

Abstract

The purpose of the study is to examine the relationship between the crime and the environment. This paper is a meso to micro-level analysis where we first compares the crime rates inside of 73rd precinct with the borough of Brooklyn. Later this paper will take a deeper look into some of the environmental factors that might contribute to the crime rate in selected hotspot. To conduct the study, crime rate between two locations will be examined via NYC crime rate. InfoShare will be use to compare and contrast sociodemographic factors in both locations such as parks, public housing and juvenile detentions. Finally, Google Map will be utilized to examine some of the environmental factors in selected hotspot. Two crime type addressed in this paper are felony assault and robbery since these crime are most problematic in the 73rd precinct. The findings shows that each crime hotspot has evidence of physical disorder such as vacant lawn, graffiti and loitering. Additionally, crimes such as robbery and grand assault seems to be an opportunistic crime because it is committed in a high population area such as convenience store, parks and schools.

Introduction

Crime analyst uses crime patterns and crime rates to examine the impact of crime in specific location whereas, crime criminology tries to understand the cause of crime pattern by looking at the environmental factors. The combination of the two strategies is used in this research. Research shows that the type of crime committed in one location is usually determined by the physical environment of that location. This capstone project is significant because it is important to understand why some locations have more crime rates than others. For instance, this capstone project will examine two problematic crime types in the 73rd precinct (felony assault and robbery), and hypothesize the environmental factors that make each location a crime generator.

Methodology

- Two locations examined for this study are Brooklyn and the 73rd prescient and the data were collected between January 2018 to December 2018 via NYC Crime Map
- Formula used to calculate the crime rate in Brooklyn and 73rd prescient

$$\text{Crime rate} = \frac{\text{\#of crimes}}{(\text{N persons}/1000)}$$

- Google maps was used for systematic social observation of hotspots located within the 73rd prescient.
- Environmental factors such as busy intersection, parking lot, street lights and public housing was examine to see the impact on the crime rate in each hotspot.

Software & Systems Utilized

Info Share: Used to gather the sociodemographic information of Brooklyn and the 73rd Prescient. The information collected are: amount of public housing, facilities, health status and Juvenile detention.

NYC Crime Map: Used to find the crime rate of each Prescient. Helps to navigate the Prescient Map, Crime Location Map and Heat Map.

Crime location Map: makes it easier to see the most problematic location for each crime type.

