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Letter from Editor

Introduction

It's been two years since we first learned about COVID-19. So much has changed since then, and yet, so much is the same.

Even as the virus that shut down the global economy still rears its ugly head from time to time, most of the world is determined to get back to some semblance of normal—especially the U.S. cannabis industry.

We did learn some valuable lessons along the way, though. Retailers figured out new ways to serve customers with e-commerce, pickup and delivery. Operators across segments figured out how to use space more efficiently to accommodate social-distancing guidelines.

And some operators said they had the opportunity to get to understand their customers a bit better, including one who learned that his medical marijuana patients liked having a strict path to follow when they arrived at his store in the mornings. It was one less thing to think out while combatting their anxiety.

Across the board, markets experienced higher sales of marijuana products in 2021. Flower still dominated sales, but we started to see the segment's share erode just a little as customers sought to try new things.

MOMENTUM BUILDS

2020 was a big year for states to approve new cannabis markets, but as we know, most programs take a long time to actually get the doors open. (The exception: Arizona, which launched its adult-use program mere months after voters approved it.)

We're in the midst of regulators fine-tuning details across the country, but it's happening most prominently on the East Coast, where Connecticut, New Jersey, New York, Vermont and Virginia are all going through the process right now.

And if there's a theme coming through in this overall process, it's slow and steady. Regulators in most states don't appear to be in any particular hurry to launch the new programs, but even with the delays, will they be able to get the details right? Only time will tell.

CONTINUED ON NEXT PAGE



CONT'D

In addition to the industrywide survey that forms the backbone of this report, we've incorporated data from various governmental agencies and utilized data-sharing partnerships with three reputable firms in the industry:

- Cannabis Benchmarks, a division of Connecticut-based New Leaf Data Services LLC, which tracks wholesale medical and recreational cannabis prices across the United States.
- Headset, a Seattle firm that provides business intelligence and analytics services for marijuana companies.
- Viridian Capital Advisors, a New York-based financial and strategic advisory firm for the cannabis industry.

Learn more about all our partners at the end of this *MJBiz Factbook*.

I'd also like to offer a special thanks to Beau Whitney of Oregon-based Whitney Economics for sharing his insights for this year's Factbook, as well as the many operators I've spoken with to strengthen my understanding of what you all are facing on the ground.

If you have any suggestions or want to provide feedback, please contact us at editorial@mjbizdaily.com.

Regards,



Jenel Stelton-Holtmeier
Editorial Director

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National Cannabis Industry Facts, Figures & Trends

The roller coaster of the COVID-19 pandemic appears to be coming to an end. While many see that as good news, the last few months of 2021 presented some new challenges for U.S. cannabis businesses.

While demand for marijuana products reached record heights over the past two years, the second half of last year saw sales slow and even decline. The change in trajectory coincided with the lifting of many pandemic restrictions, which allowed people to return to more normal daily lives.

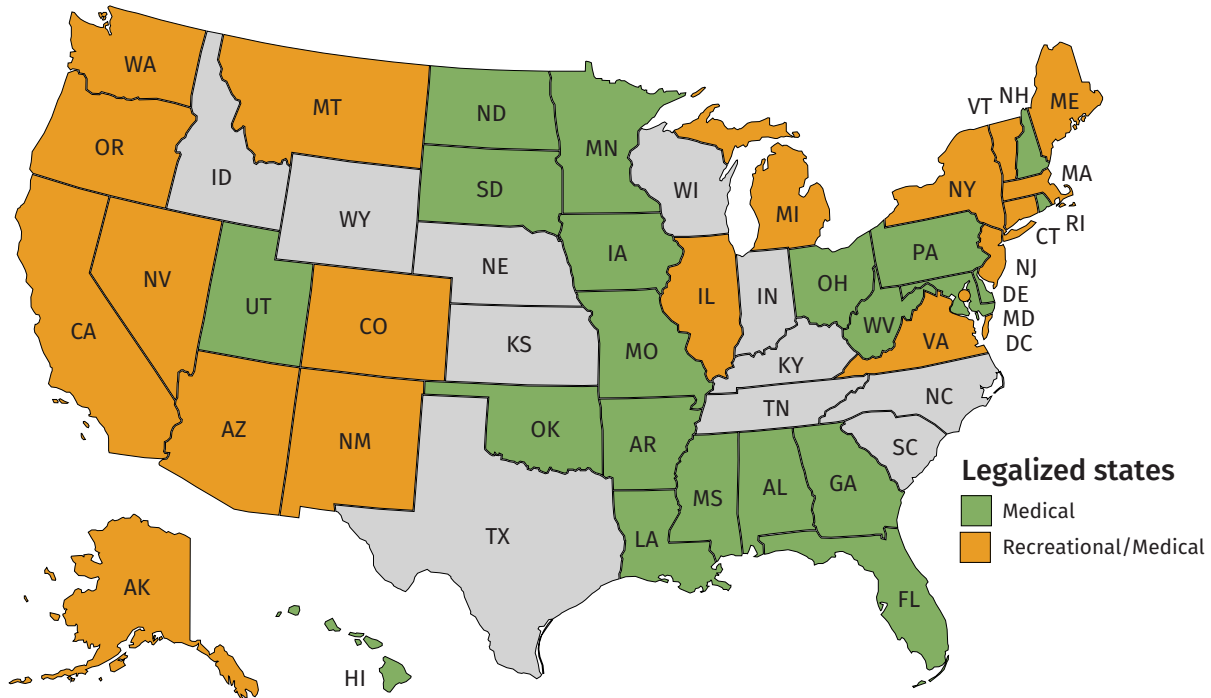
What that means for the long term remains to be seen. Other factors, such as rapidly increasing inflation and continuing supply-chain disruptions, also are likely contributors to changing purchasing behaviors. But what we do know is that a return to the world outside our homes will necessitate a change in consumption behavior at some level for most people.

What hasn't changed over the past two years is the public support for cannabis legalization. But a disconnect remains between overall public sentiment and the opinions of those with the power to make changes at the federal level. That said, more legislators appear to be willing to discuss more dramatic changes than have been proposed in the past, as demonstrated by the Cannabis Administration and Opportunity Act supported by Senate Majority Leader Chuck Schumer.

But those discussions still have a long way to go before they become reality. Regardless, access for consumers of both medical and adult-use marijuana continues to grow as more states implement new markets.

Operators also are looking for ways to innovate within the state-legal frameworks via new products, better formulations and new ways to reach and serve customers, leading to a rosy outlook for the industry overall.

Note that the goal of the MJBiz Factbook is to provide conservative, realistic financial forecasts that acknowledge the uncertainty inherent in the cannabis industry. See our methodology in the Appendix for an overview of how we calculate sales estimates. We will continue to adapt our models as new information becomes available, which can—and almost certainly will—change our sales estimates for the industry at large.

CHART 1.01: Marijuana Legalization by State

Note: Does not include states that have legalized only CBD-based oils.

While federal legalization founders in Washington DC, the places where cannabis in some form can be acquired through regulated channels continues to expand. Even the Deep South has begun to embrace the plant for medical purposes.

More than three-quarters (77%) of the U.S. population now resides in a state that legalized cannabis.

By our definition, a state has legalized medical marijuana if it:

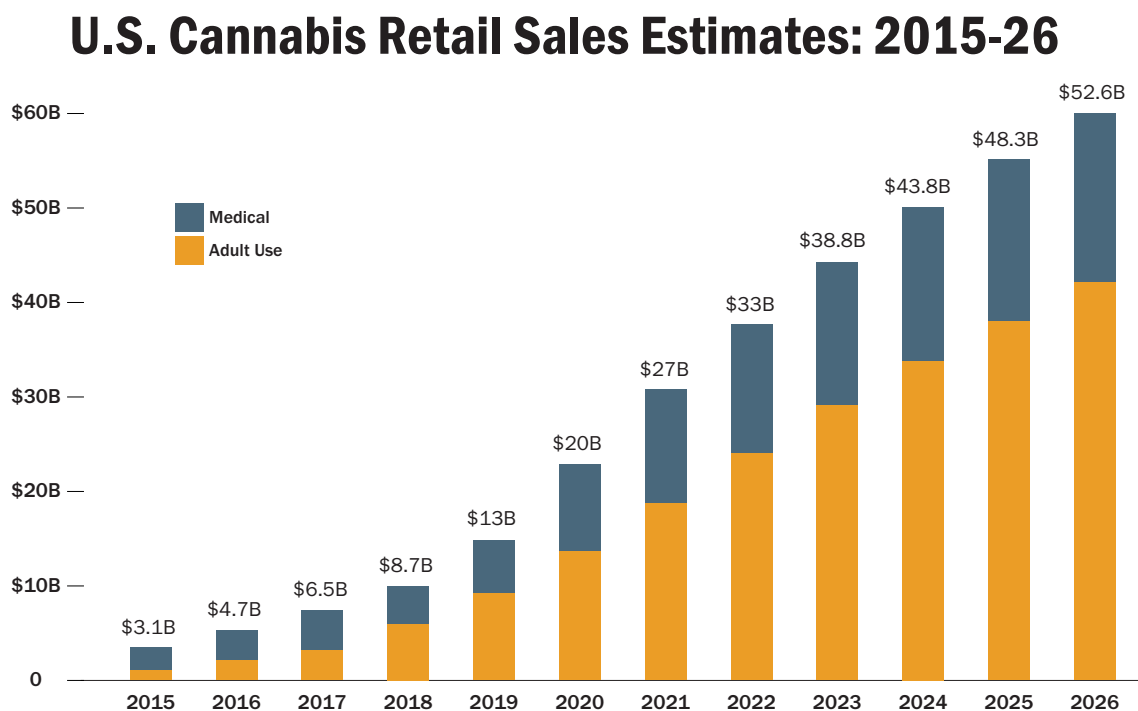
- Allows the sale of medical marijuana products containing at least 3% THC by weight.
- Allows patients to purchase MMJ products from an in-state business or organization.
- Has a qualifying MMJ condition list that includes more than one condition or set of symptoms *or* permits doctors to recommend MMJ to treat any condition for which they believe it will be an effective treatment.

Texas accounts for more than one-third of the population without legal access to cannabis, even though it has a very limited CBD program that limits THC content to 0.5% by weight—only slightly higher than the federal delineation between hemp and marijuana.

Georgia and Iowa also implemented low-THC programs but are included in our count because they exceed that minimum 3% established in our criteria. In addition, several states on the map above are still in the process of implementing a program that was legalized either via legislature or popular vote.

All states without legalization share at least one border with one that does, which likely grants access to a portion of 23% who do not live in a state with a legalized market.

CHART 1.02: Historical US Cannabis Retail Sales Estimates: 2015-26



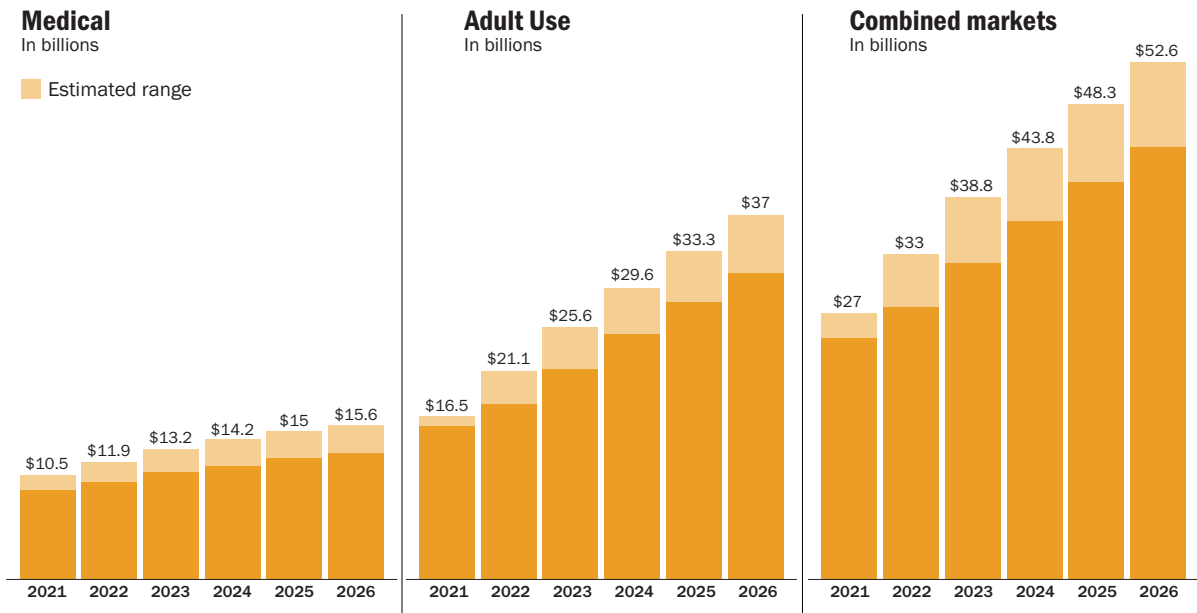
Source: MJBizFactbook
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Retail marijuana sales in the United States are expected to surpass \$25 billion by the end of 2022, largely driven by new recreational markets, such as New Jersey, that are expected to come online this year.

Both medical and adult-use markets posted strong growth in 2021, up an estimated 34% and 43%, respectively, over 2020 sales.

CHART 1.03: US Cannabis Retail Sales Forecast: 2021-26

U.S. Cannabis Retail Sales Estimates: 2021-26



Source: MJBizFactbook
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While only a few states remain without a regulated medical marijuana market, the outlook for this part of the industry is still strong. Several states with programs that have languished well below average, such as Louisiana and Minnesota, implemented new rules with the hopes of expanding participation. However, access remains a problem in many states with limited programs, such as Georgia and Iowa.

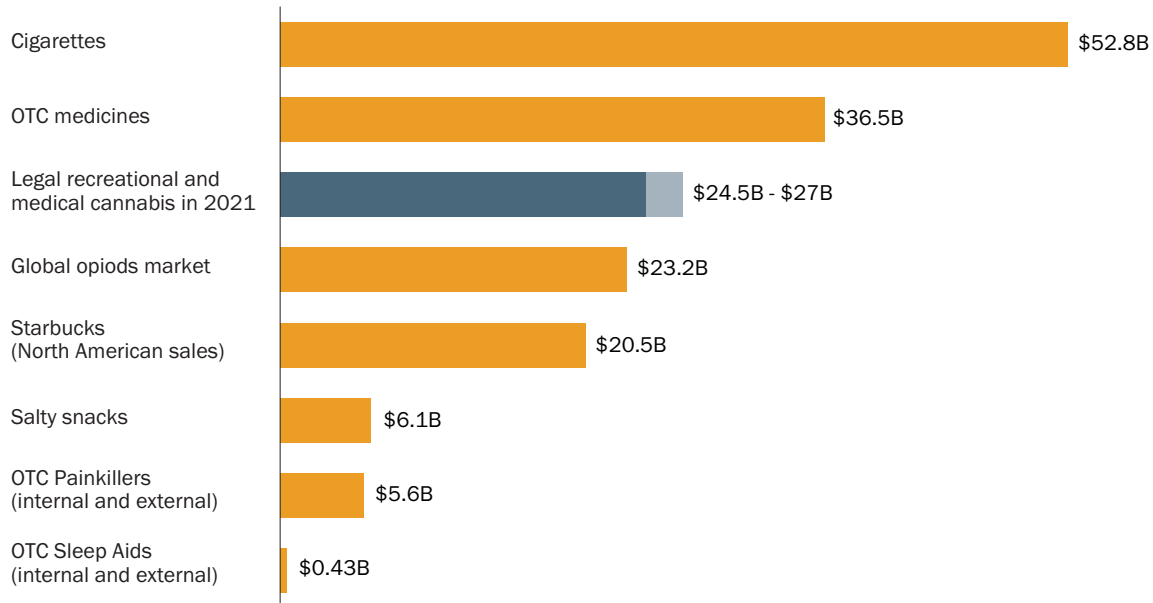
The outlook for the adult-use side of the U.S. marijuana industry is even stronger, at least for the near term, as states with the potential for massive markets, such as New York, work out the final details to launch programs that have been approved.

As the industry overall has matured, the transition from medical to recreational markets has accelerated. In 2020, South Dakota made history by becoming the first state where voters approved medical and adult-use markets at the same time. The state’s Supreme Court overturned the approval of the recreational market, representing the continued disconnect between the public opinion of marijuana and the political will of those in positions of power.

The launch of Arizona’s recreational market also represents shifts in acceptance and adoption of the regulated industry. Adult-use sales grew more rapidly than seen in previous markets making the transition, and MMJ patient roles declined more steeply in conjunction with that shift.

CHART 1.04: U.S. Cannabis Sales Vs. Other Industries

U.S. Cannabis Sales Vs. Other Industries



Source: MJBizFactbook research, Statista, Consumer Healthcare Products Association, BCC Research, Mordor Research, Allied Research, Starbucks financial filings, IRI Market Advantage
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Note: All data reported for 2021

For years, there has been a running joke in pop culture about a Starbucks on every corner. That trope might need updating now that regulated cannabis sales have outstripped the coffee giant's North American sales by at least one-third, even with fewer markets to operate in.

There are myriad reasons why people consume cannabis, from aiding sleep to just having fun. For new medical markets, marijuana often is seen as a way to help combat the opioid-abuse crisis.

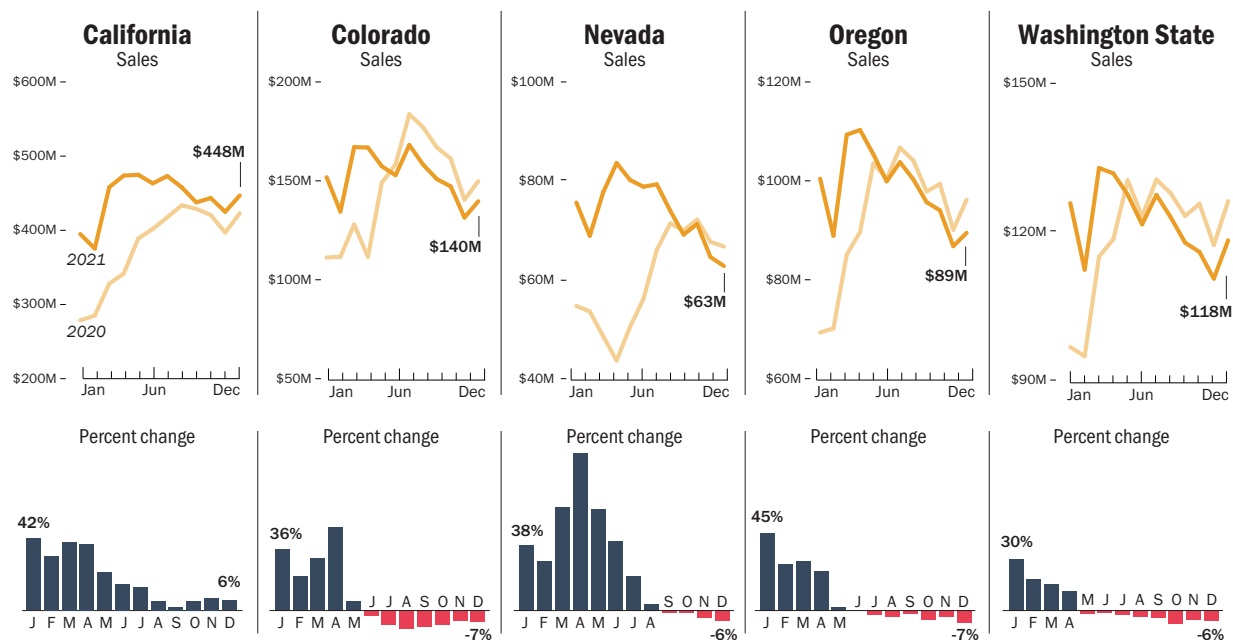
While opioid sales continued to grow during the pandemic, the outlets that track that data noted that sales growth slowed during the COVID-19 pandemic, likely because of limited access to hospitals. At the same time, cannabis sales continued to rapidly increase.

Current estimates place the legal marijuana market in the U.S. at slightly larger than the global opioids market, a good sign for those concerned about opioid use. But there's no way to definitively determine the direct impact of cannabis legalization on opioid use.

Overall, the marijuana industry has been growing more rapidly than many other comparable categories in the U.S., though the pandemic changed behaviors on many fronts. Cigarette sales, for example, increased in 2021, the first time in 20 years, according to Statista. That shift likely is the result of increased stress during the pandemic returning people to their vices.

CHART 1.05: 2021 Adult-Use Cannabis Sales by Month & Market

2021 Adult-Use Cannabis Sales by Month & Market



Source: Headset

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The impact of the coronavirus pandemic was most acutely visible in the retail sector—specifically sales. Many markets experienced a boost as the virus made its way into our everyday lives, a potential indication that cannabis has become an essential part of many consumers' normal routines.

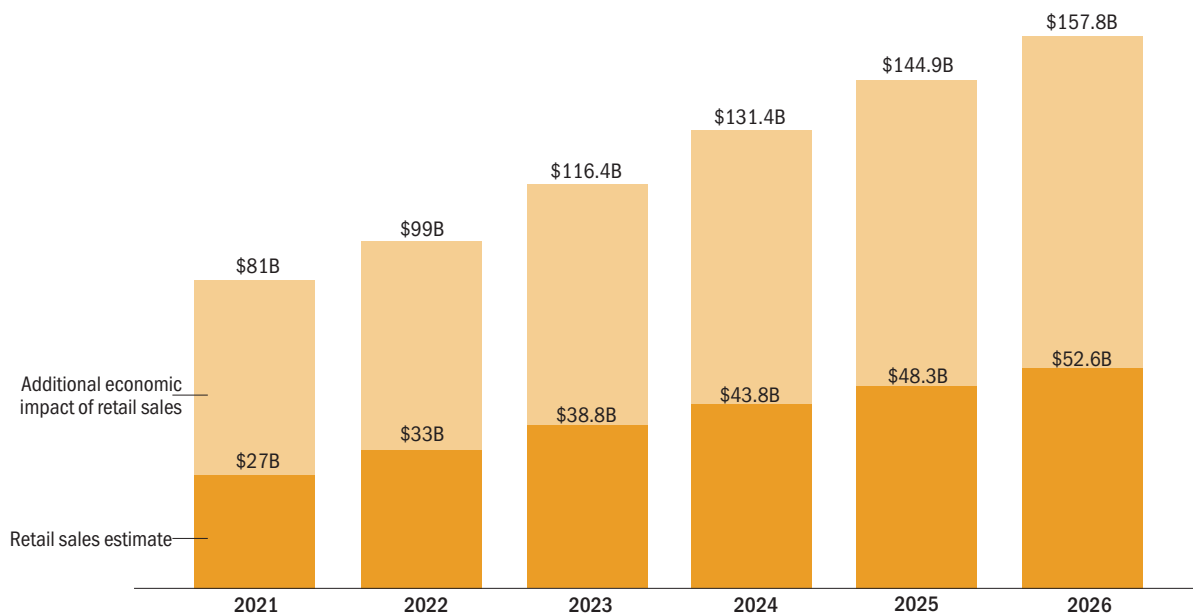
But as restrictions on behavior and movement began lifting in the first half of 2021, the industry experienced a pattern shift, as represented in the chart above. These select states are more established than many and, as a result, should be less prone to volatility—though volatility always has a critical role in cannabis.

The specific reasons for the shift all point back to the end of restrictions. Consumers embraced many different vices during the pandemic, seen in the increase of cigarette sales for the first time in 20 years, likely to self-medicate against the stresses during this time. But as people returned to work in offices, general consumption behaviors shifted back to pre-pandemic patterns.

This decline across states is likely a reset from the exorbitant increases over the past two years. Sales likely return to a more stable and steady growth pattern over the next 12 months.

CHART 1.06: U.S. Cannabis Industry Total Economic Impact: 2021-26

U.S. Cannabis Industry Total Economic Impact: 2021-26



Source: MJBizFactbook
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NOTE: Estimates are high end of scale.

The marijuana industry has a large impact on the broader economy, from local communities to the nation as a whole.

To measure an industry's economic impact, traditional macroeconomic multipliers typically range between 10 and 20 times the original dollar spent. Based on the latest data collected from other industries and economic analysis, we have adjusted last year's standard multiplier to 2.8 for the marijuana industry.

This means that for every \$1 that consumers and patients spend at adult-use stores and dispensaries, an additional \$1.80 will be injected into the economy, much of it at the local level.

Some examples of the industry's economic impact include:

Day-to-day needs of workers in the cannabis industry—everything from big-ticket items including housing and transportation, to lesser everyday costs such as food, clothing and entertainment—lead to the injection of capital into a variety of local businesses.

Collectively, marijuana businesses, consumers and patients pay hundreds of millions of dollars in state and local taxes that have been used to fund state and local government activity, including financing schools and repairing roads.

CONTINUED ON NEXT PAGE

CONT'D

Real estate, beyond housing for cannabis workers, receives a boost from new businesses moving into an area or established companies expanding, increasing broader demand on a sometimes-limited supply of commercial properties.

While cannabis tourism is on the rise in many areas, tourists spend money on more than marijuana. Hotels, restaurants and other attractions also benefit from the influx of customers.

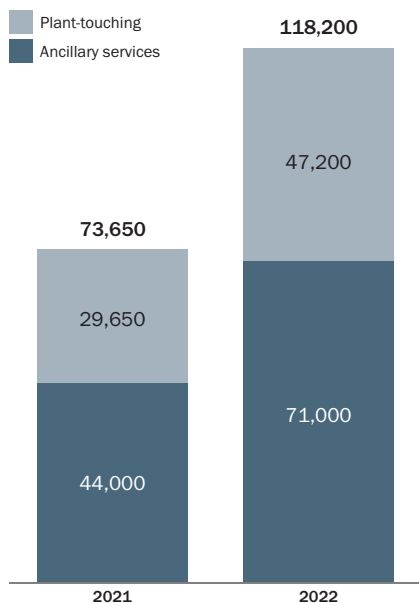
For comparison, the multiplier for U.S. agricultural commodity exports is 1.38, according to the U.S. Department of Agriculture's Economic Research Service—roughly half the multiplier of the marijuana industry.

If cannabis tourism finds its footing, the multiplier could grow even further. National parks, for example, average a sixfold economic impact on surrounding communities, according to Whitney Economics.

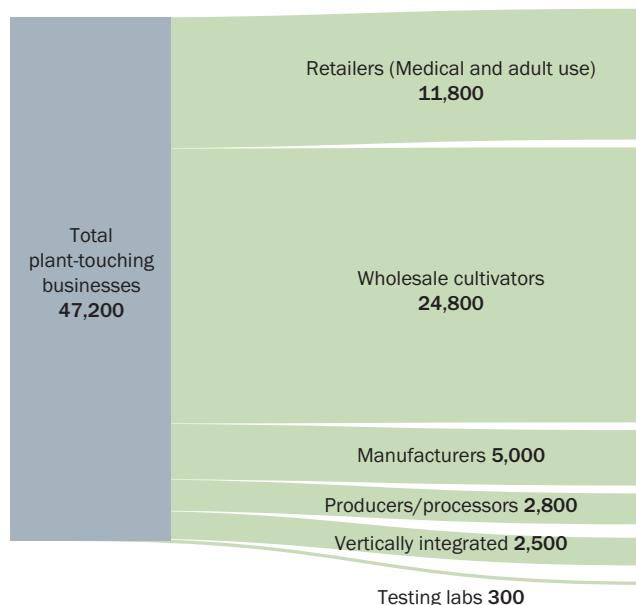
CHART 1.07: Estimated Number of U.S. Cannabis Businesses in 2022

Estimated Number of U.S. Cannabis Businesses in 2022

Total businesses



Breakdown of plant-touching businesses



Source: MJBiz Factbook

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NOTE: Estimates are high end of scale.

Part of the reason cannabis revenue has grown can be attributed to an increase in the number of cannabis businesses—which, in turn, largely is due to new markets coming online, even during the pandemic.

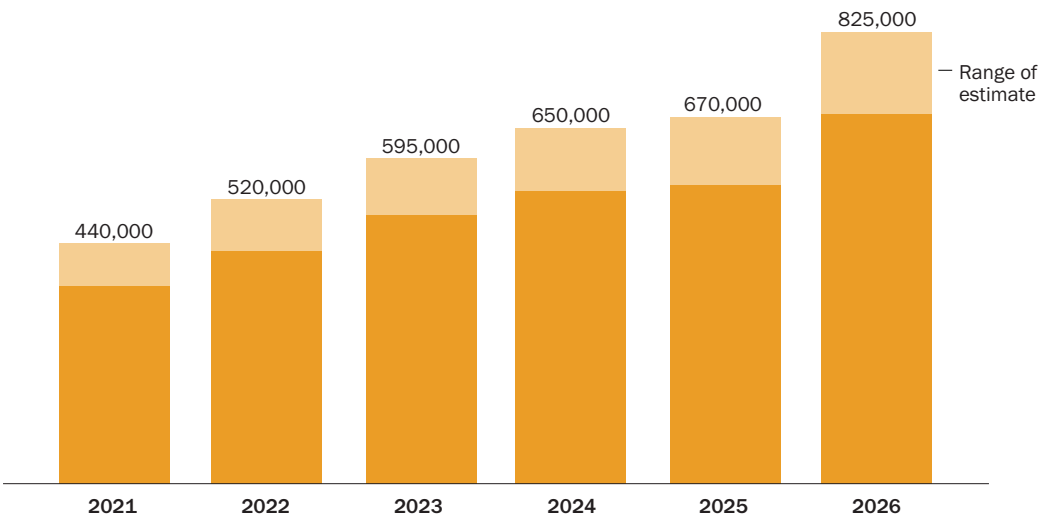
It's still difficult to disentangle the number of marijuana business licenses issued in a given state from the number of licensees, as most states allow a single business to possess multiple licenses. This is especially true in California's cultivation sector.

Based on extensive analysis of available state licensing data and the dynamics of the relationship between licenses and licensees, we estimate more than 100,000 companies in the United States generate a significant portion or all of their revenue from the cannabis industry. Roughly one-third of those businesses touch the plant, including retailers, cultivators, cannabis product manufacturers and testing labs.

This jump is a significant increase over 2021, especially in the cultivation space. Nearly one-third of the growers we estimate are in one state—and it's not California. At the publication deadline for this Factbook, Oklahoma had licensed more than 8,000 growers for its medical marijuana program. The state has made it very easy to participate in the program, both on the business and patient levels. It's also created a significant challenge for long-term success for operators.

CHART 1.08: U.S. Cannabis Industry Full-Time Employment Estimates

U.S. Cannabis Industry Full-Time Employment Estimates



Source: Marijuana Business Factbook
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The estimated number of people employed in the cannabis industry has grown alongside the increase in operating businesses. For 2021, *MJBizDaily* estimates that the industry employed the equivalent of 360,000-440,000 workers across the United States.

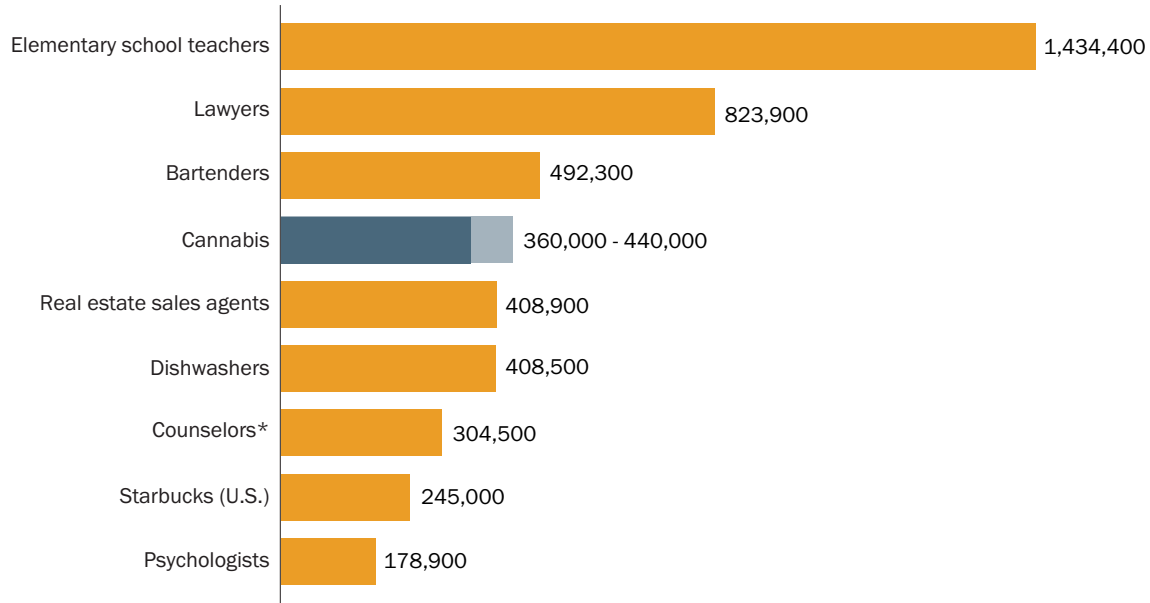
These figures consist of workers directly employed by cannabis businesses, including budtenders and extraction technicians as well as employees of ancillary companies that support the marijuana industry such as consultants and lawyers.

Part-time workers play a critical role for many operators in the cannabis space, which is why *MJBizDaily* uses full-time equivalents to estimate overall employment.

The retail sector accounts for the majority of jobs in the cannabis industry, driven by requirements in nearly all states to sell marijuana—both adult-use and medical—in distinct physical locations. Unlike alcohol, marijuana cannot be sold alongside other goods in traditional retail outlets such as a grocery or drugstore.

CHART 1.09: U.S. Cannabis Industry Employment Comparisons 2021

U.S. Cannabis Industry Employment Comparisons 2021



Source: Pew Research Center

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*Substance abuse, behavioral disorder and mental health

Not only did sales of cannabis surpass North American revenue reported by Starbucks in 2021—an occurrence that can be partially attributed to prices for the two product categories—but the marijuana industry also employed at least 50% more people than the coffee behemoth.

The job gains continue to be driven largely by booming medical markets in Florida and Oklahoma, but new markets coming online, such as Arizona, have also driven up the figures.

The cannabis employment figure in 2021 was below the estimated number of bartenders across the country, but we anticipate that to change in 2022, as even more markets come online, such as New Jersey and New York.

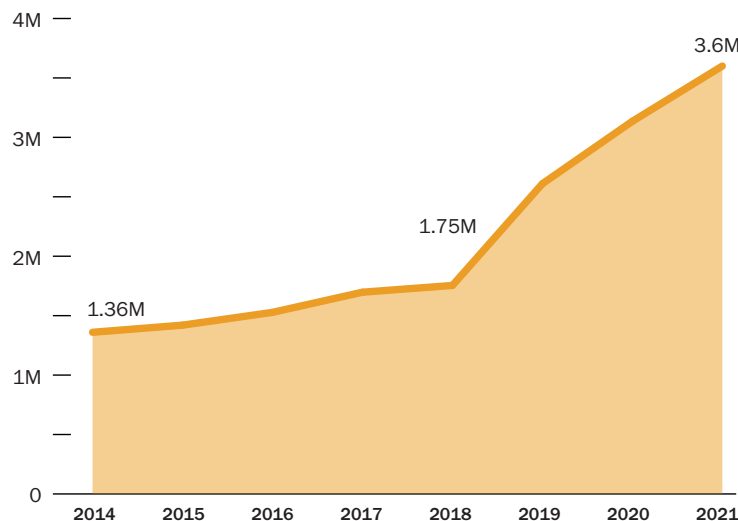
The COVID-19 pandemic did not lead to wide-scale contraction in the marijuana labor market, likely because of the industry’s designation as an “essential business” in most markets. Many recreational and MMJ markets experienced higher-than-average sales volumes during 2020 and 2021. Early sales reports in 2022 signal that sales might be returning to a more normal growth pattern, but that has not been reflected in employment figures just yet.

CHART 1.10: Nationwide MMJ Patient Counts: 2014-21

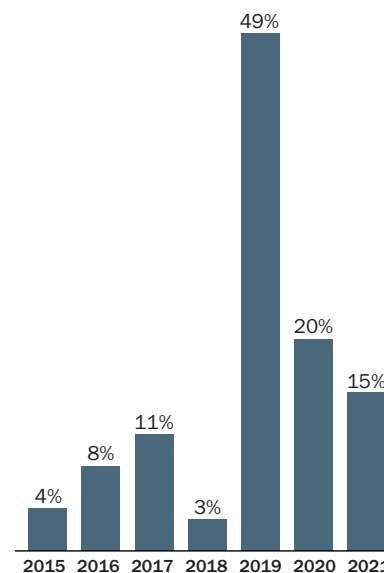
Nationwide MMJ Patient Counts: 2014-21

Total patients

Includes known number of registered patients and estimates for states whose registries are voluntary or nonexistent.



Percent growth from previous year



Source: MJBizDaily research

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Medical marijuana patient counts grew steadily over the past few years, following a major spike in 2019. There was significant growth that year in two states in particular: Florida and Oklahoma. Throughout the pandemic, Oklahoma's patient roles continued to grow steadily, with nearly 10% of the state's population being on the patient registry.

Florida, on the other hand, has continued its staggering growth trajectory, increasing roughly 35% from early 2021 to early 2022.

In general, medical marijuana patient counts received a boost in the early days of the coronavirus pandemic, driven in part by operational disruptions stemming from shutdowns and travel restriction but also by a need for consumers to save money after wage losses during the economic downturn. Medical products are not subject to the same level of taxes that recreational products are in most markets. That translated to double-digit percentage increases in that national market through the past two years.

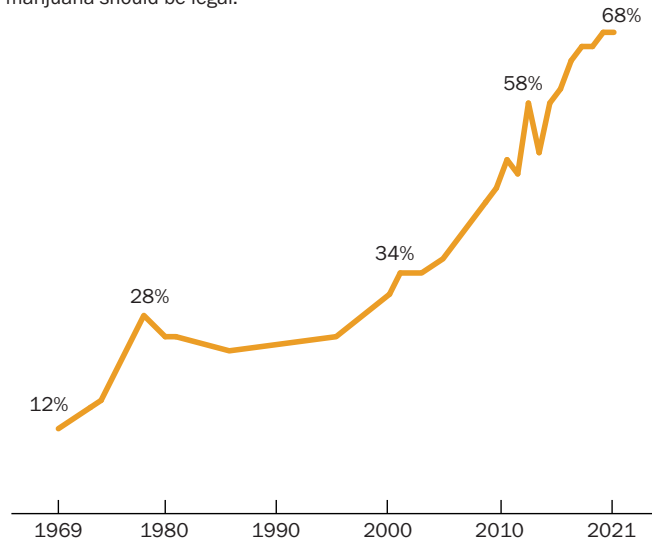
We anticipate patient registry growth to begin levelling off in next few years as more adult-use markets launch and the U.S. economy becomes less volatile.

CHART 1.11: U.S. Support and Usage of Cannabis

U.S. Support and Usage of Cannabis

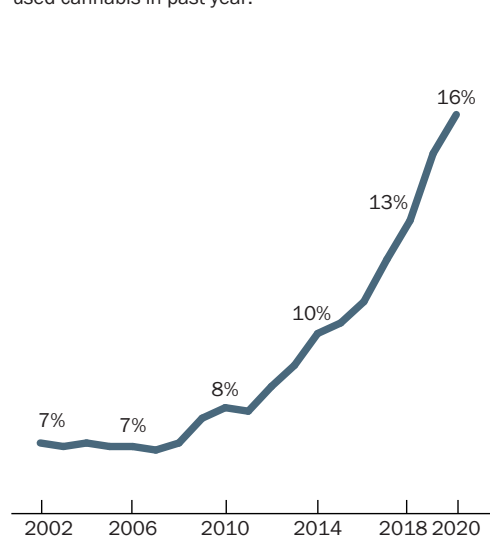
Support for legalizing marijuana

Percentage of Gallup survey who said marijuana should be legal.



Marijuana usage by population

Portion of population 26 and older that has used cannabis in past year.



Source: Gallup, National Survey on Drug Use and Health
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Support for legalizing marijuana in the United States held steady in 2021, with more than two-thirds of respondents to a Gallup poll backing the idea. Gallup notes that, while some groups back marijuana legalization more than others do, support has increased at similar rates across political parties, religions, educational levels, racial and ethnic groups and genders over time.

While this poll did not distinguish between marijuana for medical or recreational use, it highlights the overall increased acceptance of cannabis use over the past several decades, even though politicians with the power to make such changes seem to be hesitant.

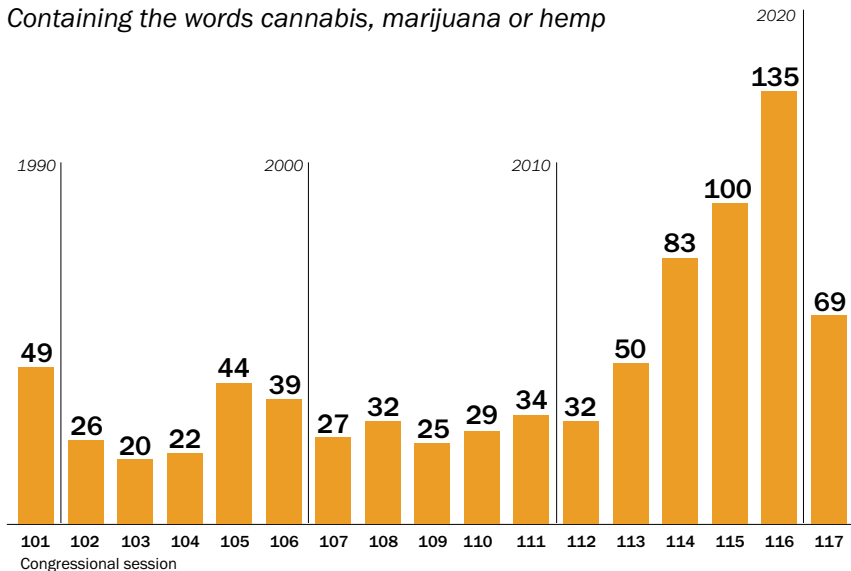
Even though marijuana remains illegal at the federal level, a majority of U.S. citizens live in a state where cannabis use is permitted in some form. This increased access has resulted in increased use, with 16% of adults older than 26 saying they consumed cannabis at some point in 2020, according to the National Survey on Drug Use and Health.

