

Cannabis Update

Oregon House Committee on General Government

Beau R. Whitney, Chief Economist
February 2, 2021

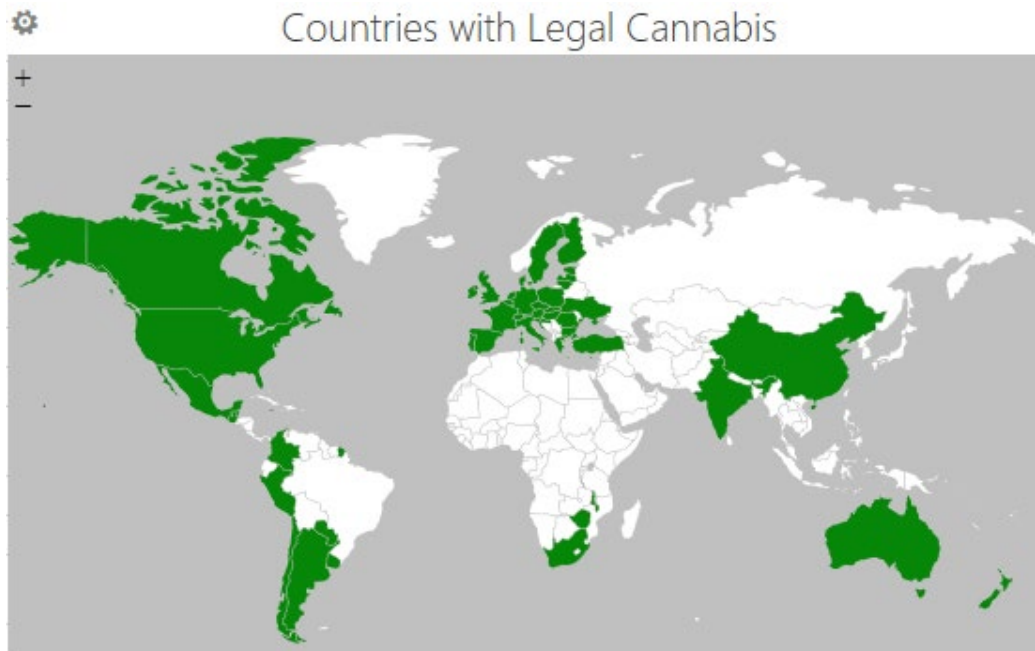


Today's Discussion

- Global Cannabis
- U.S Overview
- Key Issues Facing the Cannabis Industry
- Demand, Jobs & Taxes
- Key Regulatory Issues
- Summary

Global Cannabis Reform is Accelerating

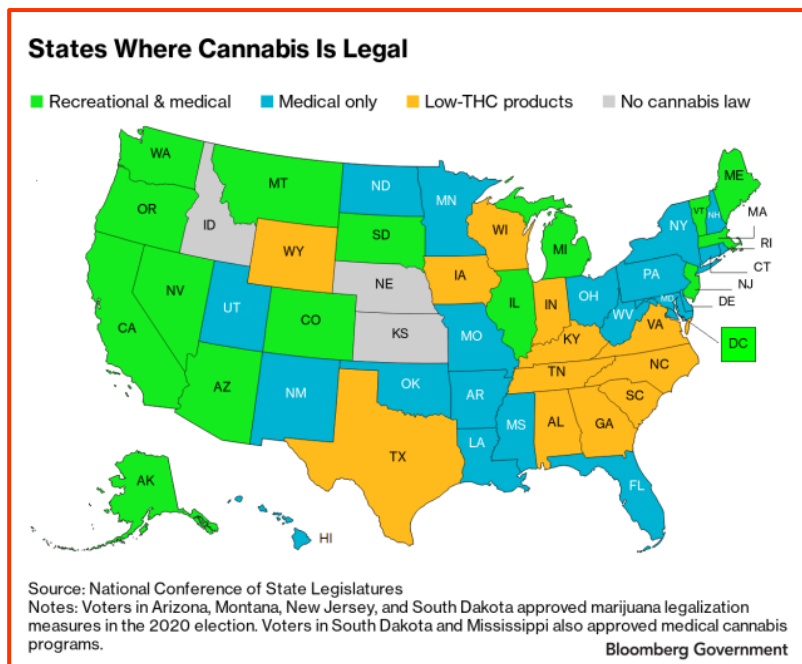
- Cannabis is a global industry.
- Cannabis is legal in over 55 countries for either adult-use, medical or industrial purposes. (350 – 400 million global A.U./M users, \$250b-\$350b TAM, excl Hemp)
- More and more governments are seeing the value cannabis from an economic and development perspective.
- The pace of reform is accelerating, driving increased opportunities.



