

# Monitoring Impacts of Recreational Marijuana Legalization

2015 Update Report



## Introduction

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In February 2015, a baseline report on the monitoring impacts of recreational marijuana legalization was released. In the ensuing nine months, additional data have been made available, and legislation modifying some of the provisions initially outlined in Initiative 502 has been passed.

This report includes those additional data and, in a few instances, modifies some of the previous measures.

Broadly, the statutory changes from the last legislative session refine and/or clarify some of the rules pertaining to legalized recreational marijuana, but predominately focus on the previously largely unregulated medical marijuana market place by generally folding that market into and under the provisions outlined for recreational use. Any potential impacts of those legislative changes are not expected to be reflected in the measures addressed in this report.

## Highlights and key findings

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### 1. HEALTH

- Among students surveyed, current marijuana use increased by grade, with the sixth-graders having the lowest use at 1 percent in 2012 and 12<sup>th</sup> graders the highest at 27 percent in 2014.
- Between 2006 and 2014, use among 12<sup>th</sup> graders increased by an average of 3 percent per year. No trends were seen for grades six, eight or 10.
- Use among adults surveyed is highest for those ages 18 to 24: 21 percent in 2014.
- Use among adults ages 65 and older is significantly increasing, although the change is from less than 1 percent in 2011 to slightly more than 2 percent in 2014. No trends were seen in the other age groups.
- No trends were seen in the percentage of 12<sup>th</sup> graders who first used marijuana at any of the ages assessed, 13 to 16.
- Among adults, approximately one-fifth reported they were between ages 14 and 17 the first time they tried marijuana; this was true for each survey year. No trends in age at first use were identified for these adults.
- Among students, ease of access increased by grade, but no trends were identified over time in any of the grades surveyed.
- Between 2011 and 2013, there was an average of 155 marijuana-related calls per year to the Poison Control Center; in 2014, it markedly increased to 246.
- While the number of youths receiving state-funded substance use disorder (SUD) treatment has decreased, the proportion receiving such treatment for marijuana appears to have leveled off at 78 percent in 2013 and 77 percent in 2014.

### 1. HEALTH (continued)

- Population-based rates of state-sponsored SUD treatment for marijuana use among youths had been increasing by 5 percent per year from 2006 to 2012. However, from 2012 to 2014, no trend is detected. Concurrently, rates for state-sponsored SUD treatment for youths for other drugs decreased by 11 percent per year from 2009 to 2014.
- Among drivers involved in a traffic fatality who are tested for drugs or alcohol, there is no trend in the percentage of those testing positive for marijuana in combination with other drugs and/or alcohol. Similarly, no trend was identified for those who tested positive for marijuana only.

### 2. ENFORCEMENT

- While arrests for any drug or narcotic decreased by 17 percent between 2012 and 2013, little to no change was seen between 2013 and 2014.
- Incidents involving marijuana decreased by more than half between 2012 and 2013, and by 13 percent between 2013 and 2014. Concurrently, incidents involving amphetamines and heroin increased.\*
- Incidents where marijuana was seized continued to decrease for all quantities involved, but particularly for quantities of 3.5 grams or less.
- While highways and roads remained the most common location where marijuana incidents occurred, such incidents decreased from 2,462 in 2012 to 625 in 2014. However, incidents increased at secondary or primary schools, from 258 in 2012 to 361 in 2014.
- All criminal activities involving marijuana decreased between 2012 and 2014. Possession, the most common incident, decreased from 5,133 in 2012 to 1,918 in 2014.

## Highlights and key findings (continued)

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### 2. ENFORCEMENT (continued)

- Drug-only DUI arrests, which do not differentiate marijuana from other drugs, decreased from a high of 1,710 in 2011 to a low of 1,229 in 2014, for an overall decrease of 28 percent.
- Marked decreases are seen in marijuana-related nonprison convictions, dropping from a high of 502 in 2011 to a low of 98 in 2014, and in prison convictions, from 73 in 2011 to 13 in 2014.
- For the 2013–14 school year, 4 percent of public school students were suspended or expelled; of that 4 percent, 11 percent (or 0.4 percent of all students) were suspended or expelled for marijuana.

### 3. REVENUES AND TAXES

- As a new enterprise, sales and excise tax revenues markedly increased. However, the rate of increase appears to be leveling off: Sales for September to October rose by 49 percent; from October to November by 24 percent; and from November to December by 6 percent.
- Sales in December 2014 totaled more than \$17 million; excise taxes for that month were \$4.3 million.
- State revenues from retail and from business and occupation taxes also increased. In November 2014 (the most current data available), those taxes totaled \$1.5 million.

### 4. PRODUCTION AND SALES

- As of October 2015, there were 526 active licensed producers and 195 active licensed retailers in the state.
- Licensed producers and processors appear to be equally located in urban and rural locales. Similarly, high-volume producers/processors are also somewhat evenly distributed.

### 4. PRODUCTION AND SALES (continued)

- Retailers tend to be more commonly located in urban and suburban communities. However, some high-volume retailers are located in nonurban communities, particularly those that border other states.
- Of the three counties with the highest per capita sales, two border Oregon: Clark and Klickitat.
- The average price per gram dropped from a high of \$25 in August 2014 to a low of \$8 in July 2015, and has stayed at that price since.
- The number of retailers increased more than tenfold, from 18 in July 2014 to 185 in October 2015.

### 5. CITY AND COUNTY ORDINANCES

- Ten cities currently have temporary moratoria on retail sales of recreational marijuana. However, all but three moratoria are due to expire in four or fewer months.
- Sixty-six cities have prohibitions on those sales.
- Four counties have temporary moratoria on recreational sales in unincorporated regions.
- Five counties have prohibitions on recreational sales in unincorporated regions.

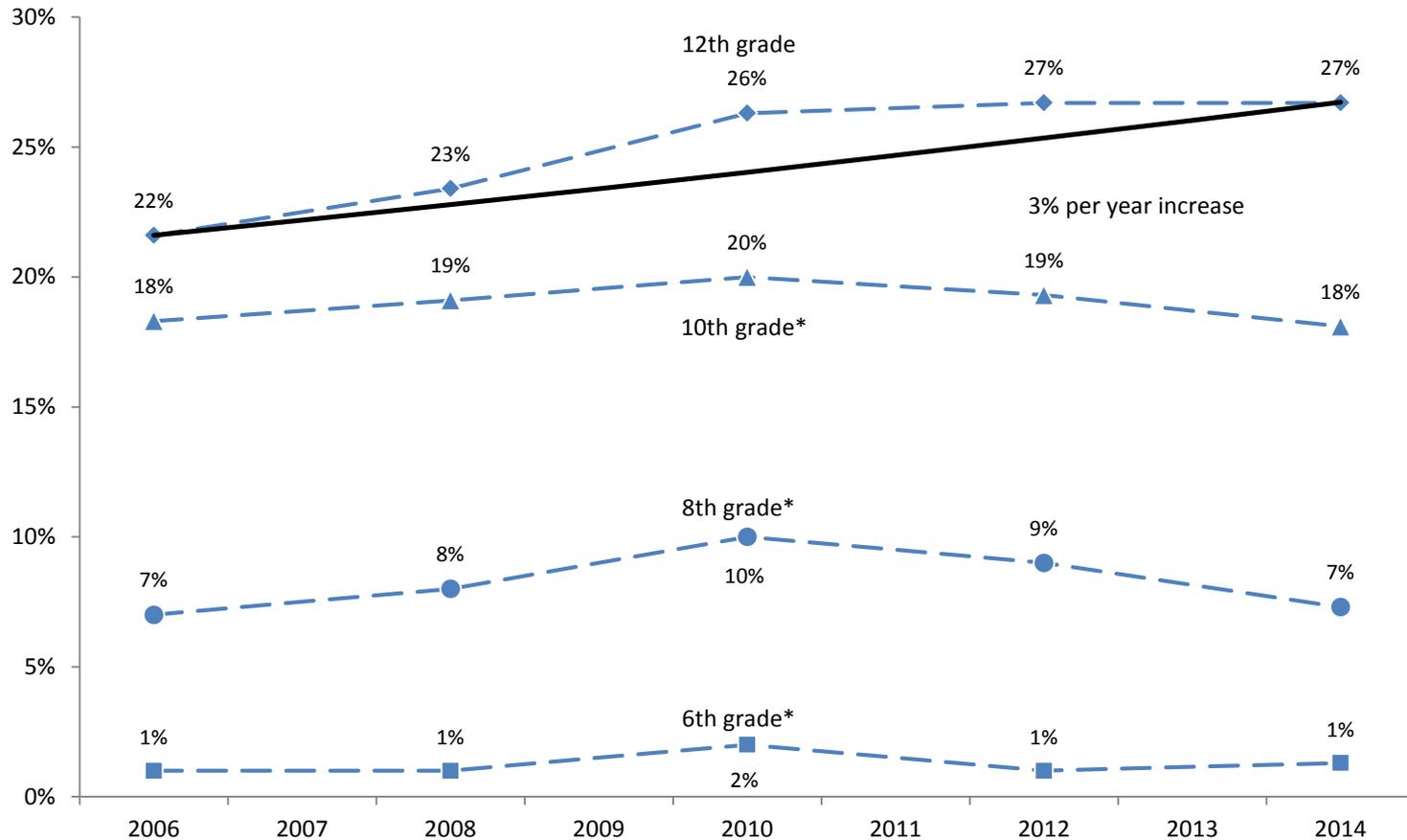
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\* As defined by the FBI, an “incident” occurs when any law enforcement officer investigates a scene or situation, whether that investigation results in an arrest or not. Incidents involving multiple illicit drugs or other criminal activities are counted only once, and are included in whichever category is listed first by the local law enforcement agency. The order used by those agencies is not hierarchical.

### 1.1 Current Use – Students

Taken from the Healthy Youth Survey, the question, “Have you used marijuana in the past 30 days?” gauges current marijuana use among students. Although the percentage of 12<sup>th</sup> graders reporting they are current users did not change between 2012 and 2014, use among this group is increasing by 3 percent per year, from 22 percent in 2006 to 27 percent in 2014. For all other grades there are no significant trends.

Source: Washington State Health Youth Survey, 2006-2014

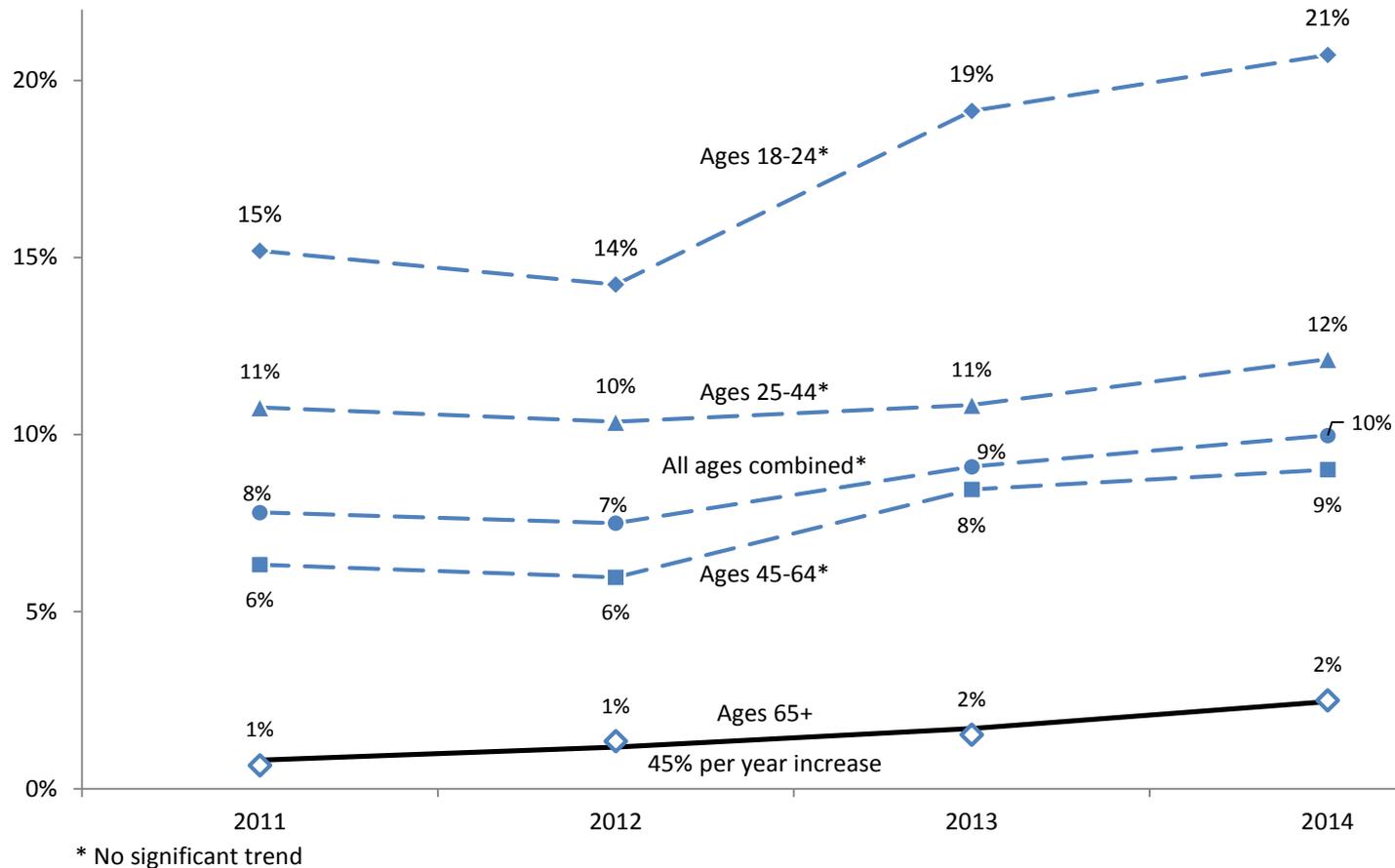


\* No significant trend

### 1.2 Current Use – Adults

In the Behavioral Risk Factors Surveillance Survey, respondents ages 18 and older are asked, “Have you smoked marijuana in the past 30 days?” With 21 percent responding “yes” in 2014, those ages 18 to 24 are the most likely current users. No significant trends were seen in any age group except those ages 65 and older; starting at a low of slightly less than 1 percent in 2011, and growing to slightly more than 2 percent by 2014, the average annual increase equals 45 percent per year.

