

U.S. State Approaches to Cannabis Licensing

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Motivation

- As of Feb. 2022, 37 states and the District of Columbia have passed medical cannabis laws (MCLs) or recreational cannabis laws (RCLs).
- US market size for medical and adult-use cannabis: \$18.1bn (est.).
- Each state takes its own approach to licensing and regulation.
- Till now, there is limited research on cross-state licensing approaches.

Research question

How do licensing regimes for US state-legal cannabis compare?

Timeline: US state cannabis licensing

- 1996: CA first state to pass MCLs post-prohibition.
- 2003: CA introduces first cannabis cultivation permits for patients.
- 2007: NM introduces state-level commercial cannabis licensing.
- 2010: CO introduces first multi-category cannabis licensing regime.
- 2012: CO and WA first states to pass RCLs.
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- 2022.2: MCLs in 37 states & DC; RCLs in 18 states & DC.

Supply-side studies of cannabis rationing

- From a harm minimization perspective, both state monopoly and strict licensing models have been advocated for the cannabis market (Barry et al., 2014; Carnevale et al., 2017; Pacula et al., 2014)
- Meanwhile, when licensing models get less restrictive, increased usage of cannabis can pair with decreased prices, lower perceived harm of and legal risk of use (Pacula and Smart, 2017)
- This implies an economic benefit versus public health trade-off facing policymakers, given relationships between youth cannabis uptake and:
 - Low prices (Van Ours and Williams, 2007; Williams, 2004)
 - Retail outlet density (Pacula et al., 2017; Palali and Van Ours, 2015)

This paper: the first systematic review of state licensing policy rules

Data collection: sources

- **Cannabis licensing and taxation data:**

- Primary sources: state medical and adult-use cannabis legislation, guidance from state cannabis regulatory bodies (as of 2021.5).
- Secondary sources: local media outlets, cannabis consultancies, cannabis policy organizations (as of 2021.5).

- **Supporting data:**

- Median cannabis business sizes: cultivation - Cannabis Business Times (as of 2021), dispensary - Marijuana Business Daily (as of 2017).
- State tax rates: the Tax Foundation (as of 2021).
- State adult populations: U.S. Census Bureau (as of 2019.07).
- Political ideology and voting preference: voting preference - FiveThirtyEight (as of 2021.05), ideology - Gallup (as of 2018).

Licensing data: metrics

- We consider licenses in terms of **license categories** (main usage purpose, e.g., cultivation) and within-category complexity by:
 - **Type** (sub-category usage purpose, e.g., indoor cultivation).
 - **Tier** (sub-category/type scale bracket, e.g., mid-size cultivation).
- We construct three metrics for cross-state license comparisons:
- **Range of categories**: # of license categories, weighted by complexity.
- **Licensing cost**: total annual cost for a typical cultivation and retail business.
- **Issuance volume**: active licenses issued (total & per million adult residents).
- We show basic univariate regression results for these metrics in the appendix (Tables A1 & A2).

▶ Tab.A1

▶ Tab.A2

State licensing categories: introduction

- States differ in licensing model by application criteria & requirements, and license permissions, categories, fees, and issuance volume.
- Most states license medical and adult-use cannabis businesses separately (exceptions: AK and WA).
- In most states, licenses are either awarded competitively following a request for proposals, or simply to all qualifying applicants.
 - Some states allocate licenses by lottery (e.g., AZ and WA) or permit license resale (e.g., FL).
- The structure of fees differs across states, but usually consists of:
 - Application fee (sometimes refundable for failed applications).
 - License fee (paid if successful).
 - In some cases, proof of capital (e.g., funds in escrow/surety bond).

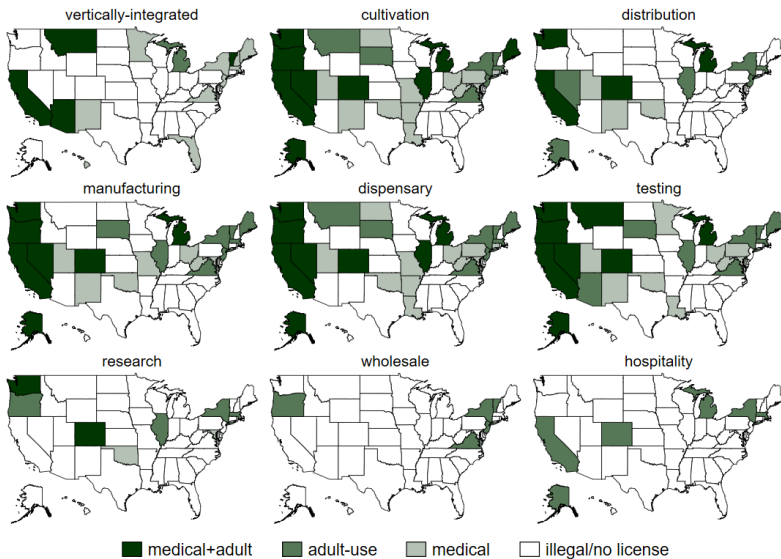
Table 1: definition of license aspects and categories

License aspect	Definition
Category	General usage purpose of license, e.g. cultivation
Type	Sub-category usage purpose of license, e.g. indoor cultivation
Tier	Sub-category/type scale bracket of license, e.g. mid-size cultivation
License category	General permissions
Cultivation	Growing of cannabis and non-retail sale of grown cannabis
Distribution	Transport of cannabis and cannabis products between licensed parties
Manufacturing	Processing of raw cannabis and non-retail sale of these processed goods
Dispensary	Retail sale of cannabis and cannabis products
Testing	Analytical testing of cannabis for compliance purposes
R&D	Procurement, storage and use of cannabis for research purposes
Wholesale	Non-retail transactions of cannabis between licensed parties
Vertically-integrated	Confers both Cultivation and Dispensary license permissions
Hospitality	On-site consumption and events (adult-use cannabis only)

Notes: We define Vertically-integrated in this way as conferring permissions for Cultivation and Dispensary (as above) is the common denominator of integrated licenses that we observe.



Fig 1: detailed cannabis license categories across states



State licensing categories: summary

- All states have at least either Vertically-integrated licenses or both Cultivation and Dispensary licenses, or all three (Table 1).
 - Some only offer Vertically-integrated licenses for “microbusinesses”.
 - LA (medical) and DC (adult-use) are special cases:
 - LA operates as a quasi-state duopoly.
 - DC has passed RCLs but prohibits commercial adult-use sales.
- Manufacturing and Testing licenses also commonly seen; Distribution licenses less so; R&D, Wholesale, and Hospitality the least (Fig. 1).
- Cultivation licenses are the most frequently multi-type (e.g., indoor vs outdoor) and/or tiered (e.g., by canopy size).
 - Manufacturing licenses are also sometimes multi-type (e.g., permitting extraction using water versus using solvents).
 - For other categories, multi-type/tiered licenses are uncommon.

▶ Tab.1

▶ Fig.1

Table 2: subsample means and t-tests

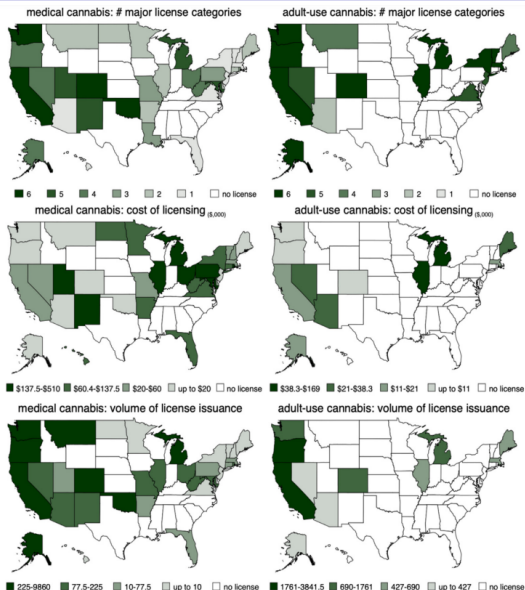
Panel 1: Full sample		Medical	Adult-use	t-stat
License categories (weighted)	3.3 (0.365)		7.3 (0.727)	-4.88***
License cost (\$000 s)	105.3 (21.0)		45.9 (17.8)	2.15**
Issuance volume (pop.-adjusted)	89.1 (29.0)		264.6 (74.9)	-2.18**
# of observations	33		11	
Panel 2: RCL states only		Medical	Adult-use	t-stat
License categories (weighted)	4.5 (0.813)		7.3 (0.727)	-3.89***
License cost (\$000 s)	54.5 (25.2)		45.9 (17.8)	0.94
Issuance volume (pop.-adjusted)	196.5 (73.4)		264.6 (74.9)	-1.80*
# of observations	11		11	
Panel 3: MCL sample		<10 years since MCL	10+ years since MCL	t-stat
License categories (weighted)	2.6 (0.386)		3.9 (0.578)	-1.89**
License cost (\$000 s)	125.6 (17.0)		86.1 (37.6)	0.96
Issuance volume (pop.-adjusted)	15.4 (4.73)		158.7 (51.3)	-2.78***
# of observations	16		17	
Panel 4: MCL sample		No VI mandate	VI mandate	t-stat
License categories (weighted)	4.6 (0.478)		1.9 (0.295)	4.72***
License cost (\$000 s)	105.1 (22.2)		105.4 (37.2)	-0.01
Issuance volume (pop.-adjusted)	138.7 (50.7)		36.6 (30.0)	1.86**
# of observations	16		17	
Panel 5: MCL sample		Least conservative	Most conservative	t-stat
Years since legalized	14.2 (1.79)		9.3 (1.74)	1.97*
License categories (weighted)	3.1 (0.651)		3.5 (0.430)	-0.59
License cost (\$000 s)	95.9 (34.1)		117.2 (28.1)	-0.48
Issuance volume (pop.-adjusted)	73.7 (36.6)		106.4 (46.8)	-0.55
# of observations	15		17	
Panel 6: MCL sample		Republican lean	Democrat lean	t-stat
Years since legalized	8.8 (1.93)		13.4 (1.57)	-1.81*
License categories (weighted)	3.5 (0.433)		3.2 (0.539)	0.56
License cost (\$000 s)	105.7 (24.5)		104.9 (31.3)	0.02
Issuance volume (pop.-adjusted)	117.9 (60.1)		70.6 (28.6)	0.71
# of observations	13		20	

State licensing categories: medical vs adult-use

- **A larger share of states mandate vertical integration (VI) for medical cannabis licensing than for adult-use.**
 - i.e., 16 of 36 states for medical vs 1 of 17 for adult-use.
- The share of states with complex Cultivation or Vertically-integrated licenses is lower for medical cannabis licensing than for adult-use.
 - i.e., 7 of 35 states for medical vs 11 of 17 for adult-use.
- On average, states with VI mandates offer less license categories and lower license issuance volume than states without mandates, but average cost of licensing is similar (Table 2).
- **In each state that has passed both MCLs and RCLs, adult-use licenses are offered in as many or more categories, and types/tiers, than are offered for medical licenses.**

► Tab.2

Fig 2: comparison of licensing metrics across states

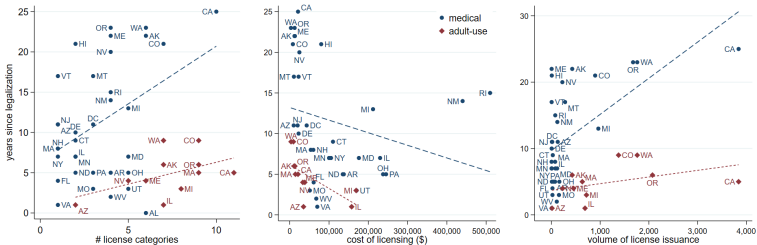


Geographic patterns: US Census Regions and Divisions

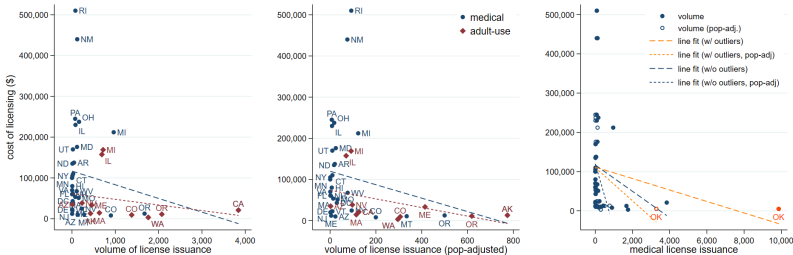
- States in the Pacific Division (plus NV) all offer a broad range of license categories (Fig. 2).
- Most states in the South Region have not passed MCLs; those that have passed MCLs have not also passed RCLs.
- The North-East is the next-most broad regime region, but relative to the Pacific, licensing is of higher cost and lower volume.
 - Why? No Pacific state mandates VI, unlike several in the North-East.
- The Midwest Region and the Mountain Division differ sharply.
 - CO, IL and MI have extensive licensing regimes but many of their neighboring states have not passed MCLs/RCLs.

