

# Panda Bytes

Brant

Collin

David

Kat

Walter

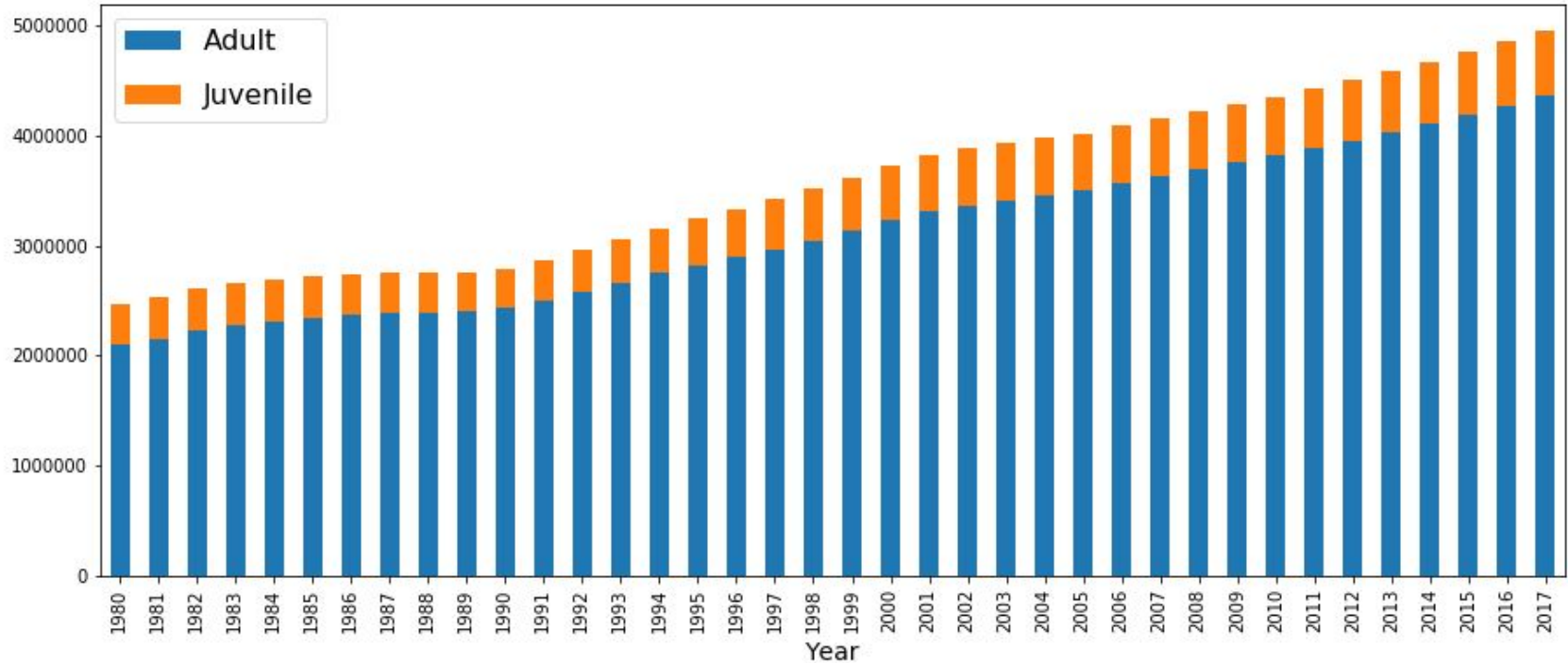
# Impact of Marijuana Legalization

Population Growth and Crime  
comparisons before and after legalization.

Data published by the Colorado Bureau of Investigation.

