



## OVERVIEW

One of the essential activities for intelligence and law enforcement organisations is crime analysis because the insights gained from the analyses of data can help improve people's quality of life and personal safety. The data used for this report involves a record of all crime-related information, the date, and time the crime happened (From 2001 - 2022), and how it connected to other Chicago-area events. This report focuses on crimes that have been reported over the past ten years to provide an accurate representation.

The findings are as follows:

1. Between 2013 - 2022 there were 738,191 crimes reported, of which 79% resulted in no arrests and 21% in arrests. 62% of crimes were reported in the evening, 38% in the morning, and 17% of crimes were domestic.
2. The number of crimes recorded continued to steadily increase from 2013 through to 2021. There was a significant dip in number of crime recorded between 2021 and 2022. Additionally, the lowest number of recorded crime was in 2022, while 2013 had the greatest number of recorded crime.
3. In Chicago, the street had the highest recorded crime rate for crime location description, followed by the residence and apartment. Additionally, 0001XX N State Street, followed by 0000X W Terminal and 0008XX N Michigan Avenue, has the highest record of crime.
4. In the dataset, simple was the most frequently documented offence description, followed by domestic battery and \$500 and under.

# SUMMARY

Record of Crimes  
**738,191**

Arrested  
**21%**

Not Arrested  
**79%**

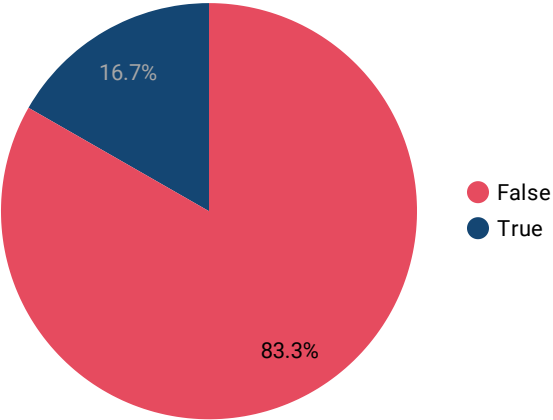


Fig A. The proportion of crime types (Domestic or not)