CHART 1.12: Timeline of Federal Reform Legislation

Timeline of Federal Reform Legislation

Federal legislation activity

Containing the words *cannabis*, *marijuana* or *hemp*



What to watch

- MORE Act of 2021
- Cannabis Administration and Opportunity Act
- SAFE Banking Act
- Banking reform
- 280E
- Marijuana research
- Veterans' access

Source: MJBiz Factbook

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States continue to take the lead on meaningful legislation around cannabis legalization. While this has allowed states to create thriving and prosperous marijuana industries, cannabis businesses continue to face major challenges—particularly around taxes and banking—that can be addressed only by the federal government.

Federal legislators continue to introduce bills, with 135 regulatory changes related to cannabis introduced during the 116th Congress (January 2019-January 2021). But getting those bills across the finish line has been slow going.

Currently, there are three specific pieces of legislation still actively included in discussion at the federal level:

- The SAFE Banking Act would provide federal protection for banks and other financial institutions that serve state-legal marijuana businesses—both plant-touching and ancillary.
- The MORE Act would remove marijuana from the list of controlled substances, expunge cannabis convictions and establish a tax to create grants for minorities and low-income individuals.
- The Cannabis Administration and Opportunity Act would remove THC and marijuana from the Controlled Substances Act and legalize the industry nationwide, allowing for full interstate commerce.

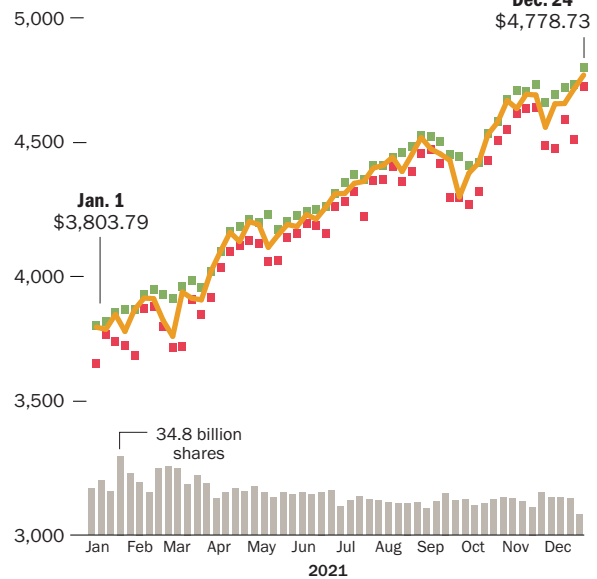
CHART 1.13: Overview of Public Cannabis Market Performance

Overview of Public Cannabis Market Performance

Global Cannabis Stock Index Close



S&P 500 High Low Close Volume

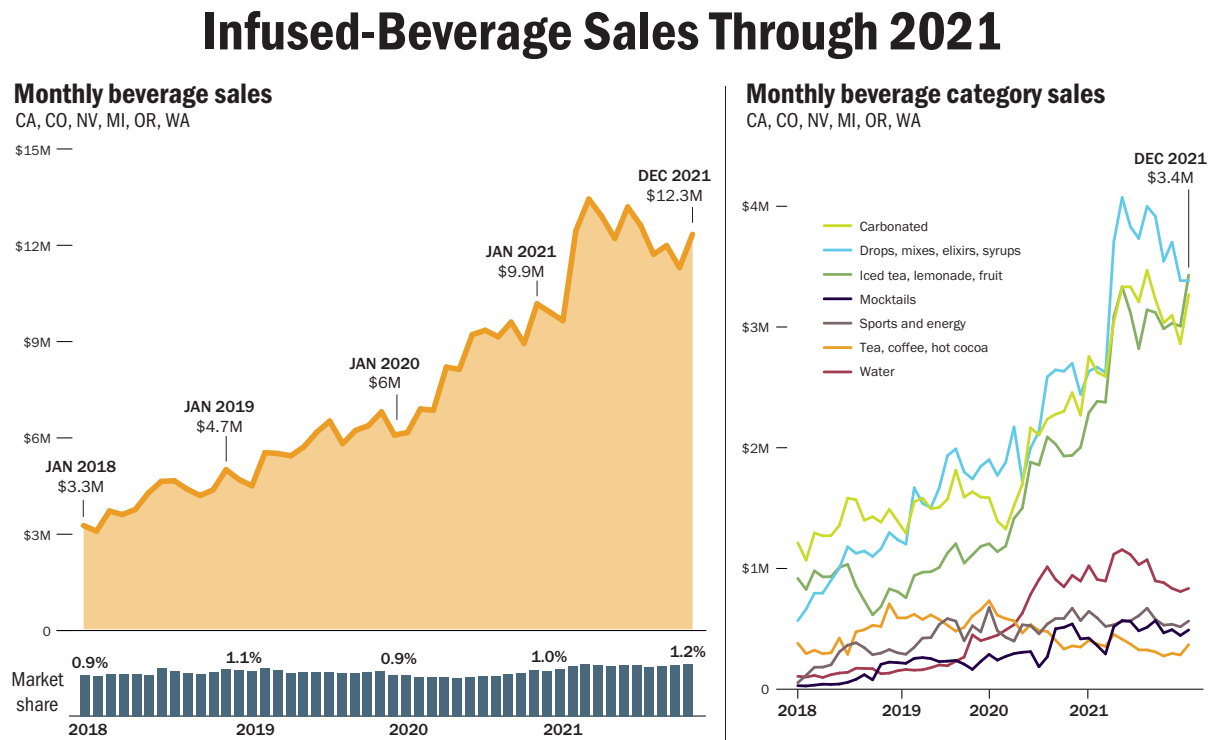


Source: Yahoo Finance, Macrotrends
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2021 was not kind to publicly traded cannabis companies. The Global Cannabis Stock Index peaked in February, driven up in part by nontraditional investors who coordinated on Reddit. But trading prices quickly declined, falling 57% from the peak by the end of the year.

In general, investors were not shy about participating in the overall stock market last year. The S&P 500 index grew 27% during the 12-month period. But cannabis continues to suffer from the lack of institutional investment due to federal illegality that limits participation.

In addition, Canadian cannabis firms, which are included in the Global Cannabis Stock Index, have faced their own declines because of poor financial performance and changes at the leadership level—both factors that investors consider before placing money.

CHART 1.14: Infused-Beverage Sales Through 2021

Source: Headset

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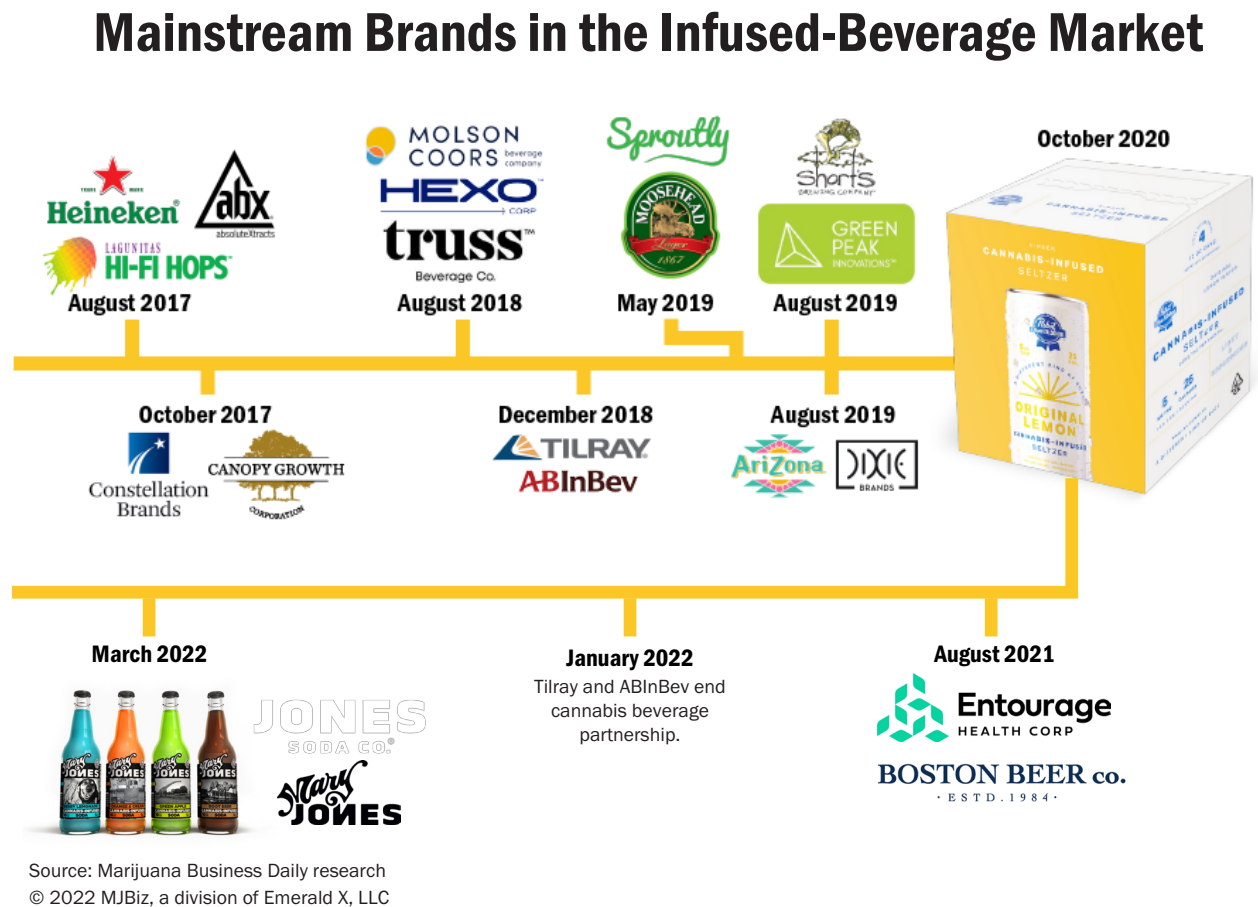
While many of the publicly traded companies struggle, a niche sector in the cannabis industry, beverages, is getting enormous attention from some of the world's largest companies.

Molson Coors Beverage Co. and Canopy Growth Corp. expanded their multistate distribution deal and predicted big gains across all levels of the THC spectrum, from nonintoxicating CBD sports drinks to THC-infused alcohol alternatives.

But the sentiment isn't showing up in consumption or sales just yet. In 2021, THC-infused beverages held just a 1.2% market share in five key states tracked by Seattle-based analytics firm Headset. That's up from the 1% reported for 2020 but far from a boom product in an increasingly product-heavy market.

That low adoption rate is also seen on the non-THC side of cannabis. Market analytics tracker NielsenIQ reported in March 2021 that sales of drinks containing hemp-derived CBD across major chains in grocery, drug and convenience stores decreased 32% from the previous year.

CHART 1.15: Mainstream Brands in the Infused-Beverage Market



Limited sales of cannabis-infused beverages hasn't stopped mainstream beverage companies, alcoholic and nonalcoholic, from betting on the segment—though some are rethinking their approaches.

Analysts say there are three key reasons why consumer packaged goods companies are looking at beverages as an entrance into cannabis:

Alcohol manufacturers are looking for new products because alcohol consumption (particularly beer intake) has fallen precipitously in recent decades.

Manufacturing and emulsion advancements in recent years have made cannabis-infused beverages better-tasting than early attempts, which often put off consumers.

There are fewer places where adults can legally smoke or vape, limiting where cannabis can be consumed.

Most of the early investors in cannabis beverages remain bullish on the future. However, in January 2022, AB InBev ended their joint venture, Fluent Beverage Co., with Tilray, turning the operation into a wholly owned subsidiary of Labatt Breweries. Tilray still serves as Fluent's co-manufacturing partner, according to Labatt.

State-By-State: Legal Overview, Market Data and Outlook

The cannabis sector is unique among U.S. industries in that each state creates its own rules and regulations, contributing to the fragmentation in the marijuana industry. In addition to differences at the state level, local governments have been allowed to develop their own rules regarding cannabis, meaning the operational environments can vary widely between and within states.

Examples of varying rules and regulations include:

- Some states require vertical integration—meaning operators in these markets are responsible for all aspects of their marijuana supply chain, from cultivation to processing to retail sales. In some states, vertical integration is strictly prohibited, while it is neither prohibited nor required in other markets.
- In most states, medical marijuana dispensaries are allowed to operate on a for-profit basis, but other states require them to be not-for-profit entities.
- Many states have set an upper limit on the number of marijuana businesses that can operate. Others have attempted to create a competitive environment that encourages business investment and forces down prices to the range charged by illicit operators in hopes of bringing consumers to the state-legal market. Missouri is unique in placing a minimum number of licenses that will be issued—tying the minimum figure to the state's population.
- Product availability also varies from state to state, with some markets prohibiting dry flower—still the most popular cannabis consumption method overall—and others banning infused edibles or allowing them only in certain forms.
- The cost to obtain and renew a business license varies not only from state to state but between business types as well. Some states renew licenses on an annual basis while others are biannual; some require proof of working capital while others do not. Often, the cost of a cultivation license will differ from a retail or dispensary license, which might also differ from the cost to license a processor or testing lab.

States also are inconsistent in the type and frequency of data they release to the public. Some states provide robust data related to patient counts, sales, transactions, tax information and products sold, providing updates throughout the year. Other states offer one report each year or even no data at all. The absence of such data makes it difficult to fully understand the market and business opportunities within each state.

This chapter seeks to address these issues by providing a comprehensive state-by-state overview of marijuana laws, estimates of patient and customer counts, the number of licenses granted and sales estimates through 2026.

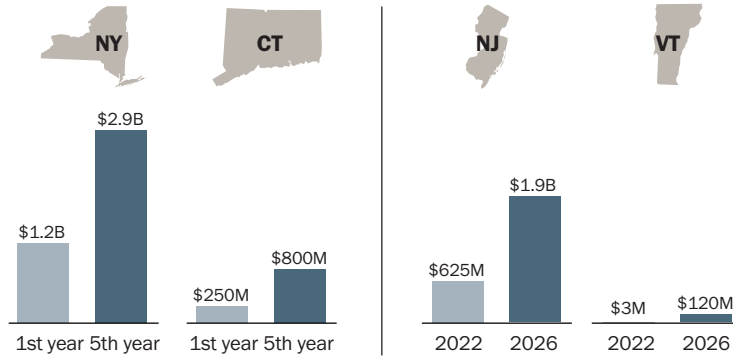
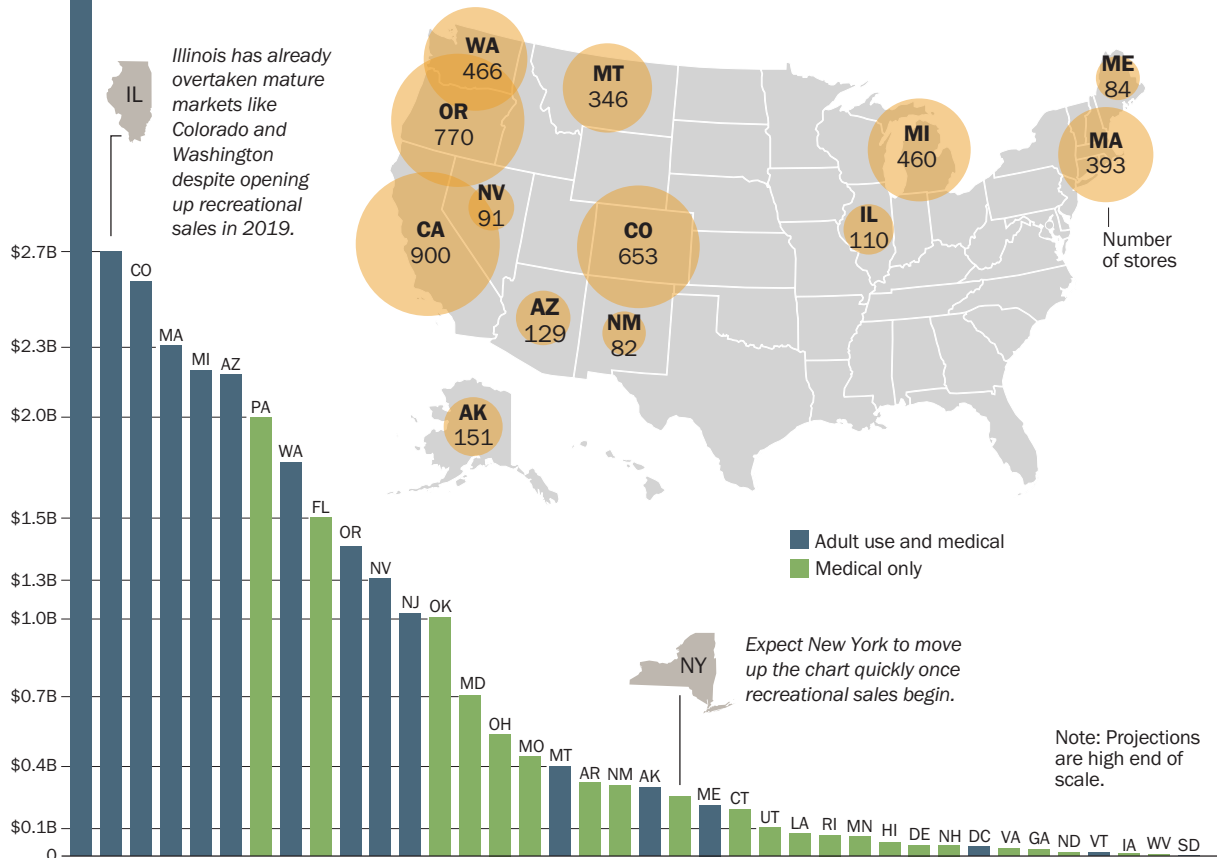
Note that the sales estimates provided are only for dispensaries/retail stores. They do not include private transactions between caregivers and patients, wholesale transactions, illegal-market activity or delivery-only services.

CHART 2.01 State-by-State Cannabis Sales Estimates for 2022

Adult-use and medical sales continue to grow across the country as more states integrate cannabis into their economies.

**CHART 2.02** Projections for New Northeastern Cannabis Markets

A wave of markets have started or will be started in the Northeastern states. Sales in the densely populated part of the country will soon catch up to the West.

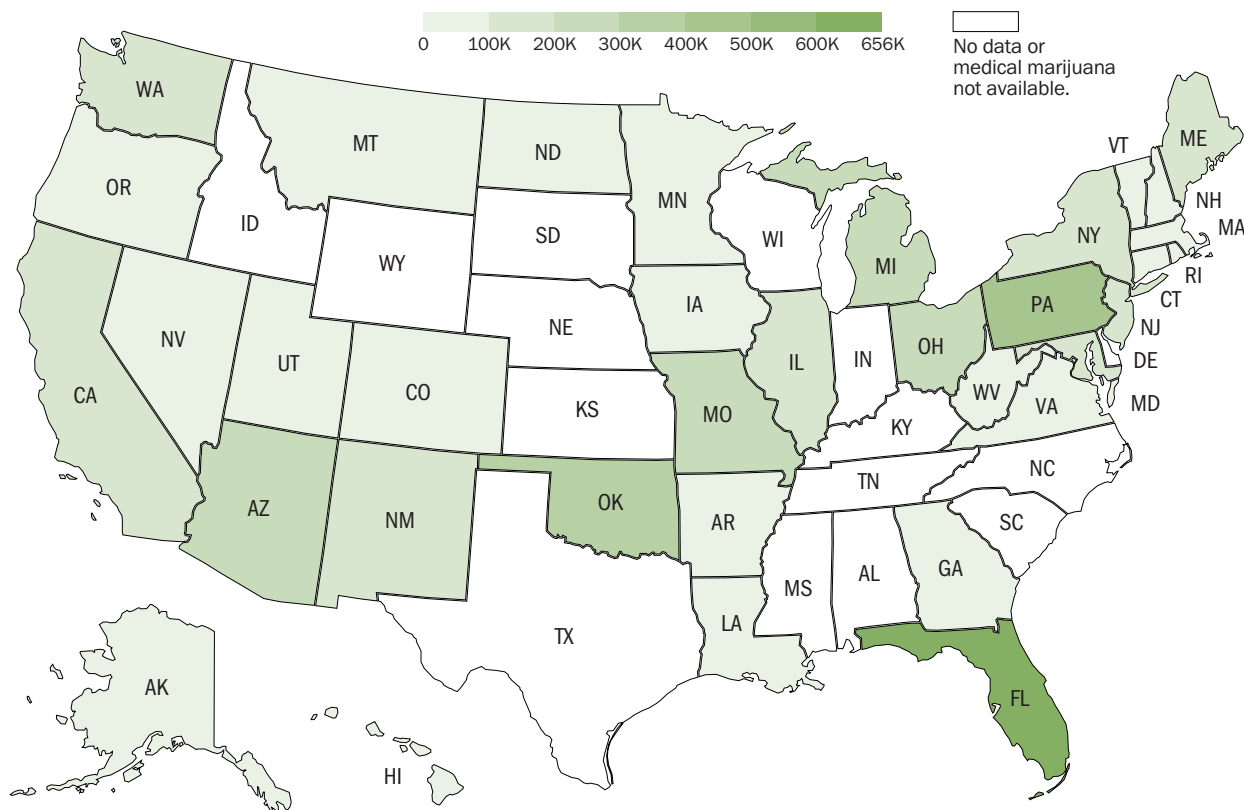
**CHART 2.03** Number of Adult-Use Retail Stores in Early 2022

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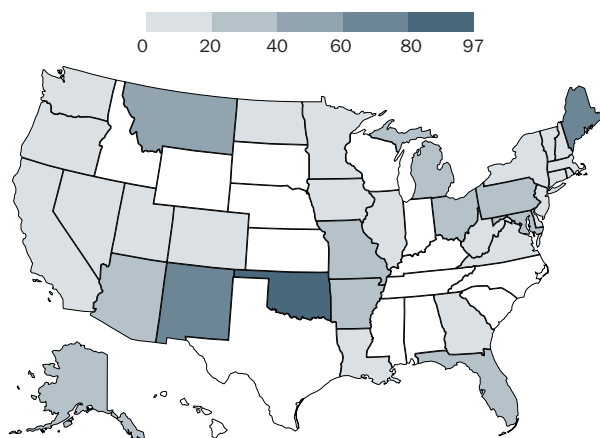
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CHART 2.04 Snapshot of Patient Participation in Legal MMJ Markets

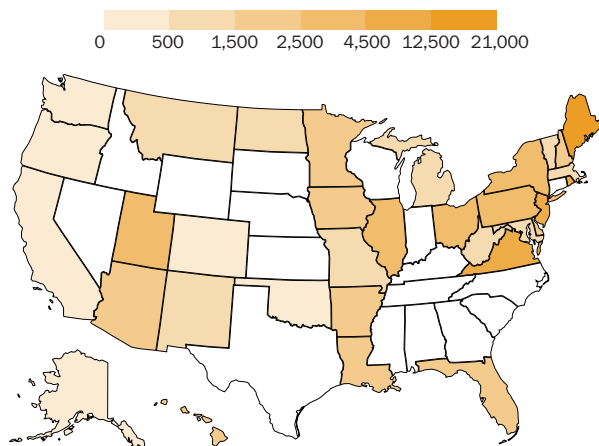
Patients per state



Patients per 1,000 residents



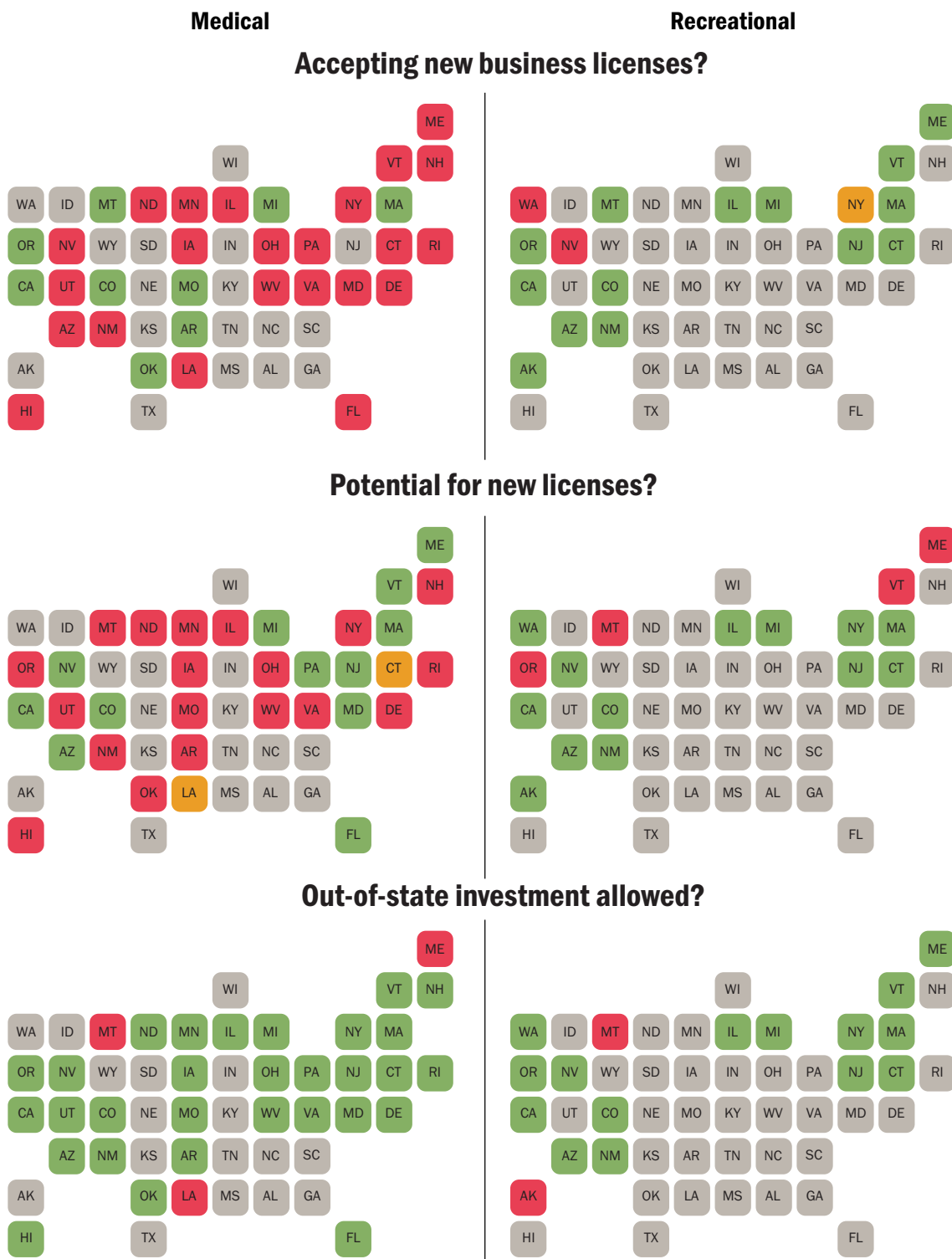
Patients per dispensary



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CHART 2.05 Cannabis Business Opportunities



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ALASKA

What to watch in 2022

Temporary rules that were implemented during the COVID-19 pandemic, such as curbside pickup, were made permanent in late 2021, an effort to make doing business easier for Alaskan operators. The current board of the Alcohol and Marijuana Control Office appears to want to build up the cannabis industry, a welcome change from some of the troubles of the past. Onsite consumption got off to a slow start, and it remains to be seen if it becomes a popular and viable business model.

AK MEDICAL

REGULATORY OVERVIEW

Patient registry	Mandatory—patients must have a written recommendation from a physician
Accepts patients registered with other states?	No
Home cultivation	Yes, a total of six plants are allowed but only three may be mature
Qualifying medical conditions	Cancer, glaucoma, HIV/AIDS, cachexia, persistent muscle spasms, seizures, severe nausea, severe pain and any other medical condition or treatment approved by the Department of Health or through petition.
MMJ business regulations	Stand-alone medical cannabis businesses are not allowed, as Alaska issues licenses only for its recreational program.

MARKET OVERVIEW

Number of registered MMJ patients (as of Q1 2022)	218	36 out of 36 MMJ markets with open patient registries
Registered MMJ patients as % of state population	0.03%	36 out of 36 MMJ markets with open patient registries

AK RECREATIONAL

REGULATORY OVERVIEW

Home cultivation	Yes
Restrictions on type of marijuana allowed to be sold?	Manufacturers are not permitted to adulterate existing food or drink or to make anything that "closely resembles" familiar products or beverages, including candy. Images or packaging that would appeal to children is prohibited.
Business regulations	Moderate. Though the number of licenses is not restricted statewide, rules address all aspects of operations at all levels of the supply chain, from seed-to-sale tracking and transportation to labeling, record-keeping, testing and advertising.

BUSINESS TAXES & FEES

Types of Businesses Licensed	Application Fees	License Fees
Retail stores	\$1,000 (new), \$600 (renewal)	\$5,000 (new), \$7,000 (renewal)
Onsite consumption endorsement (for retailers)	\$1,000	\$2,000
Cultivators - standard	\$1,000 (new), \$600 (renewal)	\$5,000 (new), \$7,000 (renewal)
Cultivators - limited	\$1,000 (new), \$600 (renewal)	\$1,000 (new), \$1,400 (renewal)
Manufacturers	\$1,000 (new), \$600 (renewal)	\$5,000 (new), \$7,000 (renewal)
Concentrate manufacturers	\$1,000 (new), \$600 (renewal)	\$1,000 (new), \$2,000 (renewal)
Testing labs	\$1,000 (new), \$600 (renewal)	\$1,000 (new), \$5,000 (renewal)
State tax requirements	Mature flower \$50/oz; immature/abnormal flower \$25/oz; trim \$15/oz; clones \$1/clone	

SUPPLY CHAIN DYNAMICS

Business Type	Number Licenses Allowed	Current Number of Active Licenses (As of early Q1 2021)
Retail stores	No Limit	151
Onsite consumption endorsement (for retailers)	No limit	2
Cultivators - standard	No Limit	133
Cultivators - limited	No Limit	112
Product manufacturers	No Limit	38
Concentrate manufacturers	No Limit	15
Testing labs	No Limit	4

MARKET OVERVIEW

Estimated Adult-Use Sales Via Licensed Retail Stores By Year	2021	\$220M-\$270M
	2022	\$260M-\$310M
	2023	\$290M-\$350M
	2024	\$320M-\$390M
	2025	\$350M-\$420M
	2026	\$370M-\$460M

BUSINESS OPPORTUNITY

Accepting New Business Licenses?	Yes
Potential For New Licenses?	Yes
Out-of-State Investment Allowed?	No

ARIZONA

What to watch in 2022

Arizona's adult-use market launched to great fanfare a year ago, and it has grown more rapidly than anticipated. Patient roles have already declined significantly as people embrace access through the recreational channels. The state will be conducting a lottery for its 26 social equity establishment licenses in April, a program that has been challenged by many.

AZ MEDICAL

REGULATORY OVERVIEW

Patient registry	Mandatory - patients must have a written recommendation from a physician
Accepts patients registered with other states?	No
Home cultivation	Yes, but only by patients (or their caregivers) who live more than 25 miles from a registered dispensary
Restrictions on type of marijuana allowed to be sold?	No
Qualifying medical conditions	ALS, agitation of Alzheimer's disease, cancer, Crohn's disease, glaucoma, hepatitis C, HIV/AIDS, PTSD, cachexia/wasting syndrome, severe and chronic pain, severe nausea, seizures, and severe or persistent muscle spasms
MMJ business regulations	Heavy. Applicants must go through an extensive application and licensing process, and businesses are subject to regulation of all aspects of operations. Stand-alone wholesale cultivation operations are prohibited. Dispensaries must grow their own medical cannabis, though they are permitted to transfer excess marijuana to another licensed dispensary. Stand-alone, wholesale infused products manufacturing is also prohibited. The state limits the total number of licenses available, most of which have already been awarded.

AZ MEDICAL

BUSINESS TAXES & FEES

Types of Businesses Licensed	Application Fees	License Fees
Vertically integrated businesses	\$5,000	\$1,000 (renewed annually)
State tax requirements	5.6% state tax plus up to 5.6% local taxes	

SUPPLY CHAIN DYNAMICS

Business Type	Number Licenses Allowed	Current Number of Licenses Granted (as of Q1 2022)
Vertically integrated businesses	143	131

MARKET OVERVIEW

Number of registered MMJ patients (as of Q2 2022)	266,850	4 out of 37 MMJ markets with open patient registries
Registered MMJ patients as % of state population	3.67%	6 out of 37 MMJ markets with open patient registries
Estimated MMJ Sales Via Dispensaries By Year	2021	\$690M-\$810M
	2022	\$780M-\$920M
	2023	\$720M-\$850M
	2024	\$680M-\$800M
	2025	\$650M-\$760M
	2026	\$620M-\$730M

BUSINESS OPPORTUNITY

Accepting New Business Licenses?	No
Potential For New Licenses?	Maybe; the number of licenses in the state is tied to the number of pharmacies in the state
Out-of-State Investment Allowed?	Yes

AZ RECREATIONAL

REGULATORY OVERVIEW

Home cultivation	Yes
Restrictions on type of marijuana allowed to be sold?	No
Business regulations	Heavy. Applicants must go through an extensive application and licensing process, and businesses are subject to regulation of all aspects of operations. Stand-alone wholesale cultivation operations are prohibited. Stand-alone, wholesale infused products manufacturing is also prohibited. The state limits the total number of licenses available, all of which have been awarded except for those available under the social equity framework.

BUSINESS TAXES & FEES

Types of Businesses Licensed	Application Fees	License Fees
Marijuana establishment	\$25,000 (new); \$5,000 (renewal)	
Addition of a cultivation or manufacturing site		\$2,500
State tax requirements	16% excise tax on all adult-use marijuana products, plus transaction privilege tax and use tax	

SUPPLY CHAIN DYNAMICS

Business Type	Number Licenses Allowed	Current Number of Licenses Granted (as of Q1 2022)
Marijuana establishment	130	129
Social equity ownership program	26	

MARKET OVERVIEW

Estimated Adult-Use Sales Via Licensed Retail Stores By Year	2021	\$550M-\$650M
	2022	\$1B-\$1.3B
	2023	\$1.5B-\$1.9B
	2024	\$1.9B-\$2.3B
	2025	\$2.3B-\$2.8B
	2026	\$2.6B-\$3.1B

BUSINESS OPPORTUNITY

Accepting New Business Licenses?	No
Potential For New Licenses?	Yes
Out-of-State Investment Allowed?	No

ARKANSAS

What to watch in 2022

Arkansas' licencing process for dispensaries and cultivation facilities has faced several challenges since its launch. As of now, all available licenses have been issued for those categories, but the oversight board is considering changes to its lottery and selection process.

AR MEDICAL

REGULATORY OVERVIEW

Patient registry	Mandatory - patients must apply with the state and get a written certification from a qualifying physician
Accepts patients registered with other states?	Yes
Home cultivation	No
Restrictions on type of marijuana allowed to be sold?	The production of certain edibles, including candies, cookies, brownies or other shapes that might appeal to minors, is prohibited.
Qualifying medical conditions	Broad, including PTSD and fibromyalgia. See full list here. Patients with other conditions may petition the Department of Health for consideration.
MMJ business regulations	Heavy. Arkansas' MMJ program includes requirements regarding plant counts, lab testing, dosing standards, labeling, inventory, recordkeeping, inspections and more. The rules also include a provision that dispensaries must staff a "pharmacist consultant" who would be available by phone to the dispensary and patients during business hours.

AR MEDICAL

BUSINESS TAXES & FEES

Types of Businesses Licensed	Application Fees	License Fees
Dispensary	\$7,500	\$15,000 + \$100,000 performance bond
Cultivator	\$15,000	\$100,000
Processor	\$5,000	\$100,000 performance bond
Transporter	\$5,000	\$100,000 performance bond
State tax requirements	6.5% state sales tax plus 4% privilege tax	

SUPPLY CHAIN DYNAMICS

Business Type	Number Licenses Allowed	Current Number of Licenses Granted (as of Q1 2022)
Dispensary	40	38
Cultivator	8	8
Processor	No limit	3
Transporter	No limit	0

MARKET OVERVIEW

Number of registered MMJ patients (as of Q1 2022)	82,410	16 out of 36 MMJ markets with open patient registries
Registered MMJ patients as % of state population	2.72%	9 out of 36 MMJ markets with open patient registries
Estimated MMJ Sales Via Dispensaries By Year	2021	\$240M-\$290M
	2022	\$270M-\$330M
	2023	\$295M-\$365M
	2024	\$325M-\$400M
	2025	\$405M-\$445M
	2026	\$405M-\$450M

BUSINESS OPPORTUNITY

Accepting New Business Licenses?	No
Potential For New Licenses?	No
Out-of-State Investment Allowed?	Yes

CALIFORNIA

What to watch in 2022

California finally consolidated its oversight from three different agencies into one, the Department of Cannabis Control. The move was meant to streamline licensing and regulatory changes, but reports say that it's still a convoluted process with too many involved parties. The DCC is currently accepting public comment on new consolidated rules it plans to implement this fall. High taxation from all governmental levels (municipal, county and state) are still prohibitive to many looking to participate in the regulated market.

CA MEDICAL

REGULATORY OVERVIEW

Patient registry	Voluntary—patients are required to obtain a recommendation from a qualifying physician to purchase and possess medical cannabis, but they are not required to register with the state
Accepts patients registered with other states?	No
Home cultivation	Yes
Restrictions on type of marijuana allowed to be sold?	No
Qualifying medical conditions	Broad. See full list here: https://www.cdph.ca.gov/Programs/CHSI/Pages/MMICP-FAQs.aspx
MMJ business regulations	Heavy. California has 26 distinct categories of business licenses (and licensing fees) at the state level. In addition to the state licenses, California requires companies to obtain business permits from local jurisdictions, which have their own rules for MJ businesses to comply with. Final rules are detailed and extensive, addressing all aspects of operations at all levels of the supply chain.

CA MEDICAL

BUSINESS TAXES & FEES

Types of Businesses Licensed	Application Fees	License Fees
Retailer	\$1,000 (annual)	\$2,500 to \$96,000 depending on gross annual revenue
Retailer Nonstorefront (Delivery)	\$1,000 (annual)	\$2,500 to \$57,000 depending on gross annual revenue
Cultivator	\$135 to \$8,655, depending on scale, light wattage and whether cultivation is indoor or outdoor	\$1,205 to \$77,905 depending on scale, light wattage and whether cultivation is indoor or outdoor
Manufacturer	\$500 or \$1,000, depending on license type	\$2,000 to \$75,000 depending on gross annual revenue
Processor	\$1,040	\$9,370
Nursery	\$520	\$4,685
Distributor	\$1,000 (annual)	\$1,500 to \$240,000 depending on gross annual revenue
Distributor Transport Only	\$1,000 (annual)	\$200 to \$1,000 depending on gross annual revenue
Microbusiness	\$1,000 (annual)	\$5,000 to \$300,000 depending on gross annual revenue
Event Organizer	\$1,000 (annual)	\$3,000 to \$20,000 depending on annual number of events
Testing Labs	\$1,000 (annual)	\$3,000 to \$112,000 depending on gross annual revenue
State tax requirements	Retailer: 15% excise tax paid to distributor. Cultivator: \$9.65/oz for flower, \$2.87/oz for leaves and \$1.35/oz for plants. Consumer: MMJ is exempt from sales tax.	

SUPPLY CHAIN DYNAMICS

Business Type	Number Licenses Allowed	Current Number of Licenses Granted (as of Q1 2022)
Retailer	No statewide limits	19 medicinal only; 870 adult-use and medicinal

CA MEDICAL

Retailer Nonstorefront (Delivery)	No statewide limits	25 medicinal only; 355 adult-use and medicinal
Cultivator (all levels)	No statewide limits	1,598
Manufacturer (all levels)	No statewide limits	29 medicinal only; 820 adult-use and medicinal
Processor	No statewide limits	31
Nursery	No statewide limits	72
Distributor	No statewide limits	46 medicinal only; 962 adult-use and medicinal
Distributor Transport Only	No statewide limits	39 medicinal only; 78 adult-use and medicinal
Microbusiness	No statewide limits	6 medicinal only; 291 adult-use and medicinal
Event Organizer	No statewide limits	55
Testing Labs	No statewide limits	46

MARKET OVERVIEW

Number of registered MMJ patients (as of Q2 2022)	California does not have a formal MMJ patient registry	
Registered MMJ patients as % of state population	-	
Estimated MMJ Sales Via Dispensaries By Year	2021	\$200M-\$240M
	2022	\$200M-\$240M
	2023	\$200M-\$240M
	2024	\$200M-\$240M
	2025	\$200M-\$240M
	2026	\$200M-\$240M

BUSINESS OPPORTUNITY

Accepting New Business Licenses?	Yes
Potential For New Licenses?	Yes
Out-of-State Investment Allowed?	Yes

CA RECREATIONAL

REGULATORY OVERVIEW

Home cultivation	Yes—up to 6 plants
Restrictions on type of marijuana allowed to be sold?	No, but product designs must not be appealing to children or easily confused with commercially sold candy and food
Business regulations	Heavy. The state's recreational law builds on the MMJ industry, which has 26 distinct categories of business licenses (and licensing fees). In addition to the state licenses, California requires companies to obtain business permits from local jurisdictions, which have their own rules for MJ businesses to comply with. Final rules are detailed and extensive, addressing all aspects of operations at all levels of the supply chain.

