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# Crimes in Chicago

**2001-2004**

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## Introduction

This dataset reflects reported incidents of crime (with the exception of murders where data exists for each victim) that occurred in the City of Chicago from 2001 to 2014. Data is extracted from the Chicago Police Department's CLEAR (Citizen Law Enforcement Analysis and Reporting) system. The data set has approximately 1.9 million rows and 23 columns describing the crime data that is recorded across Chicago.



Some of the key attributes used across the data analysis were:-

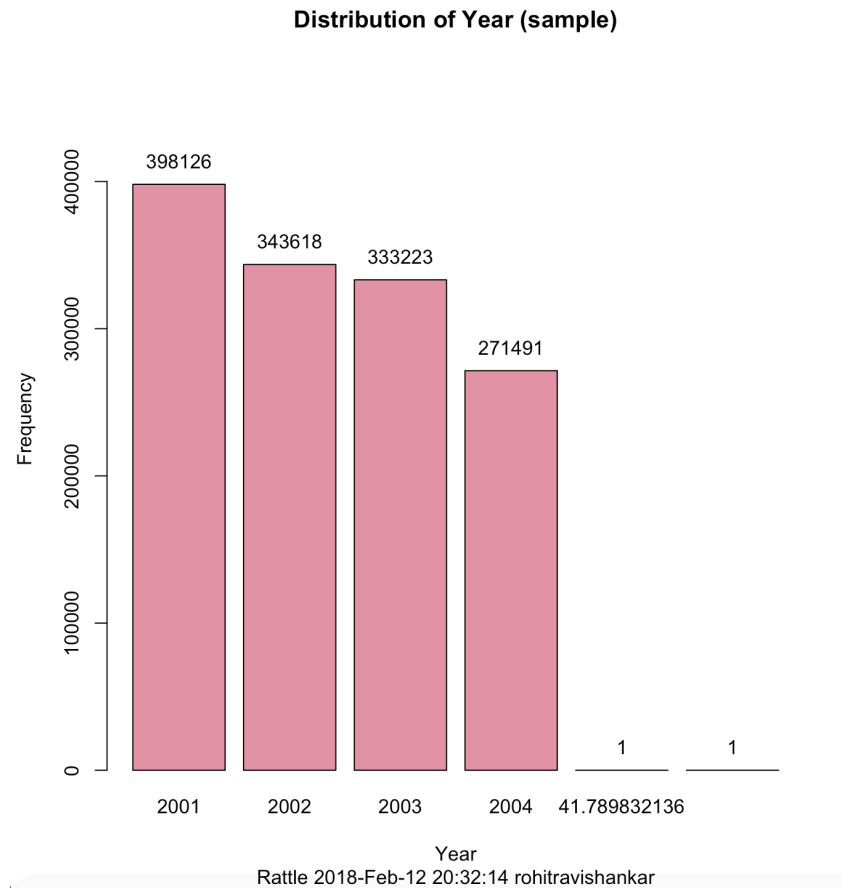
- Primary Type - The Primary description of Illinois Uniform Crime Reporting
- Location Description - Description of the location where the incident occurred
- Arrest - Indicates whether an arrest was made
- Domestic - Indicates whether the incident was domestic-related as defined by the Illinois Domestic Violence Act
- Year - Year the incident occurred
- Ward - The ward (City Council district) where the incident occurred.

## Inspiration

How has crime rate changed over the years? Where are the maximum number of crimes committed? Are these crimes domestic in nature or not?

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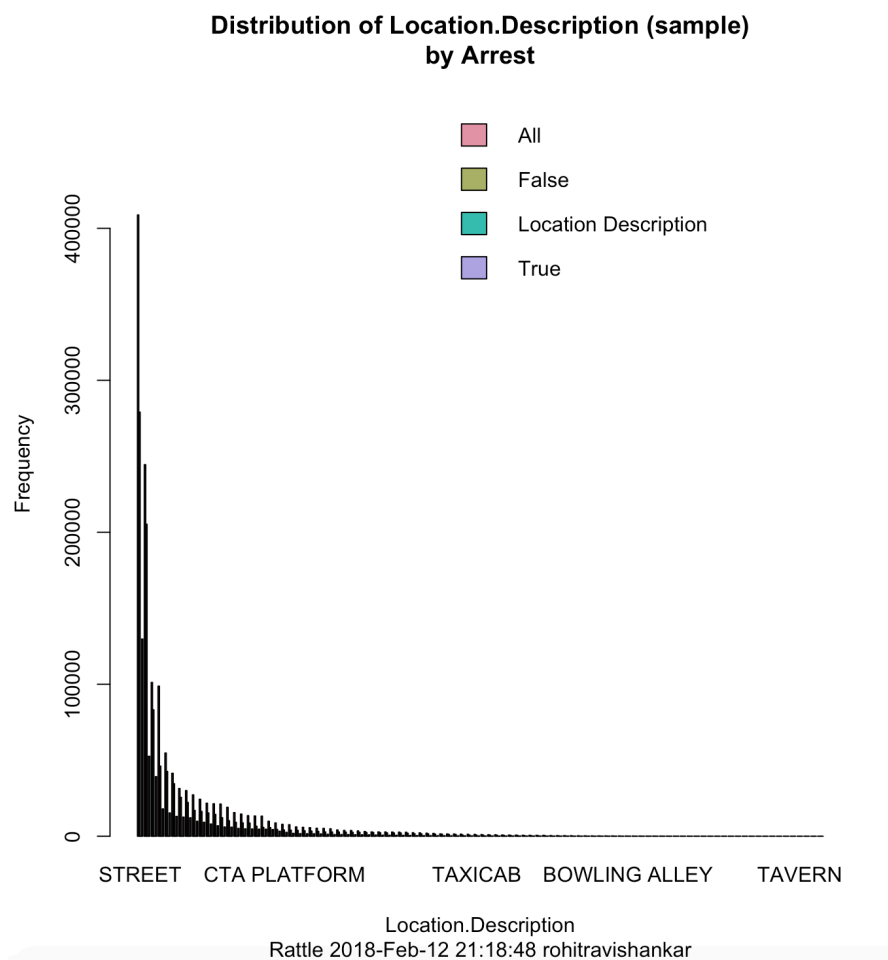
## Crime Rate Across 2001-2004



