

# City Crime Analysis

Baton Rouge City



By Jay Ganesh Charole

# Objective

Crime analysis is a law enforcement duty that involves a systematic investigation of patterns and trends in crime and disorder. Pattern information can help law enforcement organizations deploy resources more effectively and aid detectives in locating and apprehending criminals. Crime analysis is also important in developing answers to crime problems and developing crime prevention methods.

# About Dataset

This dataset contains crimes reported in Baton Rouge city and investigated by the Baton Rouge Police Department. Burglaries (Vehicle, Residential, and Non-residential), Robberies (Individual and Business), Theft, Narcotics, Vice Crimes, Assault, Nuisance, Battery, Firearm, Homicides, Criminal Damage to Property, Sexual Assaults, and Juvenile are some examples of the crimes committed.

# Tool Stack

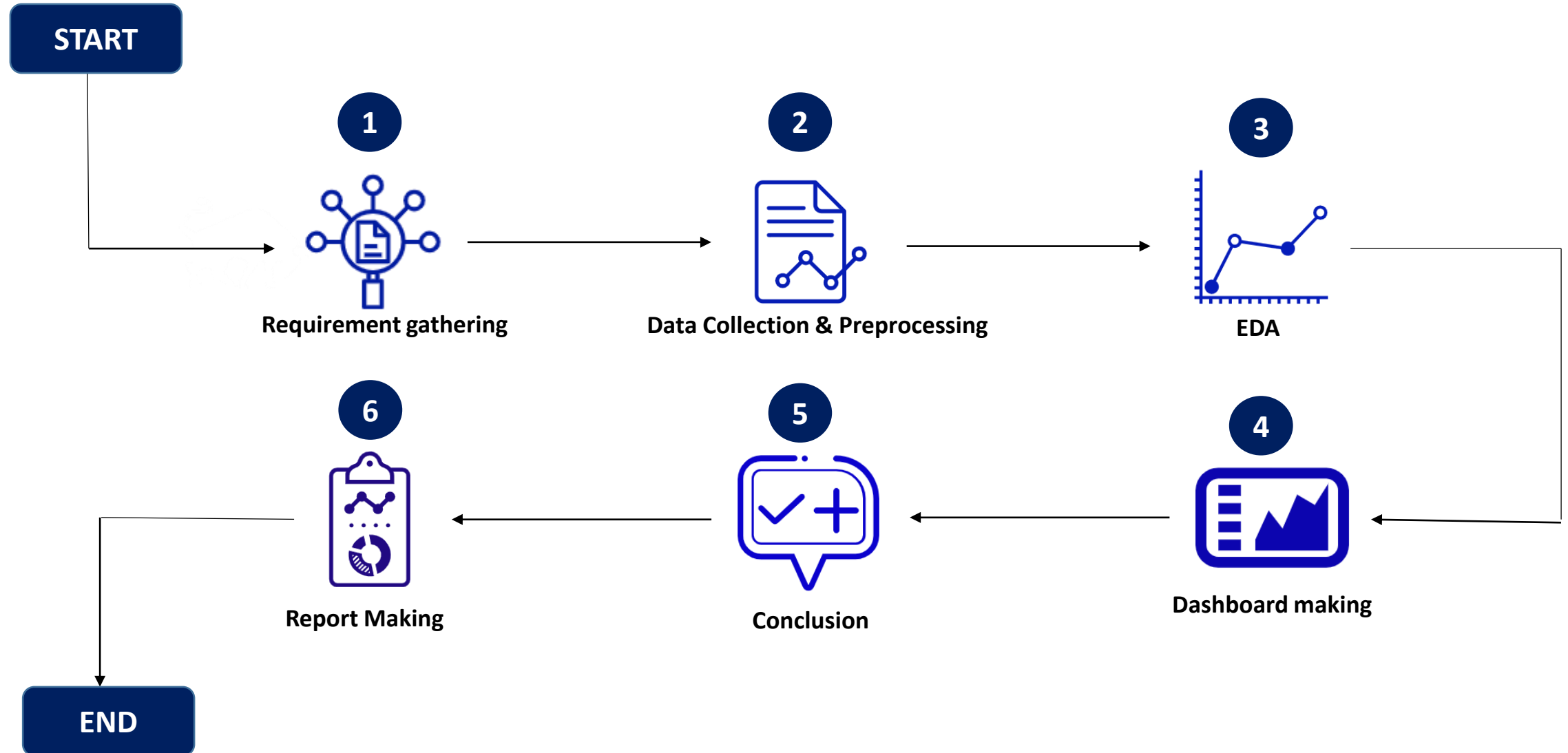


Python is a high-level, interpreted, general-purpose programming language. Its design philosophy emphasizes code readability with the use of significant indentation. Python is dynamically-typed and garbage-collected.



Tableau is a leading data visualization tool used for **data analysis and business intelligence**. Gartner's Magic Quadrant classified Tableau as a leader for analytics and business intelligence.

