

# Preliminary Descriptive Analysis of the Rochester Shooting Database



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## **Introduction**

The objective of this paper is to provide a description of the assault shootings and firearm homicides that occurred in Rochester, NY from January 1<sup>st</sup> 2010 to June 14<sup>th</sup> 2013. This objective will be attained by describing the results of the initial analysis of the Rochester Shooting Database (RSD). This initial description of the data focuses on 6 issues: the number, time, and place of shootings; situation and circumstance of shootings; weapon type; suspect characteristics, victim characteristics; and criminal justice outcomes. These variables were selected based on their relevance to the goals of the Smart Policing project and data availability. The general take away from this discussion is that the majority of shooting incidents that occur in the city are dispute related and involve criminally involved young minority males as both victims and offenders. The next steps of this research are discussed in the concluding paragraph.

## **Number, Time, and Place of Shootings**

From January 1<sup>st</sup> 2010 to June 14, 2013 there were 539 shooting incidents in the city of Rochester. Because several shooting incidents had multiple victims, there were a total of 594 shooting victims during that period; 76 of whom were killed as a result of the incident. The total number of shooting incidents has fluctuated from year to year. There were 151, 129, and 193 shooting incidents in Rochester in 2010, 2011, and 2012, respectively. By mid-year 2013, 66 shooting incidents had occurred in the city. Although shooting incidents tend to peak during summer months, there is substantial shooting activity throughout the year. For instance, 7% of all shootings that occurred during the study period took place in the month of December. Additionally, a disproportionate number of shootings occurred during weekends: close to half (48%) of all shooting incidents occurred on Friday, Saturday, or Sunday. Although the weekends are characterized by an uptick in violence, there is also substantial

shooting activity during the weekdays. When shootings do occur, they are most likely to take place at night. 63% of all shootings occurred between 7 pm and 3 am.

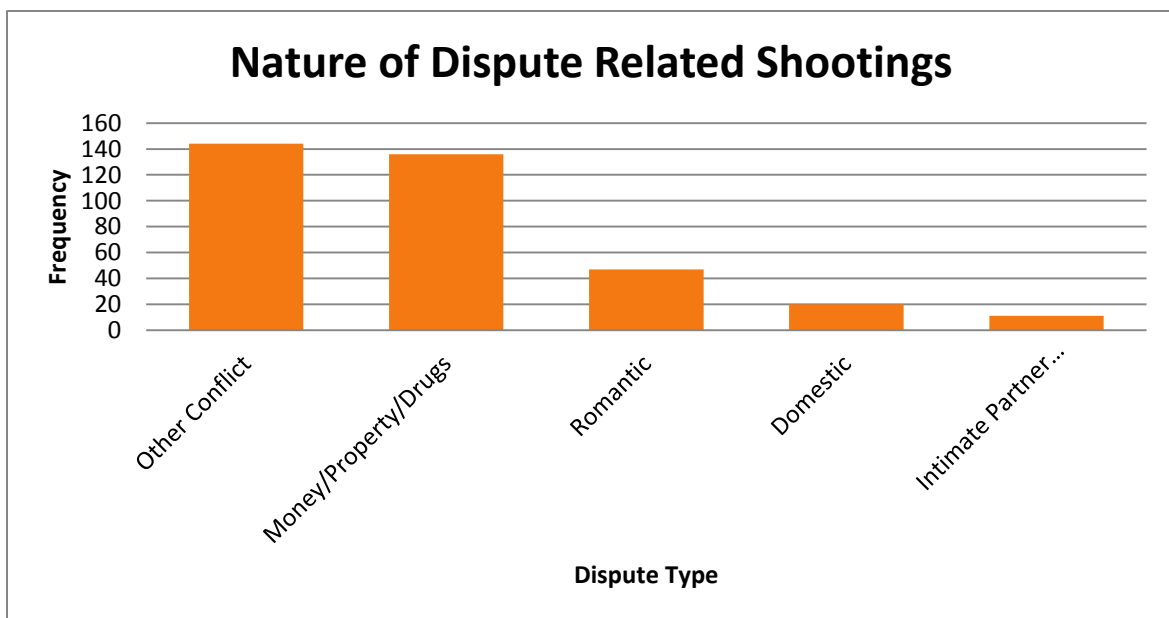
City shootings are concentrated by place. Five of the fourteen city zip codes—14605, 14608, 14609, 14611, and 14621—accounted for 74% of all shooting incidents. Relatedly, the 14621 zip code accounted for nearly 1/3 of all shootings (29.6%). 44.4% of all shootings occurred in the Northeast quadrant of the city, followed by Southwest quadrant (24.6%), the Northwest quadrant (22%), and the Southeast quadrant (8.1%). PSAs 24, 25, and 28 together accounted for just under a third (31.3%) of the shootings. 84% of these shootings took place in an outdoor setting; on the street, in a parking lot, yard, or some other outside location.