The aforementioned graph, is a bar plot of the number of crimes reported in Chicago area in the time period of 2001-2004.

We can see that in the period of 2001-2004, there was a steady decline in crimes in the Chicago area. We can speculate that the police were more responsive and the Chicago region was better policed in 2002, 2003 and 2004 as compared to in 2001. Further, there was probably a change in the order amongst the police department, or a series of arrests of repeat offenders which might have led to the decline in crimes.

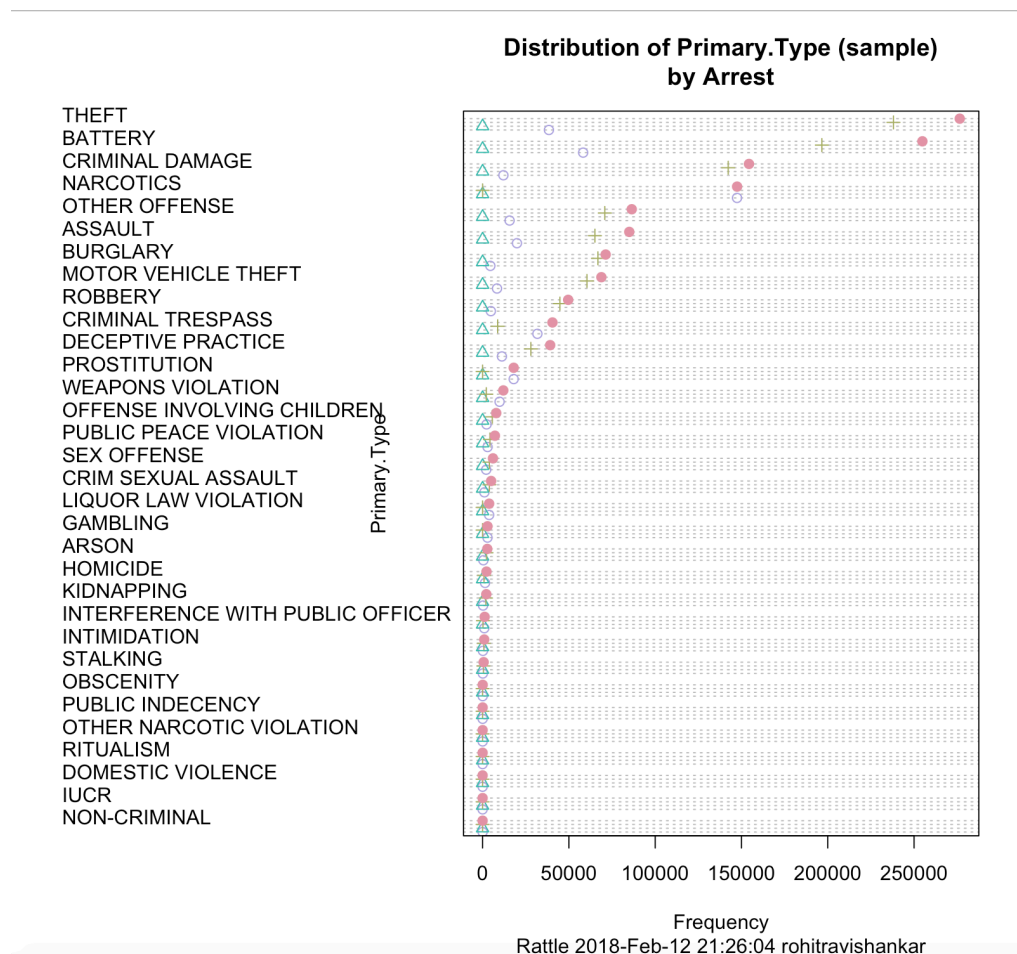
## Locations Where Crimes Are Committed



The above bar chart describes the locations where maximum arrests were made in Chicago. Out of the possible locations where crimes could occur, according to the graph results, we can clearly observe that the highest frequency of crimes were committed on the streets of Chicago.

