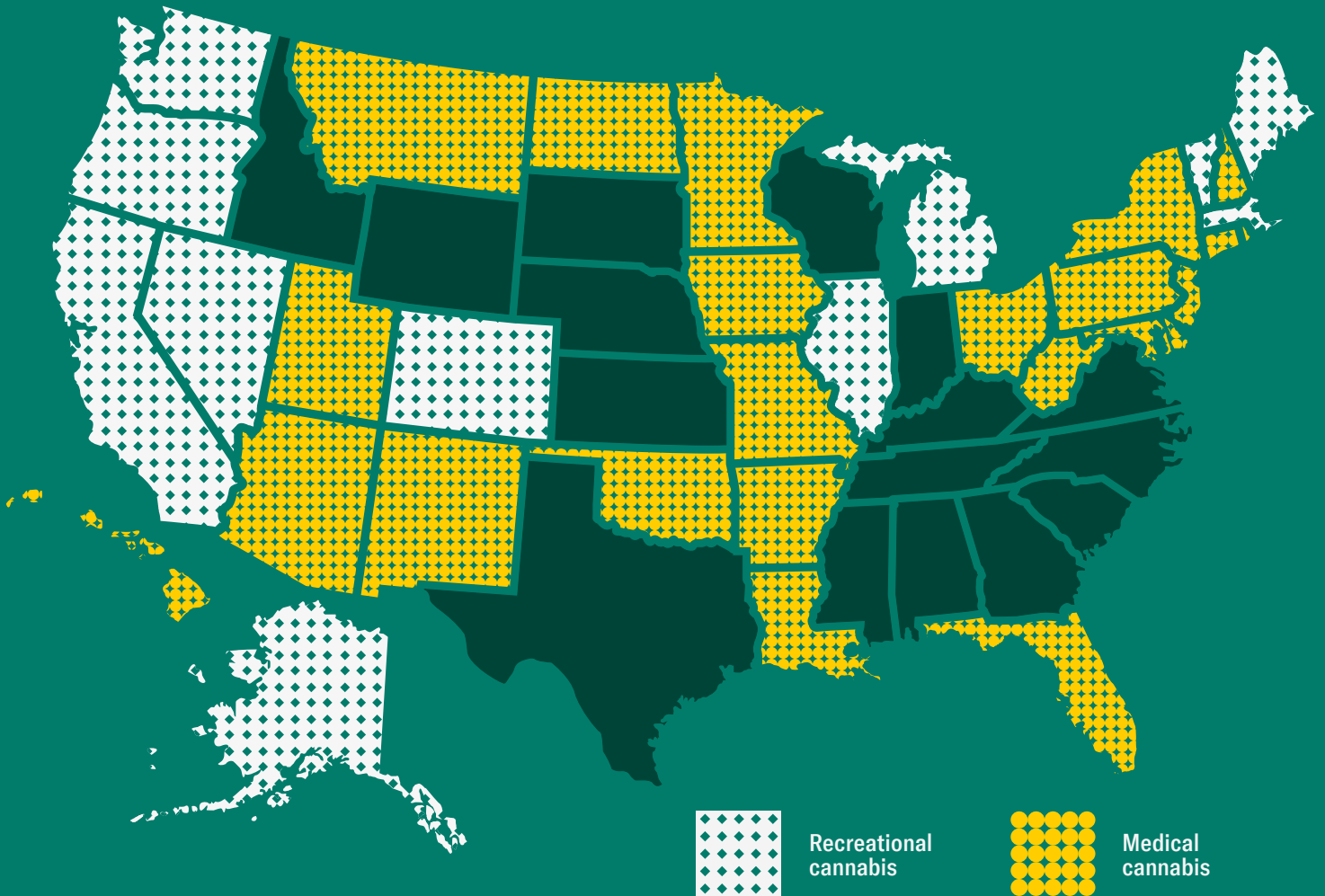




Leafly Jobs Report 2020

Leafly[®]

Legal cannabis supports **243,700** American jobs



According to Leafly's fourth annual cannabis jobs count, legal cannabis supports **243,700** full-time-equivalent jobs as of early 2020.