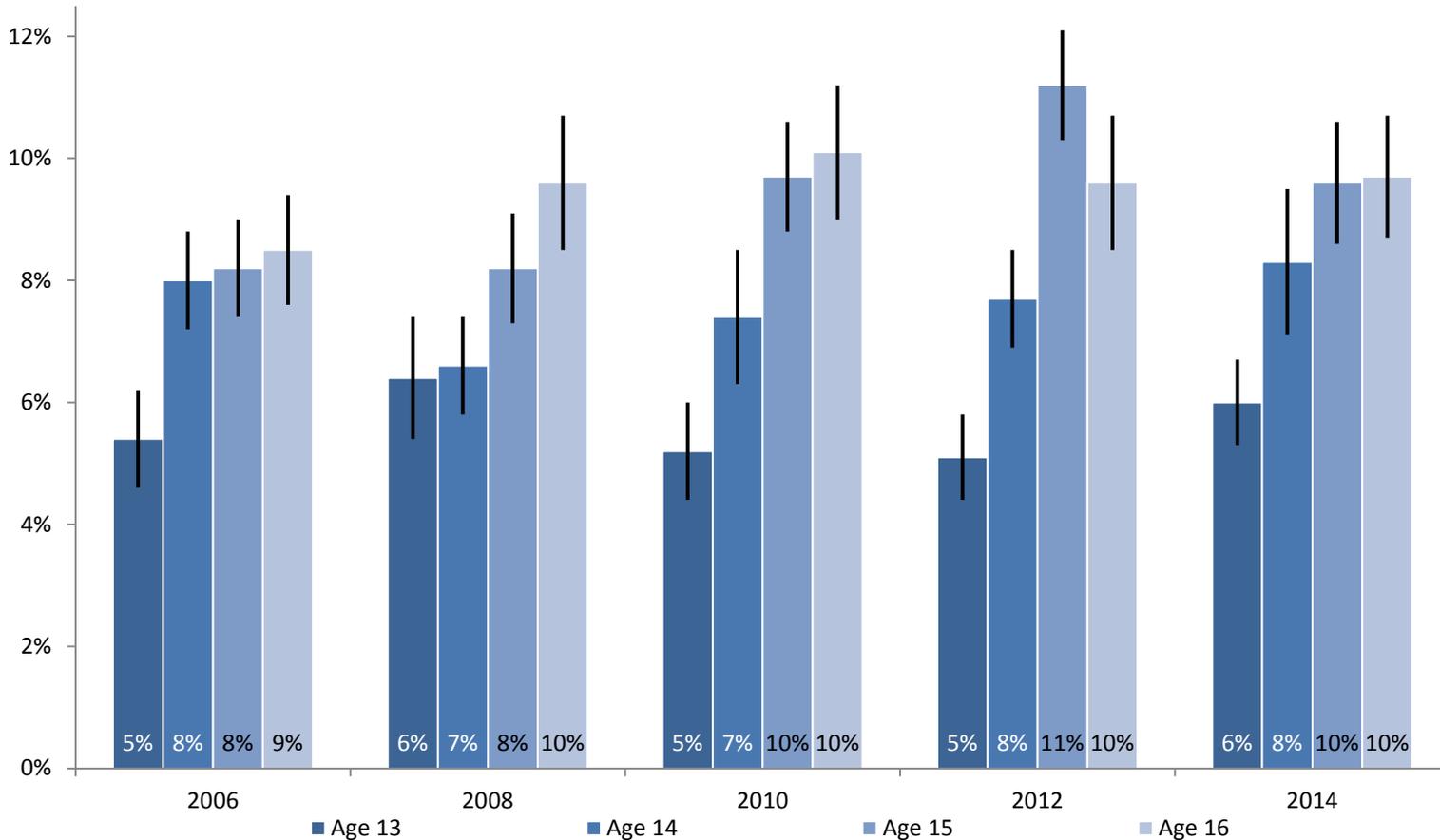
Source: Washington State Behavioral Risk Factors Surveillance System



### 1.3 Age at First Use – Students

Among 12<sup>th</sup> graders asked, “How old were you the first time you smoked marijuana?” no significant trends were seen in any age category assessed from 2006 to 2014. These percentages are shown with their 95 percent confidence intervals (CI)..

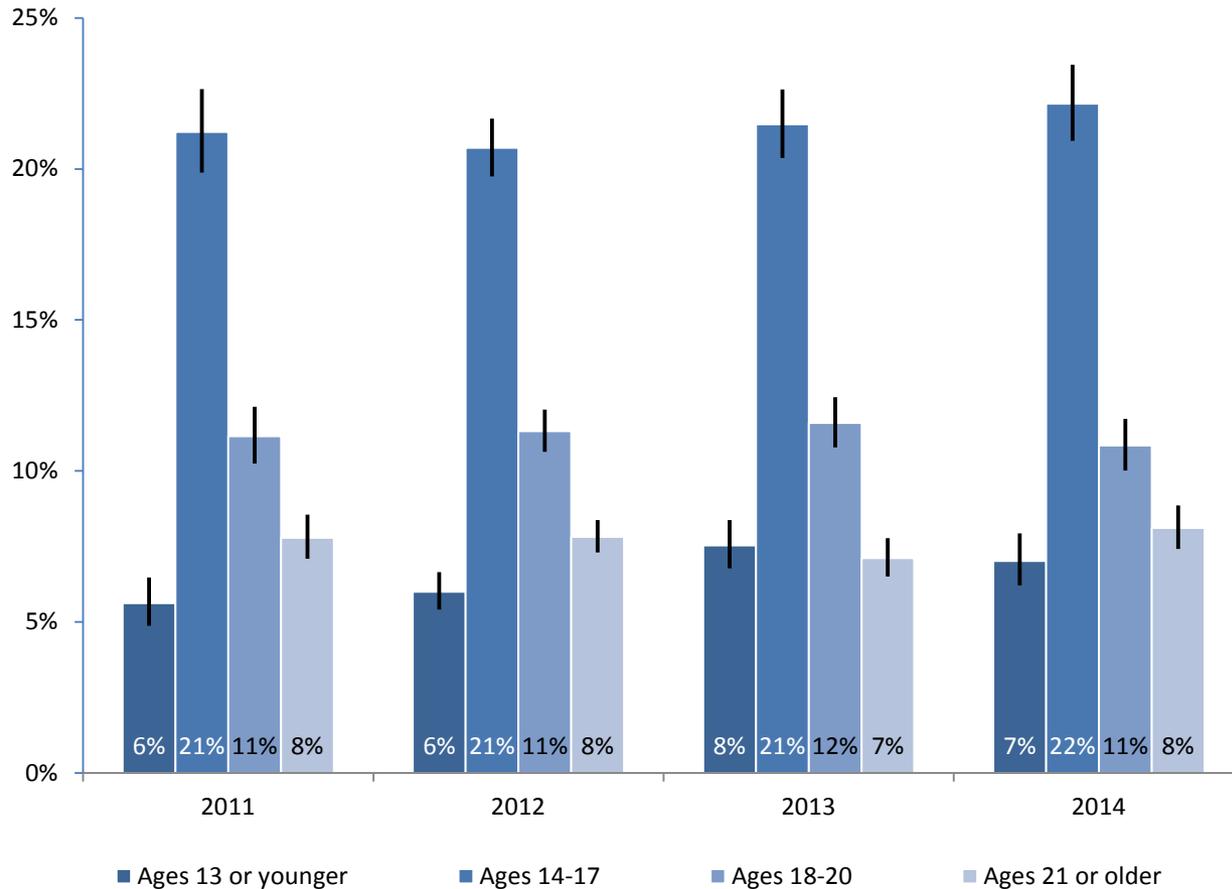
Source: Washington State Health Youth Survey, 2006-2012



### 1.4 Age at First Use – Adults

From 2011 to 2013, adult respondents were asked, “How old were you the first time you smoked marijuana?” In 2014, the question was revised to, “How old were you when you first used marijuana in any form?” In the age groups shown here, the majority of those who had smoked marijuana first did so between the ages of 14 and 17, regardless of the survey year. No trends were identified; 95% CI’s are shown with percentages.

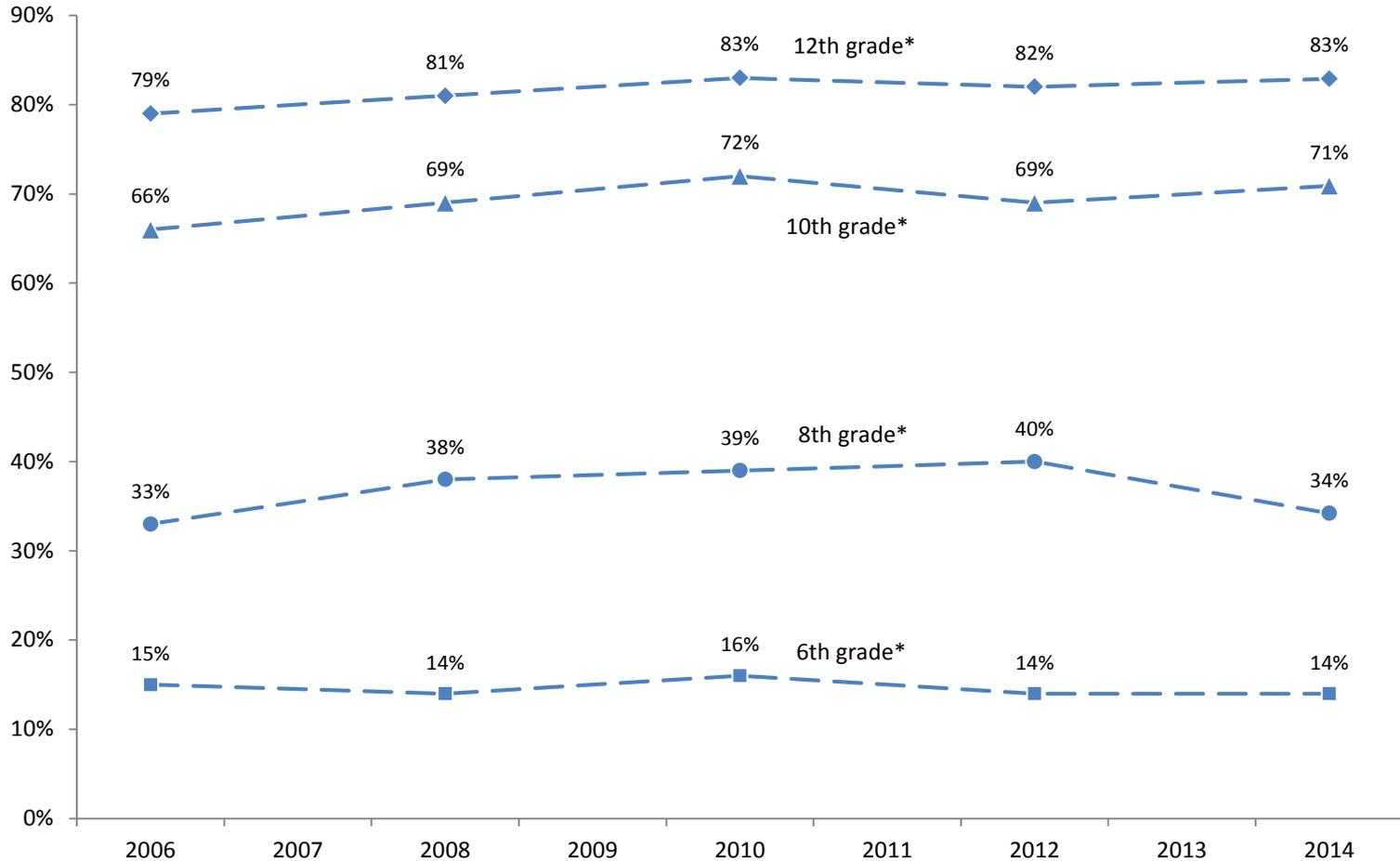
Source: Washington State Behavioral Risk Factors Surveillance System, 2011-2013



### 1.5 Access – Students

In response to the question, “If you wanted to get some marijuana, how easy would it be to get some?” this measure includes, by convention, those answering “sort of hard,” “sort of easy” and “very easy.” While access differs by grade level, no significant trends are seen over time.

