

Cannabis Forecasting in Washington State

Presented to
National Committee on State Legislatures

Steve Lerch
Executive Director

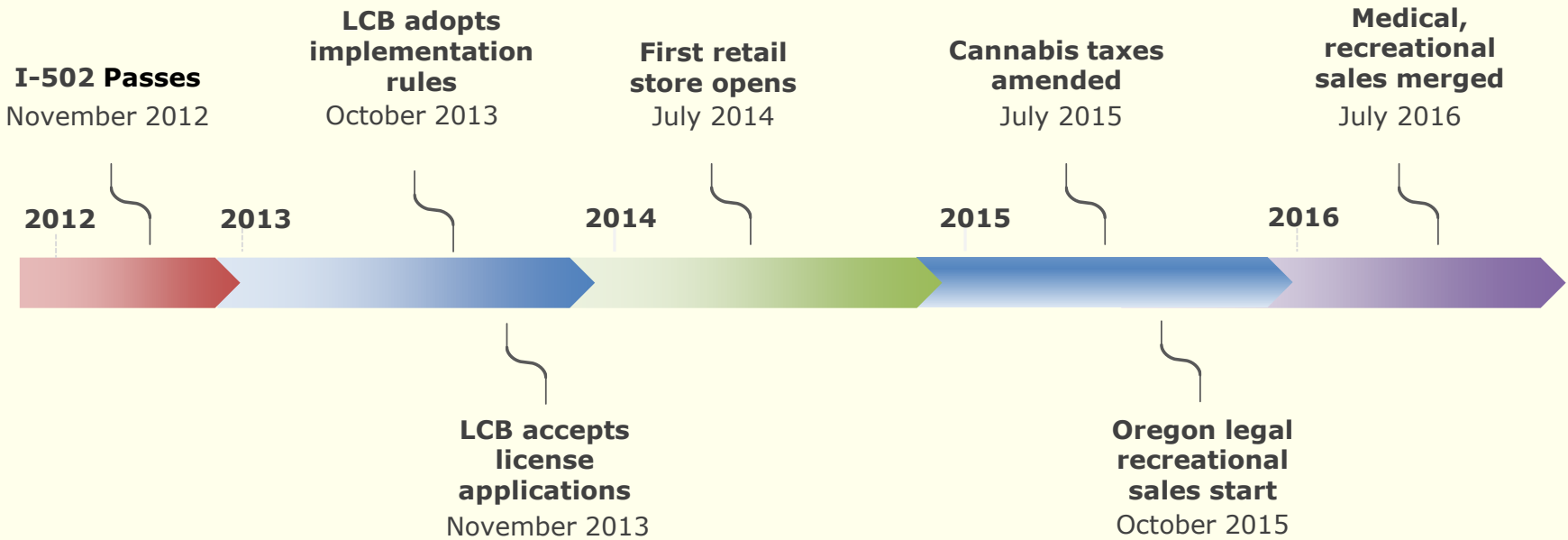
October 11, 2018
Portland, Oregon



**WASHINGTON STATE
ECONOMIC AND REVENUE FORECAST COUNCIL**



Timeline





Cannabis revenue forecasting challenges

- No historic data
- Changing market conditions:
 - Initial lack of supply
 - Growth in number of retail stores
 - Decline in price
 - Change in mix of cannabis products available
 - Changing structure of taxes (7/2015)
 - Legalization in Oregon (10/2015)
 - Combining recreational, medical sales (7/2016)
- Loss of detailed data after October 2017