BUSINESS TAXES & FEES

Types of Businesses Licensed	Application Fees	License Fees
Retailer	\$1,000	\$2,500-\$96,000 depending on gross annual revenue
Retailer Nonstorefront (Delivery)	\$1,000	\$2,500 -\$57,000 depending on gross annual revenue
Cultivator	\$135 to \$8,655, depending on scale, light wattage and whether cultivation is indoor or outdoor	\$1,205-\$77,905 depending on scale, light wattage and whether cultivation is indoor or outdoor
Manufacturer	\$500 or \$1,000, depending on license type	\$2,000-\$75,000 depending on gross annual revenue
Processor	\$1,040	\$9,370
Nursery	\$520	\$4,685
Distributor	\$1,000	\$1,500-\$240,000 depending on gross annual revenue

CA RECREATIONAL

Distributor Transport Only	\$1,000	\$200-\$1,000 depending on gross annual revenue
Microbusiness	\$1,000	\$5,000-\$300,000 depending on gross annual revenue
Event Organizer	\$1,000	\$3,000-\$20,000 depending on annual number of events
Testing Labs	\$1,000	\$3,000-\$112,000 depending on gross annual revenue

Get additional details on license fees for each category here: <https://cannabis.ca.gov/faqs>

State tax requirements	<p>Retailer: 15% excise tax paid to distributor</p> <p>Cultivator: \$10.08/ounce for flower, \$3/ounce for leaves and \$1.41/ounce for plants</p> <p>Consumer: state sales tax of 7.25%; municipalities may also add taxes to the purchase</p>
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SUPPLY CHAIN DYNAMICS

Business Type	Number Licenses Allowed	Current Number of Licenses Granted (as of Q1 2022)
Retailer	No statewide limits	42 Adult; 870 Adult and Medicinal
Retailer Nonstorefront (Delivery)	No statewide limits	23 Adult; 355 Adult and Medicinal
Cultivator (all levels)	No statewide limits	7,147
Manufacturer (all levels)	No statewide limits	38 Adult; 820 Adult and Medicinal
Processor	No statewide limits	156
Nursery	No statewide limits	275
Distributor	No statewide limits	114 Adult; 962 Adult and Medicinal
Distributor Transport Only	No statewide limits	48 Adult; 78 Adult and Medicinal
Microbusiness	No statewide limits	33 Adult; 291 Adult and Medicinal
Event Organizer	No statewide limits	55
Testing Labs	No statewide limits	46

MARKET OVERVIEW

Estimated Adult-Use Sales Via Licensed Retail Stores By Year	2021	\$4.7B-\$5.5B
	2022	\$5.3B-\$6.2B
	2023	\$5.5B-\$6.5B
	2024	\$5.6B-\$6.6B
	2025	\$5.7B-\$6.7B
	2026	\$5.7B-\$6.7B

BUSINESS OPPORTUNITY

Accepting New Business Licenses?	Yes
Potential For New Licenses?	Yes
Out-of-State Investment Allowed?	Yes

COLORADO

What to watch in 2022

Denver—Colorado's largest city—overhauled its rules for cannabis businesses at the end of 2021. Other cities around the state have also launched reviews of their programs. The impetus? Implementing a plan for social equity, something that wasn't a part of the discussion when Colorado legalized cannabis use. The state is now playing catch up, but it's primarily happening at the local level. Consolidation continues more than two years after the state changed rules to allow outside investment in the cannabis industry. Multistate operators, in particular, are making inroads into the oldest regulated adult-use market in the U.S.

CO MEDICAL

REGULATORY OVERVIEW

Patient registry	Mandatory—patients must get an online certification from a qualified physician
Accepts patients registered with other states?	No
Home cultivation	Yes
Restrictions on type of marijuana allowed to be sold?	Edibles shaped like a human, animal, or fruit are prohibited.
Qualifying medical conditions	Cancer, glaucoma, HIV/AIDS, cachexia/wasting syndrome, persistent muscle spasms, seizures, severe nausea, severe pain, PTSD, Autism spectrum disorder and any condition for which a physician could prescribe an opioid
MMJ business regulations	Moderately heavy. Businesses must go through an extensive licensing and approval process, though the associated fees are lower than many other markets. Operational regulations are quite extensive and address all aspects of the supply chain, including cultivation, processing, seed-to-sale inventory tracking, plant counts, security, record-keeping and transport of cannabis.

CO MEDICAL

BUSINESS TAXES & FEES

Types of Businesses Licensed	Application Fees	License Fees
Medical Marijuana Store	\$5,000 (initial); \$300 (annual renewal)	\$2,000 (initial); \$1,500 (annual renewal)
Medical Marijuana Products Manufacturer	\$1,000 (initial); \$300 (annual renewal)	\$1,500 (initial and annual renewal)
Medical Marijuana Cultivation Facility	\$1,000 (initial); \$300 (annual renewal)	\$1,500 (initial); \$1,500 to \$3,500 depending on number of plants with additional \$800 per 3,000 plants over 3,000 plants (annual renewal)
Medical Marijuana Testing Facility	\$1,000 (initial); \$300 (annual renewal)	\$1,500 (initial and annual renewal)
Medical Marijuana Transporter	\$1,000 (initial); \$300 (annual renewal)	\$4,400 (initial and annual renewal)
Medical Marijuana Business Operator	\$1,000 (initial); \$300 (annual renewal)	\$2,200 (initial and annual renewal)
Marijuana Research and Development Facility	\$1,000 (initial); \$300 (annual renewal)	\$1,500 (initial and annual renewal)
State tax requirements	2.9% state sales tax	

SUPPLY CHAIN DYNAMICS

Business Type	Number Licenses Allowed	Current Number of Licenses Granted (as of Q1 2022)
Medical Marijuana Store	No statewide limits	414
Medical Marijuana Products Manufacturer	No statewide limits	227
Medical Marijuana Cultivation Facility	No statewide limits	483
Medical Marijuana Testing Facility	No statewide limits	10
Medical Marijuana Transporter	No statewide limits	13
Delivery	No statewide limits	14
Marijuana Research and Development Facility	No statewide limits	1

CO MEDICAL

MARKET OVERVIEW

Number of registered MMJ patients (as of Q1 2022)	86,460	15 out of 36 MMJ markets with open patient registries
Registered MMJ patients as % of state population	1.49%	17 out of 36 MMJ markets with open patient registries
Estimated MMJ Sales Via Dispensaries By Year	2021	\$385M-\$425M
	2022	\$320M-\$390M
	2023	\$295M-\$360M
	2024	\$265M-\$325M
	2025	\$255M-\$310M
	2026	\$240M-\$295M

BUSINESS OPPORTUNITY

Accepting New Business Licenses?	Yes
Potential For New Licenses?	Yes
Out-of-State Investment Allowed?	Yes

CO RECREATIONAL

REGULATORY OVERVIEW

Home cultivation	Yes
Restrictions on type of marijuana allowed to be sold?	Edibles shaped like a human, animal or fruit are prohibited
Business regulations	Heavy. Though the number of licenses is not restricted statewide, some cities have banned recreational marijuana businesses. The state has also changed or updated rules numerous times, specifically those related to infused products. Regulations address all aspects of operations at all levels of the supply chain. They include everything from seed-to-sale tracking, transportation and labeling to record-keeping, testing, packaging and advertising.

BUSINESS TAXES & FEES

Types of Businesses Licensed	Application Fees	License Fees
Retail Marijuana Store	\$5,000 (initial); \$300 (annual renewal)	\$2,000 (initial); \$1,500 (annual renewal)
Retail Marijuana Products Manufacturer	\$5,000 (initial); \$300 (annual renewal)	\$1,500 (initial and annual renewal)
Retail Marijuana Cultivation Facility	\$5,000 (initial); \$300 (annual renewal)	\$1,500 (initial); \$1,500 to \$3,500 depending on number of plants with additional \$800 per 3,000 plants over 3,000 plants (annual renewal)
Retail Marijuana Testing Facility	\$1,000 (initial); \$300 (annual renewal)	\$1,500 (initial and annual renewal)
Retail Marijuana Transporter	\$1,000 (initial); \$300 (annual renewal)	\$4,400 (initial and annual renewal)
Retail Marijuana Business Operator	\$1,000 (initial); \$300 (annual renewal)	\$2,200 (initial and annual renewal)
Marijuana Hospitality Business	\$1,000 (initial); \$300 (annual renewal)	\$1,000 (initial); \$750 (annual renewal)
Retail Marijuana Hospitality and Sales Business	\$5,000 (initial); \$300 (annual renewal)	\$2,000 (initial); \$1,500 (annual renewal)
State tax requirements	2.9% sales tax, 15% retail tax and 15% excise tax	

CO RECREATIONAL

SUPPLY CHAIN DYNAMICS

Business Type	Number Licenses Allowed	Current Number of Licenses Granted (as of Q1 2022)
Retail Marijuana Store	No statewide limits	655
Retail Marijuana Products Manufacturer	No statewide limits	300
Retail Marijuana Cultivation Facility	No statewide limits	808
Retail Marijuana Testing Facility	No statewide limits	10
Retail Marijuana Transporter	No statewide limits	37
Delivery	No statewide limits	14
Marijuana Hospitality Business	No statewide limits	6
Retail Marijuana Hospitality and Sales Business	No statewide limits	0

MARKET OVERVIEW

Estimated Adult-Use Sales Via Licensed Retail Stores By Year	2021	\$1.7B-\$2B
	2022	\$1.9B-\$2.2B
	2023	\$2B-\$2.4B
	2024	\$2.2B-\$2.5B
	2025	\$2.3B-\$2.7B
	2026	\$2.4B-\$2.8B

BUSINESS OPPORTUNITY

Accepting New Business Licenses?	Yes
Potential For New Licenses?	Yes
Out-of-State Investment Allowed?	Yes

CONNECTICUT

What to watch in 2022

Connecticut started accepting applications for its adult-use market in February. As of publication, no licenses had been issued, but the state expects sales to begin in late 2022. The process hasn't been smooth, however. The first round of cultivation licenses have been set aside for social equity applicants, but the provisional license will cost lottery winners \$3 million—a steep pricetag for candidates who traditionally have had less access to capital. The state also took steps to boost its medical cannabis program by increasing the purchase limit for patients.

CT MEDICAL

REGULATORY OVERVIEW

Patient registry	Mandatory—patients must have a written recommendation from a physician
Accepts patients registered with other states?	No
Home cultivation	Yes
Restrictions on type of marijuana allowed to be sold?	Yes—while most forms of the plant are allowed (flower, oils, tinctures, topicals, edibles, etc.), edibles are restricted to baked goods. Beverages and other “confectionaries” are prohibited, as are designs that may encourage the use of marijuana for recreational purposes or appeal to children.
Qualifying medical conditions	Broad, with separate qualifying conditions for adults and minors. See full list of qualifying conditions here: https://portal.ct.gov/DCP/Medical-Marijuana-Program/Qualification-Requirements
MMJ business regulations	Heavy. Producers and dispensaries are separately licensed and may not be integrated. The number of available licenses is low and tightly controlled. Licensing fees and bond/escrow requirements for producers are some of the highest in the country. Regulations on operations are detailed and extensive, covering everything from location and security to transportation and advertising. Only a licensed pharmacist can apply for a dispensary license, and only a pharmacist or individuals who have held a pharmacy technician registration within the previous five years may sell medical marijuana.

CT MEDICAL

BUSINESS TAXES & FEES

Types of Businesses Licensed	Application Fees	License Fees
Dispensary	\$1,000	\$5,000
Producer	\$25,000	\$75,000
State tax requirements	Medical marijuana is exempt from state sales and use tax	

SUPPLY CHAIN DYNAMICS

Business Type	Number Licenses Allowed	Current Number of Licenses Granted (as of Q1 2022)
Dispensary	18	18
Producer	10	4

MARKET OVERVIEW

Number of registered MMJ patients (as of Q1 2022)	53,073	18 out of 36 MMJ markets with open patient registries
Registered MMJ patients as % of state population	1.47%	18 out of 36 MMJ markets with open patient registries
Estimated MMJ Sales Via Dispensaries By Year	2021	\$165M-\$200M
	2022	\$170M-\$210M
	2023	\$175M-\$215M
	2024	\$180M-\$220M
	2025	\$185M-\$225M
	2026	\$190M-\$230M

BUSINESS OPPORTUNITY

Accepting New Business Licenses?	No
Potential For New Licenses?	Yes
Out-of-State Investment Allowed?	Yes

CT RECREATIONAL

REGULATORY OVERVIEW

Home cultivation	Yes
Restrictions on type of marijuana allowed to be sold?	Edibles are limited to cube and sphere shapes and must be stamped with “THC.” No capsules, pills, tablets, sublinguals or suppositories. Cannabis products cannot bear “notable likeness to a commercial product not containing cannabis.”
Business regulations	Heavy. Producers and dispensaries are separately licensed and may not be integrated. The number of available licenses is low and tightly controlled. Licensing fees and bond/escrow requirements are high. Regulations on operations are detailed and extensive, covering everything from location and security to transportation and advertising. All employees and backers must also submit license applications to the state.

BUSINESS TAXES & FEES

Types of Businesses Licensed	Application Fees	License Fees
<i>Non-Social Equity</i>		
Cultivator	\$1,000	\$25,000 (provisional), \$75,000 (license)
Microcultivator	\$250	\$500 (provisional), \$1,000 (license)
Retailer	\$500	\$5000 (provisional), \$25,000 (license)
Product Manufacturer	\$750	\$5,000 (provisional), \$25,000 (license)
Food and Beverage	\$250	\$1,000 (provisional), \$5,000 (license)
Delivery/Transport	\$250	\$1,000 (provisional), \$5,000 (license)
Product Packager	\$500	\$5,000 (provisional), \$25,000 (license)
Hybrid	\$500	\$5,000 (provisional), \$25,000 (license)
<i>Social Equity</i>		
Cultivator	\$500	\$1,2500 (provisional), \$37,500 (license)
Microcultivator	\$125	\$250 (provisional), \$500 (license)
Retailer	\$250	\$2,500 (provisional), \$12,500 (license)
Product Manufacturer	\$375	\$2,500 (provisional), \$12,500 (license)

CT RECREATIONAL

Food and Beverage	\$125	\$500 (provisional), \$2,500 (license)
Delivery/Transport	\$125	\$500 (provisional), \$2,500 (license)
Product Packager	\$250	\$2,500 (provisional), \$12,500 (license)
Hybrid	\$250	\$2,500 (provisional), \$12,500 (license)
State tax requirements	2.9% sales tax, 15% retail tax and 15% excise tax	

SUPPLY CHAIN DYNAMICS

Business Type	Number Licenses Allowed	Current Number of Licenses Granted (as of Q1 2022)
Cultivator		
Microcultivator	4 (2 standard, 2 social equity)	
Retailer	12 (6 standard, 6 social equity)	
Product Manufacturer	6 (3 standard, 3 social equity)	
Food and Beverage	10 (5 standard, 5 social equity)	
Delivery	10 (5 standard, 5 social equity)	
Transport	4 (2 standard, 2 social equity)	
Product Packager	6 (3 standard, 3 social equity)	
Hybrid	4 (2 standard, 2 social equity)	

MARKET OVERVIEW

Estimated Adult-Use Sales Via Licensed Retail Stores By Year	2021	0
	2022	\$100M-\$200M
	2023	\$300M-\$375M
	2024	\$475M-\$575M
	2025	\$575M-\$725M
	2026	\$650M-\$800M

BUSINESS OPPORTUNITY

Accepting New Business Licenses?	Yes
Potential For New Licenses?	Yes
Out-of-State Investment Allowed?	Yes

DELAWARE

What to watch in 2022

Efforts to legalize adult-use cannabis in the state failed in March. While Delaware increased the number of compassion center licenses available, there are still only 7 operating dispensaries to serve a rapidly growing pool of patients.

DE MEDICAL

REGULATORY OVERVIEW

Patient registry	Mandatory—patients must have a certification from a physician
Accepts patients registered with other states?	No
Home cultivation	No
Restrictions on type of marijuana allowed to be sold?	Not for adult patients, but qualifying patients under age 18 may only receive marijuana oil
Qualifying medical conditions	Moderate. Includes: Terminal illness, cancer, HIV/AIDS, cirrhosis, ALS, Alzheimer's disease, PTSD, intractable epilepsy, certain autism diagnoses, glaucoma, chronic debilitating migraines, cachexia or wasting syndrome, intractable nausea, seizures, muscle spasms and severe, debilitating pain that has not responded to other treatments. It does not include general chronic pain as a qualifying condition.
MMJ business regulations	Very heavy. Licenses are capped at a very low level and regulations address all aspects of operations at all levels of the supply chain. They include everything from transportation, sampling and labeling to record-keeping, testing, packaging and advertising.

DE MEDICAL

BUSINESS TAXES & FEES

Types of Businesses Licensed	Application Fees	License Fees
Compassion center (vertically integrated)	\$5,000	\$40,000 (initial and bi-annual renewal)
State tax requirements	Delaware has no sales tax and compassion centers are exempt from gross receipts tax because they are not-for-profit	

SUPPLY CHAIN DYNAMICS

Business Type	Number Licenses Allowed	Current Number of Licenses Granted (as of Q1 2022)
Compassion center (vertically integrated business)	6	6

MARKET OVERVIEW

Number of registered MMJ patients (as of Q1 2022)	14,127	27 out of 36 MMJ markets with open patient registries
Registered MMJ patients as % of state population	1.41%	19 out of 36 MMJ markets with open patient registries
Estimated MMJ Sales Via Dispensaries By Year	2021	\$35M-\$45M
	2022	\$40M-\$50M
	2023	\$45M-\$50M
	2024	\$45M-\$55M
	2025	\$45M-\$55M
	2026	\$45M-\$55M

BUSINESS OPPORTUNITY

Accepting New Business Licenses?	No
Potential For New Licenses?	No
Out-of-State Investment Allowed?	Yes

FLORIDA

What to watch in 2022

Florida issued an emergency rule in late 2021 that allowed for the issuance of 1 additional license to a designated Black farmer, part of an effort to address past racial discrimination. The move is seen as a good first step, but most observers say there's a long way to go yet. The state likely will be issuing an additional 19 permits as required by the 2017 law that tied the limit to patient counts. The commission is currently in rulesmaking regarding those new permits.

FL MEDICAL

REGULATORY OVERVIEW

Patient registry	Mandatory
Accepts patients registered with other states?	No, but seasonal residents may apply to become qualified patients
Home cultivation	No
Restrictions on type of marijuana allowed to be sold?	No, but there are restrictions on the shape and color of edibles so they are not attractive to children or resemble commercially available candy and prerolls are not allowed to be rolled in tobacco or hemp paper.
Qualifying medical conditions	Moderate. Includes ALS, cancer, Crohn's disease, epilepsy, glaucoma, HIV/AIDS, multiple sclerosis, Parkinson's disease, PTSD or other debilitating medical conditions of the same kind or class as or comparable to those enumerated, and for which a physician believes that the medical use of marijuana would likely outweigh the potential health risks for a patient.
MMJ business regulations	Heavy. Regulations in Florida's medical marijuana market have traditionally been strict, allowing for only 17 licenses (though multiple storefronts are allowed) and requiring vertical integration.

FL MEDICAL

BUSINESS TAXES & FEES

Types of Businesses Licensed	Application Fees	License Fees
Medical marijuana treatment center (vertically integrated)	\$146,000	
State tax requirements	Medical marijuana is exempt from state sales tax	

SUPPLY CHAIN DYNAMICS

Business Type	Number Licenses Allowed	Current Number of Licenses Granted (as of Q1 2022)
Medical marijuana treatment center (vertically integrated)	22	22, with 413 locations

MARKET OVERVIEW

Number of registered MMJ patients (as of Q1 2022)	678,389	2 out of 36 MMJ markets with open patient registries
Registered MMJ patients as % of state population	3.11%	7 out of 36 MMJ markets with open patient registries
Estimated MMJ Sales Via Dispensaries By Year	2021	\$1.1B-\$1.3B
	2022	\$1.3B-\$1.5B
	2023	\$1.5B-\$1.8B
	2024	\$1.7B-\$2B
	2025	\$1.9B-\$2.3B
	2026	\$2B-\$2.5B

BUSINESS OPPORTUNITY

Accepting New Business Licenses?	No
Potential For New Licenses?	Yes
Out-of-State Investment Allowed?	Yes

GEORGIA

What to watch in 2022

Georgia's limited medical marijuana program was passed into law in 2019, but the state only recently established its framework for awarding licenses to process and manufacture oil to serve patients. The commission still needs to complete rules for licensing dispensaries. The process was again delayed when a bill to approve the framework failed to pass in the state Senate. Six licensees had received tentative approval last summer to begin operations, but that's on hold once again.

GA MEDICAL

REGULATORY OVERVIEW

Patient registry	Mandatory—patients must have certification from a physician
Accepts patients registered with other states?	No
Home cultivation	No
Restrictions on type of marijuana allowed to be sold?	The program only allows for oil with THC content of 5% or less in the forms of oil, tinctures, transdermal patches, lotion or capsules. All MMJ must contain an amount of CBD (cannabidiol) that is at least equal to the amount of THC. Vaping or smoking oil is strictly prohibited.
Qualifying medical conditions	Restrictive: AIDS (severe or end stage), ALS (severe or end stage), Alzheimer's (severe or end stage), autism spectrum disorder, cancer (end stage or when treatment causes cachexia or vomiting), Crohn's disease, epidermolysis bullosa, intractable pain, mitochondrial disease, multiple sclerosis (severe or end stage), Parkinson's disease (severe or end stage), peripheral neuropathy (severe or end stage), PTSD, seizure disorders related to epilepsy or head trauma, sickle cell disease (severe or end stage), Tourette's syndrome (severe), patient is in hospice care.
MMJ business regulations	Very heavy. Referred to as a "low-THC oil" program rather than a medical marijuana program, House Bill 324 developed strict rules for the state's future six producer/processors and delegated authority for dispensaries to the state Board of Pharmacy, which will develop a special low-THC oil dispensing license for pharmacies. All marijuana must be grown indoors and must not be produced with pesticides.

GA MEDICAL

BUSINESS TAXES & FEES

Types of Businesses Licensed	Application Fees	License Fees
Class 1 producer/processor (<100,000 sqft cultivation space)	\$25,000	\$200,000 (new); \$100,000 (annual renewal)
Class 2 producer/processor (<50,000 sqft cultivation space)	\$5,000	\$100,000 (new); \$50,000 (annual renewal)
Dispensary	N/A	N/A
State tax requirements	Sale of low-THC oil is subject to all applicable sales and use taxes	

SUPPLY CHAIN DYNAMICS

Business Type	Number Licenses Allowed	Current Number of Licenses Granted (as of Q1 2022)
Class 1 producer/processor	2	Licenses put on hold due to failed legislation
Class 2 producer/processor	4	Licenses put on hold due to failed legislation
Dispensary	The Georgia Access to Medical Cannabis Commission will develop a special license for pharmacies and retail outlets to dispense low-THC oil	

MARKET OVERVIEW

Number of registered MMJ patients (as of Q1 2022)	20,000	24 out of 36 MMJ markets with open patient registries
Registered MMJ patients as % of state population	0.19%	34 out of 36 MMJ markets with open patient registries
Estimated MMJ Sales Via Dispensaries By Year	2021	\$0
	2022	\$0
	2023	\$130M-\$160M
	2024	\$240M-\$295M
	2025	\$380M-\$460M
	2026	\$525M-\$640M

BUSINESS OPPORTUNITY

Accepting Applications for New Business Licenses?	No. Applications for producer/processors are currently being reviewed, and no announcement has been made for licensing dispensaries yet.
Potential for New Licensing Opportunities?	The Georgia Access to Medical Cannabis Commission is authorized to develop an annual, nontransferable dispensing license for retail outlets to dispense low-THC oil to registered patients. The amount of licenses available, application fee, license fee, and license renewal fee is to be determined when the commission develops such a license for retail outlets. No information has been provided about when applications for such licenses will be made available.
Out-of-State Investment Allowed?	Yes

HAWAII

What to watch in 2022

Strict regulations in Hawaii are hampering the growth of the state's medical marijuana industry, causing sales to slow and making the regulated market uncompetitive with the illicit market. The state just started allowing the sale of edibles, two years after the bill to permit such activity was signed into law. Hawaii's reciprocity program started to pick up steam again once travel limitations caused by the COVID-19 pandemic were lifted, but it remains below projections.

HI MEDICAL

REGULATORY OVERVIEW

Patient registry	Mandatory—patients must have certification from a physician
Accepts patients registered with other states?	Yes
Home cultivation	Yes. Note: On December 31, 2023, caregivers will be prohibited from growing marijuana for patients, with limited exceptions for minors, adults lacking legal capacity and patients on islands where there aren't any dispensaries. Caregivers will still be permitted to purchase cannabis from licensed dispensaries on behalf of patients after that date.
Restrictions on type of marijuana allowed to be sold?	No
Qualifying medical conditions	Limited. Includes: ALS, cancer, glaucoma, lupus, epilepsy, multiple sclerosis, rheumatoid arthritis, HIV/AIDS, PTSD, as well as conditions—or whose treatments—produce cachexia/wasting syndrome, severe and persistent muscle spasms, seizures, severe nausea or severe pain
MMJ business regulations	Heavy. The state has a cap on MMJ business licenses and the number of dispensaries each company can operate. Licensing fees are relatively high and include requirements for minimum working capital/funds in escrow, and dispensaries must grow their own cannabis. Dispensary rules cover all aspects of operations including hiring, security, seed-to-sale inventory tracking, record-keeping, transportation, advertising, cultivation, processing and lab testing. Businesses are also subject to inspections and are required to submit audited financial statements to the state each year.

HI MEDICAL

BUSINESS TAXES & FEES

Types of Businesses Licensed	Application Fees	License Fees
Vertically integrated dispensary	\$5,000	\$75,000 (new); \$50,000 (annual renewal)
Testing lab	\$3,000	\$3,000 annual renewal
State tax requirements	Hawaii's standard General Excise Tax of 4% will be applied to medical cannabis sales plus county excise tax	

SUPPLY CHAIN DYNAMICS

Business Type	Number Licenses Allowed	Current Number of Operating Dispensaries (as of Q1 2022)
Vertically integrated dispensary	8—the state has awarded licenses to eight companies, each of which can open up to two cultivation sites, two processing sites, and two dispensaries. A third dispensary may be authorized when the location would serve a rural community	15

MARKET OVERVIEW

Number of registered MMJ patients (as of Q1 2022)	34,125	20 out of 36 MMJ markets with open patient registries
Registered MMJ patients as % of state population	2.37%	11 out of 36 MMJ markets with open patient registries
Estimated MMJ Sales Via Dispensaries By Year	2021 2022 2023 2024 2025 2026	\$45M-\$55M \$51M-\$63M \$61M-\$74M \$72M-\$88M \$89M-\$109M \$105M-\$128M

BUSINESS OPPORTUNITY

Accepting New Business Licenses?	No
Potential For New Licenses?	No
Out-of-State Investment Allowed?	Yes

ILLINOIS

What to watch in 2022

Illinois' adult-use cannabis program has been trying to expand, but the lotteries used for issuing new licenses has been mired in legal challenges. Currently, 185 retailer licenses are on hold as cases make their way through the courts. Even if all of the licenses are eventually issued, Illinois will maintain its status as one of the states with lowest number of stores per capita. The governor has proposed new rules to try and streamline the process, but to date, those have not been approved.

IL MEDICAL

REGULATORY OVERVIEW

Patient registry	Mandatory—a written certification from a physician is required
Accepts patients registered with other states?	No
Home cultivation	Yes, medical marijuana patients are allowed to grow five plants at a time
Restrictions on type of marijuana allowed to be sold?	Generally no, though edibles or other infused products that require refrigeration or “hot-handling” are prohibited
Qualifying medical conditions	Very broad, including chronic pain, PTSD and opioid alternative. See full list of qualifying conditions here: https://www.dph.illinois.gov/topics-services/prevention-wellness/medical-cannabis/debilitating-conditions
MMJ business regulations	Very heavy. Illinois is a complex market for businesses to navigate. The state has implemented caps on the number of dispensaries and cultivation sites allowed to operate, and licensing fees are pricey. Strict rules govern nearly all aspects of business operations, including location, security, inventory tracking and testing.

IL MEDICAL

BUSINESS TAXES & FEES

Types of Businesses Licensed	Application Fees	License Fees
Dispensaries	\$5,000	\$30,000 (new), \$25,000 (annual renewal)
Cultivators	\$25,000	\$200,000 (new), \$100,000 (annual renewal)
State tax requirements	1% retailer's occupation tax on dispensary sales; 7% medical cannabis privilege tax on cultivators	

SUPPLY CHAIN DYNAMICS

Business Type	Number Licenses Allowed	Current Number of Licenses Granted (as of Q1 2022)
Dispensaries	60	55
Cultivators	22	21

MARKET OVERVIEW

Number of registered MMJ patients (as of Q1 2022)	195,235	7 out of 36 MMJ markets with open patient registries
Registered MMJ patients as % of state population	1.54%	16 out of 36 MMJ markets with open patient registries
Estimated MMJ Sales Via Dispensaries By Year	2021 2022 2023 2024 2025 2026	\$360M-\$440M \$330M-\$400M \$310M-\$370M \$290M-\$350M \$280M-\$340M \$270M-\$340M

BUSINESS OPPORTUNITY

Accepting New Business Licenses?	No
Potential For New Licenses?	No
Out-of-State Investment Allowed?	Yes

IL RECREATIONAL

REGULATORY OVERVIEW

Home cultivation	Only allowed for MMJ patients
Restrictions on type of marijuana allowed to be sold?	None
Business regulations	Very heavy. Illinois is a complex market for businesses to navigate. The state has implemented caps on the number of dispensaries and cultivation sites allowed to operate, and licensing fees are pricey. Strict rules govern nearly all aspects of business operations, including location, security, inventory tracking and testing.

BUSINESS TAXES & FEES

Types of Businesses Licensed	Application Fees	License Fees
Retailer	\$5,000	\$60,000
Craft grower	\$5,000	\$40,000
Infuser	\$5,000	\$5,000
Transporting organization	\$5,000	\$10,000
Infuser	\$5,000	\$5,000
Transporting organization	\$5,000	\$10,000
State tax requirements	7% excise tax on first wholesale sale, state sales tax of 6.25% Additional excise tax applied based on product form and potency: <ul style="list-style-type: none"> • Cannabis with a THC level at or below 35%: 10% of the purchase price • All cannabis infused products: 20% of the purchase price • Cannabis with a THC level above 35%: 25% of the purchase price 	

SUPPLY CHAIN DYNAMICS

Business Type	Number Licenses Allowed	Current Number of Licenses Granted (as of Q1 2022)
Retail store	110	110
Cultivation center	30	21
Craft grower	100	40
Infuser	100	52

MARKET OVERVIEW

Estimated Adult-Use Sales Via Licensed Retail Stores By Year	2021	\$1.3B-\$1.5B
	2022	\$1.9B-\$2.3B
	2023	\$2.5B-\$3B
	2024	\$2.8B-\$3.4B
	2025	\$3.3B-\$4B
	2026	\$3.8B-\$4.7B

BUSINESS OPPORTUNITY

Accepting New Business Licenses?	Yes
Potential For New Licenses?	Yes
Out-of-State Investment Allowed?	Yes

IOWA

What to watch in 2022

The number of patient cardholders in Iowa has steadily increased since the program's inception, but access and business viability remains a challenge in the highly restricted program. THC content is limited to 3% by weight, which is 10 times the limit for classifying cannabis as hemp but still a very low level. The state has given no indications that it plans to expand the program in any way at this time.

IA MEDICAL

REGULATORY OVERVIEW

Patient registry	Mandatory—patients must have a physician's certification of qualifying condition. The physician will not prescribe or recommend CBD or MMJ
Accepts patients registered with other states?	No
Home cultivation	No
Restrictions on type of marijuana allowed to be sold?	Yes, flower and edibles are prohibited. Allowable forms include tablets, capsules, liquids, tinctures, sublinguals, topicals, suppositories, nebulizable forms and vaporization (effective 5/19). Smoking is prohibited.
Qualifying medical conditions	Moderate: ALS, AIDS/HIV, cancer and terminal illness if illness or treatment produces severe or chronic pain, nausea or severe vomiting or cachexia/severe wasting, corticobasal degeneration, Crohn's disease, multiple sclerosis with severe and persistent muscle spasms, Parkinson's disease, seizures, severe pediatric autism with aggressive or self-injurious behavior, and pain that has been nonresponsive to other treatments.
MMJ business regulations	Heavy. The state allows only two cultivators/manufacturers and five dispensaries. A dispensary may hold a cultivation license but cultivation may not take place at a dispensary location. State regulations govern all aspects of cultivation and dispensary operations including security, recordkeeping, employee training, transportation, packaging and labeling, marketing and storage. Physicians are not allowed to prescribe or recommend cannabidiol, leaving dosing amounts up to the dispensary, however physicians and pharmacists are not allowed to work at dispensaries.

IA MEDICAL

BUSINESS TAXES & FEES

Types of Businesses Licensed	Application Fees	License Fees
Cultivators/Manufacturers	\$5,000	\$60,000
Dispensaries	\$7,500	\$150,000
State tax requirements	6% sales tax, although lawmakers are currently considering a sales tax exemption	

SUPPLY CHAIN DYNAMICS

Business Type	Number Businesses Allowed	Current Number of Businesses Operating (as of Q1 2022)
Cultivators/Manufacturers	2	2
Dispensaries	5	5

MARKET OVERVIEW

Number of registered MMJ patients (as of Q1 2022)	8,913	32 out of 36 MMJ markets with open patient registries
Registered MMJ patients as % of state population	0.28%	33 out of 36 MMJ markets with open patient registries
Estimated MMJ Sales Via Dispensaries By Year	2021 2022 2023 2024 2025 2026	\$5M-\$6M \$10M \$15M \$20M-\$25M \$30M-\$35M \$40M-\$50M

BUSINESS OPPORTUNITY

Accepting New Business Licenses?	No
Potential For New Licenses?	No
Out-of-State Investment Allowed?	Yes

LOUISIANA

What to watch in 2022

Louisiana's medical marijuana program has struggled to gain traction due to significant barriers to participation. However, over the last two years, regulators have been taking active steps to expand access to the program. The new rules tripled the number of patients on the registry during 2021, and the expansion of allowable formats likely will boost sales significantly.

LA MEDICAL

REGULATORY OVERVIEW

Patient registry	Yes
Accepts patients registered with other states?	No
Home cultivation	No
Restrictions on type of marijuana allowed to be sold?	No marijuana product may be manufactured or sold as a beverage, or with a design that encourages the use of marijuana for recreational purposes, or that is customarily associated with children.
Qualifying medical conditions	Broad: Any physician may recommend cannabis for any ailment for which they believe MMJ will be an effective treatment.
MMJ business regulations	Heavy. The Louisiana Dept. of Health's Board of Pharmacy has published rules covering—among other things—security, product transport and tracking, packaging, labeling, product type and dosage requirements. These rules require all MMJ dispensaries have a "pharmacist-in-charge" who will oversee a bevy of duties from inventory management to waste disposal. Furthermore, all marijuana business applicants may be subject to background checks as part of the application process.

LA MEDICAL

BUSINESS TAXES & FEES

Types of Businesses Licensed	Application Fees	License Fees
Dispensaries (licensed pharmacies)	\$450	None, permit fee included in application fee
Cultivators		\$100,000
State tax requirements	5.0% state sales tax plus applicable local sales tax	

SUPPLY CHAIN DYNAMICS

Business Type	Number Licenses Allowed	Current Number of Licenses Granted (As of Q1 2022)
Dispensaries (licensed pharmacies)	9	9
Cultivators	2	2

MARKET OVERVIEW

Number of registered MMJ patients (As of Q1 2022)	14,663	26 out of 36 MMJ markets with open patient registries
Registered MMJ patients as % of state population	0.32%	31 out of 36 MMJ markets with open patient registries
Estimated MMJ Sales Via Dispensaries By Year	2021	\$40M-\$50M
	2022	\$90M-\$100M
	2023	\$195M-\$235M
	2024	\$255M-\$315M
	2025	\$330M-\$400M
	2026	\$345M-\$420M

BUSINESS OPPORTUNITY

Accepting New Business Licenses?	No
Potential For New Licenses?	Regulations allow one additional licensed pharmacy to operate in the state, however there are no indications that the state is planning to solicit applications in the near future.
Out-of-State Investment Allowed?	No

MAINE

What to watch in 2022

Maine's adult-use marijuana program continues to expand at a brisk pace. The state has been attempting to overhaul its medical marijuana program for the last two years, with no success. The latest effort was scuttled in March after caregivers pushed back against what they called unfair and expense requirements. After a legal challenge, Maine opted to remove residency restrictions for adult-use retail, but it is currently fighting in court to maintain the restriction for medical dispensaries.

ME MEDICAL

REGULATORY OVERVIEW

Patient registry	Voluntary, but patients who do not register must still obtain a written recommendation from an in-state physician and otherwise abide by the program rules in order to be protected under the law.
Accepts patients registered with other states?	Yes—patients registered in other states can buy from dispensaries for up to 30 days after entering the state if certain conditions are met
Home cultivation	Yes
Restrictions on type of marijuana allowed to be sold?	Products in the shape of a human, animal or fruit, realistic or artistic, are prohibited.
Qualifying medical conditions	None. Medical providers may provide a written certification that it is their professional opinion a qualifying patient is likely to receive therapeutic or palliative benefit from the medical use of marijuana to treat or alleviate the patient's medical diagnosis.
MMJ business regulations	Moderate. Regulations cover all aspects of operations, and dispensaries are subject to inspections by the state. Manufacturers must obtain a food establishment license, as well.

ME MEDICAL

BUSINESS TAXES & FEES

Types of Businesses Licensed	Application Fees	License Fees
Dispensary	\$12,000	\$12,000
Caregiver	No application fee	\$240 to \$1,200 depending on plant count
State tax requirements	5.5% state sales tax on all marijuana transactions at dispensaries	

SUPPLY CHAIN DYNAMICS

Business Type	Number Licenses Allowed	Current Number of Licenses Granted (As of Q1 2022)
Dispensary	14	8
Caregiver	No statewide limits. Each caregiver can open and operate a single retail store, but municipalities have to pass an ordinance allowing such stores.	
		2,998

MARKET OVERVIEW

Number of registered MMJ patients (As of Q1 2022)	105,143	13 out of 36 MMJ markets with open patient registries
Registered MMJ patients as % of state population	7.66%	2 out of 36 MMJ markets with open patient registries
Estimated MMJ Sales Via Dispensaries By Year	2021	\$100M-\$120M
	2022	\$95M-\$115M
	2023	\$93M-\$115M
	2024	\$90M-\$110M
	2025	\$88M-\$105M
	2026	\$85M-\$105M

BUSINESS OPPORTUNITY

Accepting New Business Licenses?	Yes, for caregivers licenses
Potential For New Licenses?	Yes, Department of Administrative and Financial Services can award six additional dispensary licenses. However, the department will not issue new licenses until it completes the new rulemaking process, as process which has been characterized by fits and starts for the last two years.
Out-of-State Investment Allowed?	No

ME RECREATIONAL

REGULATORY OVERVIEW

Home cultivation	Yes, up to 12 immature and three mature plants per person
Restrictions on type of marijuana allowed to be sold?	Edibles in shapes that could appeal to children are prohibited
Business regulations	Heavy. Regulations govern all aspects of the production, testing, transportation and sale of marijuana products, with specific requirements regarding testing, labeling, packaging, advertising, inventory and more. The rules establish five categories of cultivation licenses as well as licenses for retailers, manufacturers and testing facilities.

BUSINESS TAXES & FEES

Types of Businesses Licensed	Application Fees	License Fees
Cultivators	\$60 to \$500 depending on tier	\$350 to \$30,000 depending on tier
Retail stores	\$250	\$2,500
Manufacturers	\$250	\$2,500
Testing labs	\$250	\$1,000
State tax requirements	Adult-use consumers will be taxed 10% at point of sale	

SUPPLY CHAIN DYNAMICS

Business Type	Number Licenses Allowed	Current Number of Licenses Granted as of Q1 2022 (active and conditional)*
Cultivator	No statewide limits, but municipalities can enact bans and restrictions	194
Retail store	No statewide limits, but municipalities can enact bans and restrictions	265
Manufacturer	No statewide limits, but municipalities can enact bans and restrictions	116
Testing lab	No statewide limits, but municipalities can enact bans and restrictions	5

MARKET OVERVIEW

Estimated Adult-Use Sales Via Licensed Retail Stores By Year	2021	\$75M-\$90M
	2022	\$95M-\$115M
	2023	\$120M-\$145M
	2024	\$130M-\$160M
	2025	\$150M-\$185M
	2026	\$165M-\$200M

BUSINESS OPPORTUNITY

Accepting New Business Licenses?	Yes
Potential For New Licenses?	No, not in addition to the categories of license applications the state is currently accepting.
Out-of-State Investment Allowed?	Yes

MARYLAND

What to watch in 2022

Maryland voters will have an opportunity to legalize a recreational cannabis market in November after a vote by state lawmakers put the question on the statewide ballot. If the measure passes, Maryland will join many other East Coast states that have made that leap in recent years.

MD MEDICAL

REGULATORY OVERVIEW

Patient registry	Mandatory—written recommendation from a physician certified to recommend cannabis is required
Accepts patients registered with other states?	No, but nonresidents in Maryland for the purpose of receiving medical treatment are eligible to register for the program
Home cultivation	No
Restrictions on type of marijuana allowed to be sold?	Cannabis edibles in Maryland can't resemble any shape that might be appealing to children.
Qualifying medical conditions	Restrictive: Cachexia/wasting syndrome, anorexia, severe or chronic pain, severe nausea, seizures, severe or persistent muscle spasms, glaucoma, PTSD or another chronic medical treatment which is severe and for which other treatments have been ineffective.
MMJ business regulations	Very heavy. The state has set caps on the number of dispensaries and growers allowed, and licensing costs are some of the highest in the nation. Regulations govern all aspects of grower, processor and dispensary operations, from location, transportation, testing and security to record-keeping and packaging.