Source: Washington State Health Youth Survey, 2006-2012

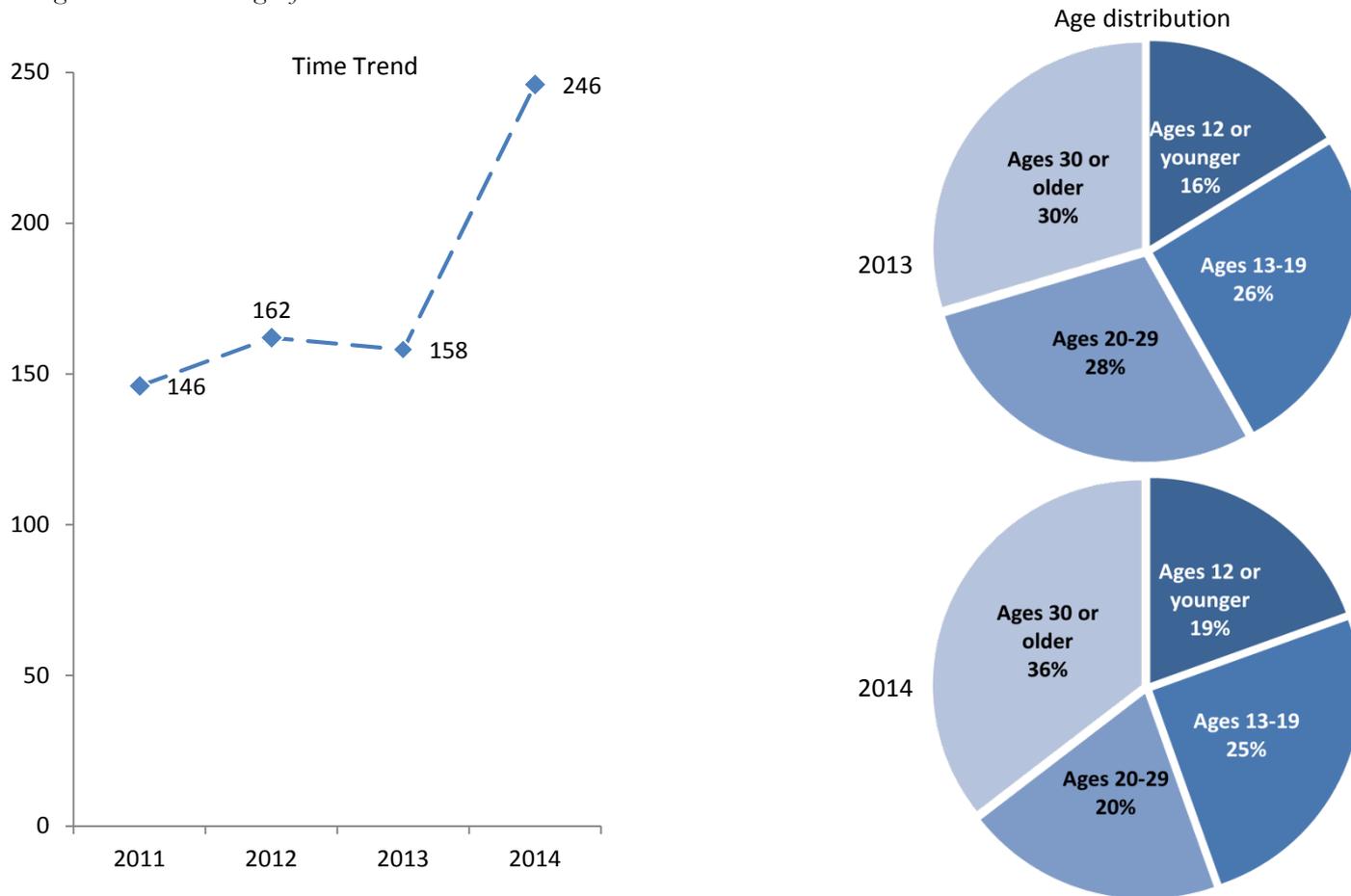


\* No significant trend

### 1.6 Poisonings

Marijuana-related calls to the Washington Poison Center were relatively constant from 2011 to 2013, but those calls increased from 158 in 2013 to 246 in 2014. The percentages of calls by age group were, however, similar in 2013 and 2014, especially when taking into consideration the relatively small numbers involved in 2013, with those ages 30 or older constituting the largest percentage and those ages 12 or younger the smallest.

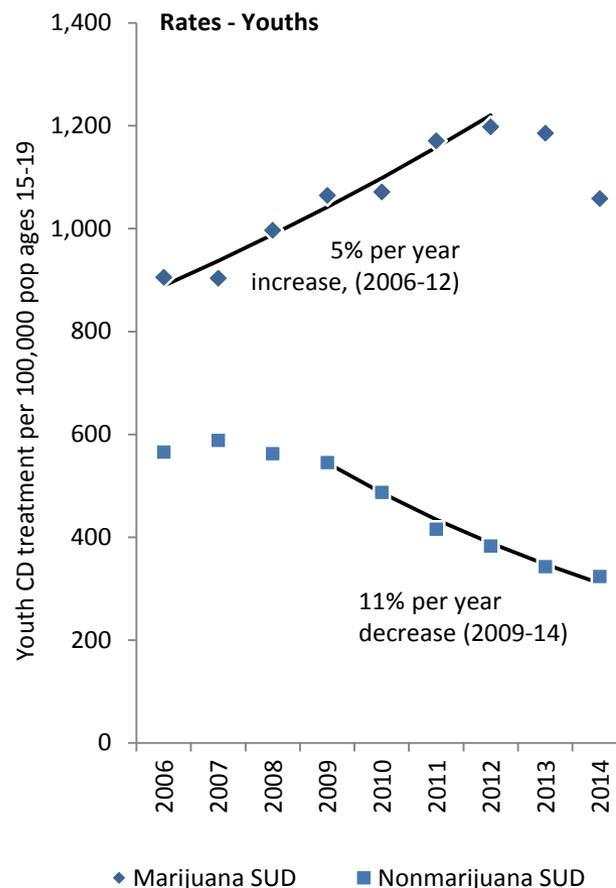
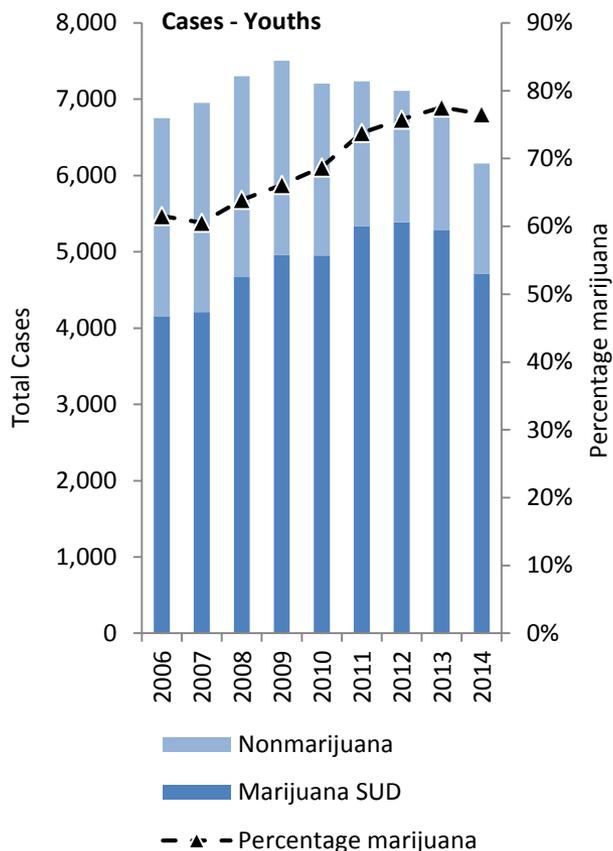
Source: Washington Poison and Drug Information Center



### 1.7 Substance Use Disorder Treatment

Substance use disorder (SUD) treatment for youth receiving publicly funded services has been decreasing since 2009. Treatment for marijuana increased from 61 percent of all SUD cases in 2007 to 78 percent in 2013. However, in 2014, it leveled off at 77 percent. Age-specific rates for youth marijuana SUD treatment had been increasing by 5 percent per year, but since 2012, there has been no trend. Rates for SUD treatment for drugs other than marijuana have been decreasing by 11 percent per year since 2009. SUD youth may be court ordered or referred to treatment in other ways.

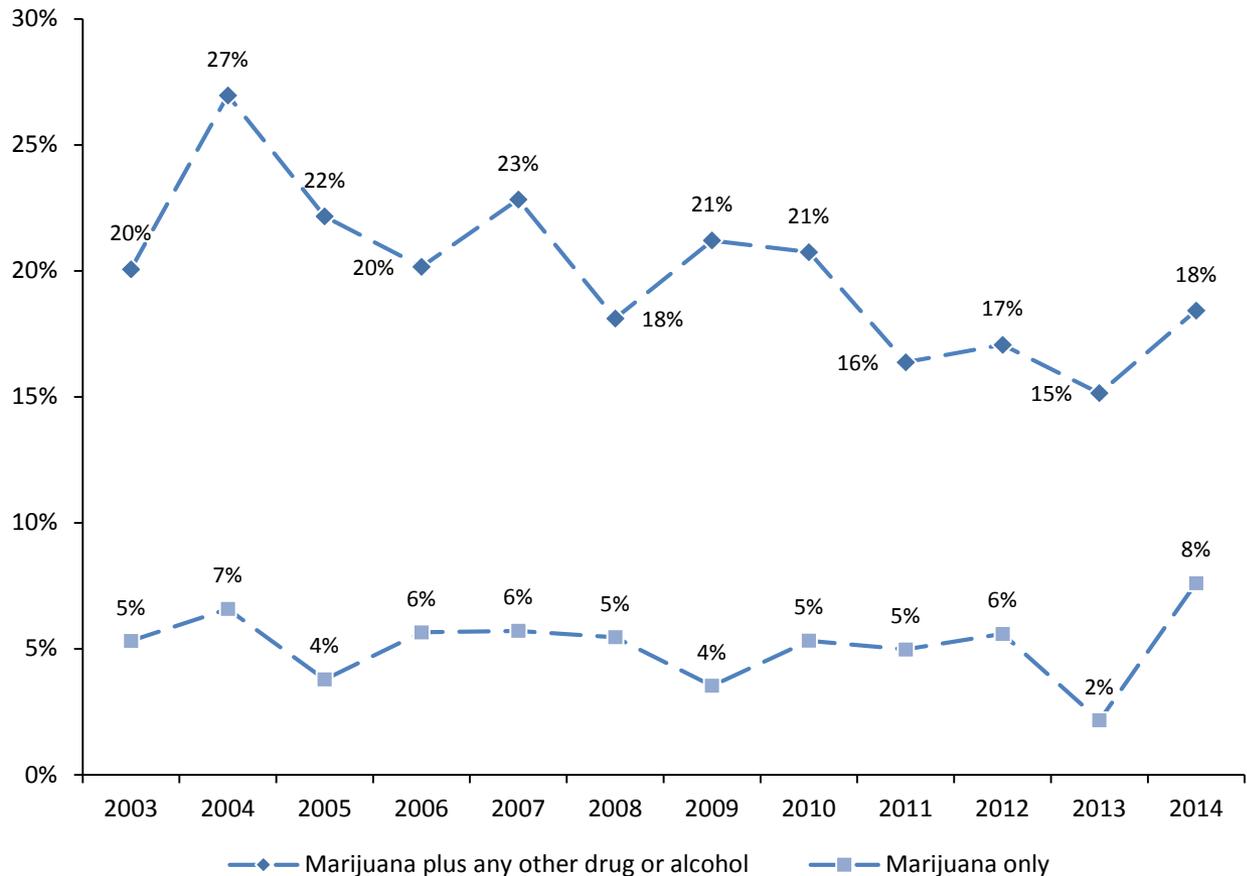
Source: Department of Social and Health Services (Behavioral Health and Service Integration Administration/Chemical Dependency)



### 1.8 Traffic Fatalities

With the addition of 2014 data, the downward trend in overall traffic fatalities appears to have abated, and no statistically significant trends are found for either traffic fatalities with marijuana plus any other drugs or alcohol, or for traffic fatalities involving marijuana only. While the percentage of traffic fatalities with marijuana-only appears high in 2014, at 8 percent, it is not statistically significantly different from the previous year, at 2 percent. This is due to the small number of cases involved.

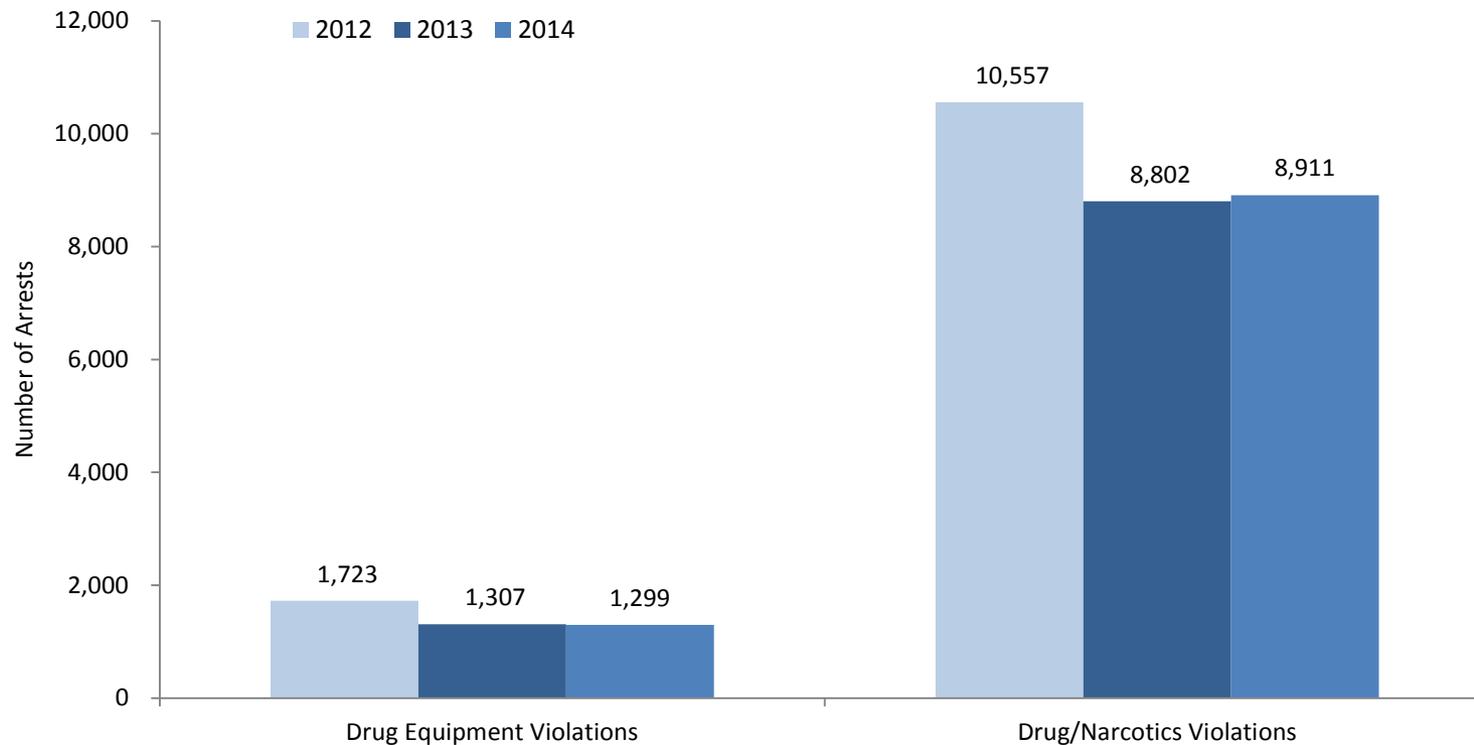
Source: Washington Traffic Safety Commission



## 2.1 Drug or Narcotic Arrests\*

Between 2012 and 2013, there was a 24 percent decrease in arrests for drug equipment violations and a 17 percent decrease in arrests for drug or narcotic violations. However, little change is seen between 2013 and 2014. Drug equipment refers to equipment or devices used in preparing and/or using drugs or narcotics.

