

Cannabis Forecasting in Washington State

Presented to
National Committee on State Legislatures

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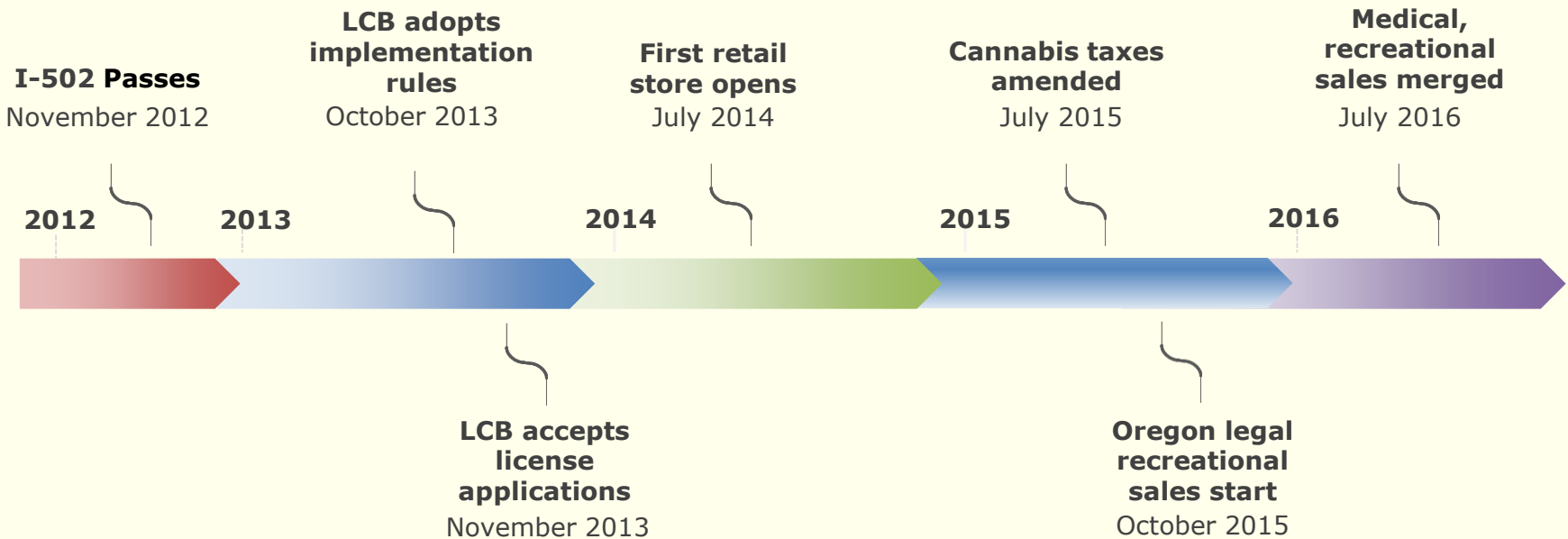
October 11, 2018
Portland, Oregon