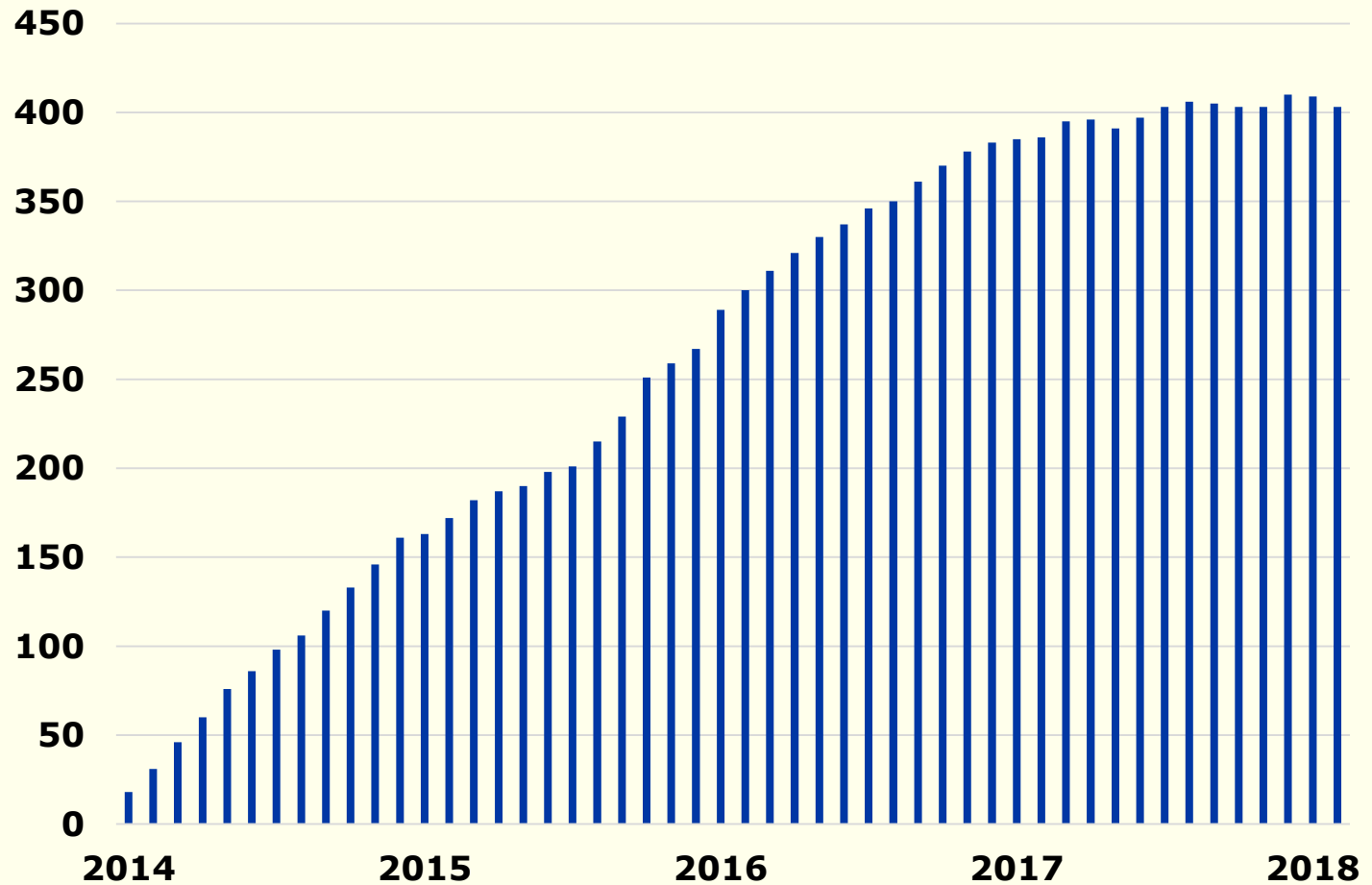


Initial small number of licensed growers led to lack of supply

- Only 3 producers (growers) licensed in June 2014
- Only 12 producers licensed in July 2014
- Many retail stores closed for days or weeks after initial opening due to lack of supply
- For 18 retail stores open in July 2014, monthly sales ranged from \$6,013 to \$356,786



