

Tableau and PowerBI Visualization Project

Dashboard for Public Safety Officer of Chicago City

The aim of this project was to create an interactive dashboard and visualize insights. Bleow was the dashboard created to assist the Saftey Public Officer of Chicago city in analyzing crime incidents at various levels namely Neighbourhood, Block and Police beats in the localaties. It also provided a comprehensive collection of facts on front dashboard.

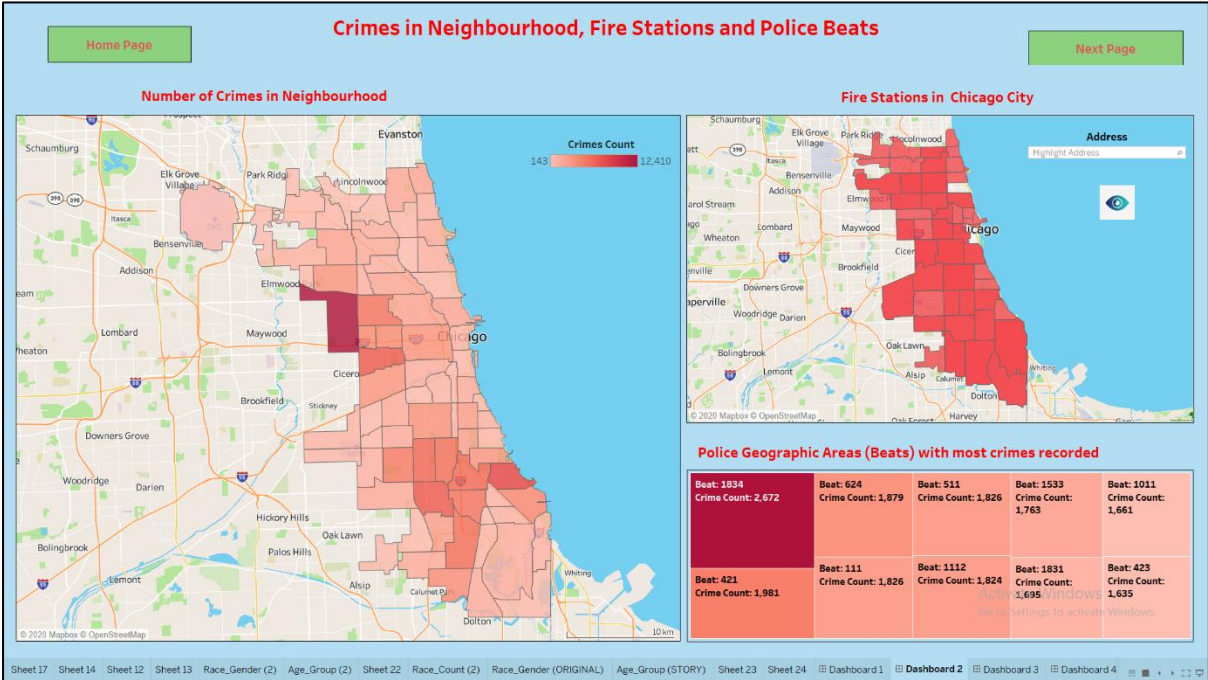
Interactive buttens were provided for the Officer to be redirected to respective dashboards according to levels of localities.

Link for the datasets used:

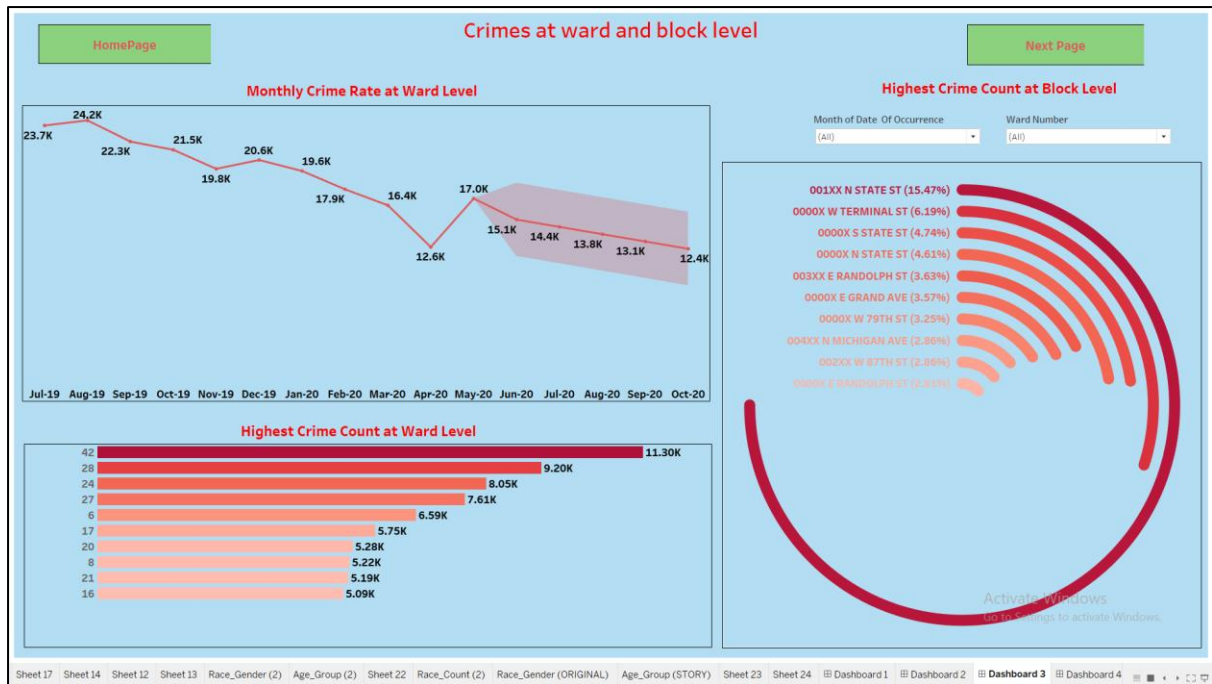
<https://data.cityofchicago.org/browse?category=Public%20Safety>



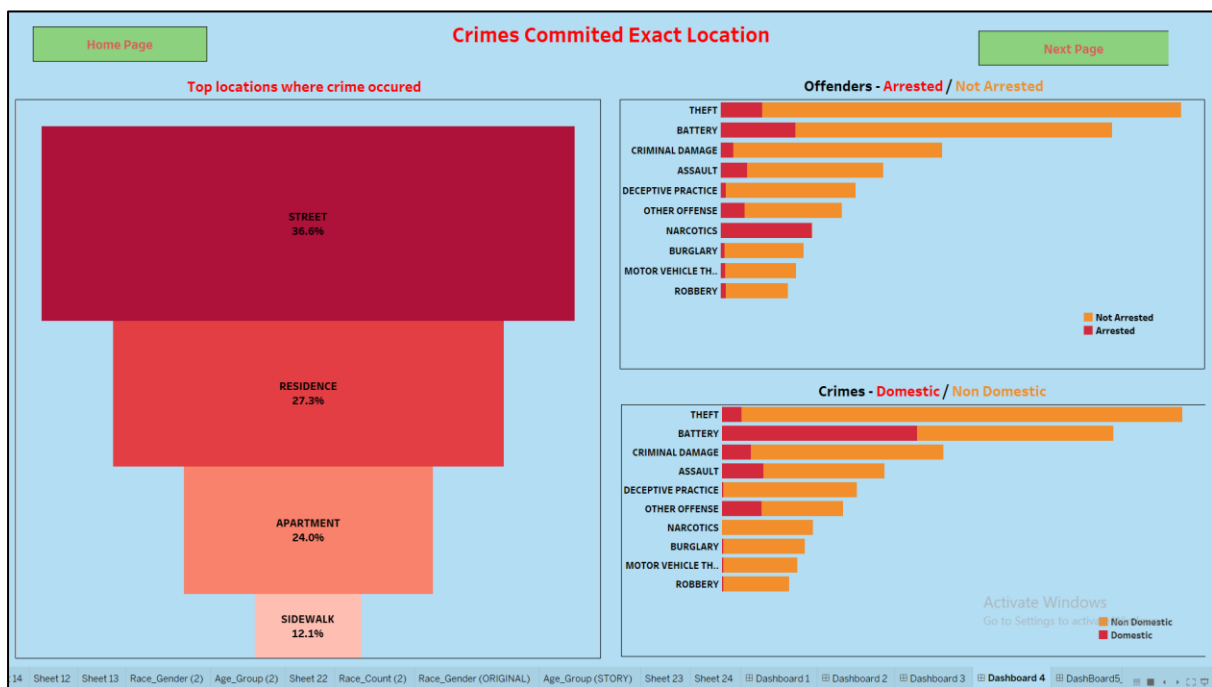
The dashboard provided a broad view about crimes counts at Neighbourhood and Beat levels as shown below. The dashboard also provided the locations of firestations in Chicago city as well as the available firetrucks available in case of emergency.