# Flow of Project



# Dashboard

## CRIME ANALYSIS

Baton Rouge city

HOME

ANALYSIS - 1

ANALYSIS - 2

ANALYSIS - 3

ANALYSIS - 4

Total Crime  
4,90,578

Street Type  
All

Committed  
All

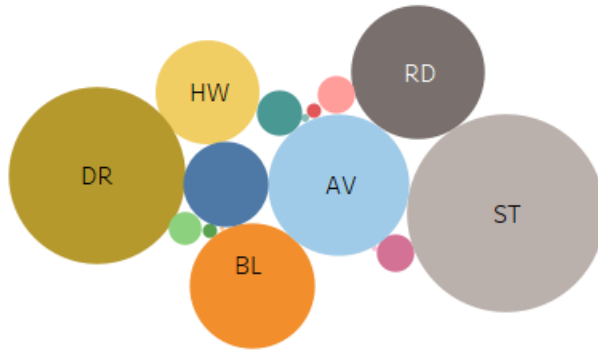
Year of Offense Date  
All

Zip Code  
All

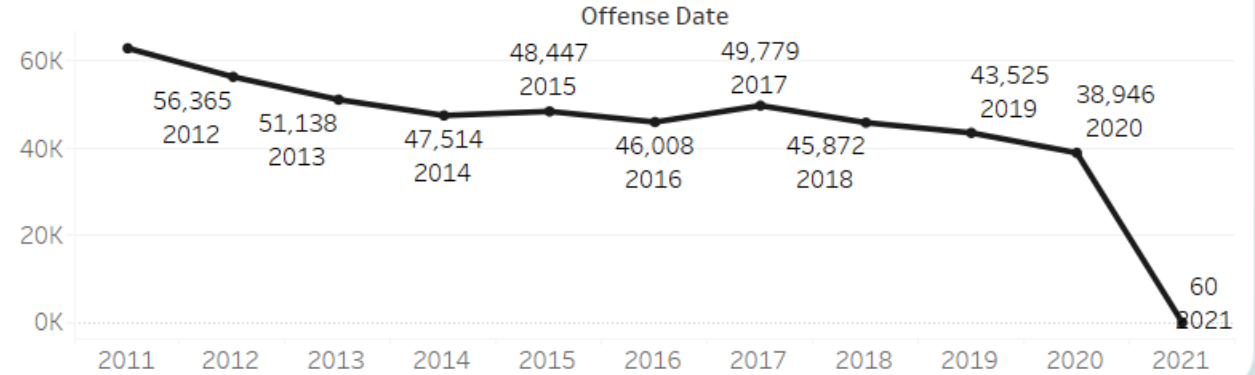
Month of Offense Date  
All

Crime  
All

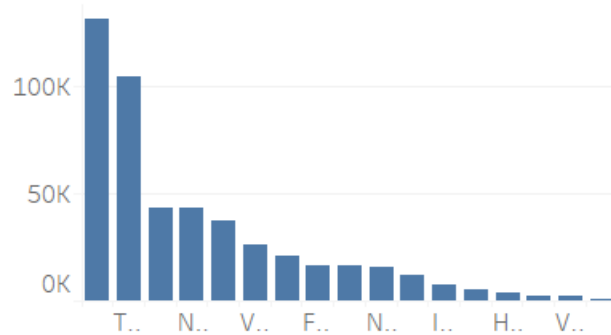
### Crime In Street



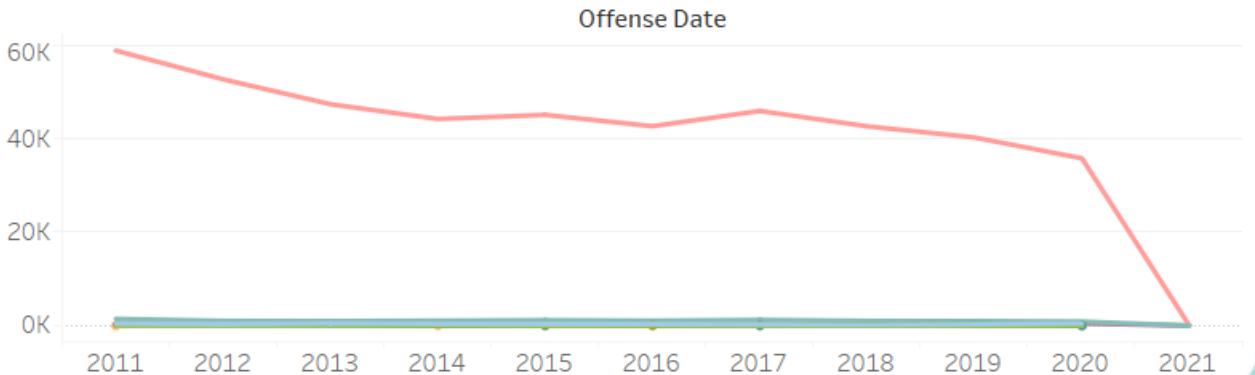
### Crime Rate Per Year & Month



### Crime Category Graph



### Crime Prevention District Graph



CRIME ANALYSIS

Baton Rouge city

HOME

ANALYSIS - 1

ANALYSIS - 2

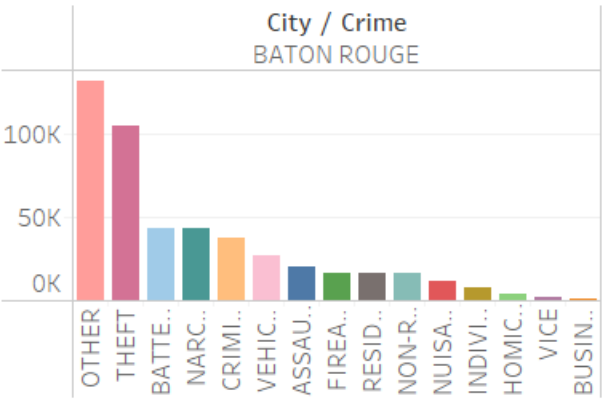
ANALYSIS - 3

ANALYSIS - 4

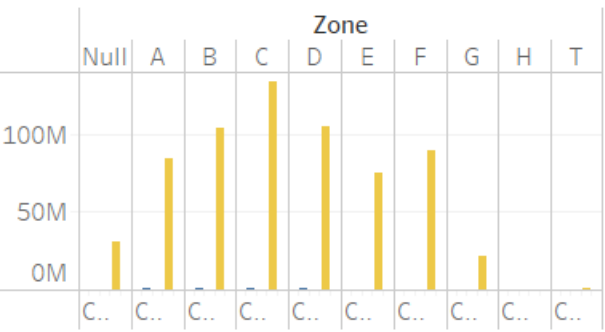
Total Crime  
4,90,578

Street Type All Committed All Zip Code All Month of Offense Date All Crime All Year of Offense Date All

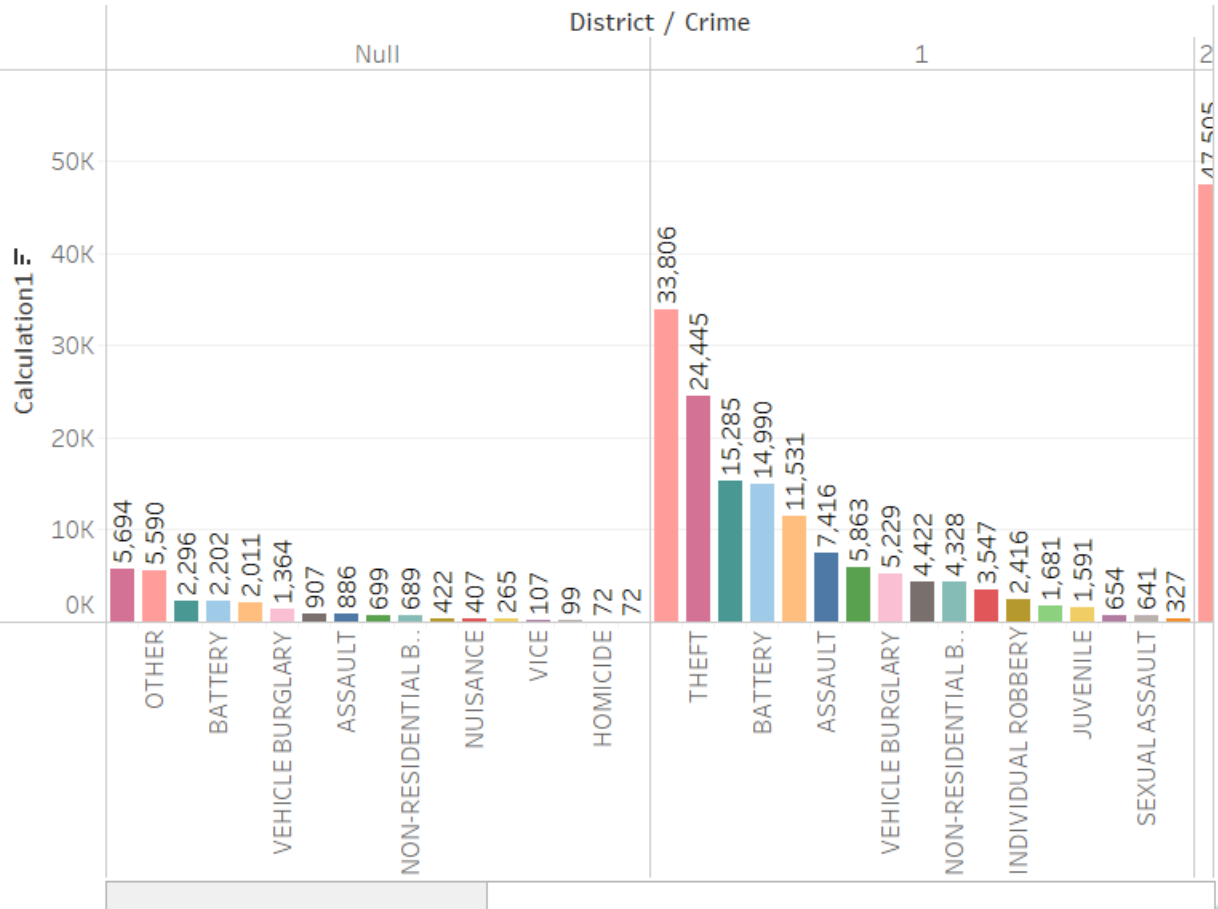
Crime In City



Crime as per zone ,subzone and district



Crime according to district





### Baton Rouge city

 [HOME](#)

