

# Taxing Cannabis

**Delivered to the NCSL Task Force On State & Local Taxation  
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# About ITEP

## **The Institute on Taxation and Economic Policy (ITEP)**

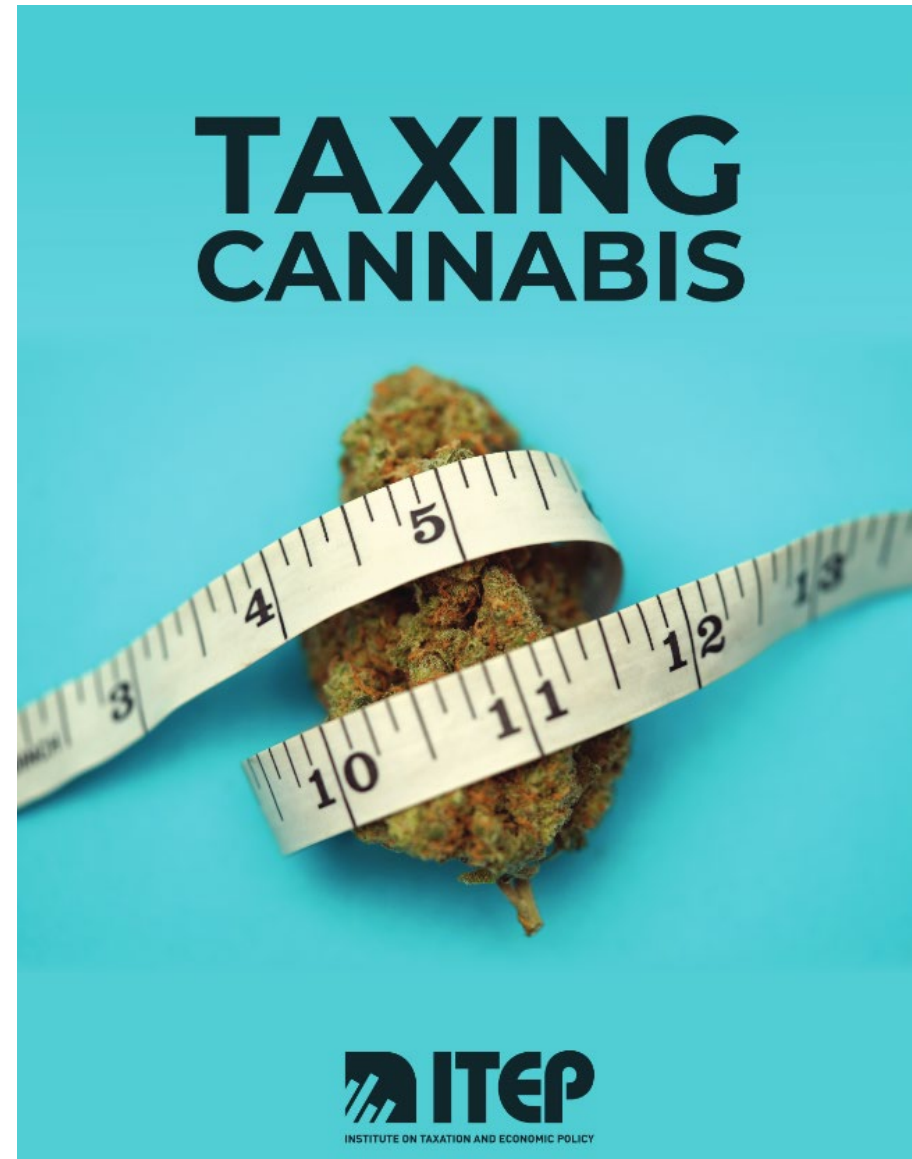
- Non-profit, non-partisan research organization
- Federal, state, and local tax policy issues

### **Mission:**

- Ensure elected officials, media, and general public have access to accurate, timely, and straightforward information that allows them to understand the effects of current and proposed tax policies with an emphasis on tax-incidence analysis.

# ITEP research published January 2019 takes a deep dive into cannabis taxation:

- Summarizes every state's cannabis tax structure, tax rates, and revenue earmarking practices.
- Examines every month of tax revenue data reported through January 2019. (Nearly five years of data in Colorado!)
- Summarizes state revenue totals and puts those revenues into context with comparisons to other excise taxes: alcohol and tobacco.
- Explores state revenue trends to offer guidance on the revenue trajectory states can expect if they opt to legalize and tax cannabis sales.
- Calculates the potential yield of cannabis taxes in all 50 states and the District of Columbia, using Washington State's actual experience as a guide.
- Offers recommendations for achieving sustainable cannabis tax revenues over time.
- Available online at: [www.itep.org/taxing-cannabis/](http://www.itep.org/taxing-cannabis/)