That's a 15% annual uptick in cannabis jobs, an indication of the industry's continuing expansion even during a rough year. The \$10.73 billion legal cannabis industry continues to be America's single greatest job-creation engine, growing at a rate faster than any other industry over the past four years.

Every year Leafly's data team compiles a state-by-state tally of full-time-equivalent

jobs supported by legal cannabis. We do it because economists at state agencies and the U.S. Bureau of Labor Statistics refuse to count them.

The refusal to acknowledge the existence of legal cannabis jobs is a powerful act of shaming and stigmatization. Those who aren't officially counted don't officially exist. There are now nearly a quarter of a million Americans whose professional lives are categorized as illegal or nonexistent by the government of the United States.

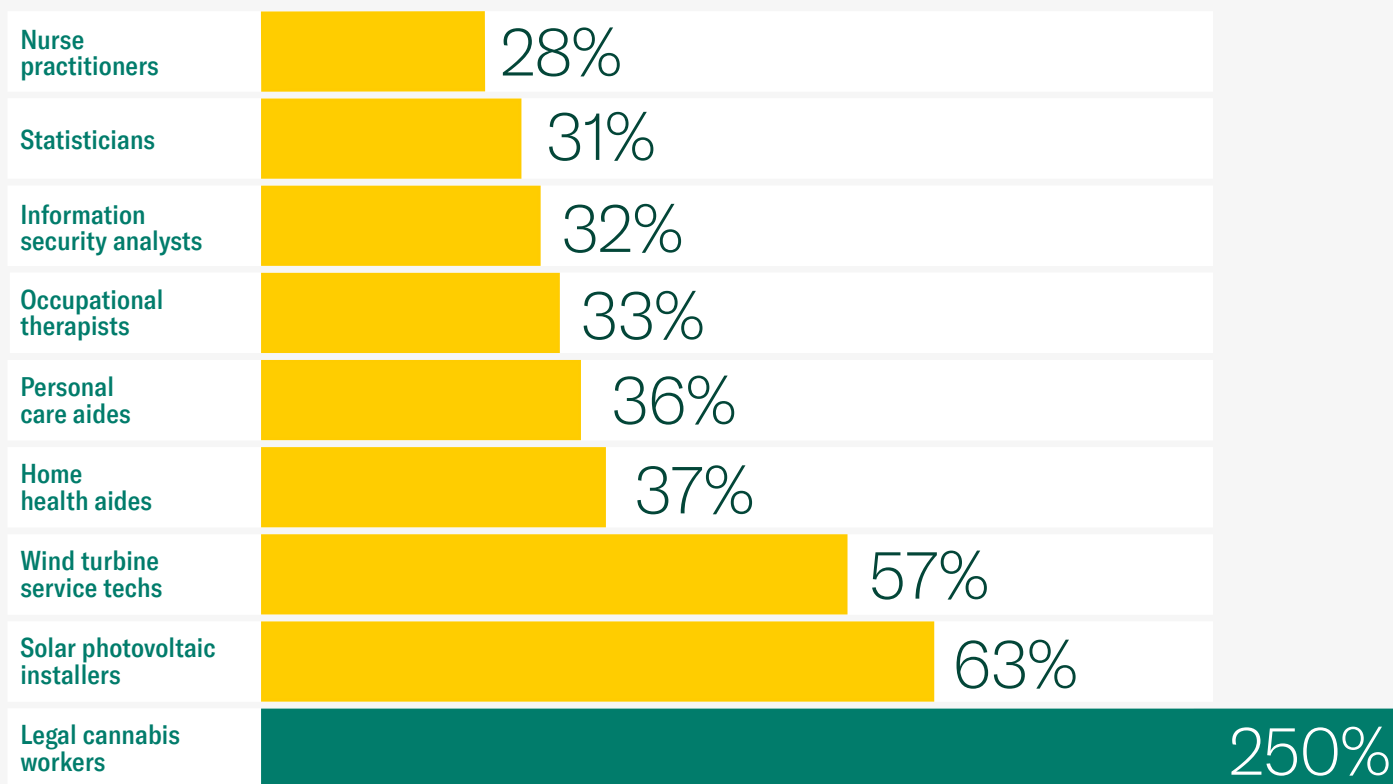
That is outrageous.