## ANALYSIS - 1

## ANALYSIS -2

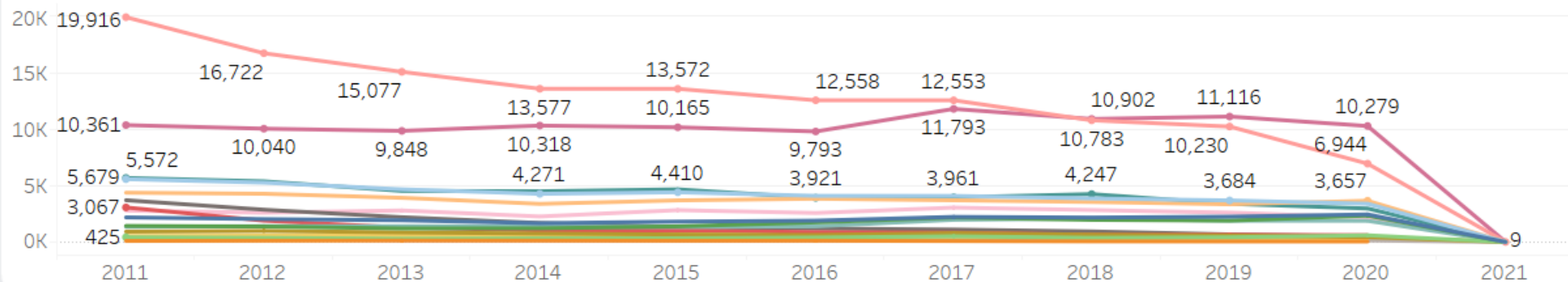
### ANALYSIS - 3

## ANALYSIS -4

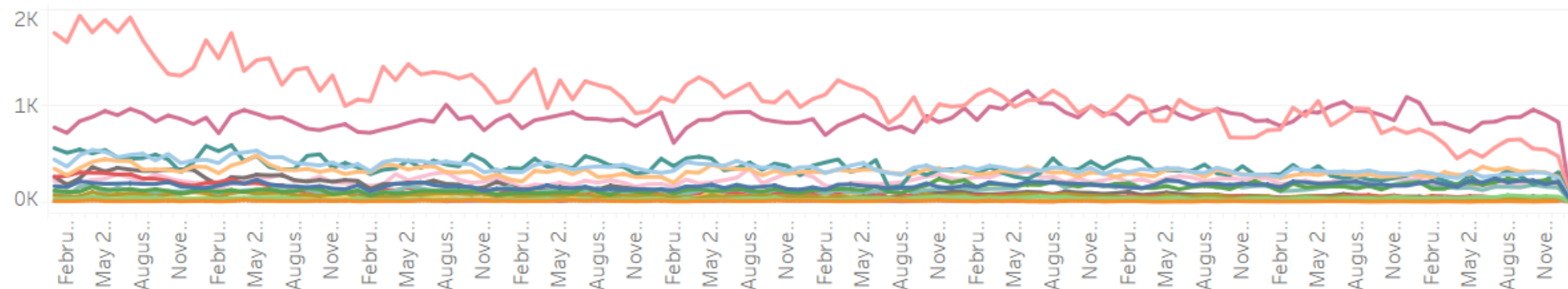
**Total Crime**  
4,90,578

Committed  
All

## Offense Date



## Offense Date



## CRIME ANALYSIS

Baton Rouge city

HOME

ANALYSIS - 1

ANALYSIS - 2

ANALYSIS - 3

ANALYSIS - 4

Total Crime  
4,90,578

Street Type  
All

Committed  
All

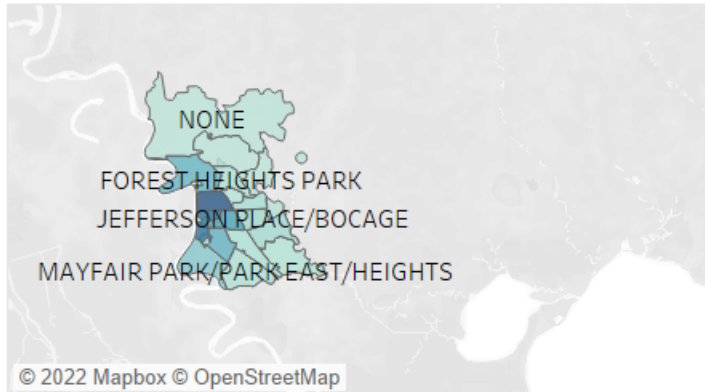
Year of Offense Date  
All

Zip Code  
All

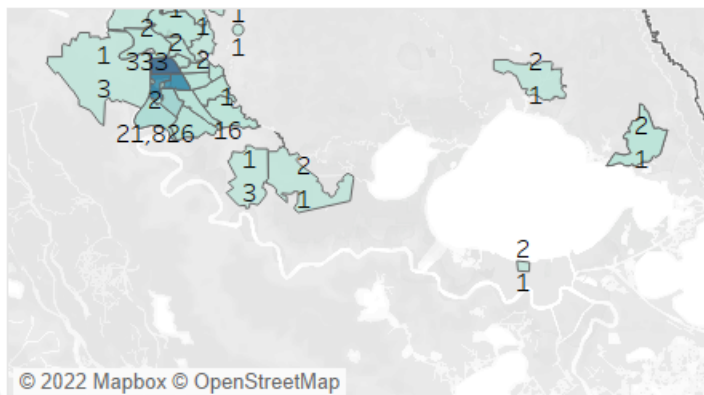
Month of Offense Date  
All

Crime  
All

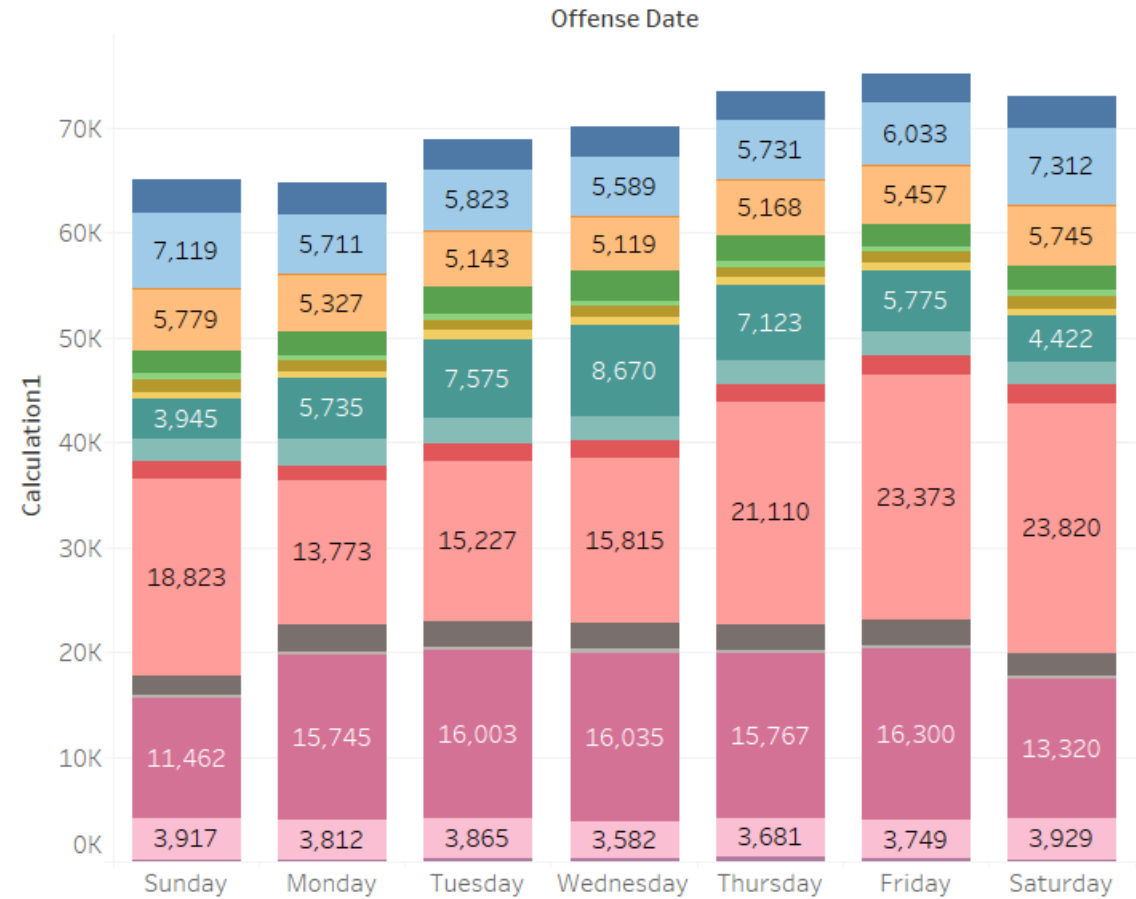
### Crime prevention districts



### District wise crime distribution



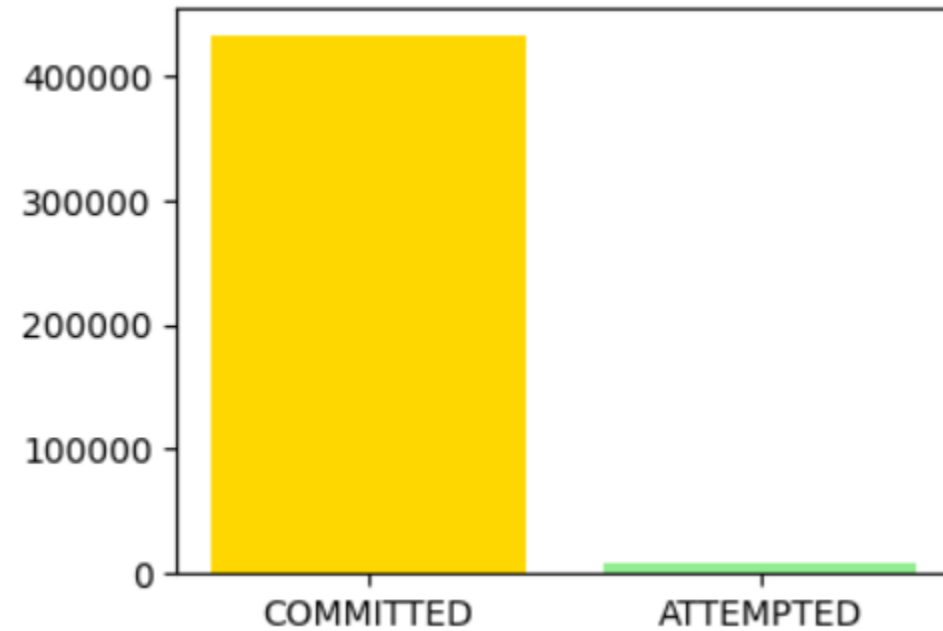
### On which day Most crimes has happend till now