MD MEDICAL

BUSINESS TAXES & FEES

Types of Businesses Licensed	Application Fees*	License Fees
Dispensaries	\$5,000 total (Stage One: \$1,000; Stage Two: \$4,000)	\$40,000 each year (new licenses good for four years, renewals for two years)
Cultivators	\$6,000 total (Stage One: \$2,000; Stage Two: \$4,000)	\$125,000 (renewed annually)
Cultivator/Dispensary	\$11,000 total (Stage One: \$3,000; Stage Two: \$8,000)	\$165,000 (renewed annually)
Processors	\$6,000 total (Stage One: \$2,000; Stage Two: \$4,000)	\$40,000 each year (new licenses good for four years, renewals for two years)
Testing labs	\$100	\$100 (renewed every two years)
State tax requirements	MMJ is exempt from sales tax because it is medicine, but a 6% sales tax applies to devices and accessories	

SUPPLY CHAIN DYNAMICS

Business Type	Number Licenses Allowed	Current Number of Licenses Granted (As of Q1 2022)
Dispensaries	102	102
Cultivators	21	18
Processors	27	19
Testing labs	No statewide limit	5

**(With the exception of testing labs, application fees are applied in two stages. Every applicant that applies for a business license is required to pay the Stage One application fee, while Stage Two application fees apply only to preapproved companies working through Stage Two processes, such as background checks and financial due diligence investigations.)*

MD MEDICAL

MARKET OVERVIEW

Number of registered MMJ patients (As of Q1 2022)	148,633	9 out of 36 MMJ markets with open patient registries
Registered MMJ patients as % of state population	2.41%	10 out of 36 MMJ markets with open patient registries
Estimated MMJ Sales Via Dispensaries By Year	2021	\$525M-\$625M
	2022	\$600M-\$725M
	2023	\$650M-\$800M
	2024	\$725M-\$825M
	2025	\$750M-\$825M
	2026	\$775M-\$850M

BUSINESS OPPORTUNITY

Accepting New Business Licenses?	No
Potential For New Licenses?	Yes, regulators put plans to award an additional four cultivation and 10 processing licenses on hold. No timeline for when these additional licenses will be awarded has been established.
Out-of-State Investment Allowed?	Yes

MASSACHUSETTS

What to watch in 2022

Massachusetts municipalities have come under fire for "impact fees" to cover additional costs to the cities related to retail cannabis stores being located there. The legislature is considering moving such authority to the state level after the fees sparked litigation in Haverhill.

MA MEDICAL

REGULATORY OVERVIEW

Patient registry	Mandatory—electronic recommendation from a qualified physician or certified nurse practitioner is required
Accepts patients registered with other states?	No, but certain out-of-state-patients may be certified and registered in Massachusetts
Home cultivation	Yes, Massachusetts adult-use cannabis law allows an individual to grow up to 6 plants with a maximum of 12 per household
Restrictions on type of marijuana allowed to be sold?	Edible products should not resemble any product available for consumption as a commercially available candy
Qualifying medical conditions	Limited: Cancer, glaucoma, HIV/AIDS, hepatitis C, ALS, Crohn's disease, Parkinson's disease, multiple sclerosis (MS), and other debilitating conditions as determined in writing by a qualifying patient's healthcare provider
MMJ business regulations	Heavy. Dispensary applicants must go through an extensive, expensive multiphase application process and meet a host of regulations covering everything from security and advertising to seed-to-sale tracking systems and testing. Dispensaries are required to cultivate most of the cannabis they sell—no separate, stand-alone grow operations are allowed—but they can buy limited amounts of marijuana from other dispensaries. Many towns also require that dispensaries wishing to operate within their borders sign "host community agreements" that require them to pay fees that often reach five or six digits

MA MEDICAL

BUSINESS TAXES & FEES

Types of Businesses Licensed	Application Fees	License Fees
Medical marijuana treatment center (vertically integrated business)	\$3,500	\$50,000
State tax requirements	MMJ not taxed in Massachusetts due to an exemption for prescription medications in the state	

SUPPLY CHAIN DYNAMICS

Business Type	Number Licenses Allowed	Current Number of Licenses Granted (As of Q1 2022)
Medical marijuana treatment center (vertically integrated business)	No statewide limit	86

MARKET OVERVIEW

Number of registered MMJ patients (As of Q1 2022)	97,003	14 out of 36 MMJ markets with open patient registries
Registered MMJ patients as % of state population	1.39%	20 out of 36 MMJ markets with open patient registries
Estimated MMJ Sales Via Dispensaries By Year	2021	\$280M-\$345M
	2022	\$470M-\$575M
	2023	\$340M-\$415M
	2024	\$285M-\$350M
	2025	\$260M-\$315M
	2026	\$235M-\$290M

BUSINESS OPPORTUNITY

Accepting New Business Licenses?	Yes, the state is accepting new applications for medical cannabis businesses on an ongoing basis.
Potential For New Licenses?	Yes
Out-of-State Investment Allowed?	Yes

MA RECREATIONAL

REGULATORY OVERVIEW

Home cultivation	Yes, an individual may grow up to 6 plants with a maximum of 12 per household
Restrictions on type of marijuana allowed to be sold?	Edibles with the distinct shape of a human, animal or fruit are prohibited.
Business regulations	Heavy. Requirements for establishing a business are extensive and strict, and businesses may be banned entirely by local governments. In addition to regulations set forth by the Cannabis Control Commission, each license applicant must attain a “host community agreement” signed by the local municipality, as well as adhering to all local zoning laws. There are no limits on products that can be sold, but extensive measures must be taken to ensure they do not appeal to children. The packaging must also state where and by whom the product was grown or made, and if it's an infused product, it must provide detailed information, such as serving sizes and potential allergens. The law also mandates advertising restrictions, seed-to-sale tracking and anti-diversion mechanisms.

BUSINESS TAXES & FEES

Types of Businesses Licensed	Application Fees	License Fees
Cultivator	\$100-\$2,000 depending on canopy size and whether indoor/outdoor	\$625-\$50,000 annually, depending on canopy size and whether indoor/outdoor
Craft Marijuana Cooperative	\$100-\$2,000 depending on canopy size and whether indoor/outdoor, plus additional per-site fees for more than six grow sites	\$625-\$50,000 annually, depending on canopy size and whether indoor/outdoor, plus additional per-site fees for more than six grow sites
Marijuana Product Manufacturer	\$1,500	\$10,000
Marijuana Retailer (brick & mortar)	\$1,500	\$10,000
Existing Licensee Transporter	\$1,000	\$5,000
Third-Party Transporter	\$1,500	\$5,000
Marijuana Research Facility	\$300	\$1,000

MA RECREATIONAL

Testing Laboratory	\$1,500	\$10,000
Microbusiness	\$0	50% of all applicable license fees annually
Delivery-Only Licensee	\$1,500	\$10,000
Microbusiness	\$1,500	\$10,000
State tax requirements	Up to 20% tax rate for consumers, including 6.25% state sales tax, 10.75% state excise tax and up to 3% local tax for cities and towns	

SUPPLY CHAIN DYNAMICS

Business Type	Number Licenses Allowed	Current Number of Licenses Granted (As of Q1 2022)
Cultivator	No statewide limit	82
Marijuana Product Manufacturer	No statewide limit	63
Marijuana Retailer	No statewide limit	393
Testing Laboratory	No statewide limit	10

MARKET OVERVIEW

Estimated Adult-Use Sales Via Licensed Retail Stores By Year	2021	\$1.2B-\$1.5B
	2022	\$1.4B-\$1.7B
	2023	\$1.6B-\$1.9B
	2024	\$1.8B-\$2.2B
	2025	\$2.2B-\$2.6B
	2026	\$2.2B-\$2.7B

BUSINESS OPPORTUNITY

Accepting New Business Licenses?	Yes, the state is accepting new applications for adult-use businesses on an ongoing basis
Potential For New Licenses?	More licenses types or categories could come to fruition in the future
Out-of-State Investment Allowed?	Yes

MICHIGAN

What to watch in 2022

While many markets are settling into routine, Michigan is launching forward to make changes to its medical marijuana program. The state reduced license and application fees across the board and simplified the renewal structure, even though it already has a robust pool of active business licenses. In addition, Michigan introduced two new licenses for adult-use businesses: microbusiness and consumption establishment. The first consumption establishment location is in the suburbs of Detroit, but regulators expect more interest in this license class.

MI MEDICAL

REGULATORY OVERVIEW

Patient registry	Mandatory—certification from a qualifying physician required
Accepts patients registered with other states?	Yes
Home cultivation	Yes, medical marijuana patients can cultivate up to 12 cannabis plants at home.
Restrictions on type of marijuana allowed to be sold?	Generally no, though restrictions on edibles prohibit shapes, colors, packaging and labeling that would appeal to children, as well as products that could be easily confused with commercially sold candy.
Qualifying medical conditions	Broad: Includes chronic pain, PTSD and seizures. Full list of conditions is available here: https://www.michigan.gov/mra/0,9306,7-386-83746-449306--,00.html
Cost of MMJ card	\$40, card valid for two years
MMJ business regulations	Heavy. The rules establish strict operating procedures regarding testing, quality-control standards, daily purchasing limits, transportation, zoning, marketing and advertising, record-keeping, insurance and more. Capitalization requirements are in place for all licensees. Municipalities can enact bans or limits on the number of marijuana facilities, and cannabis businesses will not be allowed to operate in localities that have not adopted an ordinance authorizing that type of facility.

MI MEDICAL

BUSINESS TAXES & FEES

Types of Businesses Licensed	Application Fees	License Fees*
Grower	\$3,000	Grower Class A: \$4,000 Grower Class B: \$8,000 Grower Class C: \$12,000
Processor	\$3,000	\$12,000
Dispensary (Provisioning center)	\$3,000	\$7,500
Secure transporter	\$3,000	\$7,500
Safety compliance facility	\$3,000	No fee
State tax requirements	6% sales and use tax; additional 3% excise tax on gross receipts was repealed Mar. 2019	

* Michigan's MMJ license fee structure is tiered. For growers and processors, fee rates will depend on the weight of the product that they transfer, while retailers' fees will depend on their gross retail sales

SUPPLY CHAIN DYNAMICS

Business Type	Number Licenses Allowed	Current Number of Licenses Granted (As of Q1 2022)
Grower	No statewide limits, though local municipalities can choose to ban or limit the number of MMJ businesses	668
Processor	No statewide limits, though local municipalities can choose to ban or limit the number of MMJ businesses	128
Dispensary (Provisioning center)	No statewide limits, though local municipalities can choose to ban or limit the number of MMJ businesses	524
Secure transporter	No statewide limits, though local municipalities can choose to ban or limit the number of MMJ businesses	23
Safety compliance facility	No statewide limits, though local municipalities can choose to ban or limit the number of MMJ businesses	21

MARKET OVERVIEW

Number of registered MMJ patients (As of Q1 2022)	235,788	6 out of 37 MMJ markets with open patient registries
Registered MMJ patients as % of state population	2.35%	12 out of 37 MMJ markets with open patient registries
Estimated MMJ Sales Via Dispensaries By Year	2021	\$430M-\$530M
	2022	\$400M-\$490M
	2023	\$400M-\$490M
	2024	\$390M-\$480M
	2025	\$390M-\$480M
	2026	\$390M-\$480M

BUSINESS OPPORTUNITY

Accepting New Business Licenses?	Yes, the state is accepting new applications for MMJ businesses on an ongoing basis.
Potential For New Licenses?	Plant-touching licenses are being awarded now. No immediate plans to introduce new types or categories of licenses have been announced.
Out-of-State Investment Allowed?	Yes

MI RECREATIONAL

REGULATORY OVERVIEW

Home cultivation	Yes, adults age 21 and older may cultivate up to 12 cannabis plants at home
Restrictions on type of marijuana allowed to be sold?	No
Business regulations	Heavy. The rules establish strict operating procedures regarding testing, quality-control standards, daily purchasing limits, transportation, zoning, marketing and advertising, record-keeping, insurance and more. Capitalization requirements are in place for all licensees. Municipalities can enact bans or limits on the number of marijuana facilities, and cannabis businesses will not be allowed to operate in localities that have not adopted an ordinance authorizing that type of facility.

BUSINESS TAXES & FEES

Types of Businesses Licensed	Application Fees	License Fees*
Grower	\$3,000	Grower Class A: \$1,200 Grower Class B: \$6,000 Grower Class C: \$24,000
Processor	\$3,000	\$24,000
Retailer	\$3,000	\$15,000
Secure transporter	\$3,000	\$15,000
Safety compliance facility	\$3,000	\$15,000
Class A microbusiness	\$3,000	\$18,600
State tax requirements	10% excise tax plus 6% sales tax	

** Michigan's MMJ license fee structure is tiered. For growers and processors, fee rates will depend on the weight of the product that they transfer, while retailers' fees will depend on their gross retail sales*

SUPPLY CHAIN DYNAMICS

Business Type	Number Licenses Allowed	Current Number of Licenses Granted (As of Q1 2022)
Grower	No statewide limits, though local municipalities can choose to ban or limit the number of MMJ businesses	564
Processor	No statewide limits, though local municipalities can choose to ban or limit the number of MMJ businesses	132
Retailer	No statewide limits, though local municipalities can choose to ban or limit the number of MMJ businesses	477
Secure transporter	No statewide limits, though local municipalities can choose to ban or limit the number of MMJ businesses	21
Safety compliance facility	No statewide limits, though local municipalities can choose to ban or limit the number of MMJ businesses	17

MARKET OVERVIEW

Estimated Adult-Use Sales Via Licensed Retail Stores By Year	2021	\$950M-\$1.2B
	2022	\$1.4B-\$1.7B
	2023	\$1.8B-\$2.2B
	2024	\$1.9B-\$2.4B
	2025	\$2.2B-\$2.7B
	2026	\$2.3B-\$2.8B

BUSINESS OPPORTUNITY

Accepting New Business Licenses?	Yes, the state is accepting new applications for adult-use cannabis businesses on an ongoing basis.
Potential For New Licenses?	Plant-touching licenses are being awarded now. No immediate plans to introduce new types or categories of licenses have been announced.
Out-of-State Investment Allowed?	Yes

MINNESOTA

What to watch in 2022

Minnesota’s medical marijuana program has been one of the most beleaguered in the U.S., with strict regulations that limit access. The state is in the process of removing the restrictions on forms with the hopes of expanding participation, but locations remain limited.

MN MEDICAL

REGULATORY OVERVIEW

Patient registry	Mandatory—certification from a doctor, physician assistant or advanced practice registered nurse is required
Accepts patients registered with other states?	No
Home cultivation	No
Restrictions on type of marijuana allowed to be sold?	Infused edibles are prohibited, though they will be allowed in August 2022.
Qualifying medical conditions	Restrictive: Cancer treatment symptoms, glaucoma,HIV/ AIDS, Tourette syndrome, ALS, seizures, severe and persistent spasms, inflammatory bowel disease, terminal illness with less than one year to live, intractable pain, PTSD, autism, obstructive sleep apnea and Alzheimer's disease.
MMJ business regulations	Very heavy. The state allows just two cultivators to produce all marijuana in the state, and only these companies can open dispensaries. The businesses—which were each required to open four dispensaries to serve patients—are subject to rules and regulations governing location, storage, tracking, record-keeping, advertising, distribution, hiring, testing, transport and other areas. Dispensary employees that provide patients with MMJ must be licensed pharmacists.

MN MEDICAL

BUSINESS TAXES & FEES

Types of Businesses Licensed	Application Fees	License Fees
Vertically integrated businesses	\$20,000	\$146,000 (annual fee)
State tax requirements	Medical marijuana itself is not subject to sales tax, but any services rendered to recommend MMJ and/or devices required to administer medication are subject to applicable taxes	

SUPPLY CHAIN DYNAMICS

Business Type	Number Licenses Allowed	Current Number of Licenses Granted (As of Q1 2022)
Vertically integrated businesses	8 (two vertically integrated manufacturers, each of which may operate four dispensaries)	8

MARKET OVERVIEW

Number of registered MMJ patients (As of Q1 2022)	30,395	22 out of 37 MMJ markets with open patient registries
Registered MMJ patients as % of state population	0.53%	27 out of 37 MMJ markets with open patient registries
Estimated MMJ Sales Via Dispensaries By Year	2021	\$60M-\$75M
	2022	\$70M-\$90M
	2023	\$95M-\$115M
	2024	\$115M-\$140M
	2025	\$135M-\$165M
	2026	\$155M-\$190M

BUSINESS OPPORTUNITY

Accepting New Business Licenses?	No
Potential For New Licenses?	No new license opportunities have been announced
Out-of-State Investment Allowed?	Yes

MISSISSIPPI

What to watch in 2022

Mississippi voters previously approved a business-friendly MMJ initiative that was overturned by the state's Supreme Court. This time around, the state legislature created a program that still embraces the desire for an open industry while adding some restriction the governor requested. The Mississippi Medical Cannabis Program will start accepting business and patient applications in June.

MS MEDICAL

REGULATORY OVERVIEW

Patient registry	Mandatory—certification from a doctor, physician assistant or advanced practice registered nurse is required
Accepts patients registered with other states?	No
Home cultivation	No
Restrictions on type of marijuana allowed to be sold?	No limits on form.
Qualifying medical conditions	Moderate—includes PTSD, but not general chronic pain. Full list is available here: https://msdh.ms.gov/msdhsite/_static/30,0,425.html
MMJ business regulations	Details are still being established, however the latest version is a fairly business-friendly structure.

MS MEDICAL

BUSINESS TAXES & FEES

Types of Businesses Licensed	Application Fees	License Fees
Cultivation	Program details are still being established.	
Processors		
Dispensaries		
Transportation		
Testing		
Disposal		

SUPPLY CHAIN DYNAMICS

Business Type	Number Licenses Allowed	Current Number of Licenses Granted (As of Q1 2022)
Cultivation	No statewide limit established	
Processors	No statewide limit established	
Dispensaries	No statewide limit established	
Transportation	No statewide limit established	
Testing	No statewide limit established	
Disposal	No statewide limit established	

MS MEDICAL

MARKET OVERVIEW

Number of registered MMJ patients (As of Q1 2022)	0	out of 37 MMJ markets with open patient registries
Registered MMJ patients as % of state population	0.00%	out of 37 MMJ markets with open patient registries
Estimated MMJ Sales Via Dispensaries By Year	2021	\$0
	2022	\$0
	2023	\$0
	2024	\$80M-\$97.5M
	2025	\$280M-\$344M
	2026	\$515M-\$627M

BUSINESS OPPORTUNITY

Accepting New Business Licenses?	No
Potential For New Licenses?	Yes, starting in June
Out-of-State Investment Allowed?	Yes

MISSOURI

What to watch in 2022

Missouri regulators are mulling over legalizing a business-friendly adult-use cannabis industry in the state. The move would preempt an effort to get a voter initiative on the November ballot. The current proposal includes no license caps on businesses.

MO MEDICAL

REGULATORY OVERVIEW

Patient registry	Mandatory—patients must be certified by a physician
Accepts patients registered with other states?	No
Home cultivation	Yes, however there is an additional \$100 fee to grow up to six flowering plants per patient and security regulations that must be followed.
Restrictions on type of marijuana allowed to be sold?	No
Qualifying medical conditions	Broad: Cancer, epilepsy, glaucoma, intractable migraines, severe persistent pain or muscle spasms, debilitating psychiatric disorders including PTSD, HIV/AIDS, terminal illness and any other chronic or debilitating medical condition deemed as appropriate for MMJ treatment by a physician.
MMJ business regulations	Moderate: Missouri's rules govern multiple aspects including testing, dispensing, seed-to-sale tracking, transportation and taxation. Although the state has capped the maximum number of business licenses issued, it has stated it will increase caps to meet demand if necessary. The list of qualifying conditions is fairly extensive and allows physicians to certify off-list qualifying conditions. Application and licensing fees are moderate.

MO MEDICAL

BUSINESS TAXES & FEES

Types of Businesses Licensed	Application Fees	License Fees
Cultivators	\$6,000	\$25,000 annually
Dispensaries	\$6,000	\$10,000 annually
Manufacturers	\$6,000	\$10,000 annually
State tax requirements	4% excise tax on retail sales plus applicable state and local sales tax	

SUPPLY CHAIN DYNAMICS

Business Type	Number Licenses Allowed	Current Number of Licenses Granted (As of Q1 2022)
Cultivators	60	47
Dispensaries	192	188
Manufacturers	86	67
Testing labs	10	8

MARKET OVERVIEW

Number of registered MMJ patients (As of Q1 2022)	177,466	8 out of 37 MMJ markets with open patient registries
Registered MMJ patients as % of state population	2.88%	8 out of 37 MMJ markets with open patient registries
Estimated MMJ Sales Via Dispensaries By Year	2021	\$200M-\$225M
	2022	\$375M-\$450M
	2023	\$500M-\$600M
	2024	\$550M-\$675M
	2025	\$400M-\$500M
	2026	\$425M-\$525M

BUSINESS OPPORTUNITY

Accepting New Business Licenses?	No
Potential For New Licenses?	Yes. The state has capped the maximum number of business licenses issued, it has stated it will increase caps to meet demand if necessary.
Out-of-State Investment Allowed?	Yes

MONTANA

What to watch in 2022

Montana launched a free-for-all style adult-use cannabis program in 2022, and it quickly ballooned to more than 300 retail stores. Montana currently has the largest number of retail stores per capita, and questions remain about the viability of such a saturated market in a sparsely populated state.

MT MEDICAL

REGULATORY OVERVIEW

Patient registry	Mandatory—a written statement from a physician is required
Accepts patients registered with other states?	No
Home cultivation	Yes, a registered cardholder who has not named a provider may possess up to four mature plants and four seedlings
Restrictions on type of marijuana allowed to be sold?	No
Qualifying medical conditions	Limited: Cancer, glaucoma, HIV/AIDS, cachexia or wasting syndrome, severe chronic pain, intractable nausea, seizure disorder, multiple sclerosis, Crohn's disease, peripheral neuropathy, spasticity or muscle spasms, terminal illness under hospice care and PTSD.
MMJ business regulations	Heavy. MMJ providers must be licensed, and are subject to requirements regarding testing, labeling, packaging, signage, waste management, employee ID badges and more. No advertising is permitted.

BUSINESS TAXES & FEES

Types of Businesses Licensed	Application Fees	License Fees
MMJ providers	No additional cost on top of annual license fee	\$500-\$20,000 annually depending on canopy space
Manufacturers (must also hold a provider license)	No additional cost on top of annual license fee	\$500 annually per location
Dispensaries (must also hold a provider license)	No additional cost on top of annual license fee	\$500-\$100,000 annually depending on number of registered premises
State tax requirements	20% of retail sales	

MT MEDICAL

SUPPLY CHAIN DYNAMICS

Business Type	Number Licenses Allowed	Current Number of Licenses Granted (As of Q1 2022)
Manufacturers	No statewide limit	202
Dispensaries	No statewide limit	78
Testing labs	No statewide limit	4

MARKET OVERVIEW

Number of registered MMJ patients (As of Q1 2022)	54,785	17 out of 37 MMJ markets with open patient registries
Registered MMJ patients as % of state population	4.96%	5 out of 37 MMJ markets with open patient registries
Estimated MMJ Sales Via Dispensaries By Year	2021	\$90M-\$110M
	2022	\$115M-\$140M
	2023	\$115M-\$145M
	2024	\$120M-\$145M
	2025	\$120M-\$150M
	2026	\$125M-\$150M

BUSINESS OPPORTUNITY

Accepting New Business Licenses?	Yes, the state is accepting new applications for medical cannabis businesses on an ongoing basis.
Potential For New Licenses?	Plant-touching licenses are being awarded now. No immediate plans to introduce new types or categories of licenses have been announced.
Out-of-State Investment Allowed?	MMJ providers in Montana must have resided in the state for a period of one year before applying for a license.

MT RECREATIONAL

REGULATORY OVERVIEW

Home cultivation	Yes, limit of two plants
Restrictions on type of marijuana allowed to be sold?	No
Business regulations	Moderate. Program is designed to be business friendly and allow for tourists to have easy access to cannabis when visiting the state.

BUSINESS TAXES & FEES

Types of Businesses Licensed	Application Fees	License Fees*
Cultivators	20% of license fee	\$1,000-\$37,000, depending on size
Retailers	20% of license fee	\$5,000 per location
Manufacturers	20% of license fee	\$5,000-\$20,000, depending on production output
State tax requirements	20% of retail sales	

SUPPLY CHAIN DYNAMICS

Business Type	Number Licenses Allowed	Current Number of Licenses Granted (As of Q1 2022)
Retail store	No statewide limits	346
Cultivators	No statewide limits	358
Manufacturers	No statewide limits	202

(Michigan's MMJ license fee structure is tiered. For growers and processors, fee rates will depend on the weight of the product that they transfer, while retailers' fees will depend on their gross retail sales)

MARKET OVERVIEW

Estimated Adult-Use Sales Via Licensed Retail Stores By Year	2021	\$0
	2022	\$215M-\$265M
	2023	\$250M-\$275M
	2024	\$250M-\$275M
	2025	\$275M-\$300M
	2026	\$275M-\$300M

BUSINESS OPPORTUNITY

Accepting New Business Licenses?	Only from current/former medical marijuana operators
Potential For New Licenses?	Yes
Out-of-State Investment Allowed?	Yes

NEVADA

What to watch in 2022

Nevada hasn't proposed any significant changes to any of its rules just yet, but the state is still waiting for the launch of the first consumption lounges, approved last year. As yet, no timeline has been given as to when that will happen.

NV MEDICAL

REGULATORY OVERVIEW

Patient registry	Mandatory—patients must get a written statement from a qualifying physician
Accepts patients registered with other states?	Yes, out-of-state patients with a valid registration card may both possess cannabis and purchase it from dispensaries
Home cultivation	Yes, but only if patient lives more than 25 miles from a dispensary, cannot reasonably travel to a dispensary or is not able to find nearby dispensaries that have the needed strains. Maximum of 12 plants allowed; no rules on plant maturity.
Restrictions on type of marijuana allowed to be sold?	No
Qualifying medical conditions	Limited: AIDS, cancer, glaucoma, PTSD and conditions—or whose treatments—produce cachexia, persistent muscle spasms (including multiple sclerosis), seizures, severe nausea or severe pain.
MMJ business regulations	Heavy. Rules are comprehensive, detailed and strict. The state caps the number of dispensaries allowed, and businesses must meet a host of requirements surrounding security, operations and logistics, covering everything from labeling and packaging, to dosage, tracking and testing.

BUSINESS TAXES & FEES

Types of Businesses Licensed	Application Fees	License Fees
Dispensaries	\$5,000	\$30,000 (new); \$5,000 (renewal)
Cultivators	\$5,000	\$3,000 (new); \$1,000 (renewal)

NV MEDICAL

Processors	\$5,000	\$3,000 (new); \$1,000 (renewal)
Testing labs	\$5,000	\$5,000 (new); \$3,000 (renewal)
State tax requirements	15% excise tax on first wholesale sale plus state sales tax (varies between counties and municipalities)	

SUPPLY CHAIN DYNAMICS

Business Type	Number Licenses Allowed	Current Number of Licenses Granted (As of Q1 2022)
Dispensaries	67	66
Cultivators	No statewide limits	157
Processors	No statewide limits	111
Testing labs	No statewide limits	10

MARKET OVERVIEW

Number of registered MMJ patients (As of Q1 2022)	13,634	29 out of 37 MMJ markets with open patient registries
Registered MMJ patients as % of state population	0.43%	29 out of 37 MMJ markets with open patient registries
Estimated MMJ Sales Via Dispensaries By Year	2021	\$65M-\$80M
	2022	\$65M-\$75M
	2023	\$60M-\$75M
	2024	\$55M-\$70M
	2025	\$55M-\$65M
	2026	\$50M-\$60M

BUSINESS OPPORTUNITY

Accepting New Business Licenses?	No application periods are currently open. The state has not determined if additional licensing periods will open.
Potential For New Licenses?	Yes, the state can create additional licensing opportunities.
Out-of-State Investment Allowed?	Yes

NV RECREATIONAL

REGULATORY OVERVIEW

Home cultivation	Up to 6 plants (a maximum of 12 per household) in a secured space, but only if there is not a state-licensed retail marijuana store within 25 miles of the home.
Restrictions on type of marijuana allowed to be sold?	<p>The following may not be sold for recreational use in Nevada:</p> <ul style="list-style-type: none"> • Edible products that contain any more than 10 mg THC per dose or 100 mg THC per package (15% variance allowed). Capsules, tinctures, topicals, suppositories, or other products that contain more than 800 mg THC. • Products packaged or marketed as candy • Products that appeal to children (cartoons, toys, characters)
Business regulations	Heavy. The Department of Taxation regulates the cultivation, manufacturing, testing, transporting and selling of marijuana. Recently-finalized requirements pertain to record-keeping, tracking, packaging, labeling, security, inventory controls, and zoning, among other things. Marijuana business owners will also be subject to background checks before a license is granted.

BUSINESS TAXES & FEES

Types of Businesses Licensed	Application Fees	License Fees
Retail stores	\$5,000	\$20,000 (new); \$6,600 (renewal)
Cultivators	\$5,000	\$30,000 (new); \$10,000 (renewal)
Processors	\$5,000	\$10,000 (new); \$3,300 (renewal)
Distributor	\$5,000	\$15,000 (new); \$5,000 (renewal)
Testing labs	\$5,000	\$15,000 (new); \$5,000 (renewal)
State tax requirements	15% excise tax on first wholesale sale, state sales tax (varies between counties and municipalities), and additional 10% retail excise tax on adult-use sales	

SUPPLY CHAIN DYNAMICS

Business Type	Number Licenses Allowed	Current Number of Licenses Granted (As of Q1 2022)
Retail stores	132	92
Cultivators	No statewide limit	153
Processors	No statewide limit	109
Distributors	No statewide limit	50
Testing labs	No statewide limit	10

MARKET OVERVIEW

Estimated Adult-Use Sales Via Licensed Retail Stores By Year	2021	\$875M-\$1.2B
	2022	\$900M-\$1.2B
	2023	\$925M-\$1.2B
	2024	\$950M-\$1.3B
	2025	\$1B-\$1.4B
	2026	\$1.2B-\$1.6B

BUSINESS OPPORTUNITY

Accepting New Business Licenses?	No application periods are currently open. The state has not determined if additional licensing periods will open.
Potential For New Licenses?	Yes, the state can create additional licensing opportunities.
Out-of-State Investment Allowed?	Yes

NEW HAMPSHIRE

What to watch in 2022

New Hampshire's Republican-controlled House of Representatives narrowly rejected recreational marijuana bill HB 237 in January. But several other bills remain in play, including some that would refer the issue to voters in the fall. That could be the most likely scenario.

NH MEDICAL

REGULATORY OVERVIEW

Patient registry	Mandatory—recommendation from qualified physician or registered nurse required. The provider must be primarily responsible for treating the patient's qualifying condition.
Accepts patients registered with other states?	Patients may not purchase product in the state, but those with one of New Hampshire's qualifying conditions may possess cannabis for therapeutic purposes (with a registration card and physician's statement)
Home cultivation	No
Restrictions on type of marijuana allowed to be sold?	None
Qualifying medical conditions	Broad: Includes moderate-to-severe chronic pain, PTSD and lupus. View full list of qualifying conditions here: https://www.dhhs.nh.gov/oos/tcp/medical-conditions.htm
MMJ business regulations	Heavy. Dispensaries are subject to rules and regulations governing location, hours of operation, staffing to meet operational requirements, inventory tracking, record-keeping, sanitation, security, disposal of cannabis, hiring/training, packaging/labeling, signage/advertising, testing, education requirements, procedures for handling cannabis recalls, etc. The state has also set a cap on the number of dispensaries, called Alternative Treatment Centers (ATCs) and they must grow their own cannabis or attain it from another licensed ATC (separate, stand-alone wholesale cultivation operations are not allowed).

NH MEDICAL

BUSINESS TAXES & FEES

Types of Businesses Licensed	Application Fees	License Fees
Vertically integrated businesses (Alternative Treatment Centers)	\$3,000	\$40,000-\$80,000 (new and renewal, depending on geographic area)
State tax requirements	None	

SUPPLY CHAIN DYNAMICS

Business Type	Number Licenses Allowed	Current Number of Licenses Granted (As of Q1 2022)
Alternative treatment centers (vertically integrated businesses)	3	3 vertically integrated businesses operate a total of 7 dispensaries throughout the state

MARKET OVERVIEW

Number of registered MMJ patients (As of Q1 2022)	12,500	30 out of 37 MMJ markets with open patient registries
Registered MMJ patients as % of state population	0.90%	24 out of 37 MMJ markets with open patient registries
Estimated MMJ Sales Via Dispensaries By Year	2021	\$35M-\$45M
	2022	\$40M-\$50M
	2023	\$45M-\$50M
	2024	\$45M-\$55M
	2025	\$45M-\$55M
	2026	\$45M-\$55M

BUSINESS OPPORTUNITY

Accepting New Business Licenses?	No
Potential For New Licenses?	No
Out-of-State Investment Allowed?	Yes

NEW JERSEY

What to watch in 2022

New Jersey's adult-use cannabis program was supposed to launch already, but delays in licensing have led to complaints that the governor is dragging his feet on letting the program start. To date, only 68 conditional licenses have been issued for adult-use retailers, and no approvals have been given for existing MMJ operators to become part of the recreational program.

NJ MEDICAL

REGULATORY OVERVIEW

Patient registry	Mandatory—patients must get a certification from a doctor and must register with one dispensary at a time (and may not purchase from the others)
Accepts patients registered with other states?	No
Home cultivation	No
Restrictions on type of marijuana allowed to be sold?	Yes, tinctures and edibles (except for patients who are minors) are prohibited. Only dried herb, oral lozenges, vaporizer cartridges filled with concentrates and topical formulations are allowed. Additionally, products—including flower—are restricted to no more than 10% THC.
Qualifying medical conditions	Moderate: ALS, anxiety, cancer, chronic pain, dysmenorrhea, glaucoma, inflammatory bowel disease, (including Crohn's disease), intractable skeletal spasticity, migraines, multiple sclerosis, opioid use disorder, HIV/AIDS, PTSD, seizure disorder (including epilepsy), terminal illness with prognosis of less than 12 months to live, Tourette syndrome
MMJ business regulations	Very heavy. Dispensaries undergo an intensive application and registration process and are subject to numerous regulations, including those covering record-keeping, cultivation limits, security and hours of operation. Dispensaries must grow their own cannabis—separate stand-alone wholesale cultivation operations are not allowed. The limits on allowable forms of marijuana are some of the most restrictive in the country, and the requirement that all products contain no more than 10% THC is considered overly restrictive and onerous. The state Department of Health has proposed loosening several restrictions, including a repeal of the 10% THC limit, doubling the purchase limit to four ounces and allowing patients to register at more than one dispensary.

NJ MEDICAL

BUSINESS TAXES & FEES

Types of Businesses Licensed	Application Fees	License Fees
Vertically integrated businesses	\$20,000	\$20,000 (annually)
Stand-alone dispensaries	\$20,000	\$20,000 (annually)
Stand-alone cultivators	\$20,000	\$20,000 (annually)
State tax requirements	2% on sales made between July 1, 2021, and June 30, 2022 0% on sales made on and after July 1, 2022	

SUPPLY CHAIN DYNAMICS

Business Type	Number Licenses Allowed	Current Number of Licenses Granted (As of Q1 2022)
Vertically integrated businesses (Alternative Treatment Centers)	23	23
Stand-alone dispensaries	30	30
Stand-alone cultivators	10	10

MARKET OVERVIEW

Number of registered MMJ patients (As of Q1 2022)	121,111	12 out of 37 MMJ markets with open patient registries
Registered MMJ patients as % of state population	1.31%	21 out of 37 MMJ markets with open patient registries
Estimated MMJ Sales Via Dispensaries By Year	2021	\$210M-\$260M
	2022	\$260M-\$320M
	2023	\$280M-\$350M
	2024	\$280M-\$340M
	2025	\$250M-\$300M
	2026	\$220M-\$270M

BUSINESS OPPORTUNITY

Accepting New Business Licenses?	No
Potential For New Licenses?	Yes
Out-of-State Investment Allowed?	Yes

NJ RECREATIONAL

REGULATORY OVERVIEW

Restrictions on type of marijuana allowed to be sold?	None
Business regulations	Moderate. Many rules are still being finalized, however, the ones that have been approved align with most requirements in other adult-use markets. These include requirements around security, track-and-trace and proximity to certain types of institutions.

BUSINESS TAXES & FEES

Types of Businesses Licensed	Application Fees	License Fees
Retail stores	\$400	\$10,000
Cultivators	\$400	\$5,000-\$50,000, depending on size
Manufacturers	\$400	\$20,000-\$30,000 depending on size
Testing labs	\$400	\$4,000
State tax requirements		

SUPPLY CHAIN DYNAMICS

Business Type	Number Licenses Allowed	Current Number of Licenses Granted (As of Q1 2022)
Retail stores	No state limit	68
Cultivators	No state limit	

Processors	No state limit
Distributors	No state limit
Testing labs	No state limit

MARKET OVERVIEW

Estimated Adult-Use Sales Via Licensed Retail Stores By Year	2021	\$0
	2022	\$625M-\$775M
	2023	\$800M-\$1000M
	2024	\$1.5B-\$1.8B
	2025	\$1.9B-\$2.1B
	2026	\$2B-\$2.4B

BUSINESS OPPORTUNITY

Accepting New Business Licenses?	Yes
Potential For New Licenses?	Yes
Out-of-State Investment Allowed?	Yes

NEW MEXICO

What to watch in 2022

Adult-use cannabis sales in New Mexico launched in April, with a focus on providing plentiful opportunities to small local businesses in the first state to establish an adult-use industry next to Texas. The state also expanded its medical cannabis programs, increasing the amount of product patients can purchase.

NM MEDICAL

REGULATORY OVERVIEW

Patient registry	Mandatory—patients must get a written recommendation from a health care professional licensed to prescribe drugs in the state
Accepts patients registered with other states?	No
Home cultivation	Yes, patients can grow up to 16 plants (four mature, 12 immature)
Restrictions on type of marijuana allowed to be sold?	Generally no, though concentrates are restricted to a maximum THC content of 70%
Qualifying medical conditions	Broad. Includes opioid use disorder and PTSD. View the full list of qualifying conditions here: https://www.nmhealth.org/about/mcp/svcs/hpp/
MMJ business regulations	Heavy. The state limits the number of MMJ business licenses based on medical cannabis availability to the patient base, though there are no caps on the number of dispensaries each company may open. Businesses must go through a rigorous application and approval process and are subject to various rules and regulations, including strict plant limits, testing, security and record-keeping.

BUSINESS TAXES & FEES

Types of Businesses Licensed	Application Fees	License Fees
Vertically integrated businesses (Licensed Non-Profit Producers)	\$10,000	\$30,000 for first 150 plants; \$10,000 for each additional 50 plants up to 450 total. All license fees paid annually.
Manufacturers	\$1,000	\$1,000 renewed annually
State tax requirements	5.5%-9.25% gross receipts tax	

NM MEDICAL

SUPPLY CHAIN DYNAMICS

Business Type	Number Licenses Allowed	Current Number of Licenses Granted (As of Q1 2022)
Vertically integrated businesses (Licensed Non-Profit Producers)	35 (Only 35 producers/dispensaries are licensed to grow and sell MMJ in New Mexico, but there are no limits on how many dispensary storefronts each is allowed to open)	35 licensed businesses operate a total of 122 dispensary storefronts throughout the state
Manufacturers	No statewide limits	N/A

MARKET OVERVIEW

Number of registered MMJ patients (As of Q1 2022)	130,345	10 out of 37 MMJ markets with open patient registries
Registered MMJ patients as % of state population	6.16%	3 out of 37 MMJ markets with open patient registries
Estimated MMJ Sales Via Dispensaries By Year	2021 2022 2023 2024 2025 2026	\$245M-\$300M \$260M-\$320M \$270M-\$330M \$250M-\$305M \$230M-\$280M \$210M-\$255M

BUSINESS OPPORTUNITY

Accepting New Business Licenses?	No
Potential For New Licenses?	No plans have been announced to award any additional MMJ business licenses in New Mexico.
Out-of-State Investment Allowed?	Yes, however any members of the board of directors for a non-profit producer are required to be residents of New Mexico.

NM RECREATIONAL

REGULATORY OVERVIEW

Home cultivation	Yes, up to six plants
Business regulations	Heavy. In addition to rules around proximity and security for establishments, operators must show proof of water rights and workplace training programs.

BUSINESS TAXES & FEES

Types of Businesses Licensed	Application Fees	License Fees
Producer		\$2,500 + \$1,000 for each licensed premises
Manufacturer		\$2,500 + \$1,000 for each licensed premises
Retailer		\$2,500 + \$1,000 for each licensed premises
Vertically integrated establishment		\$7,500 + \$1,000 for each licensed premises
Testing labs		\$2,500 + \$1,000 for each licensed premises
State tax requirements	12% excise tax plus 8% sales tax	

SUPPLY CHAIN DYNAMICS

Business Type	Number Licenses Allowed	Current Number of Licenses Granted (As of Q1 2022)
Producer	No statewide limit	30
Manufacturer	No statewide limit	9
Retailer	No statewide limit	47
Vertically integrated establishment	No statewide limit	35

MARKET OVERVIEW

Estimated Adult-Use Sales Via Licensed Retail Stores By Year	2021	0
	2022	\$100M-\$125M
	2023	\$150M-\$200M
	2024	\$225M-\$27M
	2025	\$300M-\$350M
	2026	\$350M-\$425M

BUSINESS OPPORTUNITY

Accepting New Business Licenses?	Yes
Potential For New Licenses?	Yes
Out-of-State Investment Allowed?	Yes

NEW YORK

What to watch in 2022

New York's adult-use cannabis market is on the verge of launching, but at a much slower pace that anticipated when the program was approved. Regulators have yet to release final details on much of the program's framework.

NY MEDICAL

REGULATORY OVERVIEW

Patient registry	Mandatory—recommendation from a physician or nurse practitioner who has registered with the state and completed the required training course
Accepts patients registered with other states?	No
Home cultivation	No
Restrictions on type of marijuana allowed to be sold?	Yes, New York has had one of the most restrictive programs in terms of allowable product forms, prohibiting edibles. Patients can use flower, liquids and oil for vaporization or administration via inhaler as well as capsules to take orally. New regulations loosened restrictions somewhat, allowing for additional products including topicals such as ointments, lotions and patches; solid and semi-solid products, including chewable and effervescent tablets and lozenges; and certain non-smokable forms of ground plant material.
Qualifying medical conditions	Broad. The new law legalizing adult-use marijuana in the state also expands the list of qualifying conditions. View the complete list here: https://www.health.ny.gov/regulations/medical_marijuana/patients/
MMJ business regulations	Very heavy. The state allows just 10 licensed, vertically integrated businesses. The rules on these companies are onerous. In addition to some of the highest licensing fees in the country and a detailed application process, operational regulations established extensive rules for everything from testing, security to inventory tracking, record-keeping to packaging/labeling and advertising. New York also limits the types of strains that can be grown. Prices are not set by the businesses, but rather by the program commissioner. A registered pharmacist is required to be on the premises of dispensaries during all hours of operation.