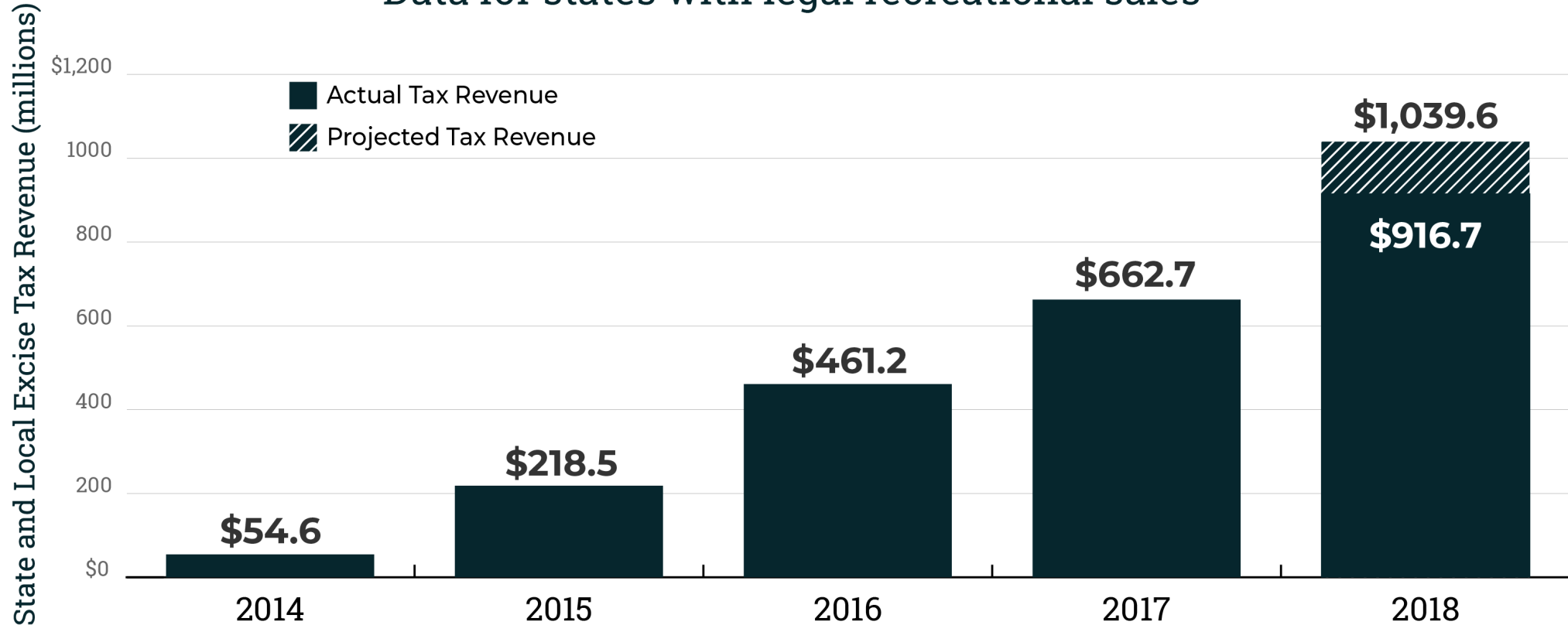
# What I'll be talking about today:

- Background on revenue performance and trends, as well as state tax structures.
- Tax structure debate: Taxing the price vs. weight of cannabis sold
  - Plus, what lies ahead for cannabis prices?
- Explaining the California experience
- Policy recommendations for states

Figure 5

## Cannabis Excise Tax Revenues Expected to Surpass \$1 Billion in 2018

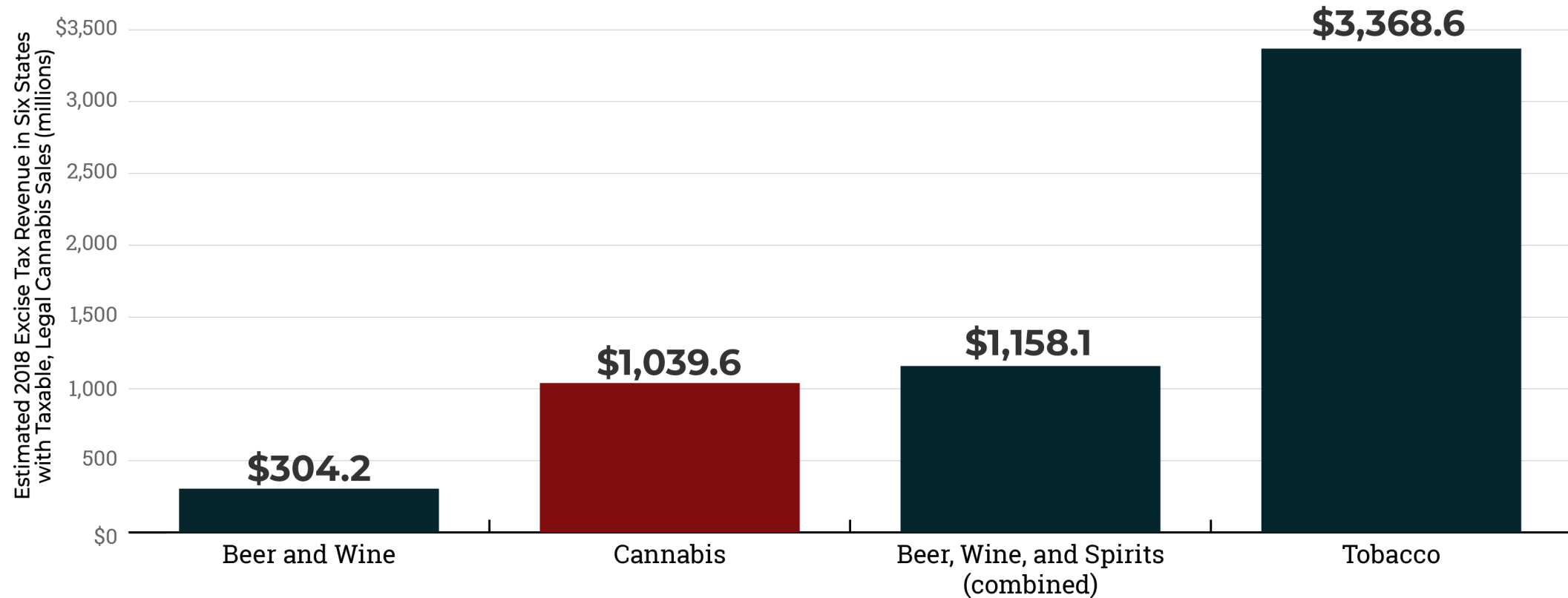
Data for states with legal recreational sales



Source: ITEP analysis of state revenue data in six states with legal sales of recreational cannabis (Alaska, California, Colorado, Nevada, Oregon, and Washington). Sales in Massachusetts began in November 2018 but the state is not yet reporting tax data. Data are reported for calendar years. Figure does not include revenue raised through general sales taxes, gross receipts taxes, license fees, income taxes, or other levies. Revenue projections generally assume that collections for the remainder of 2018 continue at the level reported in the most recent month for which data are available.