*Source: Washington Association of Sheriffs and Police Chiefs (does not include Washington State Patrol data)*

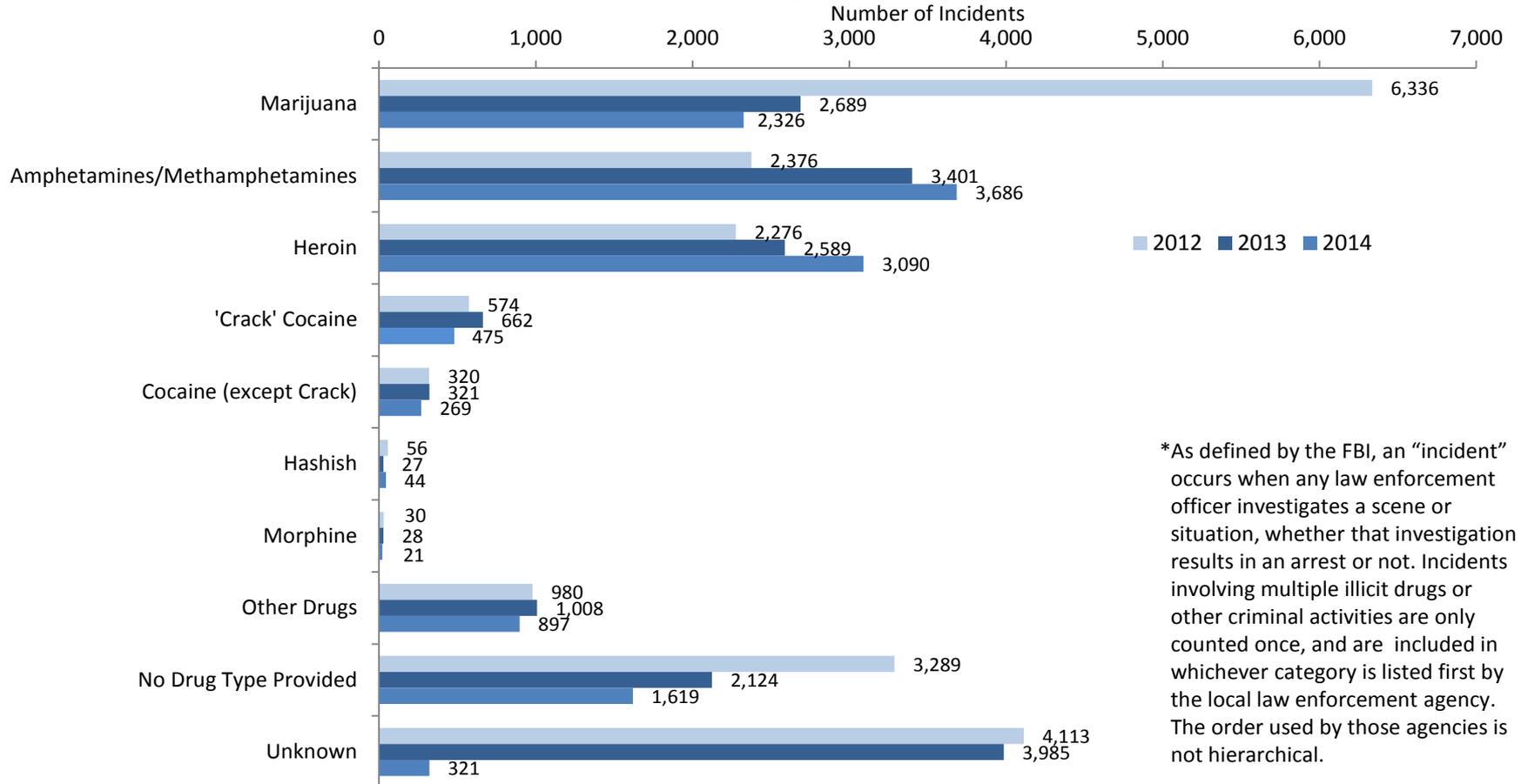


\*Each of the arrests may include multiple drug and/or narcotic offenses. Arrests for both equipment and possession violations are counted only once, and are included in whichever category is listed first by the local law enforcement agency. The order used by those agencies is not hierarchical.

## 2.2 Drug or Narcotic Incidents\*

While the number of incidents involving marijuana decreased by more than half (58 percent) from 2012 to 2013, between 2013 and 2014, that downward trend slowed to a 13 percent decrease. However, overall there was a 63 percent decline between 2012 and 2014. In contrast, during that same time period, incidents involving amphetamines or methamphetamines increased by 55 percent while those involving heroin increased by 36 percent.

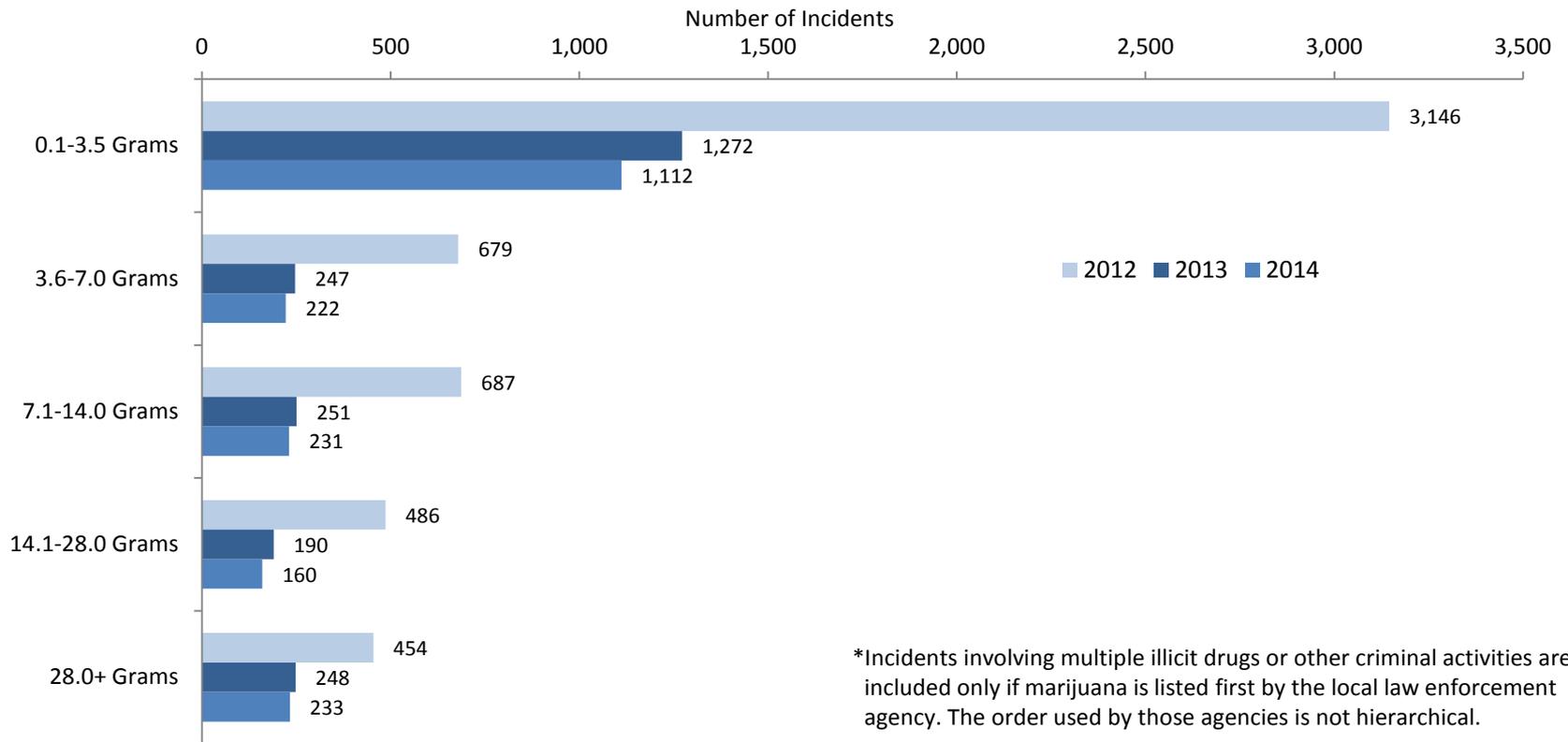
Source: Washington Association of Sheriffs and Police Chiefs (does not include Washington State Patrol data)



### 2.3 Marijuana Quantities Seized

Incidents where the quantity of marijuana seized was reported in grams (or in a unit that could be converted) are shown below.\* For 2012–14, the most frequent number of seizures continues to be for quantities of 3.5 grams (an eighth of an ounce) or less, and yet, for the same time period, the number of such seizures dropped by 65 percent, from 3,146 in 2012 to 1,112 in 2014. Similar proportionate reductions were also seen for all other amounts seized with the exception of seizures of 28 grams or more. These fell by 49 percent from 2012 to 2014.

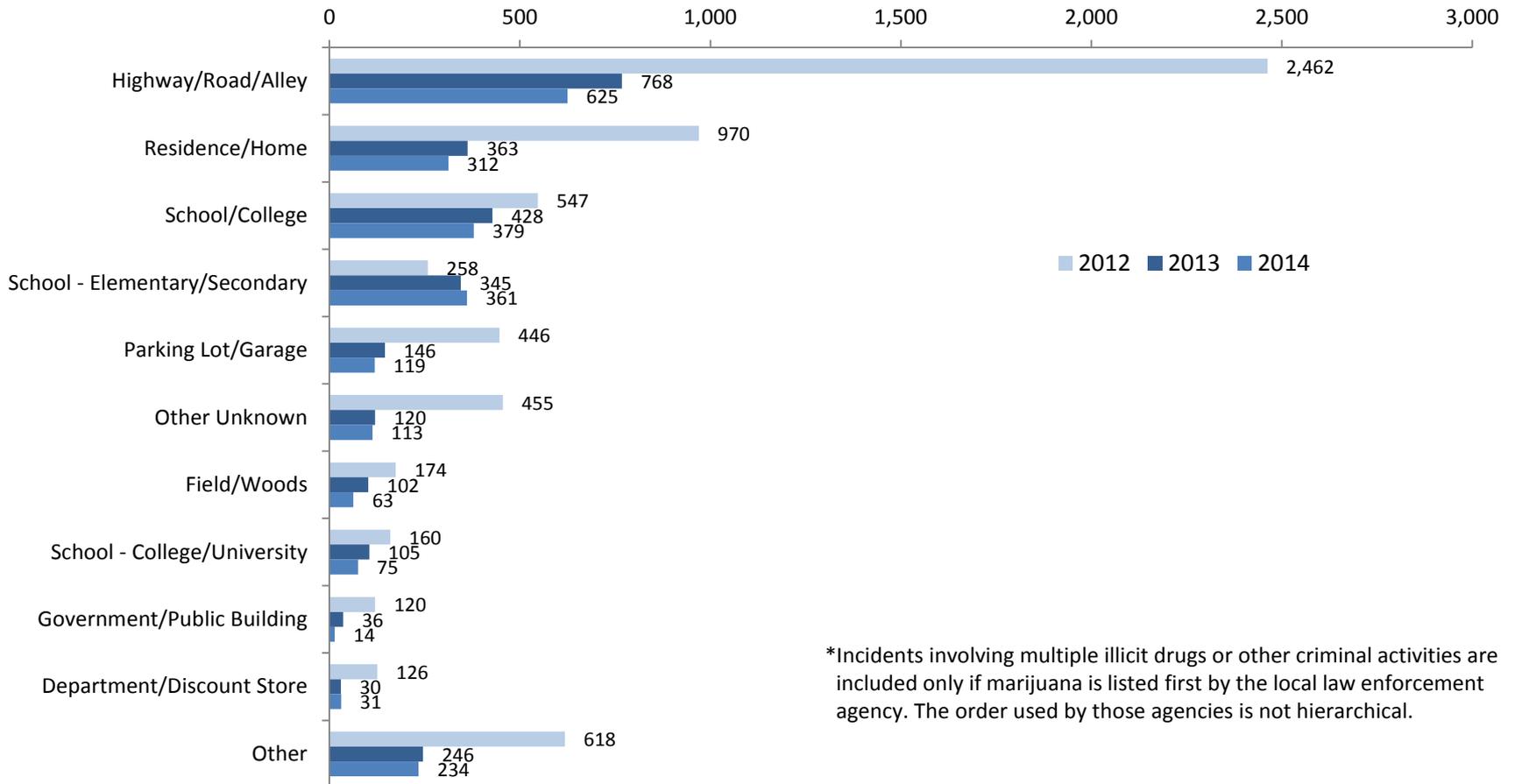
*Source: Washington Association of Sheriffs and Police Chiefs (does not include Washington State Patrol data)*



## 2.4 Incident Locations

Marked decreases were seen in nearly all locations where there were incidents involving marijuana.\* For highways, roads or alleys, the number of incidents decreased by 75 percent, from 2,462 in 2012 to 625 in 2014. Of these locations, an increase was seen only in elementary or secondary schools, where there was a 40 percent increase from 258 in 2012 to 361 in 2014.