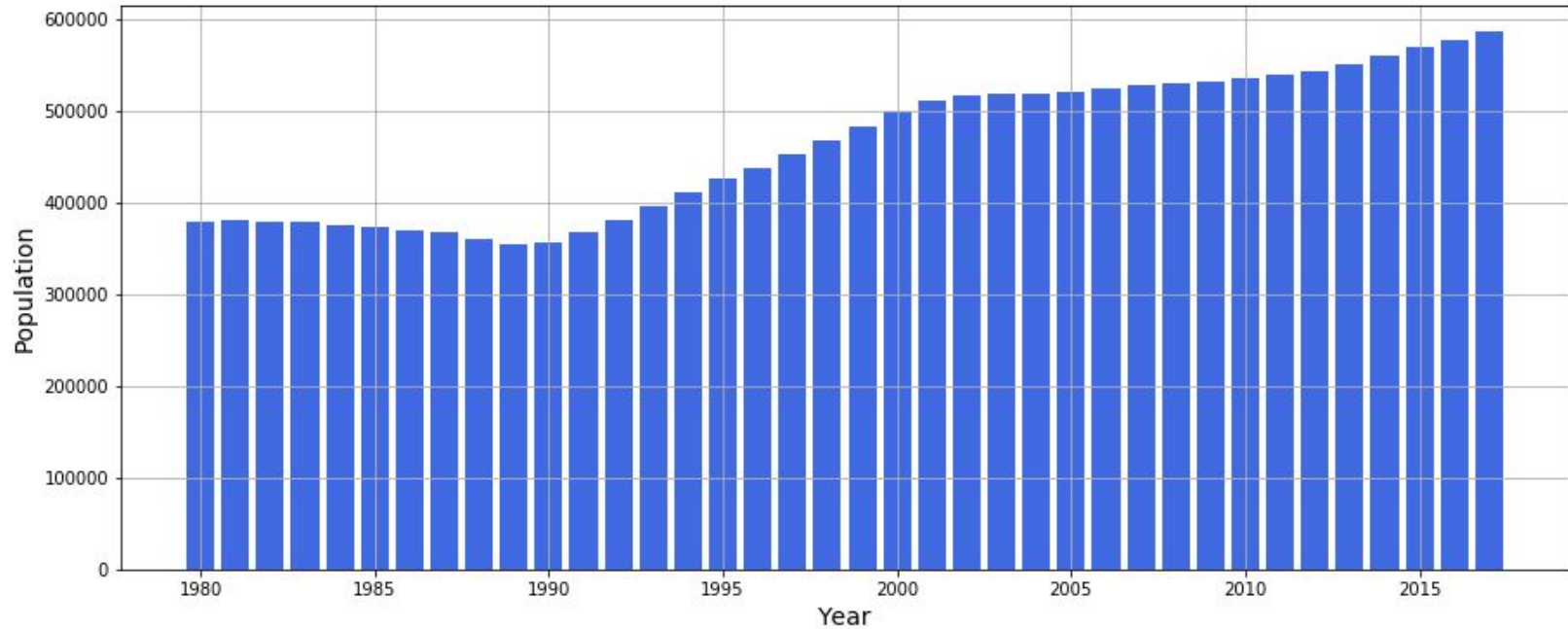
# Population Growth Over Time

CO Population - Age Group by Year

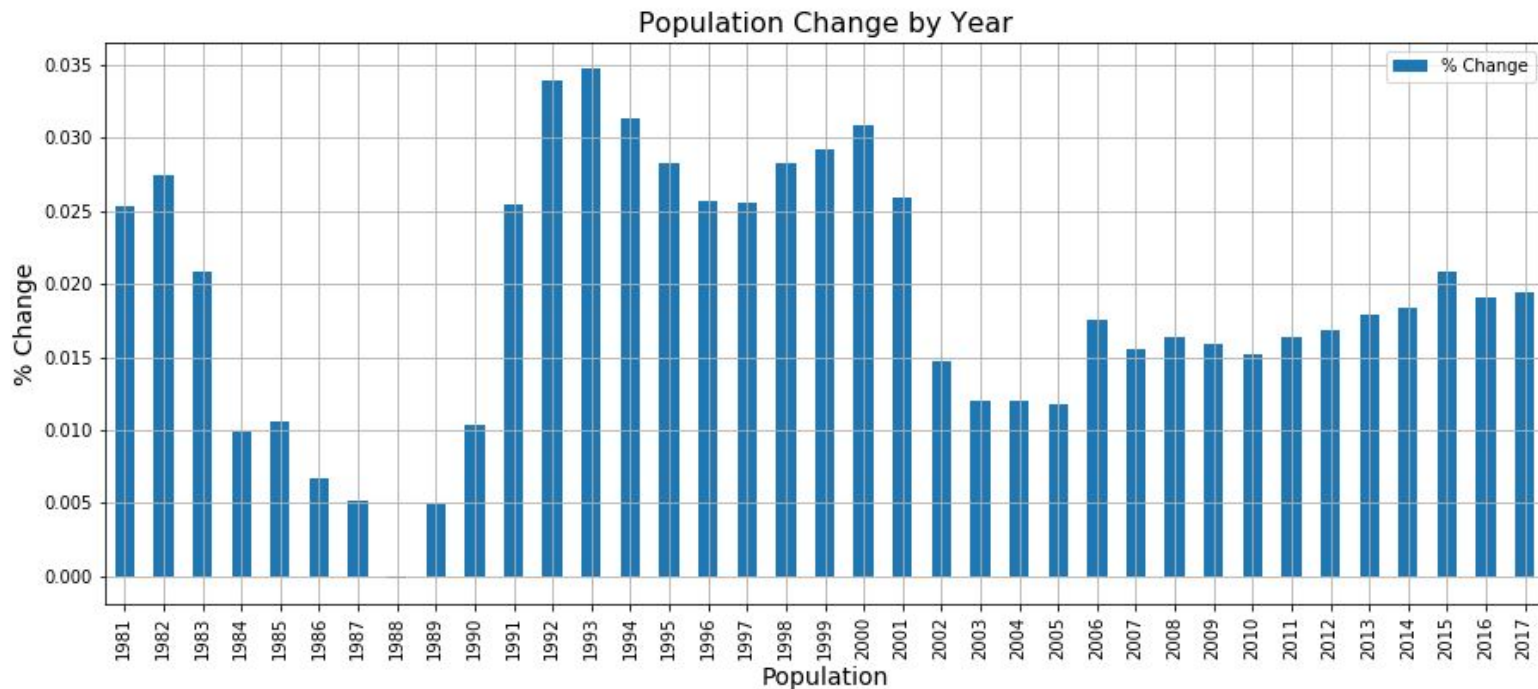