Figure 6

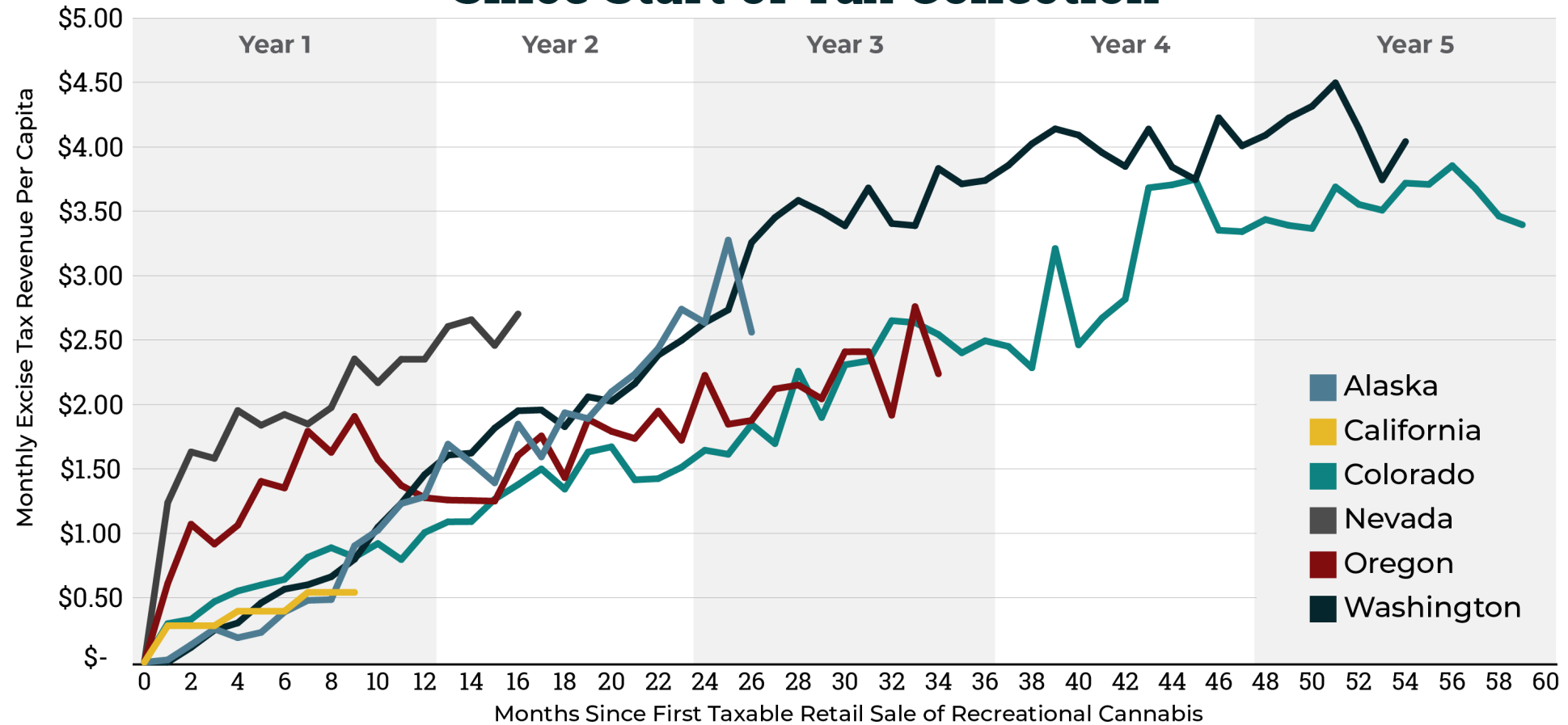
## Excise Tax Revenue from Cannabis Rivals Alcohol Revenue in States with Legal Retail Sales of Cannabis



Source: ITEP analysis of state revenue data in six states with legal sales of recreational cannabis (Alaska, California, Colorado, Nevada, Oregon, and Washington). Sales in Massachusetts began in November 2018 but the state is not yet reporting tax data. Data are reported for calendar year 2018. Figure does not include revenue raised through general sales taxes, gross receipts taxes, license fees, or income taxes.

Figure 8

## Per Capita Cannabis Excise Tax Revenue By Month Since Start of Tax Collection

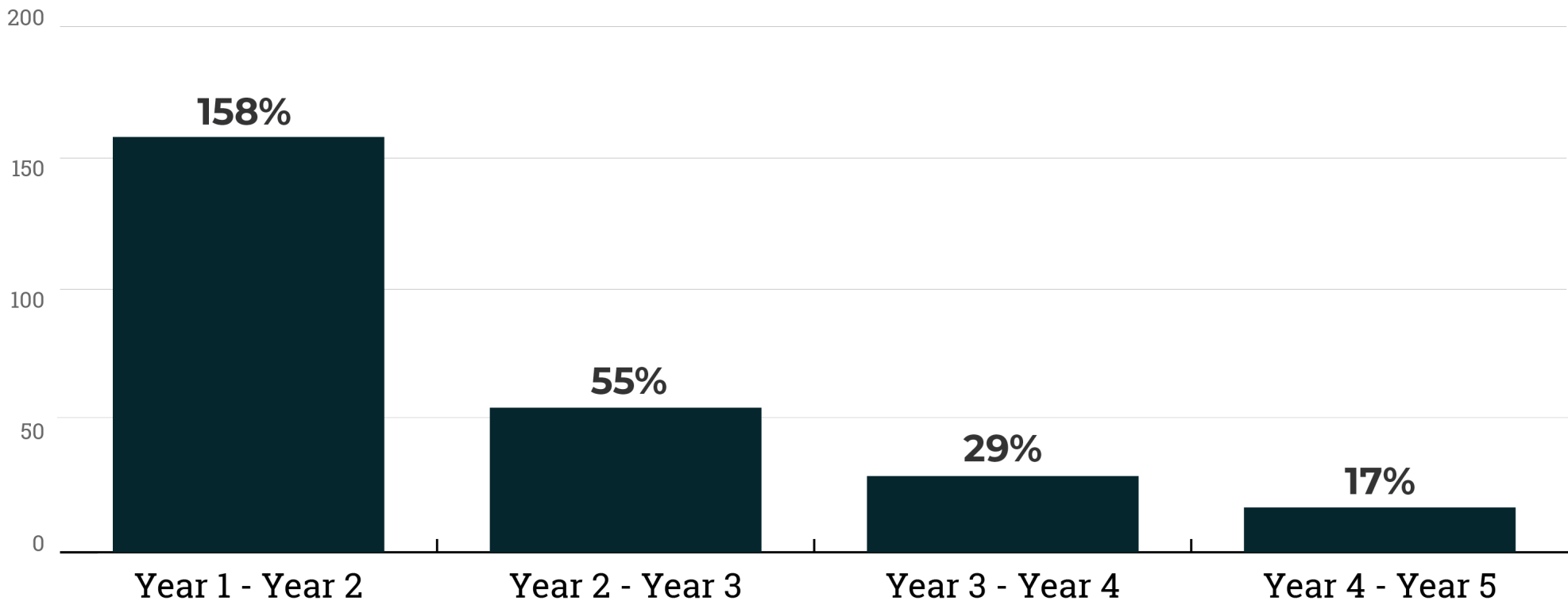


Source: ITEP analysis of state revenue reports and U.S. Census population data. Revenue data include state and local excise taxes applying exclusively to cannabis. Excludes state and local general sales taxes, gross receipts taxes, license fees, income taxes, and other levies. Most of the data in this table are reported monthly, with California's quarterly reports being the only exception.

