CHAPTER-6

EXPERIMENTAL ANALYSIS

6.1 INTRODUCTION

This chapter focuses on crime analysis based on various factors like crime statistic, types, location and crime count. The prominent feature of this analysis is that, it highlights the current crime situation in the country. With the help of this crime analysis, a huge impact of change can be brought to the society. This chapter provides a predictive view on the type of crime and the place where the crime is likely to happen in the future. The analysis made on each year and month will be useful for the police to identify the criminal patterns and detect their next move.

6.2 ANALYSIS

State wise analysis of crime rate in India is represented in the below paragraph and even the percentage wise count of crime occurred in each state is mentioned in the below figure 6.1.

6.2.1 STATE WISE INCIDENCE AND RATE OF CRIME

The figure 6.1 crime rate in India is clearly represented, the sate wise crimes are classified with the values of points. Madhya Pradesh with 9.2% of total IPC crime reported in the country closely followed by Maharashtra with 8.5% and Tamil Nadu with 8.4% and Uttar Pradesh with 8.3% and Andhra Pradesh with 8.1% where as Kerala reported the highest crime rate with 45.8% for the IPC crimes 29.4% and Tamil Nadu with 30.8% and Pondicherry with 21.5%. Uttarkhand with highest SLL crime rate of 1,249 in India and followed by Chhattisgarh with 1,0671 and Kerala with 1,010. The state wise crime rate explains that which state has more crimes. And which state has more number of crimes occurred and less number of crimes are occurred.

