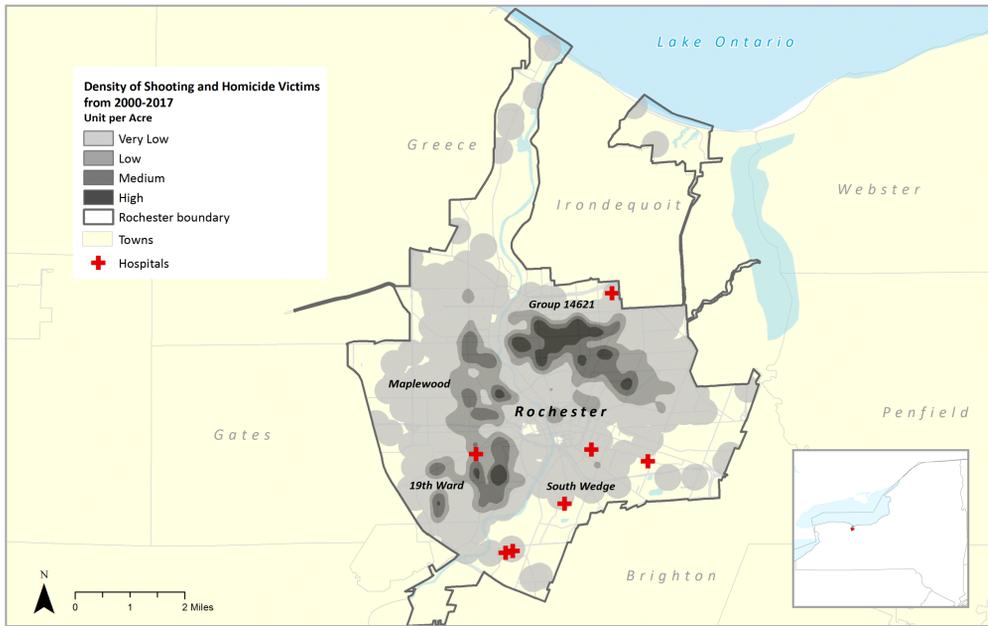


# SHOOTINGS AND HOMICIDES IN ROCHESTER, NY

## EXPLORING SPATIAL PATTERNS (2000-2017)



Density of Shooting and Homicide Victims from 2000–2017 and Hospital Locations

### INTRODUCTION

With a population of over 200,000, New York's third largest city evokes images of Kodak, Wegmans, garbage plates, and lake-effect snow. Since the late 1990s, however, Rochester, NY has become increasingly associated with violent crime. Gang violence surged in the early 2000s, swelling the city's homicide rate per capita to four times the nation's average. In 2016, the Mayor of Rochester announced that the city was at its lowest crime rate in 30 years. Still, violent crime continues to be a reality for many residents.

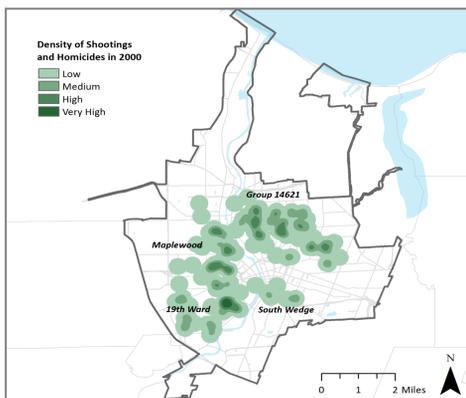
### GOALS AND METHODOLOGY

This project aims to explore trends and spatial patterns of shooting and homicide victims in Rochester using data from the Rochester Police Department and various ArcGIS tools, particularly kernel density. By mapping and comparing age, gender, race and ethnicity, and income levels of shooting and homicide victims over time, we can detect distinct "hot spots" for different groups of victims.

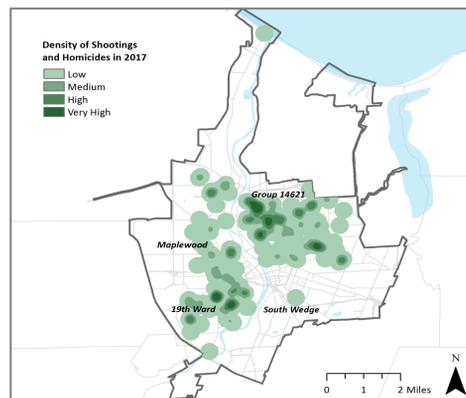
### LIMITATIONS

This analysis is limited to information included in police reports on shooting and homicide victims. The locations recorded in police reports represent addresses where shootings and homicides took place, but not whether the crimes occurred inside or outside a home or building. The times recorded appear to represent the times that police reports were filed, but not the times that the shootings or homicides took place. More detailed data on the exact location and time of shootings, as well as on the demographic features of victims, would allow for a more robust analysis.

