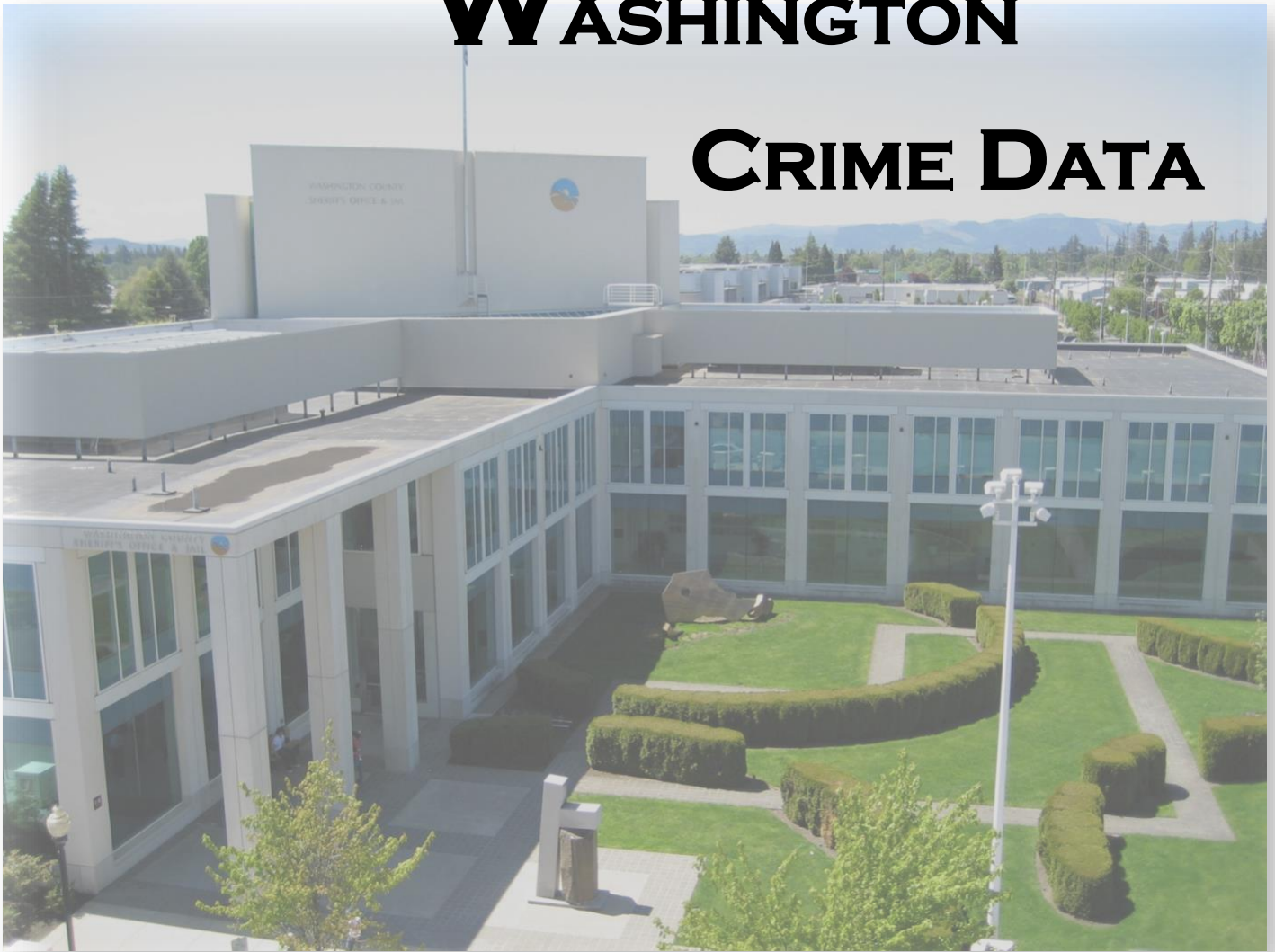


WASHINGTON CRIME DATA



Data Visualization CA 1

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Introduction:

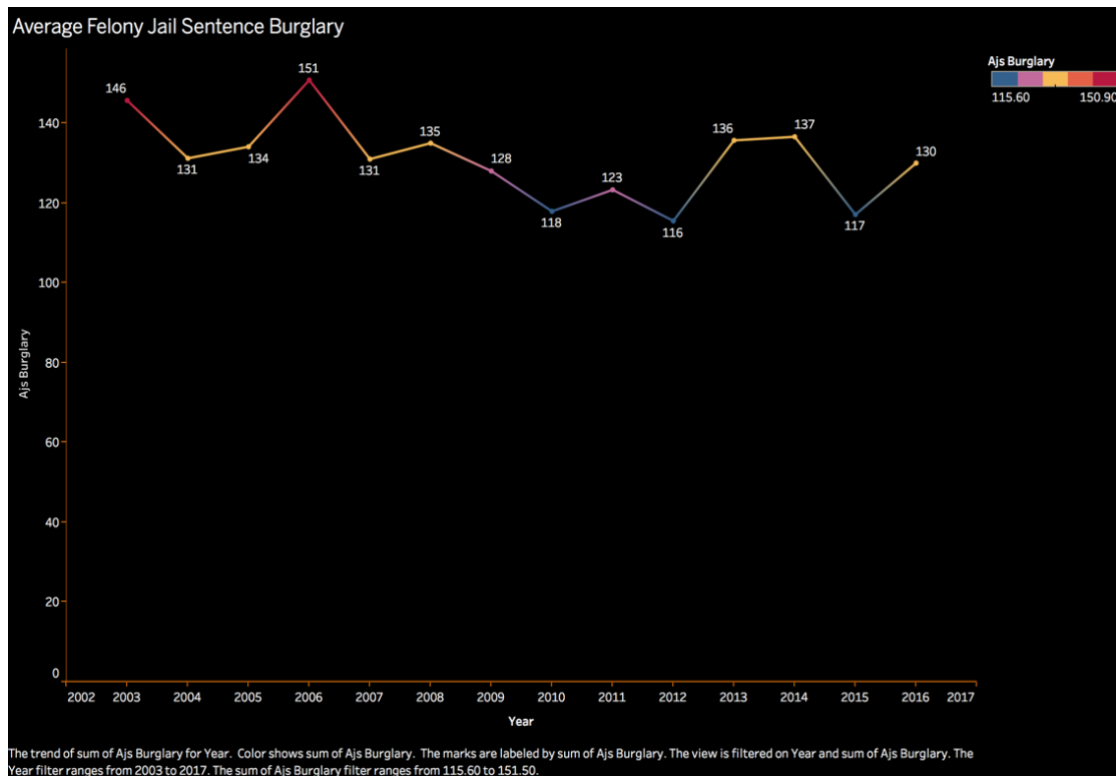
The ranking communities of crime statistics like Federal Bureau of Investigation are cautious [2]. The whole story is never revealed by the numbers of complaints and arrests. The whole story comprises of the factors like true crime rate, making differentiation across jurisdiction without any much bunch. Still everyone is curious to know whether sharp