NY MEDICAL

BUSINESS TAXES & FEES

Types of Businesses Licensed	Application Fees	License Fees
Vertically integrated businesses	\$210,000 (\$200,000 of which is refundable if the entity is not awarded a license)	\$200,000 (renewed every two years)
State tax requirements	7% excise tax for producers/dispensaries on the gross receipts from sales to patients. MMJ is exempt from sales tax.	

SUPPLY CHAIN DYNAMICS

Business Type	Number Licenses Allowed	Current Number of Licenses Granted (As of Q1 2022)
Vertically integrated businesses	40—the state allows 10 licensed companies, each of which may operate up to 8 dispensaries in addition to their cultivation site	40

MARKET OVERVIEW

Number of registered MMJ patients (As of Q1 2022)	125,045	11 out of 37 MMJ markets with open patient registries
Registered MMJ patients as % of state population	0.63%	26 out of 37 MMJ markets with open patient registries
Estimated MMJ Sales Via Dispensaries By Year	2021	\$260M-\$310M
	2022	\$220M-\$270M
	2023	\$250M-\$300M
	2024	\$270M-\$330M
	2025	\$290M-\$360M
	2026	\$320M-\$390M

BUSINESS OPPORTUNITY

Accepting New Business Licenses?	No
Potential For New Licenses?	No additional licensing opportunities have been announced
Out-of-State Investment Allowed?	Yes

NY RECREATIONAL

REGULATORY OVERVIEW

Home cultivation	Yes
Restrictions on type of marijuana allowed to be sold?	Regulations are still being developed.
Business regulations	Regulations are still being developed.

BUSINESS TAXES & FEES

Types of Businesses Licensed	Application Fees	License Fees
Cultivators	Program details are still being determined.	
Retail		
Nursery		
Processors		
Distributors		
Microbusiness		
Conditional cultivators	\$2,000	
Consumption		
Delivery		
State tax requirements	There are different tax rates depending on the cannabis form at the distribution level. Retail excise tax: 9% Local retail excise tax: 4%	

SUPPLY CHAIN DYNAMICS

Business Type	Number Licenses Allowed	Current Number of Licenses Granted (As of Q1 2022)
Cultivators		
Conditional cultivators	2	
Nursery		
Processors		
Distributors		
Microbusiness		
Retail		
Consumption		
Delivery		

MARKET OVERVIEW

Estimated Adult-Use Sales Via Licensed Retail Stores By Year	2021	0
	2022	0
	2023	\$1B-\$1.2B
	2024	\$1.4B-\$1.7B
	2025	\$1.5B-\$1.8B
	2026	\$2.2B-\$2.7B

BUSINESS OPPORTUNITY

Accepting New Business Licenses?	Only for conditional cultivator licenses, which is only open to licensed hemp cultivators
Potential For New Licenses?	Yes
Out-of-State Investment Allowed?	Yes

NORTH DAKOTA

What to watch in 2022

Citizen groups continue efforts to get adult-use legalization on the ballot in North Dakota, but progress is slow. North Dakota's legislature appears content to let the program continue as is, so no new initiatives have been introduced at that level.

ND MEDICAL

REGULATORY OVERVIEW

Patient registry	Mandatory—patients are required to apply for registry identification cards. The application requires a written certification from a healthcare provider with whom they have a bona fide relationship, and an application fee.
Accepts patients registered with other states?	No
Home cultivation	No
Restrictions on type of marijuana allowed to be sold?	Edibles are not permitted.
Qualifying medical conditions	Anorexia nervosa, anxiety disorder, any terminal illness, autism spectrum disorder, brain injury, bulimia nervosa, cancer, HIV/AIDS, hepatitis C, ALS, PTSD, agitation of Alzheimer's disease, dementia, Crohn's disease, Ehlers-Danlos syndrome, endometriosis, fibromyalgia, spinal stenosis, chronic back pain (including neuropathy or damage to the nervous tissues of the spinal cord with objective neurological indication of intractable spasticity), glaucoma, epilepsy, a medical condition that produces cachexia/wasting syndrome, severe and debilitating pain that hasn't responded to previously prescribed medication or surgical measures for more than three months or for which other treatment options produced serious side effects, interstitial cystitis, intractable nausea, migraine, neuropathy, rheumatoid arthritis, seizures, or severe and persistent muscle spasms (including but not limited to those characteristic of MS) Tourette syndrome.

ND MEDICAL

MMJ business regulations

Heavy. The state limits the total number of licenses available, though this can be periodically adjusted if necessary. The two licensed cultivators will be limited to 1,000 plants and 50 additional for research purposes, while cultivation and dispensary operations aren't allowed at the same location. Regulations govern all aspects of dispensary and cultivation business operations, including testing, security, packaging, labeling, record-keeping, pesticide use and training of staff members.

BUSINESS TAXES & FEES

Types of Businesses Licensed	Application Fees	License Fees
Cultivators	\$5,000	\$90,000 (renewed biannually)
Dispensaries	\$5,000	\$110,000 (renewed biannually)
State tax requirements	5% sales tax for medical marijuana sales	

SUPPLY CHAIN DYNAMICS

Business Type	Number Licenses Allowed	Current Number of Licenses Granted (As of Q1 2022)
Cultivators	2	2
Dispensaries	8	8

ND MEDICAL

MARKET OVERVIEW

Number of registered MMJ patients (As of Q1 2022)	7,151	33 out of 37 MMJ markets with open patient registries
Registered MMJ patients as % of state population	0.92%	23 out of 37 MMJ markets with open patient registries
Estimated MMJ Sales Via Dispensaries By Year	2021	\$10M-\$12M
	2022	\$15M-\$18M
	2023	\$20M-\$24M
	2024	\$26M-\$32M
	2025	\$32M-\$39M
	2026	\$37M-\$45M

BUSINESS OPPORTUNITY

Accepting New Business Licenses?	No
Potential For New Licenses?	No
Out-of-State Investment Allowed?	Yes

OHIO

What to watch in 2022

Ohio regulators responded to claims of product shortages by implementing a rule to allow cultivators to apply to expand their cultivation facilities. The new rules would allow Level 1 licensees to expand to 75,000 square feet and Level 2 to expand to 9,000 square feet. The state is also on a short list of states to watch for potential adult-use legalization in November after a campaign successfully overcame the signature hurdle to send the proposal to the legislature.

OH MEDICAL

REGULATORY OVERVIEW

Patient registry	Mandatory—registration must be completed by patient's physician
Accepts patients registered with other states?	Not currently
Home cultivation	No
Restrictions on type of marijuana allowed to be sold?	The use of medical marijuana by smoking or combustion is prohibited, though vaping is permitted. Forms that are attractive to children are also prohibited.
Qualifying medical conditions	Broad. New conditions are considered each year by the State Medical Board of Ohio. View full list of qualifying conditions here: https://medicalmarijuana.ohio.gov/faqs
MMJ business regulations	Heavy. Among other things, regulations require businesses to meet certain financial criteria, adhere to local zoning laws, utilize the state inventory tracking system, and meet multiple security, storage, sanitation and quality standards (including specific labeling requirements).

OH MEDICAL

BUSINESS TAXES & FEES

Types of Businesses Licensed	Application Fees	License Fees
Dispensaries	\$5,000	\$70,000 (biennial)
Processors	\$10,000	\$90,000 (initial fee), \$100,000 (annual renewal)
Cultivators	\$20,000 (Level 1 growers); \$2,000 (Level 2 growers)	Level 1: \$180,000 (initial fee), \$200,000 (annual renewal) Level 2: \$18,000 (initial fee), \$20,000 (annual renewal)
Testing labs	\$2,000	\$18,000 (initial fee), \$20,000 (annual renewal)
State tax requirements	MMJ is subject to state and local sales tax	

SUPPLY CHAIN DYNAMICS

Business Type	Number Licenses Allowed	Current Number of Licenses Granted (As of Q1 2022)
Dispensaries	60	58
Processors	40	48
Cultivators	19 Level 1 growers (up to 25,000 square feet of canopy); 19 Level 2 growers (up to 3,000 square feet of canopy)	33
Testing labs	No statewide limit	7

MARKET OVERVIEW

Number of registered MMJ patients (As of Q1 2022)	237,613	5 out of 37 MMJ markets with open patient registries
Registered MMJ patients as % of state population	2.02%	13 out of 37 MMJ markets with open patient registries
Estimated MMJ Sales Via Dispensaries By Year	2021	\$350M-\$425M
	2022	\$450M-\$550M
	2023	\$525M-\$650M
	2024	\$575M-\$700M
	2025	\$600M-\$750M
	2026	\$625M-\$775M

BUSINESS OPPORTUNITY

Accepting New Business Licenses?	No
Potential For New Licenses?	No
Out-of-State Investment Allowed?	Yes

OKLAHOMA

What to watch in 2022

The dip in license numbers in 2020 appeared to be an anomaly in Oklahoma, as since then participation in the MMJ program continues to climb. But the Oklahoma House Republican legislators pitched a 12-point plan to tighten up one of the country's most business-friendly medical marijuana markets with a goal of curbing illicit activity. The state also is in the process of implementing a seed-to-sale tracking system with the goal of better visibility of how product moves through the industry.

OK MEDICAL

REGULATORY OVERVIEW

Patient registry	Mandatory—registration must be completed by patient's physician
Accepts patients registered with other states?	Yes
Home cultivation	Yes
Restrictions on type of marijuana allowed to be sold?	No, though businesses are prohibited from manufacturing or selling MMJ products that are intentionally attractive to children or minors.
Qualifying medical conditions	No qualifying MMJ conditions are specified, but doctors recommending MMJ are required to do so according to "accepted standards a reasonable and prudent physician would follow when recommending or approving any medication."

MMJ business regulations

Moderate. Among other things, businesses are required to use an inventory tracking system, providing monthly sales reports and account for any waste in the process. All MMJ businesses will be subject to audits and must keep detailed financial records for at least seven years, while marijuana processors will be subject to additional inspection of premises during regular hours of operation. Businesses must also meet certain security requirements and adhere to specific packaging and labeling standards. Regulations drafted during the legislative session were enacted in August.

OK MEDICAL

BUSINESS TAXES & FEES

Types of Businesses Licensed	Application Fees	License Fees
Dispensaries	\$2,500	\$2,500 (application fee counts as license fee in first year)
Cultivators	\$2,500	\$2,500 (application fee counts as license fee in first year)
Processors	\$2,500	\$2,500 (application fee counts as license fee in first year)
State tax requirements	7% excise tax on the retail sale of medical marijuana. MMJ sales will also be subject to state and local sales tax.	

SUPPLY CHAIN DYNAMICS

Business Type	Number Licenses Allowed	Current Number of Licenses Granted (As of Q1 2022)
Dispensaries	No statewide limit	2,285
Cultivators	No statewide limit	8,184
Processors	No statewide limit	1,539

OK MEDICAL

MARKET OVERVIEW

Number of registered MMJ patients (As of Q1 2022)	382,069	3 out of 37 MMJ markets with open patient registries
Registered MMJ patients as % of state population	9.58%	1 out of 37 MMJ markets with open patient registries
Estimated MMJ Sales Via Dispensaries By Year	2021	\$875M-\$1.1B
	2022	\$875M-\$1.1B
	2023	\$950M-\$1.2B
	2024	\$975M-\$1.2B
	2025	\$975M-\$1.2B
	2026	\$950M-\$1.2B

BUSINESS OPPORTUNITY

Accepting New Business Licenses?	Yes, the state is accepting new applications for MMJ businesses on an ongoing basis.
Potential For New Licenses?	No
Out-of-State Investment Allowed?	License applicants are required to have lived in Oklahoma two years prior to applying or to have resided in the state at least five of the previous 25 years.

OREGON

What to watch in 2022

The reopening of Oregon's recreational licensing process in November 2021 was short-lived. The governor reinstated a stop on new application processing in April. The moratorium is meant to help balance supply and demand in a saturated state that has suffered from years of oversupply.

OR MEDICAL

REGULATORY OVERVIEW

Patient registry	Mandatory—patients must get a statement from their primary doctor
Accepts patients registered with other states?	No
Home cultivation	Yes
Restrictions on type of marijuana allowed to be sold?	No, though there are concentration limits set on the various products available (though they are extremely high in the case of MMJ products).
Qualifying medical conditions	Limited. A degenerative or pervasive neurological condition, cancer, glaucoma, HIV/AIDS and PTSD, plus medical conditions—or whose treatments—produce cachexia/wasting syndrome, seizures, severe or persistent muscle spasms, severe nausea or severe pain.
MMJ business regulations	Heavy. Growers, processors and dispensaries must apply for and obtain licenses and endorsements to operate and abide by a host of requirements, covering everything from location and residency to inventory, security and testing, use of pesticides, and packaging.

BUSINESS TAXES & FEES

Types of Businesses Licensed	Application Fees	License Fees
Cultivators	None	\$200 per site
Processors	\$500 (new and renewal)	\$3,500 (new and renewal)
Dispensaries	\$500 (new and renewal)	\$3,500 (new and renewal)
State tax requirements	None	

OR MEDICAL

SUPPLY CHAIN DYNAMICS

Business Type	Number Licenses Allowed	Current Number of Licenses Granted (As of Q1 2022)
Cultivators	No statewide limit	26 registered MMJ grow sites than can transfer product to processors and wholesalers in the adult-use market
Processors	No statewide limit	88 adult-use processors that produce medical-grade products
Dispensaries	No statewide limit	"2 MMJ-only dispensary 469 adult-use retailers that carry medical-grade products"

MARKET OVERVIEW

Number of registered MMJ patients (As of Q1 2022)	21,393	23 out of 37 MMJ markets with open patient registries
Registered MMJ patients as % of state population	0.50%	28 out of 37 MMJ markets with open patient registries
Estimated MMJ Sales Via Dispensaries By Year	22021	\$65M-\$70M
	2022	\$65M-\$70M
	2023	\$65M-\$70M
	2024	\$55M-\$70M
	2025	\$55M-\$65M
	2026	\$50M-\$65M

BUSINESS OPPORTUNITY

Accepting New Business Licenses?	Yes, no statewide limit
Potential For New Licenses?	No
Out-of-State Investment Allowed?	Yes

OR RECREATIONAL

REGULATORY OVERVIEW

Home cultivation	Yes, up to four plants per residence
Restrictions on type of marijuana allowed to be sold?	No limits on product type, but THC concentration is limited in adult-use edibles (5mg/serving, 50mg/container) and capsules (10mg/serving or 100mg/container).
Business regulations	Heavy. The rules in effect for recreational sales are extensive, covering all aspects of operations for all licensees, from use of pesticides, extraction methods and transportation, to lab testing, hiring, security, record-keeping, packaging, labeling, zoning, insurance and advertising.

BUSINESS TAXES & FEES

Types of Businesses Licensed	Application Fees	License Fees
Cultivators	\$250	\$3,750 (Tier I), \$5,750 (Tier II). \$1,000 (Micro Tier I), \$2,000 (Micro Tier II)
Processors	\$250	\$4,750
Wholesalers	\$250	\$4,750; Micro wholesaler—\$1,000
Retailers	\$250	\$4,750
Testing labs	\$250	\$4,750
State tax requirements	17% state tax paid at point of retail sale and up to 3% at local level	

SUPPLY CHAIN DYNAMICS

Business Type	Number Licenses Allowed	Current Number of Licenses Granted (As of Q1 2022)
Cultivators	No statewide limit	1,395
Processors	No statewide limit	309
Wholesalers	No statewide limit	239
Retailers	No statewide limit	771
Testing labs	No statewide limit	22

OR RECREATIONAL

MARKET OVERVIEW

Estimated Adult-Use Sales Via Licensed Retail Stores By Year	2021	\$1.1B-\$1.4B
	2022	\$1.1B-\$1.3B
	2023	\$1.2B-\$1.4B
	2024	\$1.3B-\$1.6B
	2025	\$1.4B-\$1.8B
	2026	\$1.6B-\$2B

BUSINESS OPPORTUNITY

Accepting New Business Licenses?	No
Potential For New Licenses?	No
Out-of-State Investment Allowed?	Yes

PENNSYLVANIA

What to watch in 2022

Pennsylvania is widely considered to be on the verge of legalizing adult-use marijuana, particularly now that both New Jersey and New York have done so. Gov. Tom Wolf made legalizing recreational marijuana one of his administration's top legislative priorities this year; however, the state's Republican-controlled Senate is seen as a big to legalization.

PA MEDICAL

REGULATORY OVERVIEW

Patient registry	Mandatory—recommendation from a physician who has registered with the state and completed the required training course
Accepts patients registered with other states?	No
Home cultivation	No
Restrictions on type of marijuana allowed to be sold?	Yes, both flower and edibles are prohibited. MMJ consumption is limited to pills, oils, gels, creams, ointments, tinctures, liquids and forms medically appropriate for vaporization.
Qualifying medical conditions	Broad. Allows for "serious medical conditions." View full list of conditions and considerations here: https://www.health.pa.gov/topics/programs/Medical%20Marijuana/Pages/Patients.aspx
MMJ business regulations	Very heavy. Rules governing MMJ businesses are extensive, detailing operational requirements for testing, packaging, labeling, advertising, zoning, transportation, security, record-keeping and more. All licensed businesses must implement an electronic inventory tracking system that's accessible to the state, and dispensaries are required to have a physician or a pharmacist on-site at all times. Restrictions on allowable forms of marijuana are some of the strictest in the nation.

PA MEDICAL

BUSINESS TAXES & FEES

Types of Businesses Licensed	Application Fees	License Fees
Dispensaries	\$5,000	\$30,000 per location (new); \$5,000 (renewal)
Growers/Processors	\$10,000	\$200,000 (new); \$10,000 (renewal)
State tax requirements	Growers/Processors will pay 5% excise tax on gross receipts from sales of MMJ to a dispensary	

SUPPLY CHAIN DYNAMICS

Business Type	Number Licenses Allowed	Current Number of Licenses Granted (As of Q1 2022)
Dispensaries	150 (maximum of 50 license holders, each allowed to open 3 storefronts)	158
Growers/Processors	25. No more than 5 grower/processors may also be issued a dispensary permit	25

MARKET OVERVIEW

Number of registered MMJ patients (As of Q1 2022)	681,504	1 out of 37 MMJ markets with open patient registries
Registered MMJ patients as % of state population	5.26%	4 out of 37 MMJ markets with open patient registries
Estimated MMJ Sales Via Dispensaries By Year	2021	\$1.2B-\$1.5B
	2022	\$1.6B-\$2B
	2023	\$1.9B-\$2.4B
	2024	\$2.1B-\$2.6B
	2025	\$2.3B-\$2.8B
	2026	\$2.2B-\$2.7B

BUSINESS OPPORTUNITY

Accepting New Business Licenses?	No
Potential For New Licenses?	Moderate—the state plans a Phase III licensing phase, date to be determined.
Out-of-State Investment Allowed?	Yes

RHODE ISLAND

What to watch in 2022

Cannabis regulators in Rhode Island are looking to triple the number of dispensaries—called compassion centers—after several complaints of limited access since the program began. The state-run lottery resulted in the selection of five additional compassion center licenses, but none of the facilities are open yet. A sixth license is currently on hold pending review.

RI MEDICAL

REGULATORY OVERVIEW

Patient registry	Mandatory—patients must have a written recommendation from a physician licensed in Rhode Island, Massachusetts or Connecticut
Accepts patients registered with other states?	Yes
Home cultivation	Yes. One patient may have up to 12 plants, those growing for more than one person may have up to 24
Restrictions on type of marijuana allowed to be sold?	No
Qualifying medical conditions	Limited. Alzheimer’s disease, cancer, glaucoma, autism spectrum disorder, hepatitis C and HIV/AIDS, as well as conditions—or whose treatments—produce cachexia/wasting syndrome, PTSD, seizures, severe and chronic pain, severe and persistent muscle spasms or severe nausea
MMJ business regulations	Moderate. The state’s rules around its three fully vertically integrated dispensaries are far less extensive and detailed than in other MMJ programs. But rules governing stand-alone cultivation operations are much more detailed, governing nearly all aspects of business operations, including location, security, inventory tracking and testing. A 2018 increase in dispensary licensing fee from \$5,000 to \$250,000 may prove prohibitive.

RI MEDICAL

BUSINESS TAXES & FEES

Types of Businesses Licensed	Application Fees	License Fees
Dispensaries	\$250	\$250,000 (valid for two years)
Cultivators	\$5,000	Annual license fees Class A: \$20,000 Class B: \$35,000 Class C: \$50,000 Class D: \$80,000
State tax requirements	7% sales tax plus 4% dispensary surcharge on revenues	

SUPPLY CHAIN DYNAMICS

Business Type	Number Licenses Allowed	Current Number of Licenses Granted (As of Q1 2022)
Dispensaries	9	3
Cultivators	No limit	64

MARKET OVERVIEW

Number of registered MMJ patients (As of Q1 2022)	18,789	25 out of 37 MMJ markets with open patient registries
Registered MMJ patients as % of state population	1.71%	15 out of 37 MMJ markets with open patient registries
Estimated MMJ Sales Via Dispensaries By Year	2021 2022 2023 2024 2025 2026	\$80M-\$100M \$75M-\$95M \$80M-\$100M \$80M-\$100M \$80M-\$100M \$80M-\$95M

BUSINESS OPPORTUNITY

Accepting New Business Licenses?	No
Potential For New Licenses?	Moderate
Out-of-State Investment Allowed?	Yes

SOUTH DAKOTA

What to watch in 2022

South Dakota is in the process of launching its medical cannabis program, but not without some speed bumps. The ballot measure was approved by voters in 2020, despite strong objections from the legislature and governor. Now, the two governmental entities are in the process of creating additional limitations on the nascent program. The program is also being hampered by a lack of licensed medical professionals who can begin the recommendation process for medical cannabis.

SD MEDICAL

REGULATORY OVERVIEW

Patient registry	Mandatory—patients must meet with a physician who is licensed to recommend cannabis as a treatment to begin the qualification process.
Accepts patients registered with other states?	No
Home cultivation	Yes
Restrictions on type of marijuana allowed to be sold?	No
Qualifying medical conditions	Limited. Alzheimer's disease, cancer, glaucoma, autism spectrum disorder, hepatitis C and HIV/AIDS, as well as conditions—or whose treatments—produce cachexia/wasting syndrome, PTSD, seizures, severe and chronic pain, severe and persistent muscle spasms or severe nausea.
MMJ business regulations	Moderate. The state's rules around its three fully vertically integrated dispensaries are far less extensive and detailed than in other MMJ programs. But rules governing stand-alone cultivation operations are much more detailed, governing nearly all aspects of business operations, including location, security, inventory tracking and testing. A 2018 increase in dispensary licensing fee from \$5,000 to \$250,000 may prove prohibitive.

SD MEDICAL

BUSINESS TAXES & FEES

Types of Business Licensed	Application Fees	License Fees
Dispensaries	\$5,000	
Manufacturers	\$5,000	
Cultivators	\$5,000	

State tax requirements

SUPPLY CHAIN DYNAMICS

Business Type	Number Licenses Allowed	Current Number of Licenses Granted (As of Q1 2022)
Dispensaries		38
Manufacturing		3
Cultivators		14

MARKET OVERVIEW

Number of registered MMJ patients (As of Q1 2022)	306	36 out of 37 MMJ markets with open patient registries
Registered MMJ patients as % of state population	0.01%	37 out of 37 MMJ markets with open patient registries
Estimated MMJ Sales Via Dispensaries By Year	2021 2022 2023 2024 2025 2026	\$0 \$1M-\$2M \$15M-\$19.5M \$30M-\$38M \$60M-\$71M \$0

BUSINESS OPPORTUNITY

Accepting New Business Licenses?	No
Potential For New Licenses?	Moderate
Out-of-State Investment Allowed?	Yes

UTAH

What to watch in 2022

Utah's medical marijuana program has been hampered by a restriction placed on physicians regarding the number of recommendations they can issue before being subjected to additional certification. The state approved an amendment to this policy, but it has yet to be implemented.

UT MEDICAL

REGULATORY OVERVIEW

Patient registry	Yes—patients must have a physician recommendation to participate
Accepts patients registered with other states?	No
Home cultivation	No
Restrictions on type of marijuana allowed to be sold?	Edibles are prohibited. Joints and products that resemble cigarettes are prohibited. Resin and wax are not permitted unless a patient has not responded to other forms. Unprocessed flower outside of a blister pack is prohibited. Products that would appeal to children, have a similar appearance to candy or have a candy-like flavor (for vaporizable products) are prohibited.
Qualifying medical conditions	Moderate: HIV/AIDS, Alzheimer's, ALS, cancer, cachexia/wasting disorder, persistent nausea not due to pregnancy, Crohn's disease or ulcerative colitis, debilitating seizures, persistent and debilitating muscle spasms, PTSD, autism, terminal illness, hospice care, a rare condition or disease affecting less than 200,000 individuals in the U.S., chronic pain and any condition that the compassionate use board approves on an individual, case-by-case basis.
MMJ business regulations	Heavy. Rule govern all aspects of business operations including security, storage, transportation, processing, packaging and advertising. Although the list of qualifying medical conditions is extensive, Utah has issued tight regulations on the forms of medical marijuana sold—including packaging flower in individual blister packs that are not to be opened until directly before use. Physicians, pharmacists, advanced nurse practitioners and physician's assistants may have limited affiliation with cannabis production establishments.

UT MEDICAL

BUSINESS TAXES & FEES

Types of Businesses Licensed	Application Fees	License Fees
Pharmacy (dispensary)	\$2,500	\$50,000 (rural); \$67,000 (urban)
Cultivators	\$10,000	\$100,000
Processor	\$1,250	\$100,000
Laboratory		\$15,000
State tax requirements	Medical cannabis will be exempt from sales tax	

SUPPLY CHAIN DYNAMICS

Business Type	Number Licenses Allowed	Current Number of Licenses Granted (As of Q1 2022)
Dispensaries	14	14
Cultivators	8	8
Processors	No state limit	17

MARKET OVERVIEW

Number of registered MMJ patients (As of Q1 2022)	42,646	19 out of 37 MMJ markets with open patient registries
Registered MMJ patients as % of state population	1.28%	22 out of 37 MMJ markets with open patient registries
Estimated MMJ Sales Via Dispensaries By Year	2021 2022 2023 2024 2025 2026	\$67M-\$82M \$105M-\$130M \$135M-\$165M \$155M-\$190M \$165M-\$200M \$170M-\$205M

BUSINESS OPPORTUNITY

Accepting New Business Licenses?	Only for processors
Potential For New Licenses?	Moderate—regulators may decide to issue two more cultivation licenses
Out-of-State Investment Allowed?	Yes

VERMONT

What to watch in 2022

Vermont began accepting applications in April for businesses wanting a piece of the new recreational cannabis market. While there are no limits on the number of licenses that may be issued, the state is focused on supporting small business by restricting the number of licenses an operator can have to one in any classification. It's too early to offer any assessment of how the initial launch is proceeding.

VT MEDICAL

REGULATORY OVERVIEW

Patient registry	Mandatory—patients must get a recommendation from a health care provider (such as a physician, physician's assistant, naturopathic physician or advanced practice registered nurse) licensed in Vermont, Massachusetts, New Hampshire or New York
Accepts patients registered with other states?	No
Home cultivation	No
Restrictions on type of marijuana allowed to be sold?	Yes
Qualifying medical conditions	Moderate: Cancer, HIV/AIDS, glaucoma, Crohn's disease, Parkinson's disease, PTSD and multiple sclerosis, cachexia/wasting syndrome, chronic pain, severe nausea and severe seizures
MMJ business regulations	Heavy. Dispensaries must go through a competitive application process and are subject to regulations covering security, record-keeping, inventory, packaging and labeling, among other areas. The state also has a cap on the number of MMJ dispensaries, which must grow their own cannabis. Separate stand-alone wholesale cultivation operations are not allowed, though dispensaries can donate cannabis to each other for no fee.

VT MEDICAL

BUSINESS TAXES & FEES

Types of Businesses Licensed	Application Fees	License Fees
Vertically integrated businesses	\$2,500	\$20,000 (new); \$25,000 (renewal)
State tax requirements	None	

SUPPLY CHAIN DYNAMICS

Business Type	Number Licenses Allowed	Current Number of Licenses Granted (As of Q1 2022)
Vertically integrated businesses	5	5

MARKET OVERVIEW

Number of registered MMJ patients (As of Q1 2022)	4,569	35 out of 37 MMJ markets with open patient registries
Registered MMJ patients as % of state population	0.71%	25 out of 37 MMJ markets with open patient registries
Estimated MMJ Sales Via Dispensaries By Year	2021	\$10M-\$14M
	2022	\$10M-\$12M
	2023	\$10M-\$12M
	2024	\$10M-\$12M
	2025	\$10M-\$12M
	2026	\$10M-\$12M

BUSINESS OPPORTUNITY

Accepting New Business Licenses?	No
Potential For New Licenses?	High—dependent on patient count
Out-of-State Investment Allowed?	Yes

VT RECREATIONAL

REGULATORY OVERVIEW

Home cultivation	Yes
Restrictions on type of marijuana allowed to be sold?	No statewide limit
Business regulations	Heavy. The rules in effect for recreational sales are extensive, covering all aspects of operations for all licensees, from use of pesticides, extraction methods and transportation, to lab testing, hiring, security, record-keeping, packaging, labeling, zoning, insurance and advertising. Licensees are limited to possessing one permit from each class of licenses, and regulations are designed to level the playing field for small operators.

BUSINESS TAXES & FEES

Types of Businesses Licensed	Application Fees	License Fees
Cultivators-Indoor	\$1,000	\$1,500-\$75,000, depending on size
Cultivators-Outdoor	\$1,000	\$750-\$34,000, depending on size
Product manufacturers	\$1,000	\$750-\$15,000
Wholesalers	\$1,000	\$4,000
Retailers	\$1,000	\$10,000
Integrated operators	\$1,000	\$100,000
Testing labs	\$1,000	\$1,500
State tax requirements	14% excise tax plus a 6% sales tax	

VT RECREATIONAL

SUPPLY CHAIN DYNAMICS

Business Type	Number Licenses Allowed	Current Number of Licenses Granted (As of Q1 2022)
Cultivators-Indoor	No statewide limit	
Cultivators-Outdoor	No statewide limit	
Product manufacturers	No statewide limit	
Wholesalers	No statewide limit	
Retailers	No statewide limit	
Integrated operators	No statewide limit	
Testing labs	No statewide limit	

MARKET OVERVIEW

Estimated Adult-Use Sales Via Licensed Retail Stores By Year	2021	\$0
	2022	\$3M-\$5M
	2023	\$45M-\$65M
	2024	\$70M-\$95M
	2025	\$120M-\$145M
	2026	\$120M-\$145M

BUSINESS OPPORTUNITY

Accepting New Business Licenses?	Yes
Potential For New Licenses?	Yes
Out-of-State Investment Allowed?	Yes

VIRGINIA

What to watch in 2022

While Virginia's legislature moved quickly to approve a recreational marijuana market, efforts to accelerate approval of a framework and begin licensing have been thwarted. Currently, the program expects to begin accepting applications in 2023. Sales will not begin until 2024.

VA MEDICAL

REGULATORY OVERVIEW

Patient registry	Mandatory—requires a written certificate from a certified physician, physician's assistant or nurse practitioner.
Accepts patients registered with other states?	No
Home cultivation	No
Restrictions on type of marijuana allowed to be sold?	Yes—only oils and oil-infused products will be sold. New rules allow for products such as lozenges, sprays, capsules, patches and lollipops. Flower and edibles are prohibited. Products may contain at maximum 10 milligrams THC.
Qualifying medical conditions	Any diagnosed condition can qualify as long as the patients has a written certificate from a certified physician, physicians assistant or nurse practitioner.
MMJ business regulations	Heavy. Virginia awarded licenses for five vertically integrated “pharmaceutical processors” who will be responsible for cultivation, manufacturing and dispensing CBD and THC-A products. The latest legislation requires a minimum of 5 milligrams of CBD or THC-A per dose and a maximum 10 milligrams of THC-A. HB 1557 requires the Secretary of Health and Human Services and the Secretary of Agriculture and Forestry to convene a work group to review and recommend an appropriate structure for an oversight organization in Virginia and reports its findings and recommendations by Nov. 1, 2019.

VA MEDICAL

BUSINESS TAXES & FEES

Types of Businesses Licensed	Application Fees	License Fees
Vertically integrated businesses (pharmaceutical processors)	\$10,000	\$60,000 (new); \$10,000 (renewal)
State tax requirements	TBD	

SUPPLY CHAIN DYNAMICS

Business Type	Number Licenses Allowed	Current Number of Licenses Granted (As of Q1 2022)
Vertically integrated businesses (pharmaceutical processors)	5	5

MARKET OVERVIEW

Number of registered MMJ patients (As of Q1 2022)	33,000	21 out of 37 MMJ markets with open patient registries
Registered MMJ patients as % of state population	0.38%	30 out of 37 MMJ markets with open patient registries
Estimated MMJ Sales Via Dispensaries By Year	2021 \$1.3M-\$1.5M 2022 \$20M-\$25M 2023 \$30M-\$35M 2024 \$45M-\$60M 2025 \$65M-\$75M 2026 \$75M-\$95M	

BUSINESS OPPORTUNITY

Accepting New Business Licenses?	No
Potential For New Licenses?	No
Out-of-State Investment Allowed?	Yes

VA RECREATIONAL

REGULATORY OVERVIEW

Home cultivation	Yes, up to four plants per residence
Restrictions on type of marijuana allowed to be sold?	No limits on product type, but THC concentration is limited in adult-use edibles (5mg/serving, 50mg/container) and capsules (10mg/serving or 100mg/container).
Business regulations	Heavy. The rules in effect for recreational sales are extensive, covering all aspects of operations for all licensees, from use of pesticides, extraction methods and transportation, to lab testing, hiring, security, record-keeping, packaging, labeling, zoning, insurance and advertising.

BUSINESS TAXES & FEES

Types of Businesses Licensed	Application Fees	License Fees
TBD	TBD	

Applications will be accepted beginning in 2023.

SUPPLY CHAIN DYNAMICS

Business Type	Number Licenses Allowed	Current Number of Licenses Granted (As of Q1 2022)
TBD	TBD	

MARKET OVERVIEW

Estimated Adult-Use Sales Via Licensed Retail Stores By Year	2021	0
	2022	0
	2023	0
	2024	\$400M-\$500M
	2025	\$625M-\$775M
	2026	\$875M-\$1.1B

BUSINESS OPPORTUNITY

Accepting New Business Licenses?	No
Potential For New Licenses?	Yes
Out-of-State Investment Allowed?	Yes

WASHINGTON DC

What to watch in 2022

Individuals within the District of Columbia have been working toward a regulated adult-use industry for years, but because of the structure regulating the city, approval must be granted by the federal government. That looks like a long shot this year, as President Joe Biden's budget proposal maintains the ban on recreational sales for the district.

DC MEDICAL

REGULATORY OVERVIEW

Patient registry	Mandatory—patients must get a recommendation from a qualifying physician
Accepts patients registered with other states?	Yes
Home cultivation	Yes
Restrictions on type of marijuana allowed to be sold?	No
Qualifying medical conditions	There is no list of qualifying conditions. The qualifying patient's physician determines whether the patient needs medical marijuana.
MMJ business regulations	Heavy. Dispensaries and cultivation operations must undergo an intensive application and registration process and are subject to regulations covering everything from location and hours to signage and labeling. The law also includes caps on the number of dispensaries and grow sites as well as on plant counts.

BUSINESS TAXES & FEES

Types of Businesses Licensed	Application Fees	License Fees
Dispensary		\$8,000 (new); \$16,000 (renewal)
Cultivation center		\$8,000 (new); \$11,000 (renewal)
Testing labs		\$3,500 (new); \$7,500 (renewal)
State tax requirements	6.0% sales tax	

DC MEDICAL

SUPPLY CHAIN DYNAMICS

Business Type	Number Licenses Allowed	Current Number of Licenses Granted (As of Q1 2022)
Dispensary	8	7
Cultivation center	10	8

MARKET OVERVIEW

Number of registered MMJ patients (As of Q1 2022)	12,368	31 out of 37 MMJ markets with open patient registries
Registered MMJ patients as % of state population	1.85%	14 out of 37 MMJ markets with open patient registries
Estimated MMJ Sales Via Dispensaries By Year	2021	\$16M-\$19M
	2022	\$17M-\$21M
	2023	\$18M-\$21M
	2024	\$18M-\$22M
	2025	\$18M-\$22M
	2026	\$18M-\$22M

BUSINESS OPPORTUNITY

Accepting New Business Licenses?	No
Potential For New Licenses?	Potentially, as not all available MMJ licenses in the district have been fulfilled.
Out-of-State Investment Allowed?	Yes

WASHINGTON STATE

What to watch in 2022

As one of the oldest adult-use cannabis markets in the U.S., Washington state continues to face uphill battles for bridging animosity between regulators and operators. High taxes, strict residency and funding requirements and burdensome regulations have left many cannabis operators struggling. Industry advocates are trying to work with the state legislature and the Washington State Liquor and Cannabis Boards. The state is also struggling to agree on how to handle regulations around hemp-derived delta-8 THC, which some view as a way to subvert the legal cannabis framework.

WA MEDICAL

REGULATORY OVERVIEW

Patient registry	Voluntary—though medical marijuana patients who choose not to join the authorization database will be subject to recreational possession limits and taxes.
Accepts patients registered with other states?	No, but under Washington’s recreational cannabis law, visitors 21 and older may purchase recreational cannabis from any licensed store.
Home cultivation	Yes—patients entered into the voluntary database are permitted to grow for personal and medical use and to form collective gardens, with certain stipulations and conditions.
Restrictions on type of marijuana allowed to be sold?	Yes—restrictions on infused products prohibiting products requiring cooking or baking by the consumer, products requiring refrigeration, freezing or hot holding, other food products considered potentially hazardous as defined by state law (such as products requiring shelft stabilization and fruit and vegetable juices) as well as edibles that are appealing to children including but not limited to gummies, lollipops, cotton candy or brightly colored products

WA MEDICAL

Qualifying medical conditions

Moderate: Intractable pain unrelieved by standard medical treatments, cancer, chronic renal failure requiring hemodialysis, Crohn’s disease, epilepsy/intractable spasticity/seizures, glaucoma, hepatitis C, HIV, multiple sclerosis, PTSD, diseases resulting in severe nausea/vomiting, wasting, appetite loss, cramping, seizures, muscle spasms or spasticity, and traumatic brain injury

MMJ business regulations

Washington is the first state that has legalized medical and recreational cannabis to bring both markets under a single regulatory framework. All medical businesses are now required to be licensed under the rec program, and retailers that choose to sell to the medical market will be required to receive a "medical marijuana endorsement." Businesses that want to sell medical grade products, like higher-potency edibles, are subject to regulations that require extra testing, as well as different labels for these medical grade products. All businesses will be subject to extensive and strict rules covering all aspects of operations including, but not limited to, production controls, use of pesticides, transportation, extraction, packaging/labeling, lab testing, hiring, security, inventory controls and advertising.

BUSINESS TAXES & FEES

Stand-alone medical businesses are no longer allowed under Washington’s unified med and rec framework. Retail marijuana stores can sell to MMJ patients if they get a “medical endorsement,” a process that requires dispensary employees be trained on medical marijuana including the ability to identify recognition cards, and to dedicate a portion of the store where medical cards can be issued to patients.

State tax requirements

37% excise tax. Registered MMJ patients are exempt from sales tax when purchasing from a retail store with medical endorsement.

WA MEDICAL

SUPPLY CHAIN DYNAMICS

No MMJ dispensaries technically operate anymore, but 278 retail marijuana stores have active medical endorsements.

MARKET OVERVIEW

Number of registered MMJ patients (As of Q1 2022)	14,092	28 out of 37 MMJ markets with open patient registries
Registered MMJ patients as % of state population	0.18%	35 out of 37 MMJ markets with open patient registries
Estimated MMJ Sales Via Dispensaries By Year	The state does not break down or track MMJ sales specifically—all sales are lumped under the rec program.	

BUSINESS OPPORTUNITY

No opportunities for stand-alone MMJ businesses exist—all businesses serving MMJ patients must be licensed as an adult-use businesses.

WA RECREATIONAL

REGULATORY OVERVIEW

Home cultivation	No
Restrictions on type of marijuana allowed to be sold?	Yes—restrictions on infused products prohibiting products requiring cooking or baking by the consumer, products requiring refrigeration, freezing or hot holding, other food products considered potentially hazardous as defined by state law (such as products requiring shelft stabilization and fruit and vegetable juices) as well as edibles that are appealing to children including but not limited to gummies, lollipops, cotton candy or brightly colored products
Business regulations	Heavy. All businesses are subject to extensive and strict rules covering all aspects of operations including, but not limited to, production controls, use of pesticides, transportation, extraction, packaging/labeling, lab testing, hiring, security, inventory controls and advertising. The state also has caps on the number of retail stores allowed and overall cultivation limits.

BUSINESS TAXES & FEES

Types of Businesses Licensed	Application Fees	License Fees
Retailers	\$250	\$1,480
Producers	\$250	\$1,480
Processors	\$250	\$1,480
Testing labs		
State tax requirements	37% excise tax, plus 9.6% sales tax payable by the customer at point of sale	

WA RECREATIONAL

SUPPLY CHAIN DYNAMICS

Business Type	Number Licenses Allowed	Current Number of Licenses Granted (As of Q1 2022)
Retailers	556 (at last application cycle)	512
Producers	The number of licenses is not limited, but the maximum canopy space allowed under each license type is. At this time, no more applications for marijuana businesses are being accepted.	1,005
Processors	No statewide limit	1,082
Testing labs	No statewide limit	11

MARKET OVERVIEW

Estimated Adult-Use Sales Via Licensed Retail Stores By Year	2021	\$1.4B-\$1.5B
	2022	\$1.5B-\$1.7B
	2023	\$1.6B-\$1.8B
	2024	\$1.8B-\$2B
	2025	\$2B-\$2.2B
	2026	\$2.3B-\$2.5B

BUSINESS OPPORTUNITY

Accepting New Business Licenses?	No
Potential For New Licenses?	No
Out-of-State Investment Allowed?	Only with approval from the Washington State Liquor and Cannabis Board

WEST VIRGINIA

What to watch in 2022

West Virginia's medical marijuana program is slowly opening its doors to patients. As of the first quarter 2022, only eight of the 100 licensed dispensaries had opened their doors. The state has been actively trying to boost its patient rolls by hosting sign-up events across the state. It's been one of the slowest rollouts of a new market so far in the U.S.