The number of retail stores has increased from 18 to just over 400



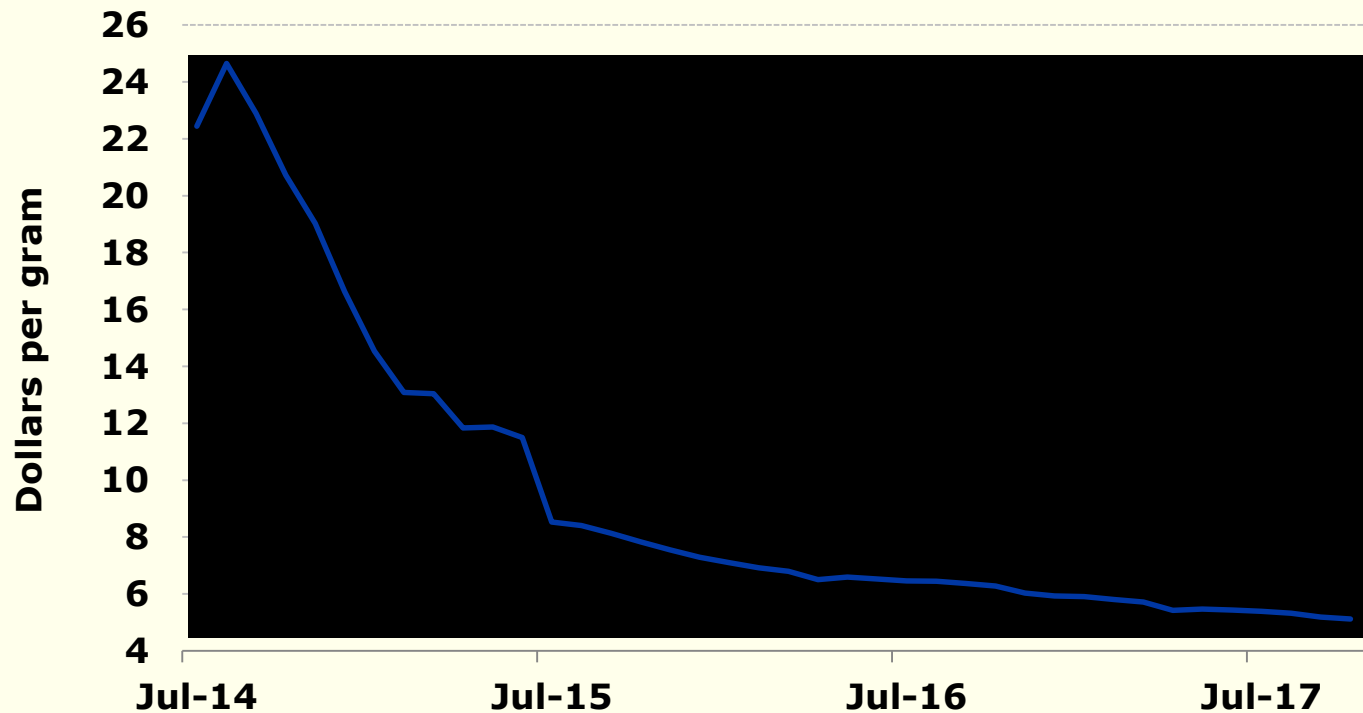
Source: WA Liquor and Cannabis Board, data through August 2018