The crimes committed on the streets of Chicago significantly exceeded the crimes in the other areas, which could imply that the streets of Chicago are unsafe.

# Distribution Of Primary Types Of Crimes Committed



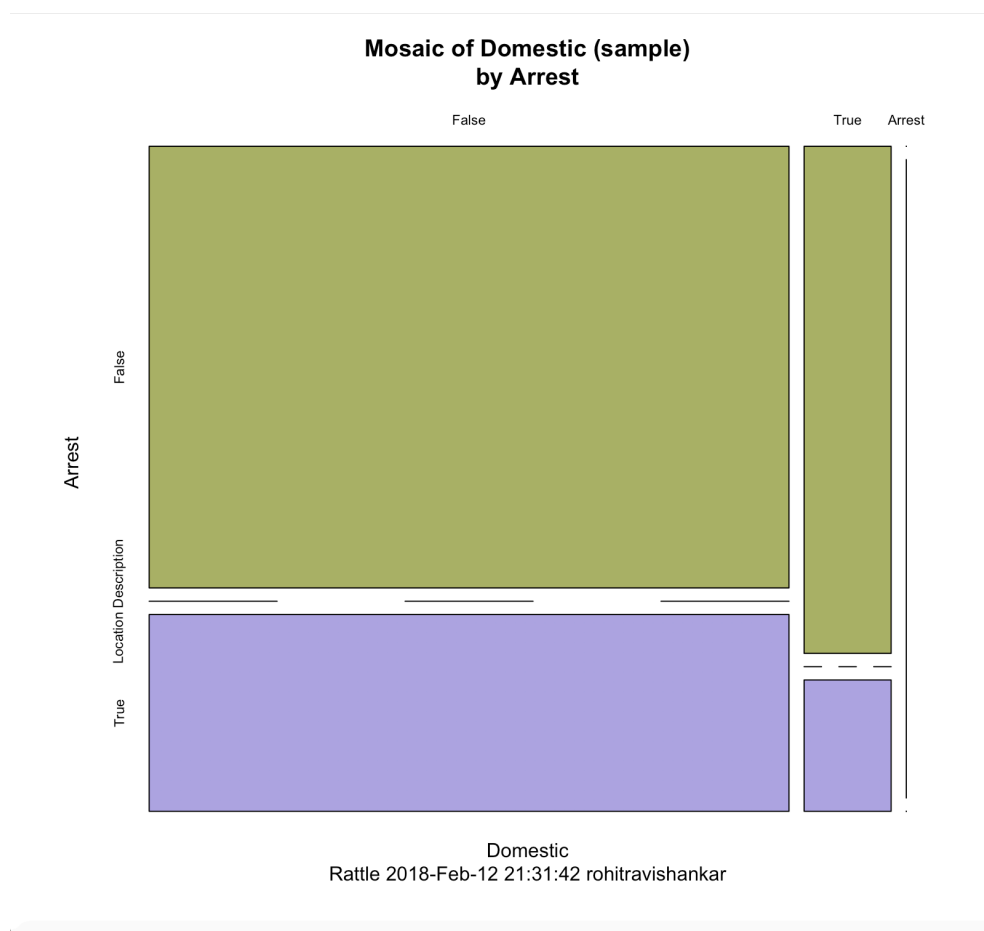
The above dot plot describes the primary types of crimes that were committed based on the maximum arrests that were made in Chicago. Further, we can come to the conclusion that the most common type of crime, for which arrests are made, are thefts followed closely behind by battery.

On the contrary, we can observe that the crimes listed with the least, or no frequency of arrests are incidents such as stalking, domestic violence, gambling, and kidnapping.

Other crimes that have a middle ranged frequency of arrests are that of prostitution, robbery, and assault.

Considering the gravity of the crimes within the high to medium frequency range of arrests, it can be deemed that the thefts are common in Chicago.

# Crimes Being Domestic Violence vs Not Domestic Violence



The above graph is a mosaic plot that describes whether crimes committed were domestic-related or otherwise, as defined by the Illinois Domestic Violence Act. We observe that number of arrests made for domestic crimes is lesser than arrests for other type of crimes.

However, a caveat with drawing this conclusion is that there exists a skewness in the number of domestic-related crimes reported. Hence, it is not necessarily an accurate conclusion to be drawing.

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## Conclusion

We can summarize our conclusion from the given data down to the following:-

- There was a dip in crimes from 2001 through 2004.
- The maximum crimes were committed on the streets of Chicago based on the maximum number of arrests happening on the streets.
- The most common type of crimes were thefts, battery and narcotics.
- Domestic-related crimes led to lesser number of arrests as compared to other crimes.

With this knowledge, the people of Chicago can take adequate precautions to remain in the safer areas and help reduce crimes in the unsafe areas.

## References

- Kaggle  
<https://www.kaggle.com/currie32/crimes-in-chicago>
- Chicago Police Department  
<https://home.chicagopolice.org/>



