

# Ann Arbor Crime Data-- Is there a pattern in criminal offenses in Ann Arbor?

Tableau Individual Task  
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# Data description

## PartAB Crime Offenses.csv

- Crime data in Ann Arbor area from type of crime to time and location
- Data retrieved from <https://www.a2gov.org/services/data/Pages/default.aspx> on 1/15/2018 at 2:10AM
- Dataset format: CSV

# Transformations

- Added columns “State” and “Country” and set as “MI” and “United States” respectively
- Changed “Position X” and “Position Y” to “latitude” and “longitude,” respectively
  - Helps identify location on Tableau
- Eliminated 2011 data and 2017 data
  - Incomplete data

# Experiment 1: Crime Trends in AA Past 5 Years

Year and Crime Count

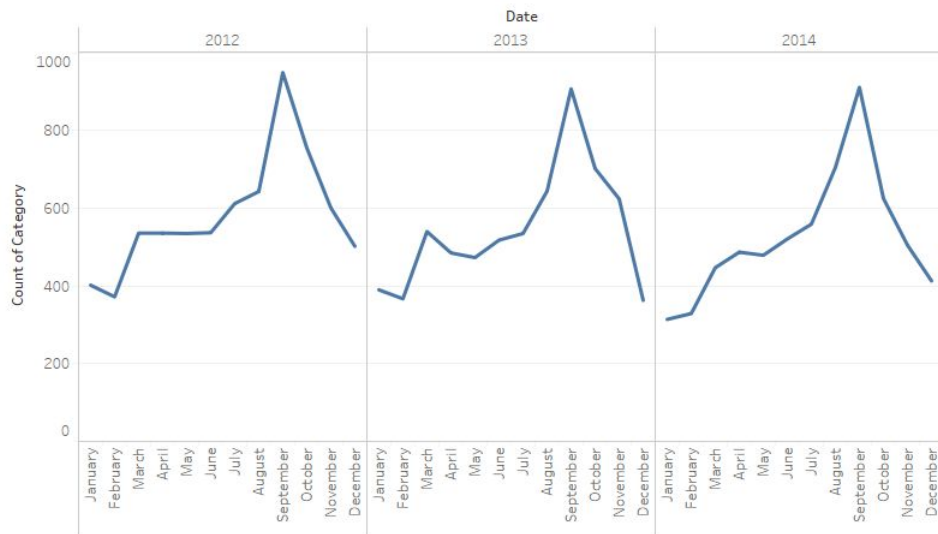


To start off the exploration, I started off with creating a line graph to plot the change in the count of crimes in Ann Arbor.

It appears that crime rate has decreased overall since 2012.