WASHINGTON STATE ECONOMIC AND REVENUE FORECAST COUNCIL



The price of cannabis has fallen dramatically

Pre-tax Retail Price of Recreational Cannabis

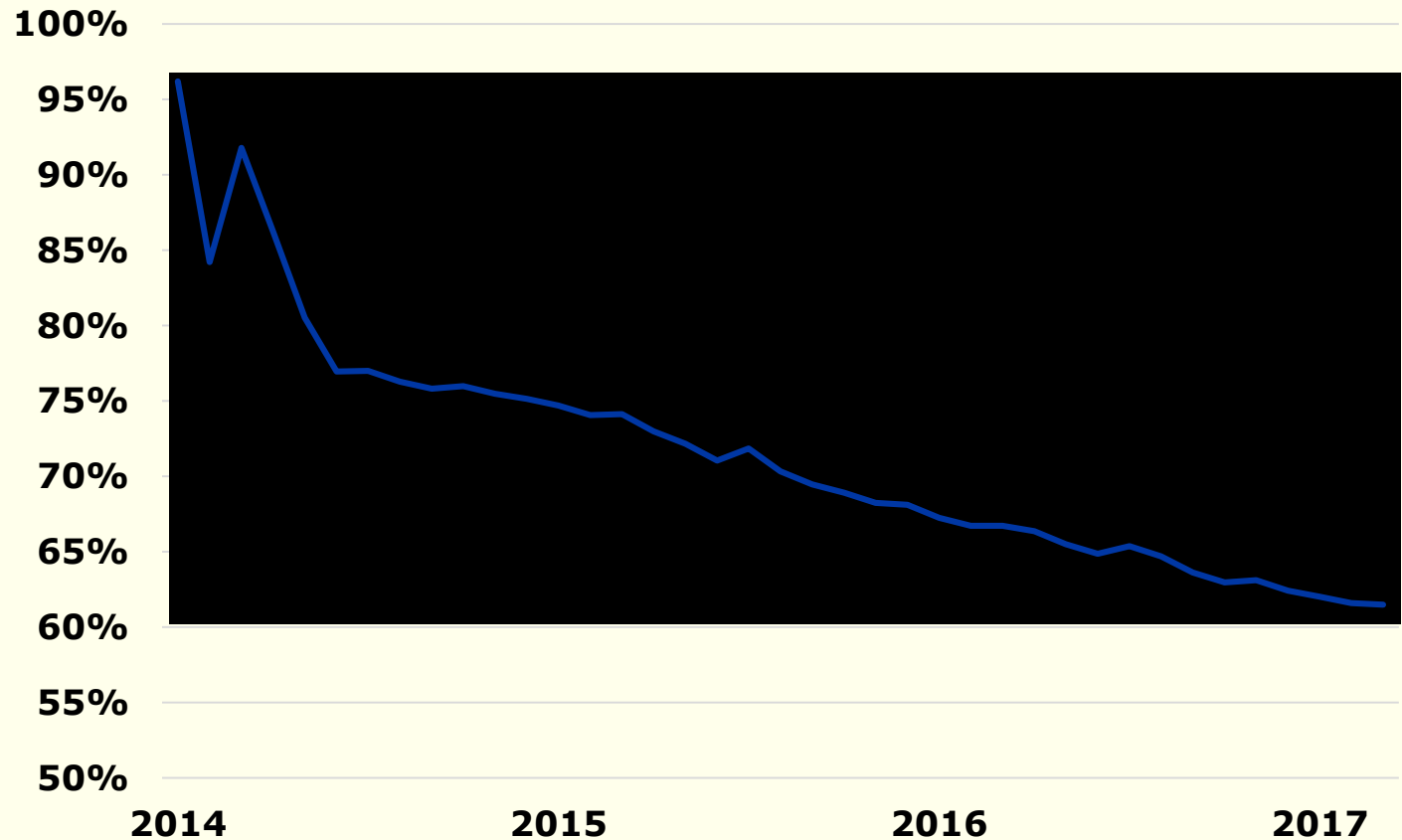


Source: WA LCB, ERFC; data through October 2017



Edibles and extracts have become a growing share of retail sales

“Usable” cannabis as percent retail sales



Source: WA LCB, ERFC; data through Sept. 2017



There are 2,472 infused products approved for sale in WA, such as:

- Zoots Premium Cannabis Infused Lemongrass Nuggets
- Baked Botanicals Marsh "Mellow" Buzzcotti
- Nana's Gluten-Free Raspberry-Almond Bars
- POW BHO Capsules
- Winterlife Spotted Skunk's Strawberry Jam Cookie
- Happy Trails Granola
- Tomato Basil Soup

Source: WA Liquor and Cannabis Board



Cannabis taxes 7/2014 to 7/2015

Cannabis businesses are also subject to WA gross receipts tax and retail sales are subject to state and local sales tax

- I-502 called for three tier tax system with taxes paid by cannabis businesses
 - 25% on sales by producers to processors or retailers
 - 25% tax on sales by processors to retailers
 - 25% tax on sales by retailers to consumers
- Cannabis businesses subject to Federal income taxes
 - Cannot treat expenses for illegal activities as deductible business expense
 - Result was that cannabis taxes treated as income for federal tax purposes



Cannabis taxes 7/2015 on

State and local sales taxes are imposed on value of sale before the 37% tax is imposed

- Three tier tax system eliminated
- Single 37% sales tax imposed on retail sales only
- Retail cannabis sales continue to be subject to state and local sales taxes
- Cannabis businesses continue to be subject to the state's gross receipts tax
- Because tax imposed on consumer, cannabis tax no longer "income" for Federal tax purposes