If cannabis industry jobs were tallied like other jobs, cannabis farmers would be treated like what they are—farmers. Cannabis store owners would be recognized as hard-working local entrepreneurs. Seed and strain developers would be held up as leading-edge botanists. And legal cannabis would be acknowledged as the fastest-growing industry in America. Over the past four years the legal cannabis industry has doubled in size, creating nearly 121,000 full-time jobs.

That's a 100% growth rate. No other industry even approaches that record.

The industry's growth is especially eye-opening when compared to other occupations. Massachusetts now has more legal cannabis workers than hair stylists and cosmetologists. Nevada has as many cannabis workers as bartenders. Illinois has twice as many cannabis workers as meat packers.

Job growth in legal cannabis compared to the fastest-growing occupations in America, 2018-2028



Percentages indicate total job growth over a 10-year span, 2018-2028. Source: "Employment Projections: 2018-2028," U.S. Bureau of Labor Statistics, Sept. 2019. The projection for 10-year cannabis industry growth is taken from reports prepared by Cowen, New Frontier Data, Grand View Research, and Leafly. Jobs in the cannabis industry have already doubled (100% growth) from 2017 to 2020.

Sources: Bureau of Labor Statistics, Leafly Cannabis Jobs Count

This year's big news: Cannabis is not just a West Coast industry

The legal cannabis industry finally expanded from its stronghold in the American West in 2019. Some highlights:

- ◆ The recreational market in Massachusetts and the medical market in Florida enjoyed a robust full year of open dispensaries and record-setting sales growth.
- ◆ Medical sales in Oklahoma tripled to \$350 million, creating more than 7,000 full-time equivalent jobs.
- ◆ Pennsylvania's medical dispensaries doubled their sales volume, creating thousands of new jobs in the Keystone State.
- ◆ Michigan opened its first adult-use cannabis stores, followed by Illinois in January 2020.
- ◆ Ohio's medical marijuana industry grew at a 273% rate.

Steady growth in mature states

Western states didn't exactly stagnate in 2019. Colorado, Washington, and Oregon—three of America's most mature adult-use cannabis markets—continued to grow at a strong and steady rate. Oregon saw nearly

20% growth, while Colorado and Washington both climbed at an 8% clip.

That's nowhere near the triple-digit increases posted by developing states like Massachusetts, but it hints at an intriguing story lurking under the numbers. Recreational stores have been open for more than five years in Colorado and Washington, but sales data and on-the-ground reporting indicate that older consumers who were once cannabis-curious are increasingly becoming cannabis-comfortable.

A wider variety of products that offer discretion and dosage control are key players here. We're seeing more mature adults finding their preferred dosage and modality in 5mg THC mints and cannabis-infused beverages, for instance.

Turmoil in California and Michigan

For the first time ever, Leafly's cannabis jobs count saw major states post cannabis job losses. Half of Michigan's legal cannabis jobs, and one in five California jobs, dropped off the radar in 2019.

That doesn't mean they vanished, though. Leafly's job count recognizes only legal jobs. Michigan's new licensing system moved thousands of existing jobs from the legal to the non-legal category. Similarly, legal cannabis sales in California contracted 18% due to the sunset of a law protecting medical marijuana collectives. Result: About 8,000 legal cannabis jobs in California disappeared from our report.