# Youth Population

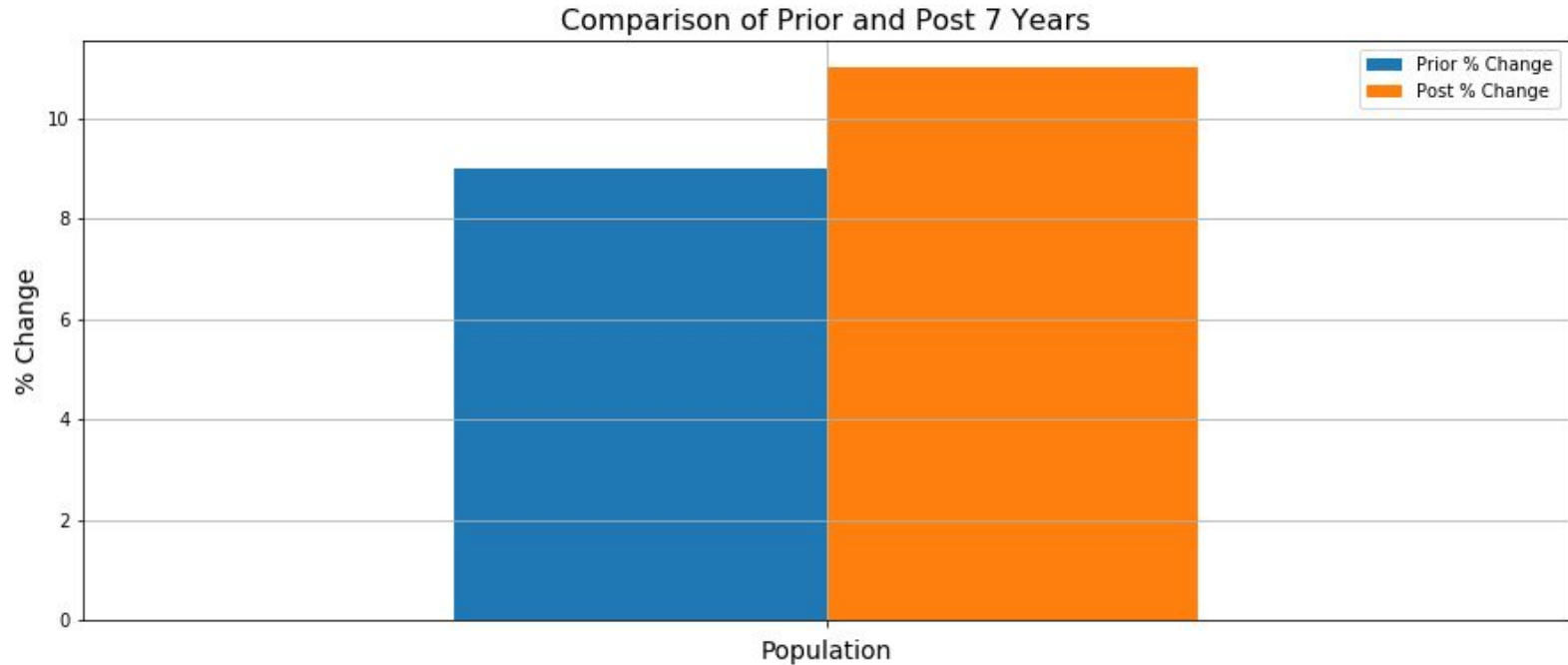
Youth Population by Year



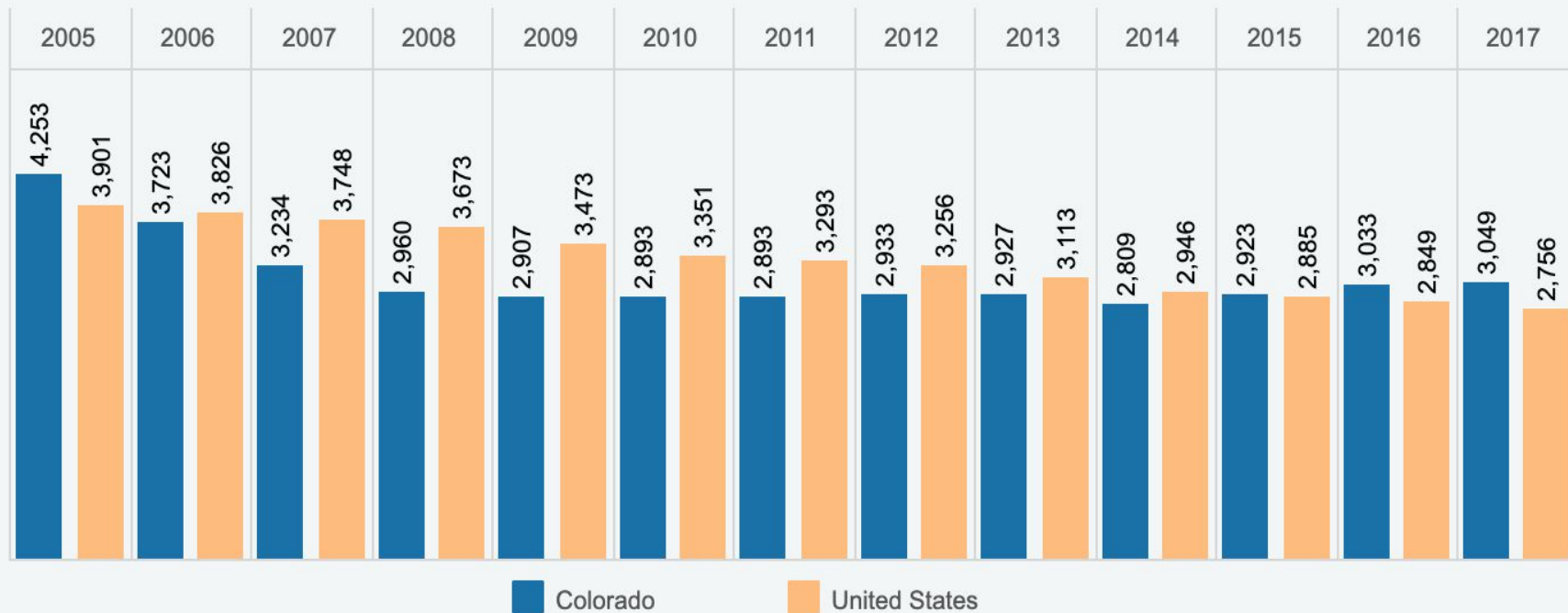
# Population Percent Change Year over Year