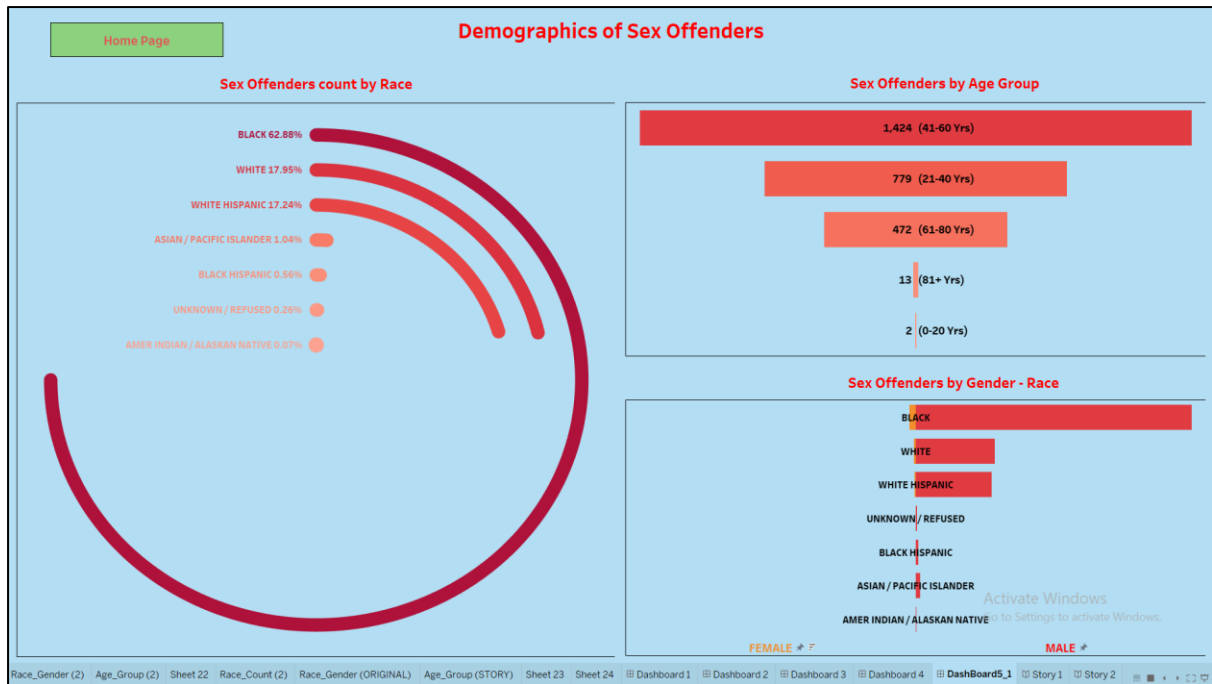
Details of crimes at ward and block levels were shown wherein the highest crime counts in various wards and blocks were displayed. Also a trend of crimes on a monthly level was displayed and prediction of crime rate based on the previous trend was provided.



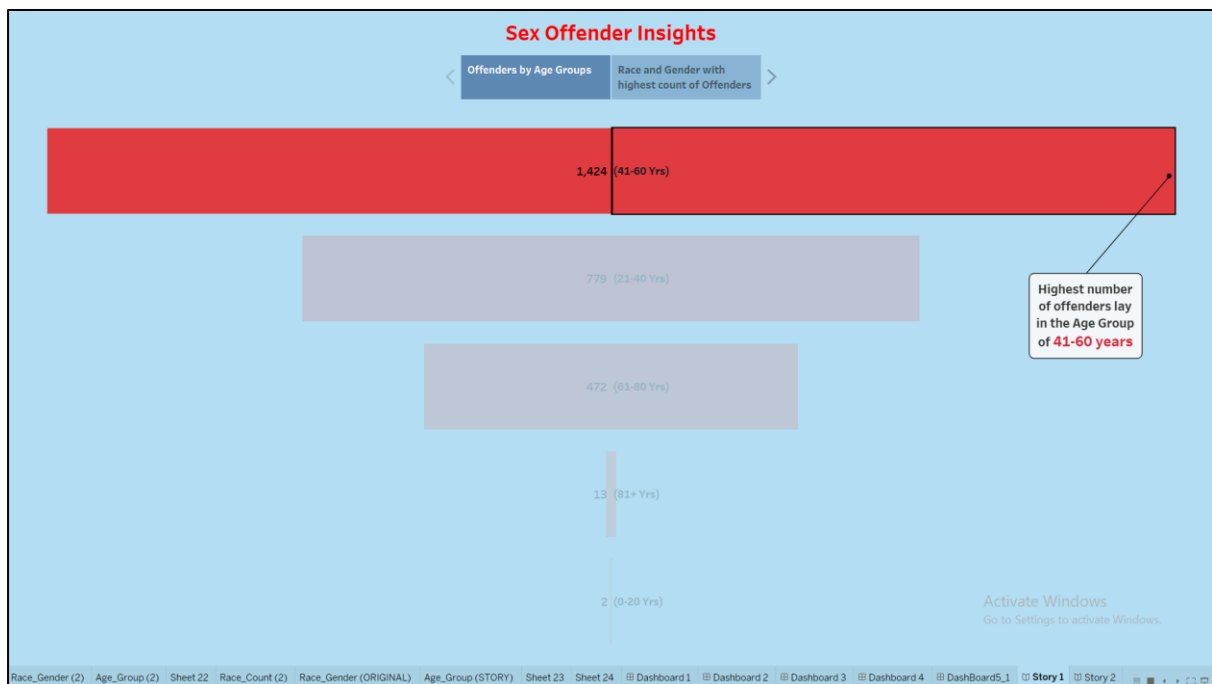
Also it provided the Safety Officer data of how many offenders were arrested, top locations where crimes occurred and whether they were domestic not.