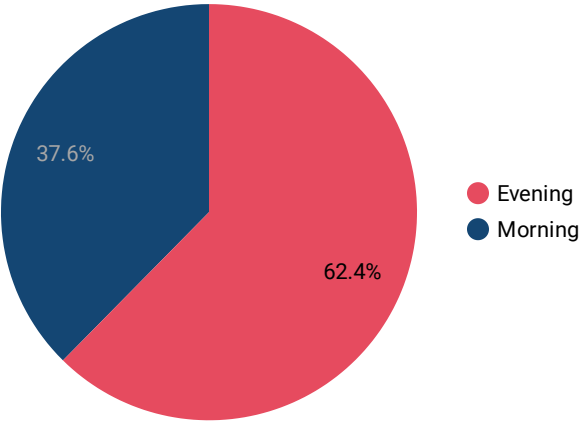


Fig B. The proportion of time when crime recorded

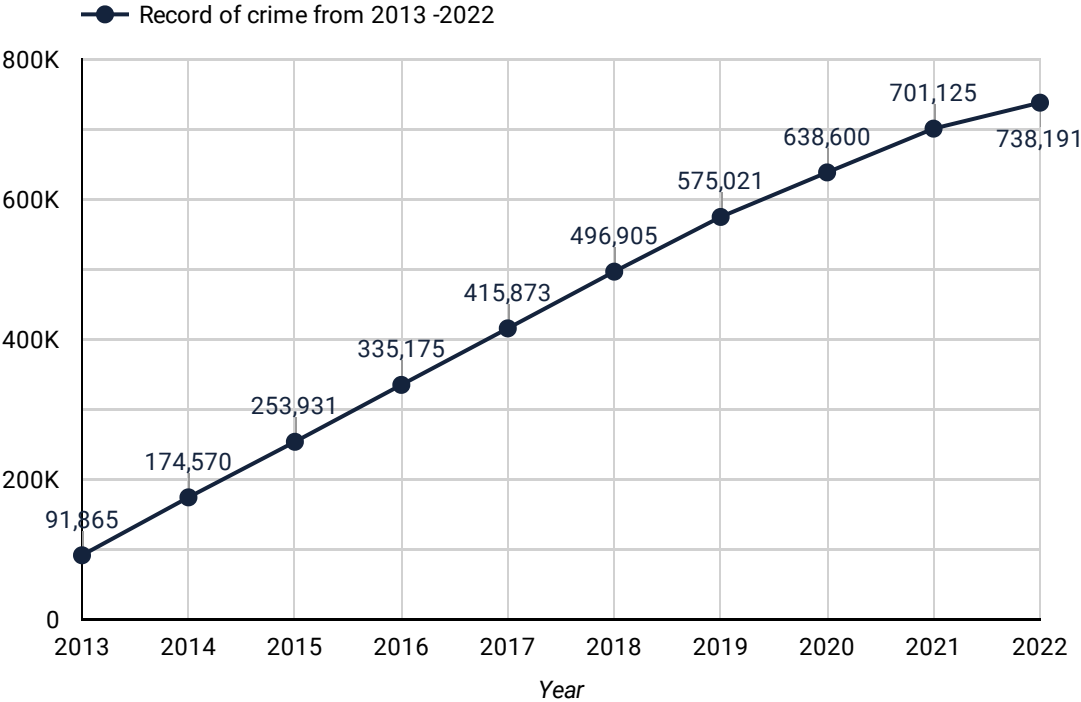


Fig C. Number of offences across the years

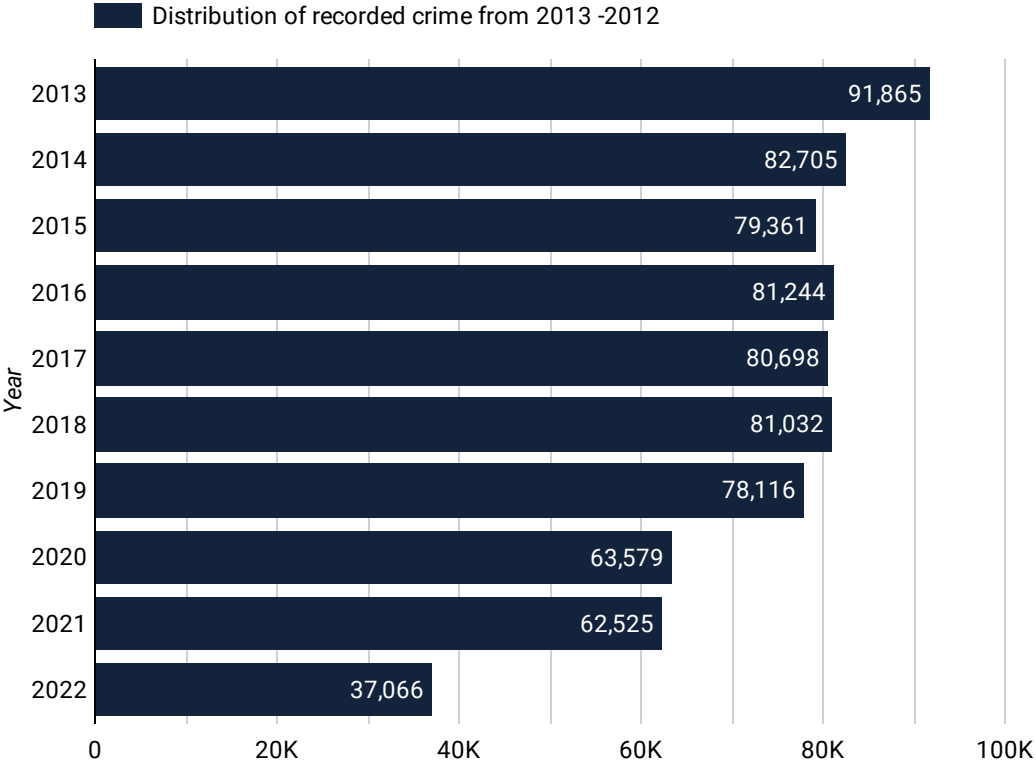


Fig D. Distribution of crimes recorded from 2013 - 2022

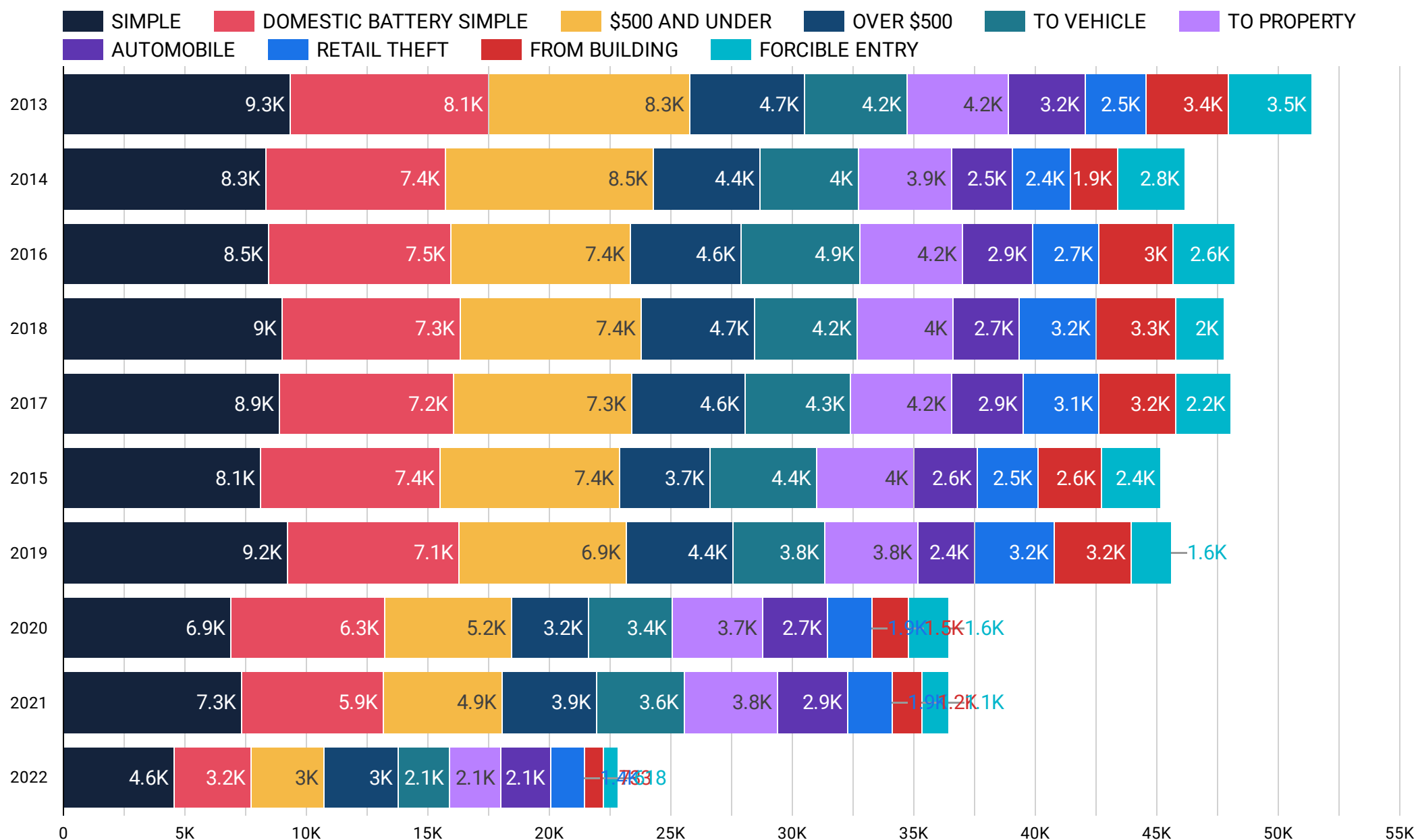


Figure E. Shows the distribution of the type of offences recorded in the dataset and their relationship to the year of occurrence. Simple, Domestic Battery was the most frequent crime recorded across the years while Retail Theft, Automobile, From Building and Forcible Entry were the least regular offences compared to others.