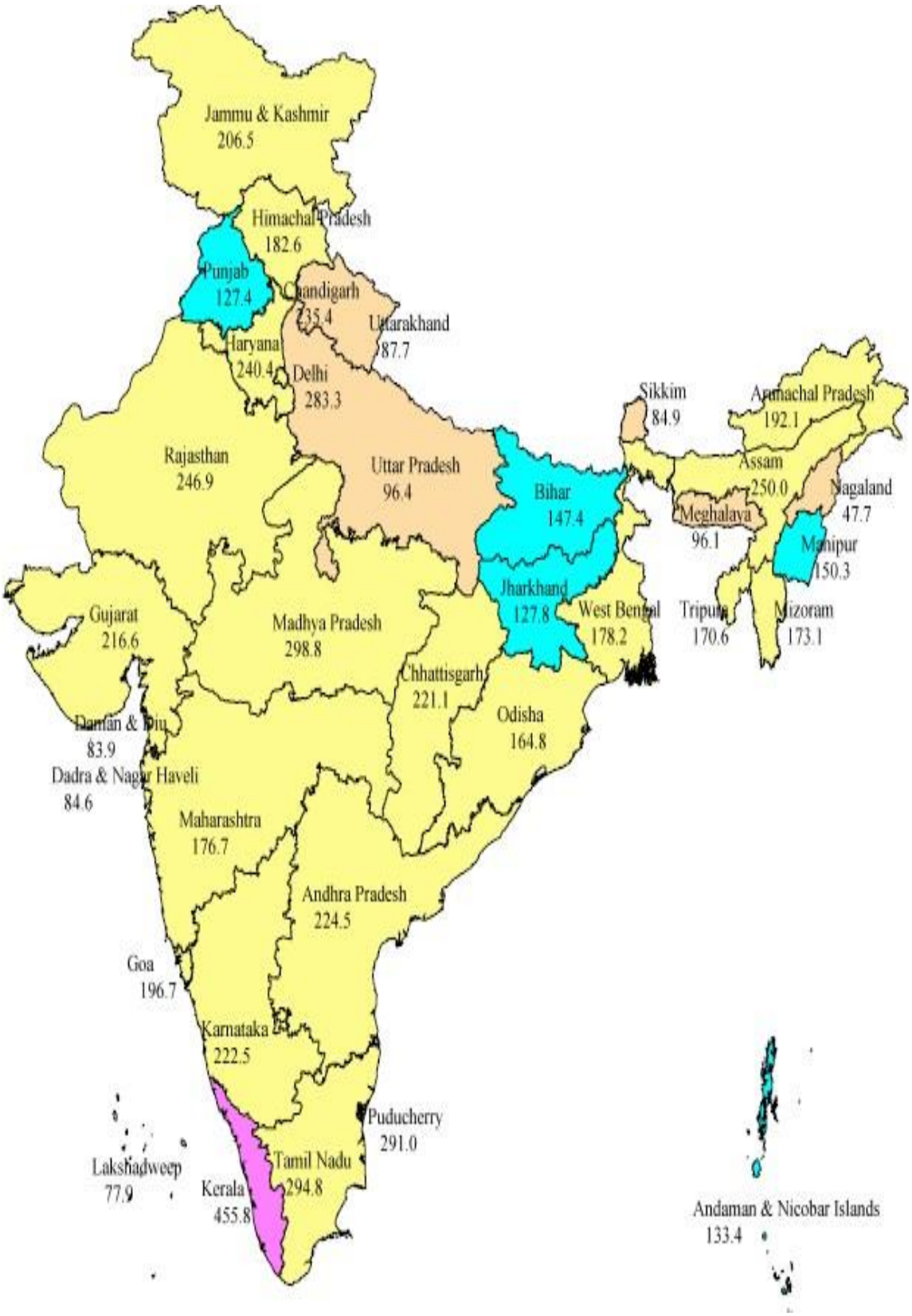

Figure 6.1 Crime rate in India

COURTESY: STATE CRIME INCIDENT IN INDIA

6.2.2 CRIME TYPE

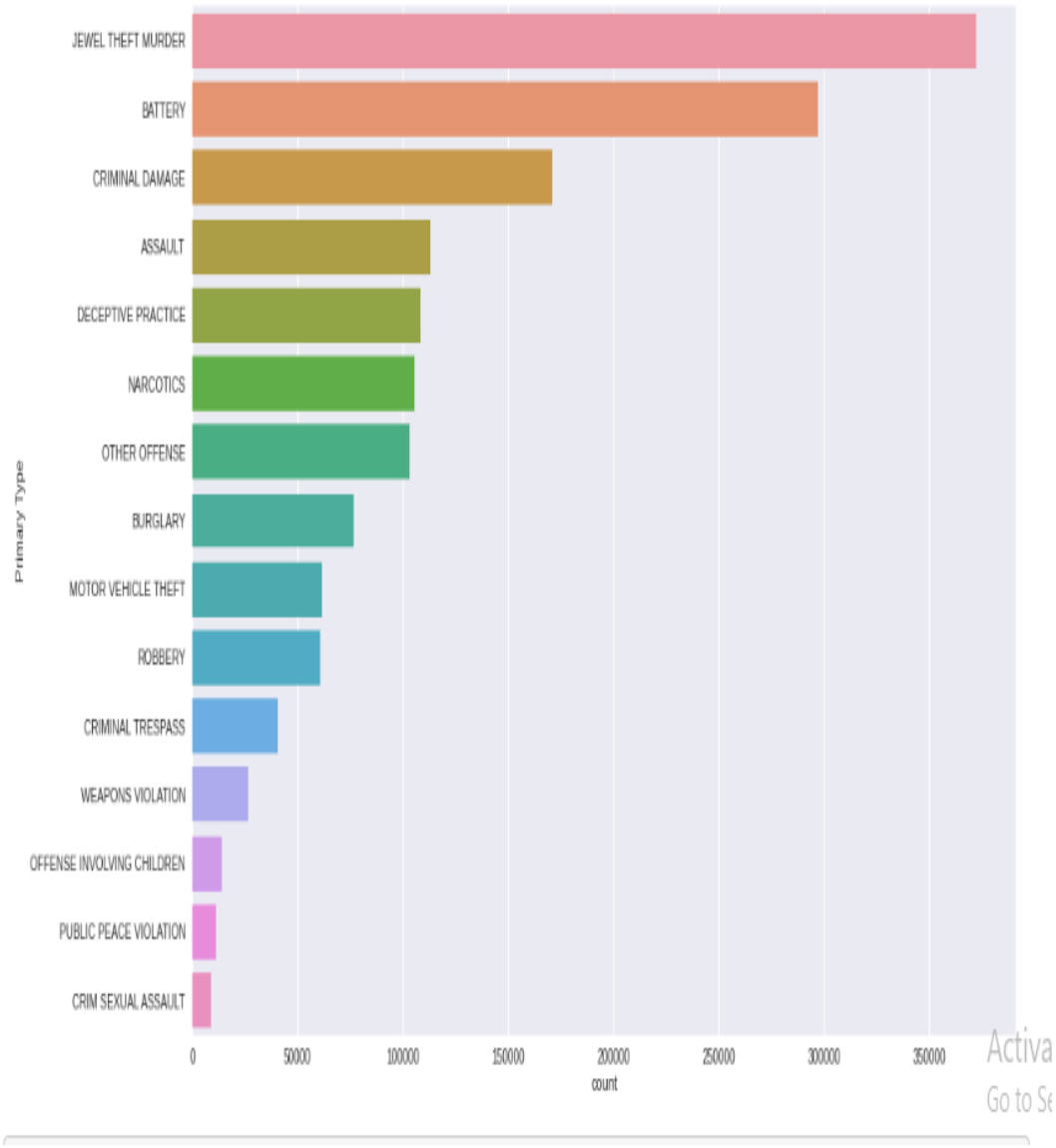

Figure 6.2 Crime type

The graph figure 6.2 represents the type of crimes occurred over the years 2014 – 2019. We can see that jewel theft murder has the highest crime rate compared to other crimes, followed by road accident. Since jewel theft murder has the highest value, we are going to make a predictive analysis of it and forecast its crime rate for 2020 and 2021.