**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

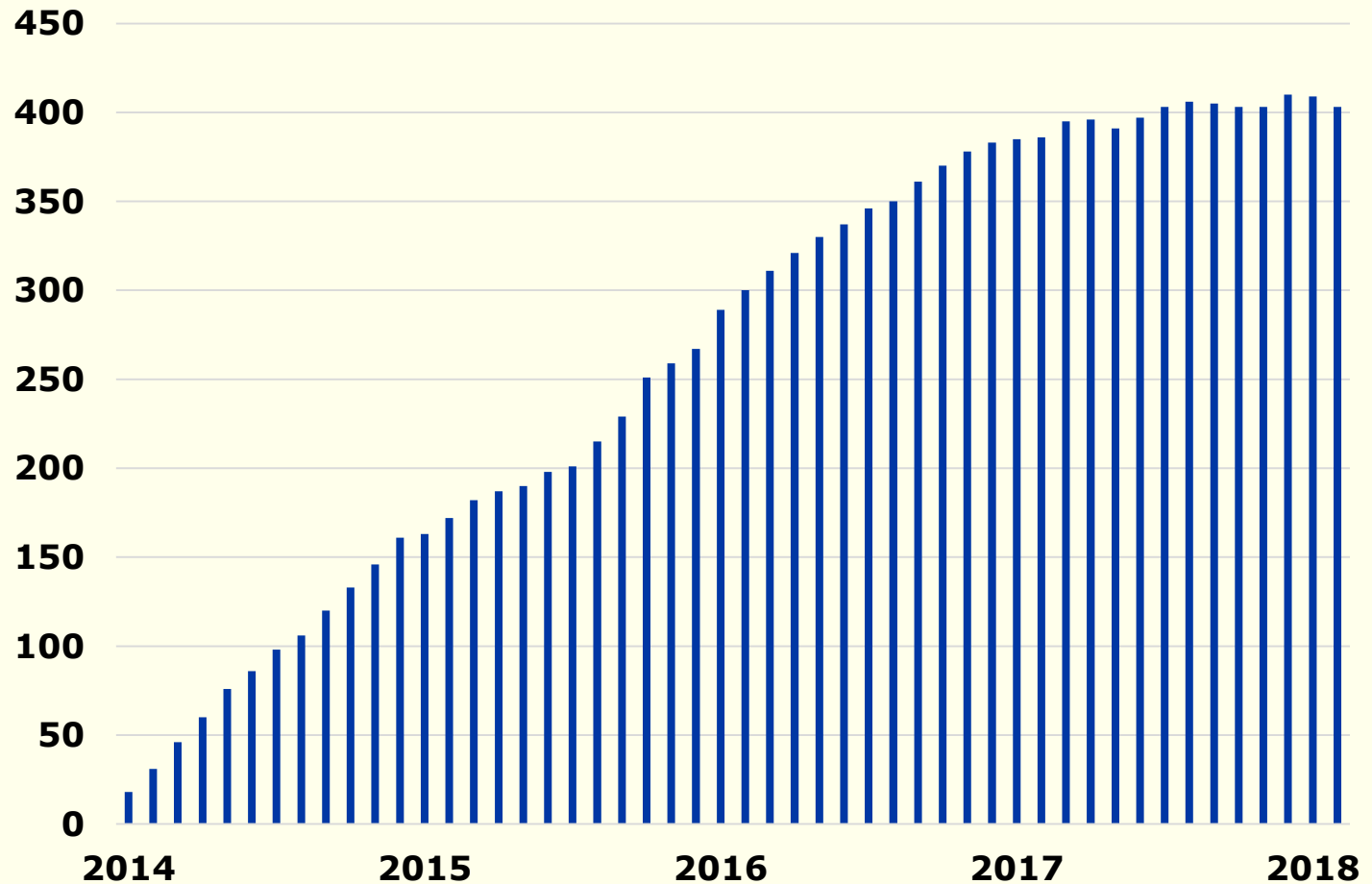


Initial small number of licensed growers led to lack of supply

- 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



