Tax Considerations*, explains how the cumulative tax rate on cannabis builds as the product moves towards market. Conversations with cannabis industry trade groups suggest that the cumulative tax rate on the end product should not exceed 30%. While a rate of 5% on any one step in the process may seem reasonable, there are multiple “touching points” before the product reaches the market. The cumulative rate with a 5% tax would be above 31%. The cumulative rate with a 10% tax at each touching point would reach 36%, and the cumulative rate with a 15% tax would be over 40%.

Higher tax rates create greater price disparity between legal and illegal cannabis, making it harder for the regulated industry to compete with the illicit market. Higher local tax rates can also make a county or city less attractive to the industry, especially for manufacturers and distributors, which have greater flexibility in choosing where to locate. We believe that setting rates that adhere to this 30% rule will help keep the City’s cannabis industry competitive with other cultivators across California, thus encouraging the transition to a legal industry.



**APPENDIX**

a. Legal and Regulatory Background for California	Page 18
b. State Tax Considerations	Page 21
c. General Economic Impacts	Page 23
d. References	Page 25

### **a. Legal and Regulatory Background for California**

The legal and regulatory status of cannabis in the State of California has been continually evolving ever since the passage of Proposition 215, the Compassionate Use Act of 1996 (CUA), which de-criminalized the use, possession and cultivation of cannabis for qualifying patients and their primary caregivers when such use has been recommended by a physician. The CUA did not create any regulatory program to guide implementation, nor did it provide any guidelines for local jurisdictions to establish their own regulations. The lack of legal and regulatory certainty for medical marijuana (or cannabis) continued for nearly 20 years, until the passage of the Medical Cannabis Regulation and Safety Act (MCRSA) in October of 2015. MCRSA created a State licensing program for commercial medical cannabis activities, while allowing counties and cities to maintain local regulatory authority. MCRSA required that the State would not issue a license without first receiving authorization by the applicable local jurisdiction.

On November 8, 2016, the voters of the State of California approved Proposition 64, the Adult Use of Marijuana Act (AUMA), which allows adults 21 years of age or older to legally grow, possess, and use marijuana for personal, non-medical “adult use” purposes, with certain restrictions. AUMA requires the State to regulate non-medical marijuana businesses and tax the growing and selling of medical and non-medical marijuana. Cities and counties may also regulate non-medical marijuana businesses by requiring them to obtain local permits or restricting where they may be located. Cities and counties may also completely ban marijuana related businesses if they so choose. However, cities and counties cannot ban transport of cannabis products through their jurisdictions, nor can they ban delivery of cannabis by licensed retailers to addresses within their jurisdiction (added later through regulations).

On June 27, 2017, the Legislature enacted SB 94, which repealed MCRSA and incorporated certain provisions of MCRSA into the licensing provisions of AUMA. These consolidated provisions are now known as the Medicinal and Adult-Use Cannabis Regulation and Safety Act (MAUCRSA). MAUCRSA revised references to “marijuana” or “medical marijuana” in existing law to instead refer to “cannabis” or “medicinal cannabis,” respectively. MAUCRSA generally imposes the same requirements on both commercial medicinal and commercial adult-use cannabis activity, with certain exceptions. MAUCRSA also made a fundamental change to the local control provisions. Under MCRSA, an applicant could not obtain a State license until they had a local permit. Under MAUCRSA, an applicant for a State license does not have to first obtain a local permit, but they cannot be in violation of any local ordinance or regulations. The State licensing agency shall contact the local jurisdiction to see whether the applicant has a permit or is in violation of local regulations, but if the local jurisdiction does not respond within 60 days, then the applicant will be presumed to be in compliance and the State license will be issued.

MAUCRSA authorizes a person to apply for and be issued more than one license only if the licensed premises are separate and distinct. With the passage of AB 133 in 2017, a person or business may co-locate multiple license types on the same premises, allowing a cultivator to process, manufacture or distribute their own product from a single location. This includes the allowance to cultivate, manufacture, distribute or sell cannabis for both medical and adult use from a single location. Licensees of cannabis testing operations may not hold any other type of license. However, these allowances are still subject to local land use authority, so anyone seeking to operate two or more license types from a single location would be prohibited from doing so unless local regulations allow both within the same zone.