6.2.3 LOCATION DESCRIPTION

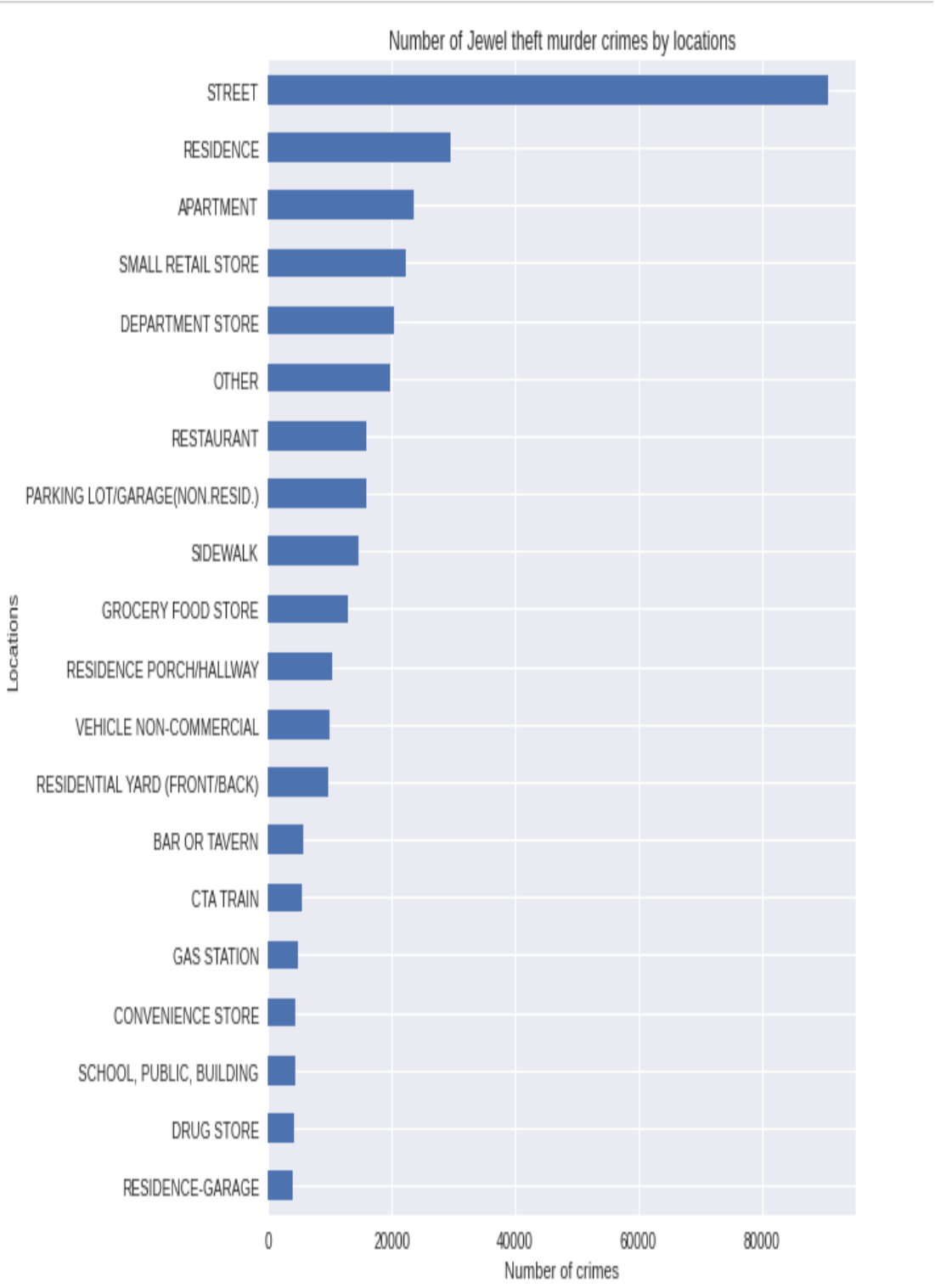

Figure 6.3Jewel theft murder location description

The bar graph figure 6.3 represents the location description of the places where the crime had occurred over the period of years 2014 – 2019. It shows

that street is the place where the most number of jewel theft murder crime have occurred. Residence is the second most place where the crime had occurred, followed by apartment and small retail stores where the crime rates gradually decreases.

6.2.4 JEWEL THEFT MURDER CRIME COUNT BY YEAR

The graph figure 6.4 explains the jewel theft murder crime count by year. 2018 is the year where the most number of jewel theft murder crimes have occurred, closely followed by 2017. Next to it, years 2014, 2016 and 2019 have similar crime counts. 2015 is the year where the least number of jewel theft murder crimes have occurred.

