SQL PROJECT DONE AND PRESENTED

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Description
Problem statement:

- People all throughout Los Angeles are concerned about recent reports of crimes in numerous locations. The mayor of Los Angeles has just established a new Criminal Investigation Division to study how and why crime is on the rise, as well as the elements that contribute to it, so that officials may take the necessary steps to keep the city's residents safe.

Objective:

- As a member of the Analytics Division, I am expected to answer numerous questions that are put forward utilizing CID data. However, this particular data is not organized and is simply exported as flat files that can only be viewed when there are problems like this one. Thus I must create a pipeline to organize and manage this data using a SQL database to make it much easier to answer inquiries in the future. Then using the data, I will react to the questions and write a detailed report for the authorities to utilize in taking action against crimes in Los Angeles.

Data Description:

- From the CID data provided, I have information on several types of crimes that occurred in different areas throughout Los Angeles: the type of crime committed, the victim of the crime, the location the incident occurred, the age of the victim and so on.

Solution Approach:

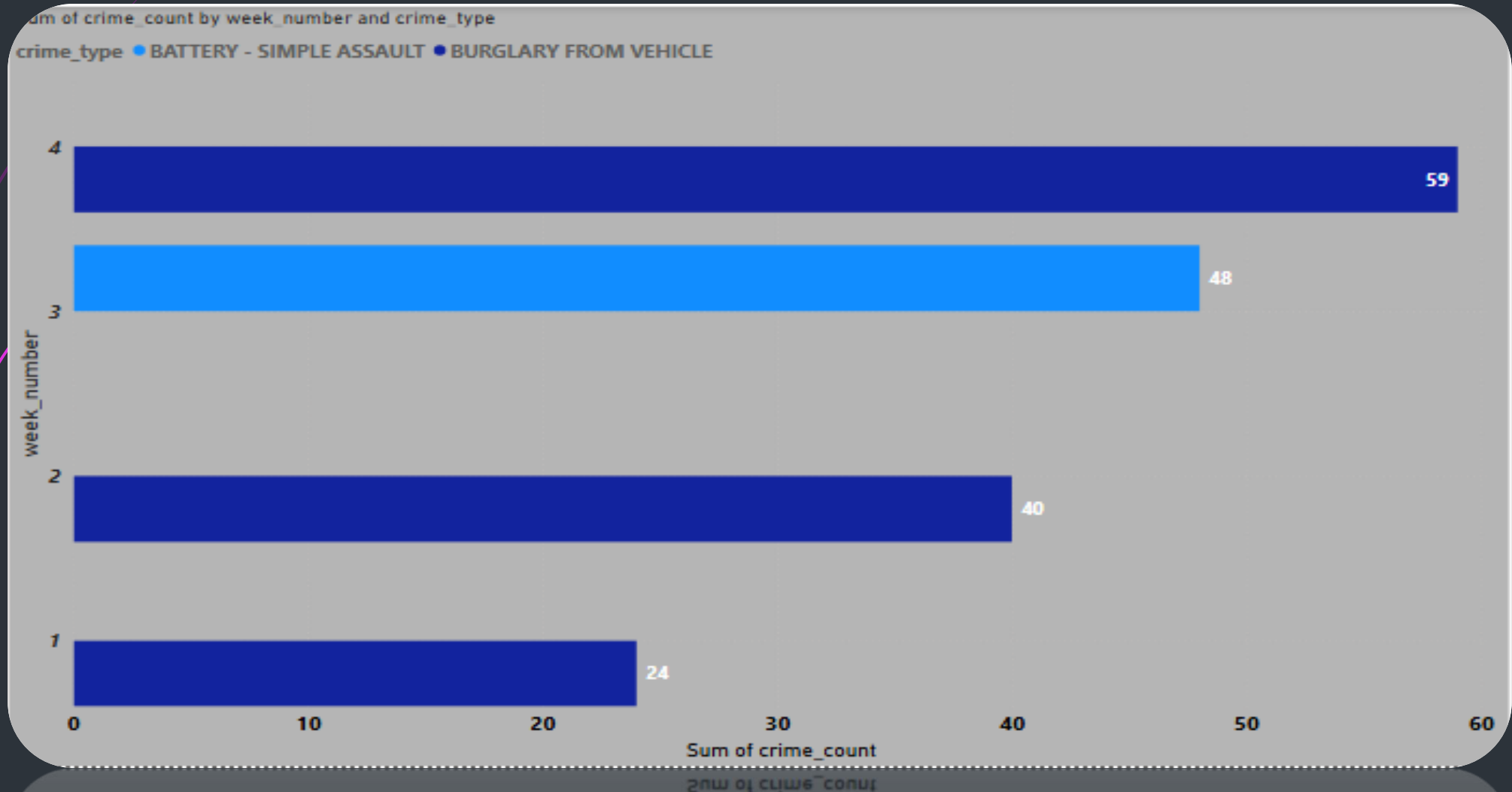The following questions were researched on for appropriate feedbacks and possible recommendations…

➡ 1. Which was the most frequent crime committed each week?

➡ 2. Is crime more prevalent in areas with a higher population density, fewer police personnel, and a larger precinct area?

➡ 3. At what points of the day is the crime rate at its peak?

➡ 4. At what point in the day do more crimes occur in a different locality?

➡ 5. Which age group of people is more likely to fall victim to crimes at certain points in the day?

- 6. What is the status of reported crimes?
- 7. Does the existence of CCTV cameras deter crimes from happening?
- 8. How much footage has been recovered from the CCTV at the crime scene?
- 9. Is crime more likely to be committed by relation of victims than strangers?
- 10. What are the methods used by the public to report a crime?