Figure 9

# Average Annual Growth Rate for Cannabis Excise Tax Revenue

Revenue Collections Tend to Grow Fastest in Early Years as Legal Market Becomes Established

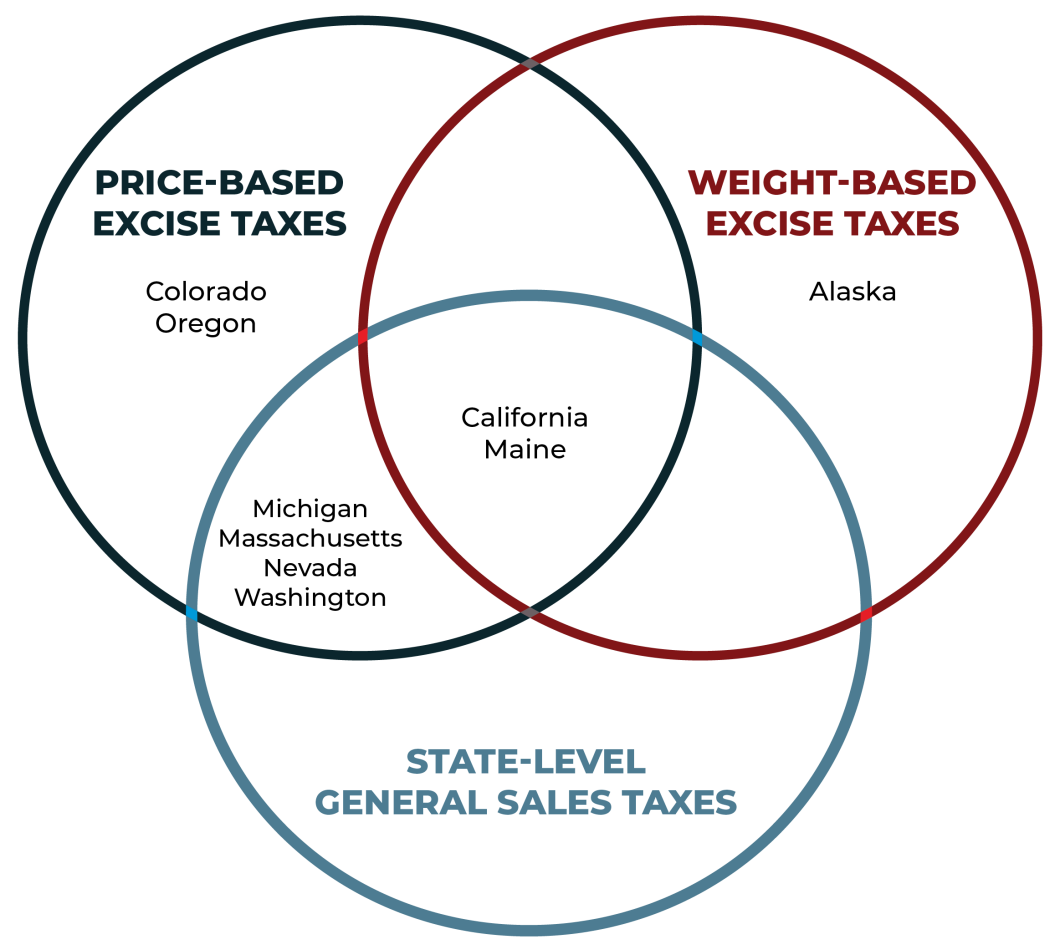


Source: ITEP analysis of state excise tax revenue data. Data represent unweighted averages across states for which sufficient data are available to determine annual growth rates. Year 1-2 growth rate is an average of growth rates in Alaska, Colorado, Oregon, and Washington. Year 2-3 includes Colorado, Oregon, and Washington. Year 3-4 includes Colorado and Washington. Year 4-5 includes only Colorado.



Figure 2

# State-Level Tax Structures Applying to Recreational Cannabis



Source: ITEP analysis of information reported by state revenue offices. Note that legal sales have yet to begin in Maine and Michigan. Note also that while Colorado and Nevada's excise taxes are based mostly on price, the administration of these taxes involves a weight-based component since the weight being sold is multiplied by a statewide average price to calculate the base against which the tax is applied.

# Advantages of Price Taxes and Weight Taxes

## Price-Based

- Slightly higher rates on more potent products and/or premium products.
- No need for inflation indexing.
- Familiar structure as consumers and lawmakers are accustomed to price-based general sales taxes.
- Certain administrative advantages.

## Weight-Based

- Immune to revenue erosion from dramatic price cuts that are underway and sure to continue.
- No tax cut for people buying in bulk, or employees receiving discounts.
- Familiar structure as it's consistent with how excise taxes are typically levied (tobacco, alcohol, and motor fuel).
- Certain administrative advantages.

# Price-based taxes are not especially good at taxing more potent cannabis at higher rates

Significant increases in potency lead to only small increases in price.

If a gram of cannabis at 10% potency (THC) costs \$7.00...

Then a gram of 15% potency is expected to cost between \$7.75 and \$7.94.

Tax charged rises only slightly despite a 50% increase in potency.

*Research by Caroline Weber (University of Washington) and Ben Hansen and Keaton Miller (University of Oregon), shared by Pat Oglesby at the Center for New Revenue.*

# Tax Administration of Price and Weight Taxes

## **Advantages of weight-based taxes:**

- For distributor-level taxes, it's much easier to figure out weight as opposed to price of product transferred within a vertically integrated firm.
- No need to write rules preventing bundling.

## **Advantages of price-based taxes:**

- No need to establish and enforce product categories (bud, trim, abnormal bud, etc.).

## **Advantages of distributor-level taxes generally:**

- Fewer collection points and fewer entities to audit.
- Establishes a record of product earlier in the process, lessening diversion.