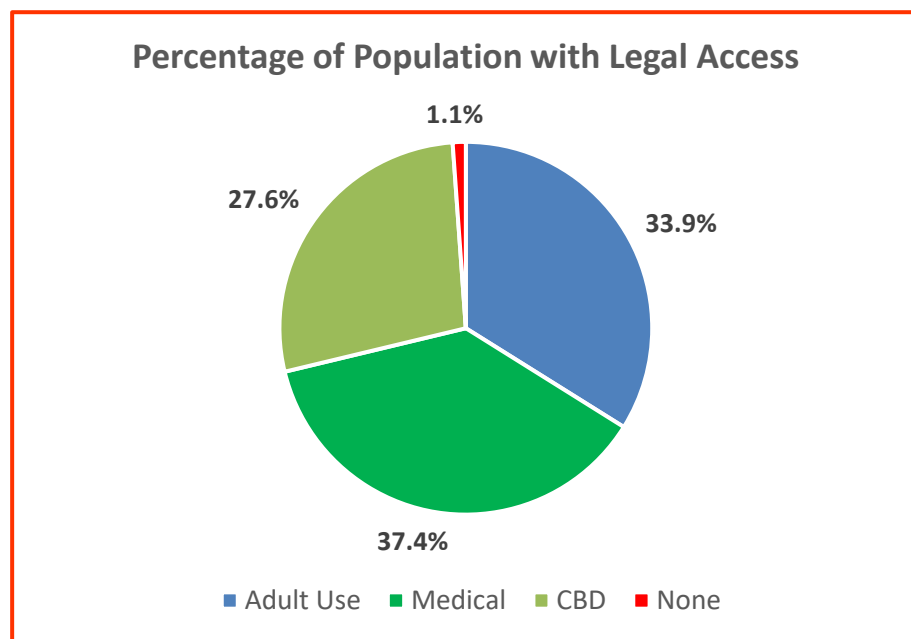
Source: Whitney Economics

National Overview

- Cannabis is legal in 36 states for medical purposes 15 of which also have legalized adult-use.
 - 71% of the U.S. population are from states with access to legal adult-use or medical cannabis. If also including CBD, it covers 98.9% of the population.
 - Another 8 – 10 states are considering ballot measures / legislation in 2021.



Source: National Conference of State Legislators



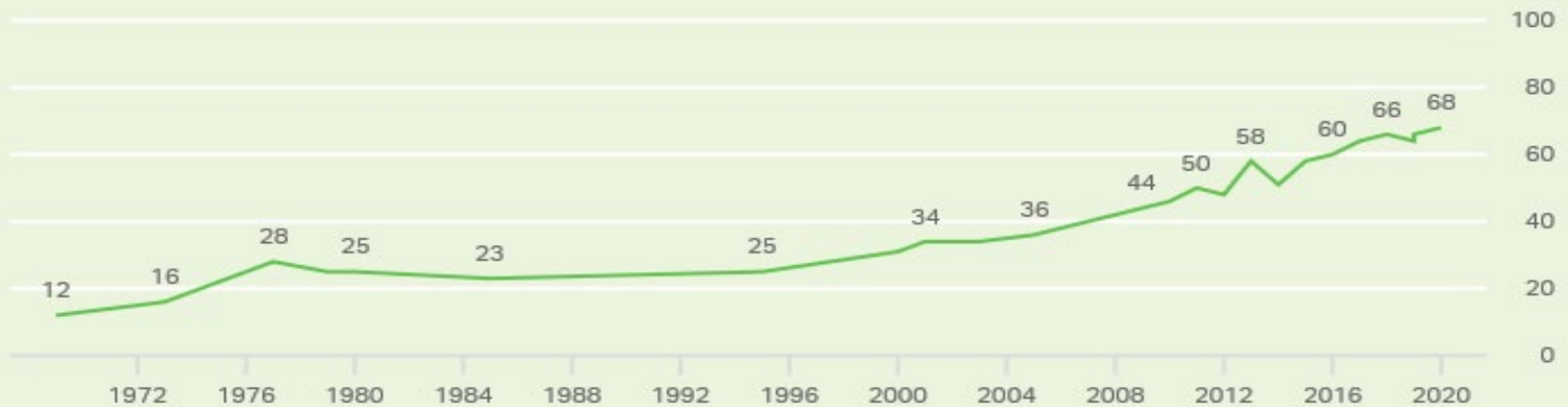
Source: Whitney Economics

Support for Legalization is at Record High

Americans' Views on Legalizing Marijuana Reach New High

Do you think the use of marijuana should be made legal, or not?