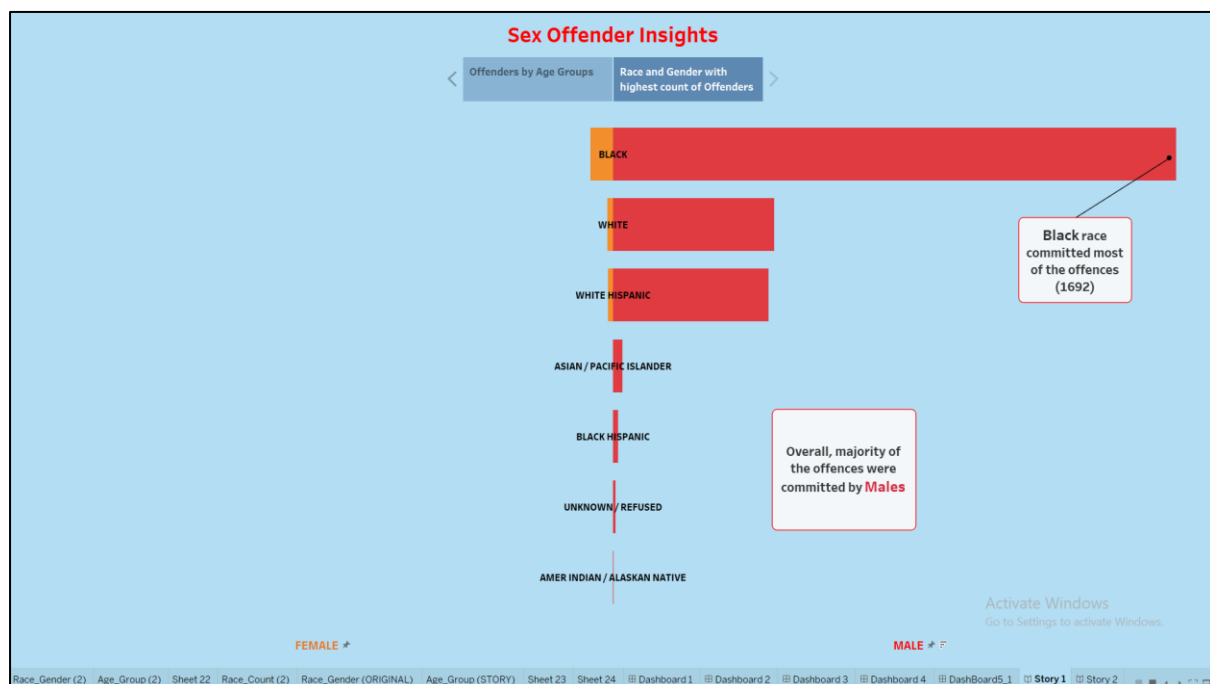
It also summarised the sex crime offenders according to factors like their race, age group, and their genders within the race group.