Something to keep in mind: 5 out of 9 states with legal recreational sales administer their taxes using a weight-based method (AK, CA, and ME have true weight taxes, while CO and NV partly administer price-based taxes using weight-based methods)

# Other major excise taxes always include a quantity-based component

- 50 out of 50 states tax cigarettes per pack
- 50 out of 50 states tax motor fuel per gallon
- 50 out of 50 states tax beer per gallon
- 47 out of 47 states tax wine per gallon
  - Three states sell wine through state stores instead of taxing private sales
- 33 out of 33 states tax liquor per gallon
  - 17 states sell through state stores instead of taxing private sales
- Sometimes these states add price-based taxes on top of their quantity-based taxes. But quantity-based tax rates form the foundation of their excise tax systems.



# Advantages of Price Taxes and Weight Taxes

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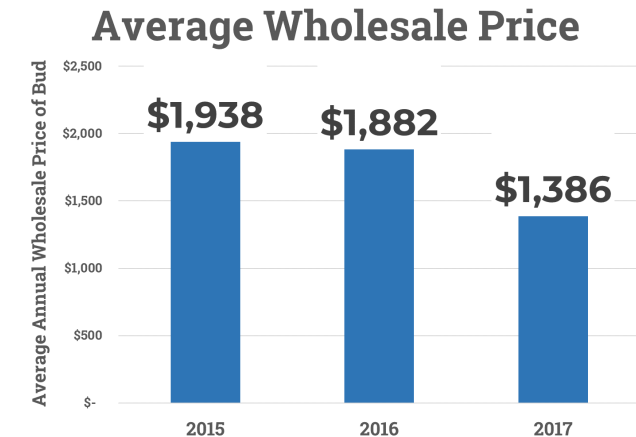
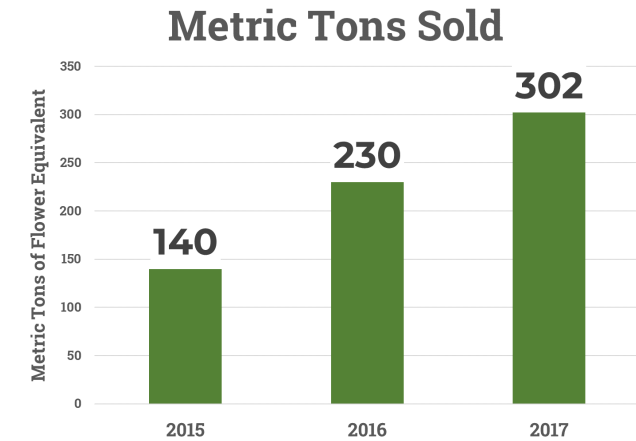
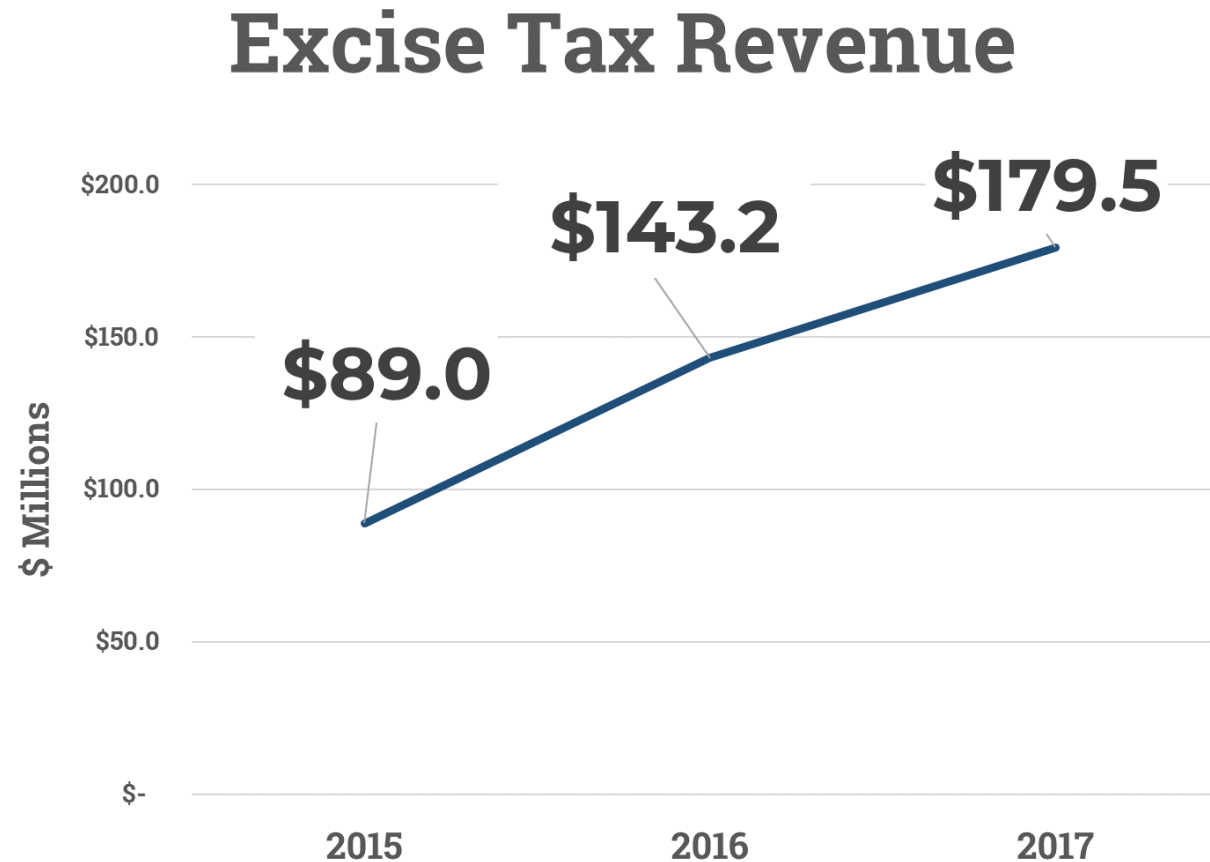
## Weight-Based

- Immune to revenue erosion from dramatic price cuts that are underway and sure to continue
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# Prices will collapse. Here's why.