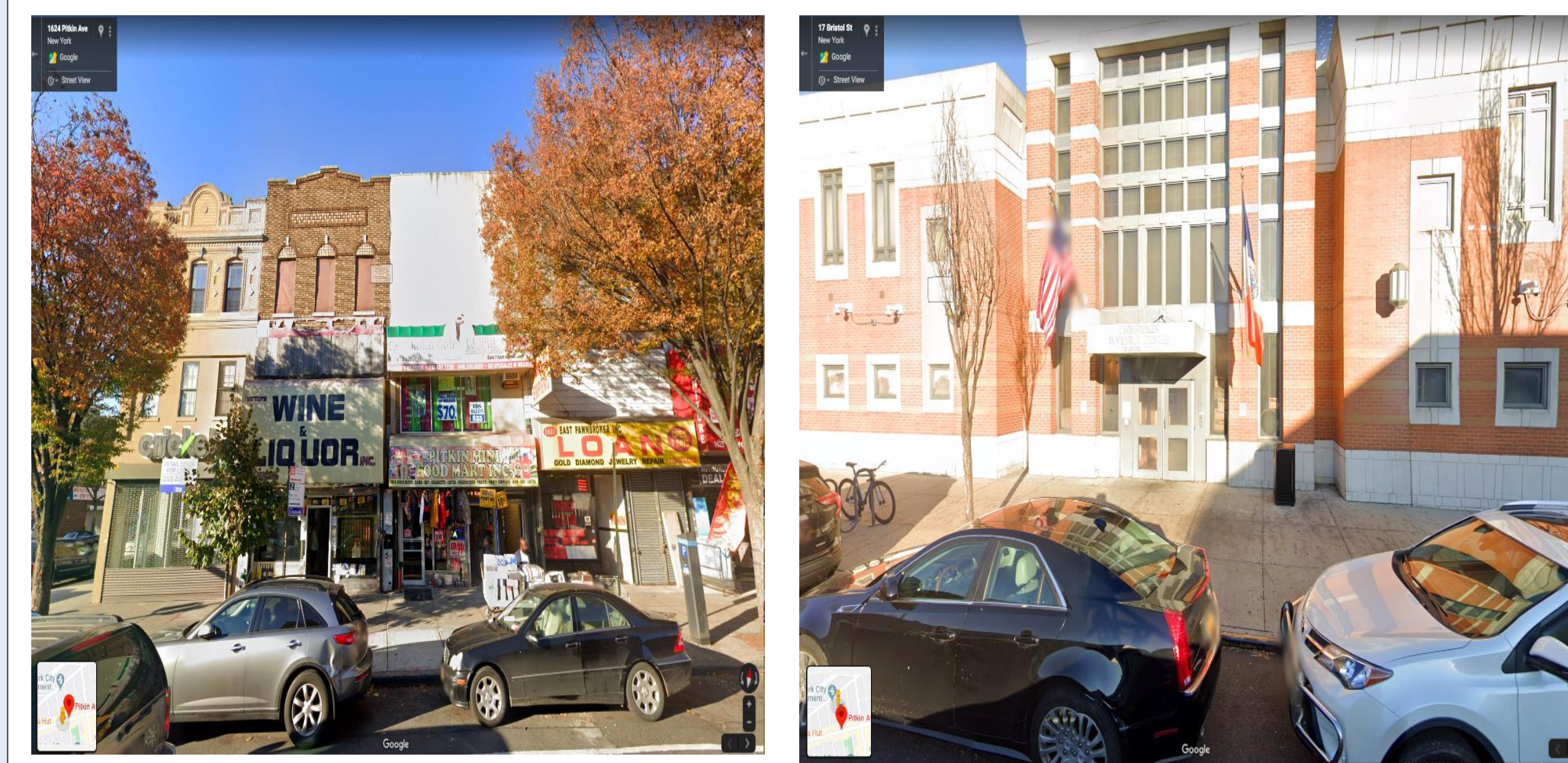
Google Maps: Used utilized for systematic social observation.

Literature Review

There are many research that talks about the relationship between crime and place. Burgess's theory of concentric zone model, a member of the Chicago School proposed a descriptive urban land use model that divided cities in five concentric zones and concluded that the central zone commits more crime due to constant influx of immigrant and lack of social control of the zone(1925). Sociologist Shaw and McKay further added that juvenile living in the transition zone(zone 2) are likely to commit more crime due to the instability and higher opportunity for crime (1942).Lawrence Cohen and Marcus Felson's routine activities theory argues that a combination of a suitable target, absence of capable guidance and motivated offender causes an increase in criminal activities(1979). Another study argues that offenders are likely to commit crimes around their routine activities, normal activities nodes and routine travel paths (Brantingham & Brantingham,1993). Jane Jacobs proposed that changes in urban design principles that increase the interaction within the community can lower the crime rate(1961).