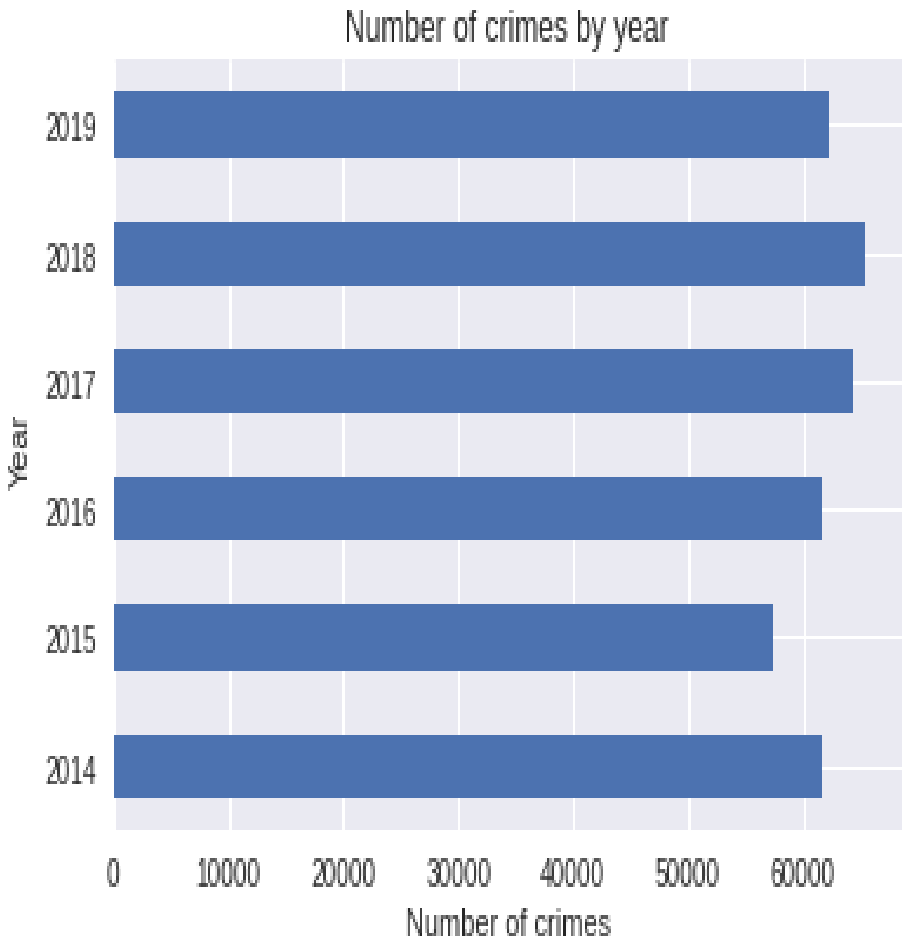

Figure 6.4Jewel theft murder crime count by year

6.2.5 JEWEL THEFT MURDER CRIME COUNT BY MONTH OF THE YEAR

The graph figure 6.5 represents the Jewel theft murder crime count by month of the year 2014 to 2019. It shows that August is the crucial month for police as most of the jewel theft murder crimes had happened followed by months July and June. February month has recorded to have the least number of crimes, next to it is January.