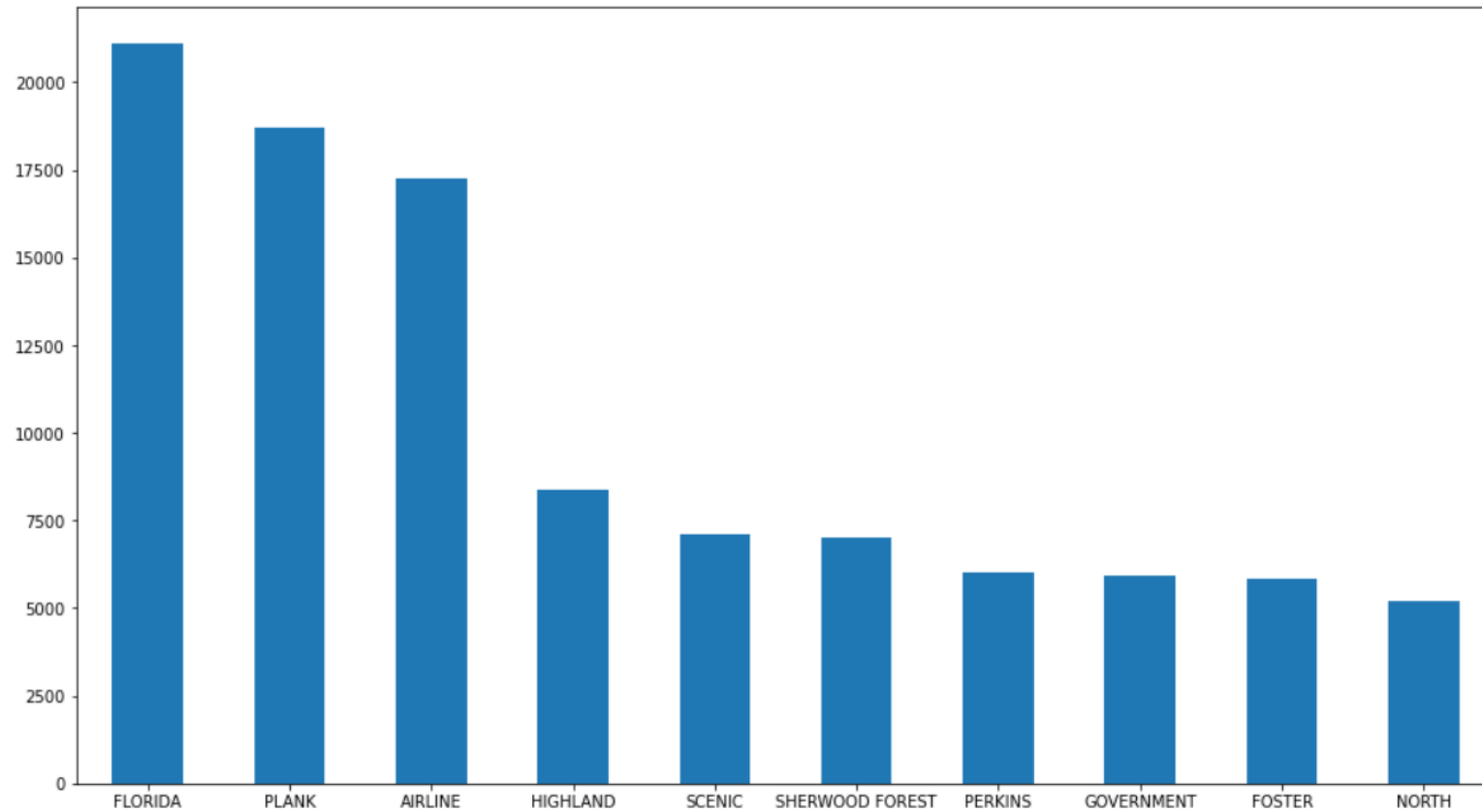
# Insights

# Committed and Attempted Analysis

The above bar chart shows that **88%** of crimes recorded are **committed**, only **12%** of them were going to **attempt** and got caught.



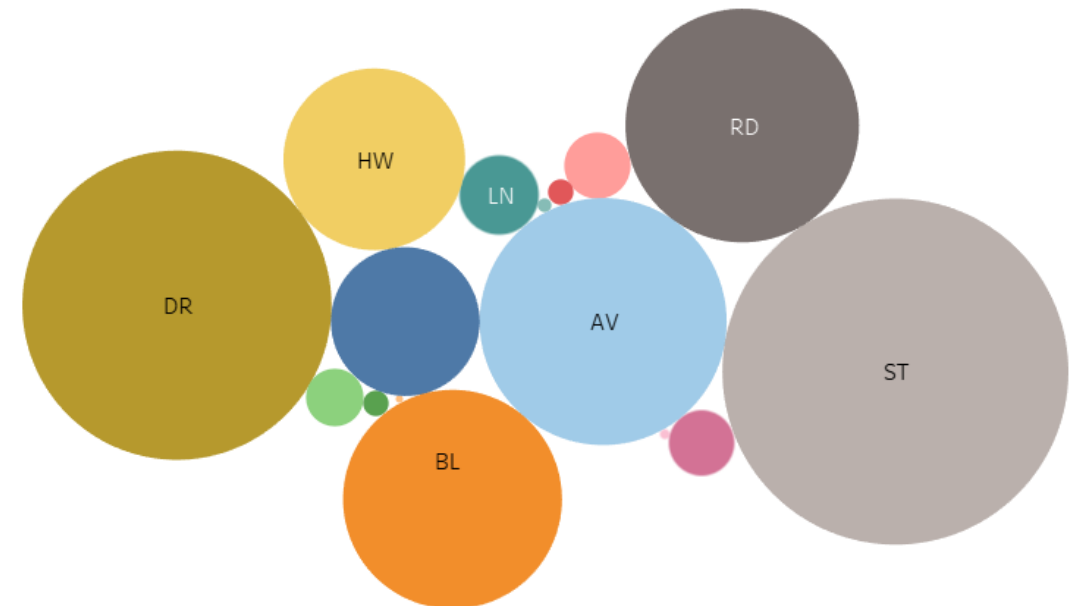
# Top 10 Street wise Crime Analysis



This is street wise Crime. This are the TOP 10 Streets with highest number of crimes. Florida is the street which has highest number of crimes. Followed by Plank and Airline. In top 10 least is for Foster and North.

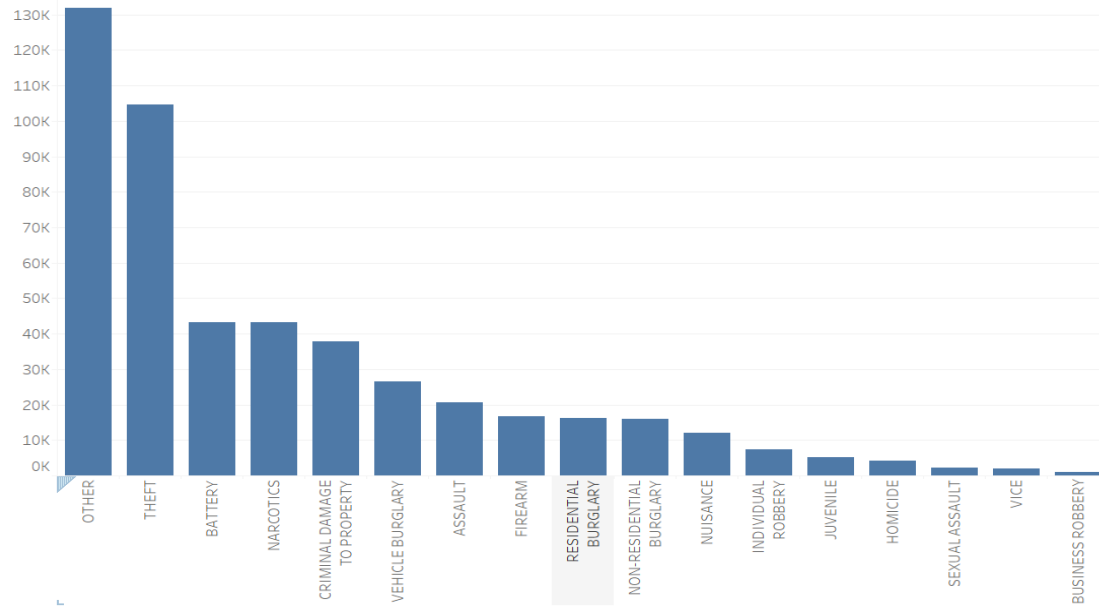
# Street wise Crime Analysis

From the diagram we can see that ST is street with highest crime rate. We can say this on the basis of size of the circle.