# Experiment 2: Crime count per Month

Month and Crime Count

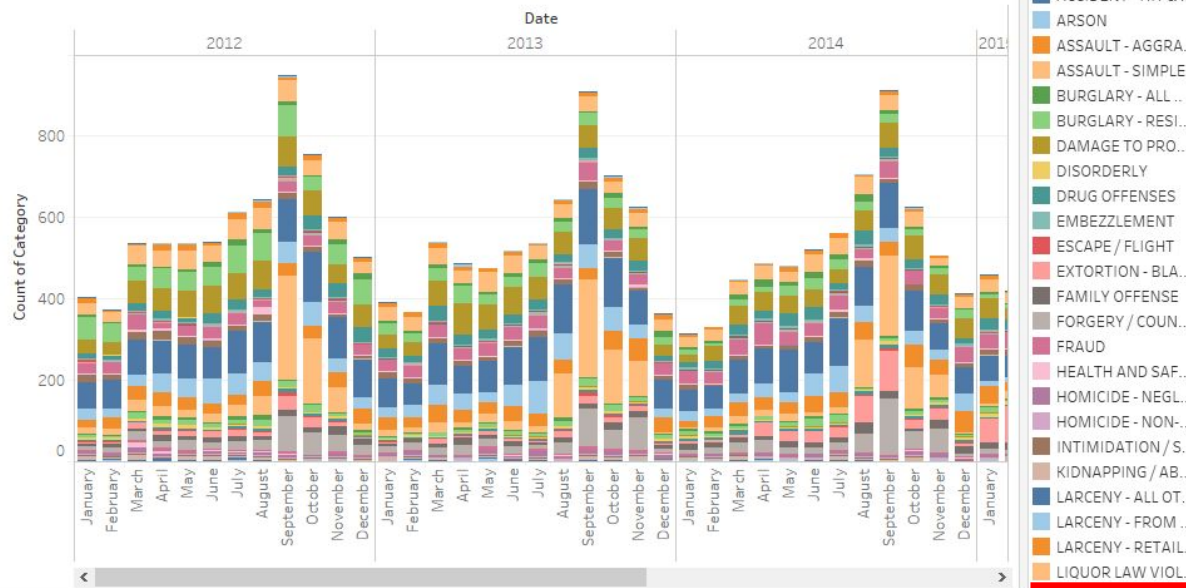


Because of the uninteresting find in crime count over the years, I decided to search for patterns by month.

This proved to be very fascinating-- the crime counts are very similar throughout the years. Particularly interesting was that crimes peak during September.

# Experiment 3: Crime count by Type

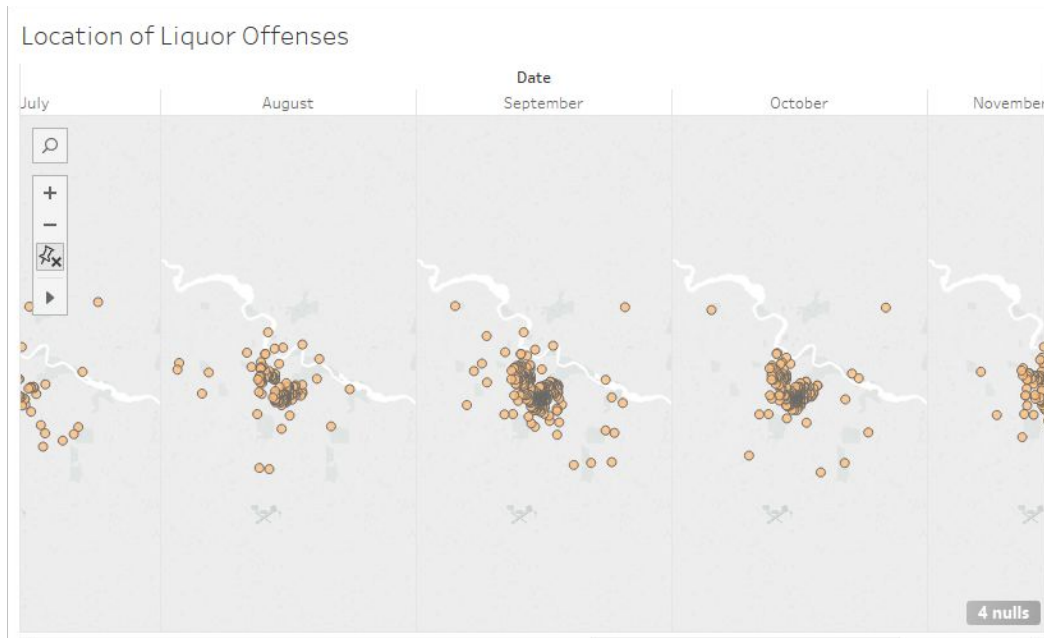
Month and Crime Count broken down



To uncover the reason behind the peak in September, I created a segmented bar graph that breaks down the crime count per month by the type of crime.

The most citations were for alcohol related problems.