California should bounce back in 2020. The state could add 350 new cannabis stores this year, and 85 groups now hold cannabis event licenses enabling them to throw parties with on-site sales and lounges. We expect Michigan to come roaring back, too—once the state and local municipalities allow more licensed cannabis shops to open.

Rough year for cannabis

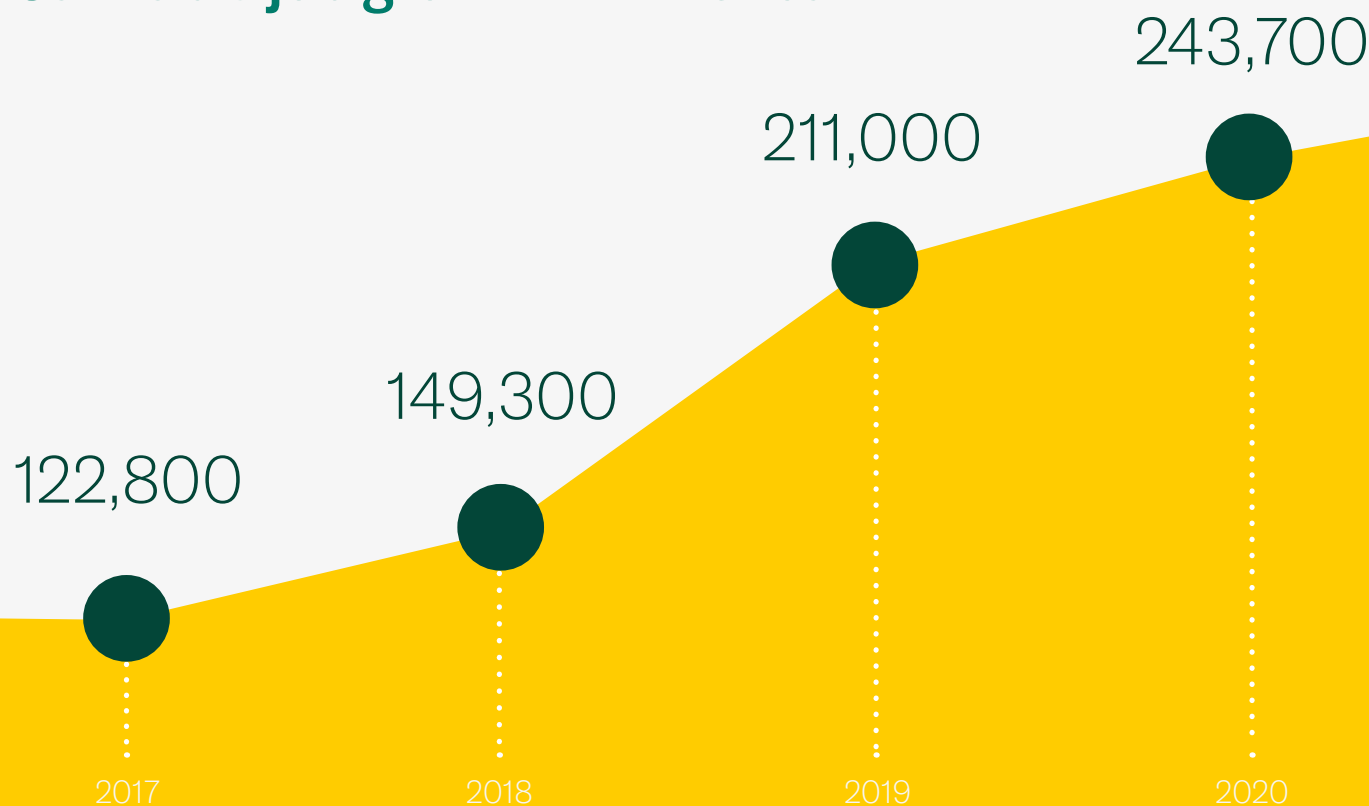
The 15% year-over-year growth cannabis saw in 2019 would signal boom times for most other industries, but it represents a slowing of job growth for cannabis. Legal states saw a 62% increase in cannabis jobs from 2018 to 2019.