practice in their city than the next city over. So, in Washington, the data offers an analytical snapshot of violent

offence. But they are NOT to be differentiated. The FBI can't be more lucid. Here is the stem results inclusive to the 2017 Crime in the United States report.

“Every year once Law-breaking in the United States is newscast, some entities use the statistics to accumulate positions of cities and regions [2]. These irregular positions provide no vision into the several variables that frame law-breaking in a specific town, city, county, state, tribal area, or region. Therefore, they lead to basic and/or imperfect analyses that often generate deceptive insights poorly distressing societies and their inhabitants. Valid calculations are possible only with watchful study and investigation of the series of exclusive conditions affecting each local law enforcement jurisdiction. The data user is, therefore, warned against relating law-breaking data of distinct broadcasting entities from cities, urban areas, nations, or colleges or universities uniquely on the foundation of their people coverage or student membership.”

The Washington State Criminal Justice Data Book merges state records from different group sources that can be forwarded through Crime Stats Online. The Washington arithmetical Analysis Centre is a clearinghouse for state data on unhealthy behaviour and value subjects, joined from an extensive variety of workplaces and reporting system



1. Average Felony Jail Sentence

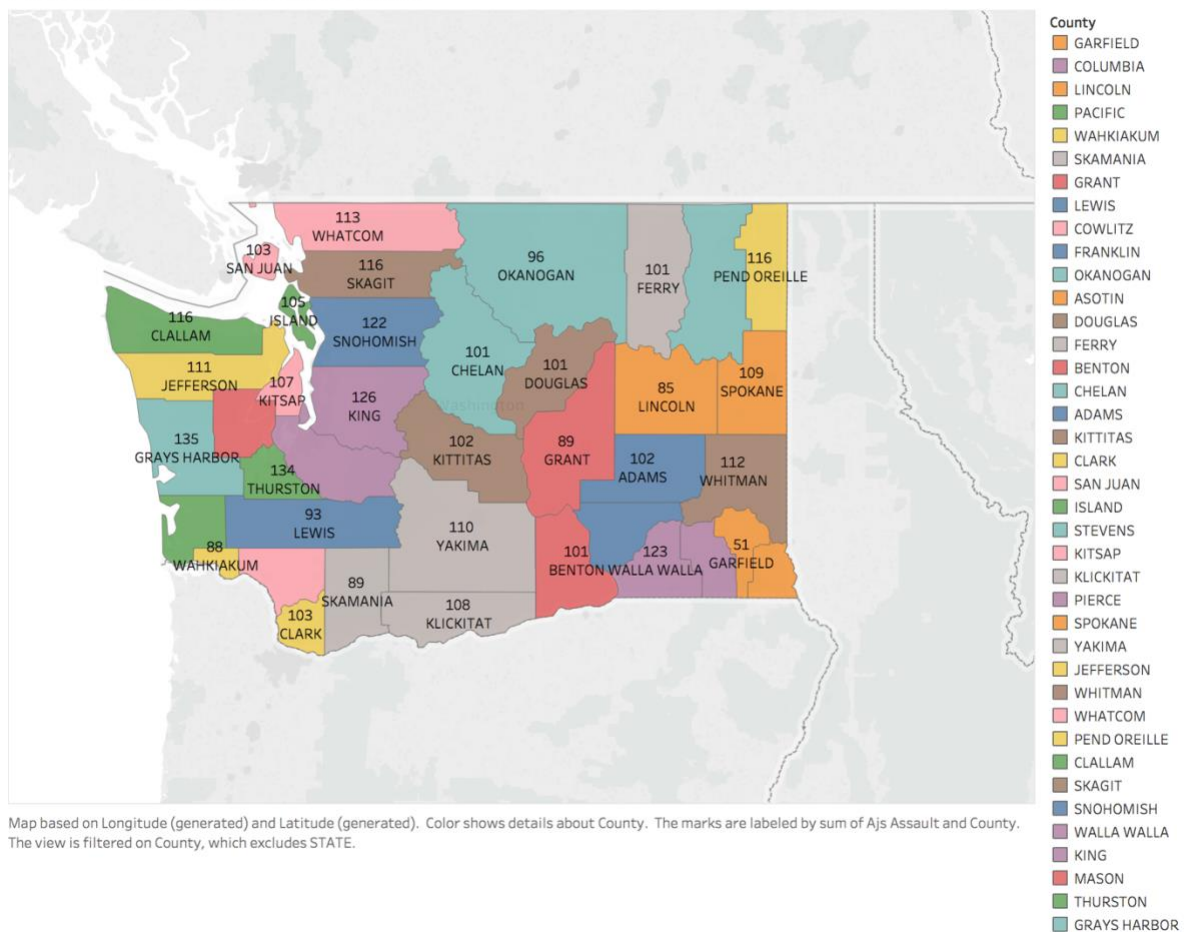
Average Felony Jail Sentence Burglary

The above line graph shows the Burglary crime number from one of the agencies from the state of Washington. The graph is the number of Burglary crime happened against the year. The data of the year is

starts from 2002 to 2016. In the initial years the police were not that strict because of that the thieves are daring

to commit the crime. In year 2003, the number of burglary kind of crime happened is 145, especially residential burglary crime. In 2004, it falls down to 131, the rate of burglary crime rate in Washington state is reduced because police pay more attention towards it. In Year 2006, highest record of burglary kind of crime has been reported by the agency i.e. 150. this is one of the highest record recorded in that year the reason behind thieves come up with the new ideas to commit crime. In next year again fall down to 131. The last record reported by agency in the year of 2016 is 130.