The table below provides a detailed overview of the license types available under MAUCRSA and state cannabis regulations:

State License Types Under MAUCRSA					
Type	Activity	Description	Details	Licensing Agency	Notes
1	Cultivation	Outdoor; Specialty, Small	Up to 5,000 sf, or 50 plants on non-contiguous plots	CDFA	A, B
1A	Cultivation	Indoor; Specialty, Small	501 sf - 5,000 sf	CDFA	A, B
1B	Cultivation	Mixed-Light; Specialty, Small	2,501 sf - 5,000 sf	CDFA	A, B
1C	Cultivation	Outdoor/indoor/mixed; Specialty Cottage, Small	Up to 25 plants outdoor; up to 2,500 sf mixed light; up to 500 sf indoor	CDFA	A, B
2	Cultivation	Outdoor; Small	5,001 sf - 10,000 sf	CDFA	A, B
2A	Cultivation	Indoor; Small	5,001 sf - 10,000 sf	CDFA	A, B
2B	Cultivation	Mixed Light, Small	5,001 sf - 10,000 sf	CDFA	A, B
3	Cultivation	Outdoor; Medium	10,001 sf - one acre	CDFA	A, B, C
3A	Cultivation	Indoor; Medium	10,001 sf - 22,000 sf	CDFA	A, B, C
3B	Cultivation	Mixed-Light; Medium	10,001 sf - 22,000 sf	CDFA	A, B, C
4	Cultivation	Nursery		CDFA	A, B
-	Cultivation	Processor	Conducts only trimming, drying, curing, grading and packaging of cannabis	CDFA	A, B, E
5	Cultivation	Outdoor; Large	Greater than 22,000 sf	CDFA	A, B, D
5A	Cultivation	Indoor; Large	Greater than 22,000 sf	CDFA	A, B, D
5B	Cultivation	Mixed-Light; Large	Greater than 22,000 sf	CDFA	A, B, D
6	Manufacturer 1	Extraction; Non-volatile	Allows infusion, packaging and labeling	OMCS	A, B
7	Manufacturer 2	Extraction; Volatile	Allows infusion, packaging and labeling, plus non-volatile extraction	OMCS	A, B
N	Manufacturer	Infusion for Edibles, Topicals	No extraction allowed	OMCS	A, B, E
P	Manufacturer	Packaging and Labeling	No extraction allowed	OMCS	A, B, E
S	Manufacturer	Shared-use manufacturer	Manufacturing in a shared-use facility	OMCS	A, B, E
8	Testing		Shall not hold any other license type	BCC	A
9	Retailer	Non-storefront retail delivery	Retail delivery without a storefront	BCC	A, F
10	Retailer	Retail sale and delivery		BCC	A, B
11	Distributor			BCC	A, B
12	Microbusiness	Cultivation, Manufacturer 1, Distributor and Retailer	< 10,000 sf of cultivation; must meet requirements for all license types	BCC	A, B
CDFA	California Department of Food and Agriculture				
OMCS	California Department of Public Health, Office of Manufactured Cannabis Safety				
BCC	Bureau of Cannabis Control				
A	All license types valid for 12 months and must be renewed annually				
B	All license types except Type 8 Testing must be designated "A" (Adult Use), "M" (Medical) or "A/M" (Both)				
C	CDFA shall limit the number of licenses allowed of this type				
D	No Type 5 licenses shall be issued before January 1, 2023				
E	Established through rulemaking process				

AUMA, and its successor MAUCRSA, required three state agencies, the Bureau of Cannabis Control, the California Department of Food and Agriculture, and the California Department of Public Health, to permit commercial cannabis licensees and to adopt regulations for the cannabis industry. On January 16, 2019, all three agencies announced that the state's Office of Administrative Law officially approved state regulations, which took immediate effect and replaced emergency regulations that had been in effect since 2017. The final regulations were largely similar to the emergency regulations, but somewhat controversially, Section 5416(d) of the Bureau of Cannabis Control regulations authorizes deliveries of cannabis products into any city or county in the state, even if a city or county has banned commercial deliveries.

## b. State Tax Considerations

To determine what local tax rates might be most appropriate, they must be considered in the context of other taxes imposed by the State. Any local taxes will be in addition to those taxes applied through the Adult Use of Marijuana Act (AUMA), which imposes both a 15% excise tax on purchases of cannabis or cannabis products and a separate cultivation tax on harvested cannabis that enters the commercial market, as well as sales tax. Taxes are most commonly expressed as a percent of price or value, so some method of conversion is necessary to allow development of an appropriate cultivation tax based on square footage.