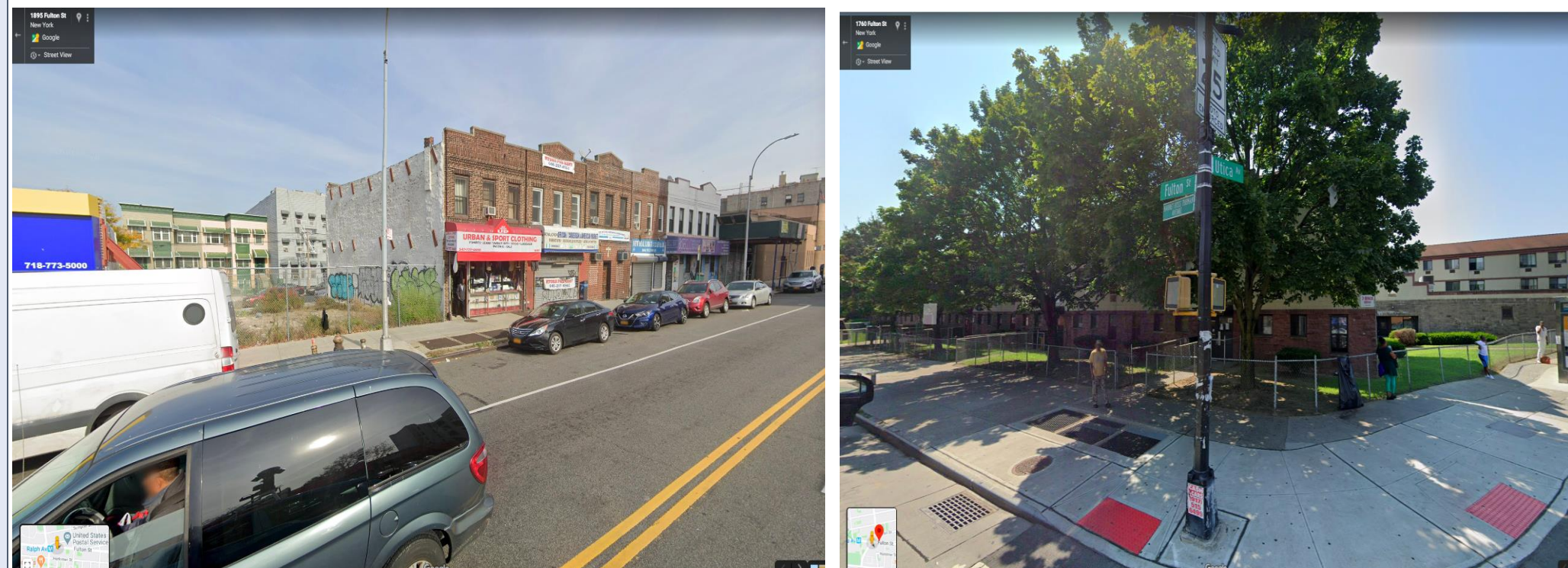
Findings

- Crime rate in 73rd Precinct was higher in all 8 major crime type in 2018. The most problematic crime in 73rd precinct are the high-level of Felony Assault and Robbery compare to the borough.
- | | Murder | Rape | Robbery | Felony Assault | Burglary | Grand Larcany | Grand Larcany of Motor Vehicle | Total |
|---|--------|-------|---------|----------------|----------|---------------|--------------------------------|--------|
| Total Crime Rate in Brooklyn | 0.037 | 0.21 | 1.61 | 2.399 | 1.532 | 4.402 | 0.653 | 10.838 |
| Total Crime Rate in 73 rd Precinct | 0.1503 | 0.555 | 4.24 | 6.8 | 2.035 | 4.776 | 0.89 | 19.463 |
- 73rd Prescient has more sociodemographic factors that contributes to increase in crime rate then Brooklyn. The 73rd precinct has more Juvenile Detention, public housing and people with health issue where as the prescient has lower level of public facilities such as parks and library. The rate of public housing for single parents with minor was in 73rd precinct was 42.57 where as Brooklyn as a Borough had 9.67.



High level of Felony assault in Pitkin Avenue and Bistro street. There are many at least 5 stores (1 liquor store)in one block. High foot traffic and opportunity to commit crime can increase the crime rate.

High Level of Felony Assault in Bistro street. There is a crossroads Juveniles Center and Police Station across from each other. Presence of problematic juvenile and high police presence can increase the amount of violence amongst the juveniles and increase the arrest level.



High level of Robbery in Fulton Street. The street has sigh of physical environmental disorder such as vacant lawn, trash on the sidewalk and graffiti on the wall. Presence of a postal office and public housing can contribute to an increase in robbery.

High level of Robbery between Fulton street and Utica Avenue. This intersection appears to have a lot of foot trafficking. There is a bus stop, train station, park and Church close to each other. Increase in foot traffic means that there are more opportunity to commit robbery.

Discussion

- Data collected from the Info Share and Google Map showed that the 73rd Precinct is a vulnerable location for crime due to lack of collective efficacy within the community members.
- Most of the crime seems to be opportunistic crime because high level of felony assault and robberies were committed in a open space near a big playground and public housing area.
- All crime hotspot showed evidence of poorly kept sidewalks, vacant lawn and deprived residential buildings.
- The crime rate can potentially decrease if more environmental factors such as clean streets, more surveillance camera, street light, and recreational facilities were set in place.

References

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