Findings based on Researched Questions:

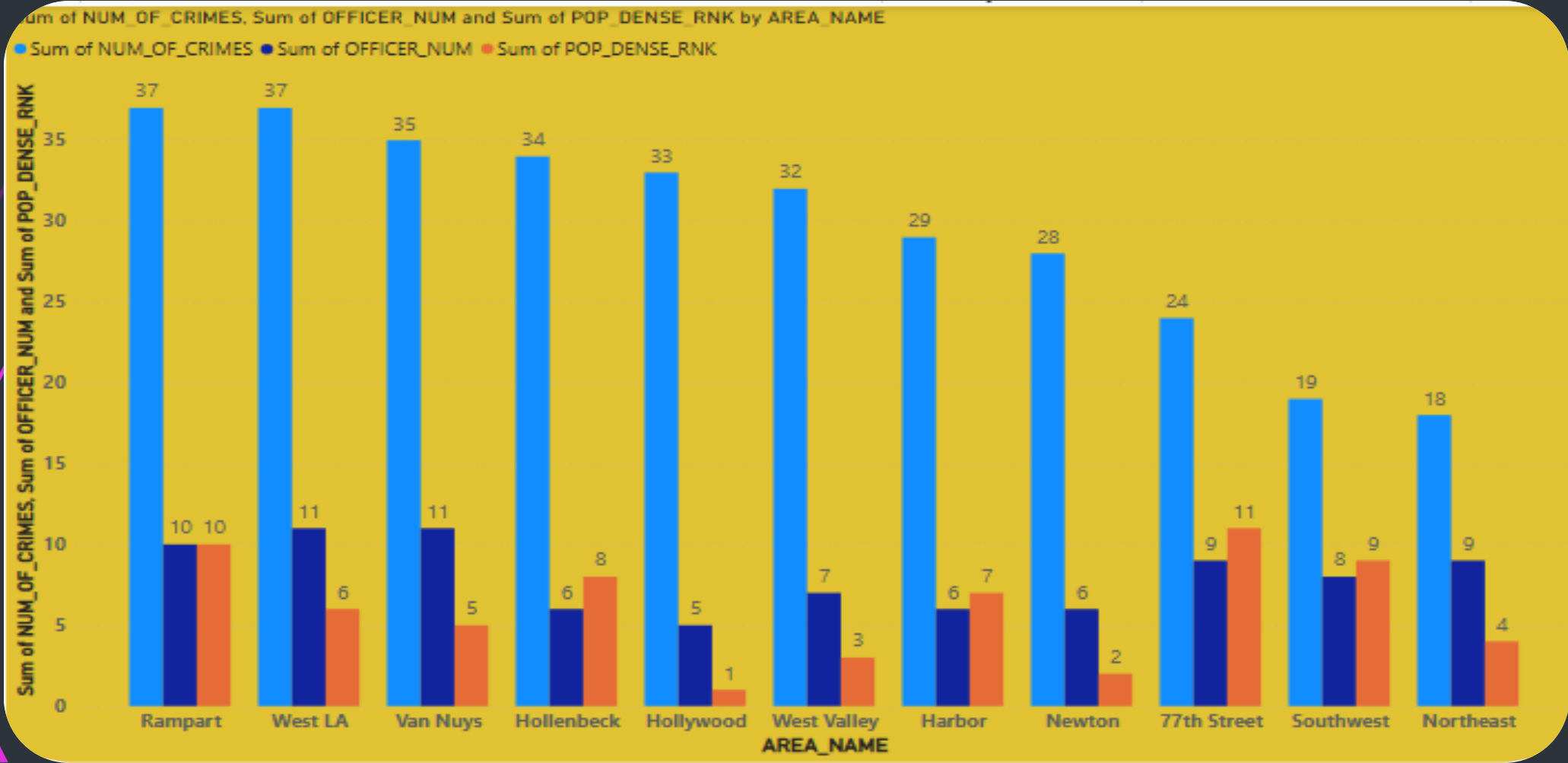## 1. Which was the most frequent crime committed each week?

Response:

- According to the result shown in the chart above, we found that out of the four weeks in review, the most frequent crime in weeks 1,2 and 4 is Burglary from Vehicle while in week 3, Battery-simple assault was committed most.
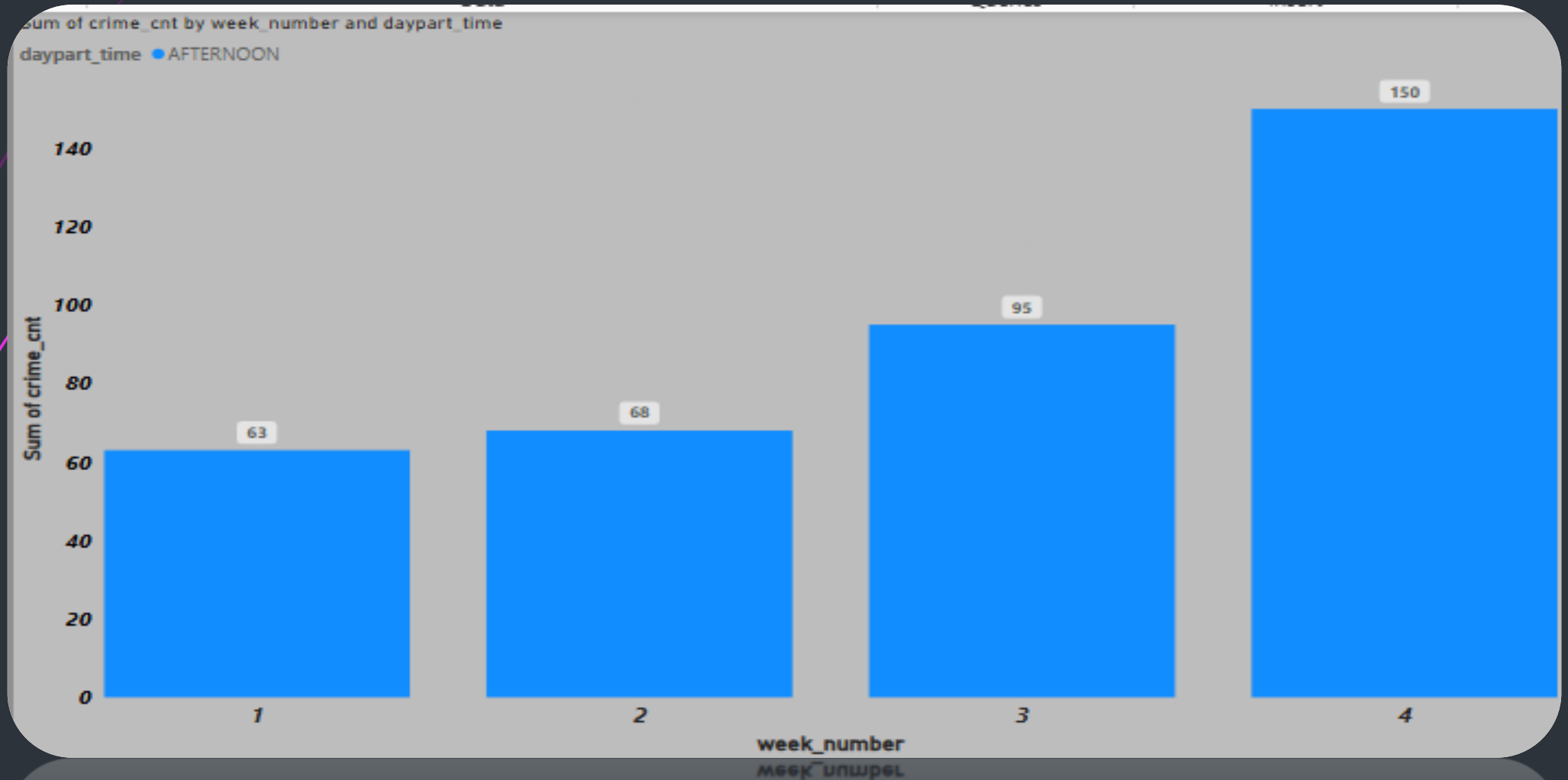
2. Is crime more prevalent in areas with a higher population density, fewer police personnel, and a larger precinct area?
Response: There are no strong indicators that crime is more frequent in areas with higher population density and fewer police personnel. As can be seen from the chart, the two areas with the most crimes have larger police personnel and moderate population density compared to other areas.
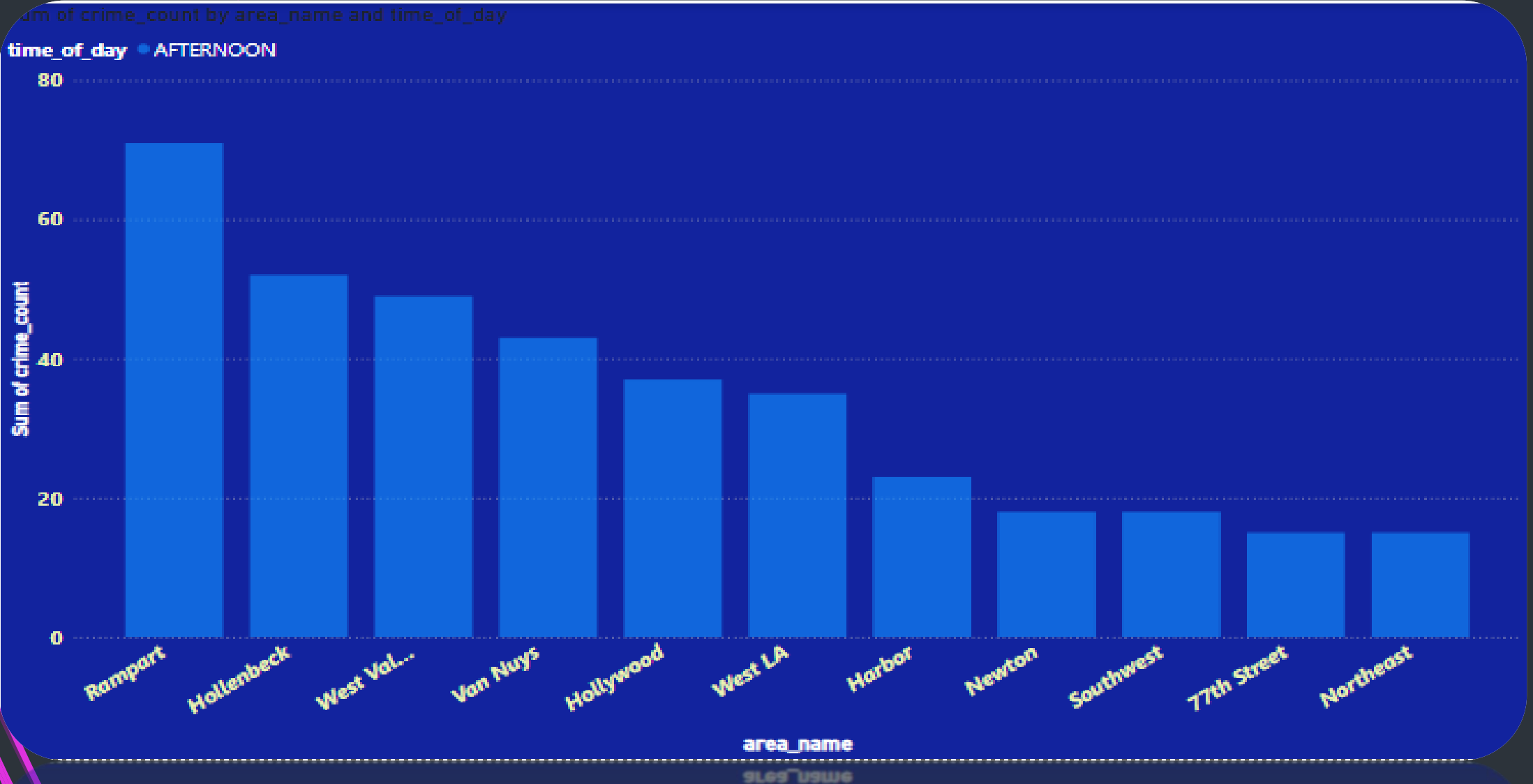