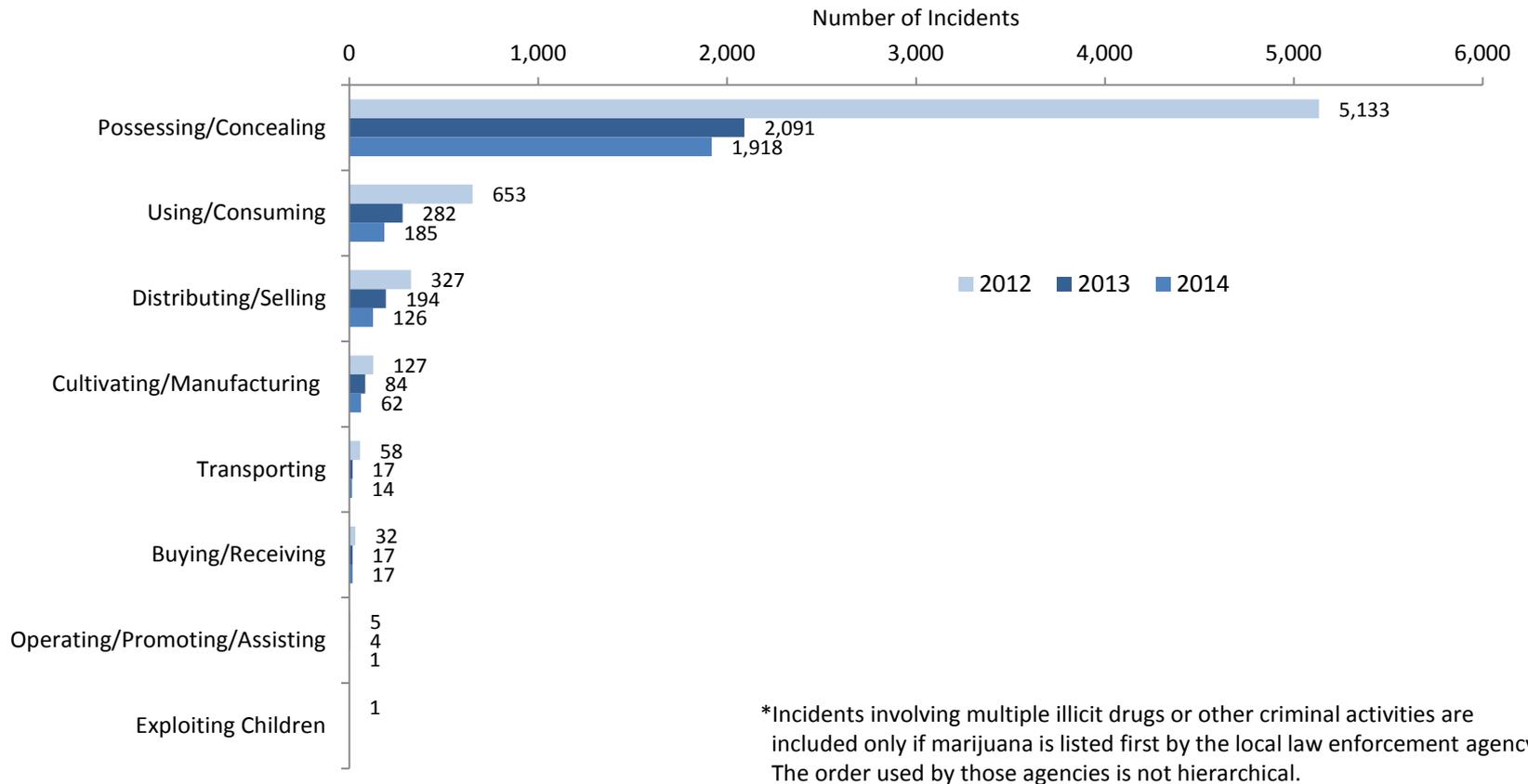
*Source: Washington Association of Sheriffs and Police Chiefs (does not include State Patrol data)*



## 2.5 Criminal Activities Involving Marijuana

From 2012 to 2014, possession was the most common criminal activity involving marijuana. However, the number of such incidents decreased by nearly 63 percent during those three years.\* Decreases were also seen across all other activities.

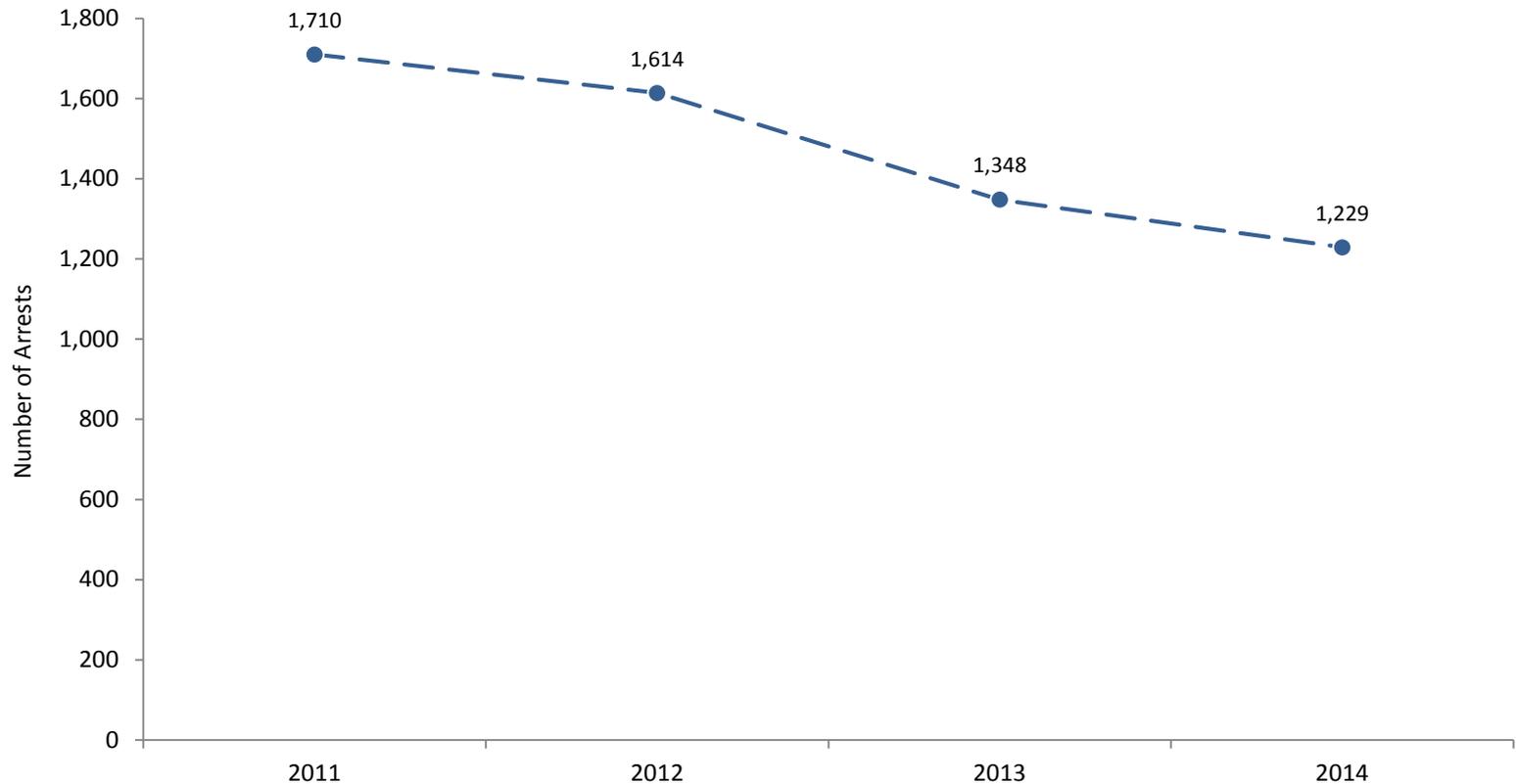
*Source: Washington Association of Sheriffs and Police Chiefs (does not include Washington State Patrol data)*



## 2.6 Drug-only DUI Arrests

Drug-only DUI arrests do not differentiate marijuana from other drugs. These arrests moved from a high of 1,710 in 2011 to a low of 1,229 in 2014, for an overall decrease of 28 percent during those four years.

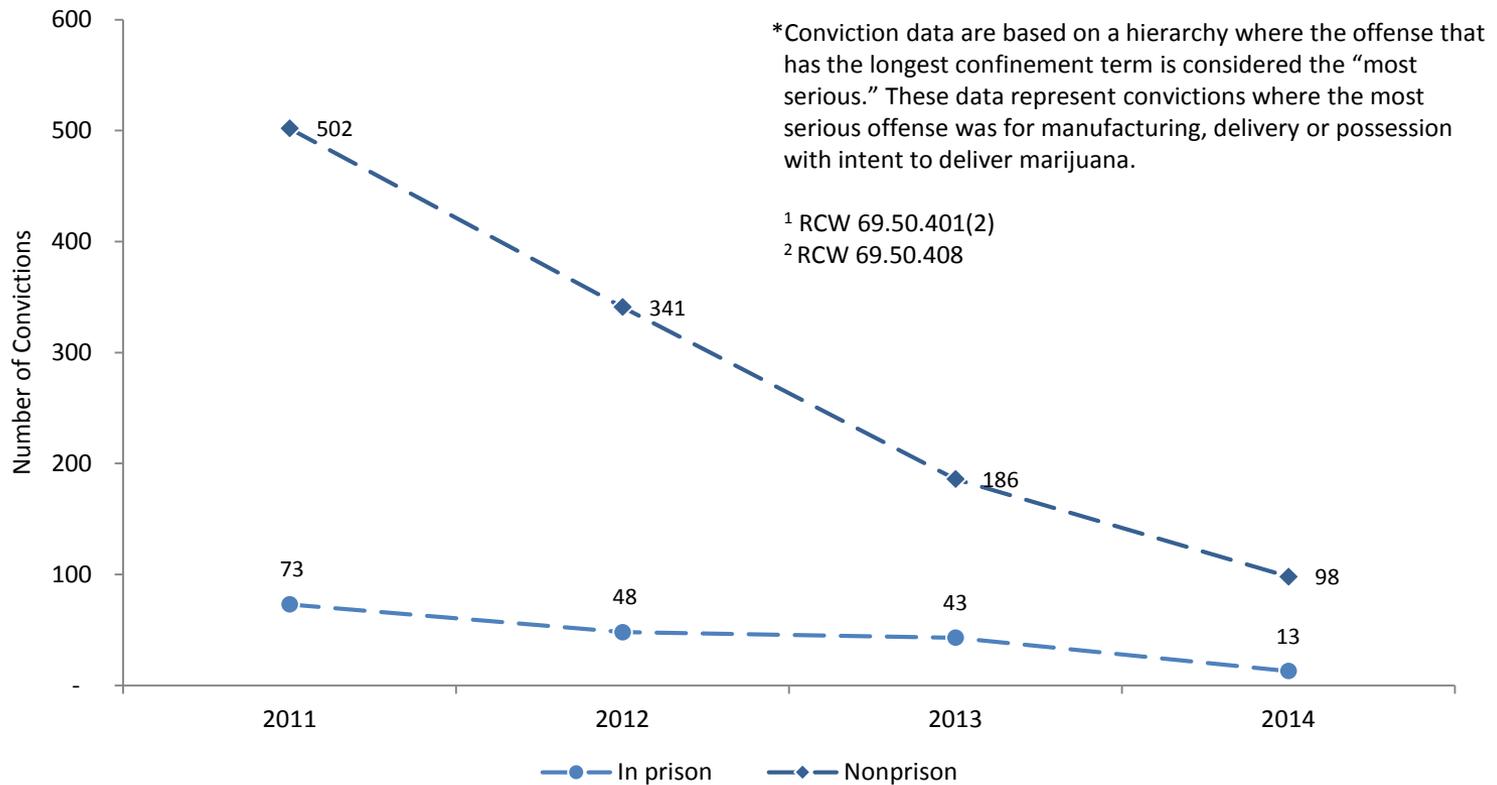
*Source: Washington State Patrol*



## 2.7 Marijuana-related Convictions

From 2011 to 2013, the only convictions for the manufacturing, delivery or possession with intent to deliver marijuana<sup>1</sup> were first-time convictions; in 2014, five of the 98 nonprison convictions were repeat convictions<sup>2</sup>. Overall, marked decreases are seen in both nonprison convictions, dropping by 80 percent from 2011 to 2014, and in-prison convictions, dropping by 82 percent during that same time period.

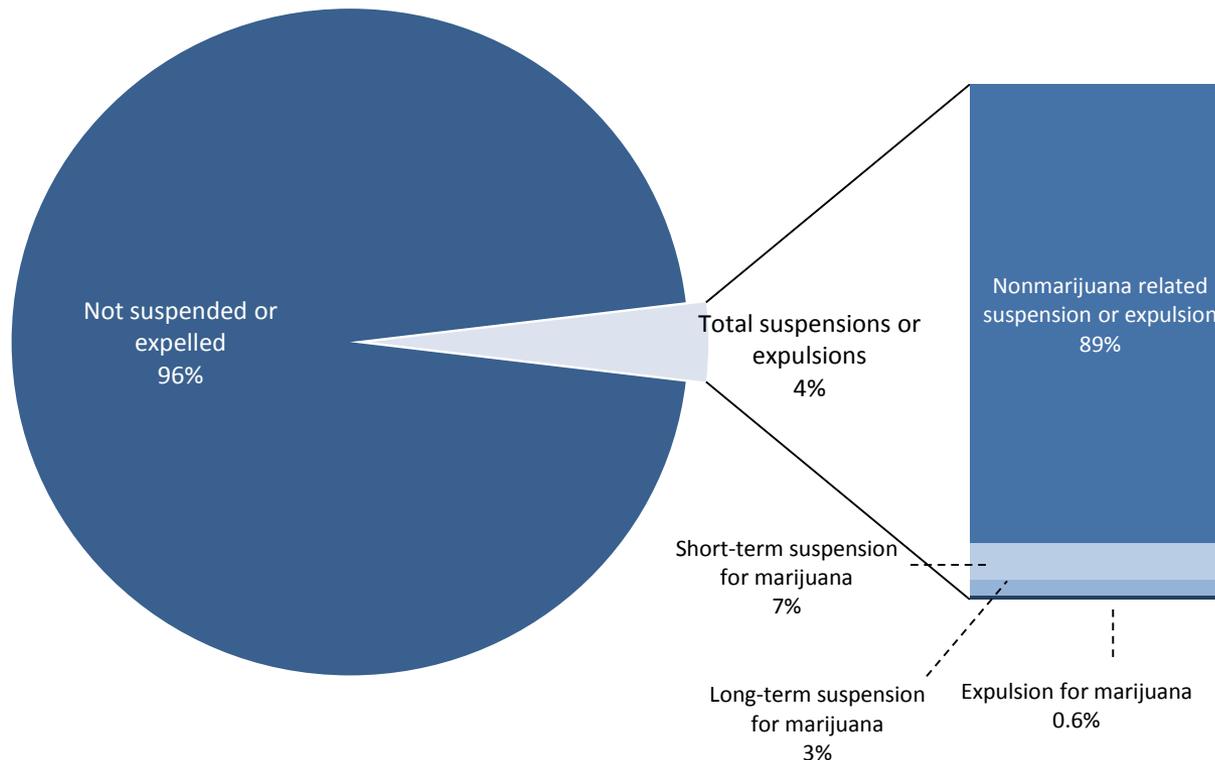
Source: Washington State Caseload Forecast Council, *Statistical Summary of Adult Felony Sentencing*



## 2.8 Suspensions or Expulsions from Schools – Students

Currently, data are available only for public schools for the 2013–14 school year. As shown below, 4 percent of all students were suspended or expelled during that school year, and of those suspended or expelled, 11 percent (or 0.4 percent of all students) were suspended or expelled due to marijuana possession, with 7 percent of those suspended or expelled receiving a short-term suspension (10 or fewer consecutive days), 3 percent receiving a long-term suspension (more than 10 consecutive days) and 0.6 percent being expelled.