■ % Yes, legal

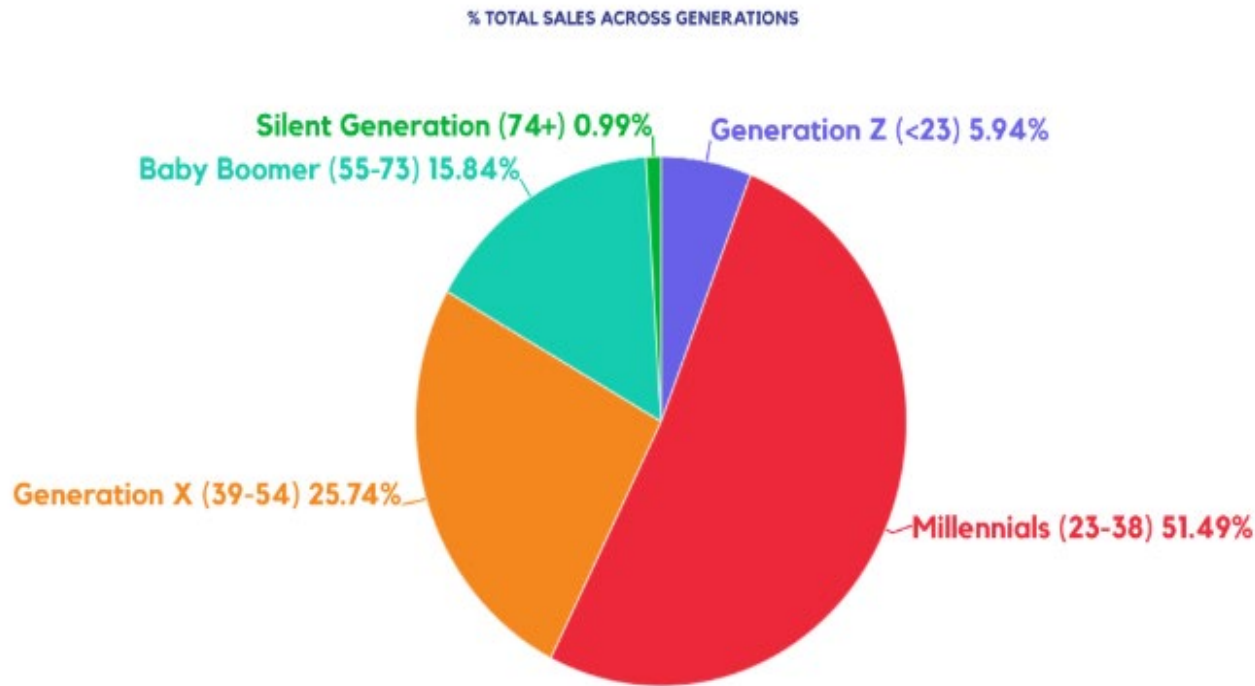


GALLUP

- U.S. support of cannabis legalization exceeded 68% for the first time.
- Cannabis legalization is supported by every demographic and income level and has bipartisan support.

Cannabis Consumers are Diverse

- The typical cannabis consumers is older, employed and college educated.
- Average income level is \$50k+



Whitney Economics of Cannabis Economics 2020

Source: Headset

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Key Issues Impacting U.S. Cannabis

- **Banking**
 - Difficulty in obtaining traditional financial services (Loans, Insurance, credit card processing, access to public markets) is a major public safety issue.
 - Banking reform in the form of the SAFE Banking Act has bipartisan support in Congress and by the U.S. Treasury and the American Banking Association.
- **Federal Tax Code 280e**
 - Limited federal tax deductions are making the effective tax rate in excess of 70%, thereby lower margins. Operators are literally being taxed out of business.
- **Social Equity**
 - Regulatory structures, limited licensure and high financial barriers to entry are limiting the ability of communities of color to participate in this market.
- **Interstate Commerce**
 - Siloed markets are limiting economic growth and creating market distortions that may impact Eastern Coast states more upon federal legalization.
- **Medical Research**
 - Lack of medical research is inhibiting the access by millions of consumers.

Demand for Cannabis is Strong

Nationally

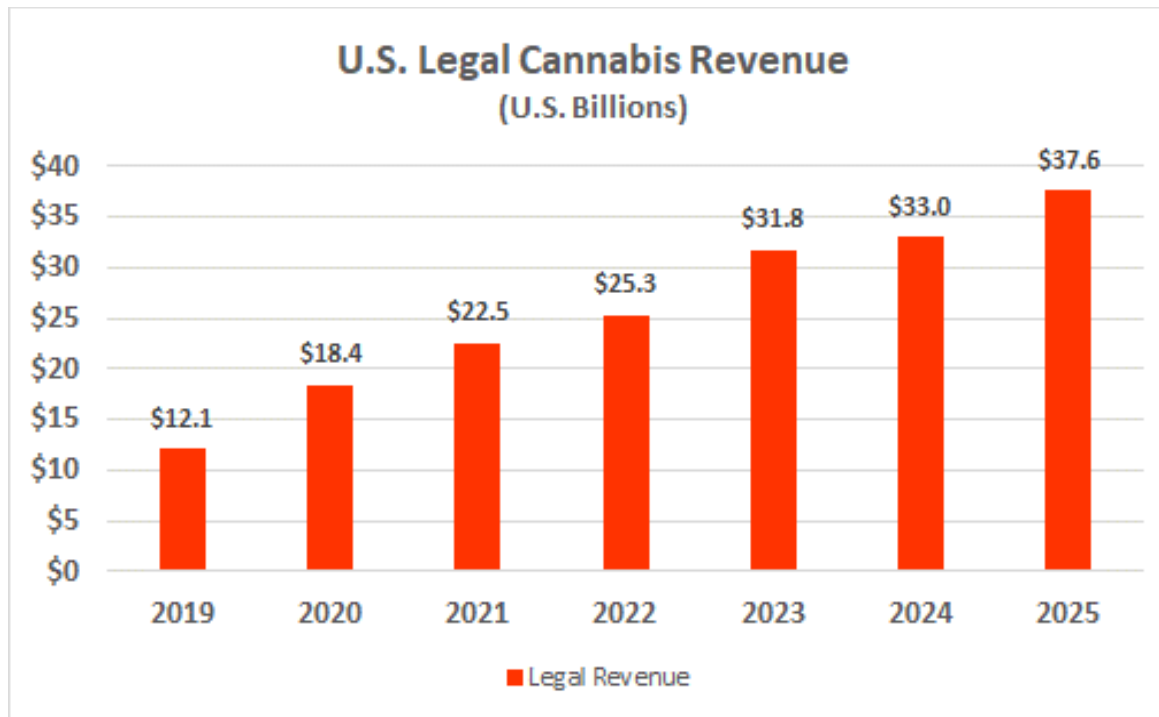
- There are 36 million cannabis consumers in the U.S. (17.1%)
 - 23 million (11.17%) are regular users.
 - Whitney Economics assumes cannabis demand is higher, national surveys underreport the demand and overall is closer to 50 million consumers.
- The average annual expenditure per consumer ranges from \$650 - \$1,000.