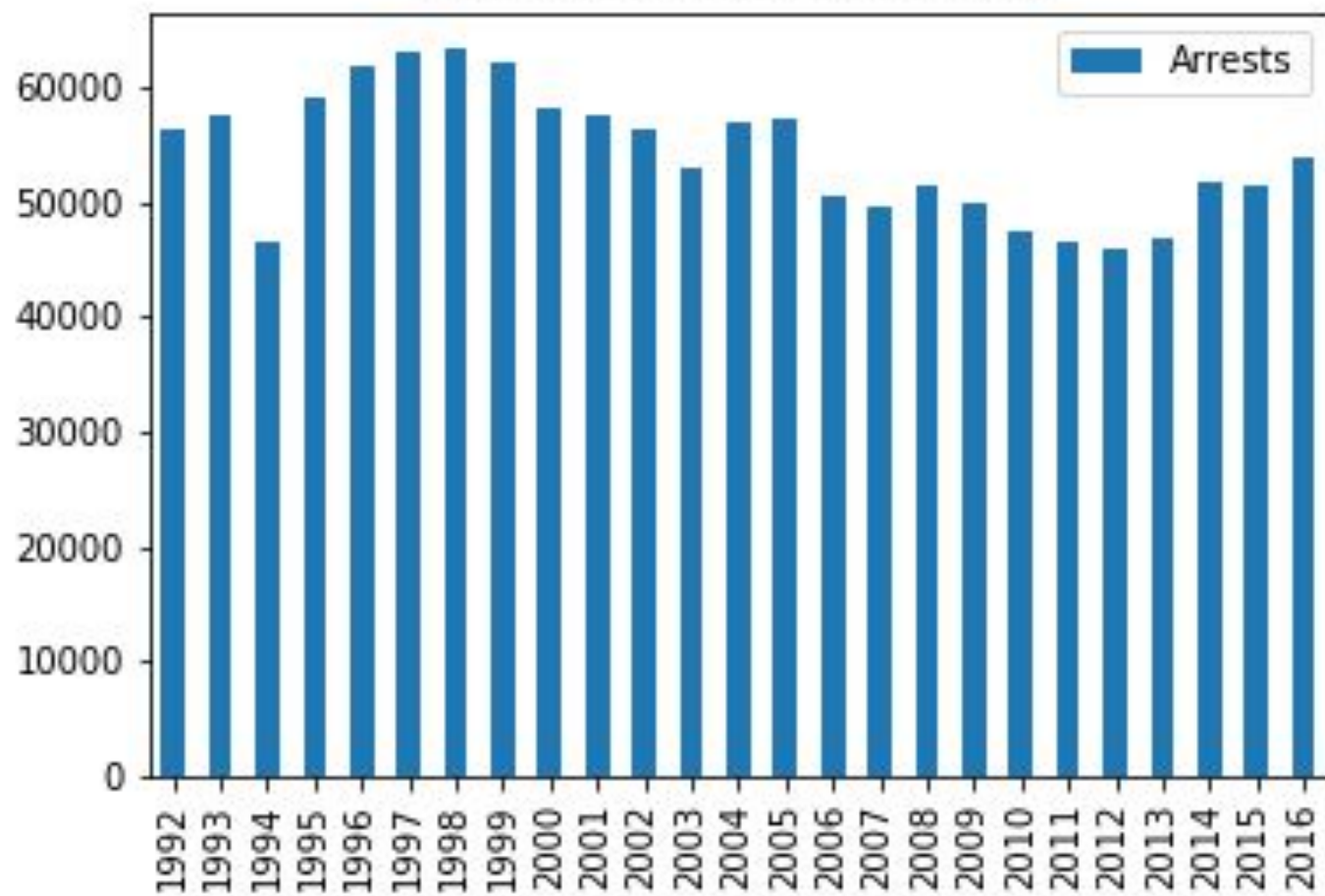
# Population Trends Before and After



# Crime - Statewide vs US



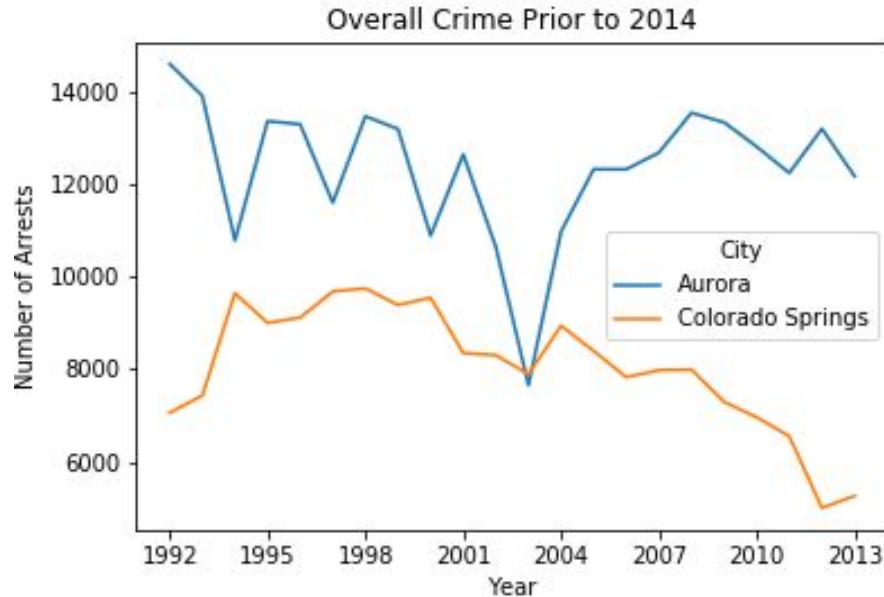
Crime Total in Colorado State





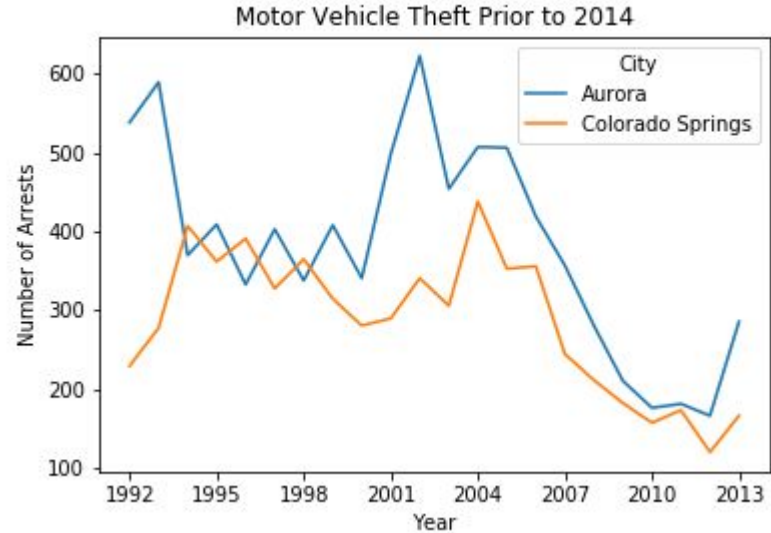
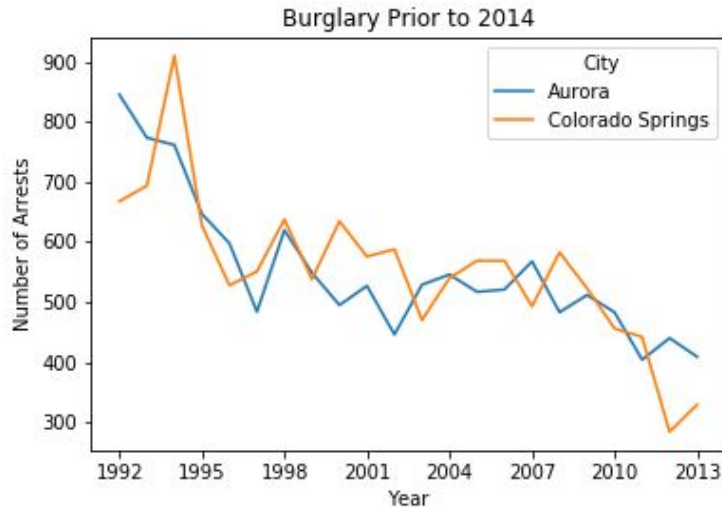
# Aurora vs Colorado Springs Crime Prior to 2014

- **Data Range:** 1992 - 2013
- **Crimes:** Aggravated Assault, Arson, Burglary, Drug Violations, Forcible Rape, Larceny, Motor Vehicle Theft, Robbery, and Murder



# Aurora vs Colorado Springs Crime Prior to 2014

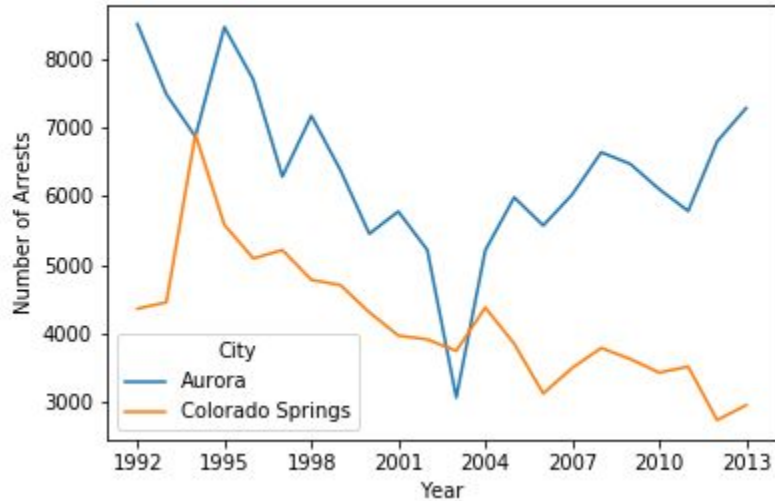
- **Data Range:** 1992 - 2013
- **Crimes:** Burglary, Motor Vehicle



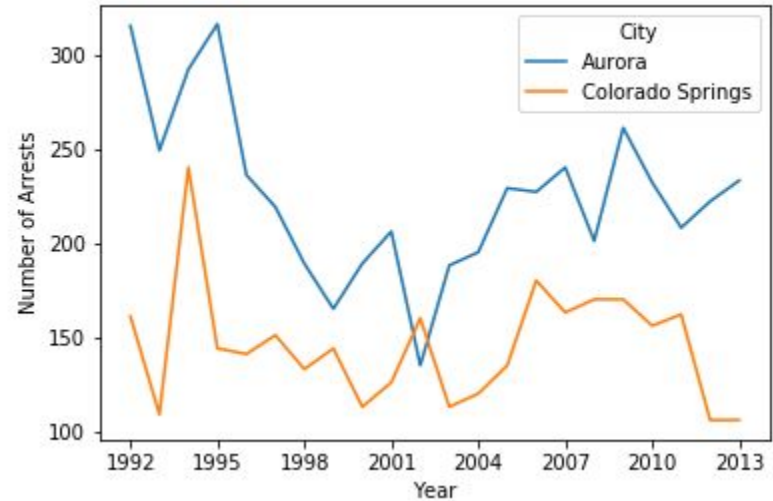
# Aurora vs Colorado Springs Crime Prior to 2014