► Fig.2

Fig 3: patterns in cannabis legalization & licensing metrics

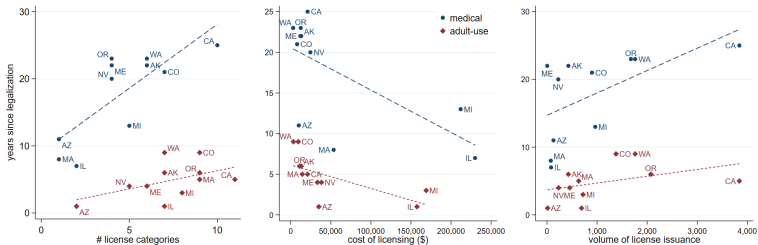


(a) Cannabis legalization and license categories, costs, and volume

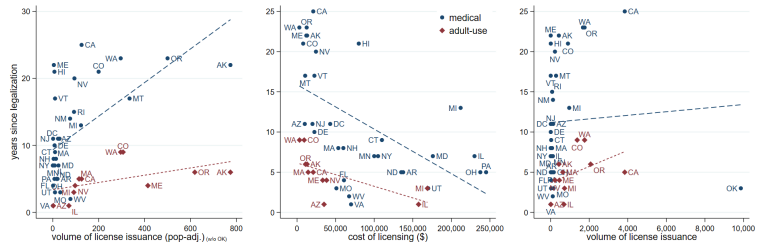


(b) Cannabis licensing costs and issuance volume (total and population-adjusted)

Fig A1: licensing styles: different samples & adjustments



(a) Post-legalization categories, costs, and volume in states with both MCLs and RCLs



(b) Post-legalization volume and costs with different measure/sample adjustments

Patterns across state cannabis licensing metrics (I)

- **States that passed MCLs earlier have more license categories available and more within-category types/tiers, lower licensing costs, and greater volume of license issuance (Fig. 3).**
 - This finding also holds when adjusting sample (Fig. A1).
- E.g., the “early-movers” in state legalization (e.g., AK, CA, CO, & WA).
 - Each licenses medical and adult-use cannabis programs in a similar fashion or as an integrated market; none have VI mandates.
 - ME, OK, & OR are similar to the “early-movers” (in licensing metrics), though differ in certain aspects.
- A “restrictive” approach is taken by many states that only passed MCLs/RCLs more recently (e.g., AZ (adult-use), FL, ND, OH, & UT).
 - On average, these states offer fewer license categories, higher license cost, and lower issuance volume.
 - All cap issuance volume, half mandate VI, none offer tiered licenses, and until recently, none had passed RCLs.

▶ Fig.3

▶ Fig.A1

Patterns across state cannabis licensing metrics (II)

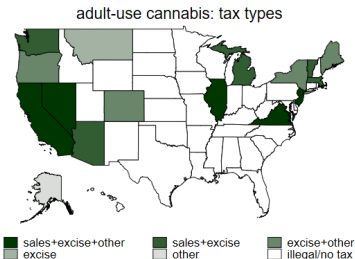
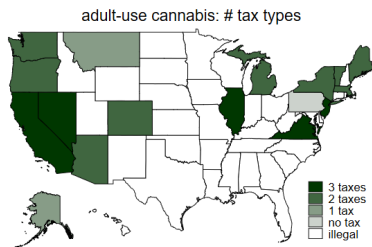
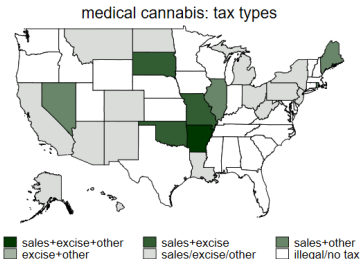
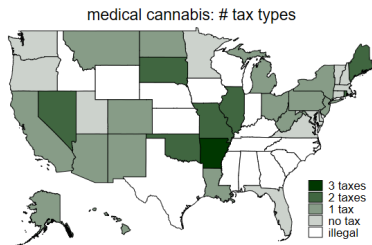
- Some states with both MCLs and RCLs couple restrictive medical cannabis licensing with broader adult-use licensing (e.g., IL & MA).
 - These states only mandate VI for medical, while offering more license categories, lower cost, and greater issuance volumes for adult-use.
 - Similar plans are proposed in NJ, NY, VT, & VA.
- We observe negative correlation between issuance volume and license cost, but don't find this to be statistically significant (Fig. 3 (b)).
 - High sample variance in both metrics makes relationships hard to discern.
 - We see excess demand for licenses in high cost states with issuance caps, so any volume-cost relationship is likely be driven by supply-side factors.

► Fig.3

Discussion and drivers of state licensing patterns

- We do not observe statistically significant associations between licensing policy and ideology or voting preference.
 - States that implemented MCLs recently lean conservative in ideology and Republican in voting preference.
 - Most states without MCLs (e.g., ID, IN, IA, TN, & WY) lean conservative and Republican.
- The literature points to the Ogden memorandum in October 2009 as possibly inducing more restrictive licensing approaches by states.
 - This memo instructed U.S. Attorneys in states with MCLs not to focus on prosecuting individuals/businesses in compliance with state law.
- Our results may be affected by local-level license issuance caps and municipality opt-outs, which can cause inefficient license allocations.
 - 21 of 36 states cap medical license issuance, vs 3 of 11 adult-use.
 - Municipality opt-outs create intra-state heterogeneity.

Figure A2: Cannabis-related taxes across states



Linkages between licensing and taxation (I)

- Half of states exempt medical cannabis from sales tax (common for medical products). However, most levy excise duties instead of (sometimes as a “special sales tax”) or on top of sales tax (Fig. A2).
- Tax rates on medical cannabis vary, but mostly do not exceed 15%. In contrast, adult-use tax exceeds 15% in most cases (& > 40% in WA)
 - **Adult-use cannabis is taxed as or more heavily than medical cannabis in all states with MCLs and RCLs.**
- **We observe that states opt for supply-side rationing of medical cannabis** (issuing a limited range/volume of high cost licenses) **and demand-side rationing of adult-use cannabis** (imposing high taxes).

▶ Fig.A2

Linkages between licensing and taxation (II)

- Non-retail price taxes exist on top/instead of basic taxes in 11 states.
- Linking with licensing, we find that **states that levy non-price excise duties tend to be those offering more licenses categories.**
 - Older markets levy excise duties by weight (e.g., AK, CA, & ME).
 - Newer markets do so by potency (e.g., IL at retail & NY at wholesale).
 - IL & NY also levy tax by product type (e.g. infused edibles versus flower).
- Two states with caps on license issuance (i.e., RI & WV) also engage in non-price taxation by levying a tax on the gross profits of retail outlets: this may reflect high market concentration in these states.
- Thus, the choice to impose non-retail price taxes could be influenced by regulatory capacity, interventionist appetite, or market structure.

Licensing policy changes over time

- **Regulatory decisions by state policymakers evolved over time**, particularly regarding vertical integration.
 - In 2018, RI increased fees for its three vertically-integrated licensees from \$5,000 to \$250,000 when plans to increase issuance volume failed.
 - In 2014, CO moved away from encouraging vertical integration by allowing its “70/30” rule to lapse.
 - In FL, both politicians and businesses have challenged and sought to end the state’s vertical integration mandate.
- **State policymakers can react to a common issue in differing ways:** e.g., an increase in indoor cannabis smoking.
 - OR & WA opted to restrict consumption in venues.
 - AK introduced an onsite consumption endorsement for existing licensees.
 - Other states (e.g. CA & MA) have introduced Hospitality licenses.

Conclusion: summary of key results

- States issue licenses in fewer categories, at higher cost, and in lesser quantities for medical cannabis than adult-use cannabis.
 - More states mandate VI for medical cannabis.
- States that implemented MCLs/RCLs longer ago tend to offer more license categories, licenses of lower cost, and greater issuance volume.
- States that implemented MCLs recently lean conservative and Republican, but there is no clear ideology-licensing relationship.
- A greater share of states engaged in non-retail price taxation of cannabis have complex licenses than states overall.

Additional appendix materials: contents

- Table A1: simple regression output - medical cannabis
- Table A2: simple regression output - adult-use cannabis
- Appendix B: comparison with alcohol and tobacco
- Appendix C: state profiles

Table A1: simple regression output - medical cannabis

Fig 3(a)	License categories (weighted)	Licensing cost (\$000s)	Issuance volume
Years since legalization	0.144** (0.05)	-4.283** (1.78)	61.144** (25.30)
N	33	33	33
R ²	0.25	0.07	0.33
Fig 3(b)	Issuance volume	Issuance volume (pop.-adjusted)	Issuance volume (inc. OK)
Licensing cost (\$000s)	-1.361 (0.85)	-0.313 (0.22)	-3.277 (2.18)
N	33	33	34
R ²	0.05	0.05	0.05
Fig A1(a)	License categories (weighted)	Licensing cost (\$000s)	Issuance volume
Years since legalization	0.316*** (0.08)	-8.294* (3.83)	101.124* (45.66)
N	11	11	11
R ²	0.60	0.43	0.33
Fig A1(b)	Issuance volume (pop.-adjusted)	Licensing cost (\$000s)	Issuance volume
Years since legalization	13.262*** (4.70)	-5.150*** (1.26)	13.596 (52.55)
N	33	32	34
R ²	0.33	0.26	0.00



Table A2: simple regression output - adult-use cannabis

Fig 3(a)	License categories (weighted)	Licensing cost (\$000s)	Issuance volume
Years since legalization	0.44 (0.27)	-14.148** (6.10)	172.307*** (48.93)
N	11	11	11
R ²	0.24	0.41	0.17
Fig 3(b)	Issuance volume	Issuance volume (pop.-adjusted)	
Licensing cost (\$000s)	-4.850 (2.76)	-1.844** (0.67)	
N	11	11	
R ²	0.07	0.19	
Fig A1(b)	Issuance volume (pop.-adjusted)	Licensing cost (\$000s)	Issuance volume
Years since legalization	46.716** (18.68)	-14.148** (6.10)	172.307*** (48.93)
N	11	11	11
R ²	0.25	0.41	0.17