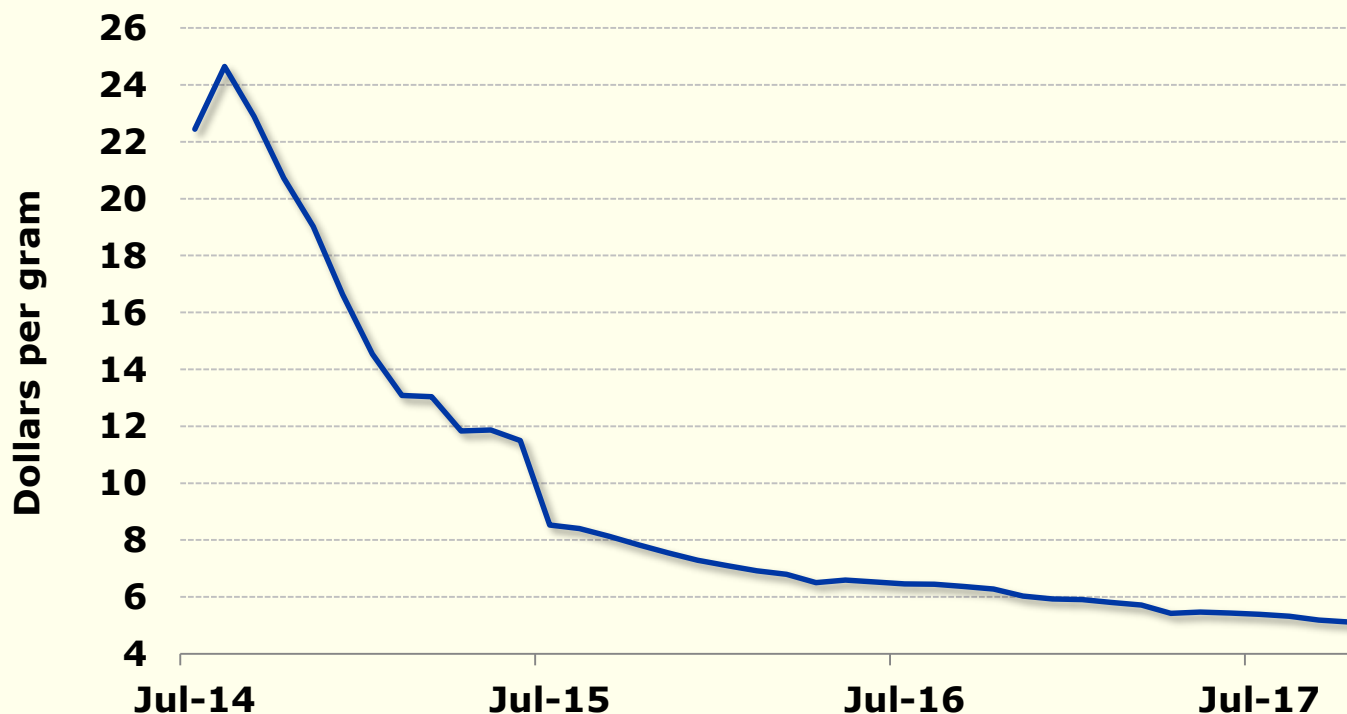
Source: WA Liquor and Cannabis Board, data through August 2018

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The price of cannabis has fallen dramatically