Washington State
October 11, 2018

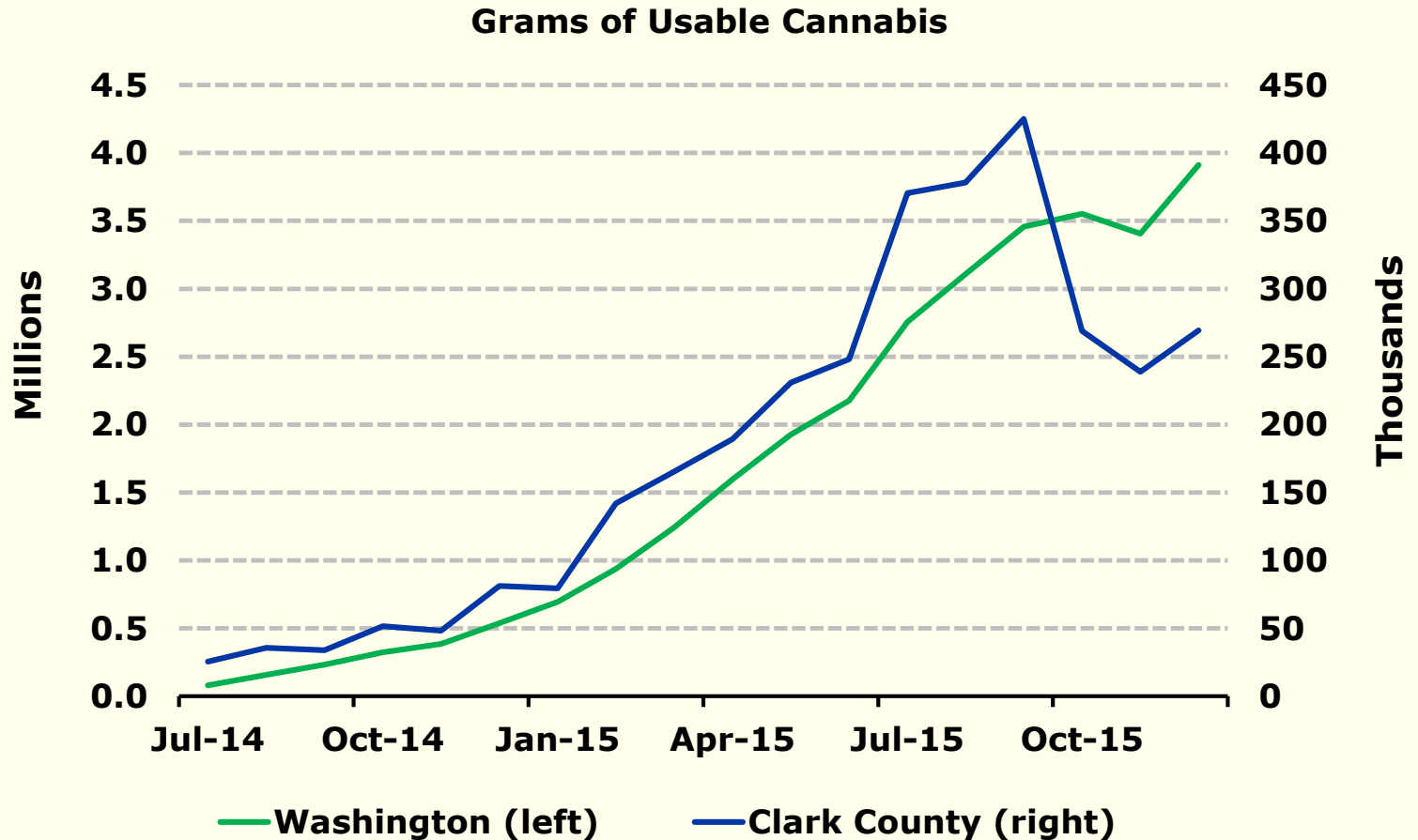
Slide 9



Oregon legalization may have affected Clark County but statewide sales continued to grow

Prior to legal retail sales in Oregon, Clark County accounted for 12.8% of total sales by quantity.

In December, Clark County accounted for 7.8% of total sales by quantity.



Source: WA LCB; data through December 2015



Starting point – analysis commissioned by Liquor and Cannabis Board

- Base case scenario assumptions:
 - total annual WA cannabis sales of 120 – 220 metric tons
 - Recreational retail market share = 13%
 - Medical marijuana share = 15%
 - Black market and home grow share = 72%
 - Production price = \$3/gram (pre-tax)
 - Retail price = \$10/gram (pre-tax)
- Adjusted market share to account for share of population with reasonable access to retail stores

Source: BOTEC Analysis Corporation, "How much revenue could the cannabis tax generate under different scenarios?," June 2013

WASHINGTON STATE ECONOMIC AND REVENUE FORECAST COUNCIL



Intermediate point – price and quantity trend analysis

- With several months of data, used trends in per gram price and in quantity sold to forecast price and quantity
- Since July 2015, forecast revenue = forecast price X forecast quantity X .37
- With loss of tracking/data system, forced to back into price and quantity from total sales
 - New tracking system expected to go live late this year