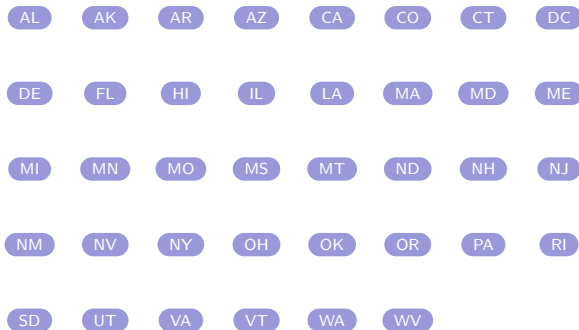
Appendix B (1/2): comparison with alcohol

- **We suggest that the regulatory treatment of cannabis is closer to alcohol (particularly distilled spirits) than tobacco.**
 - States with MCLs mandate licensing and tax adult-use sales heavily, as all do for alcohol businesses and most do for sales of spirits, respectively.
 - These policies have been found to often be motivated by similar harm reduction aims (Caulkins et al., 2015; Elder et al., 2010).
- Two key differences exist between regulation of cannabis and alcohol:
 - **State involvement:** there are 17 states with some form of monopoly over alcohol sales, but just one for cannabis (LA).
 - The monopoly-commercial market dichotomy is likely less stark for cannabis than for alcohol, given relative license issuance volumes.
 - **Differential taxation:** virtually all states tax spirits more heavily than beer, but only IL and NY tax higher potency cannabis more heavily.
 - Given these states legalized adult-use cannabis recently, differential taxation by product type may be a developing trend.

Appendix B (2/2): comparison with tobacco

- The comparison with treatment of tobacco is less salient, given the universally high degree of state involvement in cannabis licensing.
 - Alcohol had comprehensive licensing and taxation frameworks immediately post-prohibition (Levine and Reiner, 1991) but the tobacco control movement only gained momentum much later (Jacobson et al., 1997).
 - Many states still do not have mandatory licensing for retailers; others do not charge a license fee, and most do not cap issuance (Luke et al., 2016).
- These differences exist despite significant overlap in often cited harm minimization considerations and heavy taxation of both goods.
 - Differentiating factors: federal involvement in regulating each, relative degree of social acceptance, influence of the respective industries.

Appendix C: State profiles



- Summary tables for information shown in state profiles are provided in Appendix C of paper (Tables C1, C2 & C3).

State profile: Alabama (AL)



Alabama – AL

- In 2021.05, AL legalized medical cannabis, laying out the guidelines for a limited medical program to commence in 2022.¹⁵ Only topicals, tablets and other non-smokable forms of cannabis may be sold and consumed (edibles and vaporized flower are also banned), and there is a daily dosage cap of 50/75mg THC per patient per day.¹⁶ License fees and permissions are yet to be established, though the law sets bounds for annual fees between \$10,000-50,000. Home cultivation is not permitted.¹⁷ Recreational cannabis remains illegal in AL.
- AL's medical cannabis law states that 9% levy will be applicable to on retail sales of cannabis products; it is not yet clear if this is in place of or on top of state sales tax of 4%. Additionally, licensed individuals will be subject to a 'privilege tax', the burden of which will be calculated based on their net worth in AL in the previous tax year.
- The following types of license (and corresponding issuance quotas) are due to be available from 2022.09:
 - Integrated [5 licenses, each permitting 5 retail locations]
 - Cultivator [at least 4 licenses]
 - Secure Transporter [no quota specified]
 - Processor [4 licenses]
 - Dispensary [4 licenses, each permitting 3 locations]
 - Testing Laboratory [no quota specified]

State profile: Alaska (AK)



Alaska – AK

Tax

- AK treats both medical and recreational cannabis as adult-use for tax and licensing purposes. AK does not have a state sales tax, but levies an excise tax on wholesale transactions of cannabis at \$50/oz of mature flower, \$25/oz of immature flower, \$15/oz of trim, and \$1 per clone at the cultivator level.^{18,19}

Licensing

- AK licenses cannabis business through the Alaska Department of Commerce, Community, and Economic Development – Alcohol & Marijuana Control Office. All persons with direct or indirect financial interest regarding licensing must be AK residents.²⁰ There is no state-wide limit on the number of licenses, but local government can prohibit or limit the number of licenses awarded.²¹ As of 2021.05, AK had 266 active cultivation licenses and 161 active dispensary licenses.²² Home cultivation is permitted.²³
- Adult-use licensing fees:²⁴
 - Cultivation: 2 tiers of cultivation license
 - Limited [<500 sq. ft.]: \$1,000 application fee + \$1,000 initial license fee + \$1,400 license renewal fee (paid annually)
 - Standard: \$1,000 application fee + \$5,000 initial license fee + \$7,000 license renewal fee (paid annually)
 - Manufacturing: 2 types of manufacturing license
 - Product manufacturing facility license: \$1,000 application fee + \$5,000 initial license fee + \$7,000 license renewal fee (paid annually)
 - Concentrate manufacturing license: \$1,000 initial license fee + \$2,000 license renewal fee (paid annually)
 - Retail store license: \$1,000 application fee + \$5,000 license fee + \$7,000 license renewal fee (paid annually)
 - Onsite consumption endorsement (for licensed retail stores): \$1,000 application fee + \$2,000 endorsement fee
 - Testing facility license: \$1,000 application fee + \$1,000 initial license fee + \$5,000 license renewal fee (paid annually)

State profile: Arkansas (AR)

Arkansas – AR

Tax

- Medical cannabis sales are subject to the regular state sales tax of 6.5%, and an excise duty (called a “privilege tax”) of 4%, the latter of which is paid twice during the supply-chain: first, by dispensaries buying from cultivators (at wholesale price) and also by patients at the point of sale (at retail price).^{32,33} Recreational cannabis is not legal in AR.

Licensing

- The Arkansas Department of Finance and Administration Medical Marijuana Commission licenses AR’s medical cannabis program. AR mandates that majority equity holders (>60%) in licensed medical cannabis cultivators or dispensaries must have been residents of the state for at least 7 years. Applicants must not already hold equity in the type of business that they are applying for a license for (so, an individual with a share in an Arkansas dispensary may apply for a cultivation license, but not a dispensary license). AR has set a maximum of 8 cultivation licenses and 40 dispensary licenses to be issued in total.³⁴ Home cultivation is not permitted.³⁵
- Medical licensing fees:^{36,37}
 - Cultivation license: \$15,000 application fee (50% refundable) + \$100,000 initial permit fee + \$100,000 license fee (paid annually) + \$500,000 performance bond
 - Processor license: \$5,000 application fee + \$100,000 performance bond
 - Transporter license: \$5,000 application fee + \$100,000 performance bond
 - Dispensary license: \$7,500 application fee (50% refundable) + \$15,000 license fee + \$22,500 license renewal fee (paid annually) + \$100,000 performance bond

State profile: Arizona (AZ)

Arizona – AZ

Tax

- Medical cannabis sales are subject to a 6.6% sales tax (5.6% of which goes to the state, 1% to the city/county).²⁵ Adult-use cannabis sales are subject to this rate, plus an additional excise tax of 16%.²⁶

Licensing

- In AZ, vertically-integrated non-profit dispensary licensees are permitted to grow and sell medical cannabis. These businesses are licensed by the Arizona Department of Health Services.
- In 2020.11, voters in AZ passed Proposition 207 (the Smart and Safe Arizona Act) to legalize recreational cannabis (possession and home cultivation). The law allows for the operation of vertically-integrated “marijuana establishments”. The first round of adult-use licensing was limited to adult-use endorsements for existing licensed medical cannabis businesses, and was conducted in 2021.01. A further licensing round was conducted by lottery in 2021.04, taking the total number of licensed businesses to 143.²⁷
- Home cultivation is permitted for both medical (if more than 25 miles from an operating dispensary) and adult-use cannabis.²⁸ The total number of medical dispensaries and adult-use establishments permitted is pegged to the number of pharmacies operating in the state.²⁹
- Medical licensing fees:³⁰
 - Vertically-integrated dispensary license: \$5,000 (20% refundable) application fee + \$5,000 initial registration fee + \$1,000 registration renewal fee (paid annually)
- Adult-use licensing fees:³¹
 - Marijuana establishment license: \$25,000 initial license fee + \$5,000 license renewal fee [payment term unknown] + \$2,500 per cultivation or manufacturing site registered + \$2,500 for approval to operate (for proprietor) + \$50,000 capital requirement
 - Testing facility license: \$25,000 initial license fee + \$5,000 license renewal fee (time-frame paid not specified)

State profile: California (CA)

California – CA

Tax

- While all cannabis sales are nominally subject to a state sales tax of 7.25%, this does not apply to sales of medicinal products to qualified patients.³⁸ For both medical and recreational sales, an excise tax of \$9.25/oz of cannabis flower, \$2.75/oz of cannabis leaves and \$1.29/oz of fresh cannabis plant is levied on cultivators, and an excise tax of 15% is levied at the point of retail.^{39,40}

Licensing

- CA licenses cannabis businesses through 3 different purpose-built entities: the Bureau of Cannabis Control (a standalone entity), Manufactured Cannabis Safety Branch (part of the California Department of Public Health), and CalCannabis Cultivation Licensing (part of California Department of Food and Agriculture).⁴¹ As of 2021.05, plans to integrate these into a single entity, the Department of Cannabis Control, were underway. As of 2021.05, CA had 6,335 active cultivation licenses⁴² and 1,064 active retailer licenses⁴³ across both medical and adult-use cannabis. As data was not available for medical and adult-use licenses separately at the time of data collection, we apply a simple 50/50 split to total issuance volume to calculate medical and adult-use issuance separately. Home cultivation is permitted for both medical and adult-use cannabis.^{44,45}
- Cultivation, distribution, manufacturing and dispensary licenses are split between Type M (medical use) and Type A (adult-use).⁴⁶ Licenses are additionally categorized by a number or letter (such as the different Manufacturer licenses detailed below) but these numbers/letters themselves are not indicative of anything beyond coding purposes (in the manufacturer case, for the type of extraction methods used and the type of goods being produced).⁴⁷
- License fees are priced (tiered) according to the gross revenue of the business to be licensed (other than for cultivator licenses).⁴⁸ There is a 1-person limit on holding Medium tier cultivation licenses (across medical use and adult-use and across type splits) in effect until 2023; the mixed-light tier split in cultivation license types refers to how much artificial light the cultivator is using.⁴⁹
- Adult-use licensing fees (adult-use licensing regime shown here only, for brevity in exposition):^{50,51}
 - Vertically integrated (permits cultivation [$<10,000$ sq. ft.], distribution, manufacturing and retail)⁵²: Type 12 Microbusiness license: \$1,000 application fee (non-refundable) + \$5,000-\$300,000 license fee (paid annually, tiered by gross revenue)
 - Cultivation⁵³: 5 tiers of cultivation license (4 types: indoor/outdoor/mixed-light tier 1/mixed-light tier 2, plus 2 special licenses), ranging from:⁵⁴
 - Specialty Cottage Indoor [<500 sq. ft.] Cultivation: \$205 application fee (non-refundable) + \$1,830 license fee (paid annually)
 - Medium Indoor [10,001-22,000 sq. ft.] Cultivation: \$8,655 application fee (non-refundable) + \$77,905 license fee (paid annually)
 - Nursery (cloning/seed propagation) and Processor (trimming, drying, curing, grading, or packaging) licenses also available
 - Type 11/Type 13 Distributor license (unless engaging in transport only self-distribution): \$1,000 application fee (non-refundable) + \$1,500-\$240,000 license fee (paid annually, tiered by gross revenue).
 - Type 6/7/N/P/S Manufacturer license: \$1,000 (\$500 for Type S) application fee (non-refundable) + \$2,000-\$75,000 license fee (paid annually, tiered by gross revenue)⁵⁵
 - Type 9/Type 10 Retailer license: \$1,000 application fee (non-refundable) + \$2,500-\$96,000 license fee (paid annually, tiered by gross revenue).
 - Type 8 Testing Laboratory license: \$1,000 application fee (non-refundable) + \$3,000-\$112,000 license fee (paid annually, tiered by gross revenue).
 - Cannabis Event Organizer license: \$1,000 application fee (non-refundable) + \$3,000-\$20,000 license fee (paid annually, tiered by number of events planned).