The State tax rate for cultivation is set at \$9.65 per ounce of dried flower or \$2.87 per ounce of dried leaf. Because these rates are set per ounce, rather than as a percentage of price paid, the tax is the same whether the cultivator is producing commercial-grade cannabis at \$500 per pound or top-grade cannabis at \$2,500 per pound. The cultivator is generally responsible for payment of the tax, though that responsibility may be passed along to either a manufacturer or distributor via invoice at the time the product is first sold or transferred. The distributor is responsible for collecting the tax from the cultivator upon entry into the commercial market, and remitting it to the California

Department of Tax and Fee Administration.

Cumulative Cannabis Taxes			
Category	Amount	Increase	Cumulative Price
Producer Price	\$1,000	\$1,000	\$1,000
State Cultivation Tax	\$9.65/oz	\$154	\$1,154
Local Tax	3.75%	\$38	\$1,192
Batch Testing	\$75/lb, + 0.75%	\$75	\$1,267
Wholesale Price w/ Taxes		\$1,267	
Total Tax at Wholesale		\$267	
Tax as %		26.65%	
Distributor Markup	20.00%	\$253	\$1,520
Local Tax	10.00%	\$152	\$1,672
Total Distributor Price		\$1,672	
Total Taxes at Distributor		\$418	
Total Tax as %		25.03%	
Retailer Markup	100.00%	\$1,672	\$3,344
Local Tax	10.00%	\$334	\$3,678
State Excise Tax	15.00%	\$502	\$4,179
Total Retailer Price		\$4,179	
Total Taxes at Retail		\$1,254	
Total Tax as %		30.01%	
CA Sales Tax (non-medical)	6.25%	\$261	\$4,441
Local Sales Tax	2.00%	\$84	\$4,524
Total Taxes at Retail		\$1,599	
Total Tax as %		35.35%	
Total Local Tax		13.43%	\$607.43

The cultivation tax of \$9.65 per ounce of dried flower is equivalent to \$154 per pound. Just a year ago, HdL would have assumed an average wholesale market price for dried flower of around \$1,500 per pound, which would make that \$154 equal to roughly 10% of value. Since then, however, prices have plummeted. Competitive market forces enabled by legalization have brought the average price for indoor cannabis down to around \$1,000 per pound, or even less (cannabis prices vary greatly based on product quality).

Conversations with cannabis industry trade groups suggest that the cumulative tax rate on the end product should remain at or around 30%. Higher rates create too much price disparity between legal and illegal cannabis, making it harder for the regulated industry to compete with the illicit market. Higher local tax rates can also make a county or city less attractive to the industry, especially for manufacturers and distributors, which have greater flexibility in choosing where to locate. We believe that setting rates that adhere to this 30% rule will help keep the local cannabis industry competitive with other cultivators across California, thus encouraging the transition to a legal industry.

The above table shows how the cumulative tax rate on adult-use cannabis builds as the product moves towards market. The value of the product increases as it moves through the supply chain towards market, with manufacturers, distributors and retailers each adding their own markup. Testing laboratories do not add a direct markup to the product, but the cost of testing and the loss of a small test sample can add around \$75 per pound. Any or all of these activities may be taxed.

This model assumes a hypothetical case where cultivation, manufacturing, testing, distribution and retail sale all happen within the same jurisdiction and are thus all subject to that jurisdiction's tax rates. In actuality, this is unlikely to be the case. Manufacturers may work with product purchased from anywhere in California, and may sell their product to retailers elsewhere, as well. The cumulative tax burden for any product at retail sale will almost always include a variety of tax rates from numerous jurisdictions.

### c. General Economic Impacts

Discussion of regulating and taxing the cannabis industry can too often overshadow the larger jobs and economic development issues that typically accompany efforts to attract new industry. Word that a new business or industry is looking to bring hundreds of new jobs to a community is more commonly met with open arms and offers of tax incentives. The cannabis industry is perhaps completely unique in that the inherent jobs and economic development benefits are welcomed more grudgingly and met with the disincentive of special taxes.