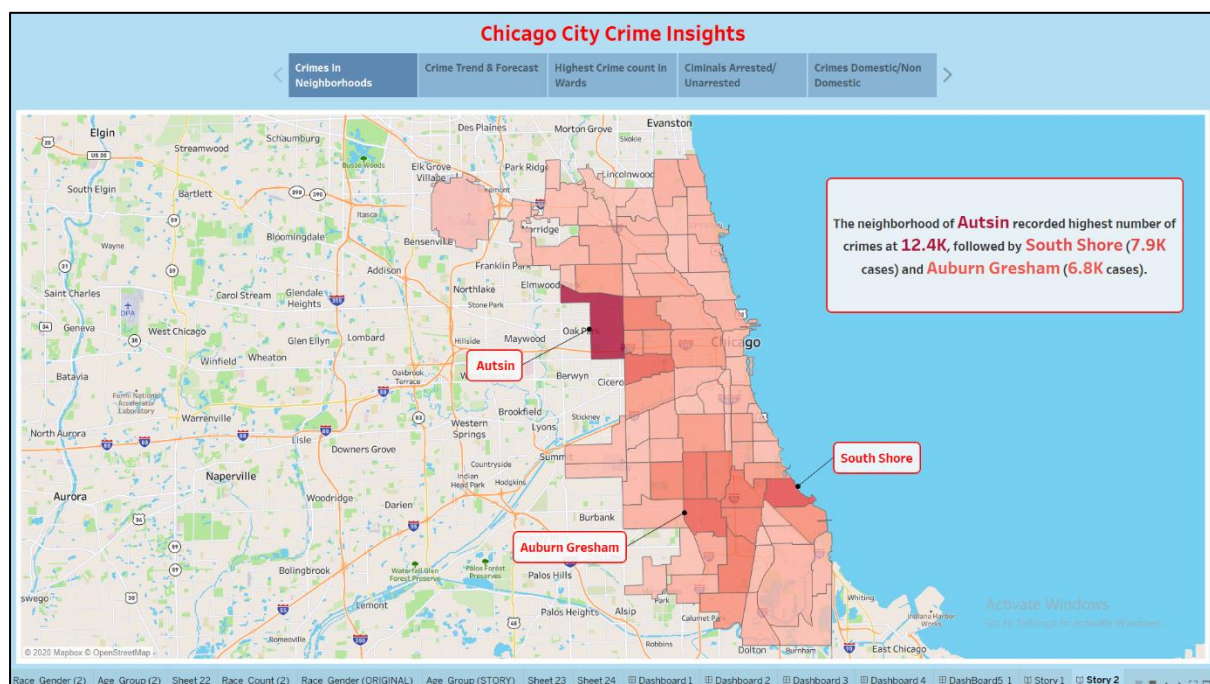
Some interesting insights were highlighted in this dashboard. As shown below, this story highlighted the age group in which highest number of sex offenders lie in.



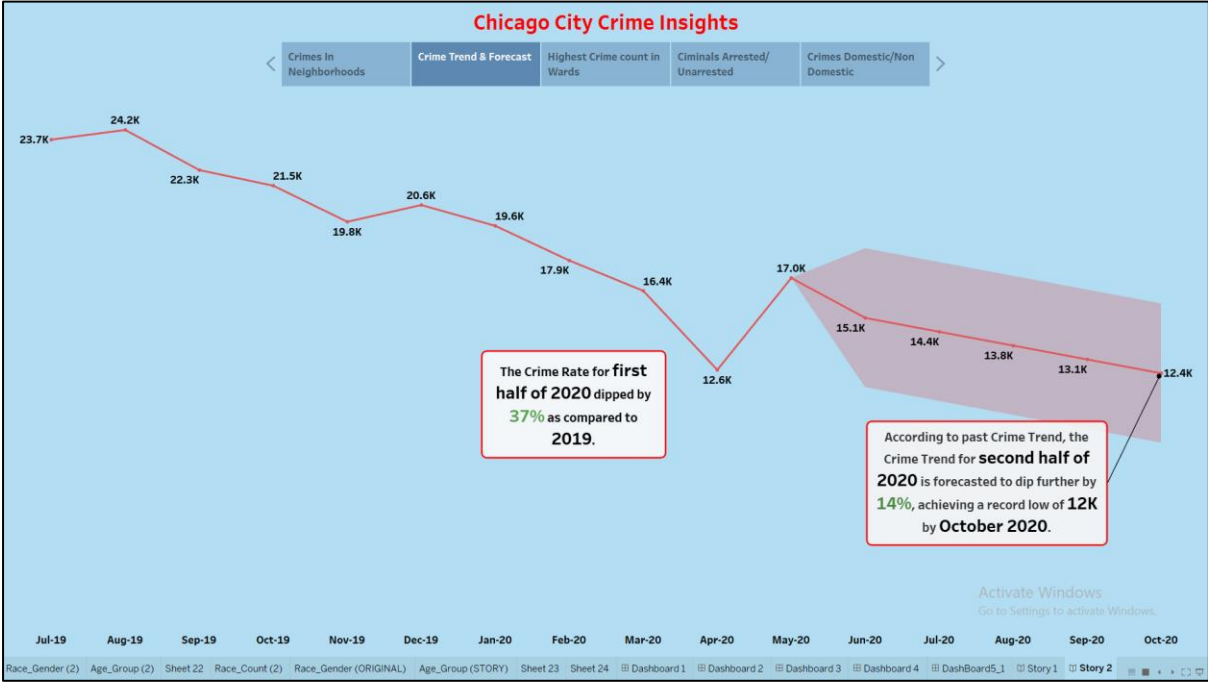
This story highlighted the race which committed highest offences as well as the gender of the sex offenders. Also this story showed that majority of the offences were committed by three races and most of them were males.