Oregon

- Overall, 725k Oregonians (27.74%) over the age of 18 have consumed cannabis in the past year.
 - 505k Oregonians (19.4%) are regular users.
- 75% - 80% of all Oregon demand is satisfied in the legal channel.

U.S. Demand for Cannabis Forecasted to Increase

- 2020 U.S. legal sales estimated to be \$18.4 billion, \$37 billion by 2025.
- Demand expected to increase as more states come online.
- Increases in demand expected as more consumers purchase from legal sources.
- Sales tax rates and retail access play key roles in converting demand into legal channels.

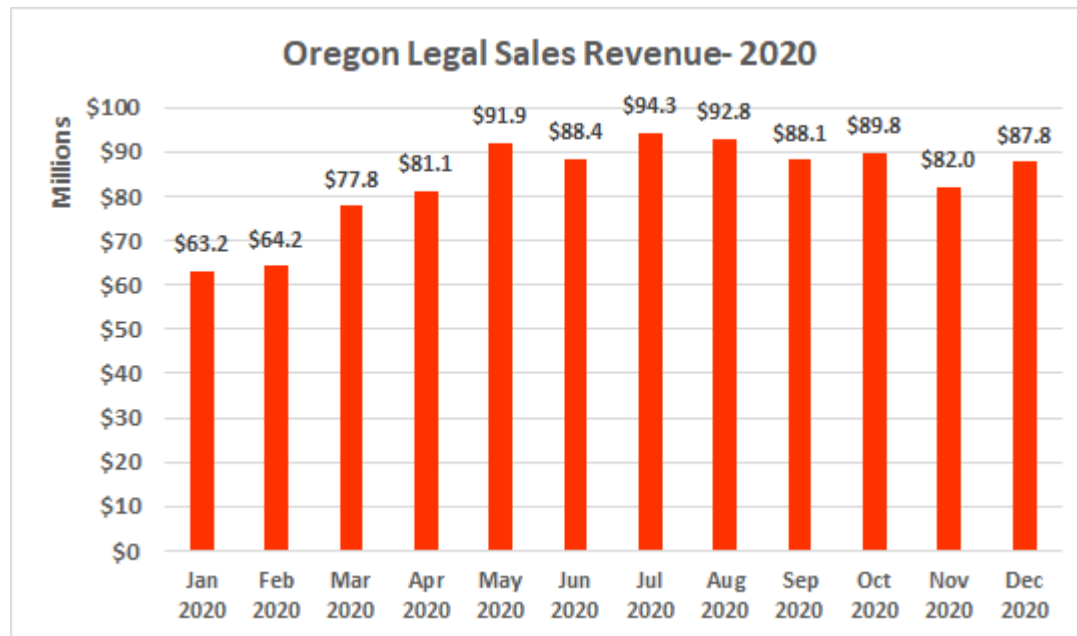


Source: Whitney Economics

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Oregon Demand Surpassed \$1B

- Oregon legal sales of cannabis were in excess of \$1 billion.
 - The average retailer generated \$1.4 million in sales in 2020 (\$116K/month) and generated \$266k in sales tax revenue.
 - The average retailer in Oregon will pay nearly \$150,000 in federal business taxes and is roughly \$15k behind in state sale tax payments.
- Although there was record sales and tax revenues, the retail industry is under duress.

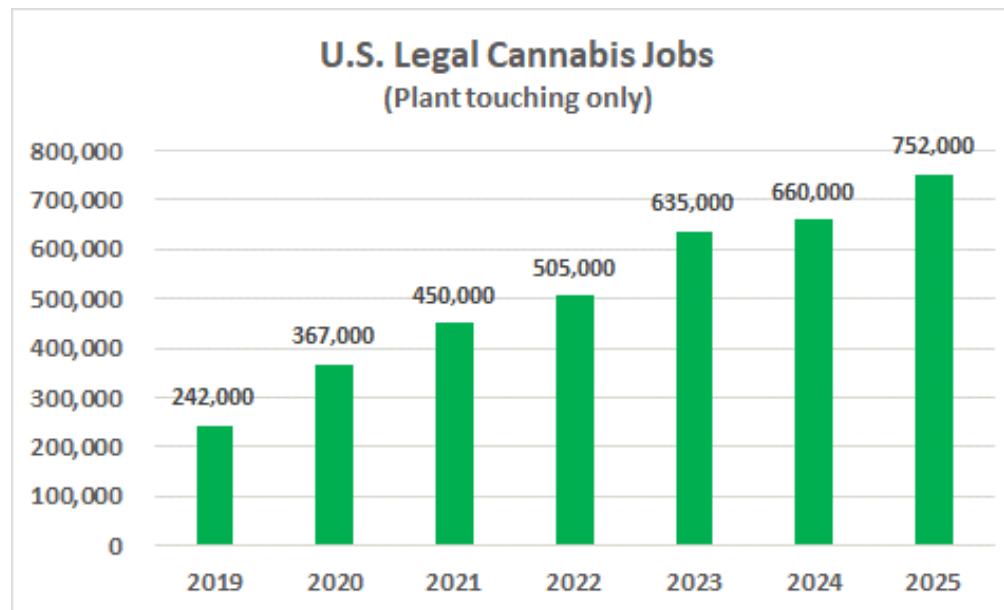


Source: Oregon Liquor Control Commission

Cannabis is a Jobs Creator

- **Cannabis is a jobs creator**

- Currently 375k – 400k legal cannabis plant touching jobs in the U.S.
- 1.5 million potential jobs under full legalization.
- There are approximately 28k cannabis jobs in Oregon.
- More and more states are looking at cannabis for economic development and job creation, particularly post Covid.