Pre-tax Retail Price of Recreational Cannabis



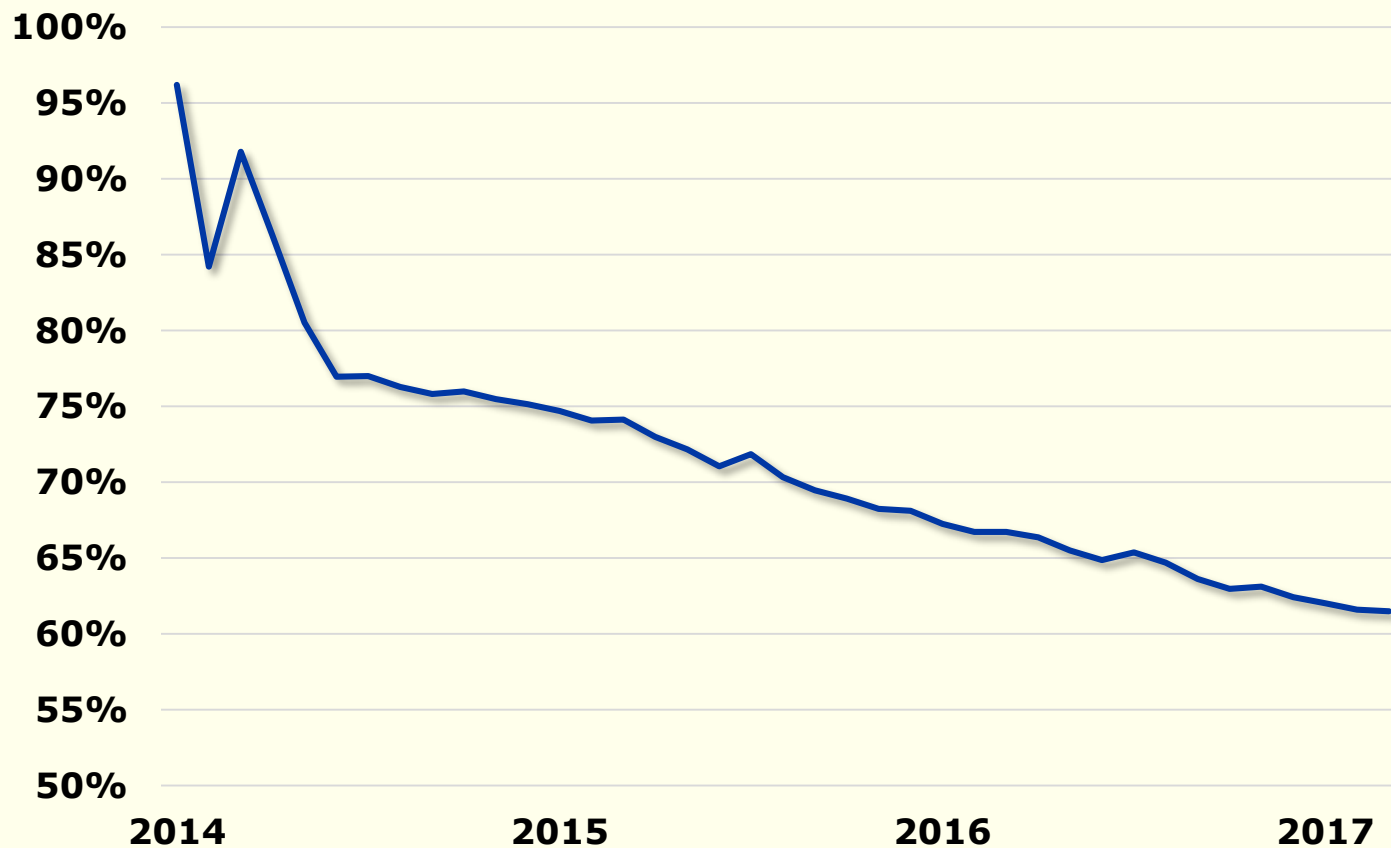
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Source: WA LCB, ERFC; data through October 2017