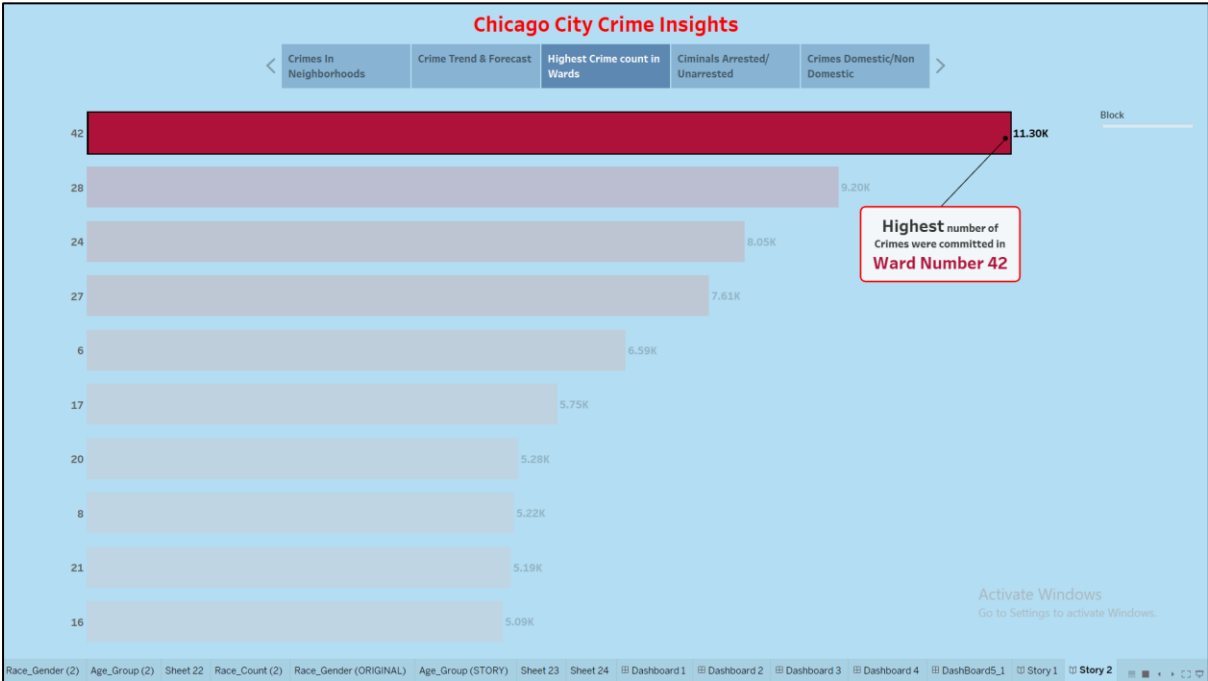
Here, this story had visualization of offences in various neighbourhoods and the top 3 neighbourhoods where most crimes occurred.