Source: Whitney Economics

Oregon Cannabis Employment

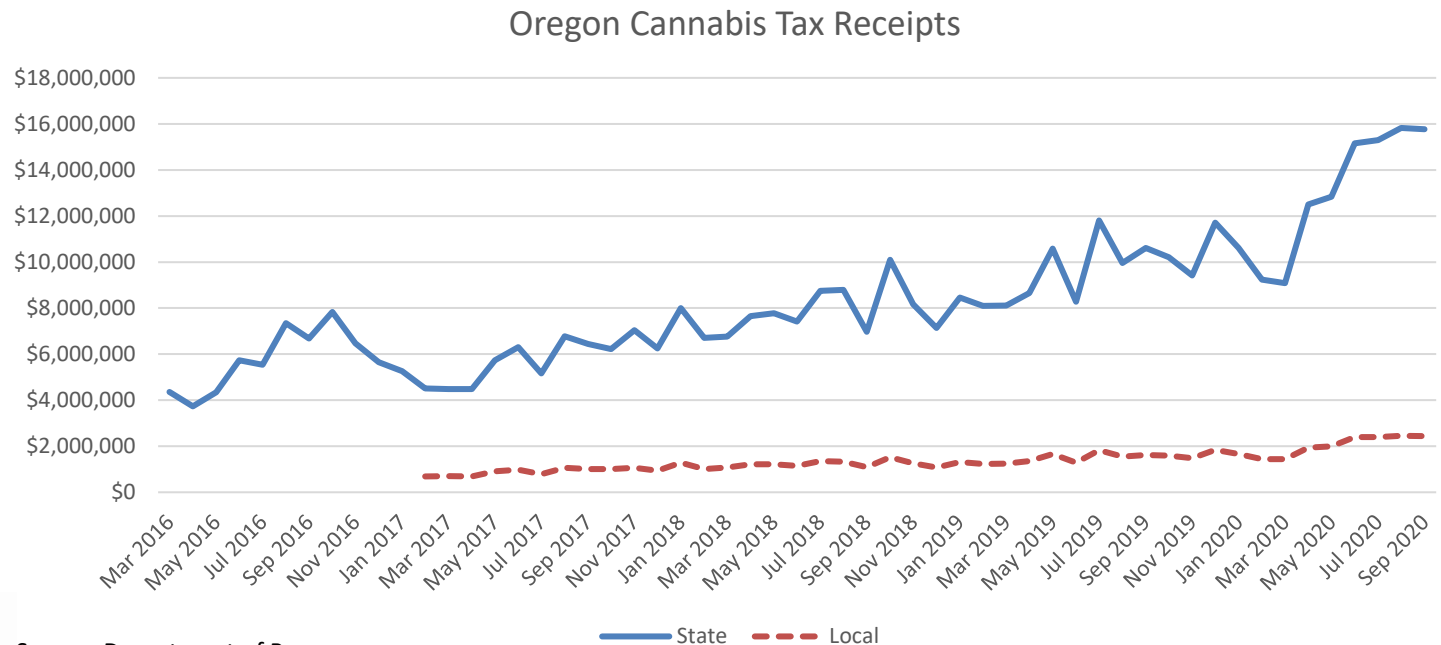
Oregon cannabis is offering employment opportunities, particularly for those displaced by covid. However, recent increase in robberies have created a public safety issue.

- Job creation is a function of tax burden, regulatory structure and compliance requirements.
- Total Jobs in Cannabis jobs in Oregon
 - FTE 21,850 - 24,300 jobs
 - PTE 4,500
- Average annual labor based on recent survey (Over 10% of all Oregon licenses)
 - FTE \$553k
 - PTE \$57.5k
- Total wages assuming 40 hours/wk FTE
 - \$850 million - \$900 million
- BIPOC ownership estimated to be 22% (based on survey)
 - BIPOC employment 26%
- Female ownership estimated to be 34%
 - Female employment 46%

Source: Whitney Economics

Cannabis is an Alternative Source of Tax Revenue

- **Cannabis is a tax generator, but not a deficit solver**
 - Cannabis consumers are extremely price sensitive. If taxes are too high, then consumers will remain in the illicit market.
 - Current legal states collected over \$2 billion in 2020, \$6.6 billion cumulatively.
 - Oregon will have collected \$185 million in 2020.
 - Typically cannabis tax revenues represent 0.5% - 1.0% of total state budgets.