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

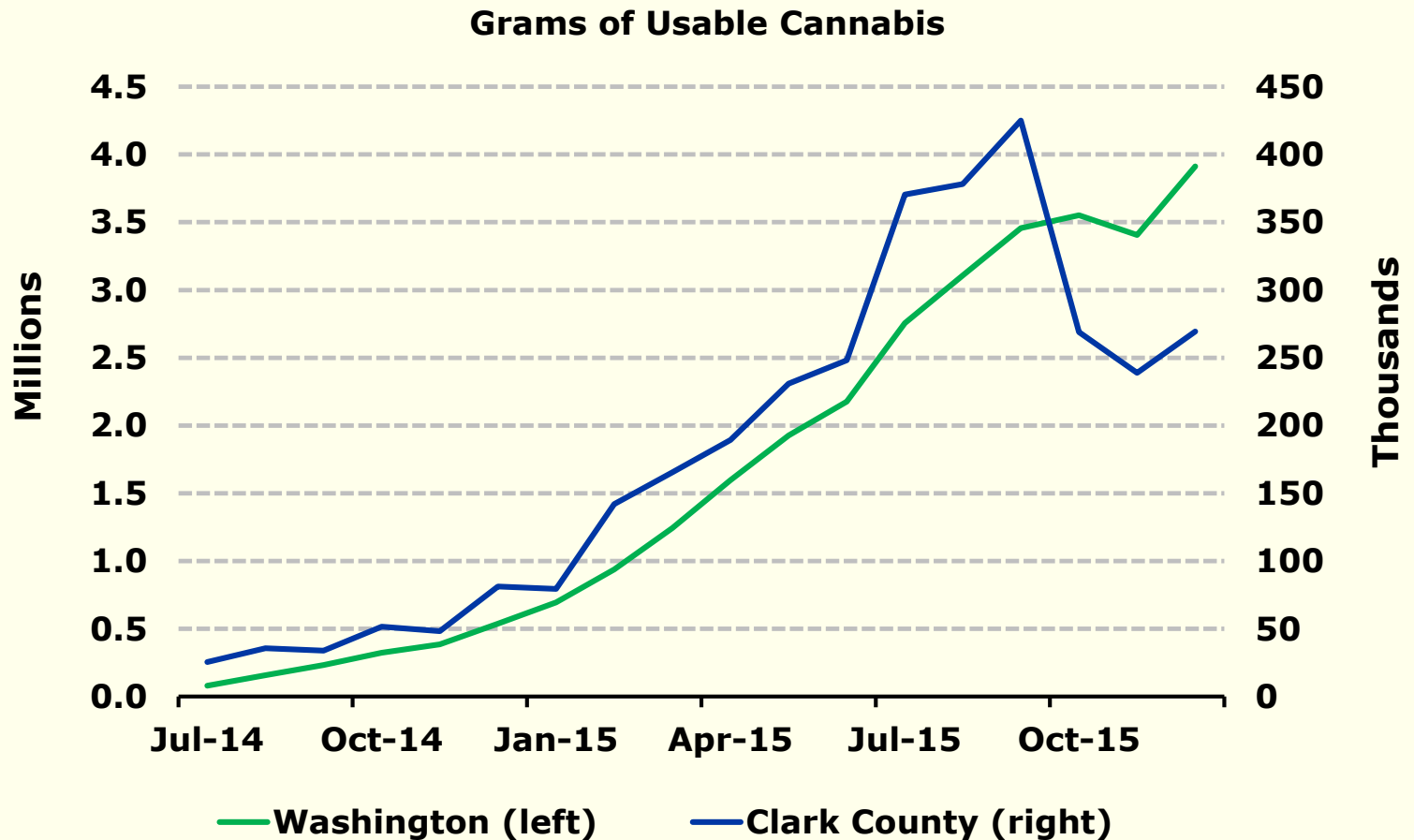
- Three tier tax system eliminated
- Single 37% sales tax imposed on retail sales only
- Retail cannabis sales continue to be subject to state and local sales taxes
- Cannabis businesses continue to be subject to the state's gross receipts tax
- Because tax imposed on consumer, cannabis tax no longer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