WV MEDICAL

REGULATORY OVERVIEW

Patient registry	Mandatory—written recommendation from a physician certified to recommend cannabis is required
Accepts patients registered with other states?	Yes, for residents of states with comparable requirements for use and lawful purchase, as well as terminally ill cancer patients
Home cultivation	No
Restrictions on type of marijuana allowed to be sold?	Sales of edibles and smokable flower are prohibited as are any forms or packaging that would appeal to minors
Qualifying medical conditions	Limited. ALS, cancer, chronic or intractable pain, HIV/AIDS, Huntington's disease, epilepsy and intractable seizures, multiple sclerosis, neuropathy, Parkinson's disease, PTSD, sickle cell anemia and terminal illness.
MMJ business regulations	Moderate. The cap on cannabis operations is relatively high, and the license fees are comparatively moderate.

WV MEDICAL

BUSINESS TAXES & FEES

Types of Businesses Licensed	Application Fees	License Fees
Dispensaries	\$2,500	\$10,000
Cultivators	\$5,000	\$50,000
Processors	\$5,000	\$50,000
State tax requirements	10% of gross receipts, collected on cannabis sales by growers to dispensaries	

SUPPLY CHAIN DYNAMICS

Business Type	Number Licenses Allowed	Current Number of Licenses Granted (As of Q1 2022)
Dispensaries	100	100
Cultivators	10	10
Processors	10	10

MARKET OVERVIEW

Number of registered MMJ patients (As of Q1 2022)	5,235	34 out of 37 MMJ markets with open patient registries
Registered MMJ patients as % of state population	0.29%	32 out of 37 MMJ markets with open patient registries
Estimated MMJ Sales Via Dispensaries By Year	2021 \$0.4M-\$0.5M 2022 \$7M-\$8M 2023 \$13M-\$16M 2024 \$24M-\$29M 2025 \$33M-\$40M 2026 \$40M-\$49M	

BUSINESS OPPORTUNITY

Accepting New Business Licenses?	No
Potential For New Licenses?	No
Out-of-State Investment Allowed?	Yes

Wholesale Cultivators: Financial and Operational Data

The defining feature of the American cannabis industry is its state-by-state nature. There are dozens of individual markets that are each unique. That's especially true for the wholesale cultivation sector of the industry.

While wholesale cultivation is allowed in every state-legal adult-use cannabis market, many commercial medical marijuana markets require vertical integration, where companies cultivate some or all the cannabis they sell in their own retail stores or MMJ dispensaries.

The sole purpose of wholesale cultivation is to grow marijuana, which is then sold to retailers, infused product manufacturers and concentrate companies as flower or trim.

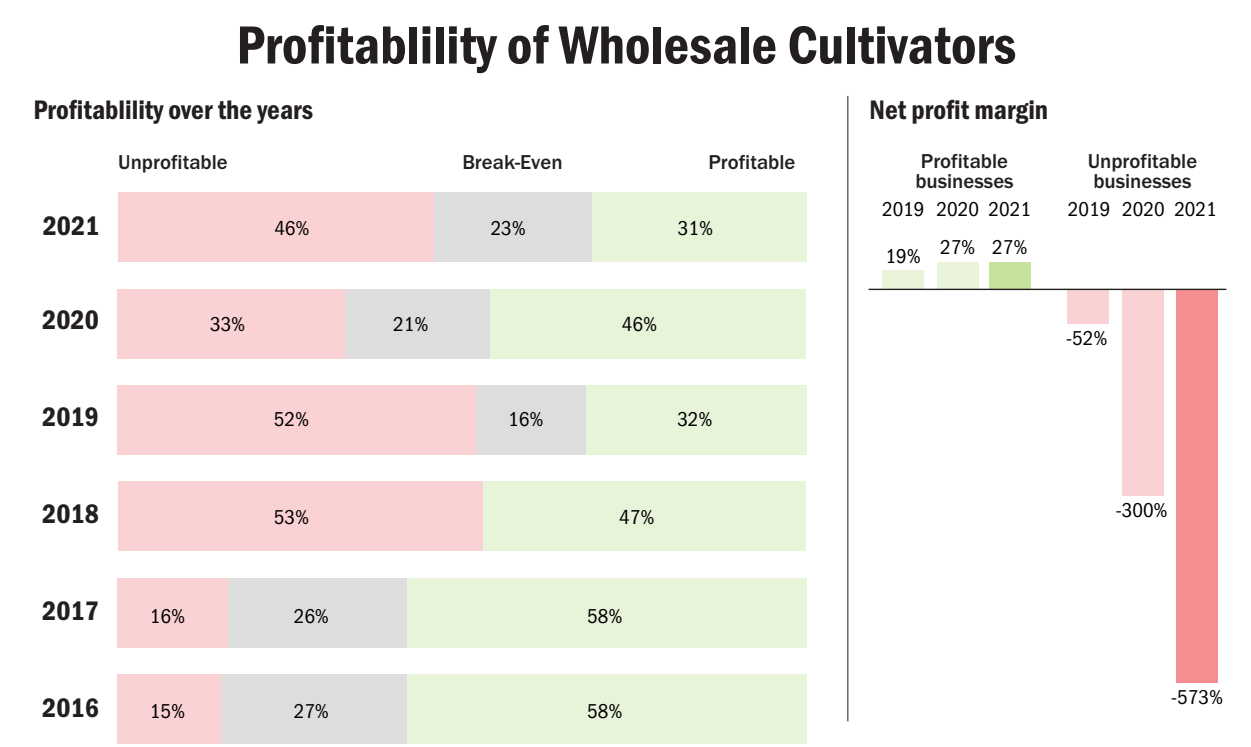
WHOLESALE CULTIVATION TRENDS

The COVID-19 pandemic has left its mark on wholesale cultivation, but that impact is not necessarily negative. For example, more growers have become more adept at distilling data around demand cycles and identifying shifts earlier to reduce the effect.

Some other trends affecting the wholesale cultivation sector include:

- As the U.S. economy returned to more normal operations, cannabis consumption patterns changed as well, leading to lower demand for products and lower wholesale prices for flower.
- Flower still tops demand across markets, with the majority of consumers looking at THC content first. As a result, growers are focused on growing high-THC strains to meet demand.
- Indoor grows still have an edge when it comes to wholesale prices, in large part because of the better product consistency thanks to better environmental controls.
- Competition remains strong, and many experts expect wholesale marijuana to become even more like any other commodity—making it more difficult to differentiate one grower's product from their competitors'. There is still space for "craft" players, but for long-term success, cultivators will need to find additional ways to establish their brand superiority.

CHART 3.01: Profitability of Wholesale Cultivators



Source: MJBiz Factbook
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Nearly half of cultivators surveyed by MJBiz indicated that their business lost money in 2021, a higher proportion than in 2020 but slightly lower than the two years before. Nearly one in three said they were profitable last year, with 23% noting their business was about break-even.

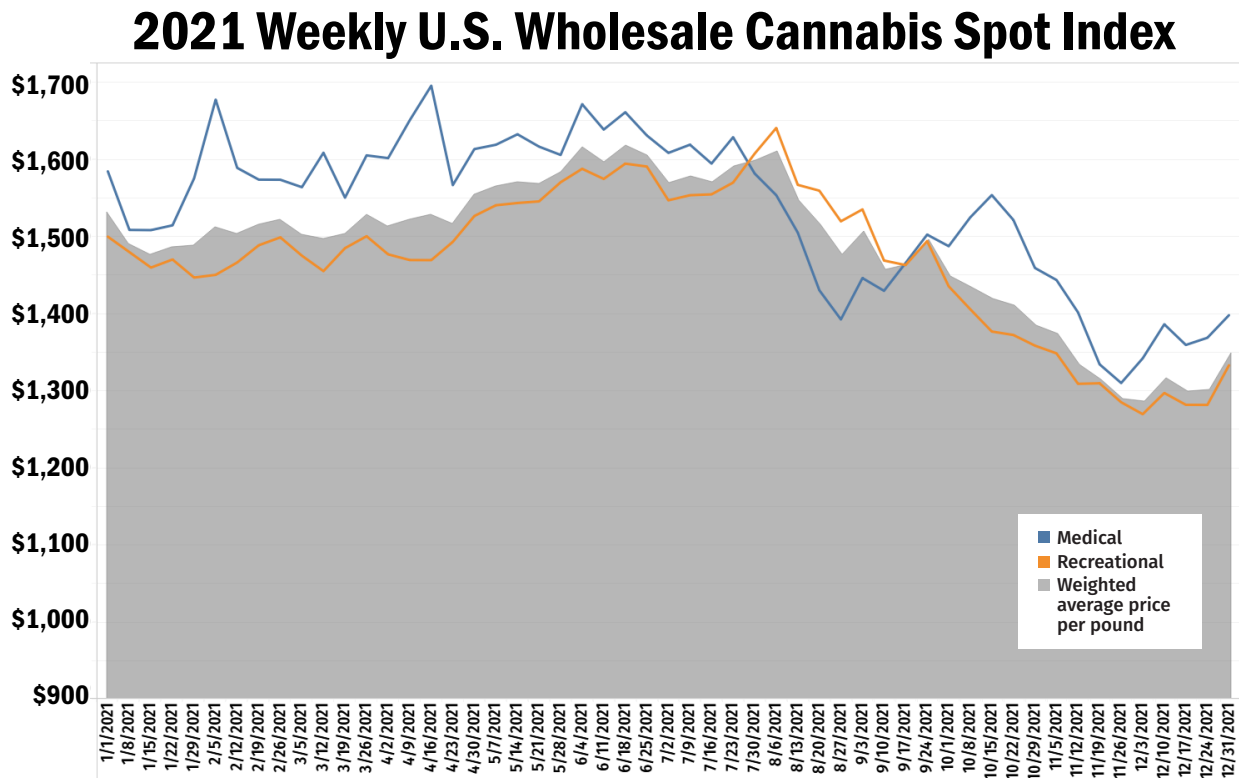
Among growers that did turn a profit in 2021, average net profit margins—or the percentage of revenue remaining after all operating expenses, interest and taxes were deducted from total revenue—was roughly 27%.

For unprofitable growers, operating expenses, interest and taxes exceeded total revenue, significantly. The core challenge, according to respondents, was reliable revenue in a year of uncertainty.

While market conditions vary from state to state, several factors contribute to the tough economic environment faced by wholesale cannabis cultivators today, including:

- Continued market saturation in states such as Oklahoma and Oregon. As of March 2022, the number of cultivation licenses in Oklahoma’s medical market stood at 8,184, while in Oregon the number of licensed adult-use wholesale cultivators totaled 1,395. In addition, Oregon reopened its grower application process, which regulators put on hold to help manage the supply glut, allowing for participation to increase.
- California’s legal marijuana industry continues to struggle with creating a functional framework across the state. Some progress has been made, but the illicit market continues to boom.
- Large, multistate operators continue to expand, entering new markets and capturing more share in markets where they’ve already established a foothold. This puts significant pressure on smaller cultivators, unable to match the scale and efficiency of much larger grow facilities.

CHART 3.02: 2021 Weekly U.S. Wholesale Cannabis Spot Index



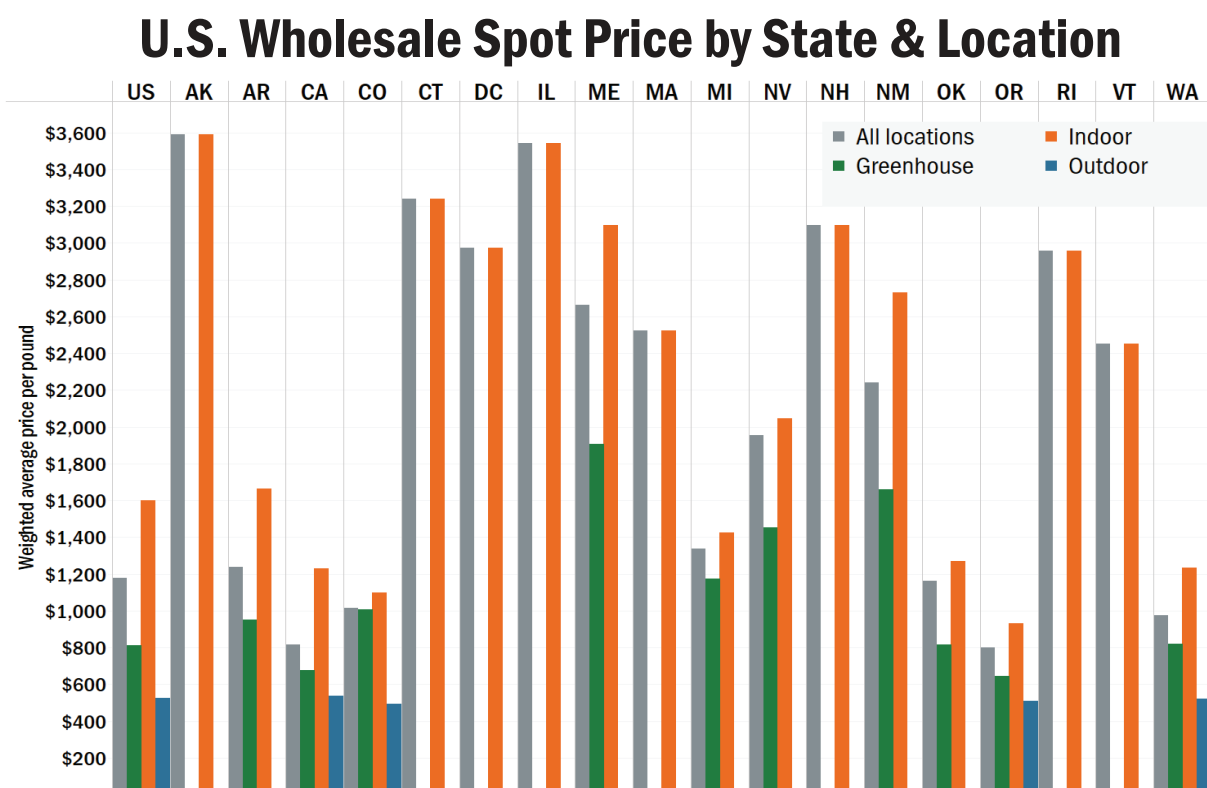
Source: Cannabis Benchmarks, a division of New Leaf Data Services LLC
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After holding relatively steady for 18 months—a period of time that coincided with the longer-term COVID-19 economic restrictions—prices started a precipitous decline in August 2021. Prices fell below \$1,300 in Nov. 2021, the first time dropping that low since July 2019.

Prices often dip during October, the primary harvest season for outdoor-grown plants, but historically has rebounded by December.

The end of pandemic-related restrictions may have played a role, as people started to return to their more normal routines. Reduced demand for cannabis products at the retail level likely drove down prices at the wholesale level as well.

Overproduction continues to be an issue in more mature markets, such as Oregon and Washington state, leading to overall price compression there.

CHART 3.03: U.S. Wholesale Spot Price by State & Location

Source: Cannabis Benchmarks, a division of New Leaf Data Services LLC
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Note: Average price per pound
 for the week ending March 4, 2022.

Wholesale prices for cannabis vary wildly depending on state and where it is grown (greenhouse, indoor or outdoor). The highest spot prices in March 2022 were in Alaska and Illinois, where prices for indoor-grown flower topped \$3,500 per pound.

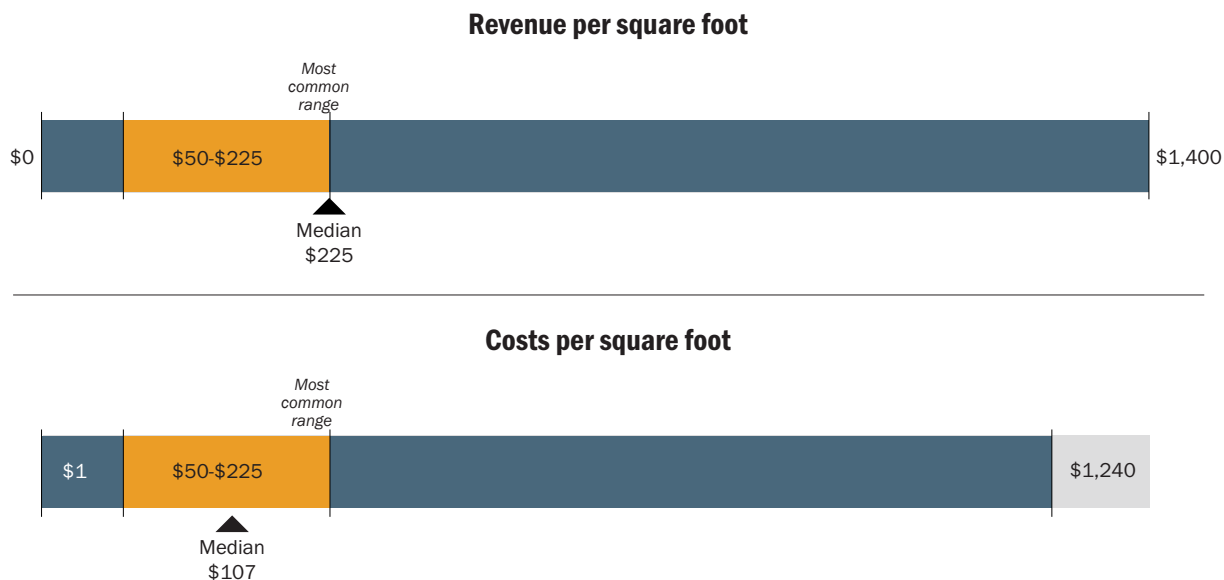
On the other end of the scale, outdoor-grown cannabis in Colorado was fetching less than \$500 per pound.

Indoor cultivation sites have more environmental controls than outdoor or even greenhouse operations, leading to a more consistent product that can fetch a higher, more consistent price. However, it can't match the scale of an outdoor grow without significant investment in the facility.

In markets that allow outdoor grows, however, even indoor-grown flower will feel price pressure from outdoor product.

CHART 3.04: Indoor Cultivator Revenue & Costs Per Square Foot

Indoor Cultivator Revenue & Costs Per Square Foot



Source: MJBiz Factbook

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The typical survey respondent operating an indoor grow facility generated \$225 per square foot of cultivation space—higher than the median operating costs of \$107 per square foot for the average cannabis grower.

These figures are ranges, meaning not every cultivator’s balance sheet was this lopsided in 2022. But compared with previous years, these figures highlight that cannabis growers are getting better at controlling costs at their grows.

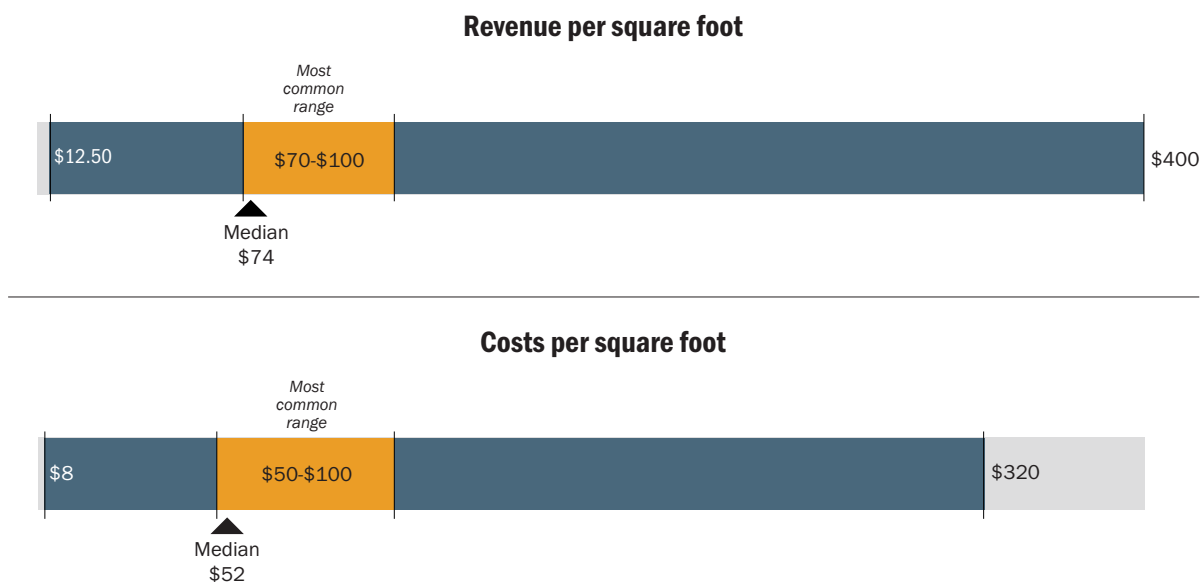
It also may symbolize more growers who have been in the business longer, who are now working on refinements to the process rather than first-time builds—and mistakes.

In addition, many indoor cultivators have embraced automation and technology to help manage repetitive operations, such as watering and temperature, which can translate to better harvests and higher revenue.

Indoor-grown flower remains the gold standard when it comes to terpenes, cannabinoid profile and potency. Cultivators that can’t get their flower sold at retail might have to sell it to the extract market at a significantly lower price.

CHART 3.05: Outdoor Cultivator Revenue & Costs Per Square Foot

Outdoor Cultivator Revenue & Costs Per Square Foot



Source: MJBiz Factbook

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Outdoor growers reported significantly lower costs per square foot than their indoor counterparts. (MJBiz used the square foot measure for outdoor grows rather than acres to allow for direct comparison.) But they also reported significantly lower revenue per square foot.

These figures also are ranges, meaning not every cultivator's balance sheet was this lopsided in 2022. But here too, cannabis growers are getting better at controlling costs at their grows.

Outdoor grows also are only possible in a limited number of markets due to regulations and climate, so these figures offer a more limited snapshot than for indoor growers.

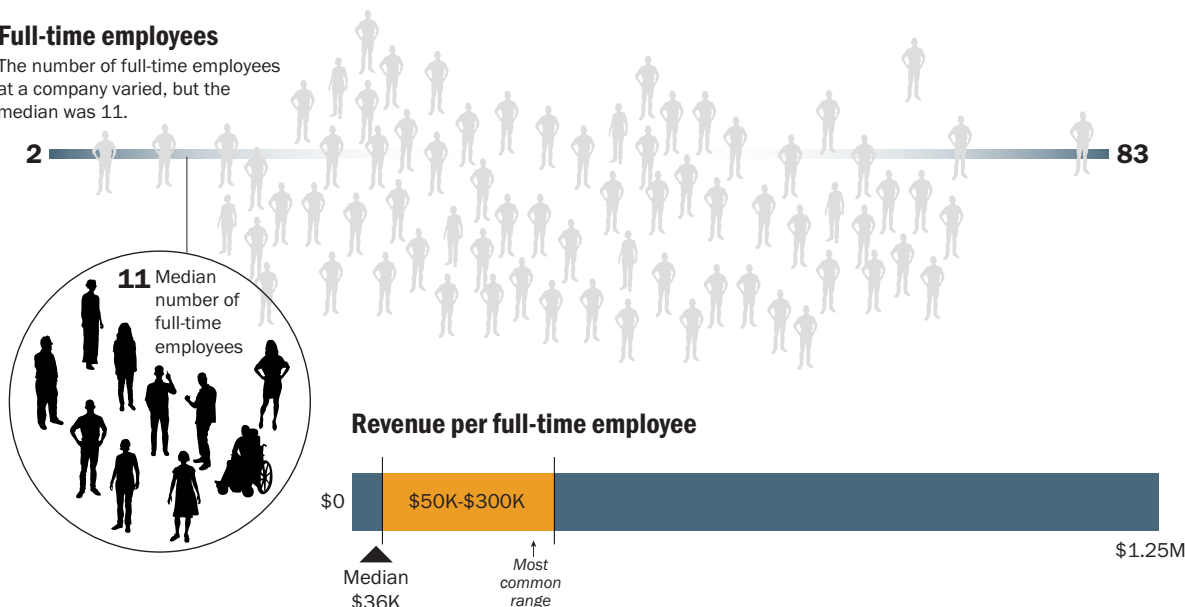
Outdoor growing operations face more uncertainty with regard to environmental factors, such as weather and pests, so often it is perceived as a lower quality. As a result, outdoor-grown flower often is earmarked for extraction purposes. However, there are craft growers trying to make their way in markets, such as Oregon. Their costs, while still not as high as indoor, tend to be higher than other traditional cannabis growers.

CHART 3.06: Number of Full-Time Employees at Wholesale Cultivators

Number of Full-Time Employees at Wholesale Cultivators

Full-time employees

The number of full-time employees at a company varied, but the median was 11.



Source: MJBiz Factbook, Propublica Weepeople
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The wholesale cultivation sector of the cannabis industry is dominated by small businesses, reflected in the chart above, which shows that most cultivators employ fewer than 11 total workers.

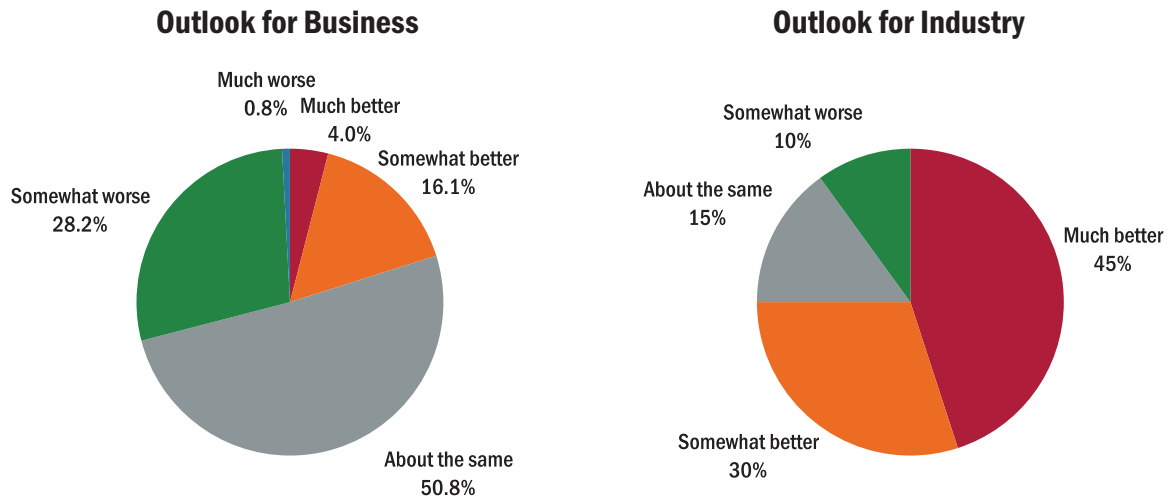
The typical cultivator generates between \$50,000 to \$300,000 annually per full-time employee, a wide range that is highly dependent on several factors, including market served, type of cultivation operation and size of the grow space.

Staffing needs are also heavily dependent on the same factors, as indoor cultivators operate in smaller facilities, where automated systems can be more easily implemented to accomplish what many businesses now do manually, such as feeding and watering plants.

Part-time or temporary workers might account for a significant portion of a cultivator's workforce, as staffing needs tend to fluctuate around harvest cycles and periods of high or low demand—allowing growers to remain flexible and keep costs down. This holds especially true for outdoor cultivators, many of which need to temporarily increase staff during the fall harvest season.

CHART 3.07: Cultivators' Business Outlook for 2022

Cultivators' Business Outlook for 2022



Source: MJBiz Factbook, Whitney Economics
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Cannabis cultivators are somewhat cautious when it comes to how their businesses will perform over the next 12 months. According to a survey from Whitney Economics, about half of cultivators think business will be about the same or have a 50/50 chance of going either good or bad.

On the other hand, respondents to the MJBiz business survey have high expectations for the industry overall, with three-quarters of respondents expected some improvement over the next year.

The tempered optimism for individual businesses likely comes from several persistent challenges operators face, such as:

- High tax rates across different jurisdictions, from local to state.
- Swiftly changing wholesale prices for cannabis flower.
- Lack of access to mainstream banking products.
- The cost and complexity of complying with regulations.

There is reason for optimism, however, as several survey respondents noted that one of their top three challenges was managing growth and achieving scalability—an indication that they're still preparing for growth.

In addition, the proliferation of state-regulated markets and serious conversations about some form of regulatory change at the federal level continue to provide hope for mainstream recognition of the still-developing industry.

Cannabis Processors & Infused Products Manufacturers: Financial and Operational Data

Cannabis processors and product manufacturers process raw marijuana into an increasing number of forms, from high-THC resin for dabbing to microdosed chewing gum.

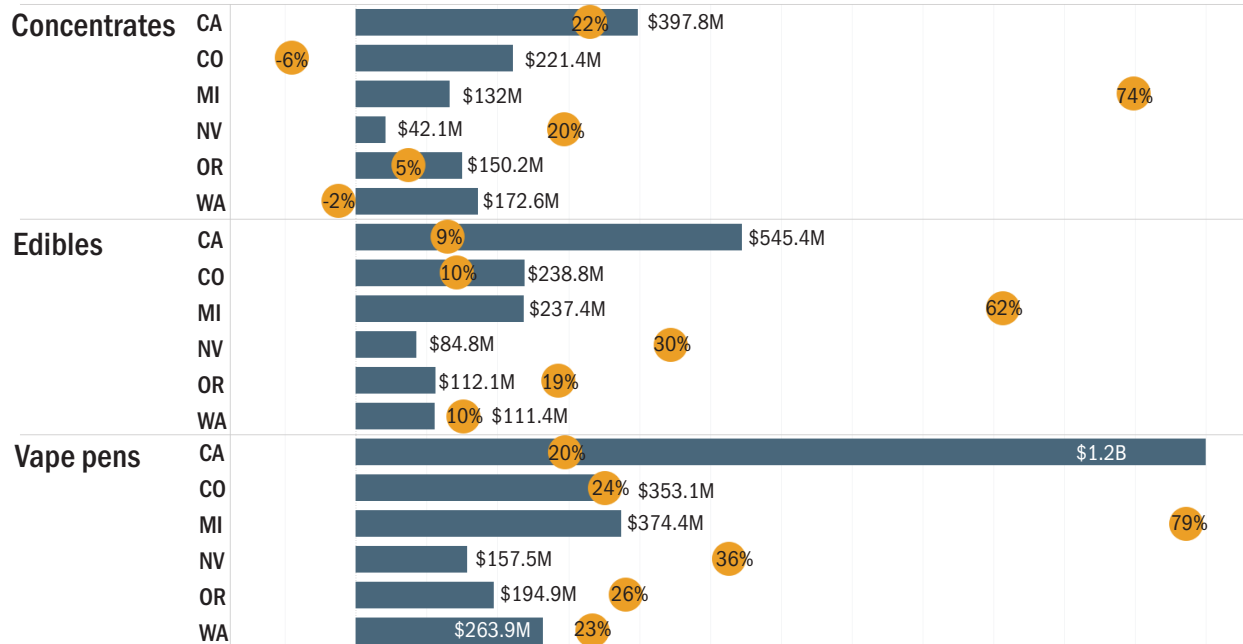
Businesses in the space produce concentrates—including dabbable concentrates and vape cartridges—and make infused products such as edibles, beverages and topicals. Why? Roughly 70% of the finished-product manufacturers we surveyed said they do at least some of their own processing and extraction in-house.

CANNABIS PRODUCT MANUFACTURING TRENDS

- Although raw flower remains the most popular form of marijuana for consumption, manufactured products have been gaining share in key markets. Consumers seeking portability, discretion and/or an alternative to traditional smoking often prefer vape pens.
- New consumers often look for easier entrance into consumption than traditional combustion products, driving up sales of edibles across markets.
- Because of the nature of the category, infused products lend themselves to more innovation than most other cannabis segments. More manufacturers are looking for better ways to make their products appeal to new consumers, leading to more products available for retailers. But THC content remains the key driver for most consumers.
- Growth in the manufactured cannabis products space continues to draw interest from mainstream companies and investors, particularly in the infused-beverage segment. Consumer packaged goods companies see the beverage space as having a strong upside, but it remains a tiny segment within the infused-products market to date.

CHART 4.01: 2021 Adult-Use Cannabis Sales & Sales Percent Change from 2020: Concentrates, Edibles & Vape Pens

2021 Adult-Use Cannabis Sales: Concentrates, Edibles and Vape Pens



Source: Headset

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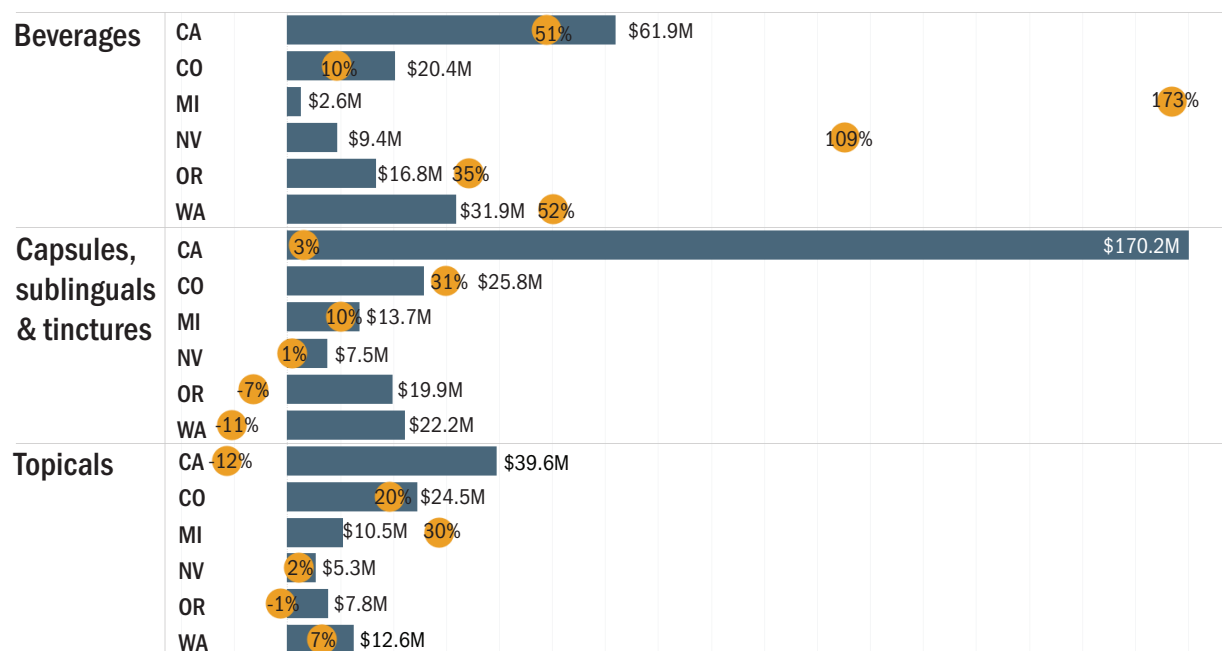
Overall, sales of vaporizer pens, concentrates and edibles experienced strong year-over-year growth across most adult-use markets in 2021. Vape pens continue to represent the largest segment of the manufactured cannabis products sector by far, and the rate of growth for the segment significantly outstripped other large categories (concentrates and edibles) in California, Colorado, Michigan, Nevada, Oregon and Washington state.

Michigan posted the strongest year-over-year growth rates across all three categories, which likely stems from the fact the state's market is much less mature than the others included in the snapshot above. Across all three major product categories, the state reported sales growth of more than 60%.

Colorado and Washington state, the first legal adult-use cannabis states, saw similar trends for growth with regard to manufactured products: double-digit rate of growth for edibles and vape pens but declines in demand for concentrates. These trends are likely coming from new cannabis users rather than consumers converted from the illicit market because of the age of their regulated industries. Edibles appeal to users who may have been hesitant to try cannabis previously because of limited options for consumption.

CHART 4.02: 2020 Adult-Use Cannabis Sales & Sales Percent Change from 2019: Beverages; Capsules, Sublinguals & Tinctures; and Topicals

2021 Adult-Use Cannabis Sales: Beverages; Capsules, Sublinguals & Tinctures; and Topicals



Source: Headset

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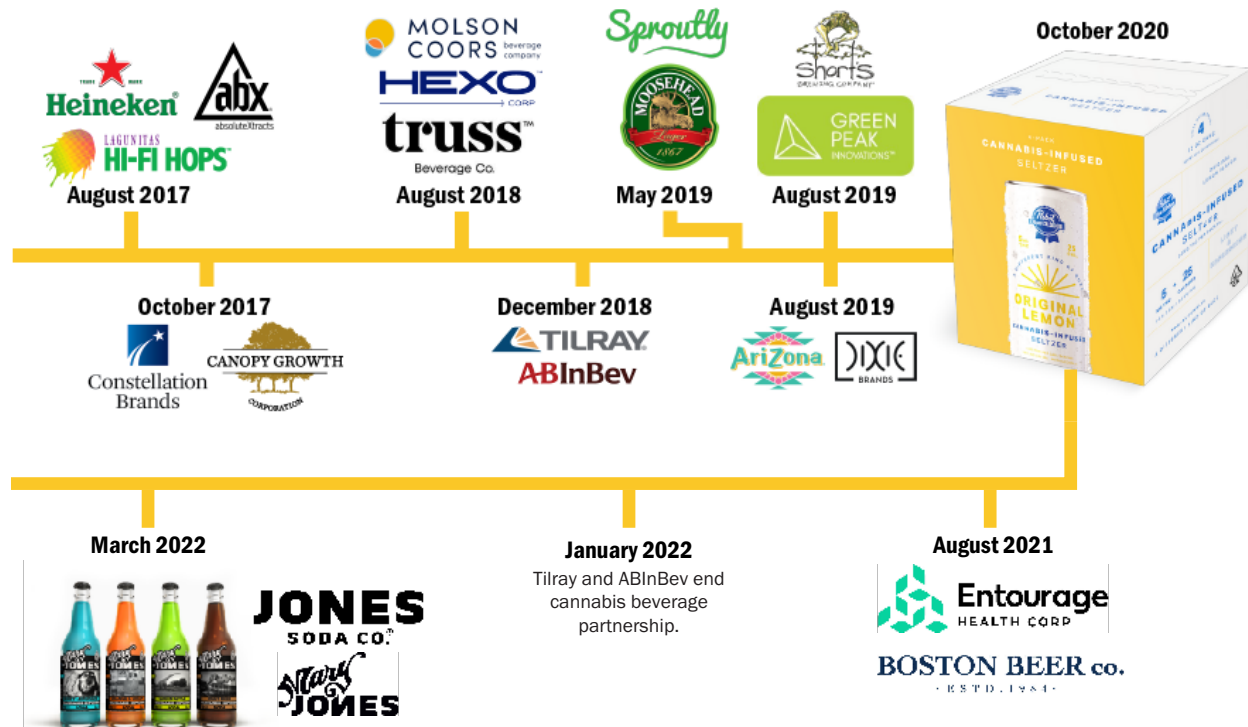
The infused beverages segment experienced the strongest growth rate overall of the manufactured products category, but overall, it still accounts for a mere fraction of total sales in the markets we reviewed. The only states that didn't post a double-digit sales growth rate for beverages from 2020 to 2021 were Michigan and Nevada, where sales more than doubled.

Innovation drives adoption in these categories, which likely is why growth in the capsules, sublinguals and tinctures segment was more limited than others. Other than THC content, little differentiates these products from one another currently.

But there is still room for adaptation. Onset time is repeatedly raised as a reason for preferring combustible products. Many manufacturers report working on quick- and/or predictable onset products for the consumer market.

CHART 4.03: Mainstream Brands in the Infused-Beverage Market

Mainstream Brands in the Infused-Beverage Market



Source: Marijuana Business Daily research
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Limited sales of cannabis-infused beverages hasn't stopped mainstream beverage companies, alcoholic and nonalcoholic, from betting on the segment.

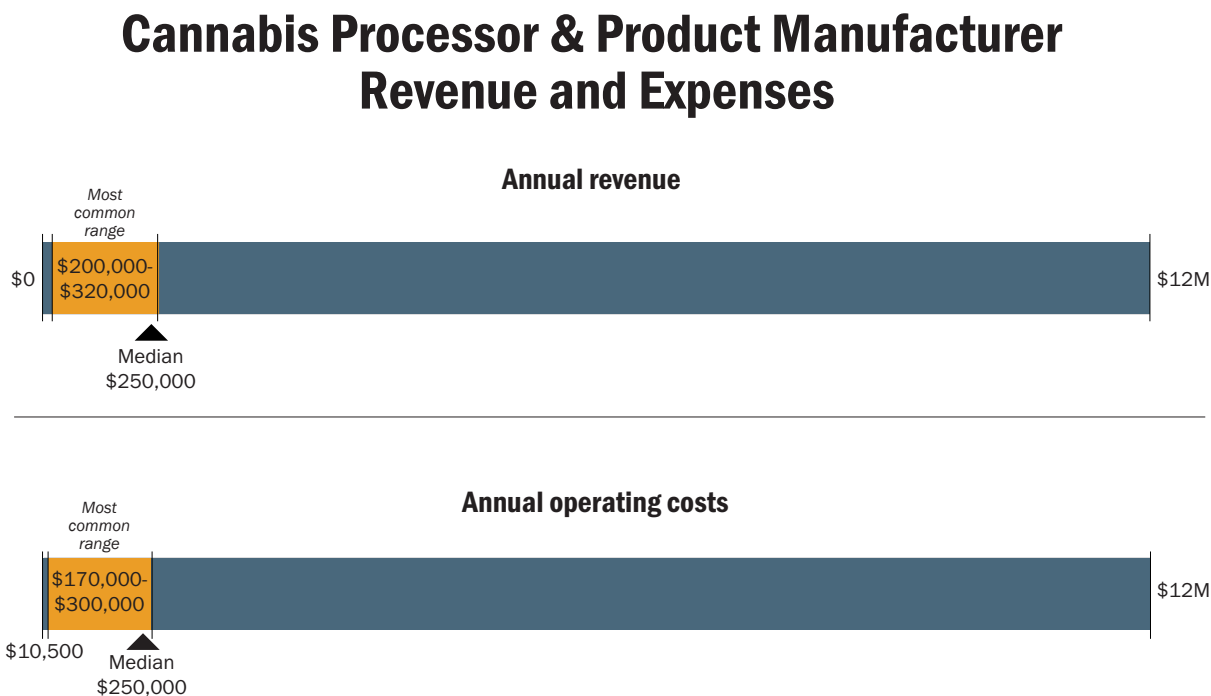
The stigma around cannabis has fallen off significantly in the last decade. According to Gallup, support for legalization has risen 18 percentage points since 2011.