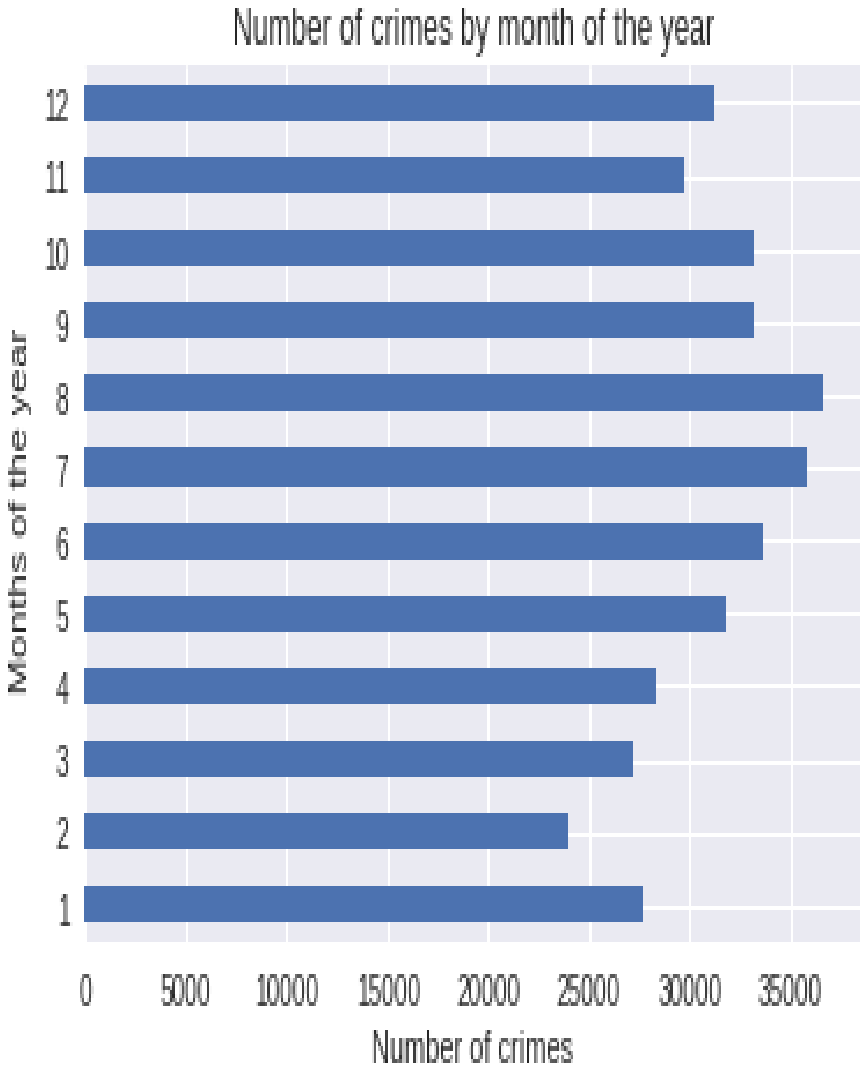

Figure 6.5 Jewel theft murder crime count by month of the year

6.2.6 JEWEL THEFT MURDER CRIME COUNT BY DAY OF THE WEEK

The graph figure 6.6 represents the Jewel theft crime count by day of the week for the years 2014 to 2019.It shows that the Friday is the day where most number of jewel theft murder crimes have occurred followed by Wednesday and Saturday. Sunday is the day where least number of crime have occurred.

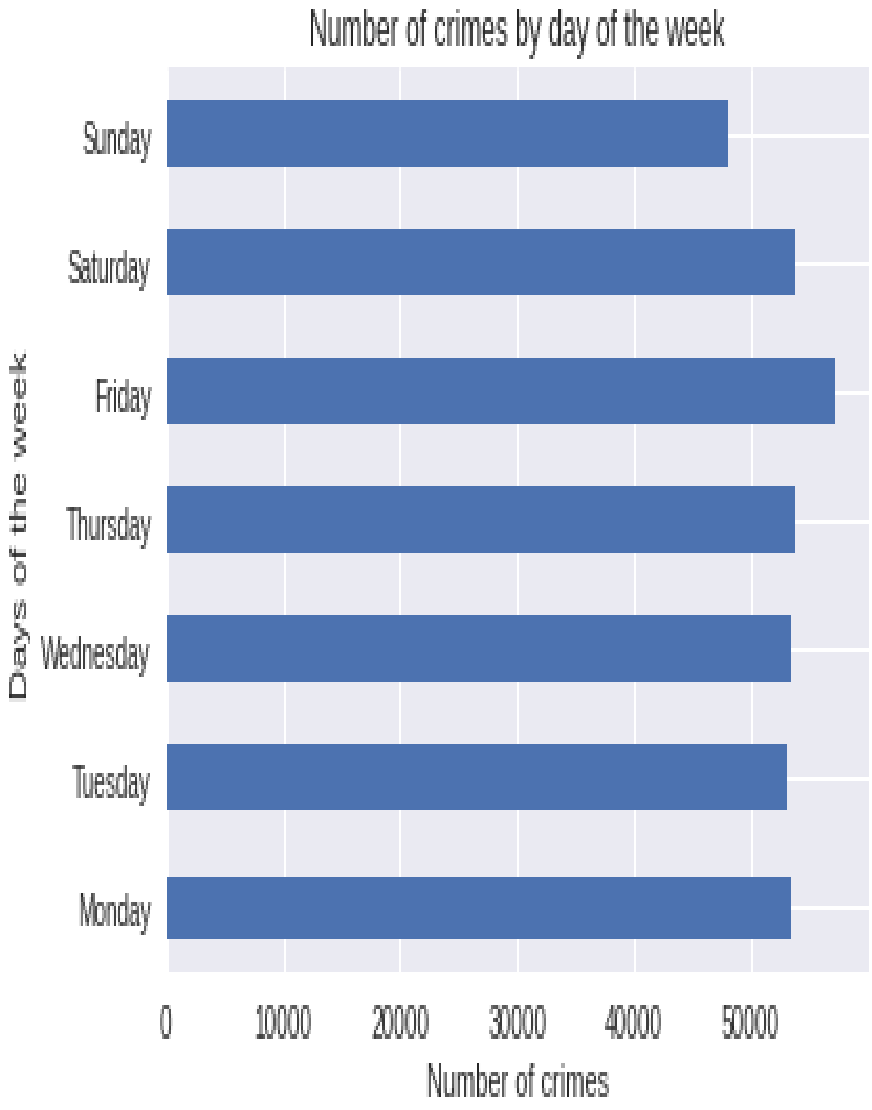

Figure 6.6 Jewel theft murder crime count by day of the week

6.2.7 JEWEL THEFT MURDER CRIME COUNT BY WEEK OF THE MONTH

The graph figure 6.7 represents the Jewel theft murder crime count by week of the month. It shows that most of the jewel theft murder crimes have occurred at third and fourth week of the month. Closely followed by them are second and first weeks. 5th week has showed a low crime count compared to other week of the months.