- **Data Range:** 1992 - 2013
- **Crimes:** Larceny/Theft, Robbery

Larceny/Theft Prior to 2014



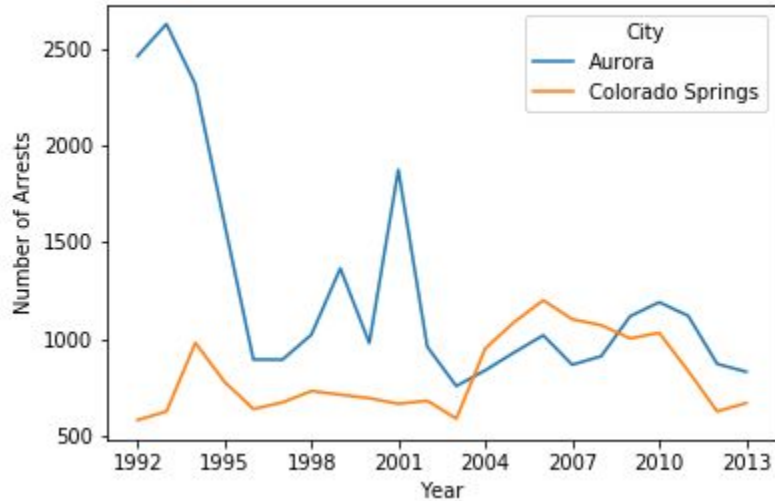
Robbery Prior to 2014



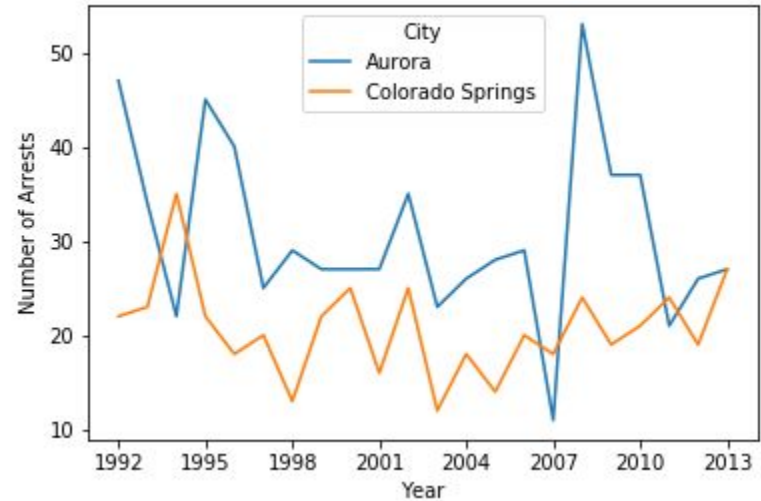
# Aurora vs Colorado Springs Crime Prior to 2014

- **Data Range:** 1992 - 2013
- **Crimes:** Aggravated Assault, Murder/Manslaughter

Aggravated Assault Prior to 2014

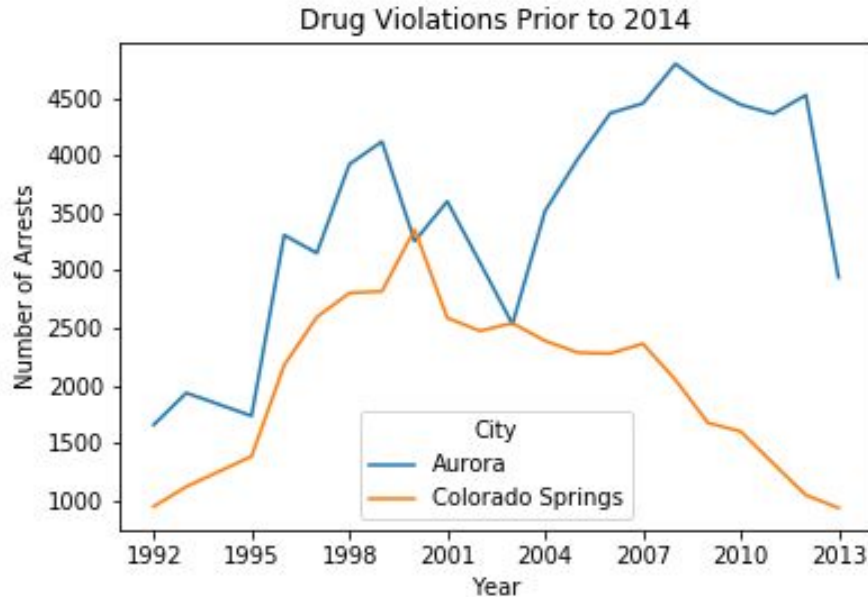


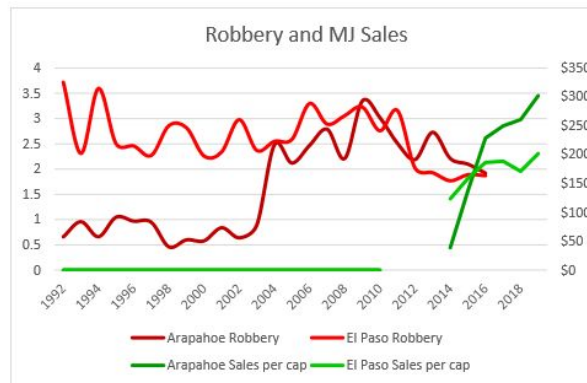
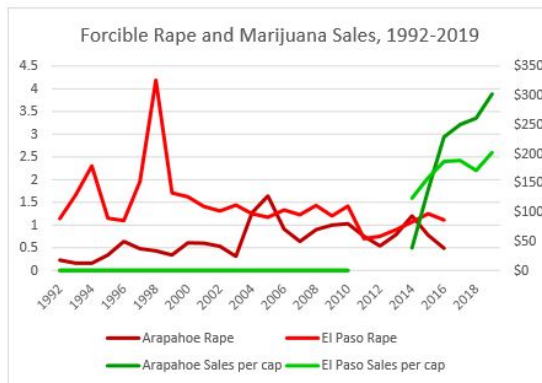
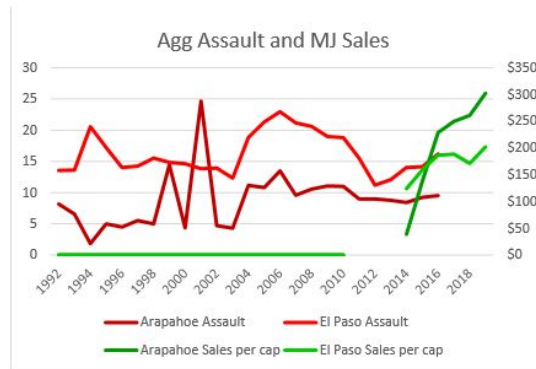
Murder/Manslaughter Prior to 2014



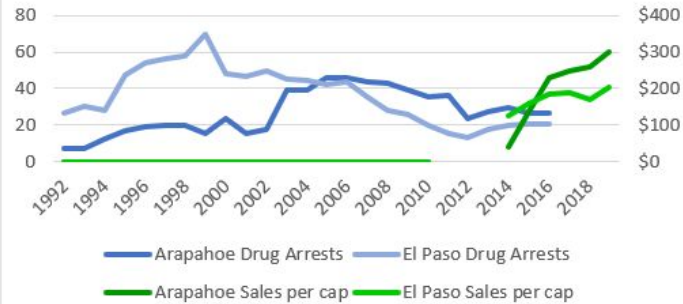
# Aurora vs Colorado Springs Crime Prior to 2014