It's a sign of the times. The past twelve months have been the most difficult for cannabis companies since the first states passed adult-use legalization in 2012.

The industry has weathered a financing crash, the EVALI lung health crisis, layoffs at market-leading companies, and difficult transitions in two of the nation's biggest cannabis markets, California and Michigan. The slow, steady, and cautious rollout of Canada's legal cannabis industry cooled the overheated expectations of the previous year.

And still: There isn't an industry in America that wouldn't welcome the prospect of 15% growth in a single year.

Cannabis job growth in America



Hot spots in 2020

After weathering a challenging 2019, we expect more double-digit growth in both sales and jobs in 2020. Look for these highlights:

- ◆ Expanding adult-use sales should drive brisk hiring in Illinois and Michigan.
- ◆ Expect triple-digit growth in Missouri, where thousands of employees will be needed to staff the 192 medical dispensaries expected to open in the coming year.
- ◆ California municipalities that once banned all cannabis operations will start to open up in 2020, having seen the jobs, tax revenue, and public health benefits of a regulated industry.
- ◆ Smaller markets that previously legalized without allowing sales may finally see regulated stores open in the coming year. Vermont, Maine, and Washington, DC officials are working hard to make it happen.

How we count: A note on methodology

When we started our annual jobs count four years ago, cannabis jobs weren't recognized by any official labor statistics agency. They didn't even have an NAICS code, which is a number within the international classification system used by labor economists.

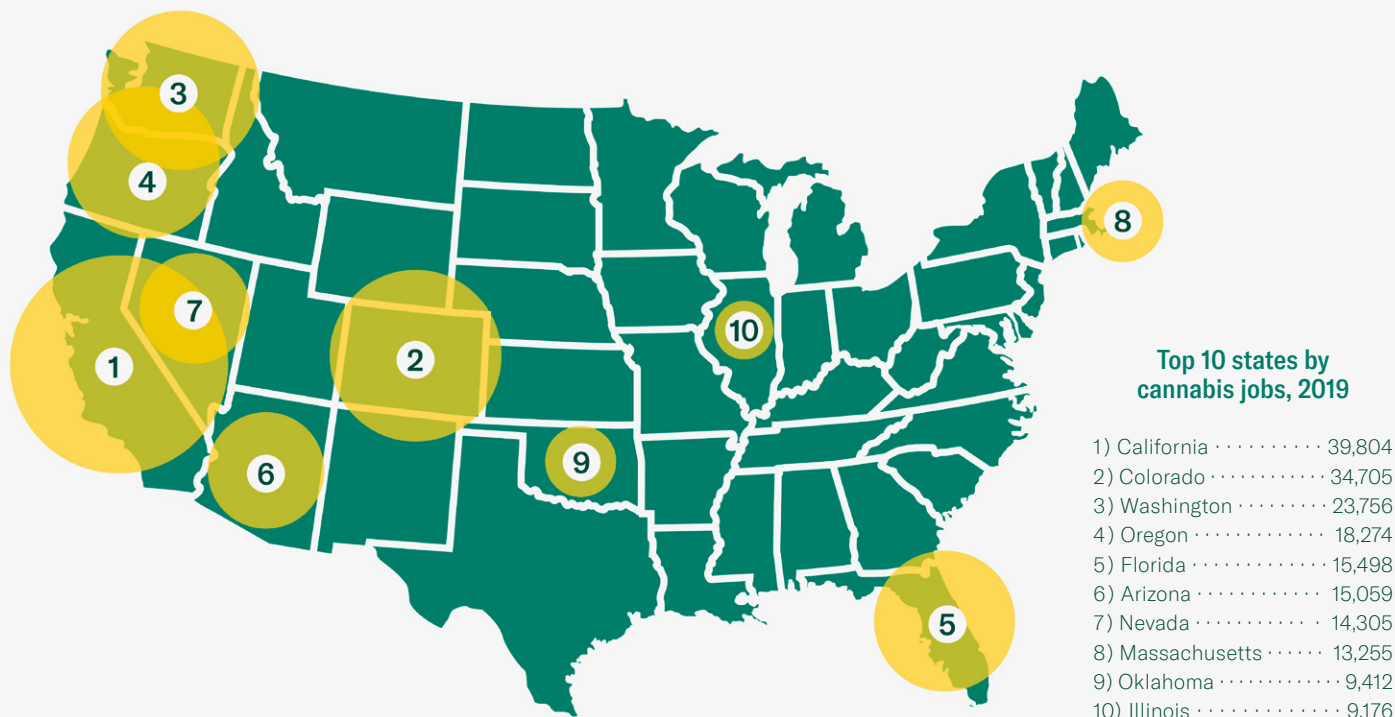
The NAICS has since recognized the existence of cannabis jobs, but lumps them with "Miscellaneous Store Retailers" (code 453998, which includes art supply stores, auction houses, candle shops, florists, and hot tub stores) and "Miscellaneous Crop Farming" (111998, which includes hay and grass seed, hops, mint, and agave). So that's not really much progress.