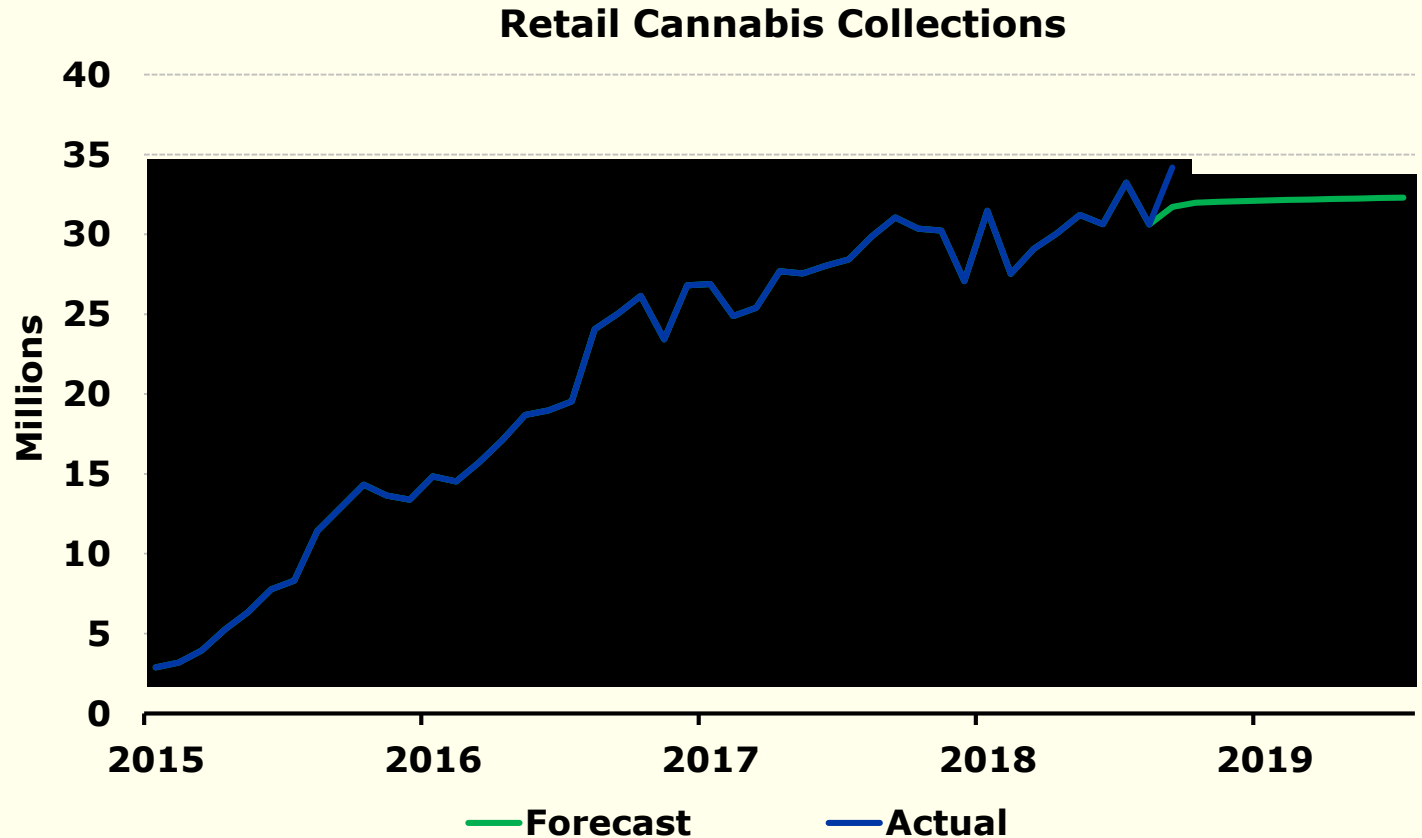


Cannabis forecast "model"

- Now: trend analysis
 - Assume growth in quantity sold will trend towards population growth rate
 - Requires black market share of sales reaches steady state
 - Assume growth in price will trend towards inflation rate
 - Requires price changes due to greater competition, productivity reach steady state
- Future: develop price and quantity models, estimate seasonal factors