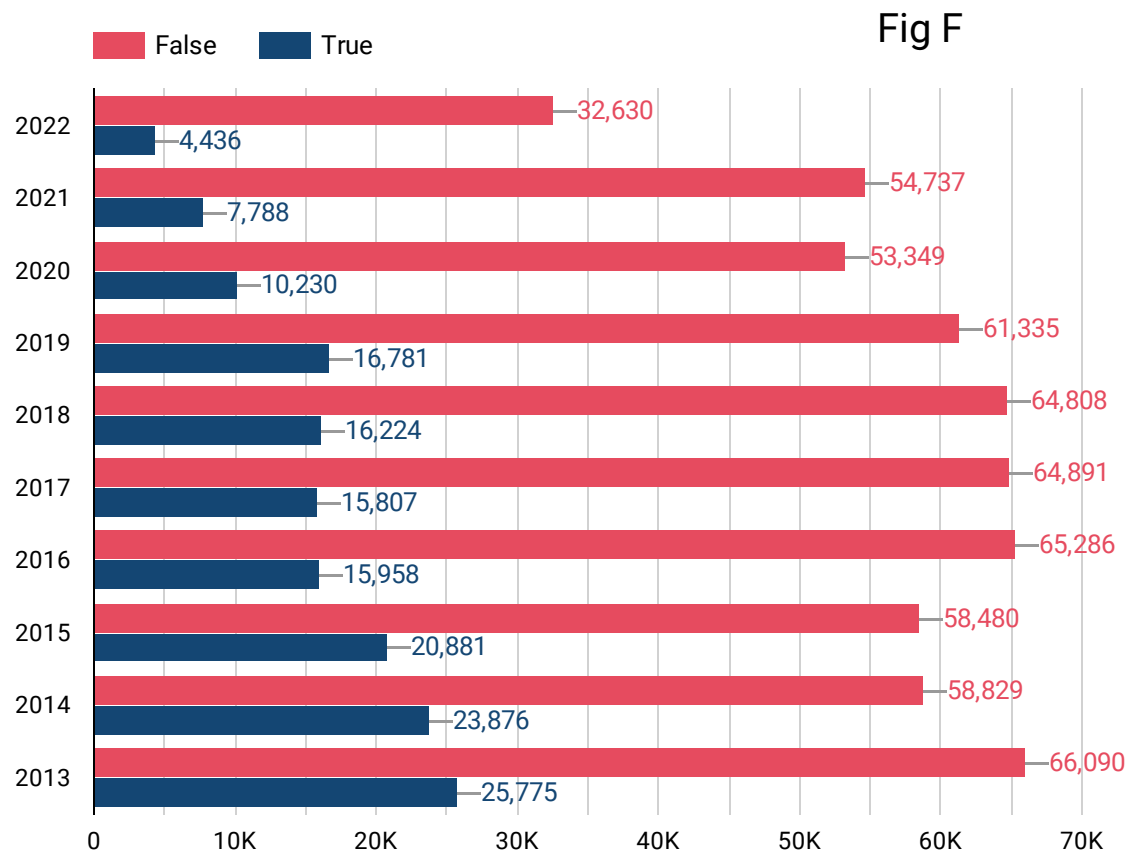


Figure F. Shows the comparison between arrests made and otherwise for offences recorded in each given year. In 2021 and 2022 no arrests were made for about 88% of offences reported in those years. 2014 had the most arrests made for offences recorded within the year with about 71% of offences resulting in no arrests. This was the least percentage of no arrests made compared to other years.

Figure G. Shows the comparison between the time of offence and offences recorded in each given year. In all the years under review, most of the offences recorded were committed in the evening. The average difference between the number of offences committed in the evening and the morning is 62.4%