State profile: Colorado (CO)

Colorado – CO

Tax

- Medical cannabis is subject to a 2.9% state sales tax.⁵⁶ CO exempts recreational cannabis transactions from regular sales tax, but levies a 15% sales tax on retail sales as well as a 15% excise duty (levied by weight using the quarterly “fair market rate”) levied on the first transfer of cannabis from a wholesaler to a processor or retailer.^{57,58}

Licensing

- CO licenses both medical and retail cannabis businesses through the Colorado Department of Revenue Marijuana Enforcement Division. Licensees are additionally required to seek a Business Operator license, and licenses for individual employees/owners are also mandated (fees for latter omitted here). As of 2021.07, CO had 1,225 active cultivation licenses⁵⁹ and 1,051 active dispensary licenses⁶⁰ across both medical and adult-use cannabis. Home cultivation is permitted for both medical and adult-use cannabis.^{61,62}
- Retail licensing fees (retail licensing regime shown here only, for brevity in exposition):⁶³
 - Cultivation: 6 tiers (5 classes and additional extended production) of license available
 - Retail Marijuana Cultivation Facility license: \$1,000 application fee + \$1,500 license fee + \$300 renewal application fee (paid annually) + [one of below] (paid annually)
 - Cultivation license renewal fee: Tier 1 [1-1,800 plants] \$1,500, Tier 2 [1,801-3,600 plants] \$2,300, Tier 3 [3,601-6,000 plants] \$3,000, Tier 4 [6,001-10,200 plants] \$4,500, Tier 5 [10,201-13,800 plants] \$6,500, Expanded production management [13,801+ plants] \$6,500 plus an additional \$800 for each class of 3,600 plants above Tier 5 allowance
 - Retail Marijuana Transporter license: \$1,000 application fee + \$4,400 license fee + \$300 renewal application fee (paid annually) + \$4,400 license renewal fee (paid annually)
 - Retail Marijuana Products Manufacturer license: \$5,000 application fee + \$1,500 license fee + \$300 renewal application fee (paid annually) + \$1,500 license renewal fee (paid annually)
 - Retail Marijuana Store license: \$5,000 application fee + \$2,000 license fee + \$300 renewal application fee (paid annually) + \$1,500 license renewal fee (paid annually)
 - Retail Marijuana Testing Facility license: \$1,000 application fee + \$1,500 license fee + \$300 renewal application fee (paid annually) + \$1,500 license renewal fee (paid annually)
 - Marijuana R&D facility license: \$1,000 application fee + \$1,500 license fee + \$300 renewal application fee (paid annually) + \$1,500 license renewal fee (paid annually) [medical only]
 - Hospitality: 2 types of license available
 - Marijuana Hospitality Business license: \$1,000 application fee + \$1,000 license fee (paid annually)
 - Retail Marijuana Hospitality and Sales Business license: \$5,000 application fee + \$2,000 license fee (paid annually)
 - Retail Marijuana Business Operator license: \$1,000 application fee + \$2,200 license fee + \$300 renewal application fee (paid annually) + \$2,200 license renewal fee (paid annually)

State profile: Connecticut (CT)

Connecticut – CT

Tax

- CT does not levy local or state sales taxes, nor is there excise duty levied on lawful possession or sale of medical cannabis (applies to licensed producers, dispensaries and patients).⁶⁴ Recreational cannabis was legalized in 2021.07, after our sample date.

Licensing

- CT licenses its medical cannabis program through the Connecticut State Department of Consumer Protection. There is no residency restrictions on holding licenses for out-of-state persons. CT has set a maximum limit of 10 producer licenses to be issued in total, while there is no statutory limit on dispensary licenses.⁶⁵ As of 2021.05, CT had 4 active producer licenses and 18 active dispensary facility licenses.⁶⁶ Home cultivation was not permitted at the time of our sample date, but was passed in 2021.10.⁶⁷
- Medical licensing fees:^{68,69}
 - Medical marijuana producer license: \$25,000 application fee (non-refundable) + \$75,000 registration fee (paid annually)
 - Medical marijuana dispensary facility license: \$5,000 application fee (non-refundable) + \$5,000 registration fee (paid annually)

State profile: District of Columbia (DC)

District of Columbia – DC

Tax

- Medical cannabis is subject only to 6% district sales tax (there are no local sales taxes).⁷⁰ Recreational cannabis is legal, but not to be sold commercially; the market for it operates in a grey area given that only transfers are permitted by law.^{71,72}

Licensing

- DC licenses its medical cannabis program through the DC Alcoholic Beverage Regulation Administration. Residents must be majority equity holders (>60%) in licensed medical cannabis cultivators or dispensaries.⁷³ DC limits license issuance through rulemaking, and has current limits of 10 cultivation licenses, 7 dispensary licenses and 2 testing facility licenses.⁷⁴ DC requires owners, directors and employees of medical cannabis businesses to also be licensed individually (fees omitted here). Home cultivation is permitted.⁷⁵
- Medical licensing fees:^{76,77}
 - Cultivation center license: \$8,000 application fee + \$11,000 renewal fee (paid annually)
 - Dispensary license: \$8,000 application fee + \$16,000 renewal fee (paid annually)
 - Testing facility license: \$3,500 application fee + \$7,500 renewal fee (paid annually)

State profile: Delaware (DE)



Delaware – DE

Tax

- There are no local or state sales taxes in DE, nor does DE levy a state-level excise duty on medical cannabis.⁷⁸ Recreational cannabis is not legal in DE.

Licensing

- In DE, the Delaware Department of Health and Social Services Office of Medical Marijuana licenses vertically-integrated not-for-profit compassion centers are permitted to grow, manufacture and sell medical cannabis products. As of 2021.05, DE has 6 active compassion center licenses.⁷⁹ Though there is no legislated cap on license issuance, in practice this is pegged to the number of registered patients.⁸⁰ Home cultivation is not permitted.⁸¹
- Medical licensing fees:⁸²
 - Compassion center license: \$5,000 application fee (non-refundable) + \$40,000 certification fee + \$40,000 certification renewal fee (paid every 2 years)
 - Safety Compliance Facility: \$40,000 registration fee + \$40,000 registration renewal fee (paid every 2 years)

State profile: Florida (FL)



Florida – FL

Tax

- Medical cannabis sales are exempt from state sales tax and not subject to a state-level excise duty.⁸³ Recreational cannabis is not legal in FL.

Licensing

- In FL, the Florida Department of Health Office of Medical Marijuana Use (OMMU) licenses vertically-integrated Medical Marijuana Treatment Centers (MMTCs) to grow, transport and sell cannabis products. FL's medical cannabis law ties the number of total MMTC licenses to be issued and the number of dispensaries each licensee may open to the number of registered medical cannabis patients in the state.⁸⁴ As of 2021.05, FL has 22 active MMTCs licenses, and patient numbers suggest 15 further will be issued.⁸⁵ Home cultivation is not permitted.
- Medical licensing fees:
 - MMTC license: \$60,830⁸⁶ application and license fee + \$60,063 license renewal fee (paid annually)⁸⁷ + \$5,000,000 performance bond⁸⁸ + variable food establishment permit fees (if selling edibles, paid annually)⁸⁹

State profile: Hawaii (HI)



Hawaii – HI

Tax

- Medical cannabis is taxed at the state general excise tax rate of 4% (4.5% on Oahu).⁹⁰ Recreational cannabis is not legal in HI.

Licensing

- In HI, the Hawaii State Department of Health licenses vertically-integrated dispensaries are permitted to grow, manufacture, transport and sell medical cannabis products. Each dispensary is permitted to have up to 2 cultivation locations and 2 dispensing locations.⁹¹ HI residents must be majority equity holders (>51%) in licensed medical cannabis firms.⁹² The University of Hawaii is permitted to possess cannabis for research purposes related to the efficacy of medical cannabis.⁹³ HI limits the number of dispensary licenses to be issued to a total of 8.⁹⁴ Home cultivation is permitted.⁹⁵
- Medical licensing fees:⁹⁶
 - Vertically-integrated dispensary license: \$5,000 application fee + \$75,000 license fee + \$50,000 license renewal fee (paid annually)
 - Testing facility license: \$3,000 certification fee [certification period unknown]⁹⁷

State profile: Illinois (IL)

Illinois – IL

Tax

- At the point of sale, medical cannabis is taxed at the pharmaceutical products reduced sales tax rate of 1% (vs 6.25% general rate).⁹⁸ A 7% excise tax is also levied on cultivators at wholesale value.⁹⁹
- Recreational cannabis products are additionally taxed by potency: 10% tax on cannabis flower or products with less than 35% THC; 20% tax on products infused with cannabis, such as edible products; 25% tax on any product with a THC concentration higher than 35%. They are also subject to the 6.25% state sales tax and local excise duties of up to 3%.¹⁰⁰

Licensing

- In IL, the Illinois Department of Financial and Professional Regulation licenses the state's medical cannabis and adult-use cannabis programs. IL limits the total number of medical cannabis cultivation centres at 22 and dispensaries at 60.¹⁰¹ IL limits the total number of adult-use cultivation center licenses to 30¹⁰², craft grower licenses to 160¹⁰³, and dispensing organization licenses to 500¹⁰⁴. Home cultivation is permitted for medical cannabis, but not adult-use.¹⁰⁵
- Licensed medical cannabis cultivation and dispensary businesses were able to obtain “early” Adult Use licenses rather than going through the conventional Adult Use licensing process; these ran until 2021.03. Social Equity applicants seeking to operate businesses under the Adult Use Cannabis Program are entitled to a 50% reduction on application fees and an exemption for surety bonds.¹⁰⁶ Community college vocational training licenses are zero cost, and permit cultivation for the purpose of training students.¹⁰⁷
- Medical licensing fees:
 - Cultivation center permit: \$25,000 application fee (non-refundable) + \$200,000 permit fee + \$100,000 permit renewal fee (paid annually) + \$2,000,000 surety bond^{108,109}
 - Medical cannabis dispensary: \$30,000 registration fee (non-refundable)¹¹⁰ + \$25,000 registration renewal fee (paid annually)¹¹¹ + \$50,000 surety bond¹¹²
- Recreational licensing fees:¹¹³
 - Cultivation: 2 types of cultivation license:
 - Adult Use Cultivation Center License: \$25,000 application fee (non-refundable) + \$100,000 registration fee (paid annually) + \$100,000 proof of liquid assets
 - Adult Use Cannabis Craft Grower [<5,000 sq. ft. initially, potentially extendable to 14,000 sq. ft.] License: \$5,000 application fee + \$40,000 license fee (non-refundable, paid annually) + \$20,000 proof of liquid assets
 - Transporting organization license: \$5,000 application fee (non-refundable) + \$10,000 license fee (non-refundable, paid annually)
 - Adult Use Cannabis Infuser License: \$5,000 application fee (non-refundable) + \$20,000 license fee (non-refundable, paid annually)
 - Adult Use Dispensing Organization License: \$5,000 application fee (non-refundable) + \$60,000 license fee (paid every 2 years) + \$50,000 surety bond
 - Community College Cannabis Vocational Pilot Program license [<50 plants for training purposes]: no cost
 - Laboratory approval (both medical and Adult Use): no cost¹¹⁴

State profile: Louisiana (LA)

Louisiana – LA



Tax

- Medical cannabis is exempt from state sales tax but is subject to a 7% excise duty.^{115,116} Recreational cannabis is not legal in LA.