Average Felony Jail Sentence Assault

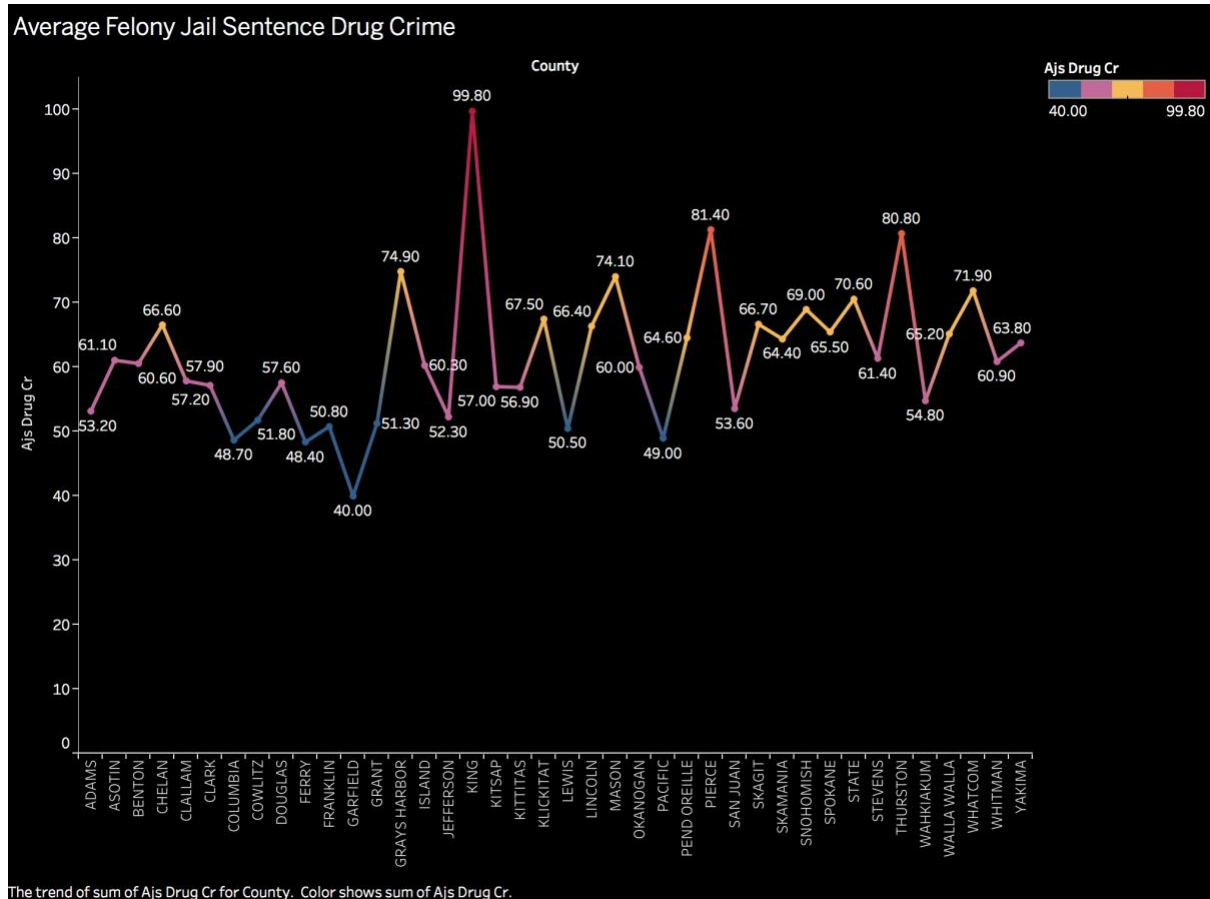


2. Average Felony Jail Sentence Assault

Average Felony Jail Sentence Assault

The Symbol map specify the Offensive crime from the regions of the Washington state documented in different color shades. The Figure or the map denote the number of assault crime and the name of the counties where the crime is committed. The maximum number of Assault

crime like harassment, kidnapping, stealing vehicles etc. is committed in “GRAYS HARBOR” County shown in the blue color shade i.e. 135. The county name “THURSTON” is on second number with the record of 134 which is in the green color shade. The lowest number of assault crime committed is recorded in the county name “GARFIELD” which is orange color shaded region i.e. 51 the reason behind dropped down in crime is police are strict in that region and thieves are not trying to commit any crime.