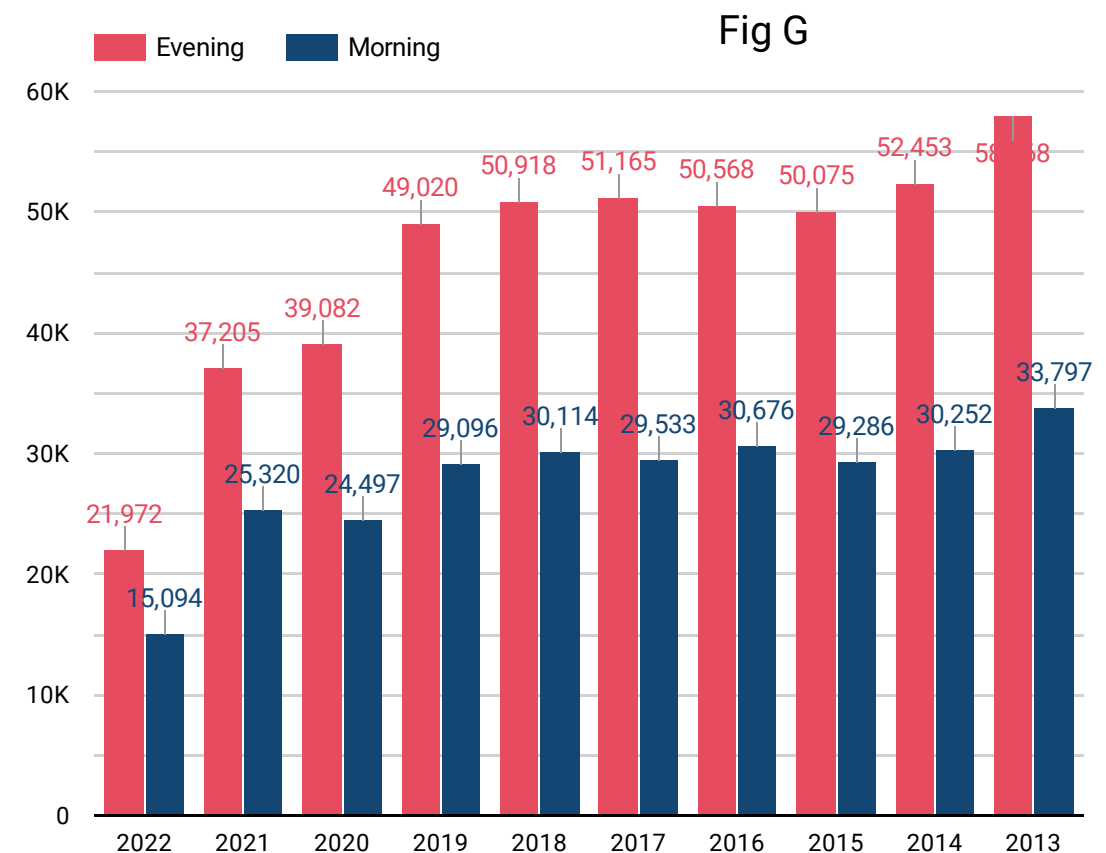


Fig H

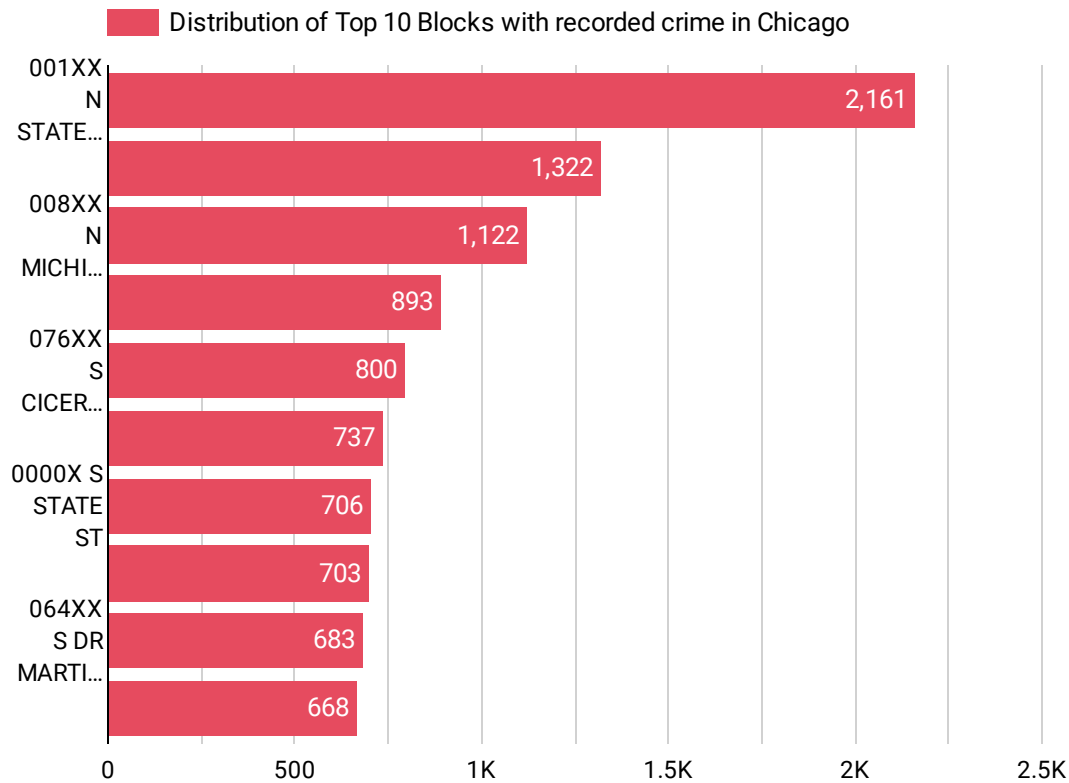


Figure I shows the distribution of the types of crimes recorded in the dataset. The graph indicates that simple was the most frequently documented offence description, followed by domestic battery and \$500 and under compared to other crime descriptions recorded.

Figure H shows the distribution of the top 10 blocks with the most frequent crime recorded. 0001XX N State Street, followed by 0000X W Terminal and 0008XX N Michigan Avenue were the blocks with the highest record of crime.