Licensing

- In LA, the Louisiana Department of Agriculture and Forestry licenses medical cannabis producers and the Louisiana Board of Pharmacy licenses pharmacies to dispense cannabis. By law, only the Louisiana State University Agricultural Center and the Southern University Agricultural Center have the right to be (and have been) licensed to cultivate medical cannabis.¹¹⁷ The universities partner with private businesses to manufacture cannabis products in house.¹¹⁸ As of 2021.05, LA has licensed 9 pharmacies (one per region) of a statutory limit of 10 permits in total.¹¹⁹ Home cultivation is not permitted.
- Medical licensing fees:¹²⁰
 - Marijuana Pharmacy Permit: \$450 application fee + \$100,000 escrow/surety bond

State profile: Massachusetts (MA)

Massachusetts – MA

Tax

- Medical cannabis is exempt from the state sales tax (there are no local sales taxes).¹³⁹
- Retail sales of cannabis are subject to a state sales tax of 6.25% and an excise duty of 10.75%.¹⁴⁰

Licensing

- In MA, the Commonwealth of Massachusetts Cannabis Control Commission licenses medical and adult-use cannabis businesses. There is no residency requirement for medical or adult-use licenses (except the craft cooperative license).¹⁴¹ As of 2021.07, MA had 269 active adult-use cultivation licensees and 363 active adult-use retailer licensees.¹⁴² MTC license figures are unknown, but were reportedly 76 as of 2021.02.¹⁴³ Home cultivation is permitted for both medical and adult-use.¹⁴⁴
- In MA, vertically-integrated Marijuana Treatment Centers (MTCs) are responsible for dispensing, cultivating, and processing cannabis for medical use. MA residents may cultivate up to 6 plants per person for personal use (max 12 per household).
- Vertical integration is not mandated for adult-use businesses. For Social Equity applicants, MA charges no application fees and gives a 50% reduction in license fees. Microbusiness certification is available for small-scale cultivators/manufacturers with only 1 license which also permits a 50% reduction in license fees. The Craft Marijuana Cooperative license permits both cultivation and manufacturing: cultivation is limited to a total of 100,000 sq. ft. across many locations, manufacturing in up to 3 locations.
- Medical licensing fees:
 - MTC license: \$3,500 application fee¹⁴⁵ + \$50,000 license fee (paid annually)¹⁴⁶ + \$500,000 capital requirement
- Adult-use licensing fees:¹⁴⁷
 - Cultivation: 11 tiers of Marijuana Cultivator license, split by indoor/outdoor (indoor shown here, application and license fees cost 2x as much as outdoor), ranging from:¹⁴⁸
 - Tier 1 [<5,000 sq. ft.] indoor: \$200 application fee + \$1,250 license fee (paid annually), to Tier 11 [<100,000 sq. ft.] indoor: \$2,000 application fee + \$50,000 license fee (paid annually)
 - Craft marijuana cooperative license: same applicable fees as Marijuana Cultivator license plus additional \$200+\$1,250 application and license fee for each cultivation site above 6 locations.
 - Distribution: 3 types of distribution license:
 - Third-party Transporter license: \$1,500 application fee + \$5,000 license fee (paid annually)
 - Existing Licensee Transporter license: \$1,000 application fee + \$5,000 license fee (paid annually)
 - Marijuana Delivery-only license: \$1,500 application fee + \$10,000 license fee (paid annually)
 - Marijuana Product Manufacturing license: \$1,500 application fee + \$10,000 license fee (paid annually)
 - Marijuana Retailer (brick-and-mortar) license: \$1,500 application fee + \$10,000 license fee (paid annually)
 - Independent Testing Laboratory license: \$1,500 application fee + \$10,000 license fee (paid annually)
 - Marijuana Research Facility license: \$300 application fee + \$1,000 license fee (paid annually)
 - Social Consumption Establishment license: \$1,500 application fee + \$10,000 license fee (paid annually)

State profile: Maryland (MD)

Maryland – MD

Tax

- Medical cannabis is not subject to the state sales tax, nor are additional excise duties levied (there are no local sales taxes).¹³² Recreational cannabis is not legal in MD.

Licensing

- In MD, the Maryland Medical Cannabis Commission licenses the state's medical cannabis program. MD limits vertical integration, mandating that a person or entity may have an interest in no more than 1 grower, 1 processor and 4 dispensary licensees.¹³³ MD requires individuals associated with licensed cannabis businesses to register as agents and pay one-time agent fees of \$100-200.¹³⁴ MD issues licenses for an initial 6 year period, renewable thereafter in 4 year terms, though license fees are charged annually, and charges an additional fee for manufacturers and dispensaries selling edible cannabis products. As of 2021.05, MD has 15 pre-approved or active licensed cultivators¹³⁵ and 102 pre-approved or active licensed dispensaries¹³⁶. Home cultivation is not permitted.¹³⁷
- Medical licensing fees:¹³⁸
 - License as Grower and Dispensary: \$11,000 application fee + \$165,000 license fee (paid annually)
 - License as Grower-only: \$6,000 application fee + \$125,000 license fee (paid annually)
 - Licensed Processor: \$6,000 application fee + \$40,000 license fee (paid annually)
 - Licensed Dispensary: \$5,000 application fee + \$40,000 license fee (paid annually)
 - Independent Testing Laboratory: \$100 registration fee + \$100 renewal fee (paid annually)
 - Academic research institution license: \$1,000 registration fee + \$500 renewal fee (paid per subsequent/modified project)

State profile: Maine (ME)

Maine – ME

Tax

- Medical cannabis sales are subject to the normal state sales tax of 5.5%.¹²¹ An excise duty is also levied on cultivators at \$335/lb flower; \$94/lb trim; \$1.50 per immature plant or seedling; \$0.30 per seed.¹²²
- Recreational sales are also subject to the above excise duty, plus an excise duty levied at retail of 10% (but not state sales tax).

Licensing

- In ME, the Maine Department of Administrative and Financial Services Office of Marijuana Policy licenses the state's medical and adult-use cannabis programs. ME's medical cannabis program operates through both caregiver and vertically-integrated dispensary models; qualifying patients may nominate a primary caregiver or a vertically-integrated dispensary to cultivate, manufacture and dispense cannabis on their behalf. As of 2021.05, ME has 5 active medical cannabis vertically-integrated dispensary licenses.¹²³ As of 2021.07, ME has 222 active or conditional adult-use cultivation licenses and 232 active or conditional marijuana store licenses.¹²⁴ Home cultivation is permitted for both medical and adult-use.¹²⁵
- Medical licensing fees:¹²⁶
 - Primary caregiver
 - Plant-count-based license application fee: \$240 per 6 mature/12 immature plants (up to 5 times this amount)
 - Plant-canopy-based license application fee: \$240 per 6 mature/12 immature plants (for amounts above plant-count-based limit, max 500 sq. ft.)
 - Vertically-integrated dispensary registration certificate: \$12,000 registration fee (\$11,000 refundable, paid annually)¹²⁷
 - Manufacturing facility registration:¹²⁸
 - Tier 1 (<40 lbs cannabis allowance): \$150 registration fee (non-refundable, paid annually)
 - Tier 2 (<200lbs cannabis allowance): \$250 registration fee (non-refundable, paid annually)
- Recreational licensing fees:¹²⁹
 - Cultivation: 4 tiers of cultivation facility license, split by indoor/outdoor (indoor costs 2x as much), ranging from:^{130,131}
 - Tier 1 (<500 sq. ft.] indoor cultivation facility license: \$100 application fee + \$500 license fee (paid annually) [also paid on a per plant basis at Tier 1 level only]
 - to Tier 4 [<20,000 sq. ft.] indoor cultivation facility license: \$500 application fee + \$30,000 license fee (paid annually) [canopy under Tier 4 can be extended for 33% increase in fees]
 - Nursery cultivation license (may only sell immature plants) also available
 - Products manufacturing facility license: \$250 application fee + \$2,500 license fee (paid annually)
 - Marijuana store license: \$250 application fee + \$2,500 license fee (paid annually)
 - Testing: 2 types of testing license:
 - Testing facility license: \$250 application fee + \$1,000 license fee (paid annually)
 - Sample collector license: \$100 application fee + \$250 license fee (paid annually)

State profile: Michigan (MI)

Michigan – MI

Tax

- Medical cannabis is subject only to 6% state sales tax (there are no local sales taxes).¹⁴⁹ Recreational cannabis is subject to 6% sales tax and a 10% retail excise duty.¹⁵⁰

Licensing

- In MI, the Michigan Marijuana Regulatory Agency licenses medical and adult-use cannabis businesses. As of 2021.05, MI had 948 active cultivation licenses and 732 active retailer licenses across both medical and adult-use cannabis.¹⁵¹ Home cultivation is permitted for both medical and adult-use.¹⁵²
- Uniquely, MI sets cultivation license renewal fees depending on weight of processed cannabis.¹⁵³ Fees for Social Equity program participants can be waived up to 75% for adult-use (not medical) licenses.¹⁵⁴ MI issues vertically-integrated licenses to microbusinesses only, who are permitted to cultivate, process and dispense cannabis.
- Recreational licensing fees (recreational licensing regime shown here only, for brevity in exposition):^{155,156}
 - Marijuana Microbusiness [<150 plants] license: \$6,000 application fee (non-refundable) + \$8,000 initial license fee + \$6,000-10,000 license renewal fee (contingent on weight processed, paid annually)
 - Cultivation: 4 tiers (3 classes plus additional Excess Marihuana Grower license¹⁵⁷), ranging from:
 - Class A [<500 plants] Marihuana Grower license: \$6,000 application fee (non-refundable) + \$4,000 initial license fee + \$3,000-5,000 license renewal fee (contingent on weight processed, paid annually)
 - to Class C [<1,500 plants] Marihuana Grower license: \$6,000 application fee (non-refundable) + \$40,000 initial license fee (paid annually) + \$30,000-50,000 license renewal fee (contingent on weight processed, paid annually)
 - plus Excess Marihuana Grower license: \$40,000 license fee + \$30,000-50,000 license renewal fee (paid annually)
 - Marihuana Secure Transporter license: \$6,000 application fee (non-refundable) + \$25,000 initial license fee + \$20,000-30,000 license renewal fee (contingent on weight processed, paid annually)
 - Marihuana Processor license: \$6,000 application fee (non-refundable) + \$40,000 initial license fee + \$30,000-50,000 license renewal fee (contingent on weight processed, paid annually)
 - Marihuana Retailer license: \$6,000 application fee (non-refundable) + \$25,000 initial license fee + \$20,000-30,000 license renewal fee (contingent on weight processed, paid annually)
 - Marihuana Safety Compliance Facility license: \$6,000 application fee (non-refundable) + \$25,000 initial license fee + \$20,000-30,000 license renewal fee (contingent on weight processed, paid annually)
 - Marijuana Event Organizer license: \$6,000 application fee (non-refundable) + \$1,000 license fee (paid annually)
 - Designated Consumption Establishment license: \$6,000 application fee (non-refundable) + \$1,000 license fee (paid annually)

State profile: Minnesota (MN)

Minnesota – MN

Tax

- Medical cannabis is exempt from the state sales tax (though local taxes may apply).¹⁵⁸ Recreational cannabis is not legal in MN.