As with any other industry, the cannabis industry does not exist in a vacuum. Those businesses that actually grow, process, manufacture, distribute and sell cannabis products support a wide variety of other businesses that may never touch the actual product itself. Cultivators support garden supply stores, green house manufacturers, irrigation suppliers, soil manufacturers, and a wide variety of contractors including building and construction, lighting and electrical, HVAC, permitting, and engineering. Manufacturers support many of these same businesses, plus specialized tooling and equipment manufacturers, and product suppliers for hardware, packaging, and labeling. All of these businesses support, and are supported by, a host of ancillary businesses such as bookkeepers, accountants, tax preparers, parcel services, marketing and advertising agencies, personnel services, attorneys, mechanics, facilities maintenance, security services, and others.

The economic benefits are not limited to those in the cannabis industry, itself. Cultivators bring new money into the community by selling their products into a statewide market. Their profits and the salaries they pay move into the general local economy, supporting stores, restaurants, car dealerships, contractors, home sales and other businesses. In Humboldt County, a study done in 2011 found that at least \$415 million dollars in personal income was entering the local economy annually from the cannabis industry, roughly equal to one quarter of the county's entire \$1.6 billion economy.

While Humboldt is likely an outlier, research done by HdL for other clients suggests that other counties and cities see similar, if smaller, economic inputs from this industry, with some in the range of \$100 million dollars or more annually. As this industry adapts to a legal paradigm, the challenge for some counties will be mitigating and minimizing the economic loss as the black market slowly fades away.

Because of the emerging nature of this industry, it is currently populated primarily (but not solely) by small, independently-owned businesses. Numerous studies have demonstrated that locally-owned, independent businesses recirculate a far higher percentage of every dollar back into the local community than large, corporately-owned businesses do. The same economic development arguments that are used to support other independent, locally-owned businesses apply to this industry, too. Host cities or counties should expect to see typical economic benefits from these new (or newly daylighted) businesses on par with other new businesses, separate from any tax revenue that may be generated.

Industry experts believe that California's current statewide production is five to eight times higher than the State's population consumes, a figure derived from the SRIA done for CDFA's cannabis cultivation program. That assessment found that California's cannabis industry produces some 13.5 million pounds of cannabis per year, which would be enough to provide over half a pound of cannabis per year for every Californian 21 and over. However, the assessment also found that California's 4.5 million cannabis users only consume about 2.5 million pounds of cannabis per year.

The Bureau of Cannabis Control projects that more than half of the adult use purchases currently in the illicit market will transition to the legal market to avoid the inconvenience, stigma and risks of buying unknown product through an unlicensed seller. Essentially, the easier, cheaper and more reliable it is for consumers to access quality cannabis legally, the less reason they will have to purchase it through the illicit market. That same study projects that 60% of those currently in the legal, medical cannabis market will shift to the adult use market, for the reasons noted above. The availability of legal adult use cannabis is also anticipated to produce a small 9.4% increase in consumer demand.

Given these figures, cities and counties should expect to see some increase in retail sales as these shifts occur in the market. More significantly, the existence of legally permitted cannabis retailers will allow a far greater portion of existing cannabis sales to be captured by legal (and tax-paying) retailers.

The shift from medical to adult use sales is not expected to change the overall volume of sales, only the category into which they fall. Once the legal, adult use market is properly functioning, it is anticipated to capture about 61.5% of the overall cannabis market in California. The legal medical cannabis market is projected to decline to just 9% of the overall market. The other 29.5% is expected to remain in the illicit market.

These numbers only apply to the 2.5 million pounds of cannabis that is consumed in California, representing the potential size of the legal cannabis market. If 29.5% of the cannabis consumed in California continues to come from the illicit market, then the size of the market for legal cannabis must be adjusted downward accordingly. This would reduce the size of the legal market in California to 1.76 million pounds.

California has been issuing temporary licenses for commercial cannabis businesses since the beginning of the year. As of May 5<sup>th</sup>, CalCannabis shows 4,783 active cultivation licenses statewide, held by 2,669 distinct businesses and comprising 909 acres of cultivation. We conservatively estimate that these growers are capable of producing over 8.5 million pounds of cannabis per year, which is over three times as much cannabis as the State's legal buyers are anticipated to consume. Were the State to issue no more licenses, we would still expect a failure rate of at least 40% in the next two years.



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