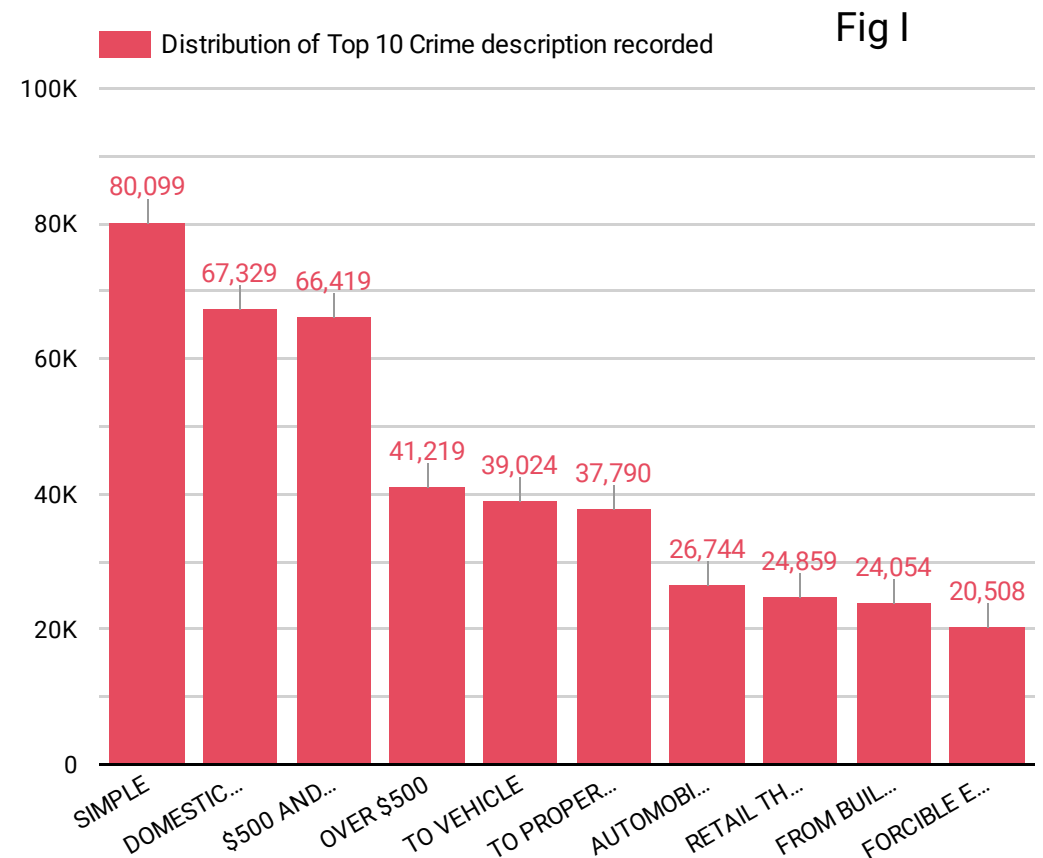


Figure J shows the distribution of crime categories committed and their relationship with arrests made and otherwise. Except for Retail Theft, which had 54% of no arrests made, the graph shows a significantly high proportion of no arrests being made on the crimes committed.

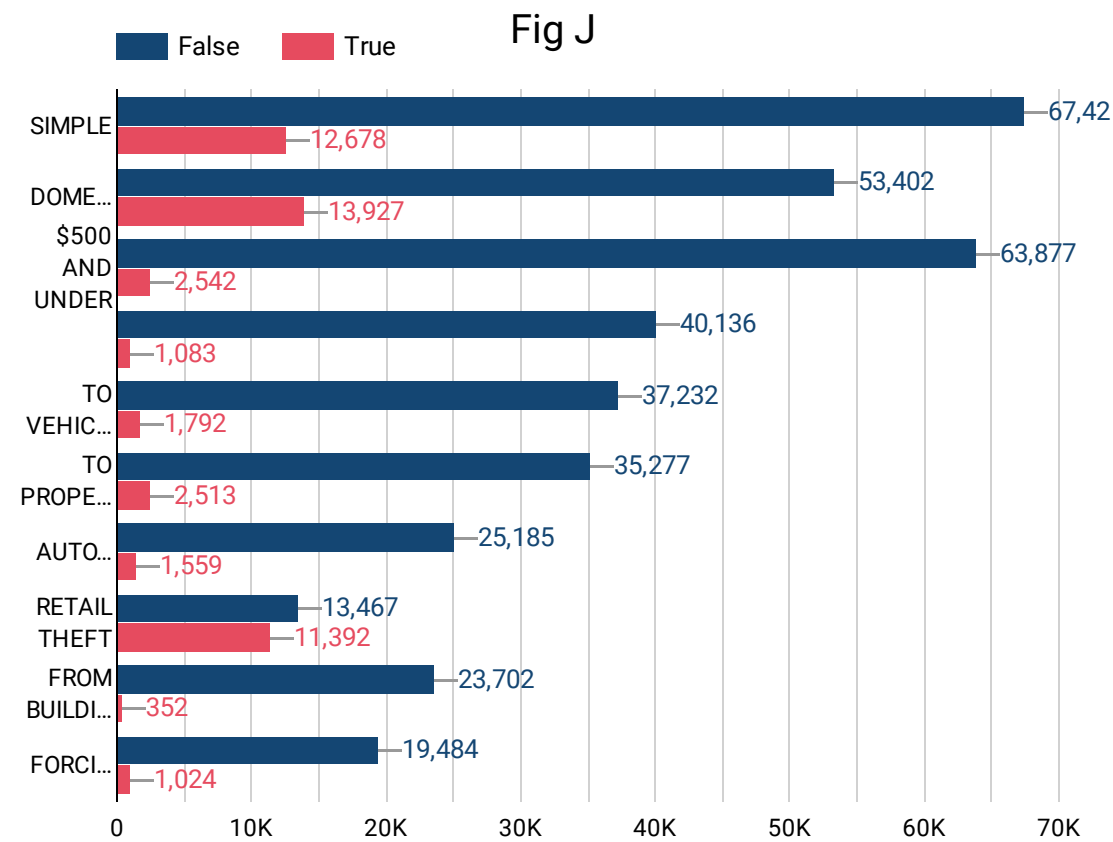
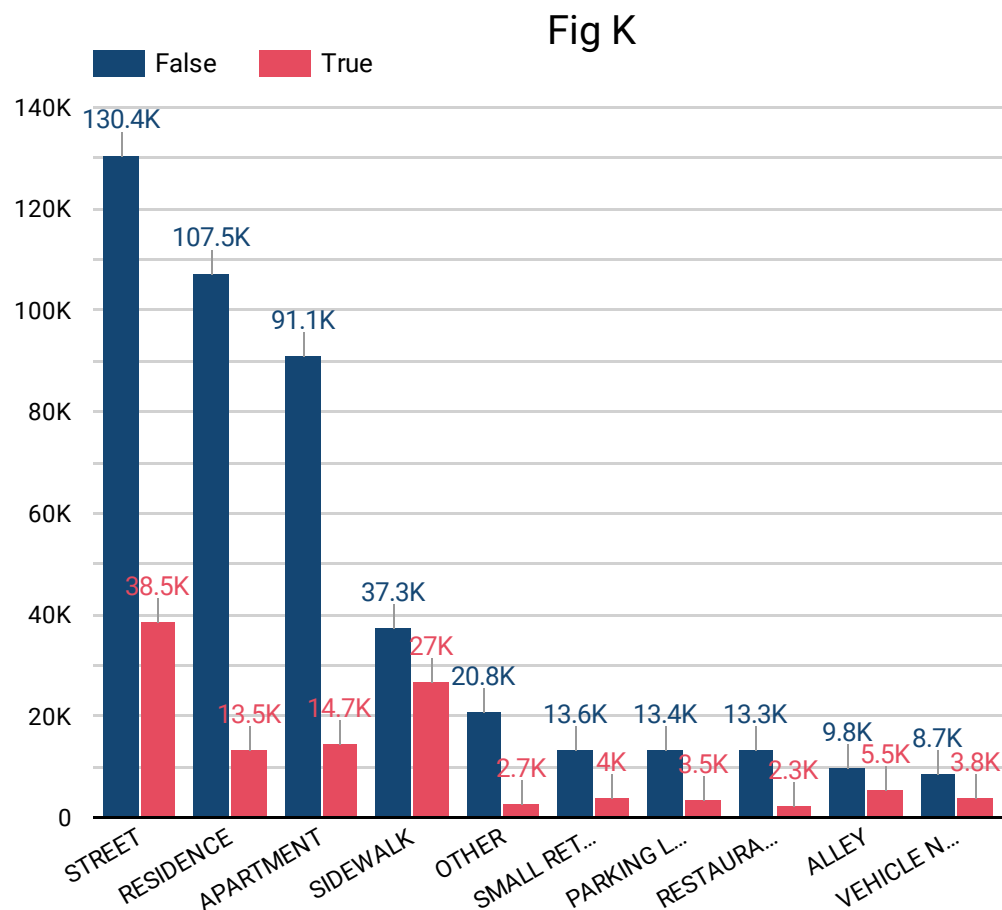