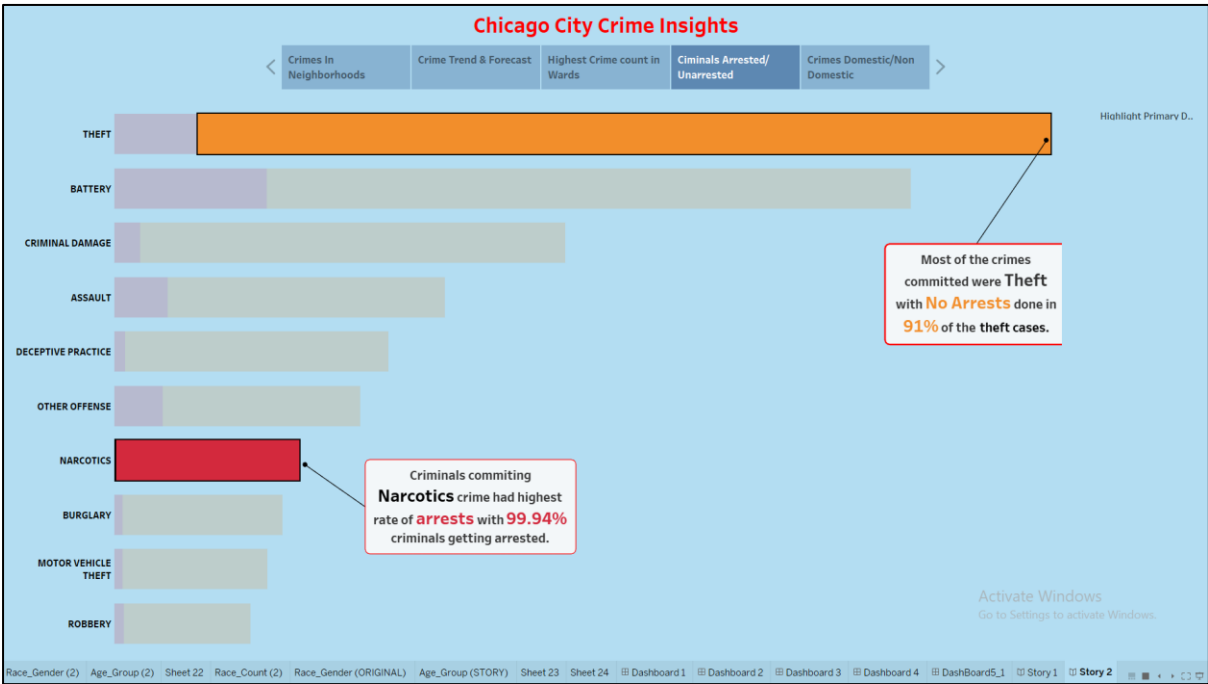
This story provided an insight which said drop in crime rate by a significant amount as compared to previous year in first half. And based on the past trend, a prediction was made of further dip in crime rate by the next half of the year.



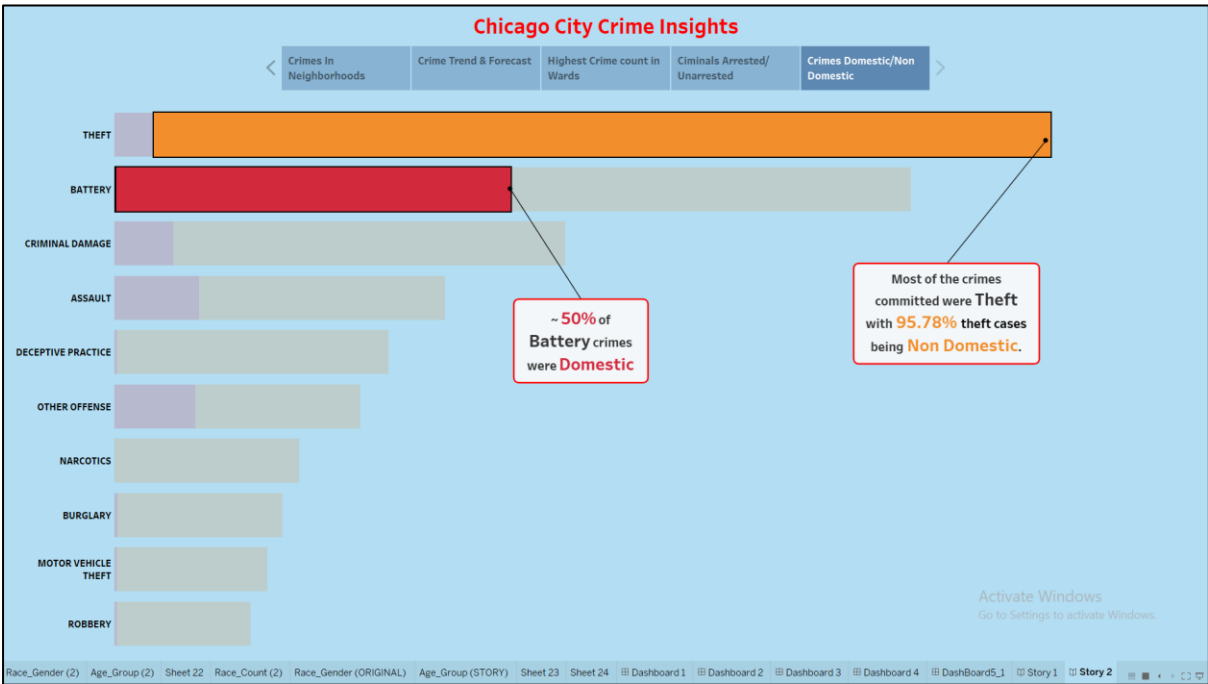
This story highlighted the ward with highest number of crimes.