We developed our employment estimation methods based on past foundational work on the cannabis industry by MPG Consulting, Whitney Economics, BDS Analytics, New Frontier Data, Vangst, Headset, and state regulatory agencies.

Cannabis offers a unique opportunity to count employment specifically because of the highly regulated nature of the industry. State regulators don't track sales of roses or alfalfa the way they track cannabis, which is often scrutinized down to the last gram and the last cent. Every legal cannabis state requires some form of mandatory reporting, whether it's license-tracked monthly sales, patient counts, or cannabis worker permits. The statistics are often imperfect, but they do exist. Over the past four years Leafly's data team has developed and improved a set of formulas that deliver estimates that are then ground-truthed and adjusted according to what we know about each state's regulatory and economic environment.



Cannabis jobs and markets, state by state



Alaska

Annual sales increased 20% in 2019 to \$181.5 million, supporting an estimated 3,559 jobs. Look for new licensed public cannabis consumption lounges to support heavy summer tourist trade sales in 2020.

Arizona

One of America's most robust medical marijuana industries saw a 21% gain in sales, posting an estimated \$709 million in total market value. That supports 15,059 jobs—and more could be on the way if voters pass adult-use legalization in November.

Arkansas

The state's first medical dispensaries opened in 2019 and posted \$48 million in sales. But the real size of the market in early 2020 is roughly double that—a little more than \$90 million, supporting 1,777 jobs—as reflected in the latest monthly sales figures.

California

The sunset of California's medical cannabis caregiver laws moved roughly 8,000 jobs from the legal to non-legal category in 2019. Look for those to return to legal status at a slow, steady pace in 2020 as more municipalities relax their draconian prohibitions against cannabis businesses. The state recorded \$2.03 billion in legal sales in 2019, still a fraction of total overall sales, and supported 39,804 jobs.

Colorado

The nation's first legal retail market continued to grow in 2019, posting \$1.77 billion in sales. More than 34,700 residents now earn their living in the legal cannabis space—nearly as many as in all of California.

Connecticut

One of the nation's slowest-growing medical marijuana industries now offers 14 operational dispensaries to serve nearly 40,000 patients. Connecticut tracks only patient numbers, not sales, but our calculations put 2019 sales in the \$60 million range, supporting 1,372 full-time-equivalent jobs.

Delaware

The story here is 82% year-over-year growth in total registered medical marijuana patients. In 2019, nearly \$37 million in total sales supported 720 jobs in Delaware.