In addition, alcohol consumption has fallen off in recent decades, as many younger consumers have expressed concern about the physical and social health effects of alcohol. As a result, Gen Z consumers are looking for other "social lubricants" to replace alcohol.

But there's also a health-focus. Functional beverages, which includes such things as sports drinks and kombucha, is estimated to be a \$48.4 billion dollar market in the U.S., according to data from Euromonitor. Many cannabis consumers view it as "medicine" even in recreational markets.

Even with the increasing interest in the infused beverages segment, challenges remain. Early attempts did not appeal to consumers based on taste and texture, so some consumers are hesitant to try again. Uncertainty around onset time also raises consumer concerns for using the product in place of alcohol.

CHART 4.04: Cannabis Processor and Product Manufacturer Revenue and Expenses



Source: MJBiz Factbook

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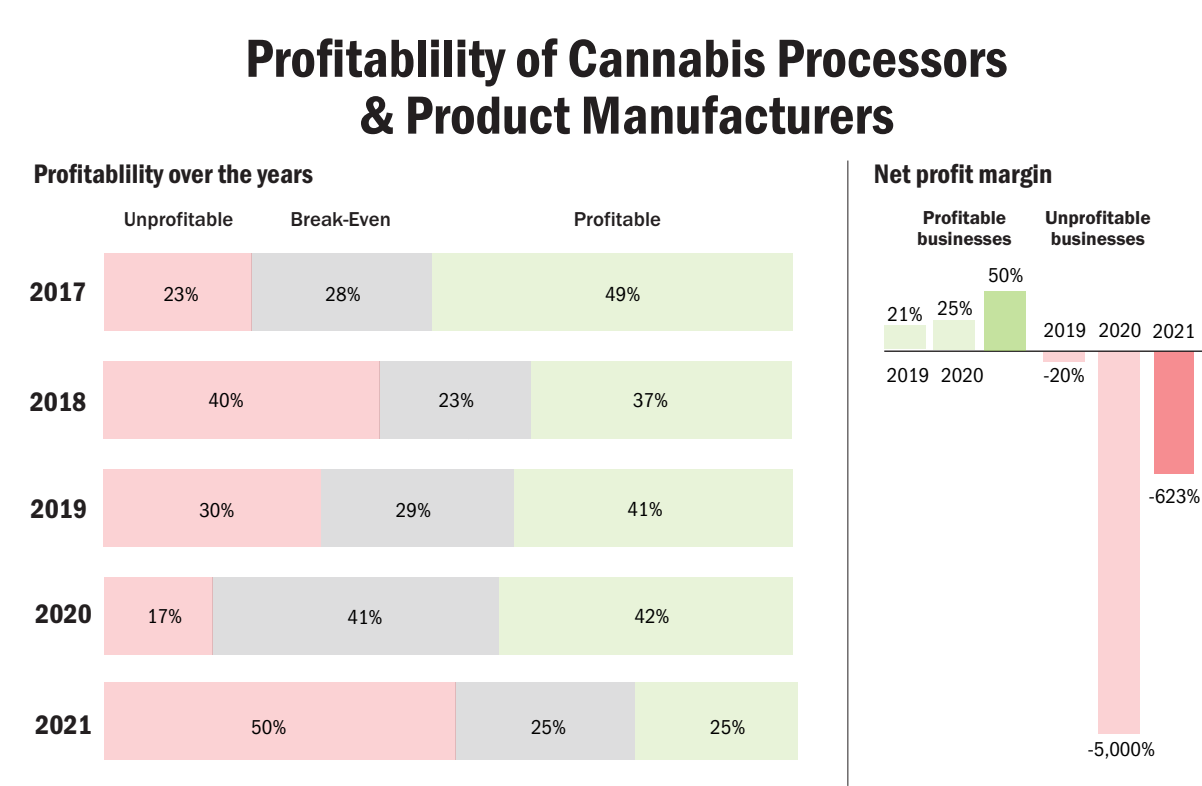
For both cannabis processors and producers/processors (which have been combined in the chart above), annual revenue was roughly the same as annual operating cost. These businesses are well-positioned to capitalize on the surge of legalization and consumer demand, but it is a highly competitive environment.

Compared to prior years, average operating costs have continued to decline. Several factors likely contributed to this trend:

- More equipment available that is specifically designed for cannabis processing. Previously, extractors and manufacturers had to adapt equipment created for other industries, which led to inefficient processing.
- Processors and manufacturers invested in automation during the COVID-19 pandemic to offset labor challenges and improve efficiency, which also leads to more consistent products and less waste.
- Operators have been in the market for longer and have likely honed their strategies through experience. Roughly 68% of processor and manufacturer respondents to the MJBiz business survey launched their businesses in 2018 or earlier.

Many different variables influence these metrics, such as the market in which the manufacturer is operating, the segment of the market being targeted (high end versus value) and whether the extraction is taking place in-house or being done by a third party.

CHART 4.05: Cannabis Processor and Product Manufacturer Profitability in 2021



Source: Marijuana Business Factbook
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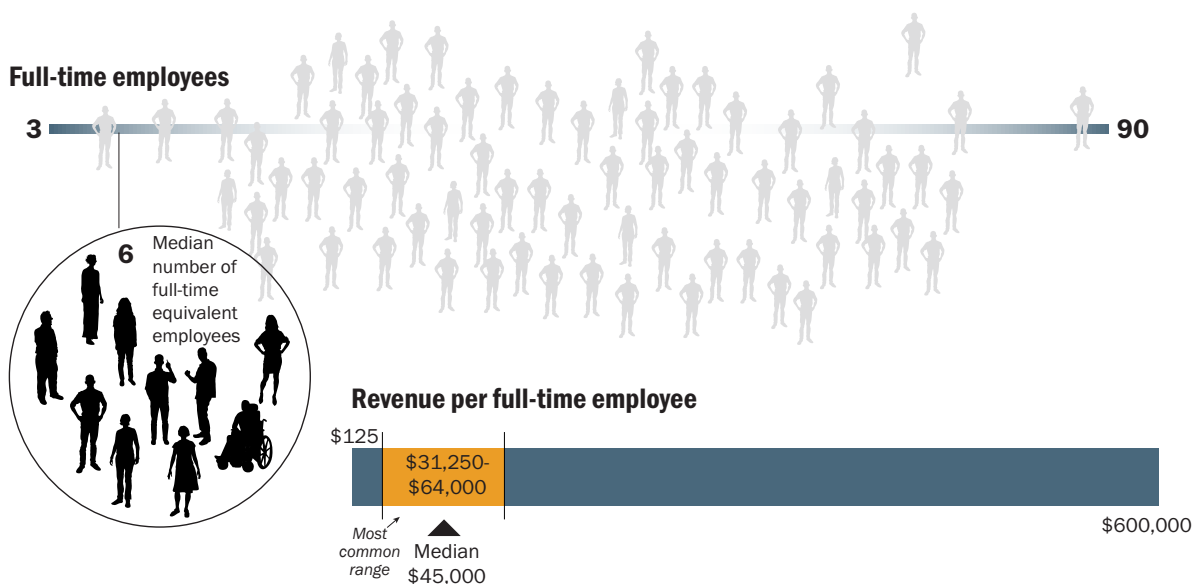
Profitability remains a moving target for many cannabis processors and manufacturers. More processors and manufacturers reported a loss in 2021 than in 2020, but the size of that loss is much less extreme.

In addition, companies that reported profitability saw the average profit margin double.

Supply chain disruptions created a more challenging environment for many extractors and manufacturers, who rely on goods such as solvents or other ingredients that come from further away than the cannabis biomass. Costs for transporting these inputs also increased, with inflation accelerating in the second half of 2021.

CHART 4.06: Number of Full-Time Employees at Cannabis Processors & Product Manufacturers

Number of Full-Time Employees at Cannabis Processors & Product Manufacturers



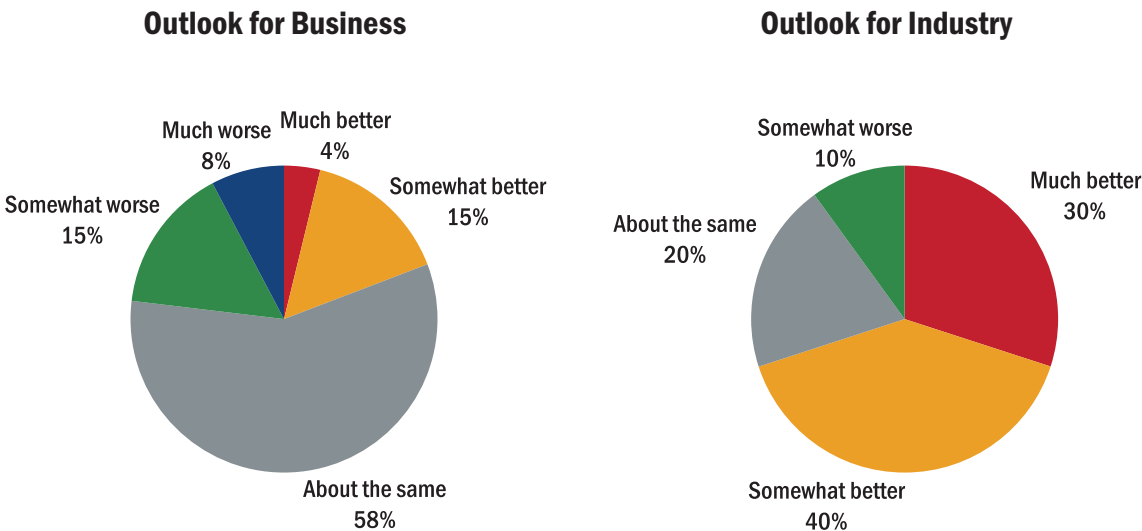
Source: MJBiz Factbook, Propublica Weepeople
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The processing and manufacturing sector of the cannabis industry is dominated by small businesses, reflected in the chart above, which shows that 50% of cultivators have 6 or fewer employees. But larger players are getting involved in the space, with 33% of the remaining companies reporting more than 18 employees.

More manufacturers are processing for themselves rather than buying extracts from outside sources, which likely contributes to the gap in employee count. While automation offsets some of the labor needs, more functions being performed onsite requires more employees to perform and monitor those functions.

CHART 4.07: Cannabis Processor and Product Manufacturer Business Outlook for 2022

Cannabis Processors' & Product Manufacturers' Business Outlook for 2022



Source: MJBiz Factbook, Whitney Economics
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The consistent optimism demonstrated by cannabis product manufacturers over the past four years stumbled a bit in early 2022, but it didn't completely collapse. More than half—58%—of respondents to a Whitney Economics survey said they expect their operations to be about the same over the next 12 months.

At the same time, 70% of respondents to the MJBiz business survey indicated that the industry overall will be doing better in that same period, even if their own businesses stagnate.

Rapid expansion of the number of markets where marijuana is legal contributed to this perception, as many existing operators believe the U.S. is nearing a tipping point for federal legalization. In addition, they see opportunities for others in those new markets even while their existing markets may be challenging.

Cannabis Retailers: Financial and Operational Data

Medical marijuana dispensaries and recreational cannabis stores—collectively referred to here as retailers—are the face of the industry as they engage directly with patients, customers and other MJ companies during the course of daily operations.

Because these businesses sit at the end of the marijuana supply chain, their financial performance is one of the more reliable indicators of demand, market size and future opportunity for the entire industry.

RETAIL TRENDS

- Both medical and adult-use marijuana markets are experiencing sales growth and likely will continue to do so for several years. However, as more recreational markets come on board, their medical markets are expected to slow in growth as more consumers turn to the easier-to-access adult-use stores.
- That shift away from medical sales when adult-use markets launch appears to be accelerating. Patient roles in Arizona, which launched its adult-use market in January 2021, declined more rapidly than other states that made that transition. Montana appears to be following suit. More recreational markets are slated to come online in the next two years, so we'll see if the trend holds.
- Flower is still the top-selling product in markets where such sales are allowed, but consumer preferences continue to move away from flower to concentrates, vape pens and edibles. Vape pens, in particular, enjoy popularity among consumers because of their portability, discrete nature and immediate effects.
- The infused-beverages segment is experiencing increased interest from investors and manufacturers, even though it currently represents a minute percentage of the overall products segment.
- While large companies such as multistate operators still hold a significant place in the retail segment, smaller operators are also finding solid success, represented by the overall decrease in the average number of stores per operator.

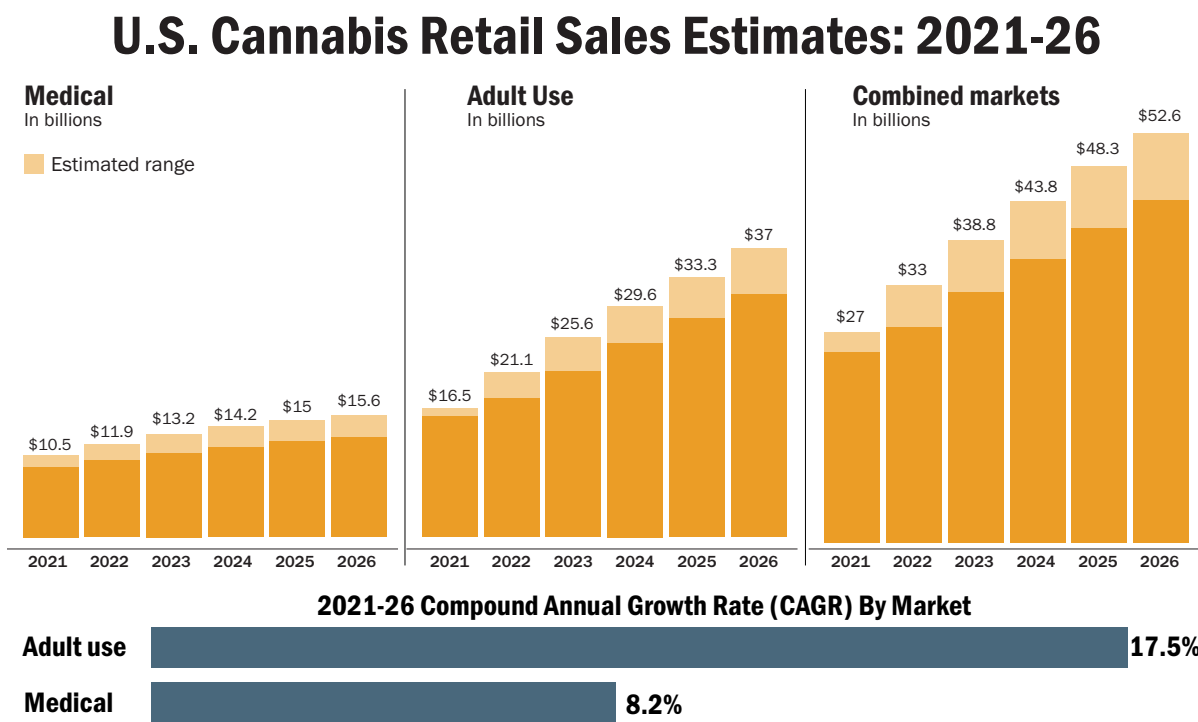
BUSINESS-MODEL BREAKDOWN

Beyond medical and recreational classifications, retailers can be segmented based on their level of integration:

- Stand-alone retailers: Businesses in this category do not cultivate cannabis or manufacture infused products; they purchase the products they sell from third parties.
- Vertically integrated retailers: These companies cultivate some or all the cannabis they sell in their retail stores or dispensaries. Some businesses also manufacture infused products.

These contrasting business structures create very distinct financial circumstances, as a dispensary that cultivates its own cannabis and produces infused products will have much different startup costs, operating expenses and profit margins than a retailer that stocks its shelves with products from a wholesaler. Thus, these types of businesses are broken out in a manner that better reflects their financial realities.

CHART 5.01: U.S. Cannabis Retail Sales Forecast: 2021-26



Source: MJBizFactbook
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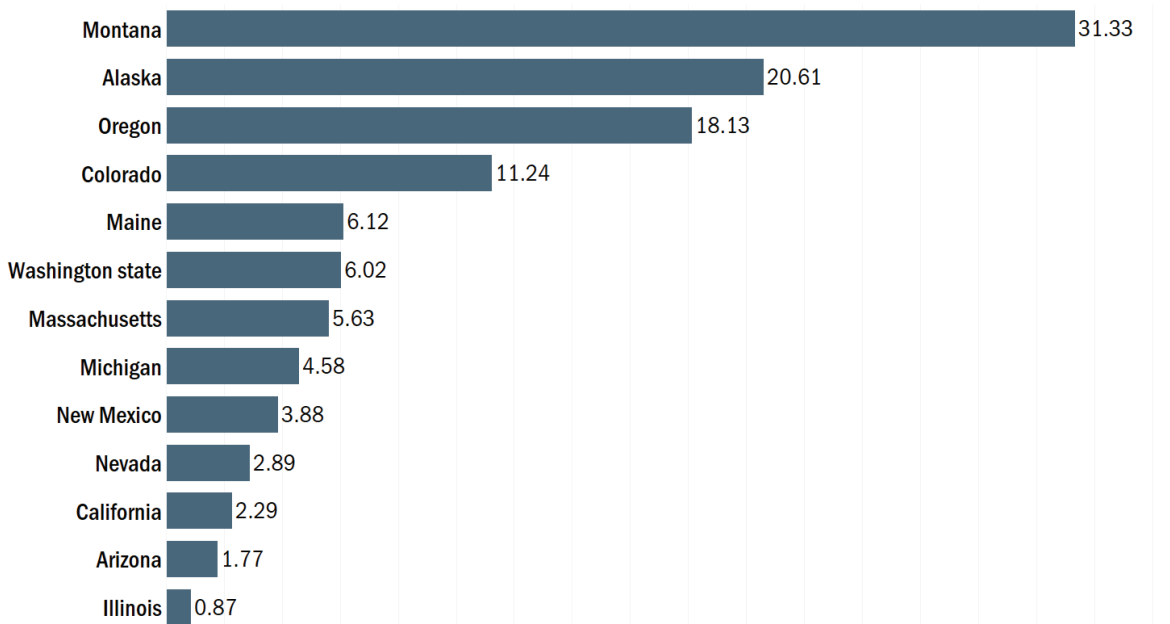
MJBizDaily projects that total retail cannabis sales in the United States will reach—or surpass—\$50 billion by 2026, primarily through growth in the adult-use market. Medical cannabis sales are expected to continue to grow as well, but at a much slower rate than adult use.

Two key factors contribute to this significant difference in growth rates:

- More new markets coming online. More than three-quarters of the United States already allows for medical marijuana; only one-third allows adult use. But more states are likely to add recreational use to their regulatory structure over the next five years.
- New consumers joining the market as the stigma around cannabis use continues to dissipate, while other vice options wane in popularity, such as beer. The marijuana industry has seen several mainstream companies, particularly alcohol manufacturers, investing in cannabis businesses as a way to stake an early claim on future growth.

CHART 5.02: Number of Adult-Use Cannabis Retail Stores per 100,000 Residents

Number of Adult-Use Cannabis Retail Stores per 100,000 Residents



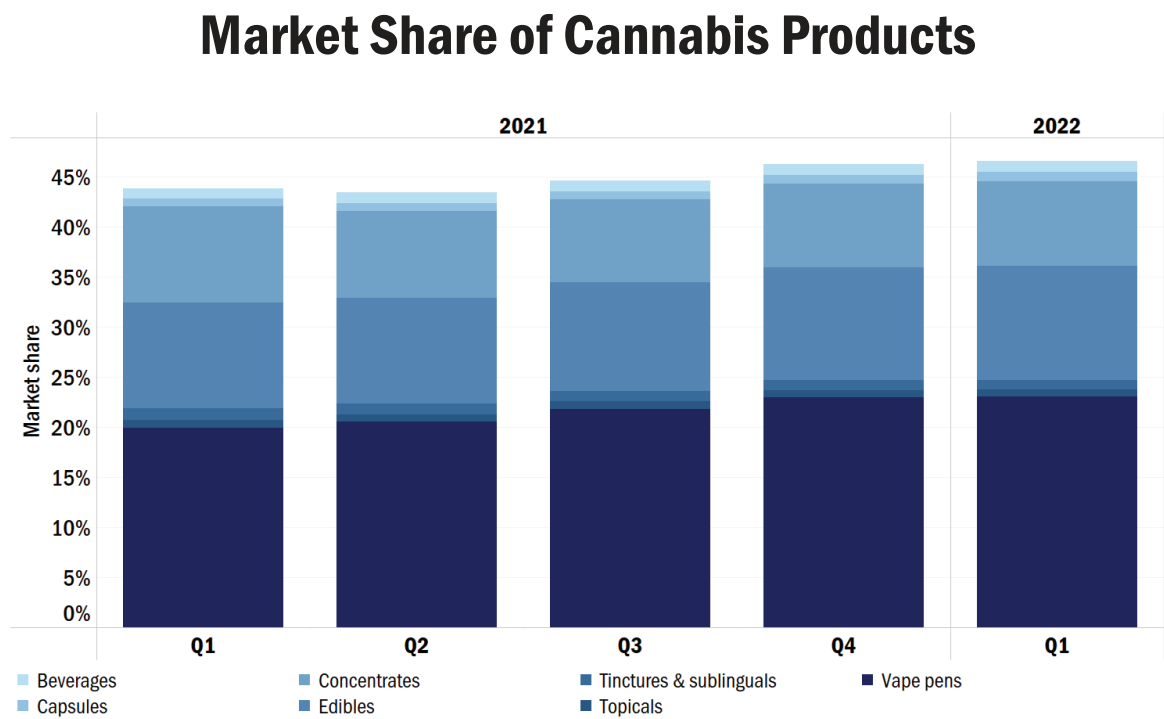
Source: MJBiz Factbook, Whitney Economics
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Market saturation—or the number of stores relative to the population—can have a significant effect on the potential profitability of a cannabis business. Higher competition often leads to more pressure on price and steeper competition to reach a limited pool of customers.

The per capita number of retail stores in adult-use cannabis markets varies widely. Some markets, such as Illinois, have attempted to limit the level of saturation by placing caps on how many retail stores can operate in the state, even going as far as establishing limits on certain regions. Generally speaking, limited-license states offer higher profit potential for cannabis businesses.

Montana, on the other hand, began adult-use sales earlier this year and already tops the per capita list for retail outlets. It's small population—just over 1 million—makes that an easier mark to achieve than for some states, but it's an explosive growth rate not seen in any other new market. The state is banking on cannabis use by tourists to maintain its industry at this level, but it remains to be seen if that comes to fruition.

CHART 5.03: Market Share of Cannabis Products in Select Markets



Source: Headset
© 2022 MJBiz, a division of Emerald X, LLC

Note: Includes data from adult-use markets active during 2021, except Alaska and Maine.

Flower and pre-rolls still account for more than 50% of all cannabis purchases (by dollar amount) across all U.S. markets. But that dominance is starting to fade, as more consumers opt for vape pens and edibles.

For the most part, consumer product preferences appear to be relatively stable. This might in part be a factor of the types of products that are available in their markets or with which they have familiarity at the outset.

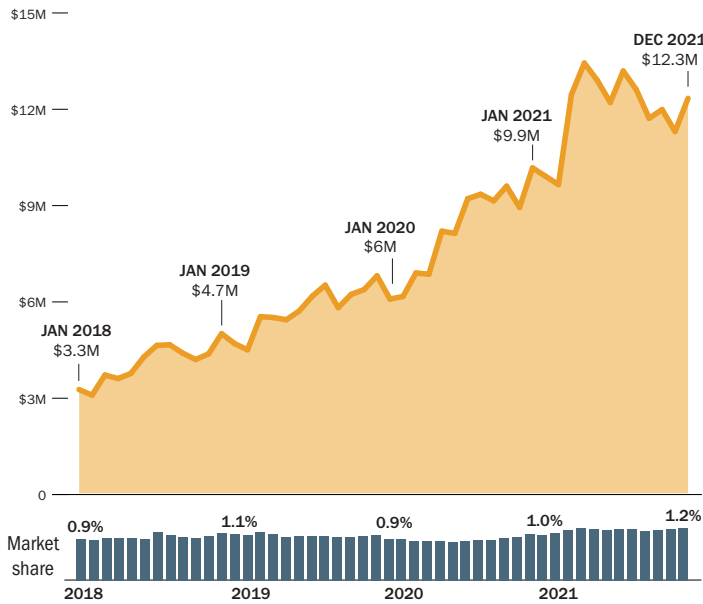
Retailers have many options for what to put on their limited shelves, so understanding the consumer demand trends is critical. But that limited shelf space itself may restrict the types of products sold in stores. Beverages, for example, are seeing increasing demand—albeit still at a very low overall level—but often require specialized displays and refrigeration.

CHART 5.04: Beverage Snapshot—Sales Through 2021

Infused-Beverage Sales Through 2021

Monthly beverage sales

CA, CO, NV, MI, OR, WA

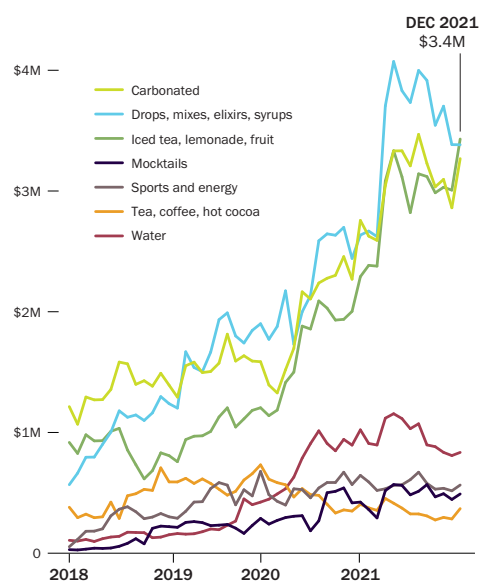


Source: Headset

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Monthly beverage category sales

CA, CO, NV, MI, OR, WA



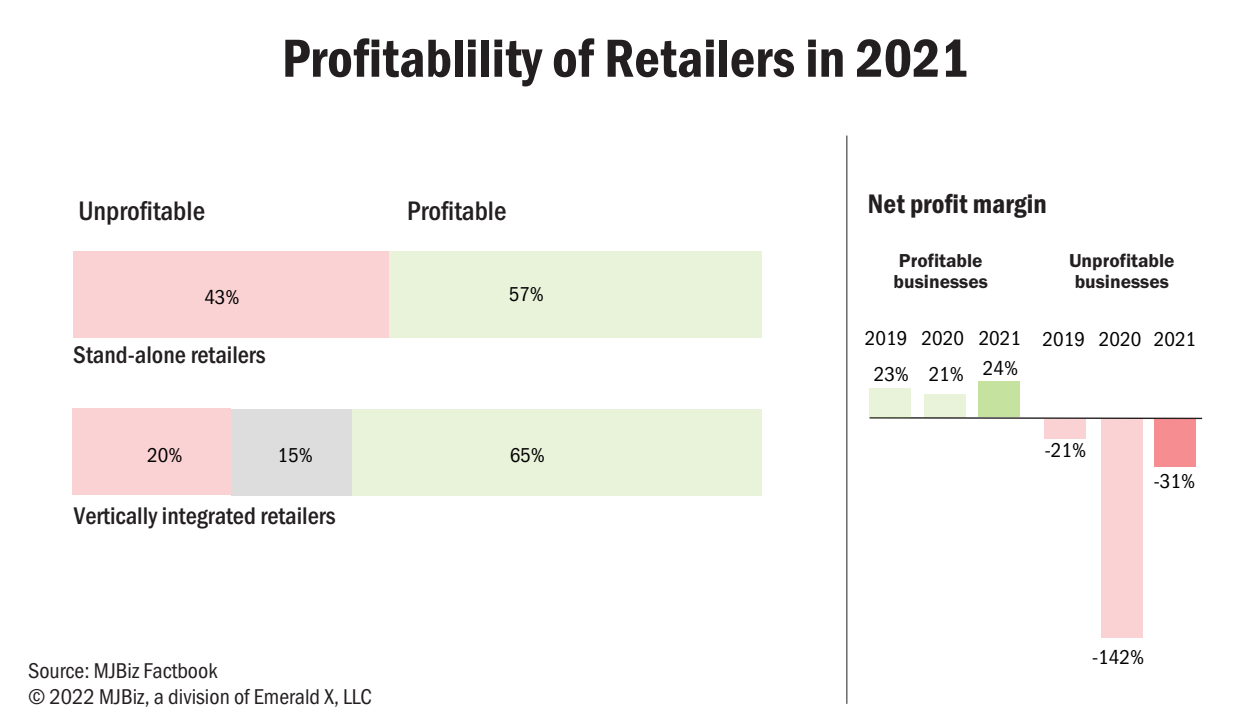
The infused beverages category is quite diverse when it comes to the types of available products, and the increased interest for these drinks isn't uniform.

Sales of carbonated beverages, iced tea, lemonade and fruit drinks have experienced a rapid spike over the past two years, while mocktails and sports drinks have languished at relatively flat. Drops, mixes, elixirs and syrups also saw a spike in sales in 2020, followed by a steep decline in 2021.

But even with these extreme swings, THC-infused beverages held just a 1.2% market share in five key states tracked by Seattle-based analytics firm Headset. That's up from the 1% reported for 2020 but far from a boom product in an increasingly product-heavy market.

That low adoption rate is also seen on the non-THC side of cannabis. Market analytics tracker NielsenIQ reported in March 2021 that sales of drinks containing hemp-derived CBD across major chains in grocery, drug and convenience stores decreased 32% from the previous year.

CHART 5.05: Profitability of Cannabis Retailers in 2021



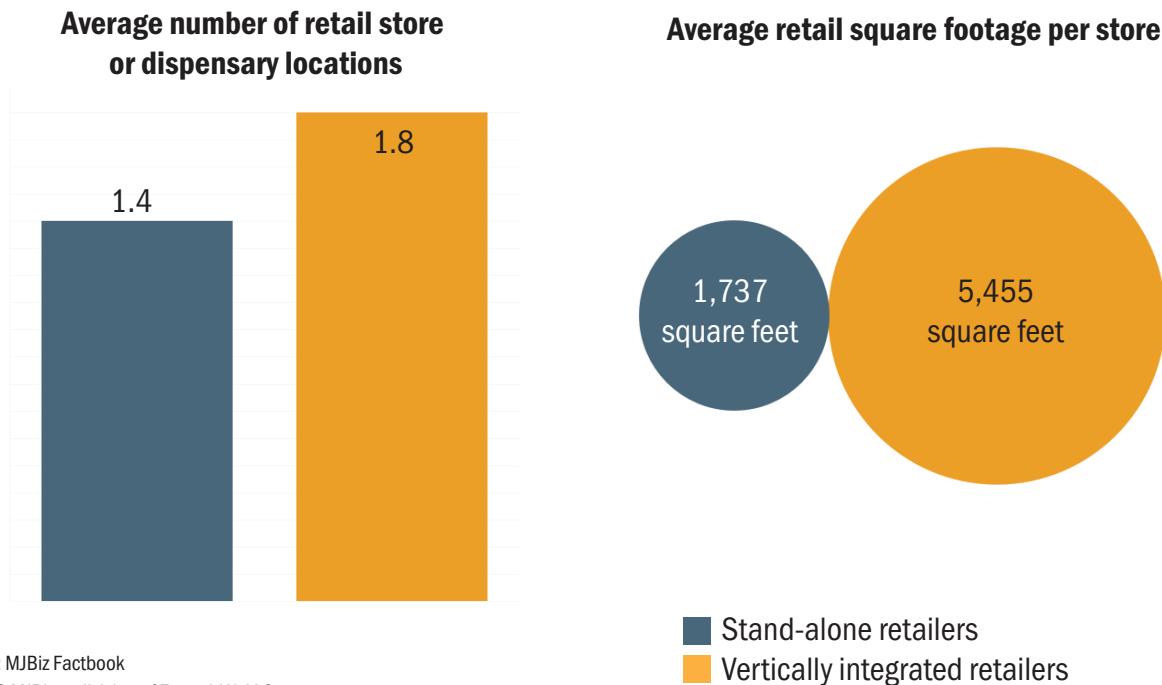
On average, retailers did better in 2021 than in 2020. Net profit margins for profitable companies increased three percentage points year-over-year, and unprofitable companies reported improvement of more than 100 percentage points.

The financial impact of different operating models for retail is reflected in the profitability of operators. For both stand-alone and vertically integrated retailers, more than half of operators indicated they were profitable in 2021.

But only vertically integrated retailers indicated they broke even last year. The remaining 43% of stand-alone operators noted their businesses were unprofitable.

CHART 5.06: Number of Retail Store Locations & Square Feet of Retail Space per Store

Number of Retail Store Locations & Average Square Feet of Retail Space per Store



Source: MJBiz Factbook
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Smaller operators appear to be gaining prominence in the cannabis retail space, as the average number of store locations (without regard for market) for vertically integrated and stand-alone retailers was nearly the same in 2021. One factor for this may be limitations on how many licenses one person or group can own even in states with no cap on the number of licenses that may be issued.

Where the two distinct types of operators do vary, however, is in the size of their retail space. Stores for vertically integrated operators average three times larger than the retail square footage for stand-alone stores.

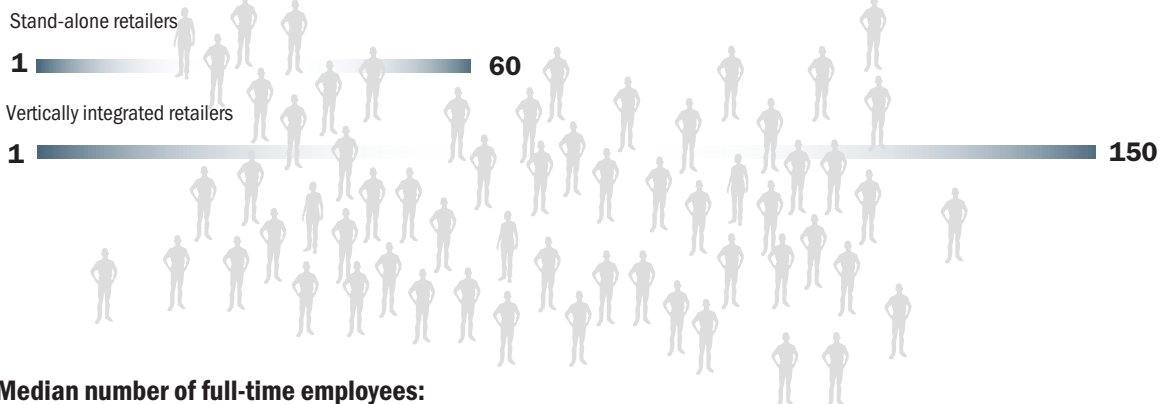
Stand-alone retailers may be more limited on the initial investment they can make in real estate than vertically integrated operators, who are also investing in either cultivation sites or manufacturing facilities—or both. This means stand-alone operators need to be more creative or discerning when putting products on their shelves.

While vertically integrated retailers tend to make space for their own products, which provide a higher profit margin in general, not all do. Several retailers have noted that their own products also compete for space based on sales and demand, so if a product isn't selling well, it will be pulled regardless of the brand on the label.

CHART 5.07: Typical Number of Employees by Business Type

Number of Full-Time Employees at Cannabis Retailers

Full-time employees



Median number of full-time employees:

Stand-alone retailers: 6

Vertically integrated retailers: 30

Source: MJBiz Factbook, Propublica Weepeople

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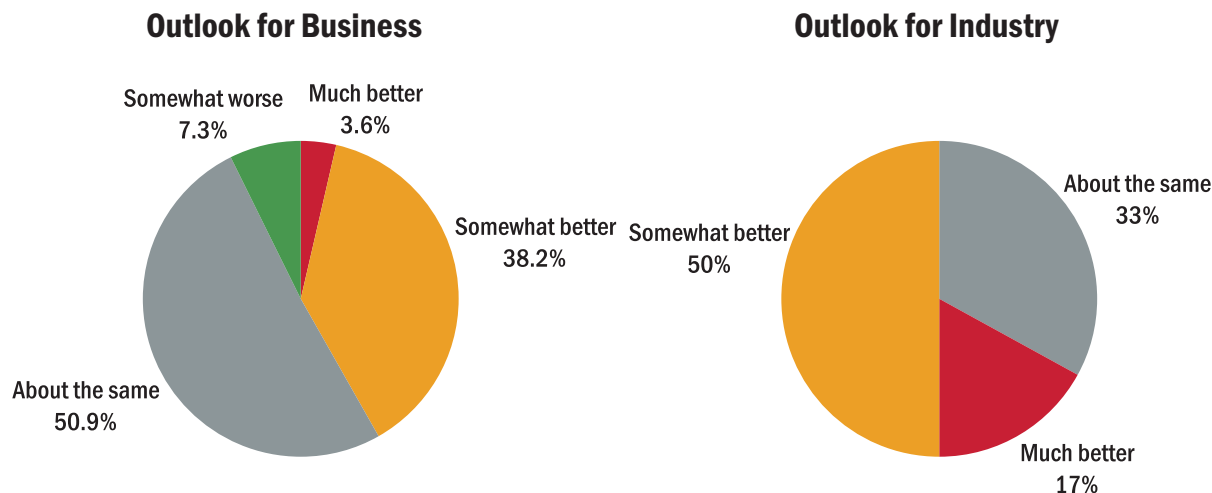
Full-time employees constitute the majority of a retail store's workforce, regardless of the market they serve. The total size of the workforce depends more on the business type—stand-alone store versus vertically integrated operation—than whether it serves medical or adult-use consumers.

Vertically integrated cannabis businesses have higher staffing needs, as they often operate multiple retail locations in addition to a cultivation site and/or a manufacturing facility.

In general, retailers did not employee many permanent part-time employees, but that does not mean they don't employ temporary or seasonal workers to meet cyclical demands.

CHART 5.08: Cannabis Retail Business Outlook for 2022

Cannabis Retailers' Business Outlook for 2022



Source: MJBiz Factbook, Whitney Economics
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The roller coaster economic ride of the past two years took its toll on retailer optimism. About half of respondents to a Whitney Economics survey said they expect their operations to be about the same over the next 12 months. However, more than 40% still expect things to be better for their businesses in that period.

At the same time, two-thirds of respondents to the MJBiz business survey indicated that the industry overall will be doing better this year, even if their own businesses stagnate.

Supply chain disruptions that affect product availability and inflation are two critical factors for this tempered optimism. Rising gas prices, in particular, have hit retailers that offer delivery—a service that saw a spike in popularity during the COVID-19 pandemic restrictions that has stayed even as the economy returns to normal.

Hemp & CBD: Trends & Data

Anyone who doesn't like roller coasters would hate the hemp industry. There are whip-fast peaks and drops both in market conditions and regulations.

The ride doesn't appear to be ending soon. Hemp operators are starting to recover from a nationwide CBD glut that crashed prices in 2019 and 2020, thanks in part to the surprise market success of intoxicating hemp extracts (some of them created from excess CBD).

But just as those new markets emerge, hemp operators see state after state threatening to ban or limit hemp products beyond CBD.

Meanwhile, hemp operators are preparing for the next Farm Bill. The 2018 Farm Bill that got the national hemp roller-coaster going expires in 2023, so the low-THC side of cannabis finds itself at a crossroads in determining priorities and improvements from Congress' next attempt.

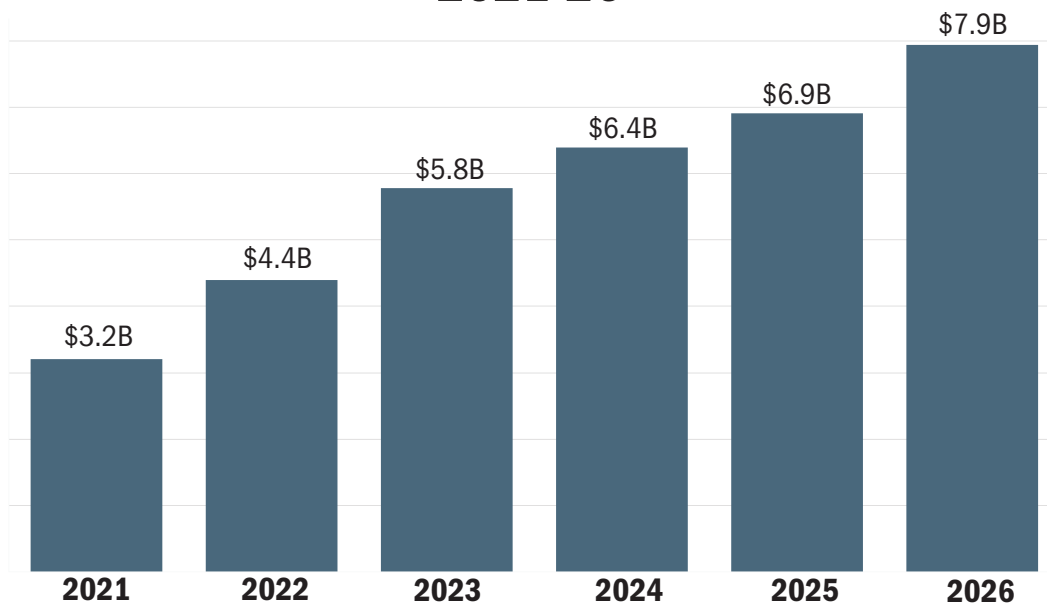
In this section you'll find the data behind low-THC market trends. Consider it the low-THC industry's "buzz bar," the name for the guard that holds roller-coaster riders in their seats.