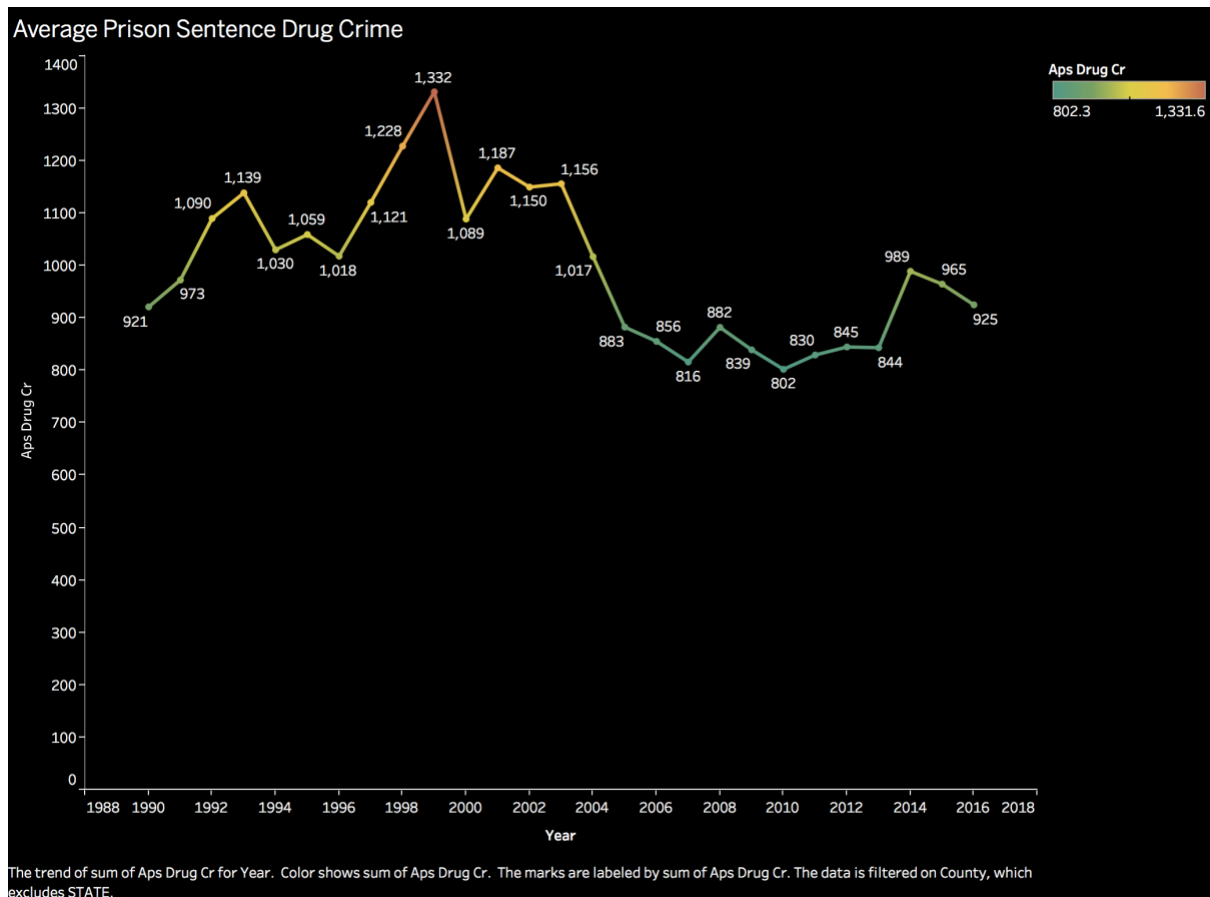


3. Average Felony Jail Sentence Drug Crime

Average Felony Jail Sentence Drug Crime

The above track graph specifies the drug crime rate agreeing to county recorded by one organization. In this graph name of the county which is on the X axis against the Drug crime rate which is on the Y axis. The rate of drug crime is from 53.20 to 63.80 in various

counties or regions. In the first county ADAMS the rate of drug crime is 53.20. ASOTIN crime rate noticed is 61.10. "CHELAN" it is noted as 66.60 respectively, then collapse to 40 in county GARFIELD. In the county "KING" is noted as 99.8 which is the highest rate amongst all the counties in the Washington in this county the drug dealing related crime are committed on large number that is why the rate in this county is very high .81.40 and 80.80 is noted in the "PIERCE" and "THURSTON" respectively. Lowest rate of Drug crime is in GARFIELD and the highest drug crime rate is documented in the KING region.

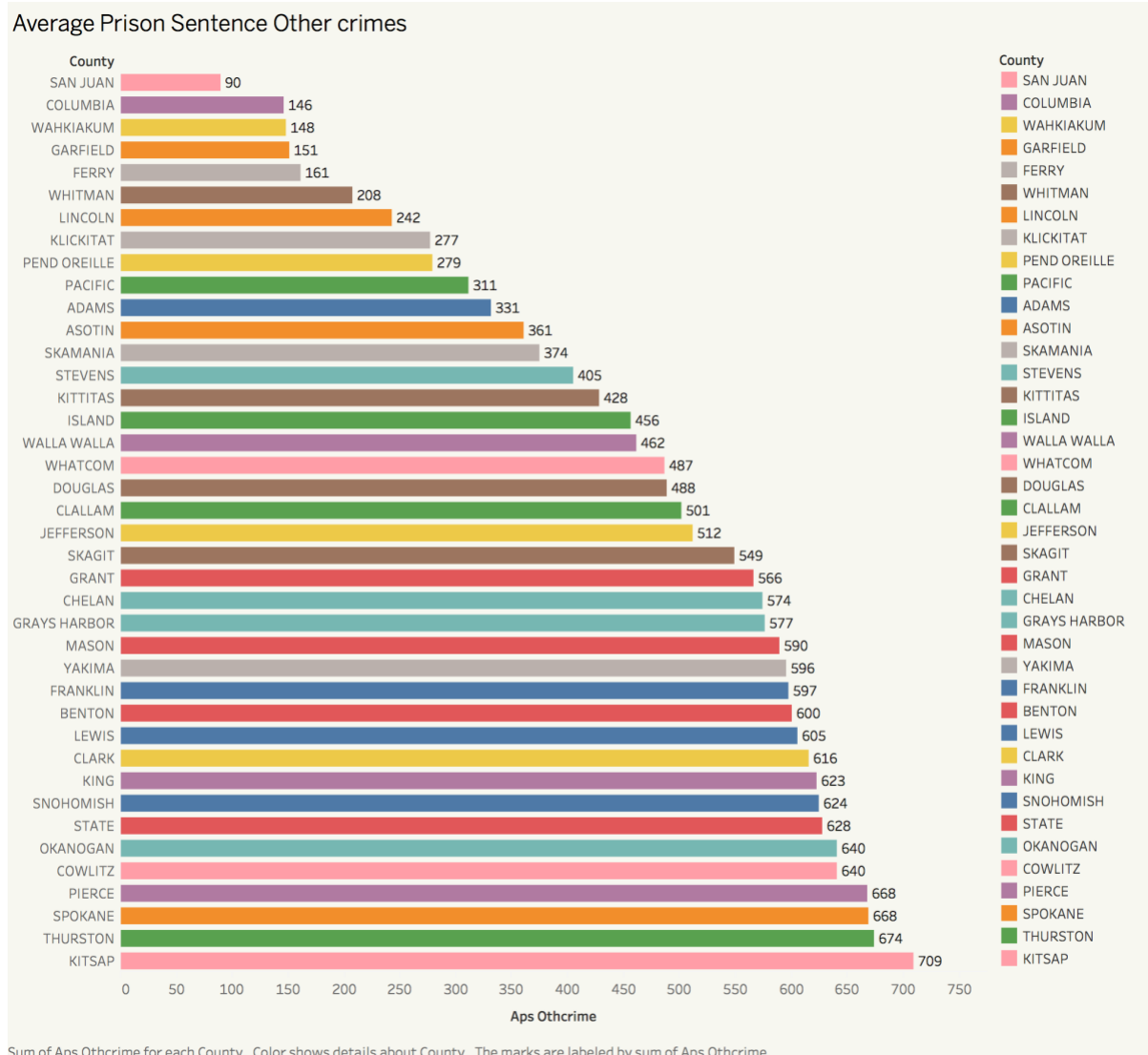


4. Average Prison Sentence Drug Crime

Average prison Sentence Drug Crime

In the Above connection graph, it denotes the Average Prison Sentence against drug crime from the year 1990 to 2016. On the X axis years are mention and on the Y axis the total cases of Drug crime are mentioned. The range of Drugs Crime is between 921