- **Data Range:** 1992 - 2013
- **Crimes:** Drug Violations

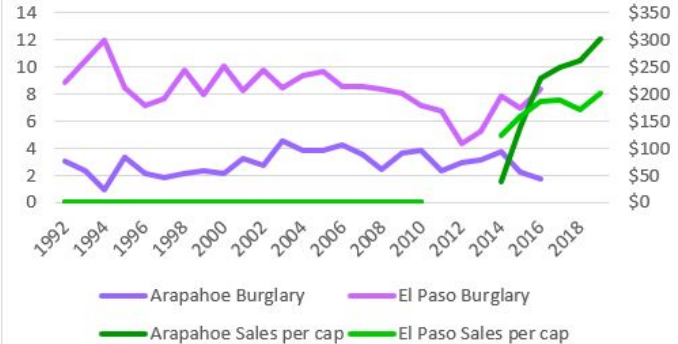




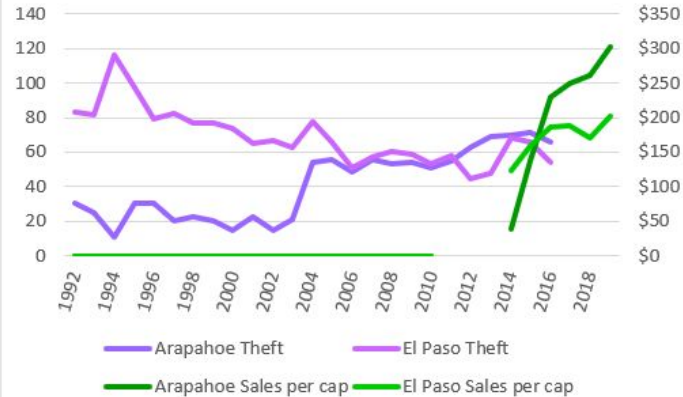
### Drug Arrests and MJ Sales



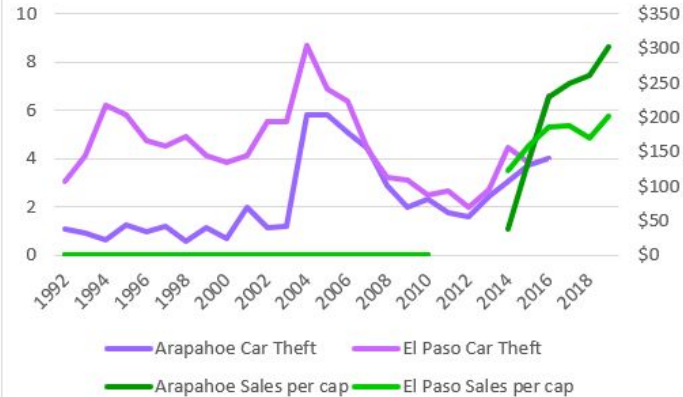
### Burglary Arrests vs MJ Sales



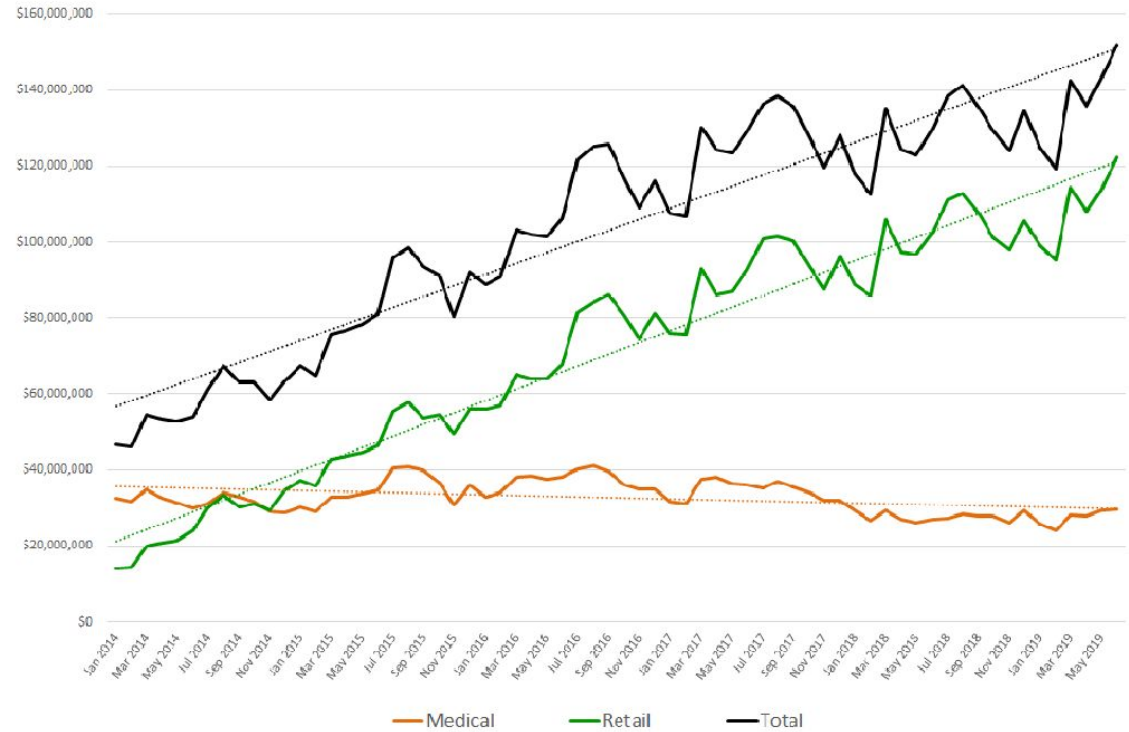
### Theft Arrests and MJ Sales



### Motor Vehicle Theft and MJ Sales

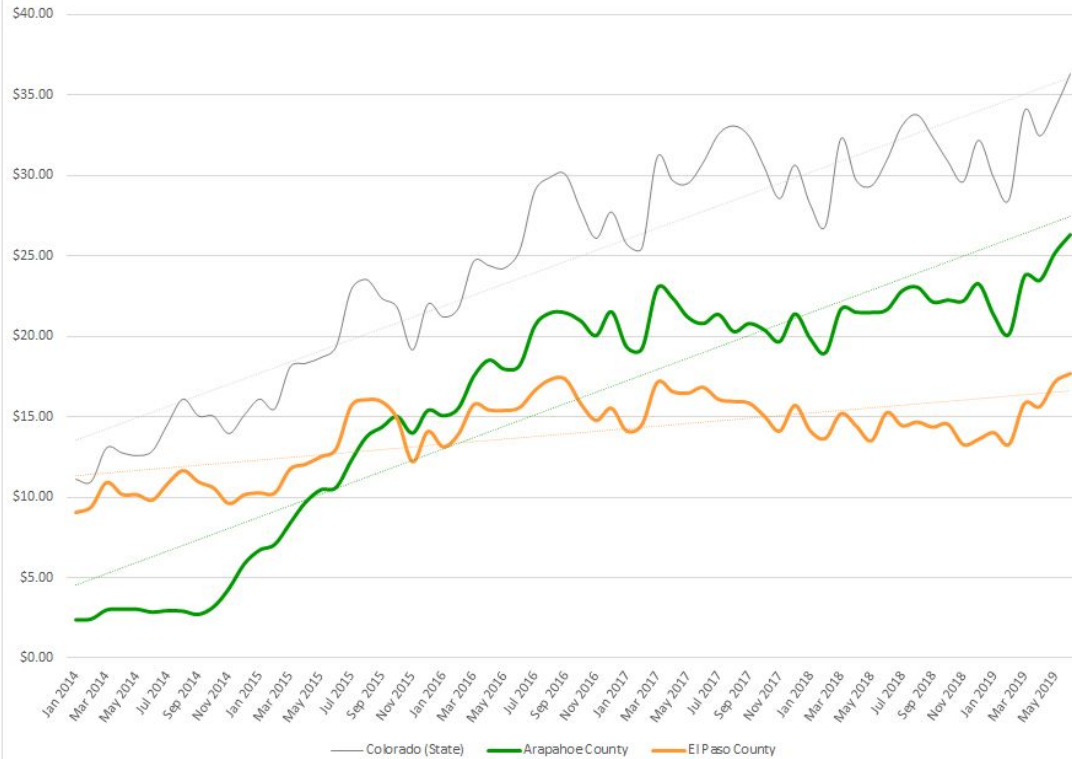


# Colorado Marijuana Sales, Jan 2014 - Jun 2019





### Marijuana Sales per Adult in Arapahoe and El Paso Counties, Jan 2014 - Jun 2019







# Crime Trends before and after Marijuana Legalization in El Paso and Teller Counties

Marijuana has been legal in Colorado since 2011. El Paso county and Teller county only allow medical marijuana licensing. The task for this project is to see how the crime rates have changed and what crime trends have been predicted for these two counties after marijuana became legal by studying Crime Statistics