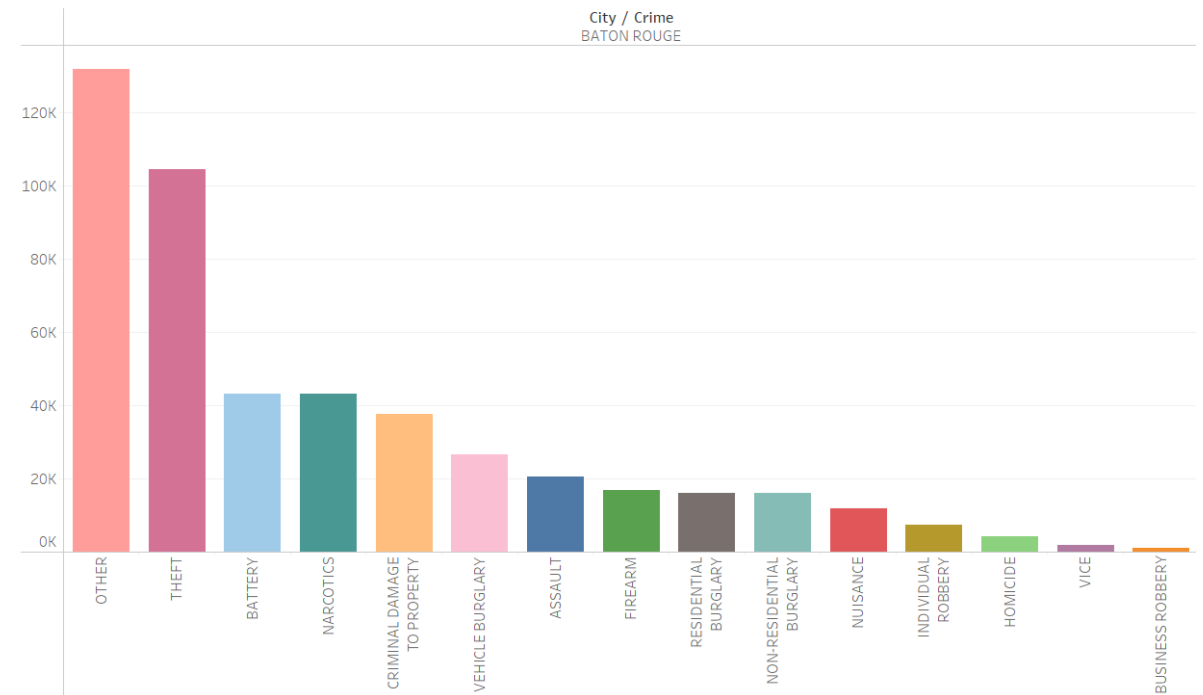


# City wise Crime Analysis

Crime Category Graph



Crime In City



By Analyzing the Crime Categories we can see that Theft has the highest number of crime rate followed by Battery.

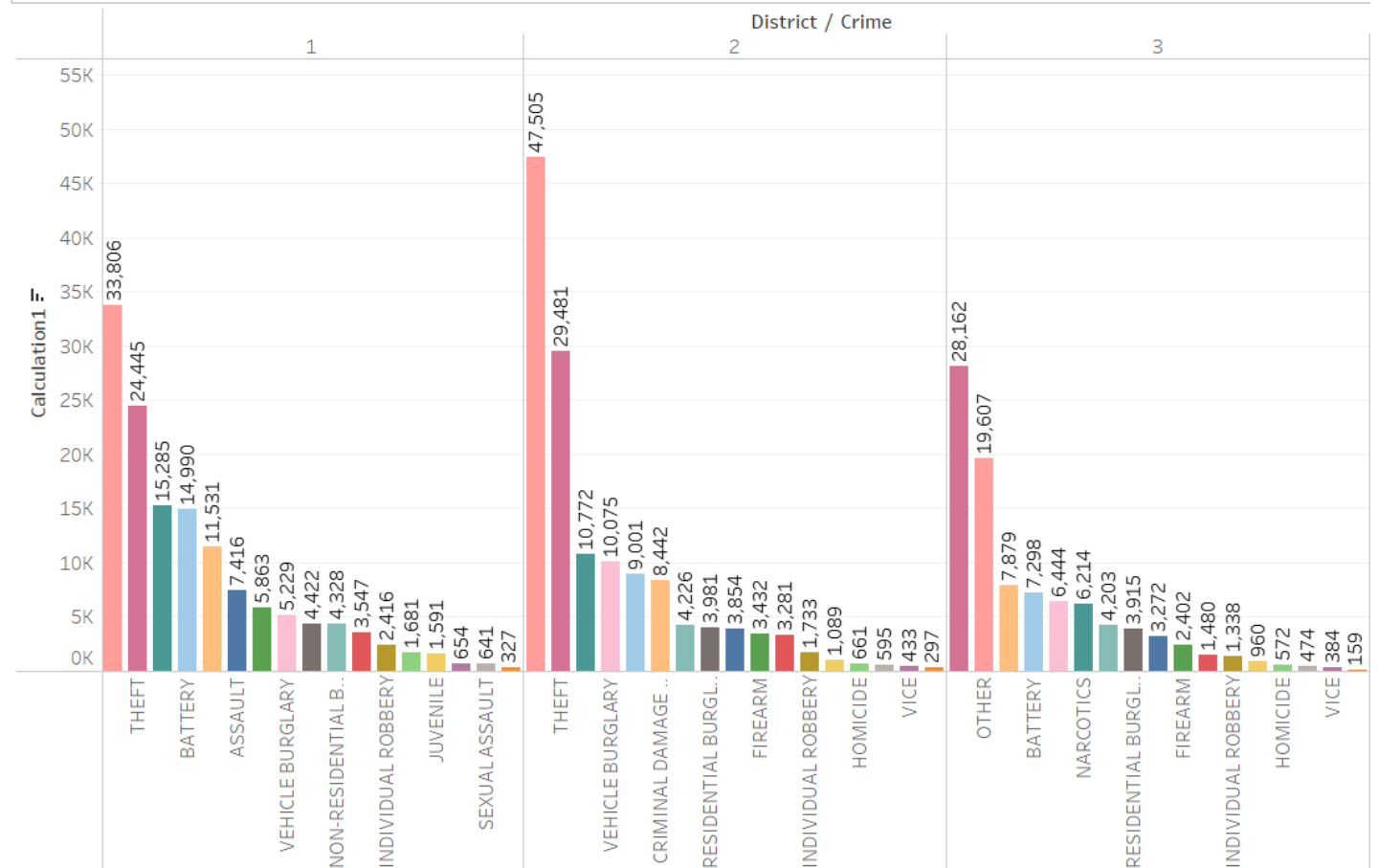
The least is for VICE and Business Robbery.

# District wise Crime Analysis

This visual shows the crime according to various districts.

The Analysis shows the division according to crimes.