Licensing

- In MN, the Minnesota Department of Health Office of Medical Cannabis licenses medical cannabis businesses. MN law stipulates registration of exactly two vertically-integrated producers, which are responsible for cultivation, manufacturing, transportation, and dispensing medical cannabis; both companies initially licensed in 2014 are still licensees, and operate multiple dispensaries.¹⁵⁹ Home cultivation is not permitted.¹⁶⁰
- Medical licensing fees:
 - Manufacturer license: \$20,000 application fee (non-refundable)¹⁶¹ + \$75,000-100,000 oversight fee (paid annually)¹⁶²
 - Laboratory Approval: licensing possible by state to permit direct contracting with manufacturers¹⁶³

State profile: Missouri (MO)

Missouri – MO

Tax

- Medical cannabis is subject to the state sales tax of 4.225% and an excise duty of 4% (local taxes may also apply).¹⁶⁷ Recreational cannabis is not legal in MO.

Licensing

- In MO, the Missouri Department of Health and Senior Services licenses medical cannabis businesses. As of 2021.07, MO had 23 active cultivation licenses and 132 active dispensary licenses.¹⁶⁸ Home cultivation is permitted.¹⁶⁹
- Medical licensing fees:¹⁷⁰
 - Medical marijuana cultivating facility license: \$10,000 application fee (non-refundable) + \$25,000 license fee (paid annually) + \$5,000 license renewal fee (non-refundable, paid every 3 years)
 - Medical marijuana-infused manufacturing facility license: \$6,000 application fee (non-refundable) + \$10,000 license fee (paid annually) + \$3,000 license renewal fee (non-refundable, paid every 3 years)
 - Medical marijuana dispensary facility license: \$6,000 application fee (non-refundable) + \$10,000 license fee (paid annually) + \$3,000 license renewal fee (non-refundable, paid every 3 years)

State profile: Mississippi (MS)



Mississippi – MS

- In 2020.11, voters in MS passed Initiative 65 to legalize medical cannabis.¹⁶⁴ The Initiative detailed that cannabis would be available for named patients on doctor's recommendation with one of a set of predefined debilitating conditions. In 2021.05, the state supreme court struck down Initiative 65, the first time a voter-passed legal cannabis ballot had been voided.¹⁶⁵ As of 2021.10, legislative solutions to medical cannabis legalization are reportedly being discussed.¹⁶⁶ Recreational cannabis is not legal in MS.

State profile: Montana (MT)

Montana – MT

Tax

- Medical cannabis is subject only to a 2% excise tax levied at retail (MT has no state or local sales taxes outside of resort taxes).¹⁷¹
- In 2020.11, voters in MT passed Initiative 190 to legalize recreational cannabis.¹⁷² The measure would create a wholesale market and outlines licensing and regulation for cultivation, testing, transportation and sale.¹⁷³ A 20% excise tax on recreational cannabis levied at retail is also included.

Licensing

- In MT, the Montana Department of Public Health and Human Services licensed medical cannabis businesses until legislation was passed moving control to the Montana Department of Revenue, effective 2021.07. MT licenses vertically-integrated providers and does not permit wholesaling/processing transactions between providers; hence, each provider is required to have at least one cultivation site and one dispensary location. Fees are charged based on the different components of the overall vertically-integrated licensure, but these license components are not available as separate licenses. As of 2021.05, MT had 281 approved vertically-integrated provider licensees.¹⁷⁴ Home cultivation is permitted.¹⁷⁵
- Medical licensing fees:¹⁷⁶
 - Vertically-integrated provider license components:
 - Cultivation (Provider): 10 tiers of Canopy License, with fees ranging from: \$500 for micro [total <250 sq. ft. at one location] to \$20,000 for tier 9 [total <20,000 sq. ft. across 6 locations] (paid annually)¹⁷⁷ + a Location license for each grow site
 - Manufacturing Location (MIPP) License: \$500 per manufacturing location (paid annually) + \$100 Chemical Manufacturing Endorsement (paid annually)
 - Dispensary: 4 tiers of ranging from: \$500 for 1 location, to \$100,000 for 6+ locations (paid annually)
 - Laboratory license: \$2,000 application and license fee (non-refundable, paid annually)¹⁷⁸
- MT's recreational marijuana program Initiative 190 is forthcoming, and limited to existing licensed medical establishments for the first year of the program; licenses are set to be available from 2021.10.¹⁷⁹ Licensing is limited to residents, and is set to include:
 - Vertically-integrated retail licenses: adult-use provider license and adult-use cannabis-infused products provider (permitting cultivation, processing, transportation and sale)
 - Cultivation: 10 tiers of canopy license [ranging from 1,000 sq. ft. to 30,000 sq. ft.]
 - Retail license: adult-use dispensary license
 - Testing laboratory license

State profile: North Dakota (ND)



North Dakota – ND

Tax

- Medical cannabis is subject to the state sales tax of 5%.²¹⁰ Recreational cannabis is not legal in ND.

Licensing

- In ND, the North Dakota Department of Health Division of Medical Marijuana licenses compassion centers to either cultivate and manufacture or dispense cannabis. By law, there are no more than 2 compassion centers with the sole purpose of cultivation/manufacturing and no more than 8 with the sole purpose of operating as a dispensary.²¹¹ Separate manufacturing licenses are not issued. Cultivation/manufacturing licensees may also conduct research on 50 plants not counted towards their capacity limit. Home cultivation is not permitted.²¹²
- Medical licensing fees:²¹³
 - Compassion center manufacturing facility license: \$5,000 application fee + \$110,000 certification fee (payable every 2 years) + \$10,000 additional certification fee for every 500 plants above 1,000 (payable every 2 years)
 - Compassion center dispensary license: \$5,000 application fee + \$90,000 certification fee (payable every 2 years)

State profile: New Hampshire (NH)



New Hampshire – NH

Tax

- NH has no state or local sales taxes, nor is a state-level excise duty levied on medical cannabis.¹⁸⁷ Recreational cannabis is not legal in NH.

Licensing

- In NH, the New Hampshire Department of Health and Human Services Division of Public Health Services licenses vertically-integrated alternative treatment centers (ATCs) to grow, process and dispense medical cannabis. NH has set a statutory limit of 4 ATC licenses to be issued, with each ATC able to open up to 2 dispensaries each, contingent on regional demand.¹⁸⁸ Home cultivation is not permitted.¹⁸⁹
- Medical licensing fees:¹⁹⁰
 - ATC license: \$3,000 application fee (non-refundable), \$20,000 selection fee + [variable program expenses fee, based on program expenses and amount of cannabis dispensed] (paid annually)

State profile: New Jersey (NJ)

New Jersey – NJ



Tax

- Medical cannabis sales are subject to a special state sales tax rate of 4%, less than the 6.625% state-wide rate; this is planned to taper to 0% by 2022.07.¹⁹¹
- In 2020.11, voters in NJ voted for Public Question 1 to legalize adult-use (recreational) cannabis.¹⁹² The measure says adult-use cannabis sales will be regulated by the state's Cannabis Regulatory Commission (which already administers the medical cannabis program) and will be subject to the state sales tax of 6.625%.¹⁹³ Adult-use sales will also be subject to a Social Equity Excise Fee levied at wholesale at 0.33% of the average retail price per ounce for the first 9 months, then on a sliding scale from \$10-\$60 per ounce, depending on the average state-wide retail price for cannabis. Local excise taxes of 1-2% may be also be levied and can be levied multiple times at different points in the supply chain (on cultivators, manufactures, retailers [2%] and wholesalers [1%]).¹⁹⁴

Licensing

- In NJ, the New Jersey Department of Health Division of Medicinal Marijuana licensed medical cannabis businesses until new recreational cannabis laws passed in 2021.02 created a New Jersey Cannabis Regulatory Commission to license both medical and recreational cannabis businesses. NJ licenses vertically-integrated adult treatment centers (ATCs) to grow, process and dispense medical cannabis at multiple locations per licensee (locations are competitively bid for). As at 2021.05, NJ had 10 active ATC licenses with one location each and was soliciting applications from existing licensees for up to 24 further locations.¹⁹⁵ Home cultivation is not permitted.¹⁹⁶
- Medical licensing fees:¹⁹⁷
 - ATC license: \$20,000 application fee (90% refundable)
- Recreational cannabis laws were passed in 2021.02, and as of 2021.05, the full set of regulations for the industry were expected to be finalized in the coming month(s).¹⁹⁸ The following license types are expected for the recreational cannabis industry:¹⁹⁹

◦ Cultivator	◦ Distributor
◦ Manufacturer	◦ Retailer
◦ Wholesaler	◦ Delivery

State profile: New Mexico (NM)

New Mexico – NM

Tax

- Medical cannabis sales are subject to 5.125% state sales tax.²⁰⁰ Recreational cannabis was legalized in 2021.06, after our sample date.²⁰¹

Licensing

- In NM, the New Mexico Department of Health Medical Cannabis Program licenses vertically-integrated non-profit producers (LNPP) to cultivate distribute, manufacture and dispense cannabis. In addition to commercial production, NM issues personal (<4 mature female + <12 other plants) cultivation licenses for \$30 (paid annually). As of 2021.05, NM had 122 active LNPP licences.²⁰² Home cultivation is permitted.²⁰³
- Medical licensing fees:²⁰⁴
 - LNPP [max <1,750 plants, with 500 plant extension possible from mid-2021] license: \$10,000 application fee (\$9,000 refundable) + \$40,000 base license fee for first 500 plants (paid annually) + \$5,000 additional license fee for each increment of 50 plants from 500-1,000 plants (paid annually) + \$6,000 additional license fee for every 50 plants above 1,000 (paid annually)
 - Cannabis courier license: \$1,500 application fee (non-refundable, payable annually)
 - Cannabis manufacturer license: \$5,000 application fee (non-refundable, payable annually)
 - Cannabis testing facility license: \$2,200 application fee (non-refundable, payable annually)

State profile: Nevada (NV)



Nevada – NV

Tax

- Medical cannabis sales are subject to state sales tax of 6.85% (local taxes may also apply).¹⁸⁰ An excise tax of 15% is levied on cultivators at semi-annually calculated Fair Market Value at wholesale prices.^{181,182} Recreational cannabis sales are subject to the above, plus an excise duty of 10% (local taxes may also apply).¹⁸³