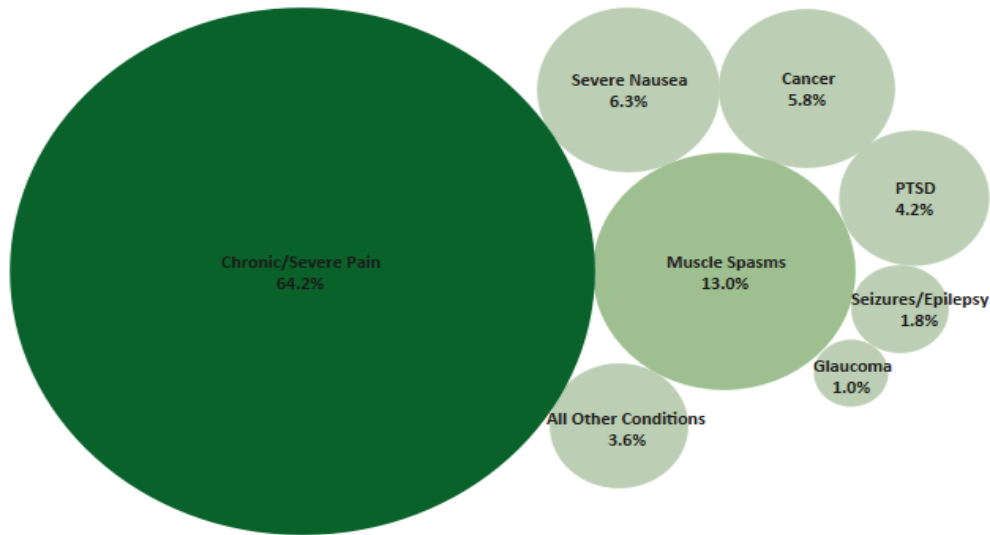
Source: Department of Revenue

— State - - - Local

Cannabis has both positive and negative impacts

Chart of the Week Marijuana Business Daily

Medical Marijuana Patient Breakdown By Qualifying Medical Condition



Note: Similar qualifying medical conditions have been grouped together for reporting purposes
Source: Nevada, Arizona, New Mexico, Minnesota, New Jersey, Montana, Colorado and Oregon state MMJ programs
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- **Concerns exist over prolonged usage, increased psychosis and impact on youth brain development.**
- Further medical studies required, requested by medical community

• **Reduced Health Care Expenditures**

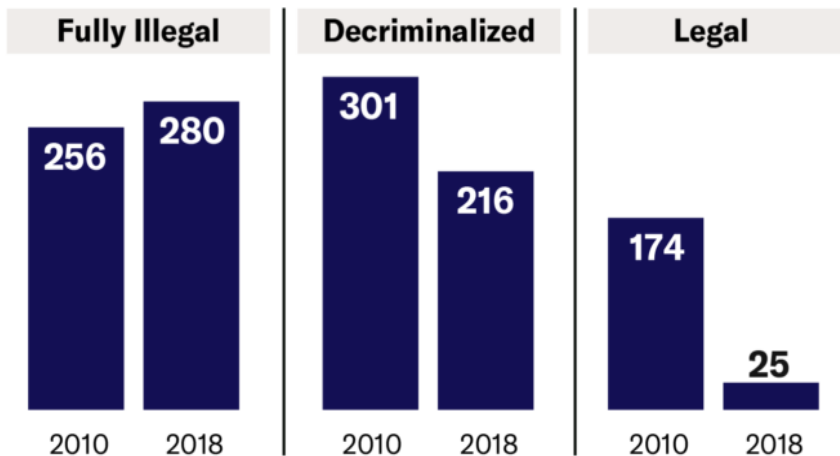
- States who have deployed cannabis regulatory programs have seen a decrease in health care expenditures, particularly for pain medications.
- Most common reason for usage: Pain management, anxiety.
- NIH Study indicates in states with medical access, opioid prescriptions reduced by 11%, opioid related deaths reduced by 27%.

Criminal Justice Remains an Issue

- Cannabis has allowed law enforcement to reprioritize resources, however racial disparities remain.

MARIJUANA POSSESSION ARREST RATES PER 100K PEOPLE BY LEGAL STATUS (2010 - 2018)

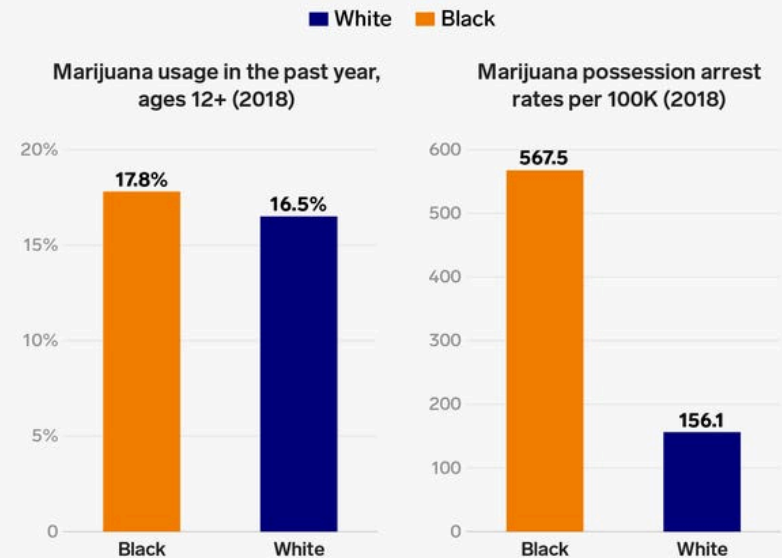
(2010 - 2018)



Source: FBI/Uniform Crime Reporting Program Data and U.S. Census Data

Note: Legal status is current through 2017, the time period of data available for study.