1. Business efficiency will improve with experience
2. More businesses will open, improving competition
3. Consumer preferences are shifting toward oils and concentrates, which lend themselves to larger, cheaper growing operations
4. Federal restrictions adding to cost are likely to be loosened over time:
  - Banking access will improve
  - Cannabis industry will receive tax deductions for more of their routine expenses
  - Interstate movement of product will be allowed
5. State restrictions adding to cost are likely to be loosened over time:
  - Licensing rules (How many stores? What types of stores? And where?)

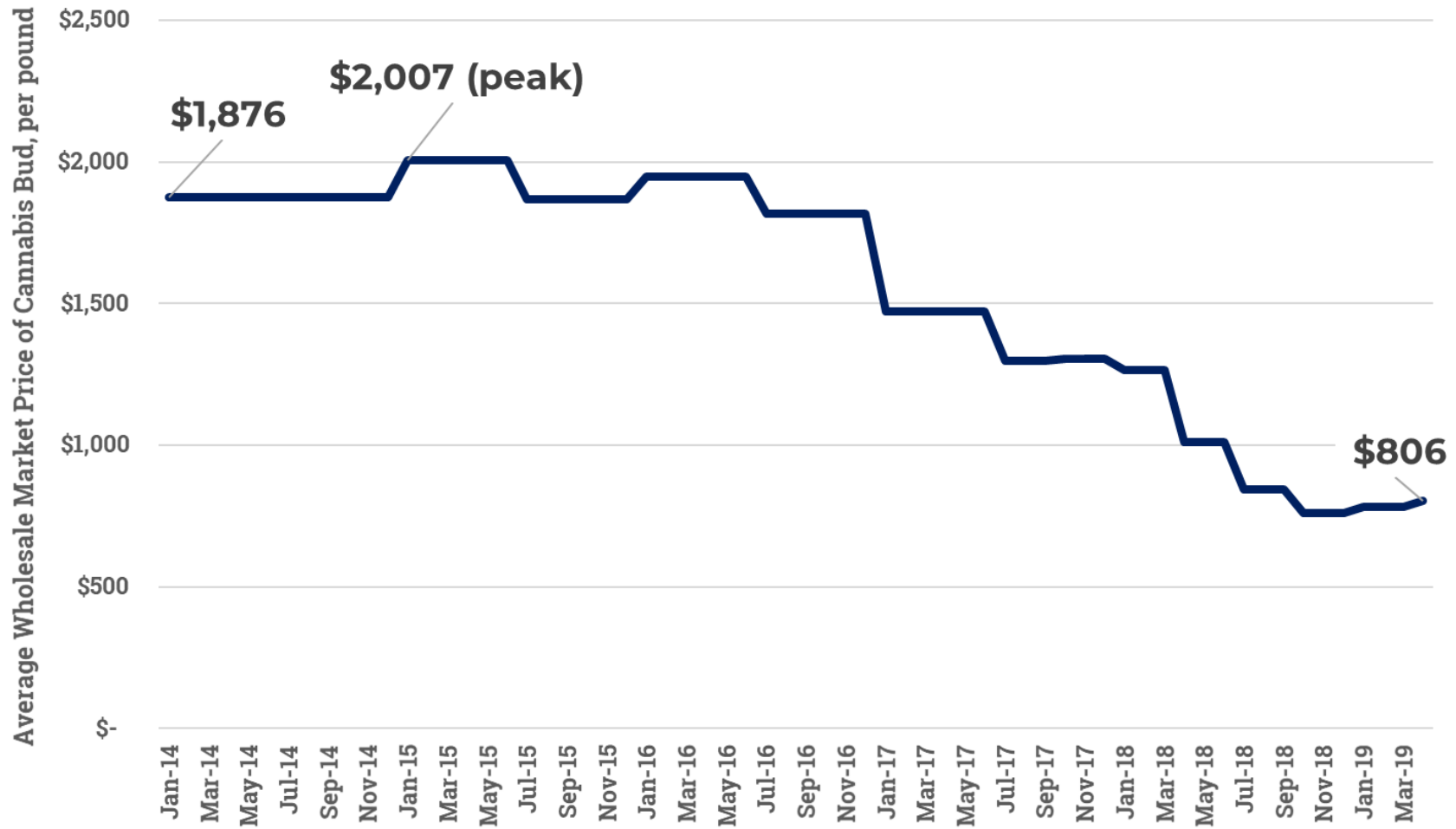
# Cannabis Tax Revenue Growth in Colorado Masks Major Market Changes: Increases in Quantity Sold, but Decreases in Price (and Tax Dollars) Per Unit Sold



Source: Institute on Taxation and Economic Policy (ITEP) compilation of data from the Colorado Department of Revenue, Marijuana Policy Group, and University of Colorado Boulder, Leeds School of Business. Excise tax revenue for 2017 shown here is lower than reported, as ITEP adjusted these data downward to achieve a consistent time series that controls for the fact that Colorado increased its excise tax rate in July 2017.