Sum of NUM_OF_CRIMES, Sum of OFFICER_NUM and Sum of POP_DENSE_RNK by AREA_NAME

3. At what points of the day is the crime rate at its peak?

Response: In the four weeks reviewed, crime rate was at its peak in the afternoon periods. There is also a visible increase in crime rate as the weeks progressed from 1 to 4.
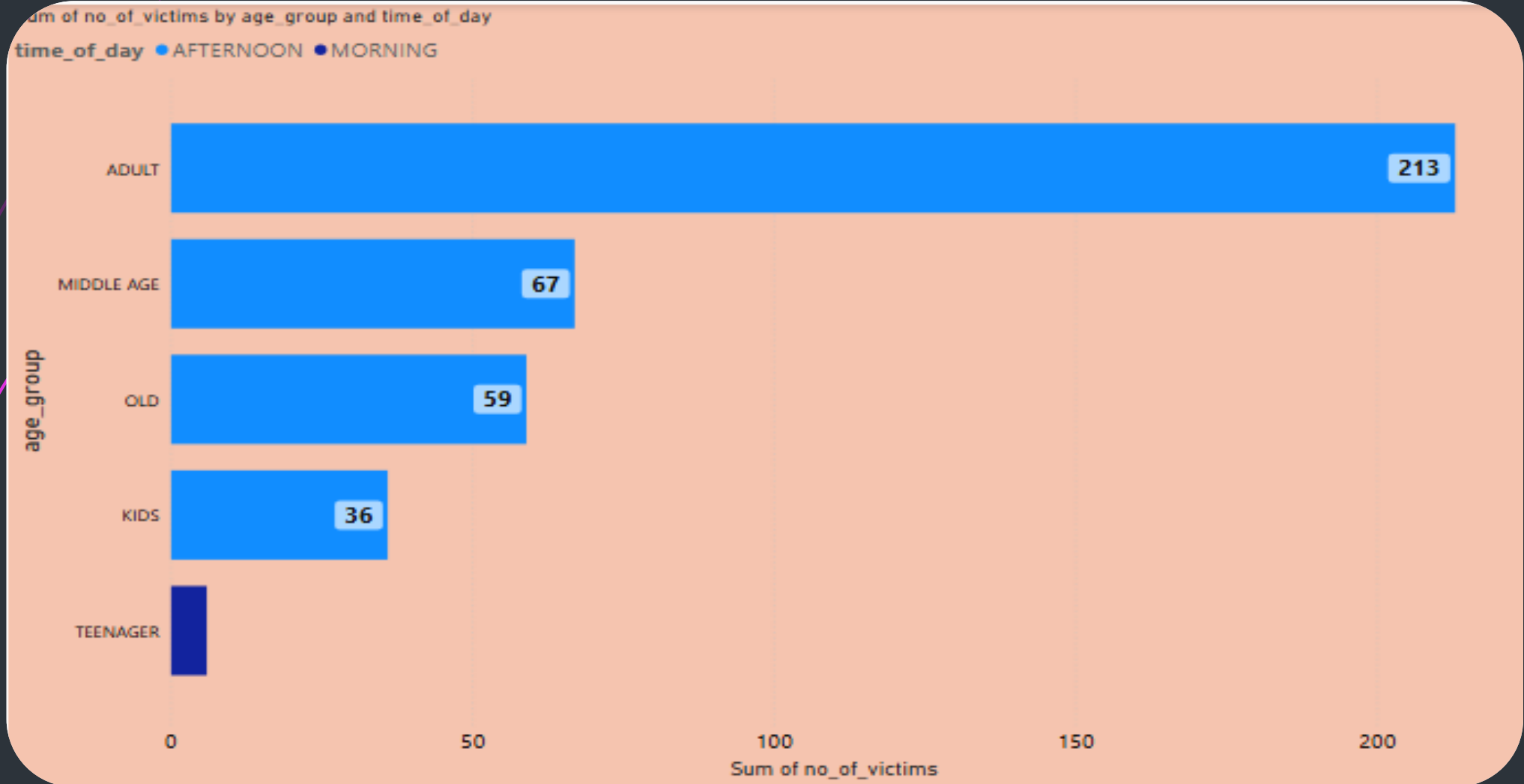