The rapid growth in cannabis revenue is likely over



Washington State
October 11, 2018

Source: ERFC September 2018 forecast; historical data through September 2018

WASHINGTON STATE ECONOMIC AND REVENUE FORECAST COUNCIL



Distribution of cannabis revenues

Total, cannabis revenues 2017 – 19 biennium (\$ M)	\$748.8
LCB – administration	\$21.0
Substance abuse, mental health, community health centers	\$91.6
Cannabis education	\$19.5
UW/WSU research	\$0.7
Basic Health Plan/Medicaid	\$360.2
Dropout prevention	\$1.0
Other (drug enforcement, surveys, research, etc.)	\$7.3
General Fund	\$247.3

Washington State
October 11, 2018

Slide 15

Source: ERFC Sept. 2018 forecast, ESSB 6032 2017-19 supplemental operating budget

WASHINGTON STATE ECONOMIC AND REVENUE FORECAST COUNCIL



Cannabis excise tax and license fee estimates

Total change since June forecast:

- 2017-19
+\$0.1 M
- 2019-21
-\$0.2 M
- 2021-23
-\$4.0M

\$Millions

Cannabis Forecast

	<u>2017-19</u>	<u>2019-21</u>	<u>2021-23</u>
GF-S share of excise tax and license fees	\$247	\$268	\$317
Non-GF	\$501	\$530	\$530
Total	\$749	\$798	\$847

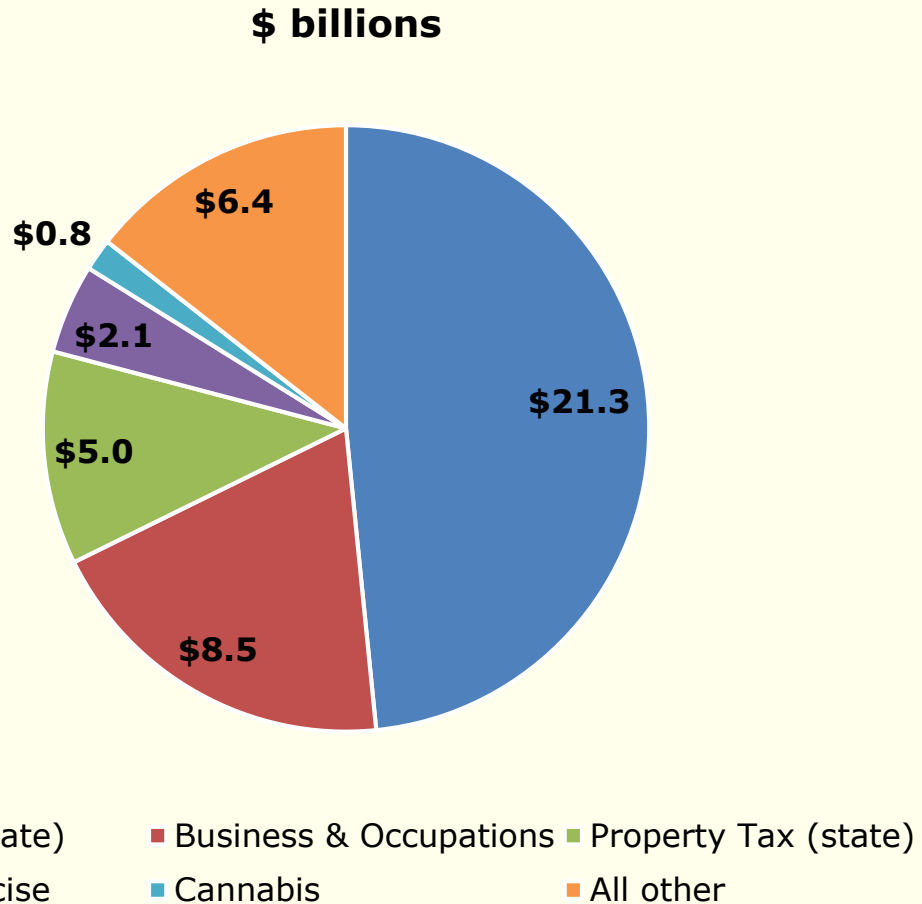
Washington State
October 11, 2018

* Detail may not add to total due to rounding; ERFC September 2018 forecast



General Fund-State plus Cannabis Revenue, 2017-19 biennium

“All other” includes revenue sources such as public utility, liquor, cigarette taxes



Source: ERFC Sept. 2018 forecast



Questions



**Economic & Revenue Forecast Council
PO BOX 40912
Olympia WA 98504-0912**

**www.erfc.wa.gov
360-534-1560**

Washington State
October 11, 2018

Slide 18