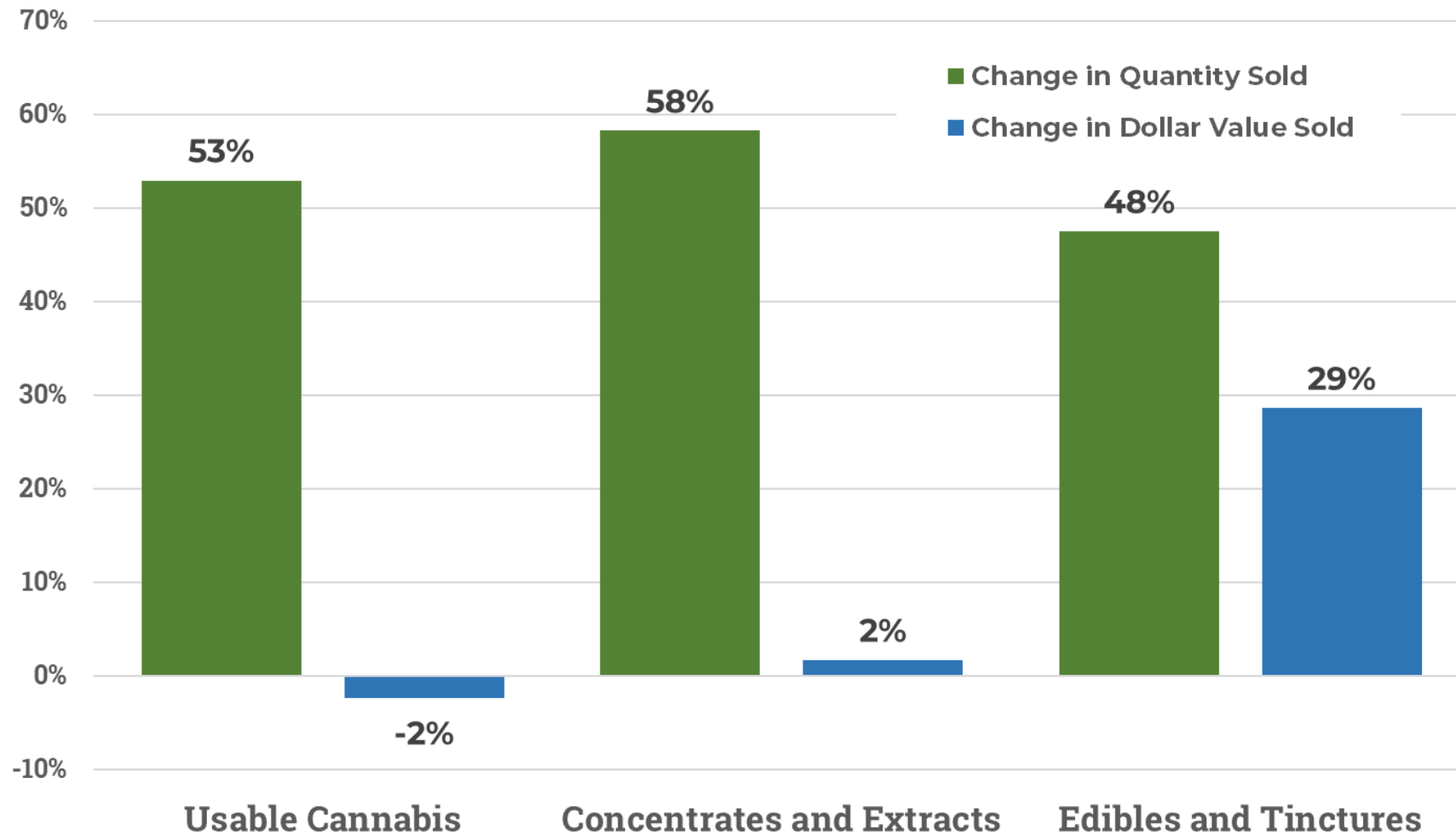
## Wholesale Cannabis Prices in Colorado Since Legalization of Recreational Sales



Source: Colorado Department of Revenue

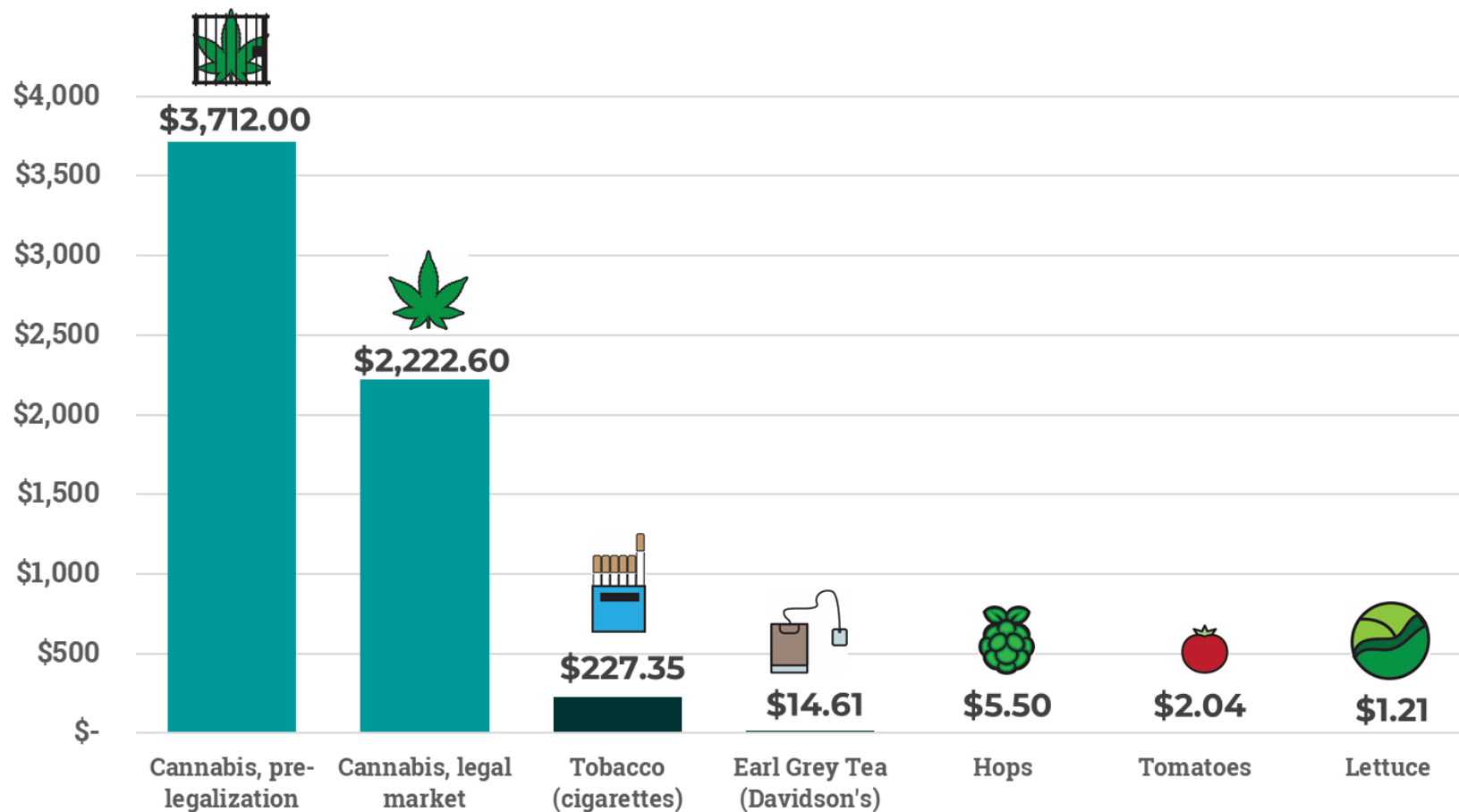
# Quantity of Cannabis Sold in Oregon is Surging, but the Dollar Value of those Sales Hasn't Kept Pace

Comparing February 2018 to February 2019



Source: Institute on Taxation and Economic Policy (ITEP) review of information compiled by the Oregon Liquor Control Commission.