Sum of crime_cnt by week_number and daypart_time

4. At what point in the day do more crimes occur in a different locality?
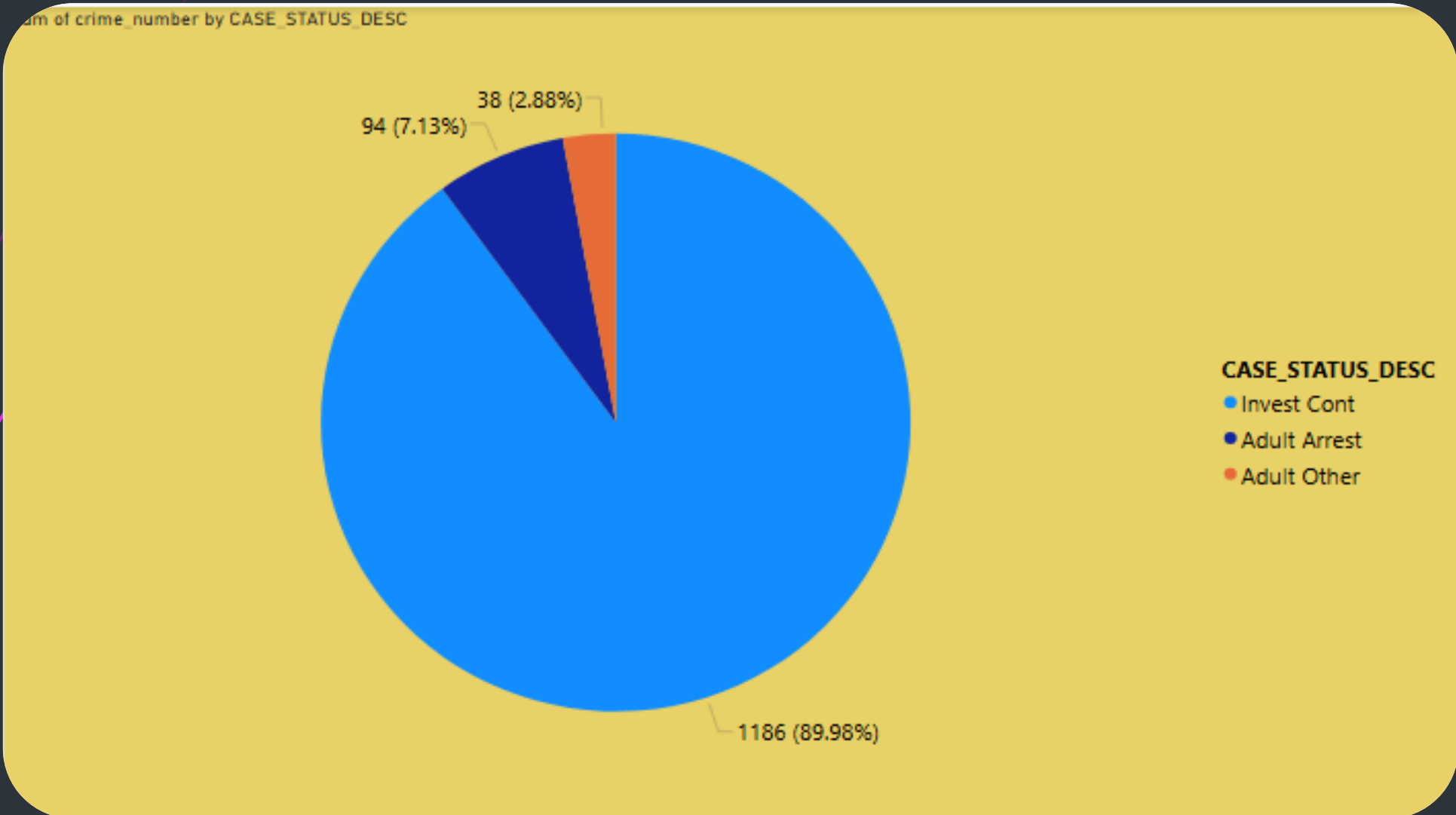**Response:** In every locality, we found more crimes occur in the afternoon periods.