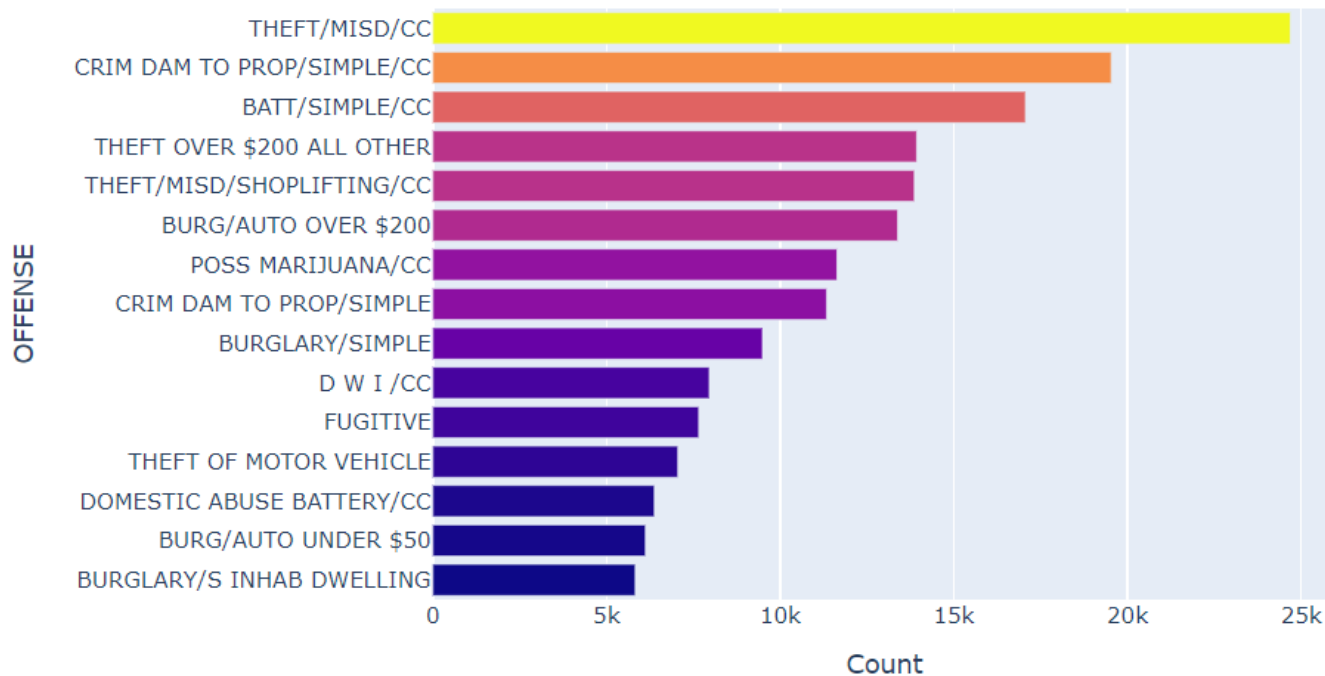
Crime according to district





# Top 15 Offenses

Top 15 Offense by Count

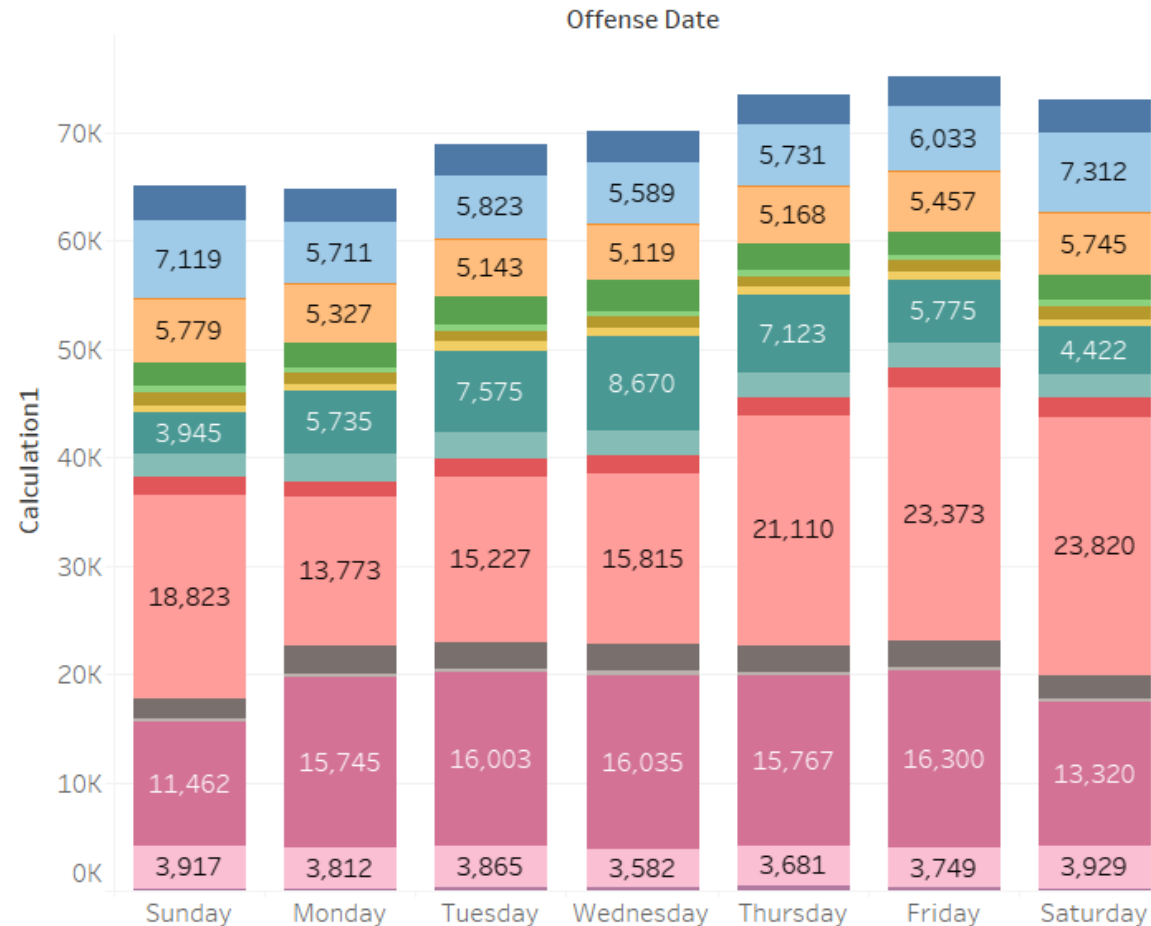


The top most committed offenses are THEFT, THEFT OF VEHICLE, DAMAGE TO PROPERTY, SHOPLIFTING, BURGLARY, POSSESSION OF MARIJUANA.

So if any day you're wandering in the city, make sure to keep an eye on your valuable things.

# Day Wise Crime Analysis

On which day Most crimes has happend till now



We can observe that the most of the crimes have taken place on Friday followed by Thursday and Saturday.

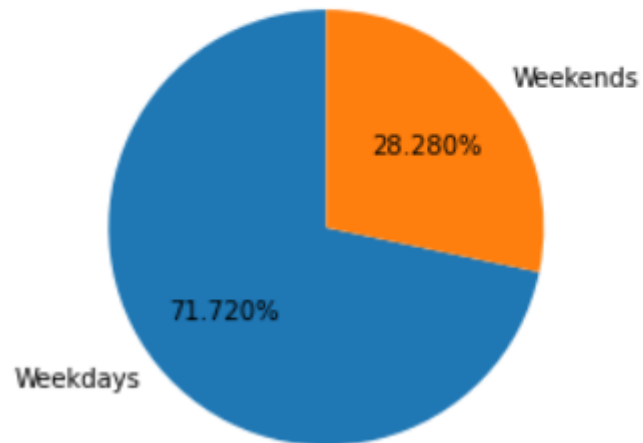
The least crime happens on Monday and Tuesday.

# Crime Analysis As Per Weekends and Weekdays

Crimes over the weekdays: 317174

Crimes over the weekends: 125063

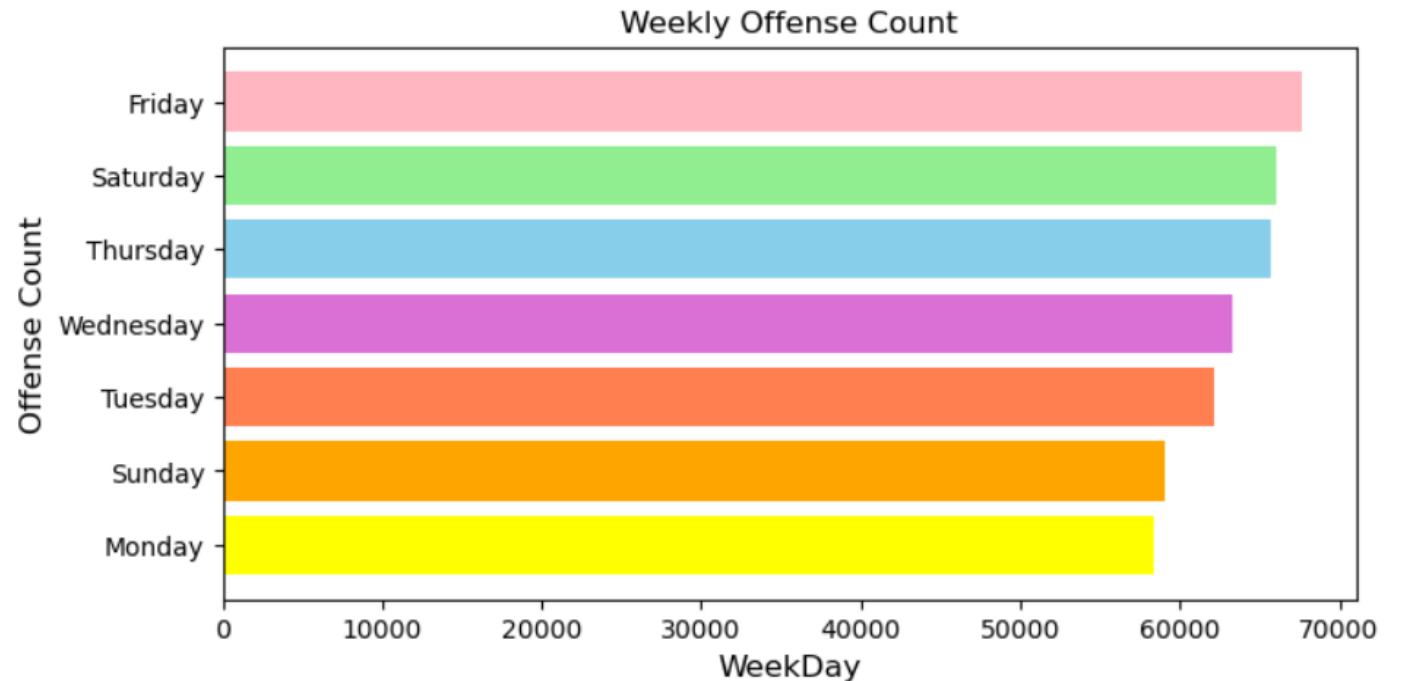
Percentage of weekend crimes: 28.279632866539888



As per the Analysis most of the crime happens on the Weekdays and less happens on Weekends.