## Price Per Pound of Various Agricultural Products in Washington State



Institute on Taxation and Economic Policy (ITEP). Cannabis consumers in Washington State are limited to buying one ounce per day. To calculate the hypothetical retail price that consumers would eventually pay for a full pound, ITEP scaled up Headset's March 2019 estimate that a gram of retail cannabis costs \$4.90. The pre-legalization price in this chart comes from PriceOfWeed.com, which reported a July 2014 average price of \$232 per ounce.

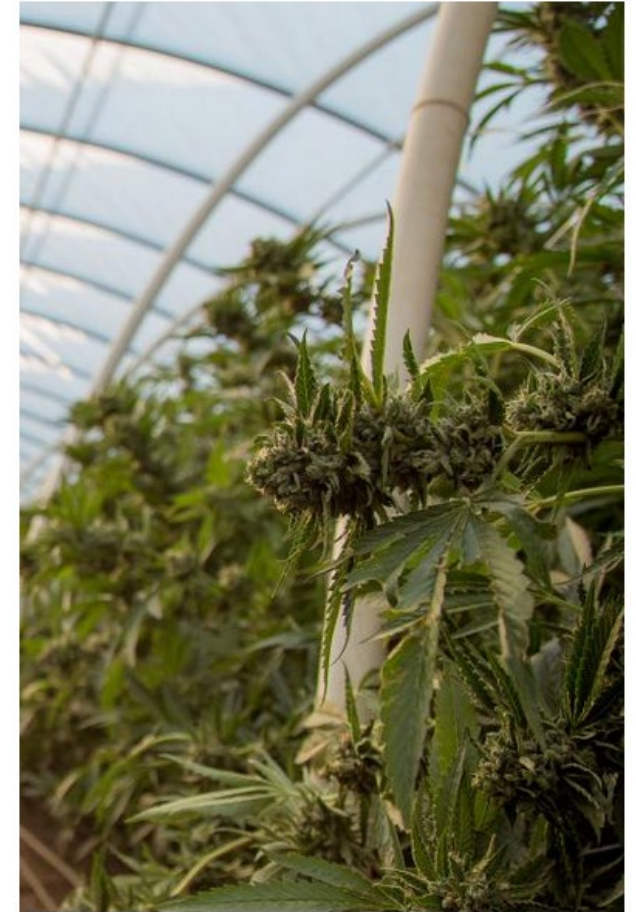
# Regulations aside, how much could it really cost to grow cannabis?

Consider the following:

- Tomatoes cost \$10,000 per acre to grow
- Cannabis and tomatoes require comparable amounts of effort to grow and harvest.
- Cannabis yields 1,000 pounds per acre, or more.
- Therefore, 1,000 pounds of cannabis could theoretically be grown for just \$10,000. The result would be:

**\$10/lb cannabis**

*Thanks to Jonathan Caulkins, professor at Carnegie Mellon University, for this example. Much deeper analysis available in: "Considering Marijuana Legalization" and "Marijuana Legalization: What Everyone Needs to Know."*





# Market is shifting toward cannabis extracts. This has long-run implications for prices.

A few datapoints:

- Colorado, share of cannabis sales (by weight) comprised of smokable plant material:
  - 2014 = 66.1%
  - 2017 = 54.1%
- Oregon, share of cannabis sales (by value) comprised of smokable plant material:
  - Feb 2017 = 70%
  - Feb 2019 = 52%



- The shift toward extracts will push the market toward larger, and ultimately cheaper, grow operations because these products require large amounts of biomass and it's less important that each plant be top-notch. Quantity > quality in the production process.
- Traditional smokable cannabis, by contrast, generally needs to be tended to more carefully to yield a high-quality final product fit to be sold as-is.

# The Mercury News

## California made \$345 million, not predicted \$1 billion, on legal cannabis in 2018

Industry supporters say high taxes, black market to blame.



But are taxes really to blame?

Effective tax rates on cannabis retail sales along the West Coast:

**46.32%**

**Washington State**  
(assuming average local rate)

**32.25%**

**California**  
(Orange County)

**20.00%**

**Oregon**  
(Portland)

*Cigarettes: 106% State & Local*

*109% State & Local*

*40% State & Local*

# What's actually happening in California?

- 1. Overpromised short-term revenue gain. A \$1 billion tax haul was unrealistic for Year #1.**
  - A temptation to avoid in the push for legalization.
- 2. There aren't enough legal stores open yet.**
  - Compare 620 retail stores in California vs. 562 stores in Colorado, which is one-sixth California's size
    - 80 percent of municipalities have banned brick and mortar stores. Home delivery may help meet demand there.
    - In many of the other municipalities, there's a backlog of people wanting to open stores. Slow approval processes.
- 3. The supply chain faces problems, which reduces product selection and drives up prices.**
  - Not enough legal growers. Backlog of 3,300 growers who want licenses but haven't received them.
  - Strict lab testing requirements are delaying product arrival.
- 4. California faces one of the most established black markets in the country.**
  - Prior to adult-use legalization: growers produced 15.5 million pounds; residents consumed 2.5 million.
- 5. Lax enforcement against illegal businesses.**
  - Head of CA Bureau of Cannabis Control admits state must "step up" and "get more aggressive"
  - Federal DEA spokesman says "We've got our hands full with the opioid epidemic to be honest"
  - NYTimes: "businesses that list themselves as churches and advertise marijuana as a kind of sacrament"

# ITEP's Recommendations to States:

1. Don't oversell the short-term revenue potential.
2. Base the tax at least partly on weight. Price-based taxes are fine add-ons but are unsustainable when taken on their own.
3. Weight-based tax rates should be indexed to inflation.
4. Don't allow fear of a persistent illicit market to lead to enactment of a permanently low rate of tax. Consider automatic, gradual phase-in of tax rates instead, so that taxes can be low as legal industry gets its footing but will rise as market matures and prices come down.
5. Earmarking of revenue should be done sparingly and should be limited to causes with a direct relation to cannabis.



# Read More:

[www.itep.org/taxing-cannabis/](http://www.itep.org/taxing-cannabis/)