All crimes are grouped into three categories:

Property – 'Arson' 'Burglary' 'Larceny/Theft' 'Motor Vehicle Theft'

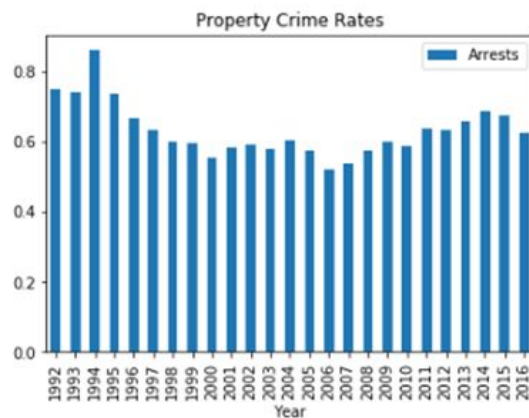
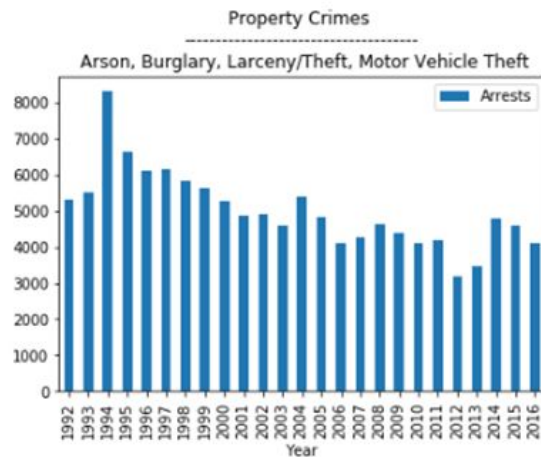
Violent – 'Aggravated Assault' 'Forcible rape' 'Murder/Manslaughter' 'Robbery'

Drug – 'Drug Violations'

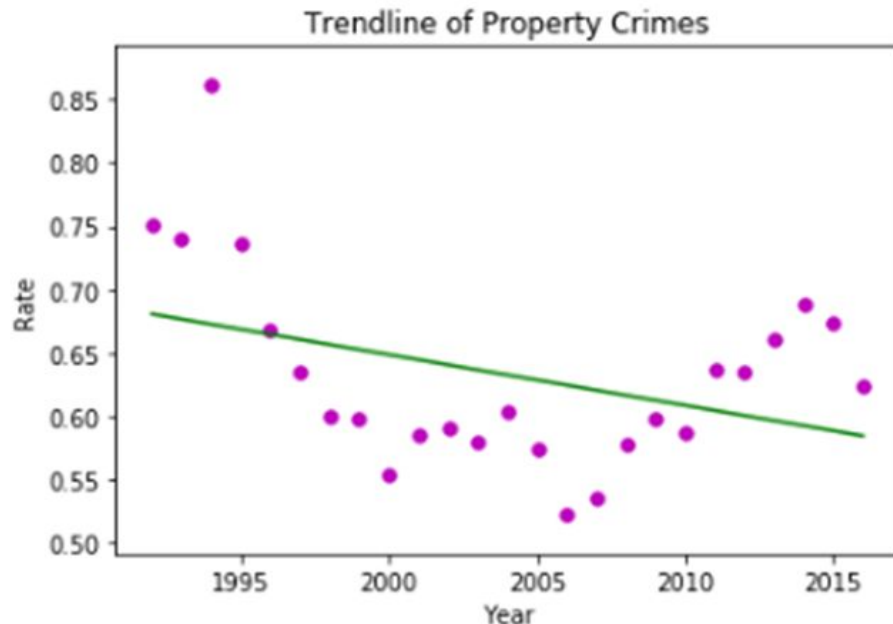
Due to the population increases every year, that will be true comparisons to predict the trends for property crimes, violent crimes, and drug crime by looking at percentage changes among these three categories.



# Property – 'Arson' 'Burglary' 'Larceny/Theft' 'Motor Vehicle Theft'

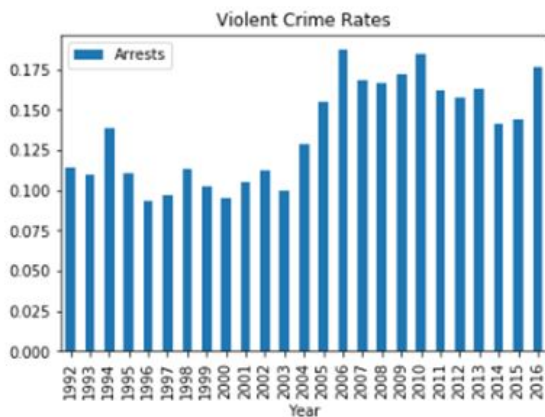
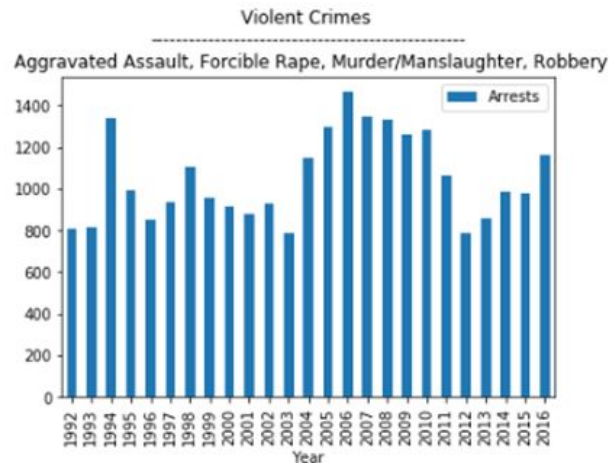