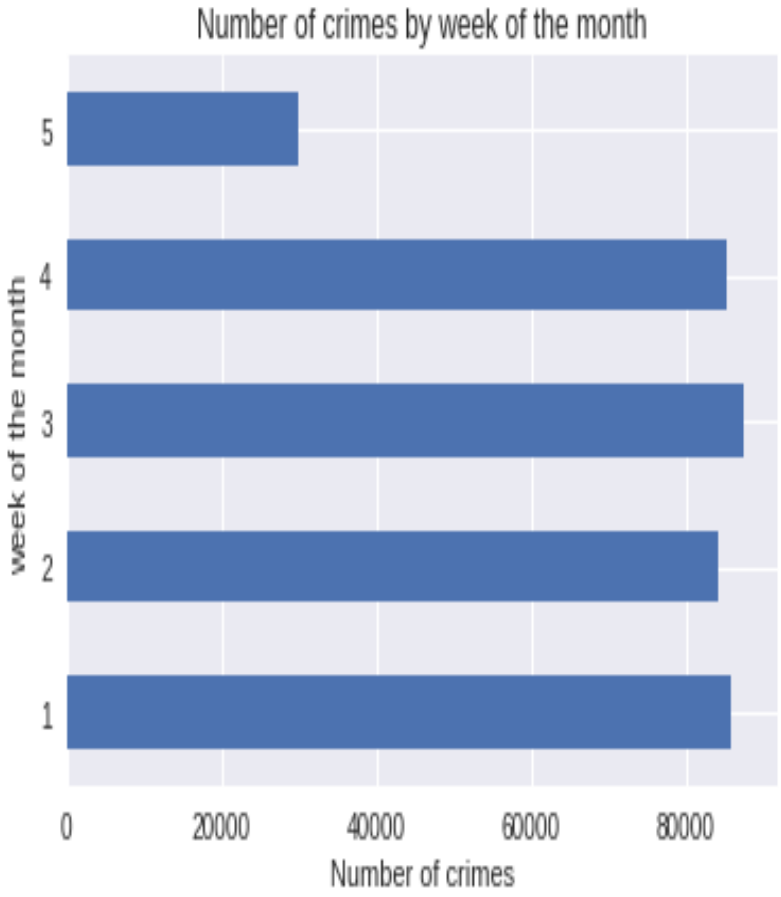

Figure 6.7 Jewel theft murder crime count by week of the month

6.2.8 JEWEL THEFT MURDER CRIME BY DISTRICT

The graph figure 6.8 represents the Jewel theft murder crime by districts. It shows that district 10 has recorded the highest number of Jewel theft murder crime followed by district 18. Districts 19 and 12 are the third and fourth

districts to have most number of crimes. District 31 has been the district with less number of Jewel theft murder crimes.