Figure K. Shows the distribution of the location where crimes were committed and their comparison to arrests made and otherwise. The graph shows that across all locations where the crime was committed, no arrests were much greater than arrests made. Sidewalks had 58% of no arrests made, which was the lowest compared to other locations. Furthermore, locations such as the street, residence, and apartment had the highest proportion of no arrests made for crimes committed.

Fig L

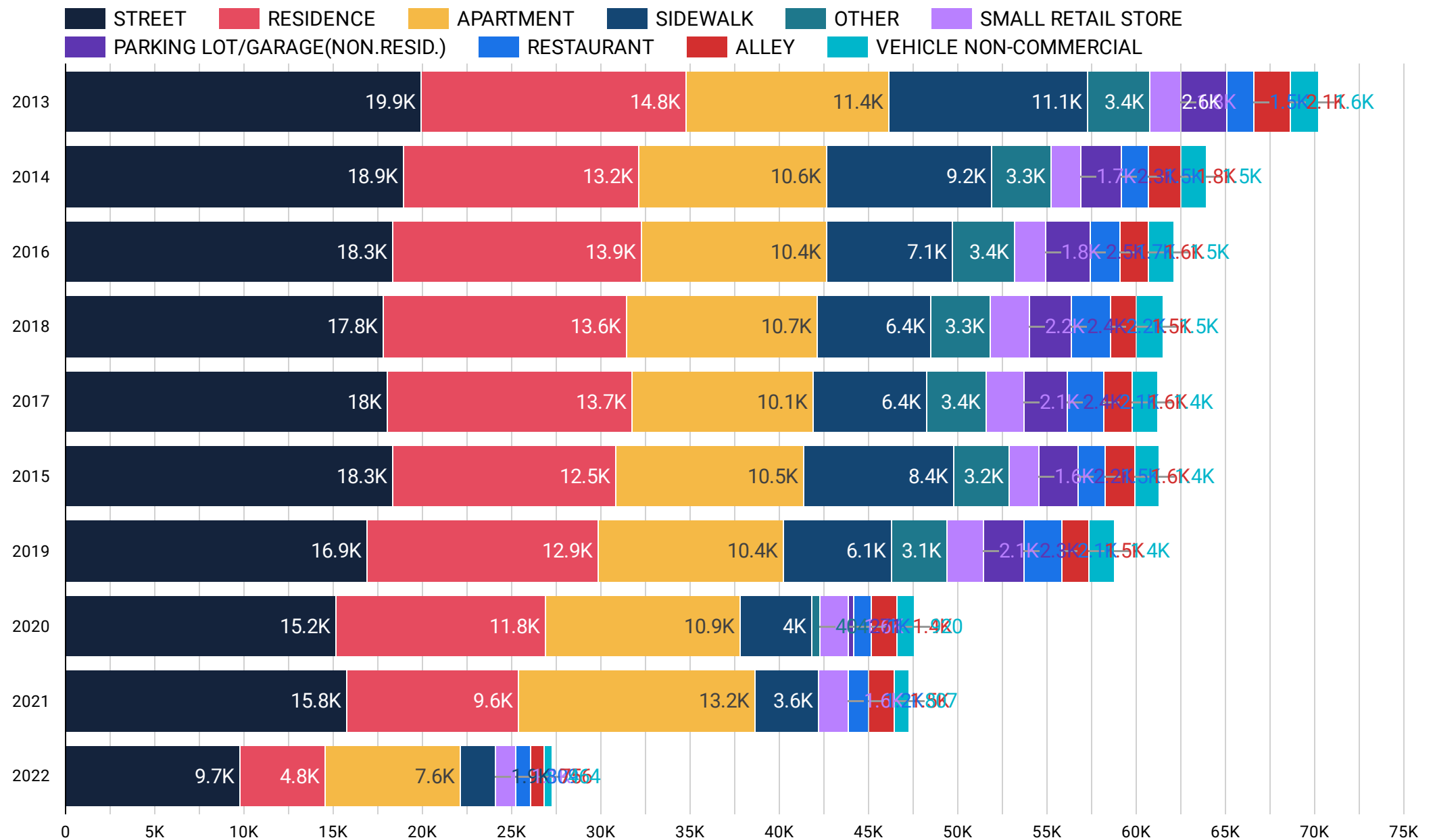


Figure L shows the distribution of crime locations reported in Chicago and their relationship to the year of occurrence. In comparison to the other locations, street, residence, and apartment were the most frequently recorded locations where crimes were perpetrated.