The below story gave an insight of the type of crime committed showing the ratio of criminals getting arrested or not. This showed that criminals who committed Theft crime were not arrested the most and narcotic criminals had a very high of arrests.

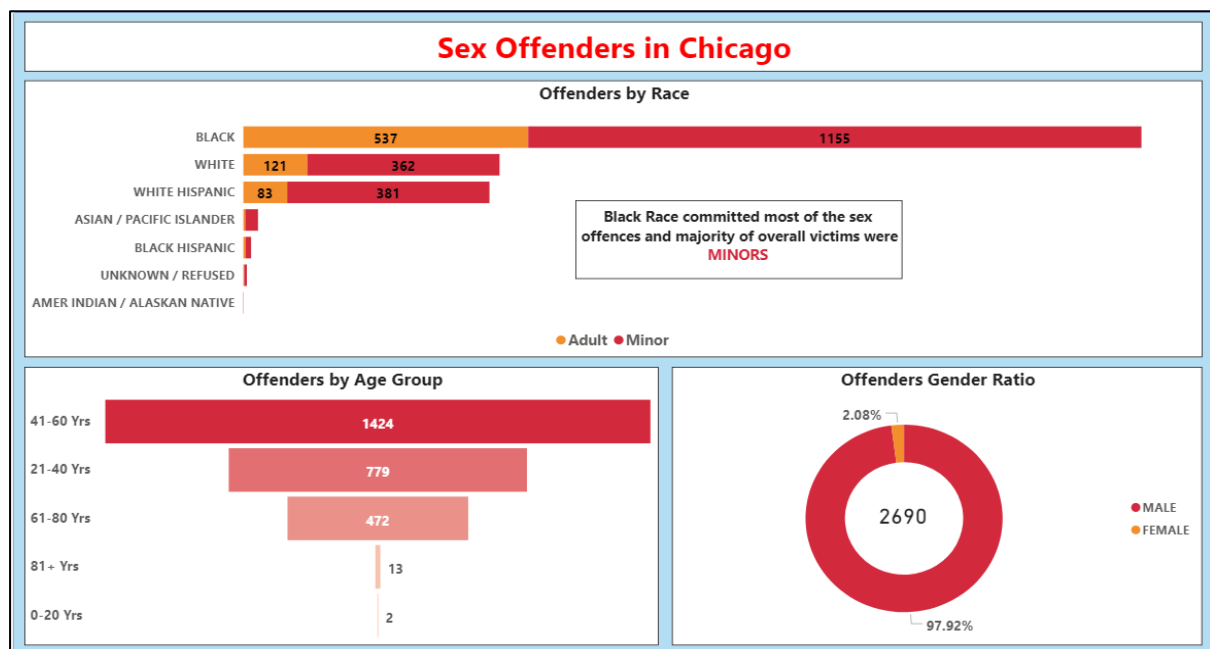


Finally, the below story highlighted the type of crimes and whether they were domestic crimes or non-domestic crimes. This showed that almost all thefts were non domestic and 50% of battery crimes were domestic.



Following is the PowerBI dashboard created to provide information regarding Offender by Race, Age Group and Gender Ratio. As an insight, the visualization shows that most

offenders were blacks. Most crimes were committed by criminals between age group of 41-60 years, and most of them were males.



In this way, this both the dashboards provided an overall view of crimes happening across Chicago city to the Public Safety Officer of the city. This also would be useful for the officer to check which area needs more surveillance, which people are more into criminal activities, which type of crimes need more focus to deal with, how much more efforts are required to keep criminal activities in check and so on, at the same time being fully interactive so that the safety officer gets the facts and figures he/she requires for various set of factors. The target audience, simplicity, continuity, thoughtful selection of colours (including colours of the city flag), easy to guide were the key factors kept in mind while developing this Dashboard.