Licensing

- In NV, the Nevada Cannabis Compliance Board licenses medical and recreational cannabis businesses. NV allows for dual licensees – i.e. holders of both medical and recreational licenses – to be co-located at the same address. As of 2021.05, NV had 310 active cultivation licenses and 147 active dispensary licenses across both medical and recreational cannabis; of these, 150 cultivation licensees and 66 dispensaries were dual licensees.¹⁸⁴ Home cultivation is permitted for medical, and adult-use (if more than 25 miles from a dispensary).¹⁸⁵
- Recreational licensing fees (recreational licensing regime shown here only, for brevity in exposition):¹⁸⁶
 - Cultivation license: \$5,000 application fee (non-refundable) + \$30,000 license fee + \$10,000 renewal fee (paid annually)
 - Distributor license: \$5,000 application fee (non-refundable) + \$15,000 license fee + \$5,000 renewal fee (paid annually)
 - Production license: \$5,000 application fee (non-refundable) + \$10,000 license fee + \$3,300 renewal fee (paid annually)
 - Dispensary license: \$5,000 application fee (non-refundable) + \$20,000 license fee + \$6,600 renewal fee (paid annually)
 - Laboratory license: \$5,000 application fee (non-refundable) + \$15,000 license fee + \$5,000 renewal fee (paid annually)

State profile: New York (NY)

New York – NY

Tax

- Medical cannabis is not subject to state sales tax, but a 7% excise tax is levied at retail.²⁰⁵
- In 2021.03, NY passed a law expanding access to medical cannabis and legalizing adult-use cannabis, the Marijuana Regulation and Taxation Act.²⁰⁶ Adult-use cannabis is not subject to state sales tax, but a 9% state excise tax and a 4% local excise tax (mandated, not optional; this is effectively a 13% tax but the revenue streams are split between the state and locality) will be levied on adult-use cannabis sales at the point of retail, in addition to a novel tiered tax structure on the THC potency of products per milligram levied on distributors at wholesale: flower will be taxed at \$0.005 per mg, concentrate at \$0.008 per mg, and edible as \$0.03 per mg.

Licensing

- In NY, the New York State Department of Health Medical Marijuana Program currently licenses medical cannabis businesses, but the law passed in 2021.03 will lead to the creation of an Office of Cannabis Management governed by a Cannabis Control Board to license both medical and adult-use cannabis. NY currently licenses vertically-integrated Registered Organizations to cultivate, manufacture and dispense medical cannabis. In the first and only registration period so far, 10 businesses have so far been licensed and are permitted to open up to 8 dispensaries each; this was increased from 4 previously.²⁰⁷ The number of registered organizations permitted is limited to how well the board considers geographic areas are served. Home cultivation is permitted for both medical and adult-use cannabis.
- Medical licensing fees:²⁰⁸
 - Registered Organization license: \$10,000 application fee (non-refundable) + \$200,000 registration fee (registration lasts 2 years).
- Under the adult-use cannabis legislation, vertical integration is forbidden, as persons with an ownership interest in cultivator or processor licensees may not maintain an ownership interest in dispensary licensees. The Act mandates the creation of an Office of Cannabis Management to oversee regulation of the adult-use industry, and outlined the following license types:²⁰⁹

○ Cultivators	○ Retailers
○ Processors	○ Delivery
○ Cooperatives and Microbusiness	○ On-site consumption
○ Distributors (wholesale)	○ Nursery
○ Laboratories	○ Research

State profile: Ohio (OH)

Ohio – OH

Tax

- Medical cannabis is subject to state sales tax of 5.75%.²¹⁴ Recreational cannabis is not legal in OH.

Licensing

- In OH, the Ohio Department of Commerce licenses medical cannabis cultivators, processors and testing laboratories, and the State of Ohio Board of Pharmacy licenses medical cannabis dispensaries. As of 2021.05, OH had 34 active and provisional cultivation licenses²¹⁵, and 57 active dispensary licenses plus a further 73 to be awarded²¹⁶. Home cultivation is not permitted.
- Medical licensing fees:^{217,218}
 - Cultivation: 2 tiers of cultivation license:
 - Level I [<25,000 sq. ft.]: \$20,000 application fee (non-refundable) + \$180,000 initial license fee + \$200,000 license renewal fee (payable annually)
 - Level II [<3,000 sq. ft.]: \$2,000 application fee (non-refundable) + \$18,000 initial license fee + \$20,000 license renewal fee (payable annually)
 - Processor license: \$10,000 application fee (non-refundable) + \$90,000 initial license fee + \$100,000 license renewal fee (payable annually)
 - Dispensary license: \$5,000 application fee (non-refundable) + \$70,000 certification fee + \$70,000 license renewal fee (payable every 2 years)²¹⁹
 - Laboratory license: \$2,000 application fee (non-refundable) + \$18,000 certification fee + \$20,000 license renewal fee (payable annually)

State profile: Oklahoma (OK)



Oklahoma – OK

Tax

- Medical cannabis is subject to state sales tax of 5.75% and excise duty of 7%.²²⁰ Recreational cannabis is not legal in OK.

Licensing

- In OK, the Oklahoma Medical Marijuana Authority licenses medical cannabis businesses. Applicants are required to prove residency in OK for either the 2 years prior to application or 5 years continuously at any time in the past 25 years, and ownership of registered businesses by non-residents is capped at 25%.²²¹ As of 2021.05, OK had 7,624 active cultivation licenses²²² and 2,236 active dispensary licenses²²³. Home cultivation is permitted.²²⁴
- Medical licensing fees^{225,226,227}
 - Grower license: \$2,500 application fee (non-refundable, paid annually)
 - Transporter license: \$2,500 application fee (non-refundable, paid annually)
 - Processor: \$2,500 application fee (non-refundable, paid annually)
 - Dispensary: \$2,500 application fee (non-refundable, paid annually)
 - Testing Laboratory license: \$2,500 application fee (non-refundable, paid annually)
 - R&D: 2 types of R&D license:²²⁸
 - Research Facility license: \$500 application fee (non-refundable, paid annually)
 - Education Facility license: \$500 application fee (non-refundable, paid annually)

State profile: Oregon (OR)

Oregon – OR

Tax

- There is no state sales tax in OR, nor is there an excise duty levied on medical cannabis.²²⁹
- Recreational cannabis sales are subject to a retail excise duty of 17% and a local excise duty of up to 3%.^{230,231}
 - Oregon used to levy an excise tax on cultivators by weight, but switched to taxing retail price in 2014 in an effort to lighten the burden on industry and rationalize taxation of other cannabis products.^{232,233}

Licensing

- In OR, the Oregon Health Authority licenses medical cannabis businesses and the Oregon Liquor Control Commission licenses recreational cannabis businesses. As of 2021.05, OR had 1 active medical cannabis dispensary license²³⁴, down from 20 at the beginning of 2017²³⁵, and 6,727 registered grow sites²³⁶. OR has 1320 active recreational cultivation licenses and 754 active recreational dispensary licenses.²³⁷
- Medical cannabis patients in OR are permitted to grow up to 12 plants for personal use only, and register these as grow sites – of the 6,727 grow sites registered, 5,052 were listed as only serving one patient.²³⁸ Home cultivation is also permitted for adult-use.
- Medical licensing fees:
 - Grow site [variable permissions on plant allowance]: \$200 registration fee (paid annually)²³⁹
 - Processing Site registration: \$4,000 application fee (\$3,500 refundable, paid annually) + \$480 tracking system fee (paid annually)²⁴⁰
 - Dispensary registration: \$4,000 application fee (\$3,500 refundable, paid annually) + \$480 tracking system fee (paid annually)²⁴¹
 - Testing: Oregon Environmental Laboratory Accreditation Program (ORELAP) accreditation: complex 3 tiered fee schedule based on laboratory scoring and purpose (higher for out-of-state laboratories)²⁴²
- Recreational licensing fees:²⁴³
 - Cultivation: 4 tiers of cultivation license available split by 3 types (indoor/outdoor/mixed):²⁴⁴
 - Micro Tier I Indoor [<625 sq. ft.] Producer license: \$250 application fee (non-refundable, paid annually) + \$1,000 license fee (paid annually)²⁴⁵
 - Micro Tier II Indoor [<1,250 sq. ft.] Producer license: \$250 application fee (non-refundable, paid annually) + \$2,000 license fee (paid annually)
 - Tier I Indoor [<5,000 sq. ft.] Producer license: \$250 application fee (non-refundable, paid annually) + \$3,750 license fee (paid annually)
 - Tier II Indoor [<10,000 sq. ft.] Producer license: \$250 application fee (non-refundable, paid annually) + \$5,750 license fee (paid annually)
 - Processor license: \$250 application fee (non-refundable, paid annually) + \$4,750 license fee (paid annually)
 - Retail license: \$250 application fee (non-refundable, paid annually) + \$4,750 license fee (paid annually)
 - Testing: 2 types of testing license available:
 - Laboratory license: \$250 application fee (non-refundable, paid annually) + \$4,750 license fee (paid annually)
 - Sampling Laboratory license: \$250 application fee (non-refundable, paid annually) + \$2,250 license fee (paid annually)
 - Research certificate: \$250 application fee (non-refundable, paid every 3 years) + \$4,750 license fee (paid every 3 years)
 - Wholesale: 2 types of wholesale license available:
 - Micro Wholesaler license: \$250 application fee (non-refundable, paid annually) + \$1,000 license fee (paid annually)
 - Wholesaler license: \$250 application fee (non-refundable, paid annually) + \$4,750 license fee (paid annually)

State profile: Pennsylvania (PA)

Pennsylvania – PA

Tax

- Medical cannabis sales are exempt from state sales tax; a 5% excise duty is levied on wholesale transactions.^{246,247} Recreational cannabis is not legal in PA.

Licensing

- In PA, the Philadelphia Department of Health licenses medical cannabis businesses. State law permits no more than 25 grower/processor permits (permits both cultivation and manufacturing) and 50 dispensary permits to be issued in total, with up to 5 grower/processor licensees allowed to also hold a dispensary permit. Dispensary permits are tenable up to 3 separate locations.²⁴⁸ Permits are issued by region and the number of permits issued in each is weighted by demand and socioeconomic factors.²⁴⁹ Home cultivation is not permitted.
- Medical licensing fees:²⁵⁰
 - Grower/processor permit: \$10,000 application fee (non-refundable) + \$200,000 initial permit fee + \$10,000 permit renewal fee (payable annually) + proof of \$2m capital assets, \$500,000 liquid assets
 - Dispensary permit: \$5,000 application fee (non-refundable) + \$30,000 initial permit fee + \$5,000 permit renewal fee (payable annually) + proof of \$150,000 liquid assets
 - Laboratory approval: [fees unknown] (2 year approval term)²⁵¹

State profile: Rhode Island (RI)

Rhode Island – RI

Tax

- Compassion centers are subject to a 4% tax on net monthly patient revenue, and medical cannabis is subject to state sales tax of 7% (there are no local sales taxes).^{252,253} Recreational cannabis is not legal in RI.