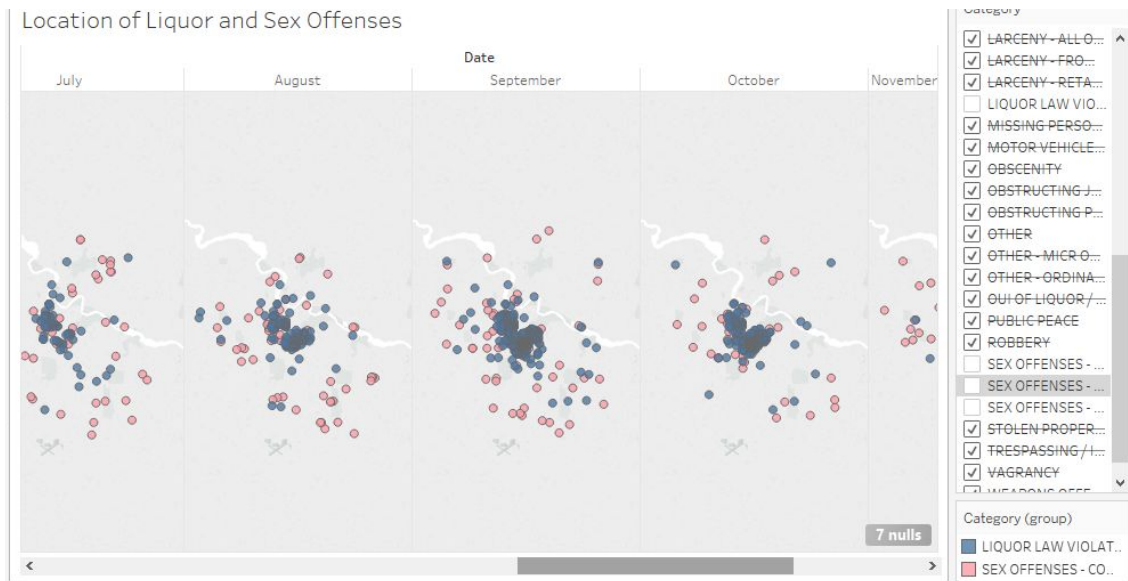
# Experiment 4: Concentration of Liquor Offenses



To further investigate the liquor offenses, I plotted the incidents on a map over the months, given the coordinates in the dataset. By doing so, it allows us to determine where in Ann Arbor the liquor offenses are concentrated.

Intuition points to the offenses concentrating around one point-- the University. The maps show that offenses are concentrated in a specific area, which is especially worse in September.

# Experiment 5: Correlation between Liquor and Sex

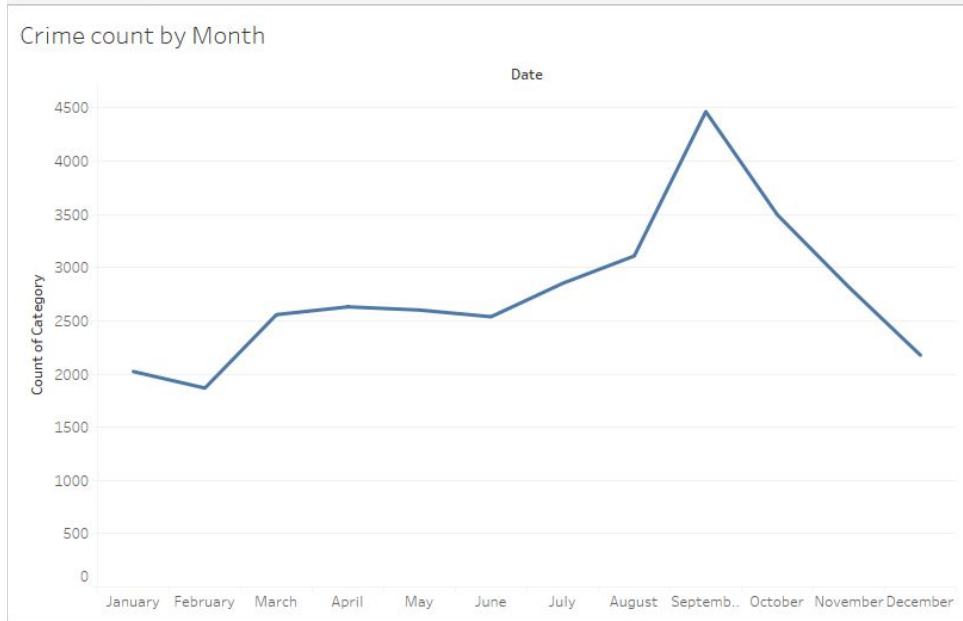


To see if alcohol consumption and sex offenses go hand in hand, I plotted the additional sex offenses onto the map.

Surprisingly, the sex offenses are not necessarily concentrated where the liquor offenses are concentrated, but rather dispersed evenly across the Ann Arbor area.



# Insight visualization



This line graph describes the crime count in Ann Arbor per month, summed over each year from 2012-2016.

This graph demonstrates that offenses peak at September, presumably because that's when students arrive on campus and party before classes really kick in.

# Notes

Initial Question: Has crime decreased over time?

When does crime offenses hit peak?

What is the biggest crime during September?

Where does the crime concentrate?

Is Liquor and Sex offenses related to each other regarding location?