at the starting and end at 925, but there are many up and downs in the records. In year 1990 the record of Drugs crime was 921, next coming years it keeps on increasing due to lack of attention police. At one point in the year 1993 it reaches to 1,139 that time police took some serious action against it due to that it reduced little bit but again the people who are committing the crime are come up with the new ideas. In year 1999, it reaches at its peak that is up to 1332 the number of cases is increased, after that police started taking some serious action against the people who committed the crime. After that it reduced to 925 in the 2016.



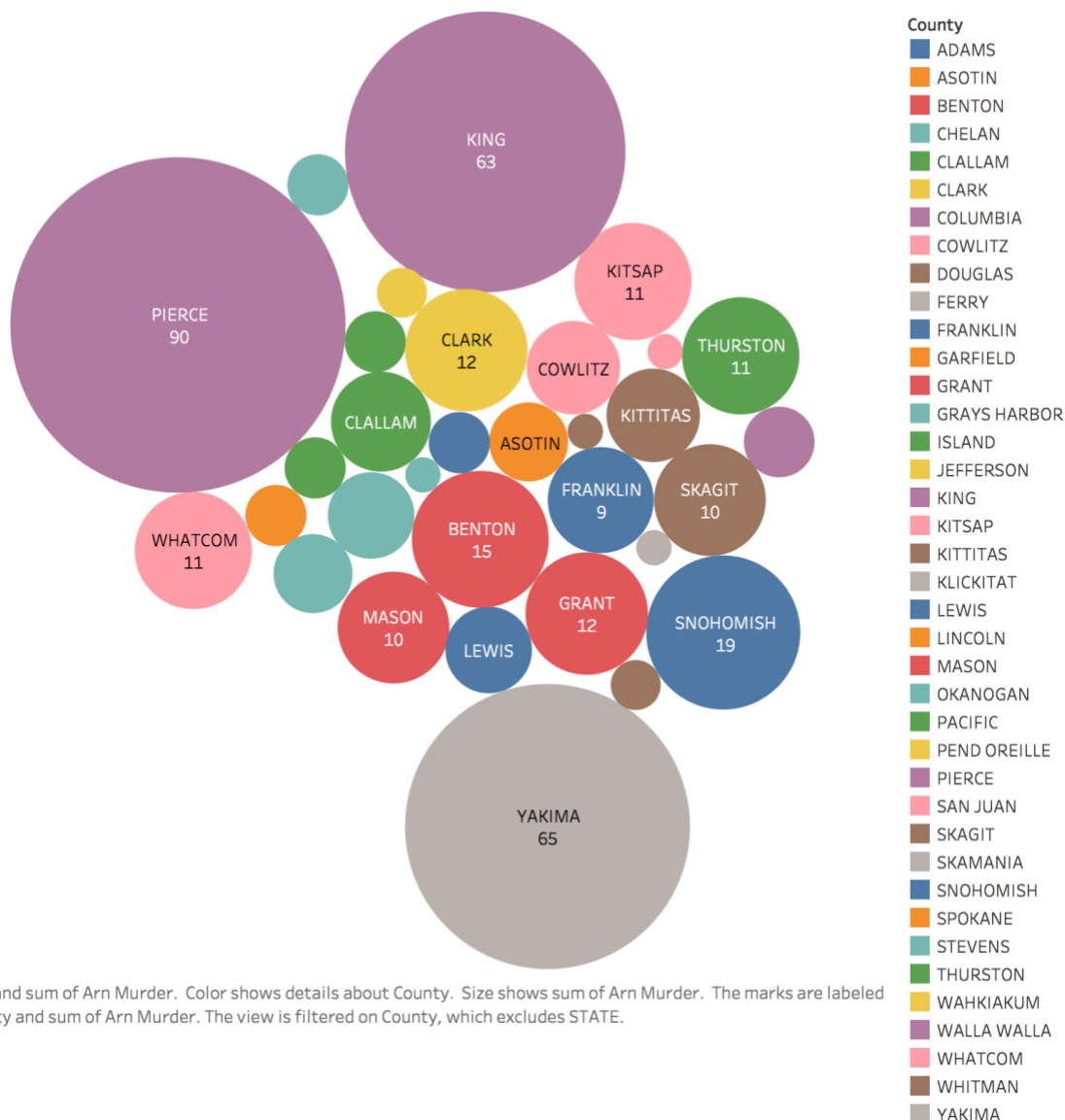
5. Average Prison Sentence Other Crime

Average Prison Sentence Other crime.

The above Bar Graphs indicates the average of Other crimes in the Washington state. In this graphical representation, Counties are on the X axis

and the number of crimes committed in various counties. Number of crimes are recorded from 90 to 700. In county SAN JUAN, number is recorded for other crimes like mugging, Assault, kidnapping etc. are 90, After that in each county it keeps on increasing and in the county name KITSAP it is recorded 709 which is the highest record form the other type of crime.