Sum of crime_count by area_name and time_of_day

5. Which age group of people is more likely to fall victim to crimes at certain points in the day?
Response: From our findings, all age groups except the teenager fell victims to crimes in the afternoon. Only the teenager age group fell victims in the morning.
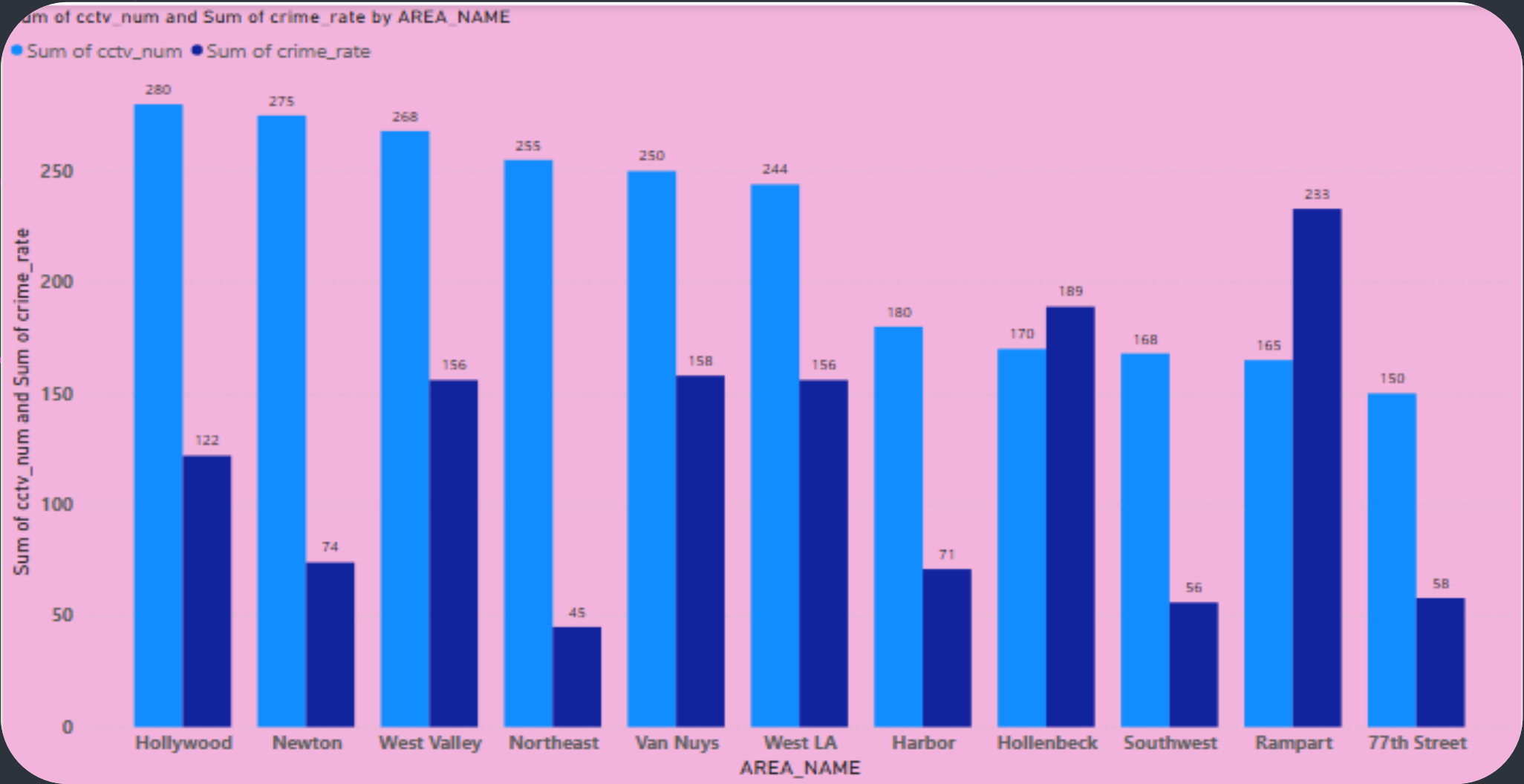

Sum of no_of_victims by age_group and time_of_day

time_of_day ●AFTERNOON ●MORNING

age_group	
ADULT	213
MIDDLE AGE	67
OLD	59
KIDS	36
TEENAGER	

Sum of no_of_victims

6. What is the status of reported crimes?

Response: Out of all the reported crimes, 1186(89.98%) had their investigations continued, 94(7.13%) had adults arrested and 38(2.88%) had adult other measures.
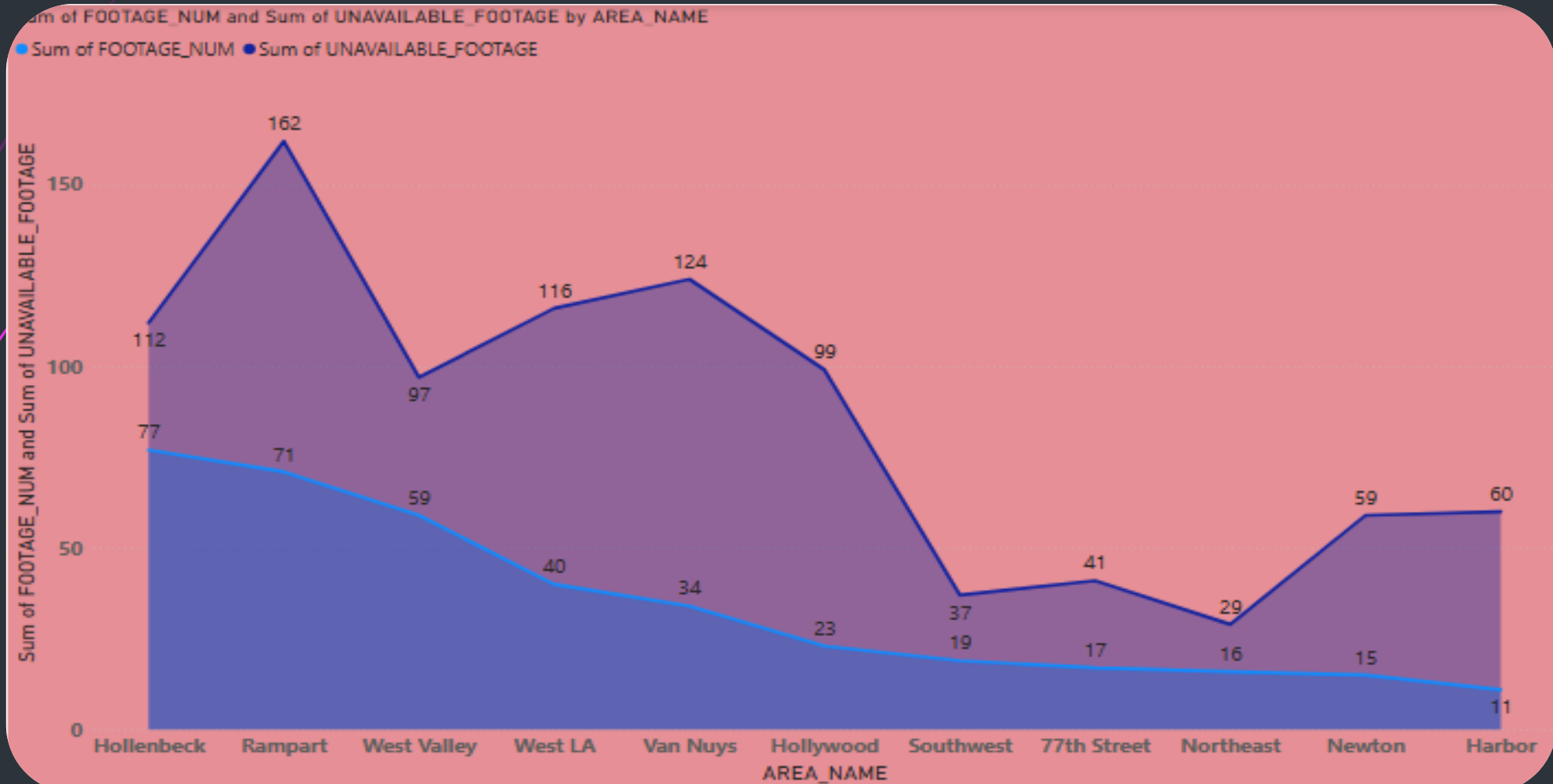
7. Does the existence of CCTV cameras deter crimes from happening?