Licensing

- In RI, the Rhode Island Department of Business Regulation Office of Cannabis Regulation licenses vertically-integrated compassion centers to cultivate, manufacture, distribute and dispense cannabis. RI has 3 licensed compassion centers in the state thus far and 6 further are due to be licensed.²⁵⁴ RI also separately licenses producers and manufacturers (i.e. vertical integrated is required for retailers alone) who are only permitted to sell to compassion centers.²⁵⁵ As of 2021.05, RI had 64 active cultivation licenses plus a further 6 approved but not yet issued.²⁵⁶
- In addition to commercial medical cannabis production, registered medical cannabis patients in RI can purchase plant tags for \$25 each to produce their own cannabis.²⁵⁷ Previously, cooperative cultivation licenses were available, but these were phased out.²⁵⁸
- Medical licensing fees:
 - Compassion center license: \$10,000 application fee (non-refundable) + \$500,000 license fee (paid annually)²⁵⁹
 - Cultivation and manufacturing: 5 tiers of license:²⁶⁰
 - Micro-license [<2,500 sq. ft.]: \$5,000 application fee (non-refundable) + \$5,000 license fee (paid annually)
 - Class A [<5,000 sq. ft.]: \$5,000 application fee (non-refundable) + \$20,000 license fee (paid annually)
 - Class B [5,001-10,000 sq. ft.]: \$5,000 application fee (non-refundable) + \$35,000 license fee (paid annually)
 - Class C [10,001-15,000 sq. ft.]: \$5,000 application fee (non-refundable) + \$50,000 license fee (paid annually)
 - Class D [15,001-20,000 sq. ft.]: \$5,000 application fee (non-refundable) + \$80,000 license fee (paid annually)
 - Laboratory license: \$5,000 initial application fee (non-refundable) + \$5,000 license fee (paid annually)^{261,262}

State profile: South Dakota (SD)



South Dakota – SD

- In 2020.11, voters in SD voted in plebiscites on two items: Measure 26 to legalize medical cannabis, and Amendment A to legalize recreational cannabis.²⁶³ Measure 26 compels the state to outline regulations for a medical cannabis programme within 120 days and allows for up to 3 plants for home cultivation.²⁶⁴ In 2021.02, a circuit court judge ruled that Amendment A was in fact unconstitutional, and as such recreational cannabis legalization was overturned.²⁶⁵ As of 2021.05, a supreme court appeal against the Amendment A ruling was ongoing, and regulation for medical cannabis had not yet been laid out.²⁶⁶ Adult-use legalization was subsequently nullified in 2021.11 by the state supreme court.²⁶⁷
- Measure 26 dictates that an excise tax of 15% will be levied on all cannabis sales at retail in addition to state sales tax of 4.5%.²⁶⁸

State profile: Utah (UT)

Utah – UT

Tax

- Medical cannabis is exempt from state sales tax.²⁶⁹ Recreational cannabis is not legal in UT.

Licensing

- In UT, the Utah Department of Agriculture and Food and the Utah Department of Health jointly license businesses through the state's medical cannabis program. Utah has set statutory limits of 8 cultivator²⁷⁰ licences and 15 pharmacy licenses²⁷¹. Home cultivation is not permitted.
- Medical licensing fees:²⁷²
 - Cultivator license (<100,000 sq. ft.): \$10,000 application fee (non-refundable) + \$100,000 license fee (paid annually) + \$250,000 performance bond^{273,274}
 - Courier license: \$125 application fee (non-refundable) + \$2,500 license fee (paid annually)²⁷⁵
 - Manufacturing: 2 tiers of license available:^{276,277,278}
 - Tier I Processor [processing, formulation, packaging and labelling] license: \$1,250 application fee (non-refundable) + \$100,000 license fee (paid annually) + \$50,000 performance bond
 - Tier II Processor [packaging and labelling] license: \$1,250 application fee (non-refundable) + \$35,000 license fee (paid annually) + \$50,000 performance bond
 - Pharmacy license: \$50,000-\$69,500 license fee (depending upon the type of license received and the physical location of the pharmacy, paid annually)²⁷⁹
 - Testing Laboratory license: \$500 application fee (non-refundable) + \$15,000 license fee (paid annually) + \$50,000 performance bond²⁸⁰

State profile: Virginia (VA)

Virginia – VA

Tax

- Up to 2021.05, VA's medical cannabis program has been limited to prescription of cannabis oil (defined as any formulation of processed plant extract), which is exempt from state sales tax.^{290,291} In 2021.02, medical sales of smokable flower were legalized, to begin from 2021.09; as of 2021.07, it was not clear from the current wording of the law whether sales of smokable flower will be subject to taxation, though some sources have suggested they will not.²⁹²
- Recreational cannabis was legalized in 2021.04, due to come into effect in 2021.07, with sales beginning in 2024; sales are to be subject to state sales tax of 5.3%, a state excise duty of 21% levied at the point of retail, and an additional 3% local option.²⁹³

Licensing

- In VA, the Virginia Department of Health Professions Board of Pharmacy licenses medical cannabis businesses. VA's medical cannabis program began as a low-THC (<10mg per dose) cannabis oil-only program in 2018 (legislation was passed in 2017), was expanded in 2019 to include other product types such as topicals, and in 2020 came into effect meaningfully with legal protection for medical cannabis patients and the opening of dispensaries.²⁹⁴ In 2021 smokable flower was legalized.²⁹⁵ In 2018, 5 licenses (the statutory limit) were issued to vertically-integrated pharmaceutical processors, who are permitted to open up to 5 dispensaries each.²⁹⁶ Home cultivation was not permitted at the date of our sample, but has since been legalized.²⁹⁷
- Medical licensing fees:²⁹⁸
 - Pharmaceutical processor license: \$10,000 application fee (non-refundable) + \$60,000 permit fee (paid annually)
- The law passed in 2021.04 permitting recreational cannabis strictly limits vertical-integration in principle other than for "small businesses". Social equity applicants will be prioritized for licensing and have a portion of the fees waived. Cultivation licenses will be split between Class A (standard) and Class B (<1% THC plants only). The legislation stipulates that a Cannabis Control Authority will be formed to regulate the industry and outline a licensing regime; the following license types and maximum quotas will be:²⁹⁹
 - Marijuana cultivation facility [450]
 - Marijuana manufacturing facility [60]
 - Marijuana wholesaler [25]
 - Marijuana testing facility [no quota specified]
 - Retail marijuana store [400]

State profile: Vermont (VT)

Vermont – VT

Tax

- Medical cannabis is exempt from state sales tax.^{281,282}
- Recreational cannabis was legalized in 2018 and commercial sales are due to begin in 2022, subject to further regulatory processes; in 2020.10, a bill was passed into law levying a 14% excise duty on retail sales, which are also be subject to 6% state sales tax.^{283,284}

Licensing

- In VT, vertically-integrated dispensaries are permitted to cultivate, manufacture, transport and dispense medical cannabis; so far, 5 licenses have been issued, and a 6th will be solicited once the state has registered 7,000 patients.²⁸⁵ In VT, patients or designated caregivers may cultivate up to 2 mature and 7 immature plants for personal use at any given time.²⁸⁶
- Medical licensing fees:²⁸⁷
 - Vertically-integrated dispensary: \$2,500 application fee (non-refundable) + \$20,000 license fee + \$25,000 license renewal fee (paid annually)
- The 2020.10 bill SB54 outlined the provisional recreational license regime, which is predicated on businesses operating from 2022.10.²⁸⁸ As of 2021.05, the Cannabis Control Board has been constituted but is yet to set license costs and may introduce more types of licenses; those currently scheduled to be available are:²⁸⁹
 - Integrated (combination of other 5 types, targeted at vertically-integrated dispensaries)
 - Cultivator: small [<1000 sq. ft.] and regular [tiered by size]
 - Product manufacturer
 - Wholesaler
 - Retailer
 - Testing laboratory

State profile: Washington (WA)

Washington – WA

Tax

- Although in WA all cannabis is considered adult-use, only recreational-use sales are subject to the state sales tax of 6.5% and an excise duty of 37%.³⁰⁰ Exemptions to the state sales tax are made for (i) medical patients, and (ii) any purchase of “High CBD” products.^{301,302} Products can be classed as “High CBD” if they are non-flower and adhere to a minimum CBD:THC ratio and/or THC concentration below a defined threshold, differing by product type (e.g. maximum 2% THC and at least a 25:1 CBD:THC ratio for concentrates, or at least a 5:1 CBD:THC ratio for topicals).
 - WA changed to the current system in 2015, whereas previously it levied a 25% excise duty on each transaction from producers to processors, processors to dispensaries, and dispensaries to consumers; the change was reportedly made because this encouraged vertical integration and created an avoidable federal tax burden.³⁰³

Licensing

- In WA, the Washington State Liquor and Cannabis Board and Department of Revenue Business Licensing Service license medical and recreational cannabis businesses in the same way; there is a no-cost endorsement available for a retail licensee to also be able dispense to medical patients.³⁰⁴ As of 2021.06, WA had 1,054 active dual producer/processor licensees, 151 producer-only licensees, and had set a statutory limit of 556 retail licensees.³⁰⁵ Of the 556, 486 were active, and the remainder due to be filled via the Social Equity program.³⁰⁶
- Medical patients may self-grow personal use cannabis up to 15 plants as individuals, or more as a group of up to 4 patients as a registered cooperative.^{307,308} Adult-use home cultivation is not permitted. Only medical patients may buy “High-THC” (10-50mg of active THC per serving) products.³⁰⁹
- Adult-use licensing fees (adult-use licensing regime shown here only, for brevity in exposition):³¹⁰
 - Producer license: Tier 1 [<2,000 sq. ft.], Tier 2 [<10,000 sq. ft.], and Tier 3 [<30,000 sq. ft.] (same cost for all tiers): \$250 application fee (non-refundable) + \$1,381 license fee (paid annually).³¹¹
 - Transportation license: \$250 application fee (non-refundable) + \$1,000 license fee (paid annually)
 - Processor license: \$250 application fee (non-refundable) + \$1,381 license fee (paid annually)
 - Retailer license: \$250 application fee (non-refundable) + \$1,381 license fee (paid annually)
 - Testing facility certification: \$2,747 application fee (non-refundable) + \$6,192 audit and certification fees (paid annually for years 1-3 and 5 of operation) + \$1,667 application renewal fee (paid in years 4 and 6 of operation)³¹²
 - Research license: \$250 application fee (non-refundable) + \$1,300 license fee (paid annually)

State profile: West Virginia (WV)

West Virginia – WV

Tax

- Medical cannabis is subject to a 10% tax levied against gross receipts of dispensaries, but is exempt from state and is from local sales taxes (and local excise duties).³¹³ Recreational cannabis is not legal in WV.

Licensing

- In WV, the West Virginia Department of Health and Human Resources Bureau for Public Health Office of Medical Cannabis licenses medical cannabis businesses. WV issued the state's first Grower and Processor licenses in 2020 following a request for applications in 2019, and issued the first Dispensary licenses in 2021.³¹⁴ WV has set a statutory limit of 10 Grower, 10 Processor and 100 Dispensary licenses.³¹⁵ State residency was previously required for licensees, but no longer is.³¹⁶ Home cultivation is not permitted.³¹⁷
- Medical licensing fees:³¹⁸
 - Grower license: \$5,000 application fee (non-refundable) + \$50,000 permit fee (paid annually) + \$5,000 permit renewal fee (paid annually) + proof of \$2m capital assets, \$500,000 liquid assets
 - Processor license: \$5,000 application fee (non-refundable) + \$50,000 permit fee + \$5,000 permit renewal fee (paid annually) + proof of \$2m capital assets, \$500,000 liquid assets
 - Dispensary license: \$2,500 application fee (non-refundable) + \$10,000 initial permit fee + \$2,500 permit renewal fee (paid annually) + proof of \$125,000 liquid assets
 - Laboratory approval: [fees unknown] (2-year approval term)³¹⁹