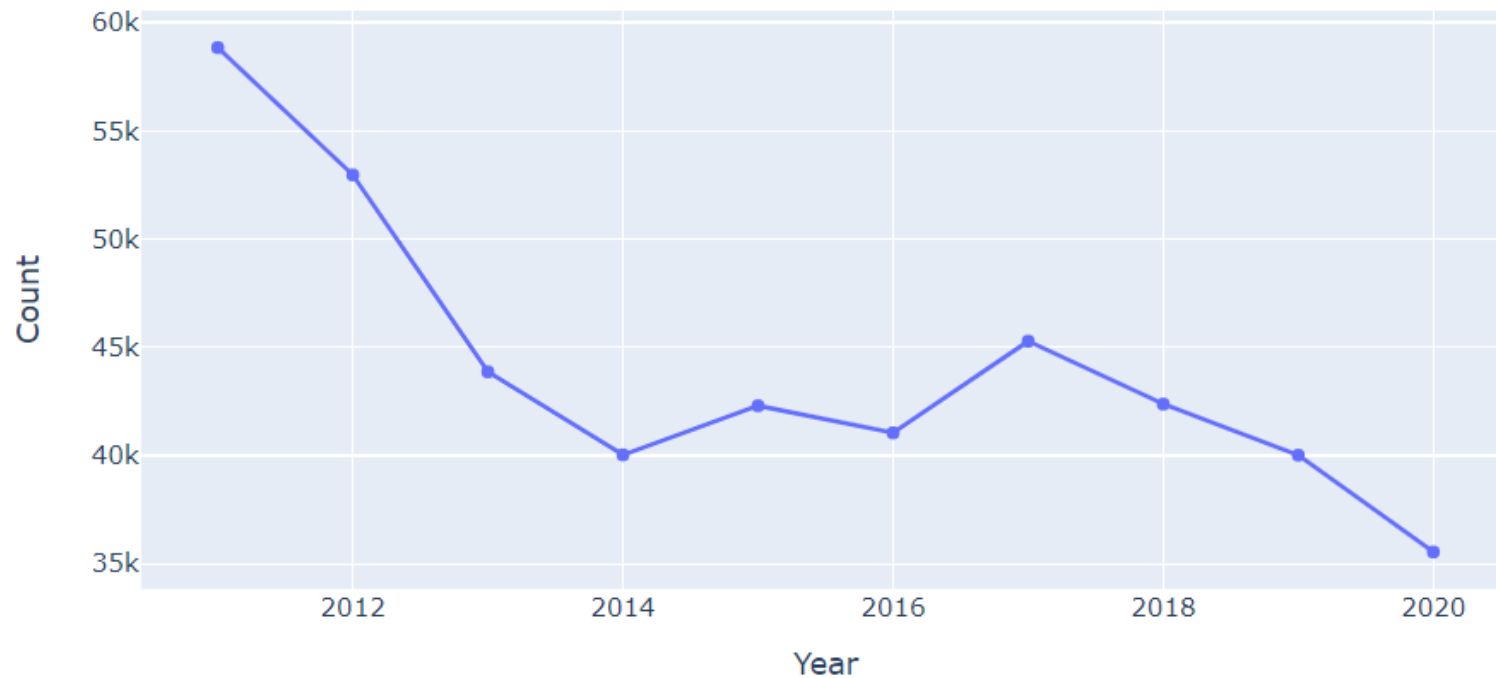
# Weekly Crime Analysis

After checking out weekly offense count, for Thursday, Friday and Saturday the count is more as compared to other days which makes sense as most people tend to go out on weekends to socialize, travel to some other place, etc.



# Yearly Crime Analysis

Year Wise Trend



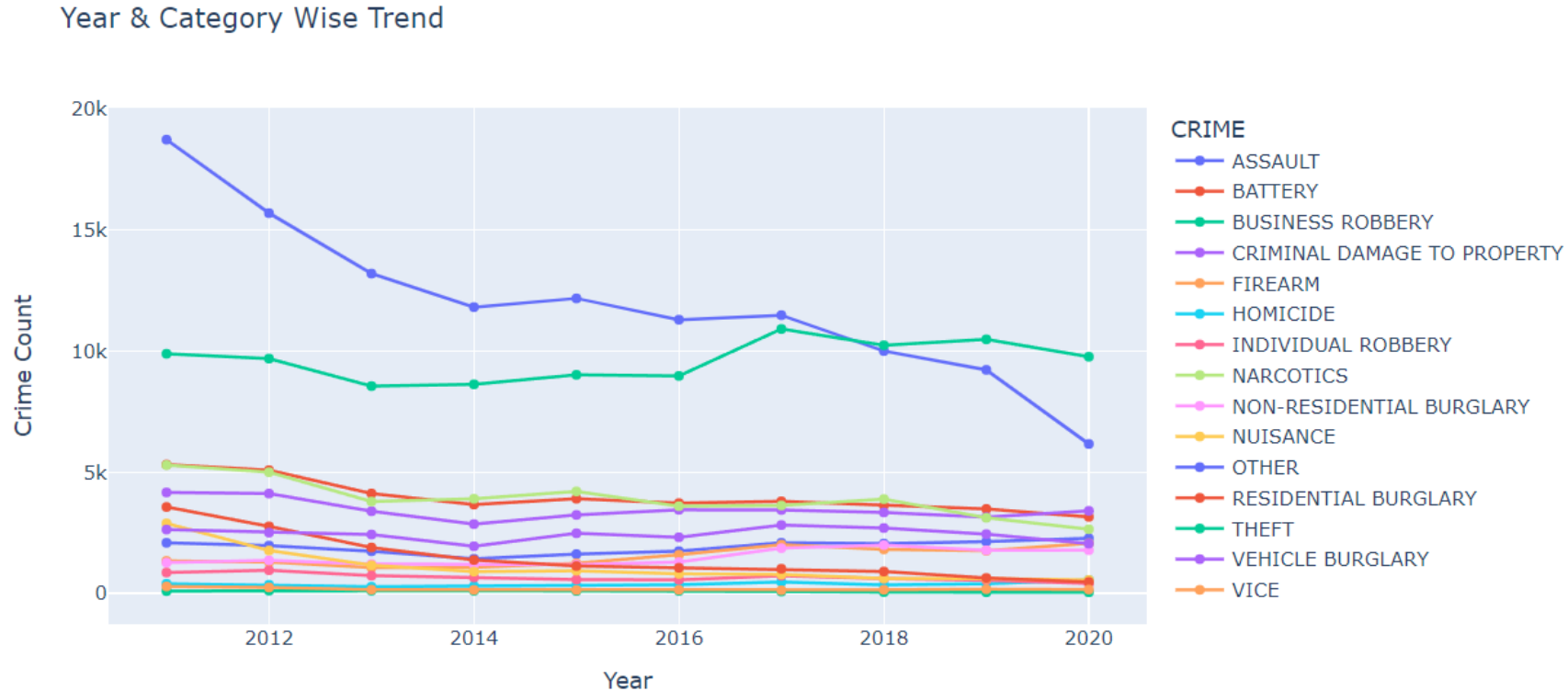
This line chart we plotted shows us a downward trend in overall number of crimes committed, let's see if this is the same case for individual category of crime.

# Pivot Table for Yearly Crime Analysis

For that we'll need to create a pivot table which will help us to visualize it more clearly.