Response: We found that in a few areas with lower number of CCTV cameras, there are higher number of crime rates while in areas with higher CCTV cameras number, crime rates are considerably low.
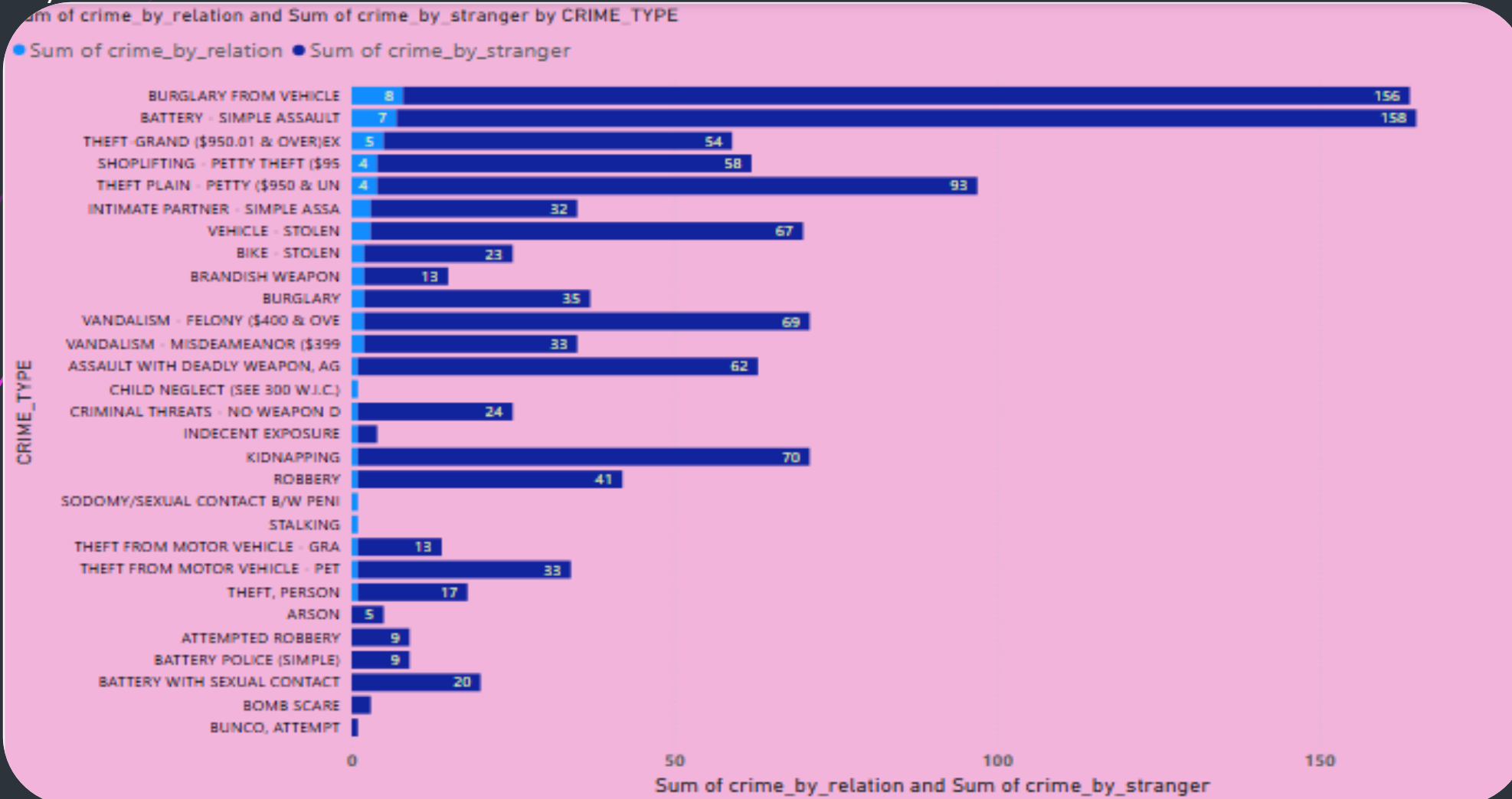