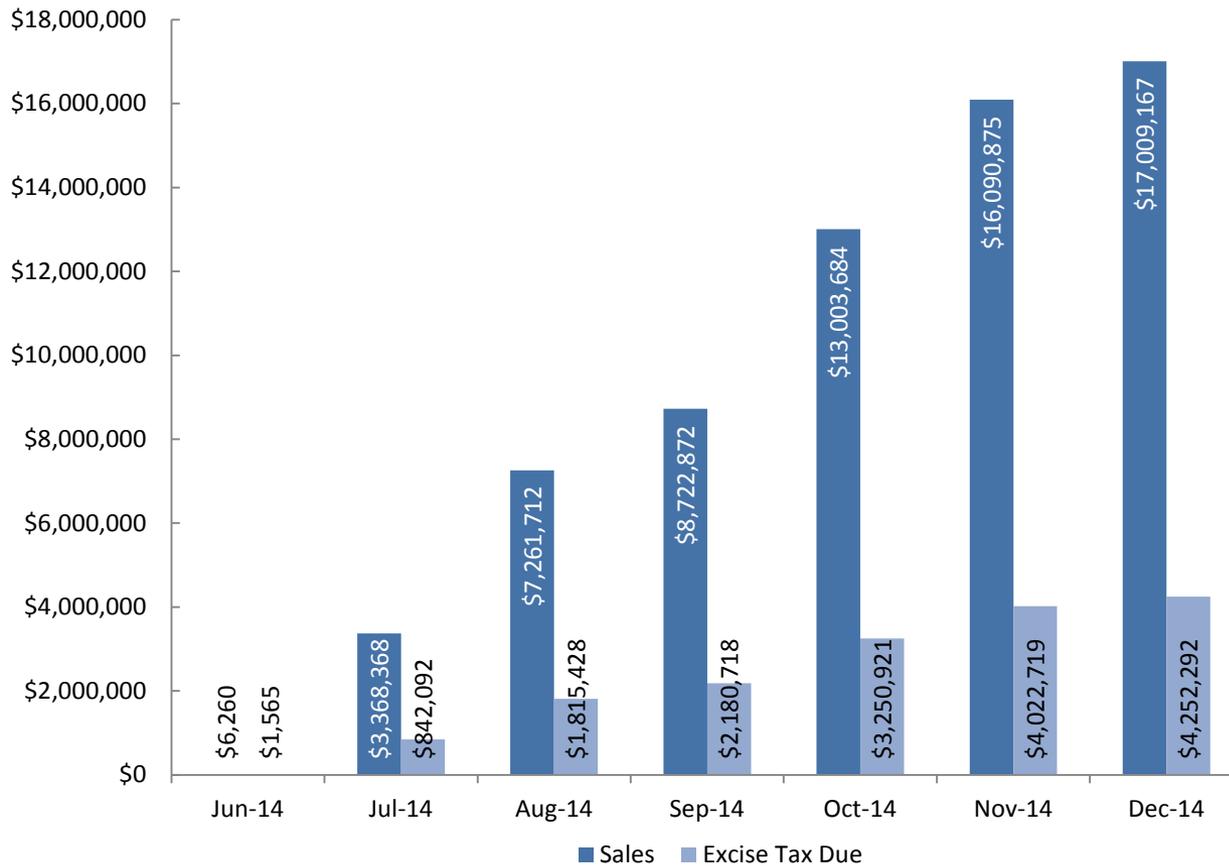
*Source: Office of Superintendent of Public Instruction*



### 3.1 Recreational Marijuana Revenues with 25 Percent Excise Tax

Per reports from the Liquor and Cannabis Board, sales and excise taxes dramatically rose during the first few months of legalization. However, while sales from September to October increased by 49 percent, those from October to November grew by 24 percent and those from November to December by 6 percent. For each month, excise taxes equaled 25 percent of the total sales.

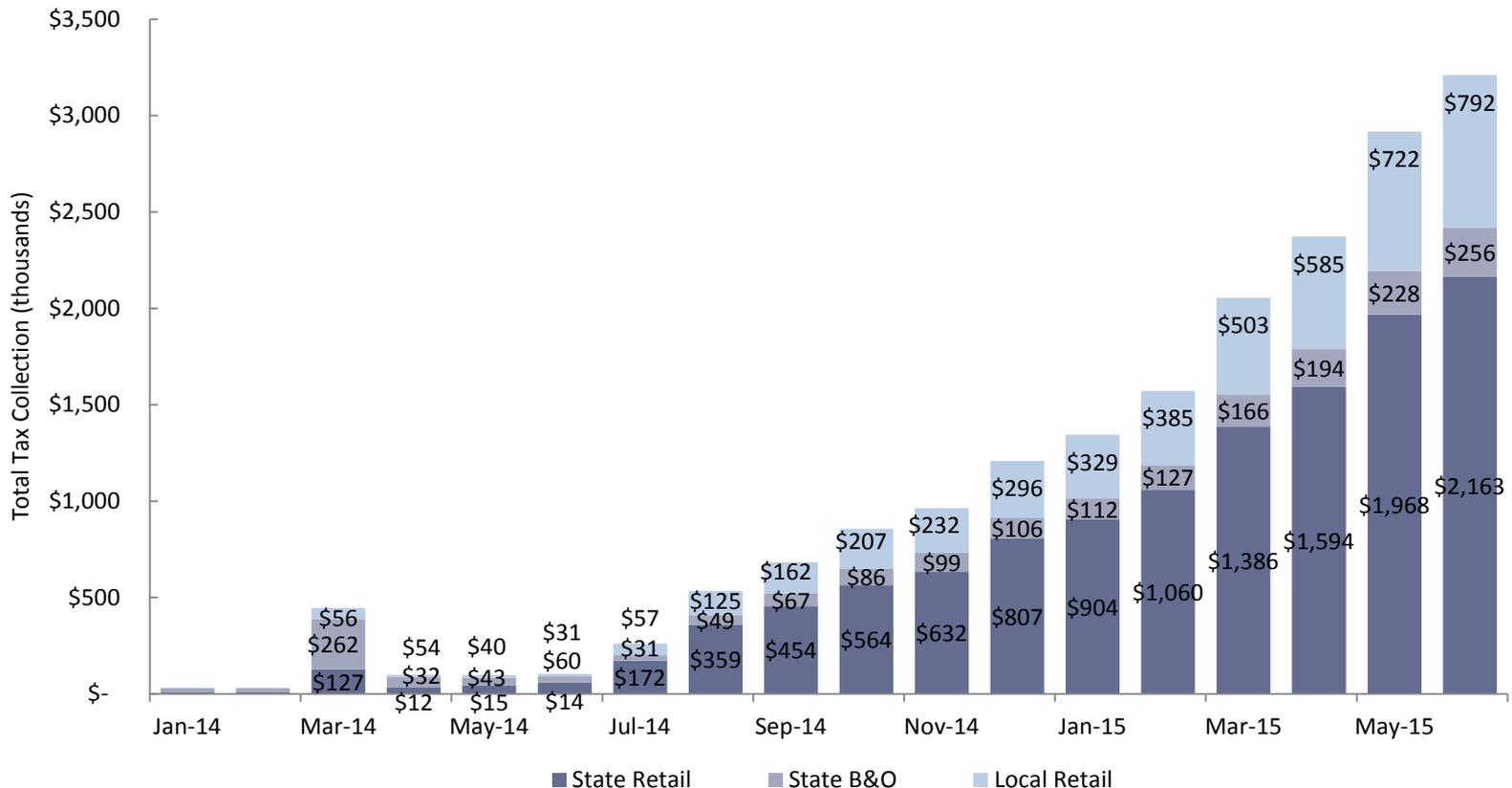
*Source: Washington State Liquor and Cannabis Board*



### 3.2 Recreational Marijuana Reported Revenues with Retail and Business and Occupation Taxes

Department of Revenue-reported sales of recreational marijuana differ from those reported by the Liquor and Cannabis Board (likely due to reporting lags). However, the patterns of sales over time are similar. The taxes shown below include state and other retail taxes as well as business and occupation (B&O) taxes, but do not show total sales. In June 2015, tax revenues equaled \$792,000 in local retail sales taxes, \$256,000 in state B&O taxes and \$2,163,000 in state retail taxes, for a total of \$3.2 million in taxes that month. These taxes are in addition to the excise taxes collected.

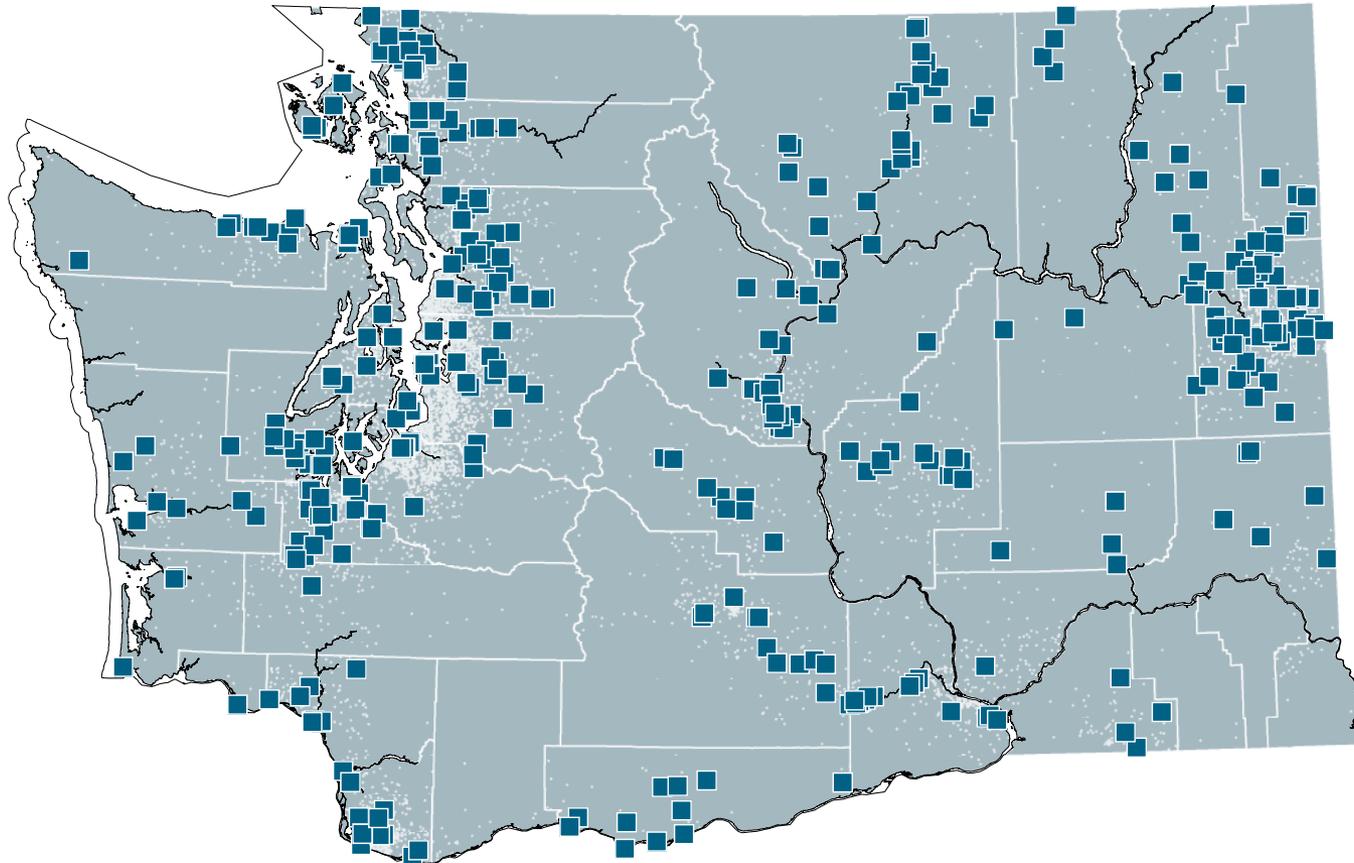
Source: Washington State Department of Revenue



### 4.1a Producers/Processors – Locations

The 526 active licensed producers' locations (as of October 2015) shown within a population density map suggest that production is spread throughout high- and low-population regions. Producers are active in all but four counties: Skamania, Columbia, Garfield and Asotin. In general, producers also act as processors.