Figure M shows the distribution of the types of offences committed and their relationship with the time of the day the offences were committed. According to the graph, crimes are more frequently committed in the evening than in the morning.

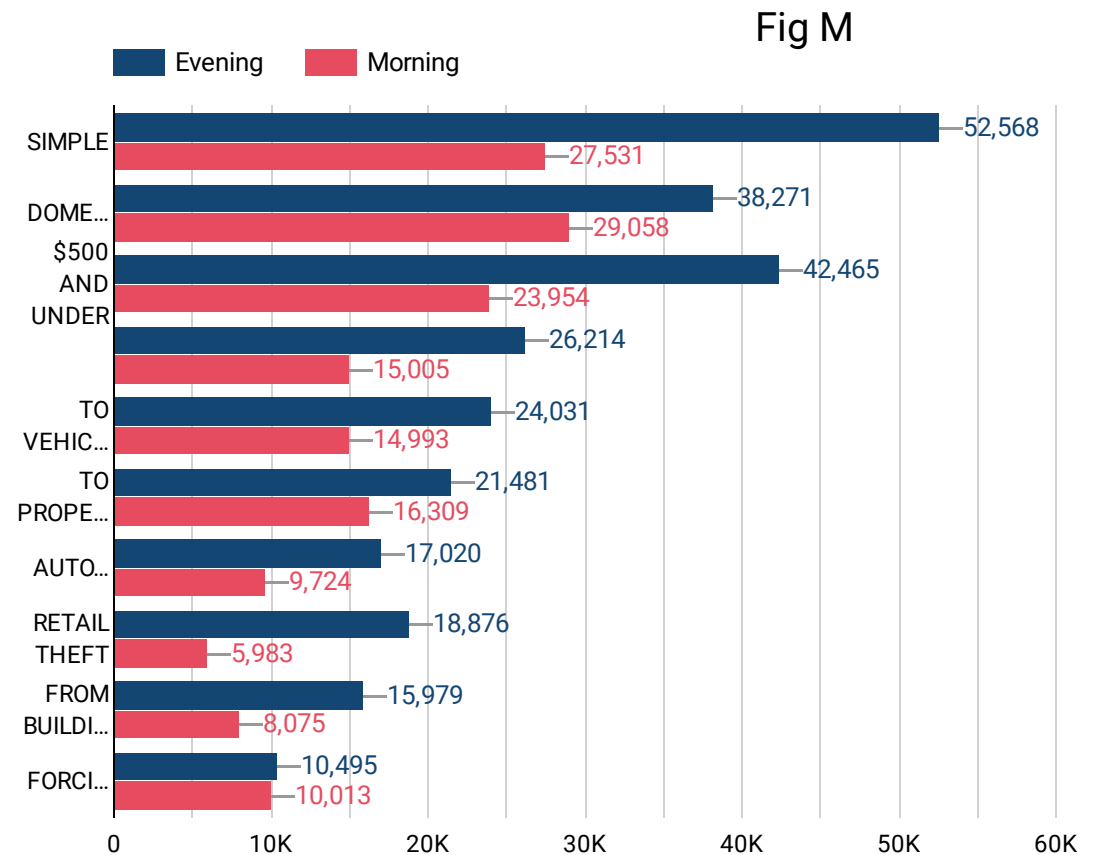
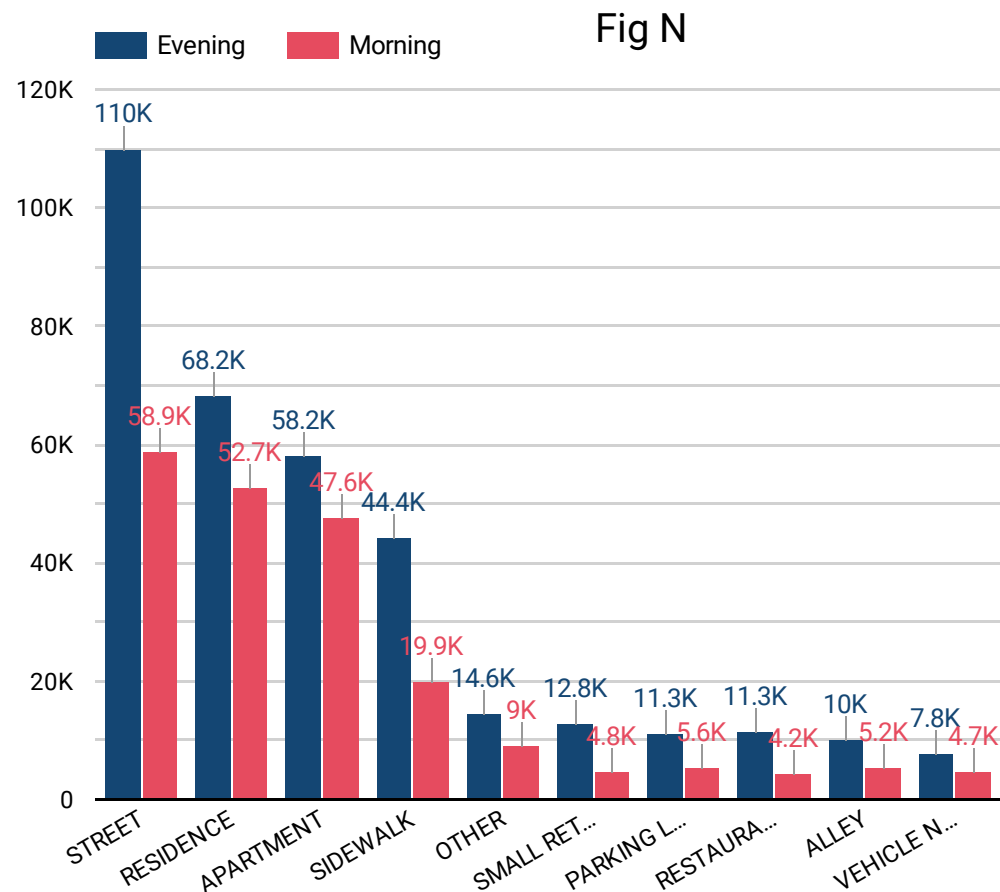