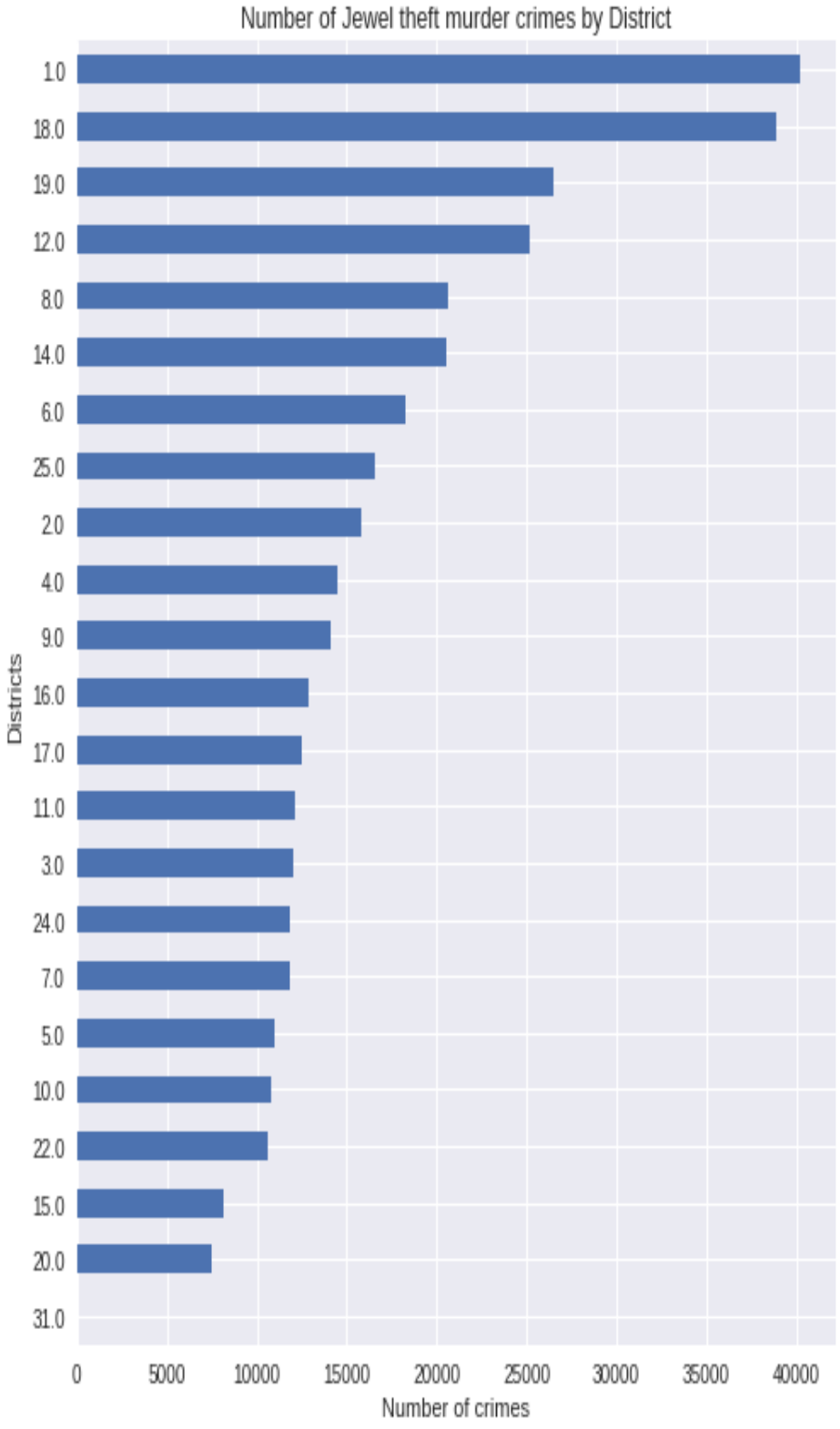

Figure 6.8 Jewel theft murder crime count by district

6.2.9 JEWEL THEFT MURDER ARREST RATE

The graph figure 6.9 represents the jewel theft murder arrest rate for the following years 2014 to 2019. Here 0 denotes the cases for which the arrest has not been done and 1 denotes the cases for which arrest has been made. The below graph shows that arrest has not been done for most number of cases which is really one of the reason why crime rate is increasing nowadays and only less number of arrest have been made so far.

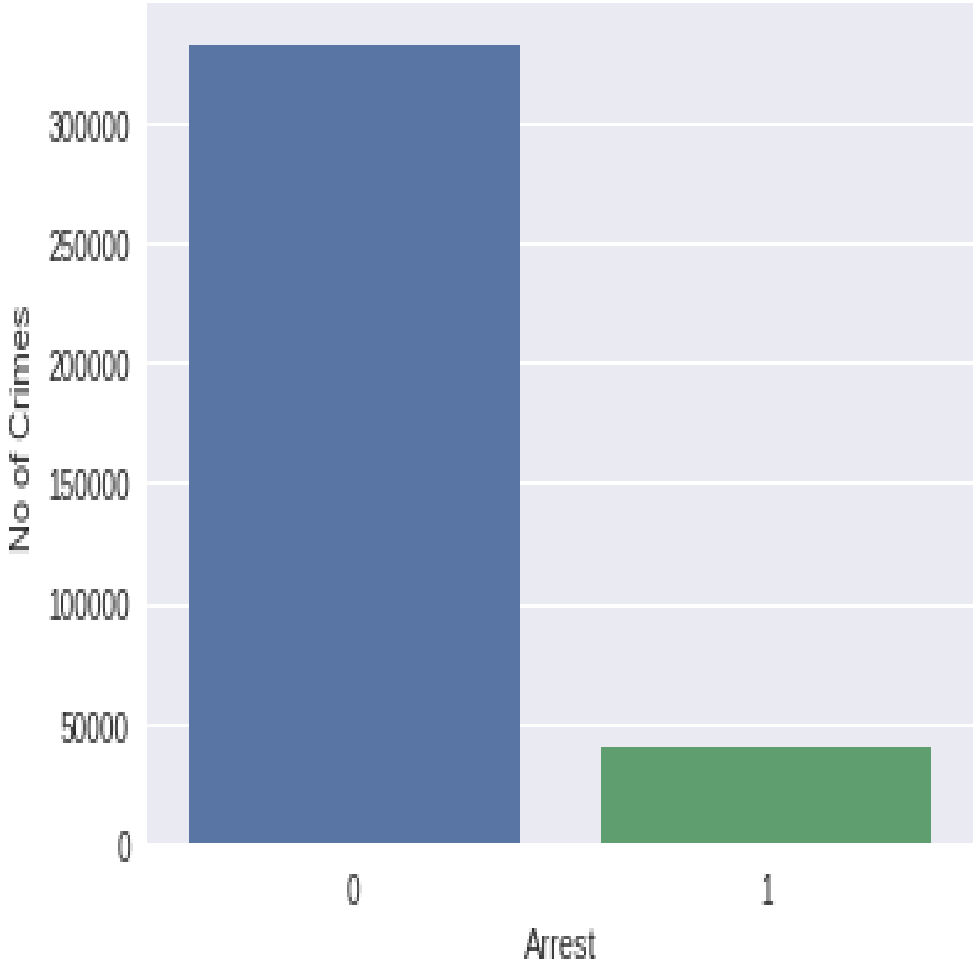

Figure 6.9 Jewel theft murder arrest rate

6.2.10 JEWEL THEFT MURDER ARREST RATE BY DISTRICTS

The graph figure 6.10 represents the jewel theft murder arrest rate by districts. District 18 has the most number of pending cases to be arrested,

followed by district 10.They are closely followed by districts 19 and 12. Districts 20 and 31 have the least number of cases to be arrested compared to others.