*Source: Washington State Liquor and Cannabis Board*



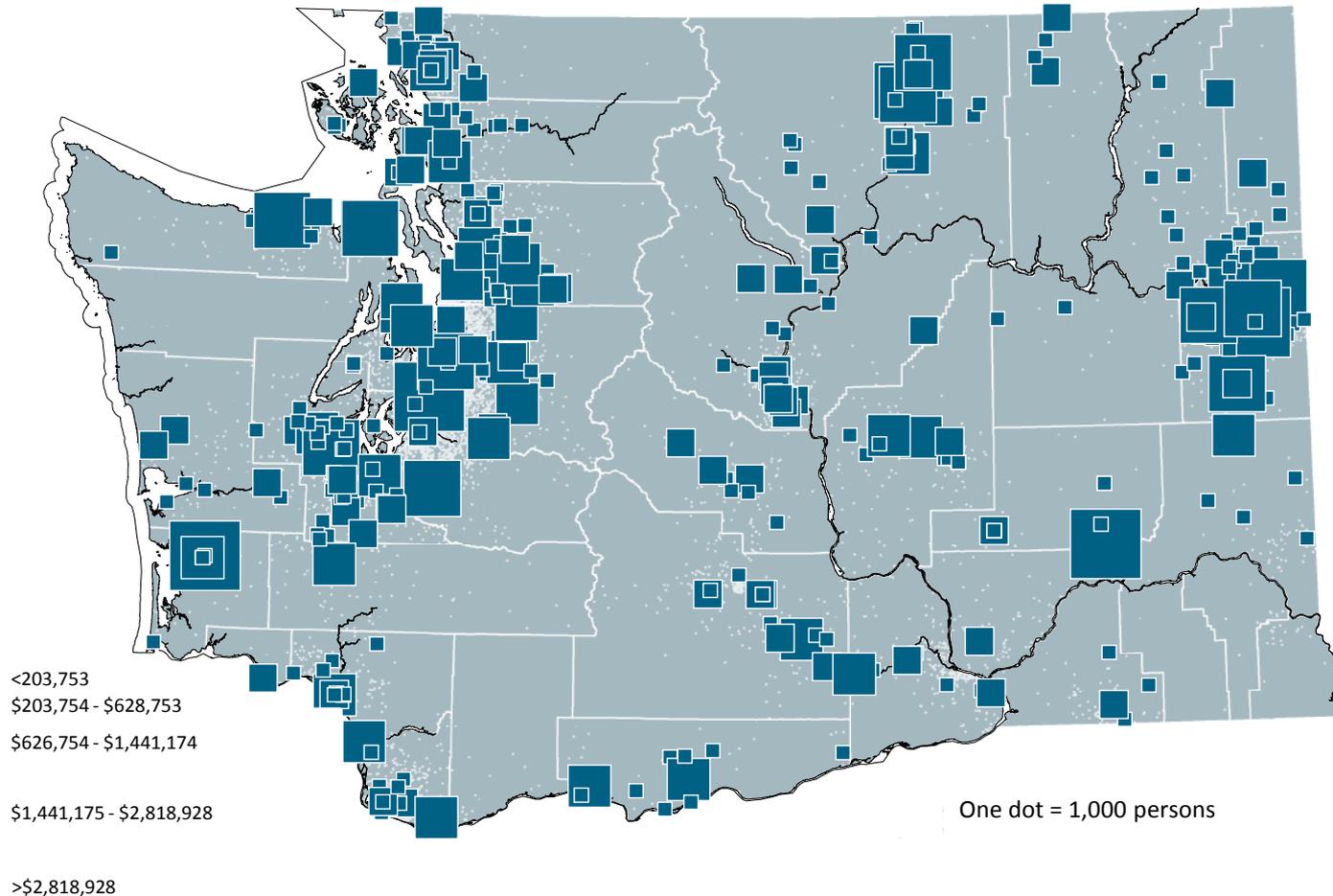
Producer/Processor location

One dot = 1,000 persons

### 4.1b Producers/Processors – Volumes

Volumes of sales by producers (as of October 2015) suggest that large-volume producers are also somewhat equally distributed between high- and low-population regions.

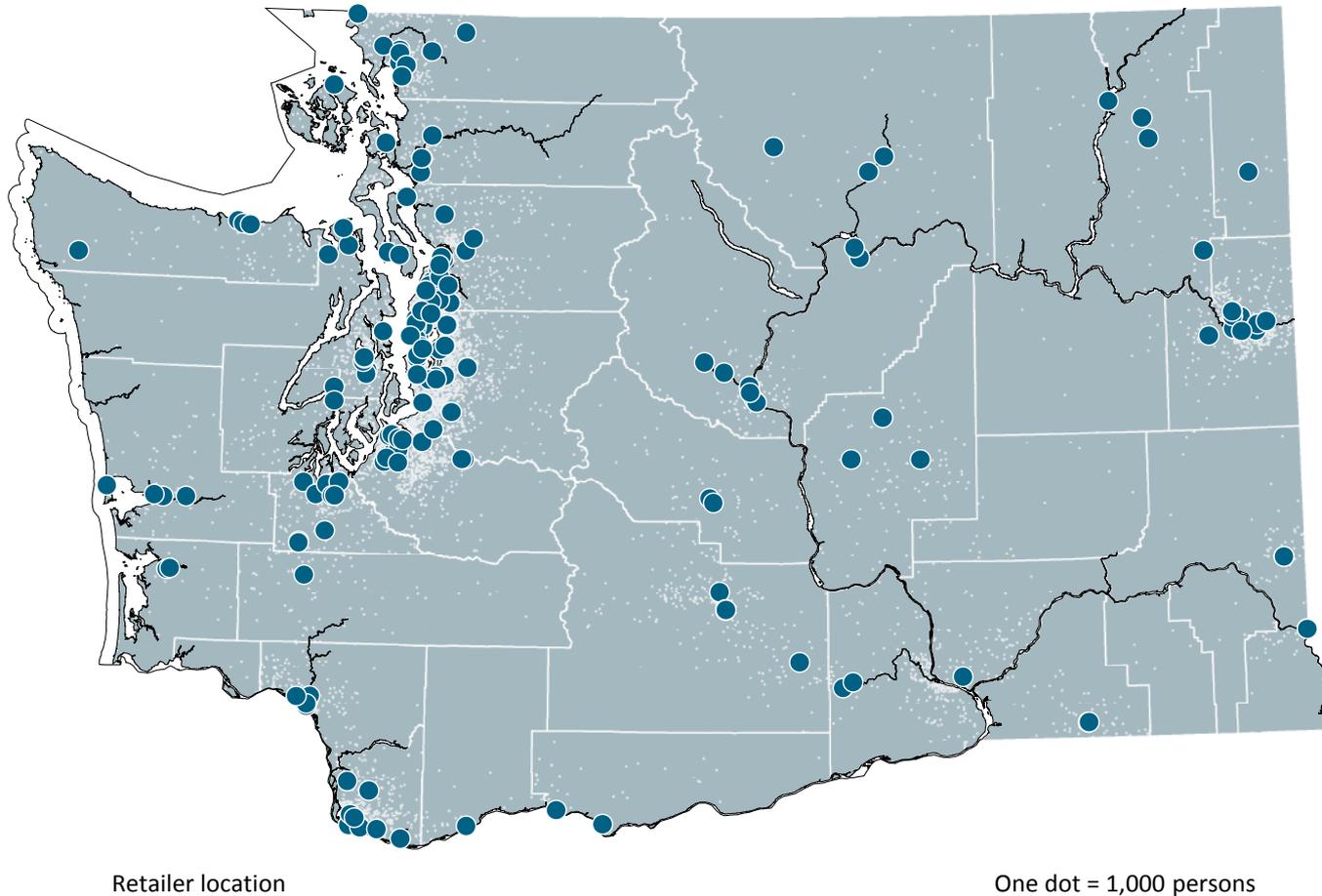
*Source: Washington State Liquor and Cannabis Board*



## 4.2a Retailers – Locations

The 195 active licensed recreational marijuana retailers' locations (as of October 2015) suggest that most are located in urban and city environs. Active retailers are in all but five counties: Wahkiakum, Columbia, Garfield, Adams and Lincoln.

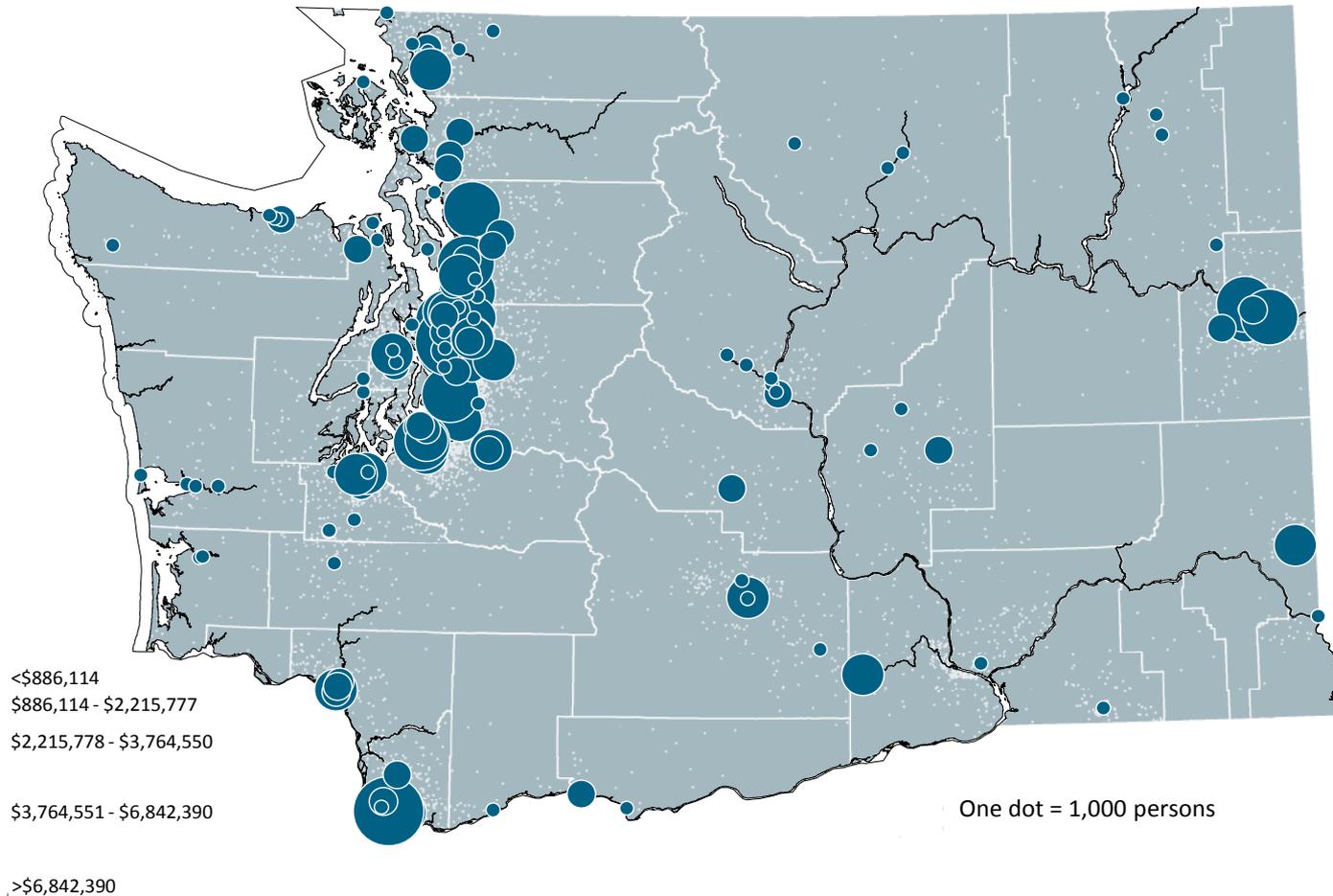
*Source: Washington State Liquor and Cannabis Board*



## 4.2b Retailers – Volumes

Retail sale volumes for recreational marijuana also generally suggest that large sales occur in more urban areas, with seemingly notable exceptions in Benton and Whitman counties.

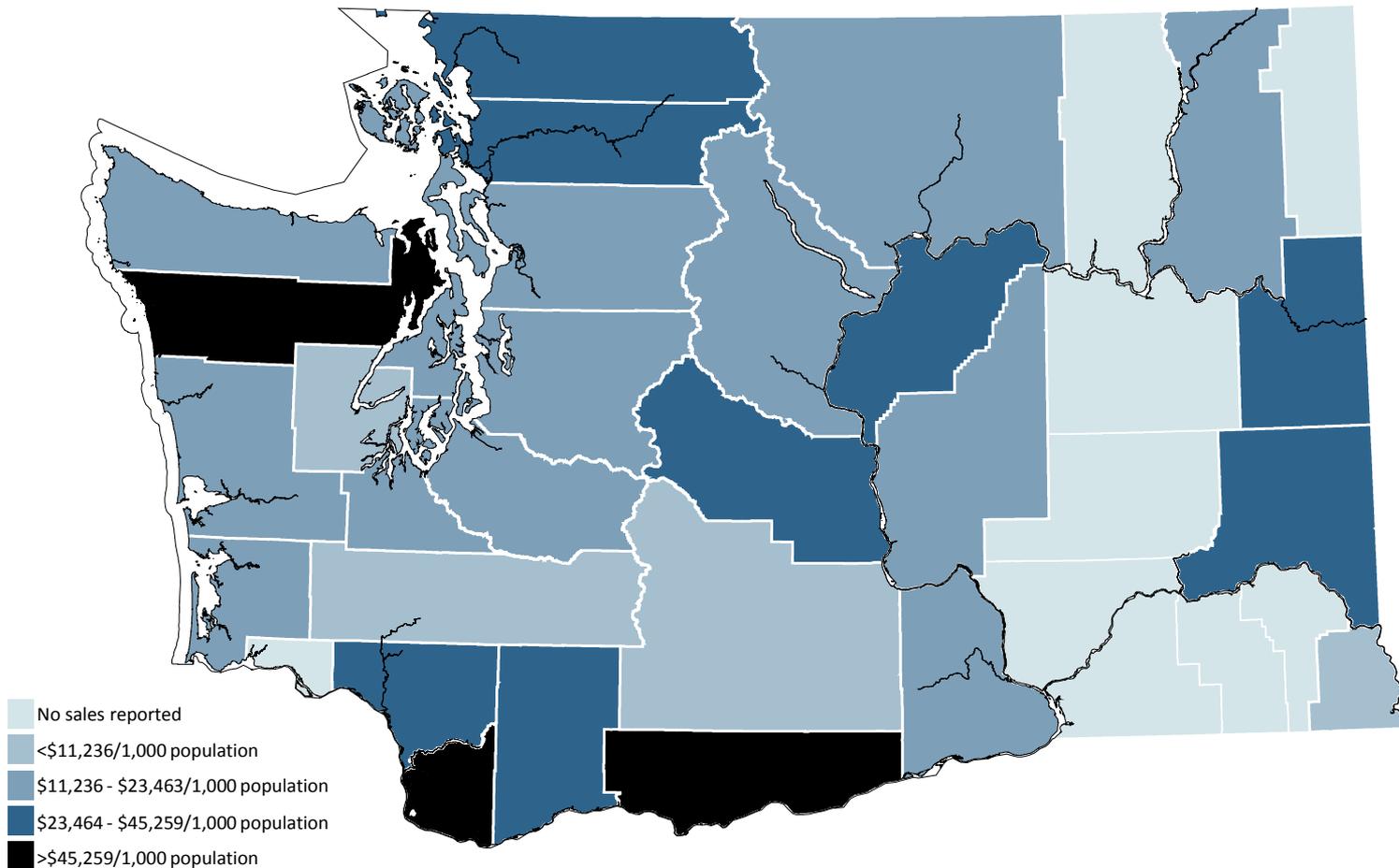
*Source: Washington State Liquor and Cannabis Board*



### 4.3 Per Capita Sales by County

Retail sales of recreational marijuana sold per 1,000 persons living within the county where the sales occurred (as of October 2015) are mapped below. Of the three counties with the highest per capita sales, two (Clark and Klickitat) are on the Oregon state border.