Average National based Report_Murder

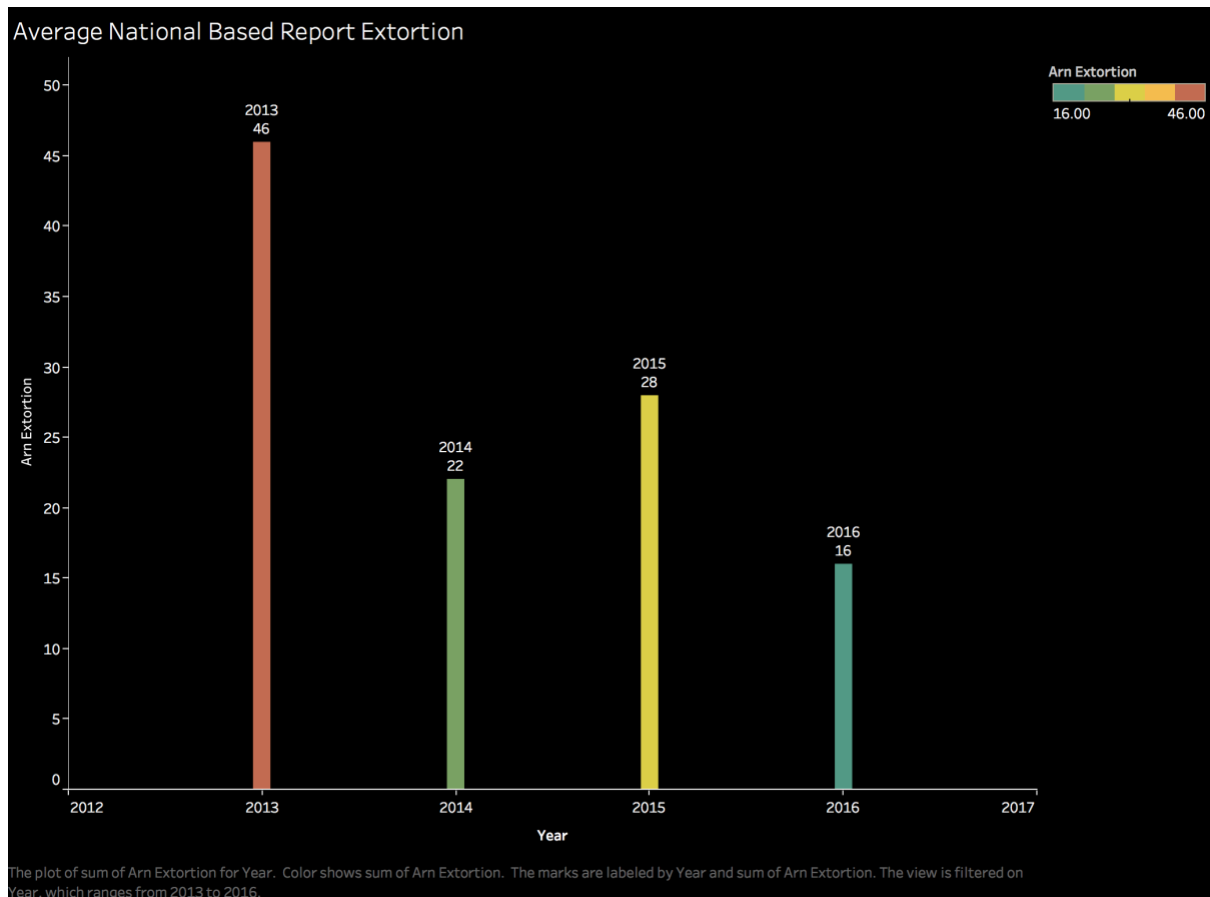


6. Average National Based Report _Murder

Average National based Report Murder

The above Bubble chart indicate the Average National based Report

Murder, Where the size of the bubble indicates the more number of Murder related crime committed in that region. Counties are denoted by the bubble, different counties or region are indicated by different color shade. In County PIERCE, 90 murder cases are recorded, after that In YAKIMA it is recorded as 65. In county KING 63 murder cases are recorded. In County FRANKLIN least number of cases are recorded i.e. 9.



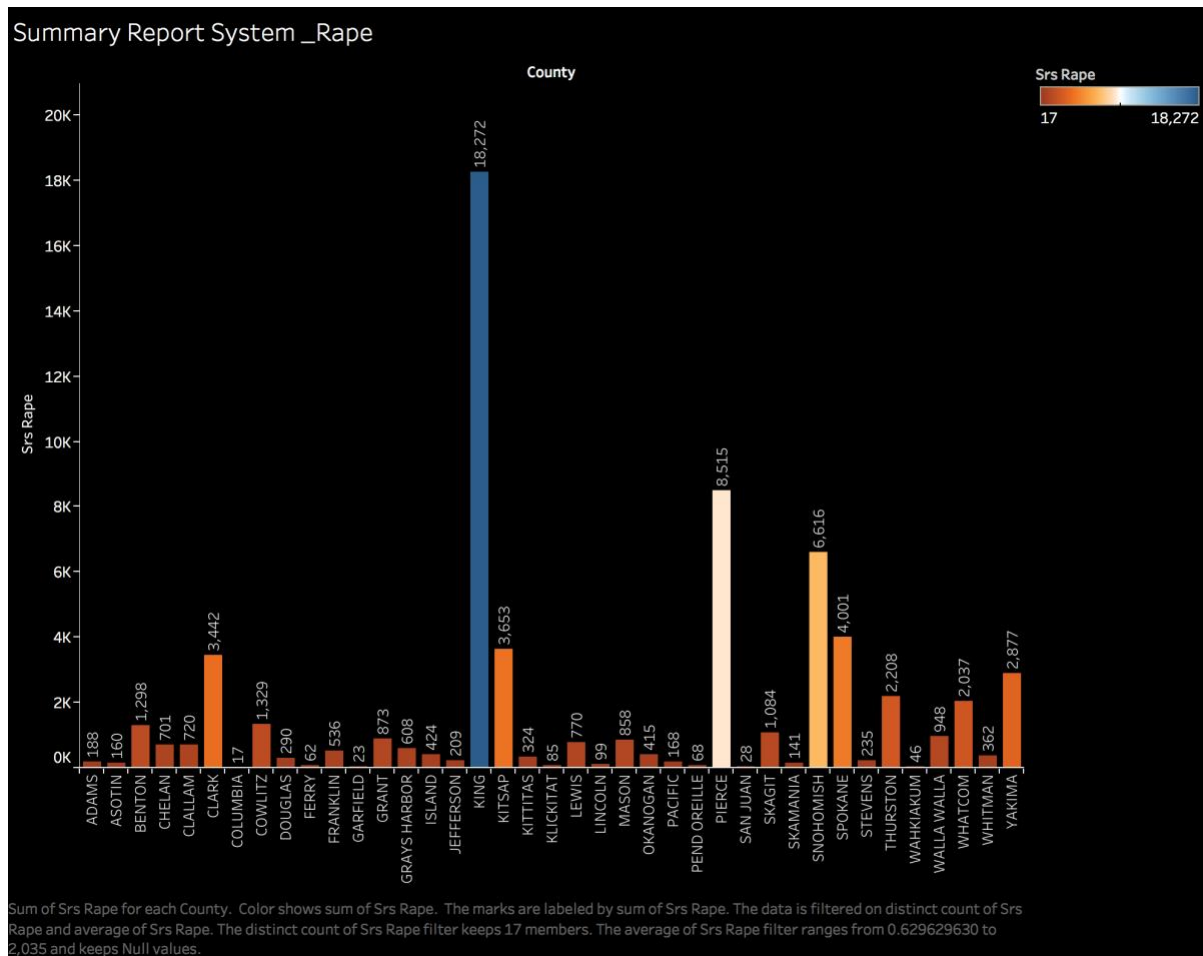
7. Average National Based Report _Extortion

Average National Based Report Extortion.