District of Columbia

The song remains the same: Cannabis possession remains legal for all adults in Washington, DC (except on federal property), but retail sales are forbidden because Congress refuses to allow local officials to handle their own business. The District's limited number of legal medical marijuana dispensaries sold more than \$19 million in products in 2019, supporting just under 390 jobs.

Florida

The Sunshine State's medical industry hit its stride in 2019, posting 93% year-over-year growth. What happened? The state's more than 300,000 registered patients were finally allowed to purchase smokable flower. By year's end, dispensaries were selling a total of 19,000 ounces per week. Florida's total market value (annual gross sales) now approaches \$800 million—which puts it within shouting distance of adult-use retail states like Oregon and Washington.

Hawaii

Geography and climate make Hawaii a tough state to analyze. A handful of operating dispensaries currently serve nearly 27,000 registered patients. But Hawaii offers unequalled homegrow opportunities and difficult access issues. There's only one dispensary on Kauai, for example. We estimate Hawaii's annual sales between \$30 million and \$40 million, supporting 745 jobs.

Illinois

Illinois was already a strong medical market—and then adult-use retail stores opened on January 1, 2020. The state posted \$327 million in medical sales in 2019, but early data from 2020 indicates this is already a \$470 million annual market supporting 9,176 jobs. Sales could easily grow to \$600 million by the end of this year.

Iowa

Iowa's 5,500 registered patients visited the first open dispensaries in 2019, but we don't expect much growth in 2020. This is a limited \$6 million annual industry that supports around 120 jobs.

Louisiana

After years of waiting, the state finally opened nine cannabis "pharmacies" in 2019. The patient count remains in the very low thousands, though, and will not experience anything resembling Oklahoma-style growth. This is a sub-\$5 million annual market supporting around 90 full-time jobs.

Maine

Like Hawaii, Maine is a rural state with a lot of registered medical patients—nearly 46,000—and a deep tradition of home growing, making it tough to estimate market size. That means a lot of patients may obtain their card but not patronize the state's eight licensed dispensaries. With the first adult-use stores expected to open in 2020, this is a state where cannabis currently supports 400 full-time jobs but could double or triple that number by the end of the year.

Maryland

With more than 87,000 registered patients, Maryland's cannabis industry is thriving. The state saw 74% market growth over 2018, resulting in a \$324 million annual market that supports 6,353 full-time jobs.

Massachusetts

Boom! That's the sound of the East Coast's first adult-use retail market last year. Massachusetts followed \$156 million in 2018 sales with \$404 million in 2019 sales. With steep growth throughout the year, this is currently a \$676 million market—and it could top \$700 million in sales in 2020. Boldness pays off: Legal cannabis has created a total of 13,255 full-time-equivalent jobs in Massachusetts.

Michigan

Like California, Michigan endured a hard transition in 2019. The bumpy implementation of a new regulatory system saw many formerly legal medical dispensaries drop into non-legal status. The first adult-use shops opened in late 2019, but significant parts of the state—we see you, Detroit—still await their first stores. This is currently a \$420 million market supporting 8,235 jobs, straining to return to \$800+ million in sales. Michigan will get there, but it will take time.

Minnesota

One of the nation's tightest medical marijuana systems remains limited, with only two dispensaries serving more than 18,000 patients. This is a \$39 million annual market supporting 764 full-time jobs.

Missouri

With 22,000 registered patients and the first medical dispensaries expected to open later this year, Missouri isn't generating revenue but already employs hundreds of people. What are they doing? Leasing, hiring, building out, and getting ready. The state has issued 86 cannabis manufacturing licenses and 192 dispensary licenses, and those businesses don't staff themselves. We estimate 1,100 people are already working in the Missouri industry and expect that number to at least double by the end of 2020.

Montana

More than 36,000 patients in Montana supported 1,800 jobs and a \$92 million industry in 2019, which represents strong 20% year-over-year growth.