Sum of cctv_num and Sum of crime_rate by AREA_NAME

● Sum of cctv_num ● Sum of crime_rate

8. How much footage has been recovered from the CCTV at the crime scene?

Response: From our studies, we found that only few footages are being recovered from CCTVs at crime scenes in different state. While a reasonable number keep being unrecovered such as in areas like Rampart, Van Nuys and West LA.
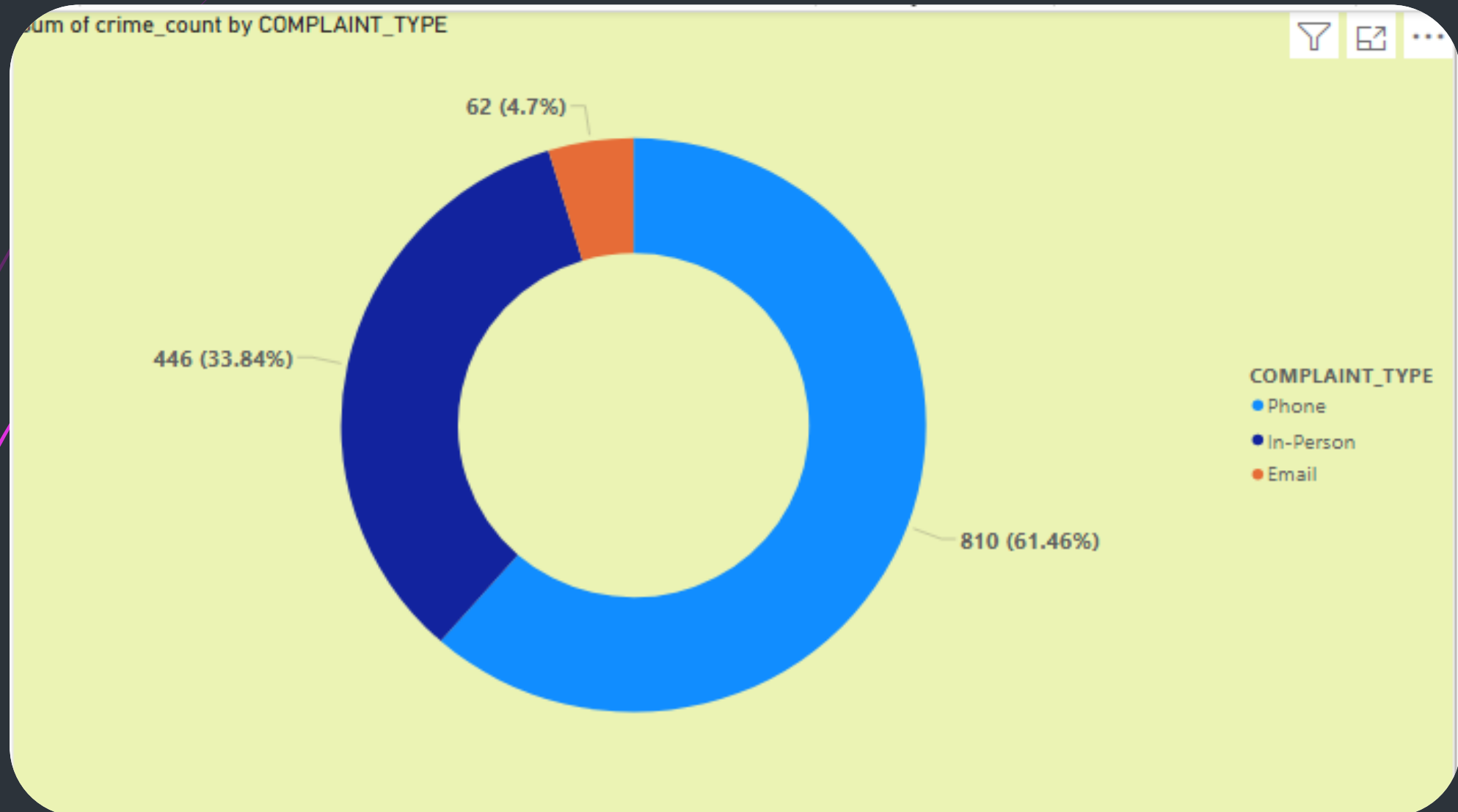
9. Is crime more likely to be committed by relation of victims than strangers?

Response: We found that there are strong and clear indicators that crime is more likely to be committed by strangers than by relation of victims. Out of all the crimes recorded and reviewed, only three of them are solely committed by victims relations.

Sum of crime_by_relation and Sum of crime_by_stranger by CRIME_TYPE

● Sum of crime_by_relation ● Sum of crime_by_stranger

10. What are the methods used by the public to report a crime?
Response: The public used phone, physical (in-person) and email methods to report crimes. Out of these three methods, phone is the most used, followed by the physical and then the email methods.

Sum of crime_count by COMPLAINT_TYPE

62 (4.7%)

446 (33.84%)

810 (61.46%)

COMPLAINT_TYPE
- Phone
- In-Person
- Email

Recommendations:

- From our findings, we recommend as follows…

- 1. More CCTV cameras be installed in areas with lowest numbers as that could help curb the rise.

- 2. There should be faster investigations on reported cases to ensure punitive measures are taken against offenders as this will deter intending offenders to a large extent.

- 3. Security forces and other relevant agencies should put in more efforts in recovering higher numbers of CCTV cameras at crime scenes.

- 4. There should be more effective ways of identifying and monitoring strangers in every area and neighborhood as they pose the greatest danger and likelihood of committing the crimes.

- 5. The leadership of Los Angeles can find out others methods possible for reporting of crimes to enable the people there have more options on how they can report more cases.

- 6. In the afternoon hours, which is the period of the day with the most crime counts, more mobile police officers and other security officials should be deployed for patrols.