Marijuana usage vs. possession arrests, by race



Sources: SAMHSA; US Department of Health and Human Services; FBI/Uniform Crime Reporting Program; US Census

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Key Regulatory Issues

- **The Oregon cannabis industry influenced more now by federal regulations than state regulations**
 - Taxation, banking and interstate commerce are the most influential policies at the federal level.
- **Policy regulators in Oregon need to be focused on cost benefits vs. control**
 - Tax and compliance costs can price consumers and operators out of the market. The illicit market remains robust.
 - Policy makers must start preparing for the inevitable federal legalization.
- **Oregon is a mature market.**
 - Most regulatory changes are more about refining the system incrementally.
 - Any increase in regulatory demand in one area must be balanced with relief in other areas. (Ex. METRIC, Test batch size to offset enhanced testing).
- **Continued diligence on public safety is required**
 - Testing, labeling, advertising and access.
- **Need to support the medical community (Patients, veterans, insurance)**

Closing Thoughts

- Deploying a regulatory structure takes time and is an iterative process. Balancing public safety with industry growth is tough.
- Nationally support is at historic highs, but states are at different levels of maturity.
- Consumers remain cost conscious. Over taxation or regulation will result slower participation in legal markets.
- Oregon is a mature market requiring incremental reform versus significant change.
- Changes come at a cost and must be balanced with other items.
- Plan ahead. Consider the impact of full federal legalization now.
- This is an international market. Think global, act local.

Contact

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About Whitney Economics

Beau Whitney, Cannabis Operations and Supply Chain Expert

Beau Whitney is the founder and Chief Economist at Whitney Economics, a global leader in cannabis and hemp business consulting and economic research.

Serving an international clientele, Beau is considered one of the leading cannabis economists in the U.S. and globally. His applications of economic principles to create actionable operational and policy recommendations have been recognized by governments, and throughout the economic, investment, business communities.

Beau has provided policy recommendations at the state, national and international levels and is considered an authority on cannabis economics and the supply chain.

Additional Information

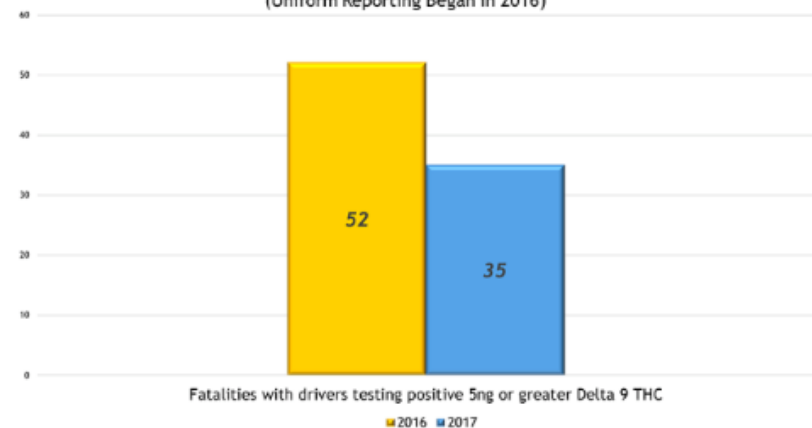
Public safety issues are the highest concern of both regulators and the general public.

- **Traffic Fatalities** – The data is mixed on this.
 - There is limited data on this topic. More research is required.
 - Key issue is how to define causality, impairment
 - JAMA studies show initial spike in fatalities post legalization followed by a return to the mean
 - Other studies show increased driving while impaired.

Marijuana and Traffic Fatalities in Colorado



Cannabis-Involved Fatalities in Colorado
(Uniform Reporting Began in 2016)



Source CDOT

Drugged Driving is a Legitimate Concern

- Regardless of the data, driving under the influence is still dangerous but can be addressed with education, particularly immediately after legalization.