Year	Arrests
2007	0.535947
2008	0.577216
2009	0.598603
2010	0.586286
2011	0.636987
2012	0.634025
2013	0.660091
2014	0.687545
2015	0.673926
2016	0.624110

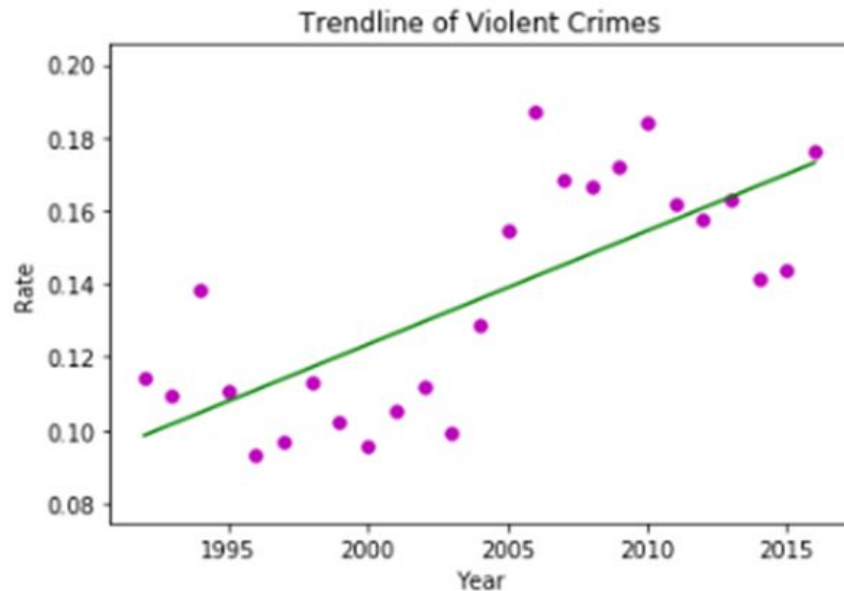


The trendline prediction shows the property crimes will be going down. It may be because getting a medical card is relatively onerous so medical marijuana sales continue to bottom out as a result of reducing the property crimes in the El Paso and Teller counties.

# Violent – 'Aggravated Assault' 'Forcible rape' 'Murder/Manslaughter' 'Robbery'

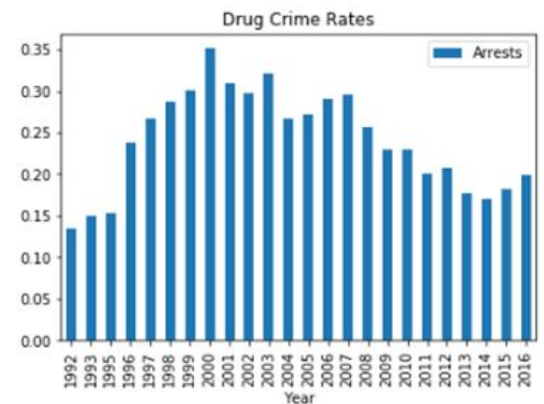
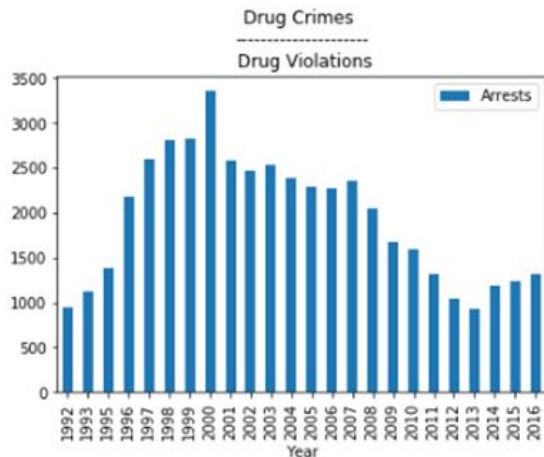


Year	Arrests
2007	0.168211
2008	0.166813
2009	0.172282
2010	0.184335
2011	0.161915
2012	0.157559
2013	0.162747
2014	0.141503
2015	0.143614
2016	0.175981

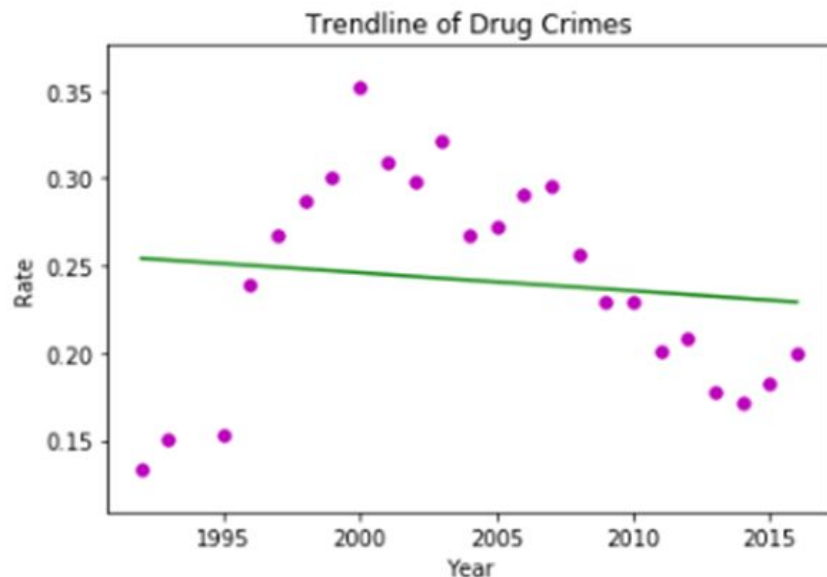


The trendline prediction shows the violent crimes will be going up. It may be because more and more people go to recreational stores in other counties for their cannabis needs and cause violent crimes after they consume marijuana.

# Drug – 'Drug Violation'



Year	Arrests
2007	0.295842
2008	0.255971
2009	0.229115
2010	0.229379
2011	0.201098
2012	0.208416
2013	0.177162
2014	0.170952
2015	0.182460
2016	0.199909



The trendline prediction shows the drug crimes will be slowly going down. It may be because marijuana legalization is driving people to buy recreational marijuana in other counties without violating the law in the El Paso and Teller counties.

# Summation

Was Colorado population impacted by the legalization of Marijuana?

There did not appear to be any change in population growth or demographic.

How has the legalization of Marijuana impacted crime rates?

Overall, crime rates in Colorado compare to the US as a whole without significant variation.

Is there a difference in crime between cities that do only sell Medical Marijuana vs Recreational Marijuana?

There did seem to be an indication that areas that only sell medical marijuana showed a downward trend in crime. Areas where recreational marijuana is sold, crime rates are trending up. BUT, there is still not enough data to form a solid conclusion.