## CHANGE OVER TIME

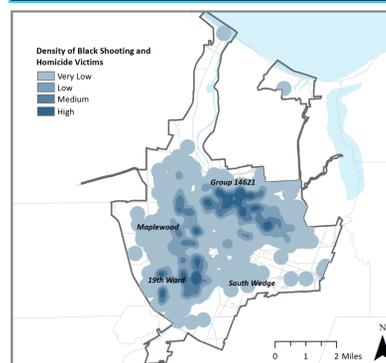


2000

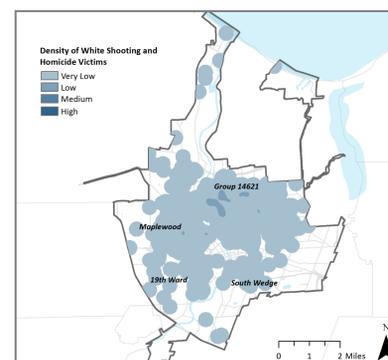


2017

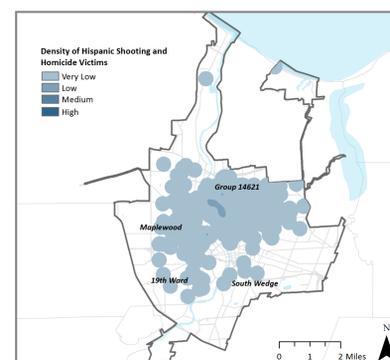
## RACE AND ETHNICITY



**74% Black Victims**  
67% Male  
7% Female

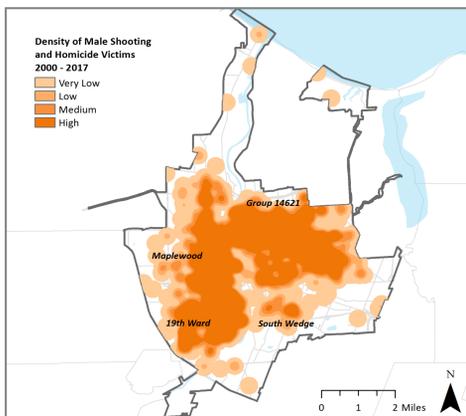


**15% White Victims**  
13% Male  
2% Female

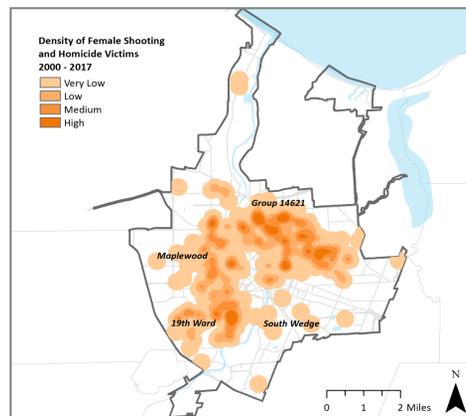


**11% Hispanic Victims**  
9% Male  
2% Female

## GENDER

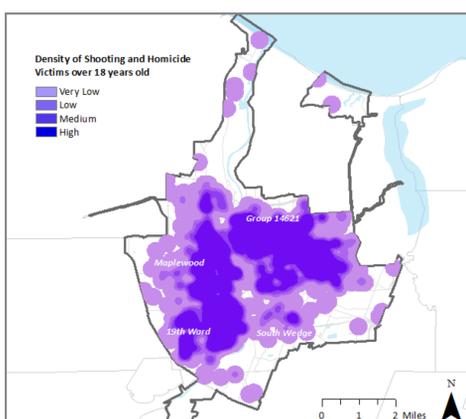


Male

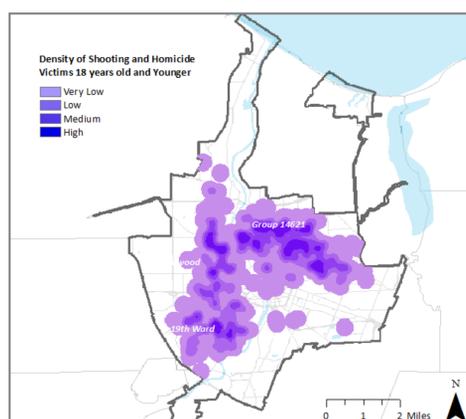


Female

## AGE



Over 18



18 and Younger

## INCOME

This map and corresponding scatterplot depict the correlation between income levels and number of shootings per census block group between 2000-2017.