2022 HEMP TRENDS

- The Gold Rush guys and gals are gone. Contraction in hemp acreage continues, partly because of low prices for hemp extracts and partly because robust prices for other farm commodities, especially wheat and soybeans, have led many commodity farmers who experimented with hemp in 2019 and 2020 to return those acres to other crops.
- The cat-and-mouse game with global health regulators continues. In the U.S., the Food and Drug Administration is sporadically warning those who make cannabinoid products to stop making health claims, even as the agency asks Congress for help cracking down on rogue makers of dietary supplements. In the U.K., food safety authorities continue winnowing the number of CBD products allowed on store shelves as they say they won't be ready with a full assessment of products safety until 2023.
- Public officials and in many cases marijuana companies are clamoring to crack down on intoxicating hemp products such as delta-8 THC, which are often sold in jurisdictions with no access to medical or adult-use marijuana. Hemp intoxicants sold in marijuana jurisdictions generally face a fraction of the taxes and safety checks, prompting cries of unfair competition from marijuana operators.

CHART 6.01: U.S. Hemp-Derived CBD Retail Sales Estimate: 2021-26

U.S. Hemp-Derived CBD Retail Sales Estimates: 2021-26



Source: MJBiz Factbook

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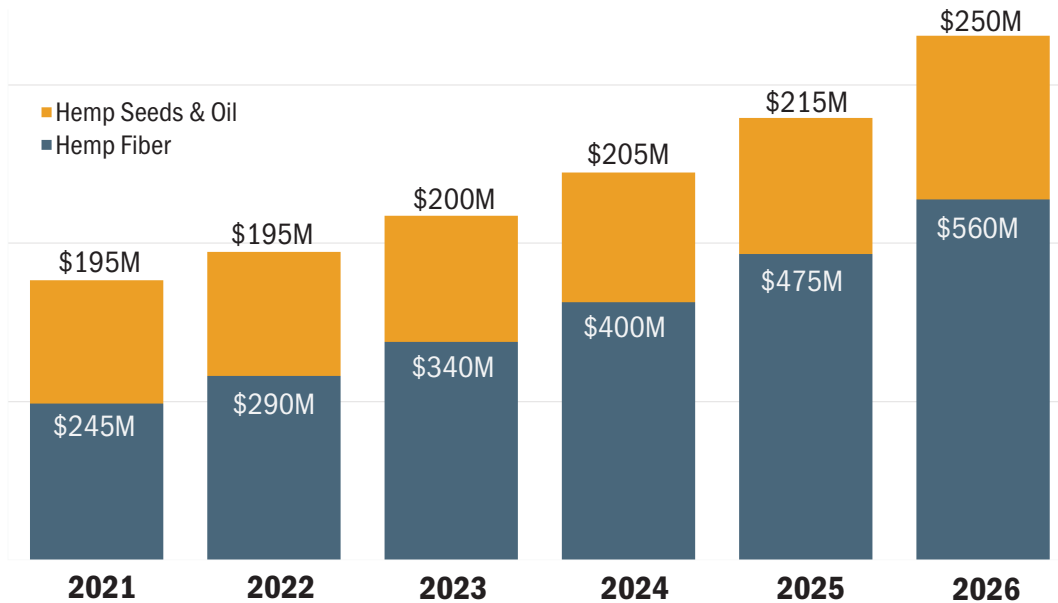
Estimates for CBD sales in the U.S. vary widely, and it's a challenge to pinpoint exactly how many transactions are taking place each day. The market is still extremely fragmented, with the 20 largest producers (outside of Jazz Pharmaceuticals, the owner of Epidiolex) only comprising 19% of the total estimated market, according to Brightfield Group.

And with no consistent regulation or oversight for the product yet, visibility into the market is murky. *MJBiz* takes a conservative approach when estimating retail sales for CBD. Sales for the extract slowed in 2021, but interest continues to build.

Other novel cannabinoids, such as CBG and CBN, are starting to make their way onto the market, as consumers expand their knowledge of the possible uses. According to one Colorado-based retailer, they only introduced cannabinoid products beyond CBD after customers started requesting them. Novel cannabinoids still account for a very small portion of hemp-product sales overall.

CHART 6.02: Annual U.S. Hemp Fiber, Seed & Oil Sales Estimates

Annual U.S. Hemp Fiber, Seed & Oil Sales Estimates



Source: MJBiz Factbook

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CBD might drive the hemp market, but the extract is only one of the economic drivers moving the industry. Hemp Industry Daily anticipates steady growth in nonflower products over the next five years, as well.

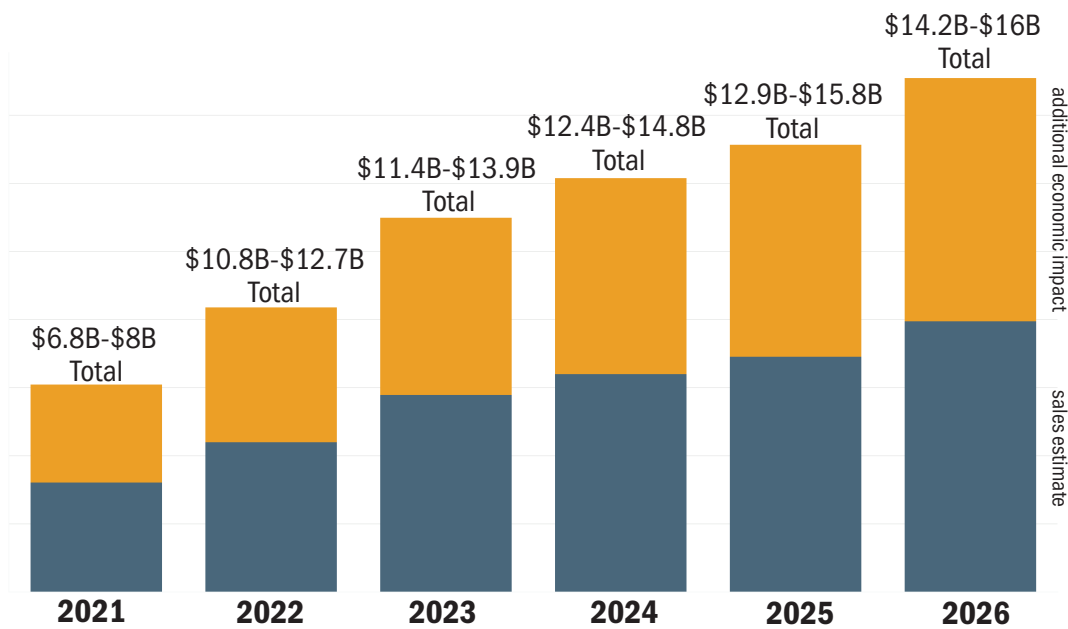
The hemp fiber market, a broad category that includes bast fibers and hurd products such as bioplastics, animal bedding and hempcrete, will grow from \$245 million in 2021 to \$560 million in 2026, a compound annual growth rate of about 18%.

The market for hemp seeds and oil will grow from \$195 million to \$250 million in 2025, a CAGR of 5%.

The fiber industry still lacks a solid infrastructure and equipment designed specifically to harvest and process the tough plant, but progress is being made on this front. Overall, new markets and uses for hemp are expected, but no timeline exists for how long it will take for research, development and adoption for these products to come to fruition.

CHART 6.03: U.S. Hemp Industry Total Economic Impact: 2021-26

U.S. Hemp Industry Total Economic Impact: 2021-26



Source: MJBiz Factbook
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Hemp’s broader impact on the overall economy is relatively limited. However, as infrastructure continues to be built out and a reliable, sophisticated supply chain comes into existence, the plant could begin to make its mark.

To measure an industry’s economic impact, traditional macroeconomic multipliers typically range from 10 to 20 times the original dollar spent. Based on the latest data collected from similar industries, we set the standard multiplier for hemp at 1.9.

This means that for every \$10 that consumers and patients spend at recreational stores and dispensaries, an additional \$9 will be injected into the economy, much of it at the local level.

Based on this metric, as sales increase, the hemp industry will have an economic impact of \$4 billion-\$4.8 billion in the United States in 2020 and nearly \$15 billion in 2025.

If hemp becomes a more mainstream commodity crop, similar to wheat or corn, the multiplier could increase. However, as long as hemp is a niche crop, the plant’s broader economic benefit will remain limited.

‘CRAZY STUFF OUT THERE’

6 STATES TO WATCH TO MAKE SENSE OF THE LEGAL LANDSCAPE FOR HEMP BUSINESSES

Perhaps the most tantalizing aspect of nationwide legalization for hemp cultivation was the fact that everyone growing, processing and selling low-THC cannabis in the U.S. would be working under a single set of rules.

But four years after Congress unleashed a national hemp industry via the 2018 Farm Bill, the industry remains subject to whack-a-mole regulations that change state to state (and sometimes city to city).

Hemp economist Beau Whitney put it best in early 2022. “There’s some crazy stuff out there,” he told a group of hemp operators trying to understand the legal landscape.

Indeed, the promise of selling hemp products across state lines remains elusive for many. Congress members have proposed various proposals to regulate hemp extracts such as CBD, but none were considered likely to pass in 2022.

Still, hemp operators with national ambitions in 2022 can look to six state hemp regulations as they hope to settle the regulatory roulette in the next Farm Bill, expected in 2023.

These aren’t the biggest six hemp states, but they represent the legal trends shaping the low-THC side of the cannabis industry this year.



CALIFORNIA

Hemp operators worldwide cheered in 2021 when the nation’s largest cannabis market settled years of uncertainty about hemp extracts by passing a law explicitly allowing CBD in foods.

This year that law is being implemented, and hemp operators are nervously watching as the state considers protectionist requirements and unnecessary hoops for how and where cannabinoids can be sold.



TEXAS

Texas exemplified the predicament of many states without adult-use marijuana. Alarmed by the rise of hemp-derived intoxicants such as delta-8 THC, state officials banned the products in late 2021.

But hemp operators immediately challenged the ban, pointing to federal law that appears to permit hemp products with a low content of delta-9 THC. As of this printing, the law was on hold because of the legal challenge. Similar bans were in legal limbo in Georgia, Kentucky and elsewhere.



OREGON

One of the nation's most mature marijuana markets has a cannabis industry in trouble, and the operators are blaming competition from the hemp industry. Rogue producers are thought to be posing as hemp operators and avoiding taxes and testing requirements.

Oregon ratcheted up enforcement on the hemp industry in 2021 via a new law expanding authority for agriculture officials and law enforcement. The state followed up with a 2022 law to make it easier for local communities to issue moratoria.

At the same time, a state ban on hemp-derived THC products was set to take effect in July 2022, with marijuana operators getting a six-month grace period to sell off intoxicating THC-from-hemp products.



MICHIGAN

Michigan is an example of states striking a middle ground on hemp extracts.

The state consolidated hemp and marijuana regulations under the same office in February 2022, then charged the new Cannabis Regulatory Agency with considering whether to allow processors to convert CBD into THC with written prior approval and demonstrations of the conversion method and product testing.



NEW YORK

While many states were preoccupied with hemp extracts in 2022, New York looked to hemp operators to launch its adult-use marijuana market. The Empire State set up a first-of-its-kind "conditional adult-use cultivator" license, aimed at speeding marijuana to market when adult-use sales begin in 2023.

Virginia considered a similar idea, and many expect future marijuana states to tap into existing cannabis cultivation expertise to avoid delays.



SOUTH DAKOTA

A new 2022 law clarifies that hemp operators can transport hot hemp, as long as the final products they make meet federal THC guidelines.

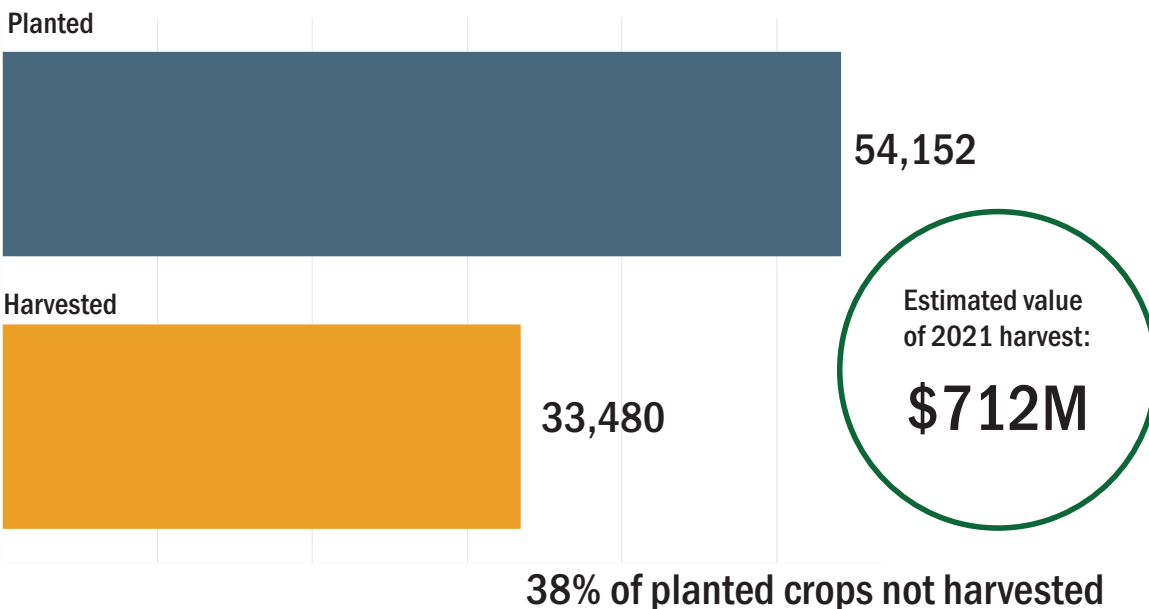
By stating that any "product in process that is properly documented is compliant," South Dakota addressed a nagging problem in the hemp industry: Finished hemp goods often must be trucked from farm to factory.

It's a protection more hemp operators will be looking for states to provide heading into 2023.

-Kristen Nichols

CHART 6.04: U.S. HEMP INDUSTRY TOTAL ECONOMIC IMPACT: 2021-26

U.S. Hemp Acres Planted & Harvested in 2021



Source: U.S. Department of Agriculture
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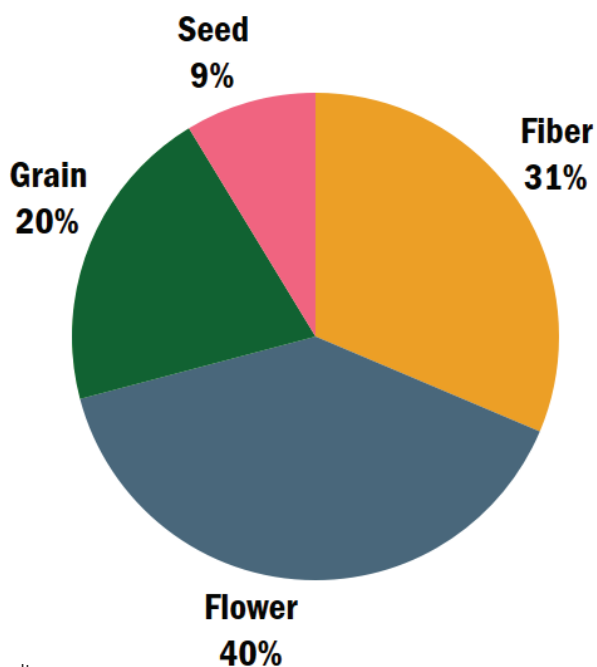
In 2021, the U.S. Department of Agriculture undertook the daunting task of surveying the nation's hemp growers. Results of that survey were released in February.

The results were not surprising, but industry observers note that the data is still limited and likely undercounts the acreage dedicated to hemp in the United States.

According to the USDA, hemp farmers planted more than 50,000 outdoor acres in 2021. These estimates are in line with predictions presented by *Hemp Industry Daily* last year. Of the acres planted, only 62% was harvested. This aligns with production trends from previous years as well.

CHART 6.05: U.S. Hemp Harvest Dedicated Purpose

U.S. Hemp Harvest Dedicated Purpose

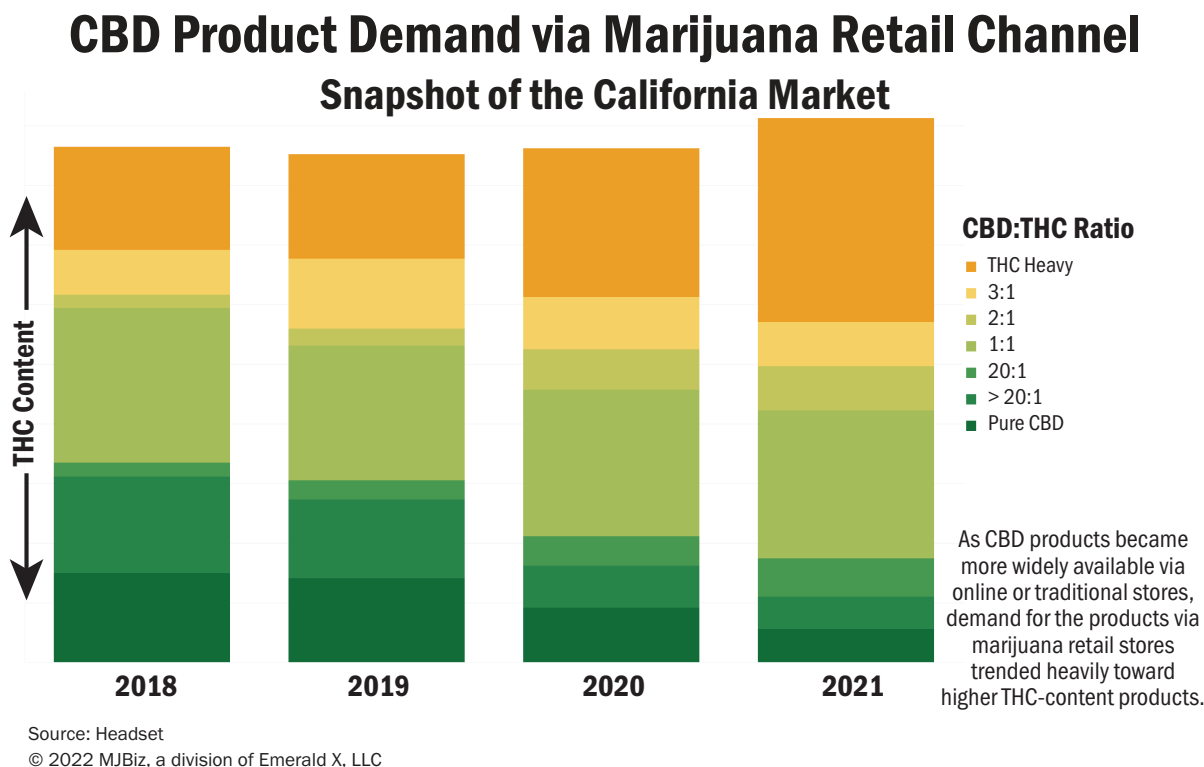


Source: U.S. Department of Agriculture
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The USDA National Hemp Report also estimated the intended purpose for the hemp that was harvested. Unsurprisingly, flower took the top spot at 40% of harvested product. Flower included plant material dedicated for extraction as well as for combustible consumption (smokable hemp).

Fiber comprised the second largest category, with 31%. Hemp plants harvested for fiber tend to take up more space than flower or seed varieties, likely contributing to the acreage dedicated to this purpose.

CHART 6.06: CBD Product Demand via Marijuana Retail Channel



When the general public first became aware of CBD, it wasn't as readily available as it is today. A logical place to get it was at marijuana dispensaries in markets where medical use was legal, such as California.

In the early days, demand for high-CBD products via marijuana retail, with pure CBD or products with a CBD:THC ratio greater than 20:1 accounting for one-third of the demand. However, as the products became more widely available in other brick-and-mortar stores and online, demand in marijuana retail shifted to higher-THC products.

Today, online channels are the most popular place to purchase CBD products, with estimates ranging from 30%-75% of all products sold going through e-commerce platforms. Colorado-based Charlotte's Web, one of the largest CBD producers and sellers in the U.S., reports that two-thirds of its CBD sales are direct-to-consumer via its website.

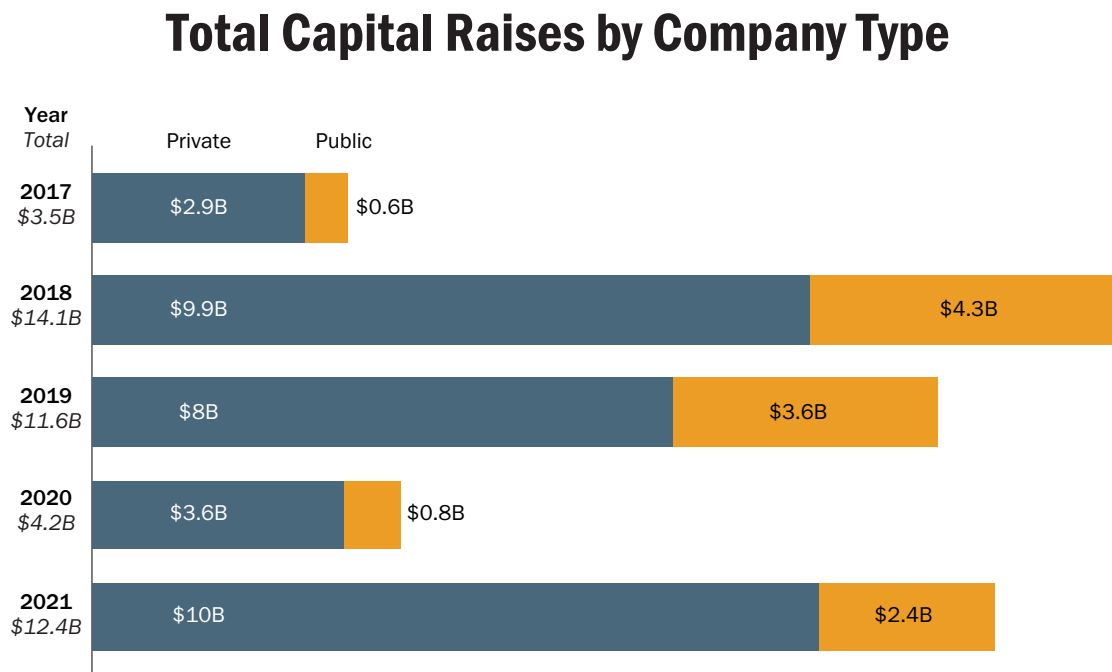
Cannabis Business Funding & Investing

Although significant progress has not been made on the industry's ability to work with financial institutions, the stigma surrounding cannabis continues to erode. With additional states rapidly joining the ever-expanding legal cannabis trend, opportunities for new investment abound.

After a depressing 2020, life has returned to cannabis investing. This chapter provides a snapshot of current investing trends and provides insight into how investors view the cannabis space.

INVESTING TRENDS

- Global cannabis investment activity returned to pre-pandemic levels. 2022 is off to a slow start, however, likely dampened in part by disappointing financial results for fourth quarter 2021 and lack of meaningful action from the federal government.
- Publicly traded cannabis companies saw stock prices founder in 2021, and several that trade on the Nasdaq received warnings about not meeting minimum trade requirements.
- Significant upside still exists for investors, as the legal cannabis industry in the United States still has not reached its peak. However, weakness remains in the business models being utilized by cannabis companies and in the execution of business plans. In particular, investors note they're still seeing baseless financial projections and management teams with the wrong kind of experience.

CHART 7.01: Total Capital Raises by Company Type

Source: Viridian Capital Advisors

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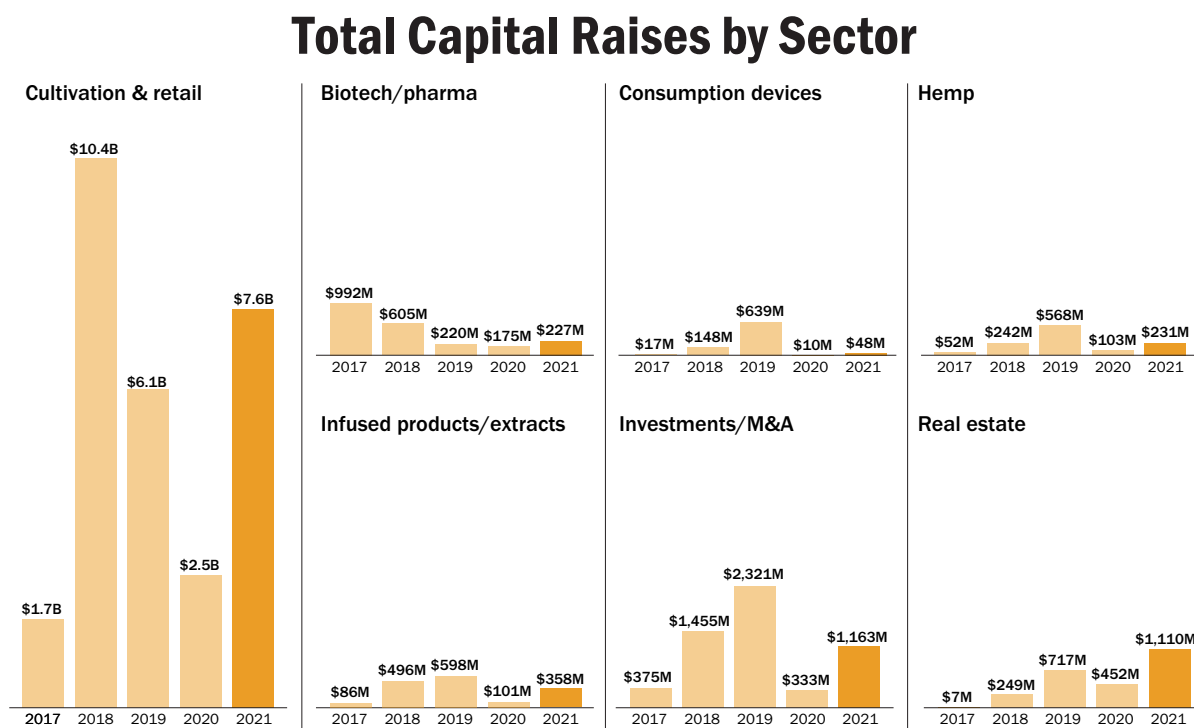
Note: In U.S. dollars.

After a disappointing 2019 and a dismal 2020, cannabis investment activity returned to form in 2021, led by transactions involving publicly traded companies, according to data from Viridian Capital Advisors.

Despite slowness in capital raises during the first quarter 2022, merger and acquisition activity is booming. The industry is ripe for consolidation, and the large multistate operators are looking for opportunities to grow their footprints.

Consolidation is expected to continue across the U.S., particularly in highly fragmented markets, such as California, where good properties can be found for reasonable prices due to ongoing regulatory challenges.

CHART 7.02: Total Capital Raises by Sector



Source: Viridian Capital Advisors

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Note: In U.S. dollars.

Cultivation and retail remains—by far—the largest sector in terms of invested capital, bringing in more than 60% of the capital raised by cannabis companies in 2021, according to data from Viridian Capital Advisors.

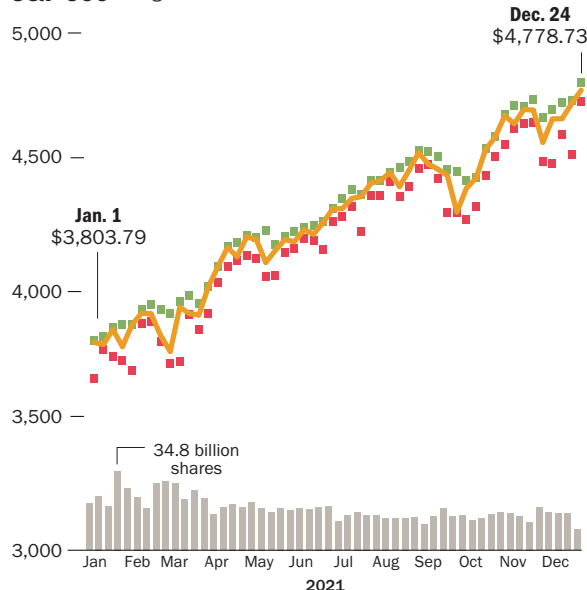
Overall investment returned to pre-pandemic levels, only behind 2018's record year and three times higher than 2020's rock-bottom results.

Consumption devices yielded the largest year-over-year increase as a segment, but that's more a statement of how few and low the raises for this segment were in 2020 than increased interest in the segment. Even so, vape products continue to attract new consumers and grow sales, so there's room for activity to expand.

Real estate also continues to be a popular segment for companies looking to invest in cannabis—likely due in part to it being considered a safer bet with the continued federally illegal status of the industry in the United States.

CHART 7.03: Overview of Public Cannabis Market Performance

Overview of Public Cannabis Market Performance

Global Cannabis Stock Index Close**S&P 500** High Low Close Volume

Source: Yahoo Finance, Macrotrends
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Things looked positive for publicly traded cannabis companies at the start of 2021. The sector was targeted by a group of investors from social media site Reddit, boosting share prices by 44% in February. But that bubble burst quickly, sending stock prices into a decline for the rest of the year.

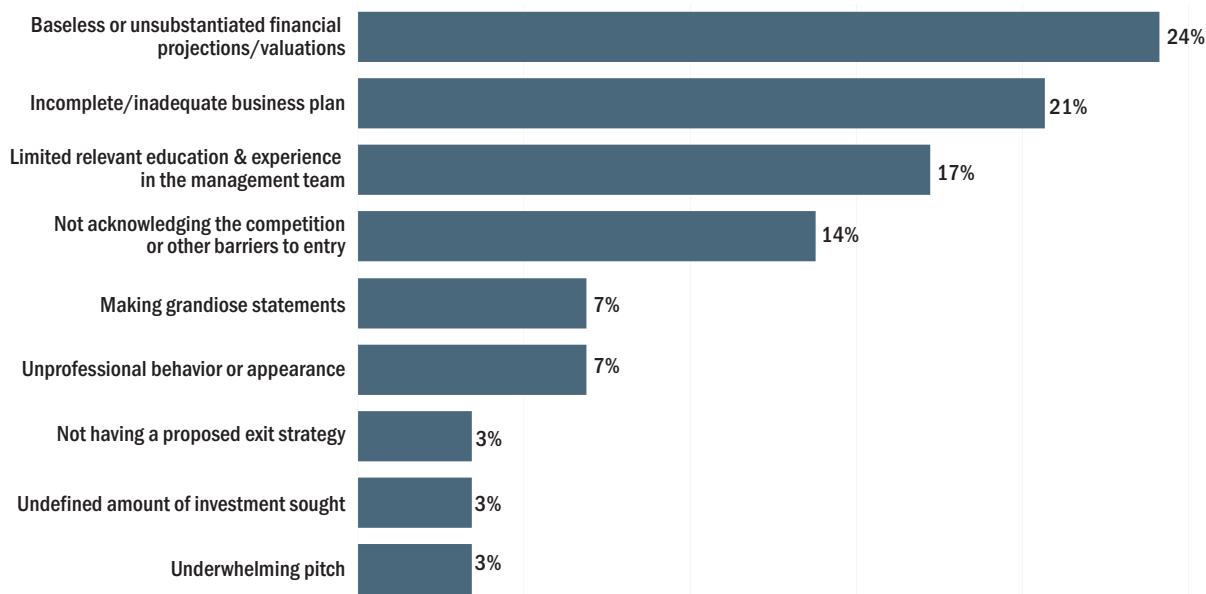
The Global Cannabis Stock Index ended 2021 down 38% from its starting price.

In general, investors were not shy about participating in the overall stock market last year. The S&P 500 index grew 27% during the 12-month period. But cannabis continues to suffer from the lack of institutional investment due to federal illegality that limits participation.

In addition, Canadian cannabis firms, which are included in the Global Cannabis Stock Index, have faced their own declines because of poor financial performance and changes at the leadership level—both factors that investors consider before placing money.

CHART 7.04: Top Mistakes Cannabis Businesses Make When Seeking Funding, According to Investors

Top Mistakes Cannabis Businesses Make When Seeking Funding, According to Investors



Source: MJBiz Factbook

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While there are many benefits of having members of an executive team that don't fit the traditional business mold, investors want reality-based information before they entrust their funds to another party.

The top three mistakes that cannabis business make when looking for funding, according to investors surveyed by *MJBiz*, can all be tied to more unseasoned entrepreneurs entering the industry.

It also could be a signal of a positive outlook for the industry. As business improves, grifters and charlatans once again will target a market where they see potential for easy money.

Investors, however, appear to be getting smarter about identifying unscrupulous players and are being more discerning about who they partner with. They want to do business with professionals that approach the future with their heads in reality, one investor noted.

Methodology

Each year, our in-house editorial team re-performs the research for the entire *Factbook* from stem to stern. All the data, charts and analysis in this report are created from scratch each time. The cannabis industry evolves and changes so quickly that prior assumptions can quickly become outdated, necessitating new research to substantiate those assumptions and develop new ones.

MJBizDaily's primary goal is to provide cannabis companies and investors with the most reliable and timely data possible. Our organization's purpose is not to hype the industry, but rather to serve as a trustworthy reality check. When you see differences between our numbers and those of others, bear in mind that our sole goal is to bring cannabis entrepreneurs and investors a realistic, conservative view of the truth—or as close to the truth as one can get at this time.

We are not trying to recruit investors, sell consulting services, land licenses, go public or lobby politicians. Our job is to bring you the numbers. Here's how we do it:

Exclusive Study Data

Every year since 2012, the team at *MJBizDaily* has conducted an industrywide, anonymous online survey of cannabis executives from across the industry as well as marijuana investors. We ask that respondents answer questions related to the finances and operations of their businesses honestly and to the best of their knowledge. The industry has matured over the years, so respondents have a better sense of their companies' financial and operational performance. Our brand and presence have also matured, so respondents are more likely to share this type of information with us. These factors have allowed us to pose increasingly sophisticated and detailed questions that in turn allow us to present more specific and actionable data.

This year's survey took place from Jan. 12, 2022, through Feb. 15, 2022. A typical respondent answered roughly 15 questions relevant to their sector and involvement with the industry. In total, we received 279 qualified responses.

Examples of what we exclude consist of, but are not limited to, responses from those who:

- Claim they operate plant-touching businesses in states that have not legalized medical or recreational cannabis
- Claim they operate wholesale grows in states where such sales are not permitted
- Operate plant-touching businesses outside the United States (though international companies in the ancillary services and technology/products or investing sectors that serve the U.S. market are included)

We also adjust our methodology when we deem necessary to account for clear outliers so that the responses of a handful of companies don't distort our data.

State Data

To the extent possible, all information in Chapter 2 is based on publicly reported data from state medical/ recreational cannabis programs themselves. The amount and type of publicly reported information available on medical/recreational marijuana programs varies considerably by state. Some states provide only a basic overview of their programs, while others provide regular, detailed updates with information regarding sales, patient counts, and the number of licensed businesses. In cases where statistics and figures are unreliable or unavailable, we develop estimates based on a wide variety of sources, including state and municipal regulations; survey and interview data with companies in the region; population and patient demographics; tax records; regulatory documents; news reports; comparisons to similar states with higher-quality documentation and any other available data source to gather the necessary information.

State-level information and conditions are continually changing. Our cutoff date for information updates was end of February 2022 for the purposes of going to press. However, some data is reflective of conditions as of mid-March. For updates on particular states since then, please see the News by State tab on our main website, www.MJBizDaily.com.

Sales Projections

As with everything in this report, we take a conservative approach to our sales estimates and projections based on a belief that it's more prudent for business owners and investors to prepare for the worst and hope for the best. This is not to say we take a pessimistic outlook on the industry and its trajectory, but rather that we are keeping our feet firmly planted on the ground.

Overall, our sales projections incorporate a variety of factors, including our state-by-state data, sales and regulatory trends, qualifying conditions, average patient/consumer spend, patient access to dispensaries and retail stores, restrictions on the types of cannabis products allowed for sale, extrapolations from other markets that release public information about their programs, survey data, and a healthy dose of professional judgment based on our experiences of covering these markets as they have played out for the past seven years.

Because the landscape changes quickly and there are still many unknowns, we must make assumptions. For instance, California began licensing businesses at the state level in 2018, but it's clear that black and gray market operators are still a large part of the market, making it difficult to determine how that impacts everything from sales to the number of businesses in the state. States also often add new medical conditions to their programs or introduce new regulations, which can have a drastic impact on sales.

As in previous years, we account for best- and worst-case scenarios by using ranges—rather than specific numbers—to estimate sales.

Legalization is another factor that's incorporated into our sales projections. It's difficult, however, to predict which states will legalize recreational or medical marijuana and when—let alone estimate how big those markets will be. For these new markets, we also assume some will be smaller and some larger, so we include a range that accounts for these differences in sizes.

Any state that legalizes in 2022 likely won't have its industry up and running this year—or at least won't have a material impact on overall retail sales for the entire U.S. market. It usually takes two or three years for a new medical state to start sales and a year or two for new rec states to launch their programs. Dispensary/retail store openings often proceed on a rolling basis, and it could take another year or two for a market to become fully functional. Our forecasts, therefore, build in expectations for those factors.

For sales estimates through 2026, we analyze each market individually and project revenues based on unique factors in each state. We also look at the expected timing of the launch of newly legalized MMJ and rec states and those that are in the process of setting up their programs.

You may notice in some cases our projections have changed slightly from what we published a year ago. Each year, we revisit—and revise if necessary—our previous and future estimates for national sales and state MMJ and recreational retail revenues.

Economic Impact Estimates

Economic multipliers are commonly used to illustrate the “trickle out” effect of a dollar spent within a market. For example, a patient goes to a dispensary and spends \$100. The MMJ business will then use a portion of that to pay an employee, who in turn goes out and uses that money to pay rent, dine at restaurants, buy a car and so on until the marginal additional dollars injected into the economy are virtually zero.

This is not the same metric as total revenues along the cannabis supply chain that can be used to approximate the “total size” of an industry. Rather, the economic multiplier paints a picture of the impact the cannabis industry as a whole has on the broader economy. The multiplier does reflect the economic value created along the supply chain since marijuana retailers use revenue from customers to pay suppliers and vendors, but it also encapsulates the broader impact and can be applied to any instance of spending/sales/revenue.

Legislators and bureaucrats often rely on this type of metric when determining the economic impact of welcoming new businesses to a municipality or the implications of a tax rate change. Cannabis entrepreneurs can use this metric on a broad scale to make impact statements, influence/inform legislative processes and rulemaking, and so on.

CANNABIS BENCHMARKS



Cannabis Benchmarks
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New Leaf Data Services, LLC, is an independent, unbiased Price Reporting Agency (PRA) and is the leading provider of benchmark price assessments and indexes for wholesale cannabis and hemp markets through its Cannabis Benchmarks® and Hemp Benchmarks® divisions. Our mission is to bring transparency and efficiency to cultivators, dispensaries, investors, traders and other cannabis market participants through validated, standardized wholesale price benchmarks and market intelligence.

By deploying critical business data services and analytics that have proven successful in every agricultural commodity market, we enable buyers and sellers to transact with confidence and efficiency while driving the calculations used to make an array of financial and operational go/no-go decisions. Cannabis Benchmarks® and Hemp Benchmarks® offer a variety of products and services built around trusted wholesale price benchmarks for Canadian, U.S. and state-level markets for cannabis and international markets for hemp using industry-accepted methods and practices.

Our team has worked with the leading price assessment and benchmarking firms in energy, chemicals, metals and agricultural commodities. We are supported by our cannabis specialists and field reporters who have an in-depth knowledge of the cannabis and hemp markets and market participants.

Our goal is to capture a high percentage of buy/sell wholesale transactions across local cannabis and hemp markets. We gather data from three primary sources: Our Price Contributor Network consisting of producers, processors, retailers, brokers and consultants; In-the-field price reporters who have developed longstanding relationships with wholesale participants in local markets; and data provided in partnership with industry vendors, exchanges, and state and regional associations. Our transaction data and sources remain confidential and secure so industry participants can report with complete confidence.

As legal cannabis and hemp markets develop and expand, cultivators and retailers increasingly recognize the vital importance of the detailed wholesale market assessments and analysis provided by Cannabis Benchmarks® and Hemp Benchmarks®. We provide essential information for a diverse assortment of tasks from data for completing economic pro forma analyses, conducting debt and equity research, and performing asset valuation and due diligence, to use of our indices for settling transactions and measuring risk, bringing transparency to wholesale markets and empowering our customers to make decisions faster, with greater accuracy and confidence.

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Strategy powered by industry leading cannabis market intelligence

Real-time market intelligence software to empower cannabis operators and businesses alike to track consumer trends and identify opportunities as they appear, not months after they've been capitalized on by competitors in your market.



PIONEER IN CANNABIS INDUSTRY

Viridian Capital Advisors launched in June 2014 as one of the first corporate finance practices dedicated to the cannabis sector. We provide capital, M&A, valuations, research and corporate access services to best of breed companies in the industry and have a track record of success for our clients and investors. Our Viridian Cannabis Deal Tracker and Equity Research reports are followed worldwide and used by companies, investors and acquirers to make smart capital allocation decisions.

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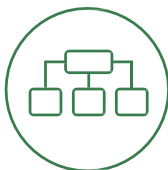
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- ▶ Viridian Client Sells to Public Company
- ▶ Viridian Client Closes \$15 Million Debt Raise
- ▶ Viridian Client Sells to Private Equity Firm
- ▶ Viridian Client Acquires Hydroponics Firm
- ▶ Viridian Client Closes \$25 Million Equity Raise
- ▶ Viridian Client Signs LOI for \$25 Million Loan

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M&A
Buy-Side and
Sell-Side



Proprietary Data
Supports Optimal
Client Outcomes



Institutional
Quality Financial
Modeling and
Valuations



Corporate Access
Programs Drive
Investor Visibility

CLIENT TESTIMONIALS

Jordan Weiss, Green Coast CEO: *"We especially want to thank the team at Viridian Capital for their sage counsel and guidance throughout the M&A process and guiding us to a successful close."*

Morris Denton, Texas Original CEO: *"We thank Scott Greiper and his team at Viridian Capital for their guidance and perseverance in completing our Series A and Series B financings."*

Ryan Jenneman, THC Design CEO: *"The Viridian team was by our side throughout the capital raise process and helped us source and negotiate the optimal debt financing."*

Jeff Kiehn, 365 Cannabis CEO: *"We want to thank the Viridian team for providing critical guidance in bringing us the right buyer and negotiating the optimal price and structure for our shareholders."*

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MJBizTM Factbook

Cannabis Business Intelligence

The *MJBiz Factbook* is the most trusted resource for cannabis industry data, trends and analysis.

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