Nevada

Nevada keeps some of the nation's best cannabis sales data, and it reflects a strong and well-regulated industry. 2019 saw \$639 million in cannabis sales, but more recent monthly sales data indicates this is now a \$730 million market supporting 14,305 jobs. As visits to cannabis superstores like Planet 13 become increasingly popular among Las Vegas tourists, we expect these sales numbers to keep rising steadily.

New Hampshire

In a small state where cannabis data is largely lacking, 8,000 patients in a \$22.5 million market support 441 jobs. We're hoping the legalization examples of Massachusetts, Vermont, and Maine spur a little progress in New Hampshire in the coming year.

New Jersey

The exit of Governor Chris Christie helped thousands of New Jersey patients, but the state still maintains extremely limited access, with just one dispensary per 1.5 million residents. Unusually high dispensary prices send many registered patients to alternative sources. With a current total market value of \$120 million, the state supports 2,356 legal cannabis jobs.

New Mexico

A rural state with a significant patient count (nearly 79,000), New Mexico's \$130 million industry supports 2,549 jobs.

New York

As New Yorkers patiently wait for their legislators in Albany to pass adult-use legalization, the state's medical marijuana system continues to grow slowly. More than 112,000 patients support 2,941 jobs with roughly \$125 million in annual sales.

North Dakota

North Dakota's first medical marijuana dispensaries opened in 2019, and the rural state's 1,200 patients now support eight dispensaries and about 200 full-time jobs. Expect slow, steady growth as more patients sign up for medical cards in 2020.

Ohio

With more than 78,000 patients but only \$56 million in 2019 sales, the story here is limited access. As more dispensaries open in 2020 we expect Ohio sales to grow significantly. Late 2019 and early 2020 data indicate it's already happening—we now see Ohio as a \$220 million total market supporting 4,275 jobs.

Oklahoma

This state's medical marijuana industry is growing so fast it's hard to count. With 221% growth in 2019, Oklahoma now supports 9,412 full-time jobs with sales approaching \$40 million per month. One in 20 Oklahomans now has a medical marijuana card, the highest per-capita registration in the nation.

Oregon

One of the earliest West Coast recreational states posted surprisingly strong growth in 2019 with a 19% year-over-year increase in sales. We saw more than \$800 million in sales last year, and that growth is continuing through early 2020. The state's adult-use and medical markets now support a total of 18,274 full-time jobs.



Pennsylvania

Pennsylvania is an oddly quiet success story, with the industry doubling in size in 2019. That's slow growth compared to Oklahoma and Massachusetts, but it's still quite astonishing. We found \$406 million in 2019 sales supported 8,765 full-time jobs.

Rhode Island

With only three operating dispensaries to serve 18,000 patients, Rhode Island's medical marijuana industry nevertheless posted nearly 50% year-over-year growth, with total sales topping \$50 million. That supported 1,098 full-time jobs.

Utah

Patient applications won't be accepted until March 2020, but Utah is already issuing dispensary site licenses, and as many as 14 locations may open later this year. With that in mind, we estimate that at least 100 people are working full time to create this limited rural market from scratch.

Vermont

Here's an interesting dynamic: Vermont's patient total has declined since the passage of adult-use legalization last year, indicating that 10% to 20% of registered patients held their cards simply to possess legally. (A card is still required to purchase at licensed dispensaries, while adult-use retail remains illegal.) A certain percentage of southern Vermonters may also be purchasing at dispensaries in neighboring Massachusetts. Roughly \$14 million in medical sales currently support 266 full-time jobs, while Vermont sees Massachusetts gobble up its potential adult-use tax revenue.

Washington

Nothing but slow and steady 8% growth here, with \$1.21 billion in total sales supporting 23,756 full-time jobs.

West Virginia

It's been a slow walk for medical cannabis in West Virginia. The state has yet to issue any cannabis business licenses, although the first application period closes on February 18, 2020. We estimate there are about 30 full-time cannabis-supported jobs in West Virginia, with those folks spending their time building up applications and business plans.