CRIME	ASSAULT	BATTERY	BUSINESS ROBBERY	CRIMINAL DAMAGE TO PROPERTY	FIREARM	HOMICIDE	INDIVIDUAL ROBBERY	NARCOTICS	NON-RESIDENTIAL BURGLARY	NUISANCE	OTHER	RESIDENTIAL BURGLARY
YEAR												
2011	2090	5317	98	4167	1343	400	864	5296	1274	2890	18721	3569
2012	1974	5087	116	4121	1297	359	957	5004	1365	1774	15690	2767
2013	1740	4124	116	3393	1069	278	736	3793	1215	1167	13195	1895
2014	1432	3667	112	2861	1078	308	660	3906	1188	902	11813	1380
2015	1623	3909	104	3240	1245	320	573	4209	1188	936	12172	1133
2016	1746	3727	107	3450	1598	361	561	3600	1294	809	11294	1060
2017	2092	3802	80	3443	2012	472	730	3630	1870	784	11480	1019
2018	2058	3624	57	3342	1820	353	614	3893	1995	618	10002	906
2019	2138	3487	48	3149	1762	401	544	3123	1781	610	9225	639
2020	2278	3159	47	3409	2069	551	412	2649	1786	556	6169	474

# Category Wise Analysis Over Years

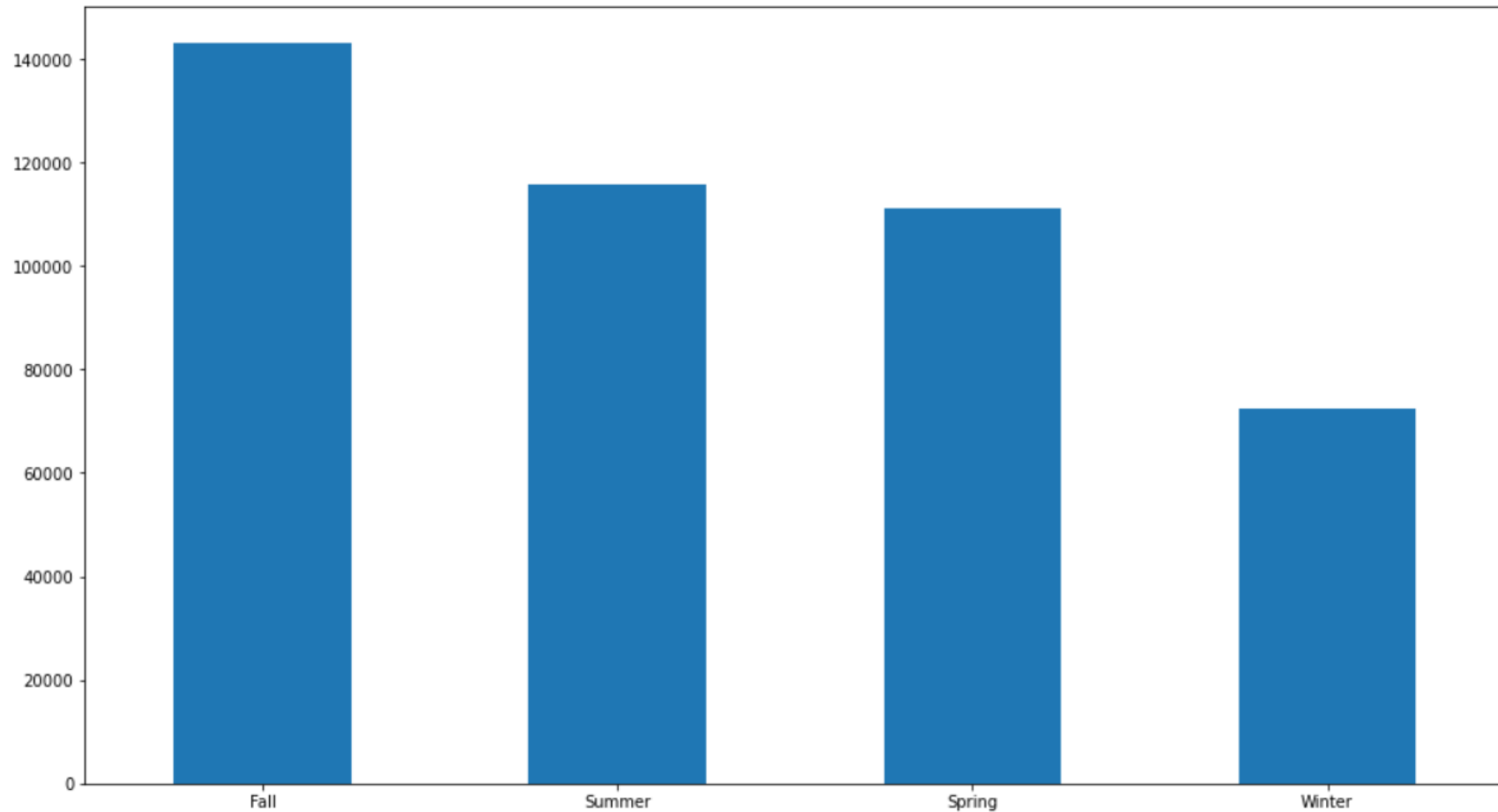


Number of crimes termed as BATTERY, BUSINESS ROBBERY, CRIMINAL DAMAGE TO PROPERTY, INDIVIDUAL BATTERY, NARCOTICS, NUISANCE, RESIDENCE BURGLARY have decreased as compared to 5-10 years before.

Whereas, crimes in `HOMICIDE` and `FIREARM` have increased.<br>

Irrespective of the category there was a sudden drop in crime rates in 2014.

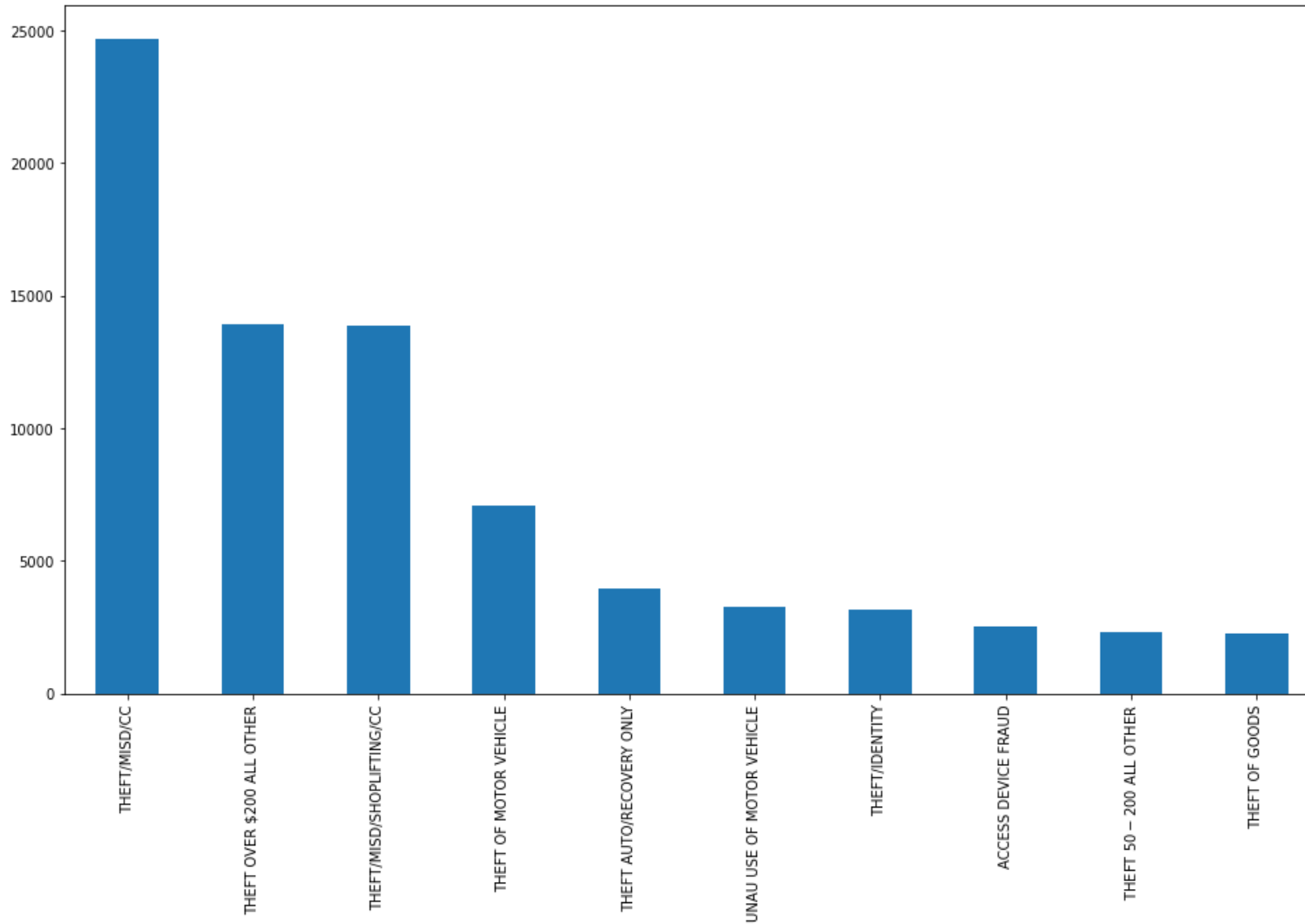
# Crime as per various Seasons



As per the season analysis, Fall season has the highest crime rate and Winter has the lowest crime rate.



# Financial Crime Analysis-1



We observe that THEFT OVER 200 DOLLARS , SHOP LIFTING and THEFT OF MOTOR VEHICLE are the most common type of thefts.

# Heat map Analysis



We observe that access device fraud is the most common crime across all the wards. The zone C has the highest number of thefts as indicated by the yellow cell of the heat map. Other common crimes across all the wards are bank fraud, credit card, home improvement, obtaining cds by fraud and other offense.

THANK YOU !!