Americans age 16+ report driving under the influence during the last 12 months*

 = 1 million people

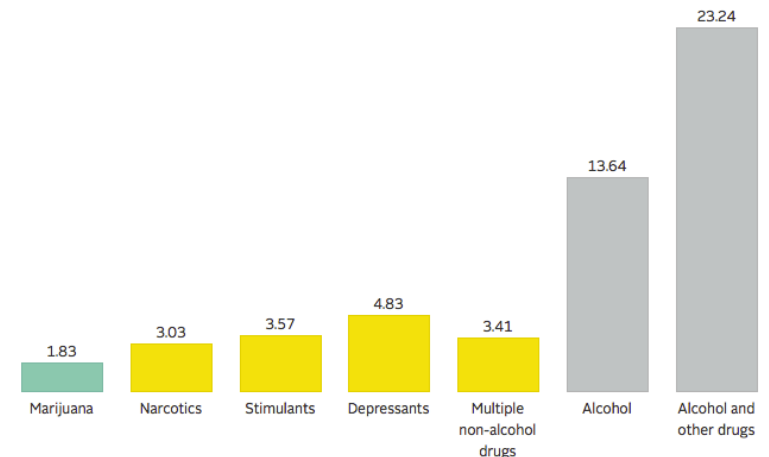


* 2018 † cocaine, hallucinogens, heroin, inhalants, methamphetamine

http://bit.ly/MMWR_DUI

MMWR cdc.gov

Multiplied risk of a fatal traffic accident while under the influence



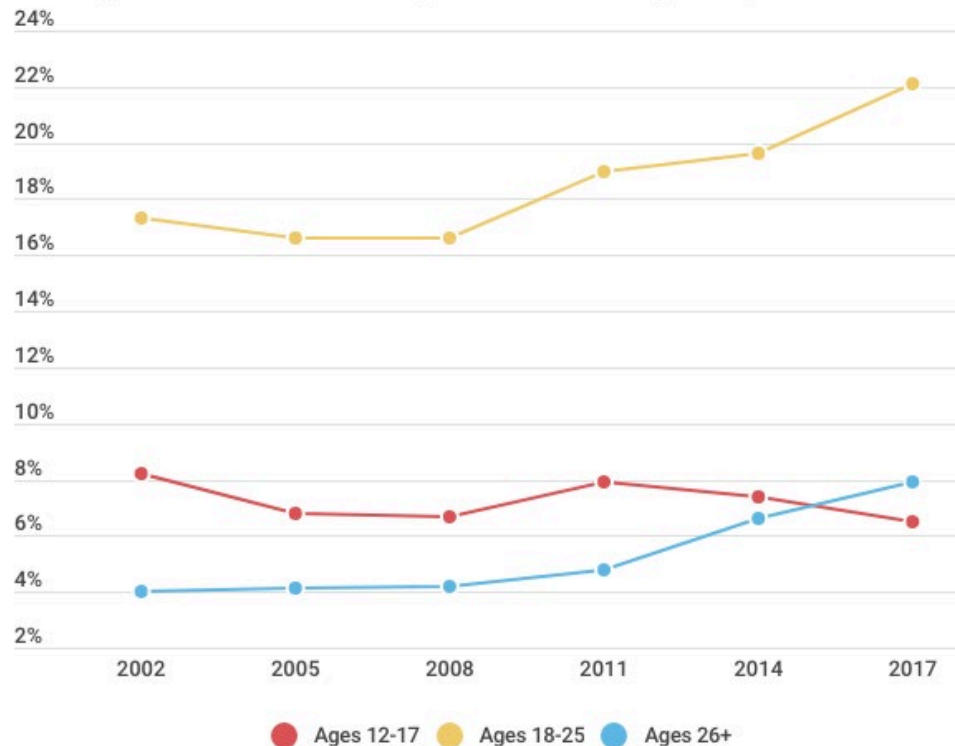
Source: Columbia University study



Teen Usage

- Teen usage is on the decline based on SAMHSA (U.S. Department of Health and Human Services) Survey.

Marijuana use in the past month (U.S.)

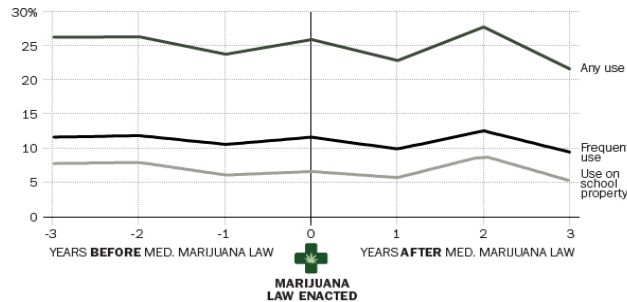


Teen Usage

- As more and more states legalize cannabis, teen use has seen a statically significant decrease in usage rates.
- Initial increases in usage rates drop below pre-legalization levels.
- Education is the key.

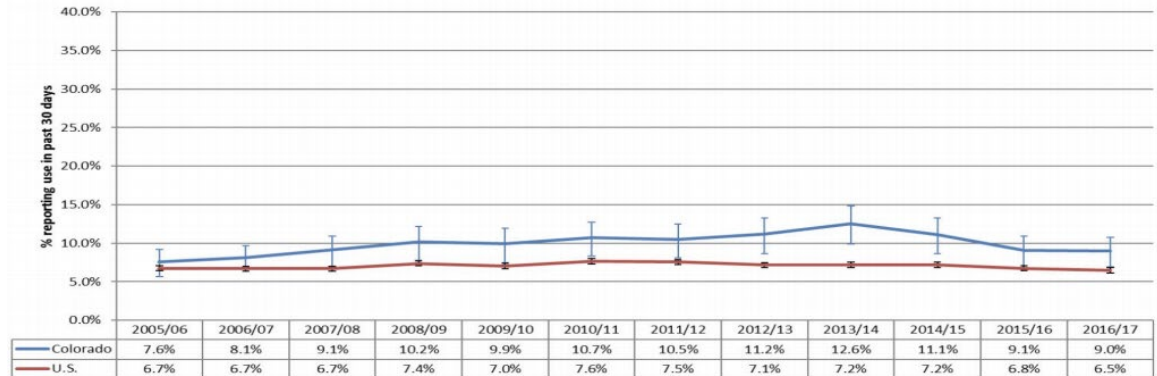
No change in teen use after passage of medical marijuana laws

Share of high school students using marijuana in the past 30 days, in states passing a medical marijuana law



WASHINGTONPOST.COM/WONKBLOG Source: Medical Marijuana Laws and Teen Marijuana Use

NSDUH: Past 30-day marijuana use, 12-17 years old, 2005/06-2016/17



Source: Substance Abuse and Mental Health Services Administration, National Survey on Drug Use and Health (2017).