The Bar graph indicated the, Average National based Report for extortion cases. In the below graph data is shown from 2013 to 2016 and the number of extortion cases are mention within those years.

In the year 2013 the record for the Average national based report_ extortion is 46 just because people make misuse of their power and create an issue for the other

people. In 2014 police take serious action again the case of extortion due to that people stop misuse of their power due to that the record sharply fall down from 46 to 22. Again, in year 2015 people started using their power and make misuse of that power to crate the trouble for other people, but in 2016 again it is reduced to 16.

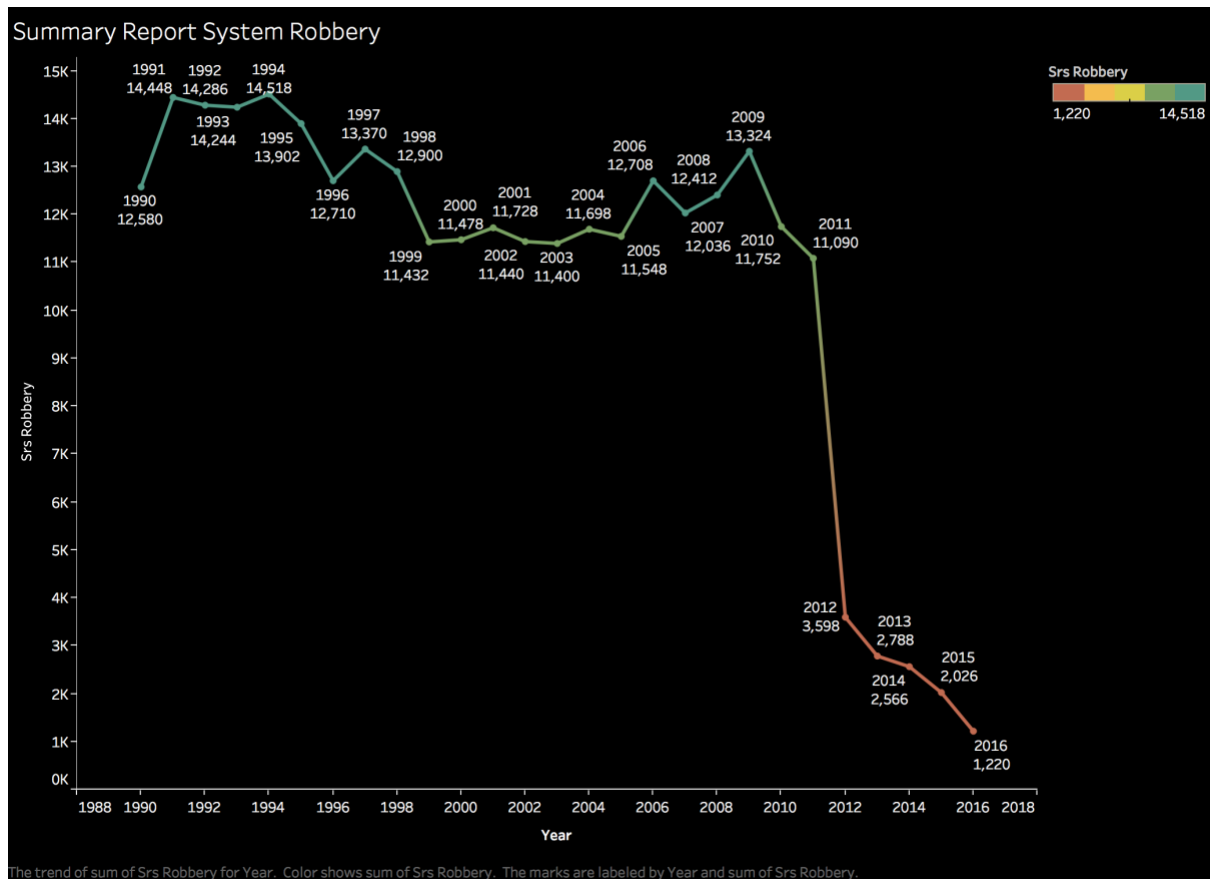


8. Summary Report System_Rape

Summary Report System_Rape

The below figure shows the line graph, in which the report of the rape cases is mentioned. The graph is county against the rape cases. Counties on X axis and the rape cases are on the Y axis. In the County ADAMS the average of rape cases is 186.

In COLUMBIA county is very less rape cases are recorded. The maximum number of average of rape cases are recorded in KING county i.e. 18,272 around 18,275 cases, after that the next county PIERCE, where 8,515 average rape cases are recorded. On number 3 after PIERCE is SNOHOMISH where 6616 average cases are recorded. There is drastic change in the two counties.