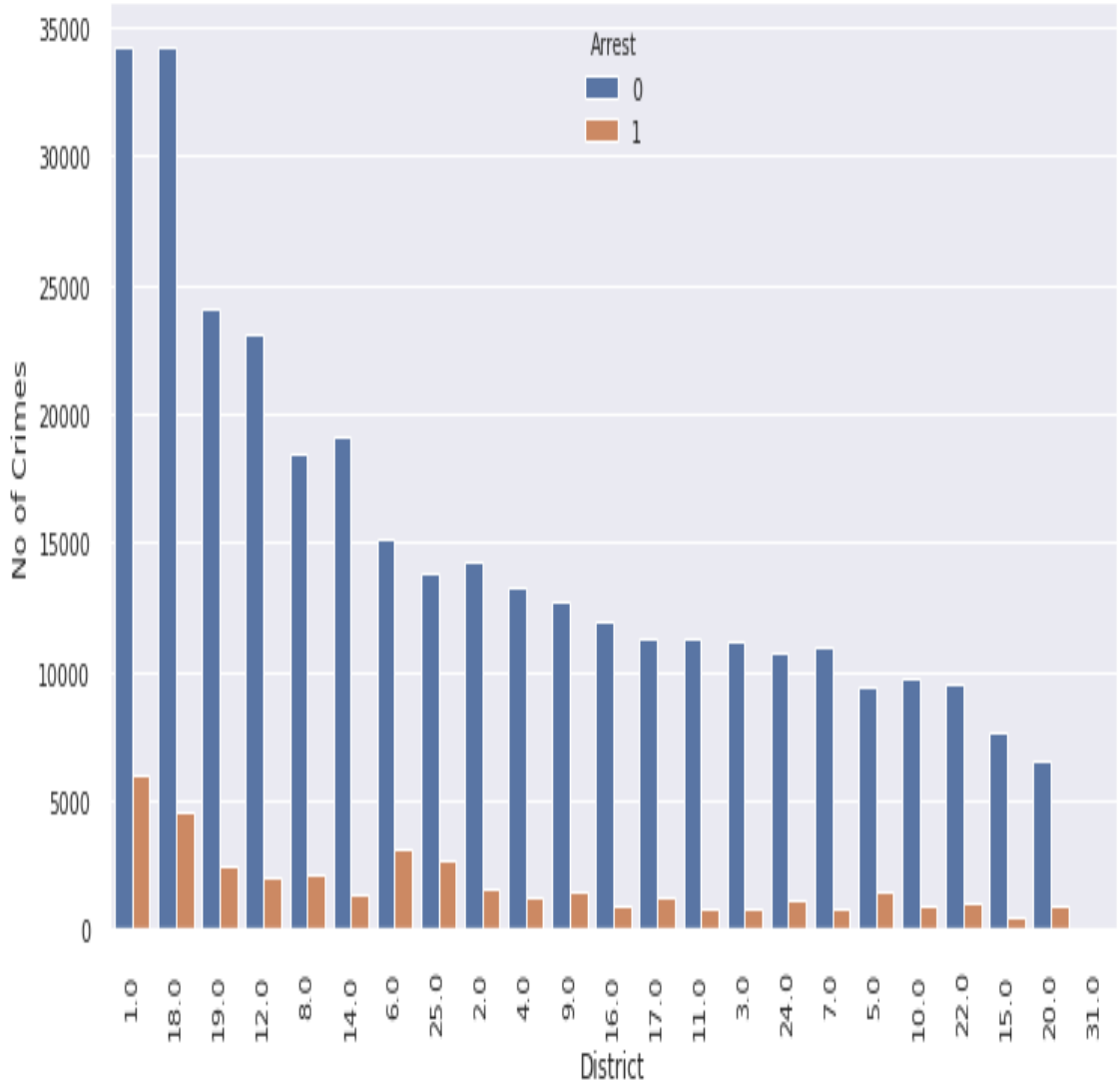

Figure 6.10 Jewel theft murder arrest rate by districts

6.3 SUMMARY

Experimental analysis provides a detailed description about various parameters involved in the crime scene that are visualized in the form of bar charts and graphs. The state wise analysis gives an overall statistic about the crime rate in the country. The Crime type bar chart shows that Jewel theft

murder and Road accidents have the highest crime count making it in top of the crime charts. So, the police need to work on measures to reduce this rate. The location description bar charts give a hindsight about the places where the crimes had occurred which will help the police officials to concentrate on the particular places where the crimes are likely to happen in the future. The crime counts per quarter, month and year gives an information about the future happenings of the crime incident. The analysis made by the crime dataset will be useful for the police officials in the investigation process to track the criminal.