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



Add details on BOTEC/SAMSHA survey

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Slide 11

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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

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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

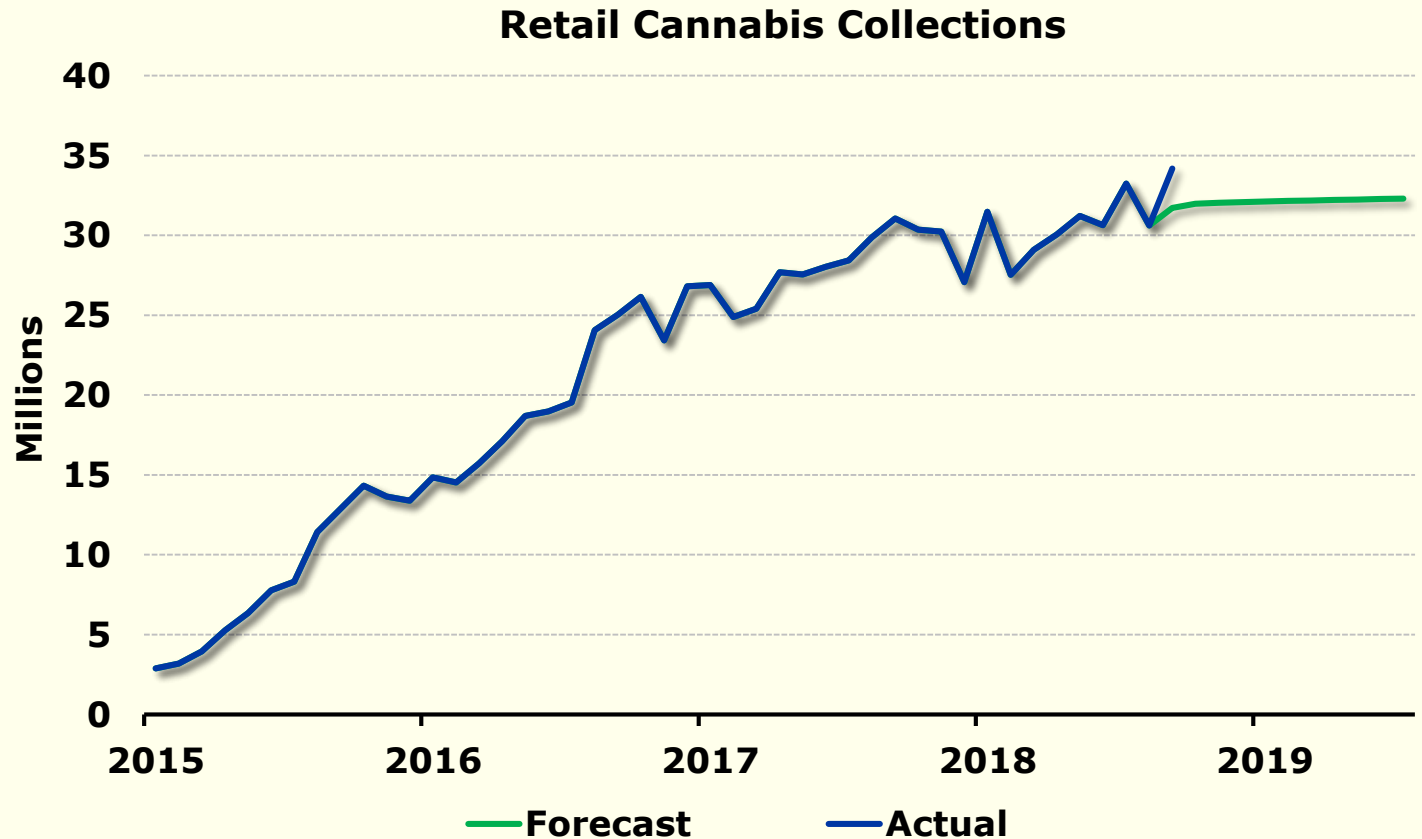


Cannabis forecast “model”

- 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



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

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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

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Slide 16

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

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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

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

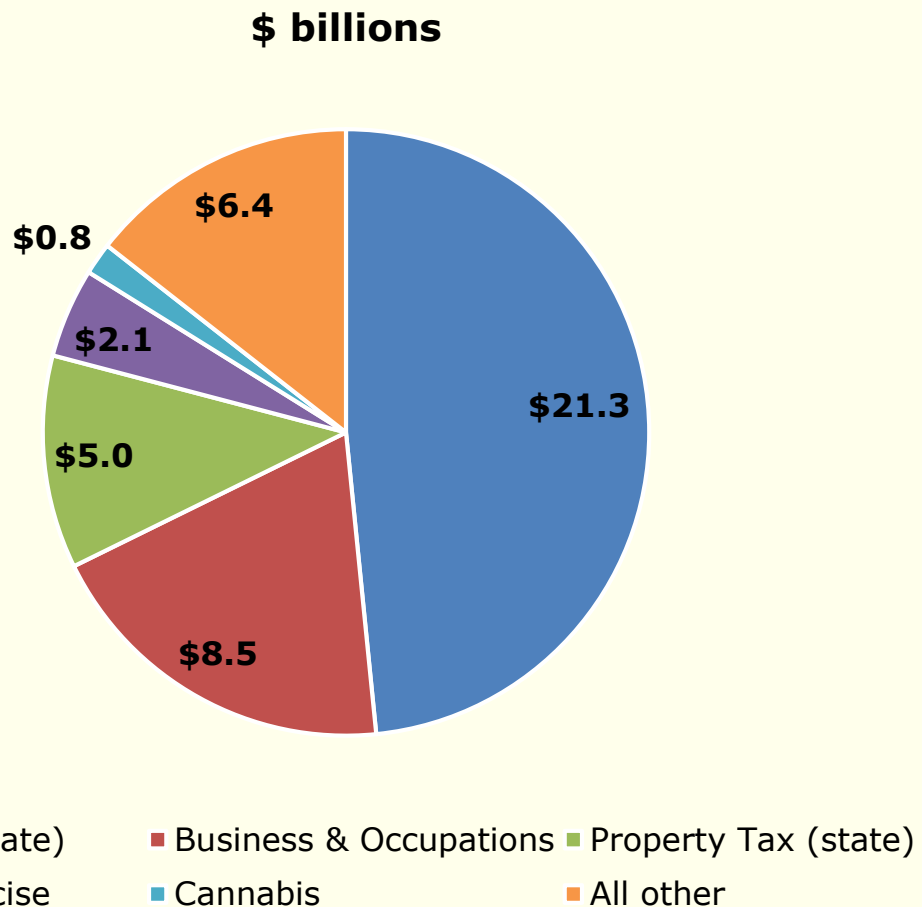
Slide 17

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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



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Washington State
October 11, 2018

Slide 19