Figure N depicts the distribution of the location where the offences were committed and how that information relates to the time of day the offences were committed. The graph also shows that crimes are more likely to occur in the evening than in the morning. We can conclude that there is a higher likelihood of a crime occurring in the evening than in the morning.



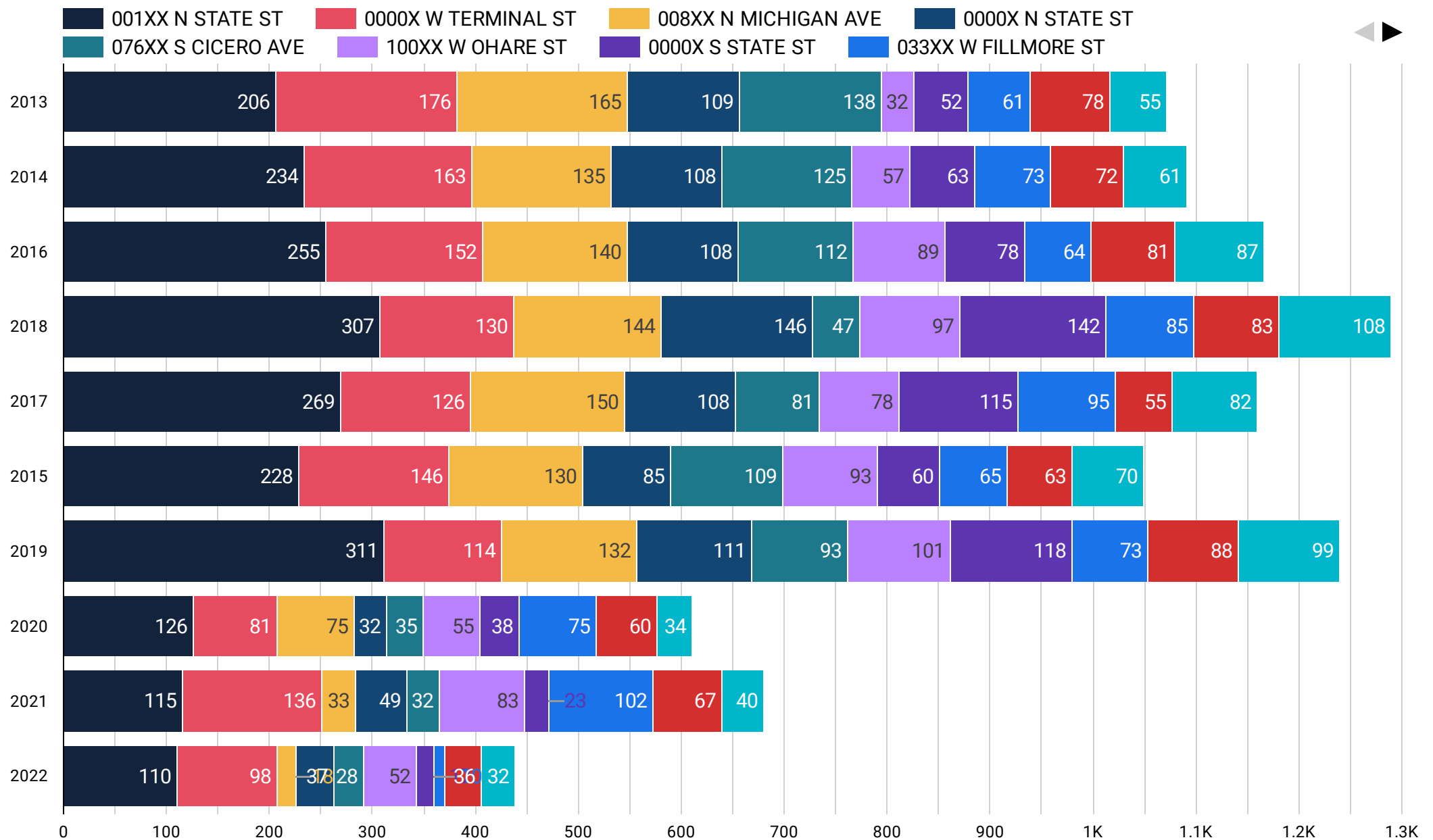


Figure O shows the distribution of the Top Blocks where offences were committed and the relationship with the year of occurrence. 0001XX N State Street and 0000X W Terminal had the highest record of crime across the years.

# LIMITATIONS

The scope of this project was limited to the effectiveness and responsiveness of the Chicago Police Department to crime. Furthermore, the dataset lacked information on whether or not the crime committed was solved, as well as the proportion of arrests that resulted in a conviction.

# RECOMMENDATION

1. Chicago law enforcement authorities should increase enforcement efforts in the evening and address the high number of crimes resulting in no arrests.
2. Chicago law enforcement authorities should investigate the reason for the decrease in crime in 2022 and consider implementing similar measures in other areas.
3. Chicago law enforcement authorities should focus on improving safety in high-crime areas, such as the streets, residences, and apartments.
4. The Chicago Police should Target hotspots with high crime rates, such as 0001XX N State Street, 0000X W Terminal, and 0008XX N Michigan Avenue.
5. Chicago law enforcement authorities should prioritize addressing simple offences, domestic battery and \$500 and under crimes to reduce the frequency of these crimes.