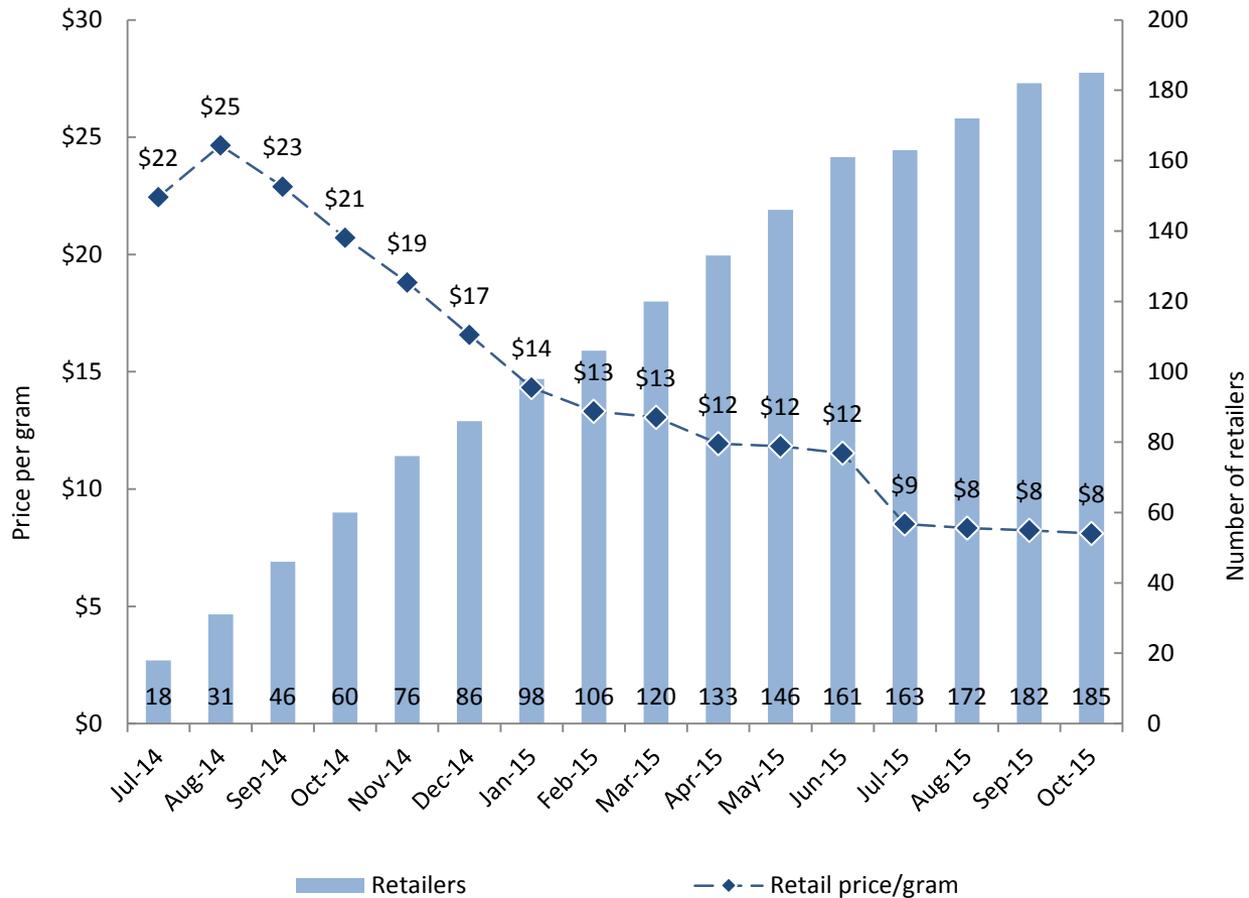
*Source: Washington State Liquor and Cannabis Board and OFM population data*



### 4.4 Retailers and Price per Gram

The average price per gram dropped from a high of \$25 in August 2014 to a low of \$8 in July 2015, and has stayed at that price. Meanwhile, the number of retailers has increased more than tenfold, from 18 in July 2014 to 185 in October 2015.

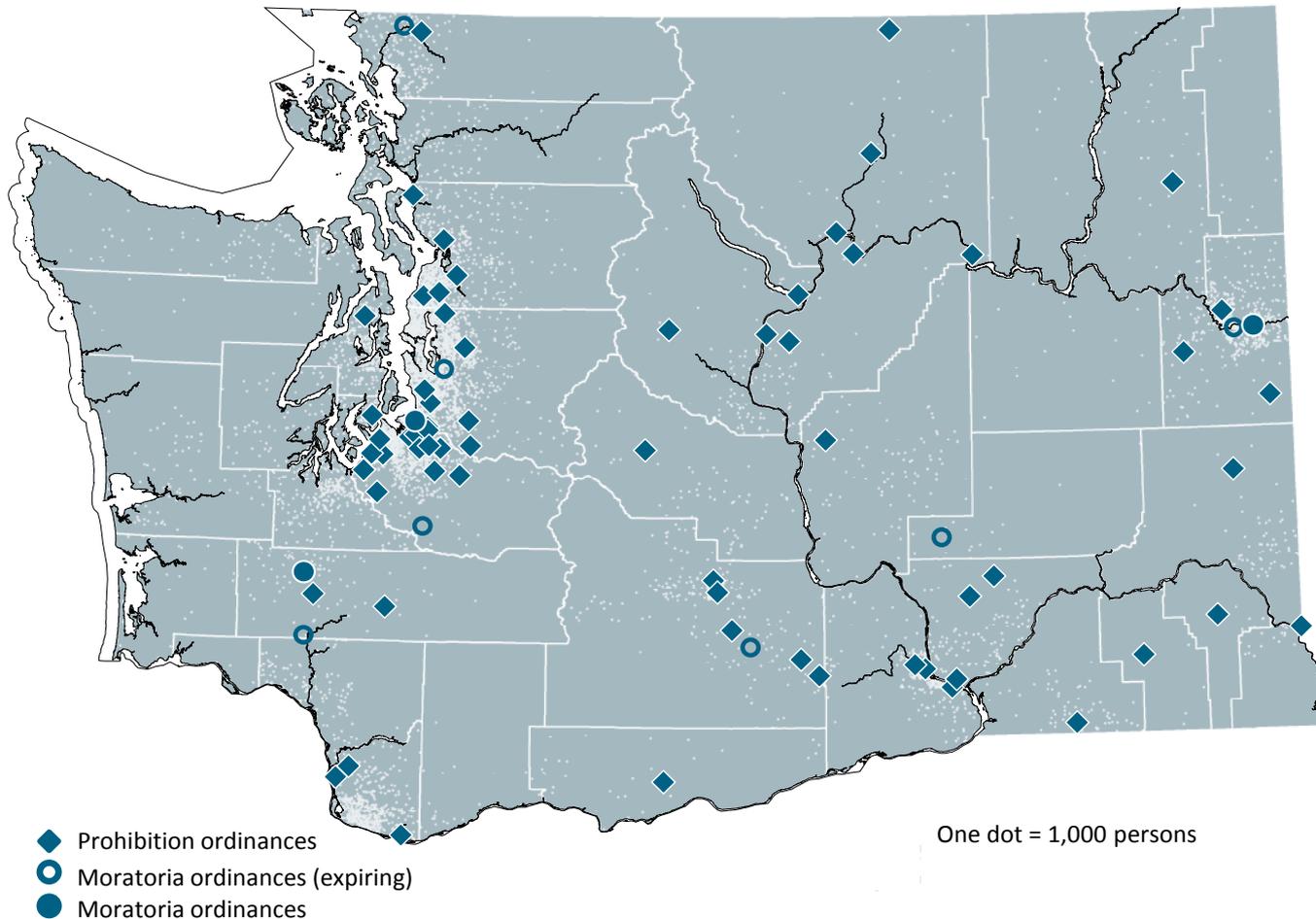
*Source: Washington State Liquor and Cannabis Board*



### 5.1 Cities with Prohibitions or Moratoria on Retail Sales

As of November 2015, 66 cities have prohibitions on retail sales of recreational marijuana, and 10 have a moratoria on sales. However, of those 10 with moratoria, all but three are scheduled to expire in three or fewer months.

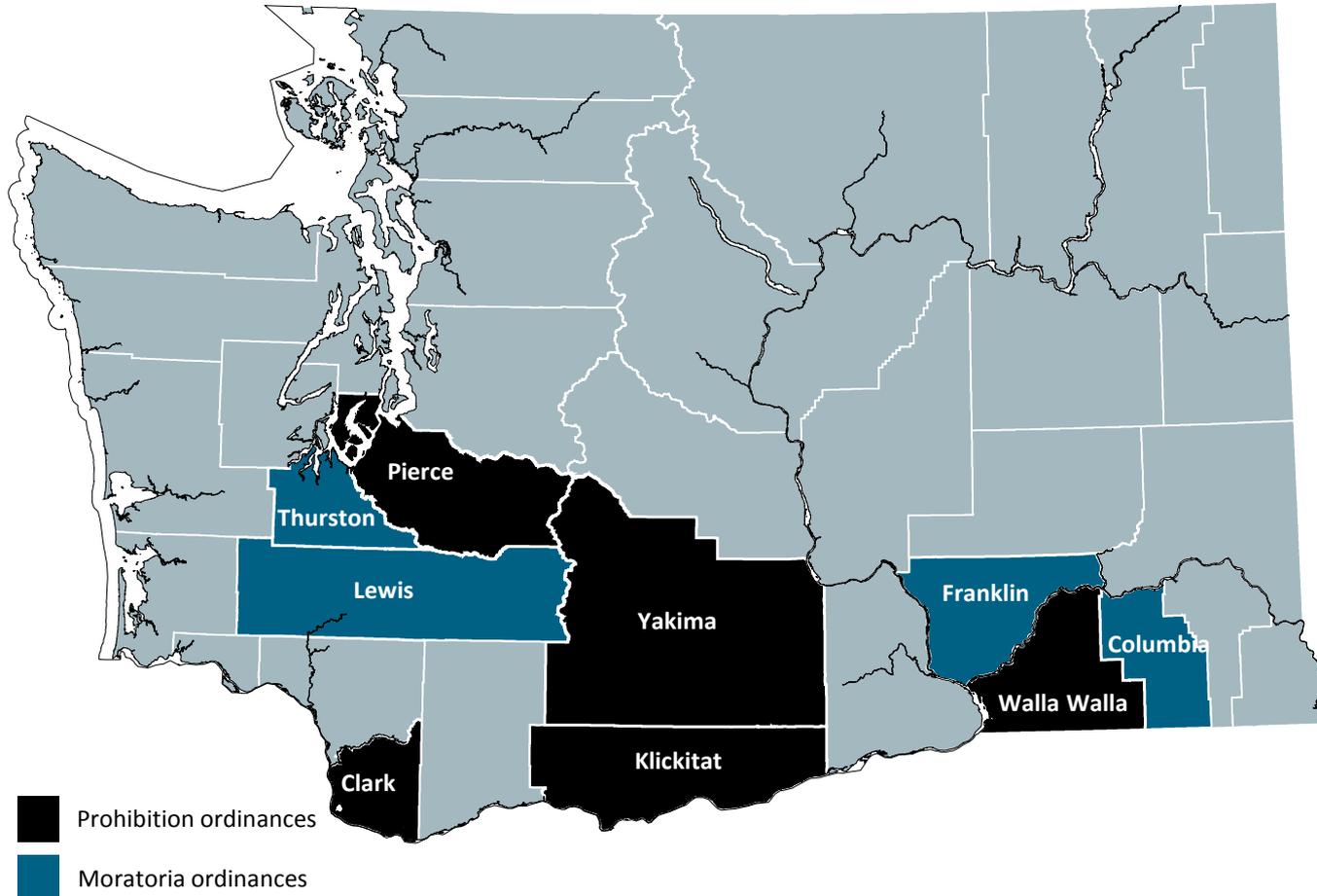
*Source: Municipal Research and Services Center*



## 5.2 Counties with Prohibitions or Moratoria on Retail Sales

As of November 2015, four counties have moratoria on the sale of recreational marijuana in their unincorporated regions and five have prohibitions.

*Source: Municipal Research and Services Center*



**Office of Financial Management  
Forecasting and Research Division**

Joe Campo, Senior Forecasting and Research Analyst  
Health Care Research Center

Keri-Anne Jetzer, Senior Forecasting and Research Analyst  
Sentencing Guidelines Commission

Thea Mounts, Senior Forecasting and Research Manager  
Human Services, Social Services, Criminal Justice and Health

Toby Paterson, Senior Forecasting and Research Analyst  
Economic, Revenue and Labor Forecasts

Jim Schmidt, Senior Forecasting and Research Manager  
Economic, Revenue and Labor Forecasts, and Higher Education