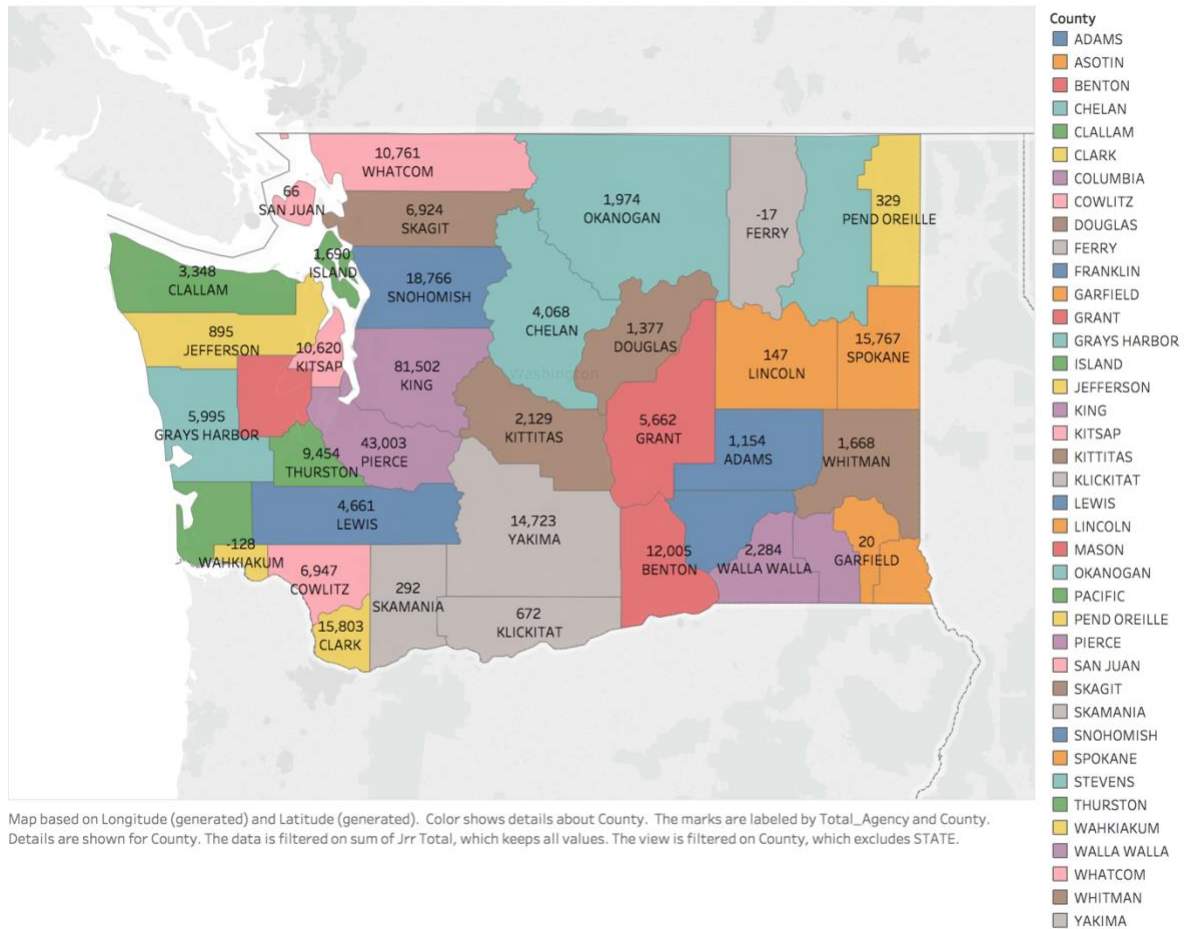
9. Summary Report System _Robbery

Summary Report System _Robbery

The below route graph indicates the SRS robbery. The range of the robbery case is from 1220 to 14518. On the X-axis years and on the Y axis total number of cases in thousand.

In 1990 the robbery cases are recorded as 12,580 which is very large number after that people try new methods and new technology to commit such crime then it reaches to 14,448. In 1994 it reaches to its maximum which is 14,518. From 1995 police start taking severe action against such crimes so it is started falling down people reduce to commit such crime. In between 2009 to 2012 it falls sharply from 13324 to 3598 which is very huge difference and after that it is again fall down to 1220.

Sum Total



10. Sum Total

Sum Total

In this map graph the average of total number of crime are shown. Every county is indicated with different color. From the

maximum number of crime county to the minimum number of crime county all are included in this graph. The county KING has the maximum number of crime record i.e.81,502. On the second number PIERCE with the record of 43,003, after that on the third number county SNOHOMISH with the record of 18,766. The Lowest number of record is -17 that is in county FERRY. And after that the lowest record with -128 is county WAHIAKUM. Almost there is no crime in those two counties.

Conclusion

As per existing data the crime narrated is a severe issue displayed in Washington. There has to be some recommendations that

can eradicate crime from our counties and country. The significance of this recommendation is not restricted to any specific community, organization or any type of hate crime rather the data represents genre of most common crimes collectively displayed from various backgrounds [3]. The organization should consider early involvement before some scenarios and incidents escalate into violence.

References

- [1] US Government open data catalog . (November 7, 2017). *Criminal Justice Data Book*. Available: <https://catalog.data.gov/dataset/criminal-justice-data-book-3419c>. Last accessed 14/02/2018.
- [2] Levi Pulkkinen. (November 27, 2017). *Violent crime: A look at Washington's largest cities*. Available: <https://www.seattlepi.com/seattlenews/article/Violent-crime-A-look-at-Washington-s-largest-12387495.php>. Last accessed 17th Feb 2018.
- [3] Neil Chakraborti. (2014). University of Leicester. *The Leicester HATE CRIME project*. 1 (1), 80-82.

Appendix

Serial NO.	NAME OF THE FIGURE	DATA VISUALIZATION TOOL	DESCRIPTION
1	Average Felony Jail Sentence Burglary	Tableau	The line graph is easy to indicate the change in the crime rate year wise.
2	Average Felony Jail Sentence Assault	Tableau	The map graph is very easy to specify the assault crime rate according to counties.
3	Average Felony Jail Sentence Drug Crime	Tableau	The track graph is easy to analyses the Drug crime according to counties. If in one county the rate of the crime is high, then the track graph moves in the upward side which makes easy to understand the graph
4	Average prison Sentence Drug Crime	Tableau	The connection or route graph will help to make the calculation easy and understandable.
5	Average Prison Sentence Other crime.	Tableau	The pole Chart displays the separate comparison between the categories.
6	Average National based Report Murder	Tableau	The bubble diagram, according to size of the bubble we can select which grouping is large and which grouping is small.
7	Average National Based Report Extortion.	Tableau	It is easy to compare the various elements with each other by slab graph
8	Summary Report System Rape	Tableau	Spoke Plan display huge transformation in information over period

9	Summary Report System Robbery	Tableau	Edge tabulation are used to exhibit computable values throughout uninterrupted period.
10	Sum Total	Tableau	Plan gives the clear distribution of entities of geographical area

Why Tableau is used for the representation of the information?

Tableau is business intelligence tools it shows the good representation. Connecting the data is very easy in tableau. Tableau makes available various kind of visualization which will help to understand , what exactly contain in the information.