Rochester Shootings		
	2010-2012	
Zip Code	Number of Shootings	Percent of all Shootings
14604	7	1.3%
14605	57	10.6
14606	39	7.2
14607	8	1.5
14608	54	10
14609	59	11
14610	1	0.2
14611	73	13.6
14613	38	7.1
14615	10	1.9
14617	2	0.4
14619	29	5.4
14620	2	0.4
14621	159	29.6
Total	538	100%

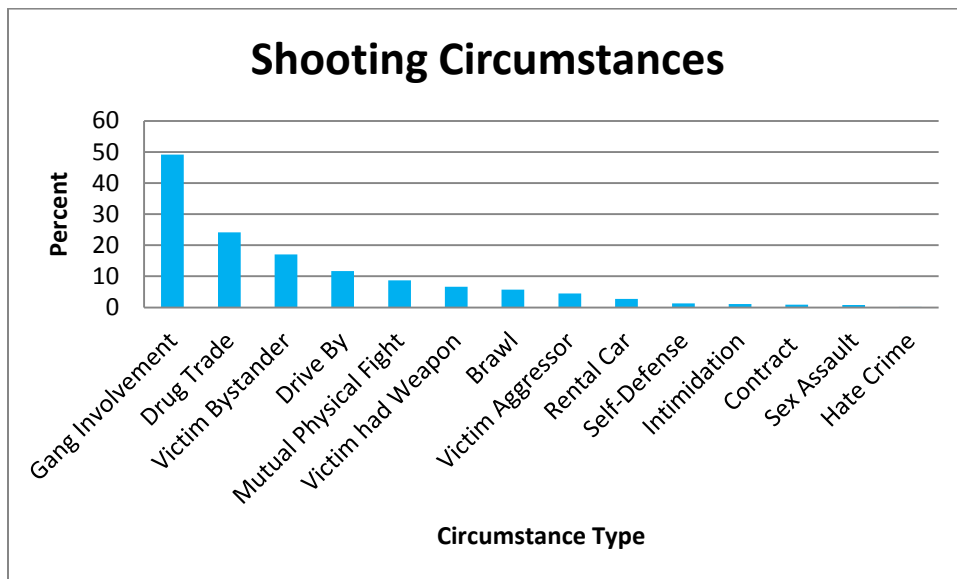
## Situation and Circumstances

Most of the shooting incidents in the dataset had only 2 or 3 participants. 50.2% of incidents had one victim with one offender and 29.4% had a single victim with multiple offenders. Conversely, only 3.3% of shooting incidents involved both multiple victims and multiple offenders. A total of 61.9% of shootings were carried out by one offender acting alone, and the next highest percentage of 25.4 involved 2 suspects, dropping down to 10% of shootings with 3-4 offenders. Nearly 63% of the shooting incidents had at least one witness present, and a single witness was present in a total of one-third of the incidents. Additionally, information on a suspect description was provided in 76% of all cases.

In regard to the underlying causes of shootings themselves, over half (58.1%) resulted from some type of dispute. Of these, 43% involved issues over money, property, and/or drugs, 6.4% were domestic-related, and around 15% were romantic-related. Overall, 24.1% of shooting incidents exhibited characteristics relating to the illegal drug trade, and just 2% of the shootings were between intimate partners. 49.1% of all incidents were identified as being gang-involved.



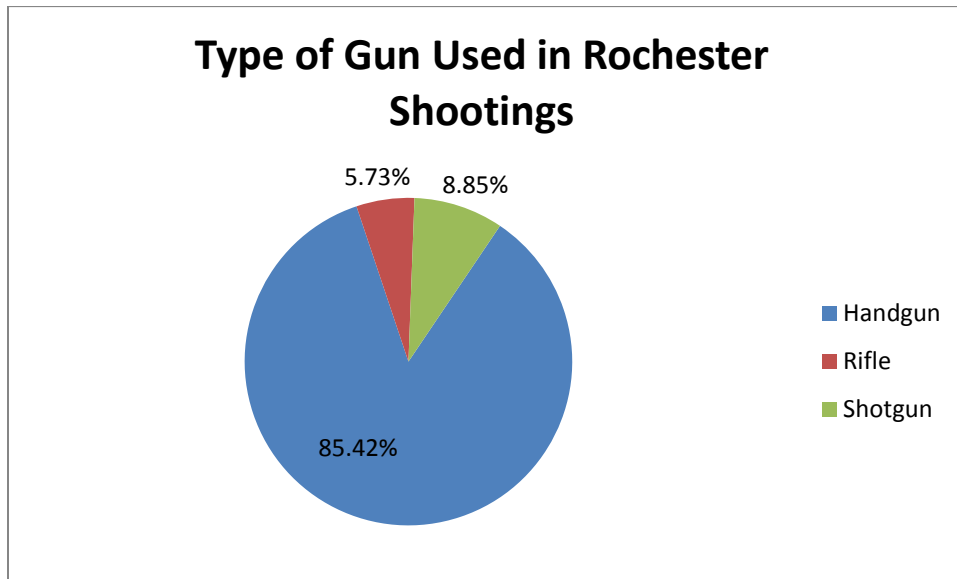
28% of shootings occurred in furtherance of another crime, with robbery being the most common at 17% overall, followed by activities relating to the drug trade at 3.5%, and burglary and gambling each at 2.2%. For the immediate circumstances of the incidents, 14.4% involved brawls or mutual physical fights, and 12% were carried out as a drive-by. Along the lines of victim behavior, 4.4% of the shootings were initiated by a victim aggressor, 6.7% involved victims in possession of a weapon at the time of the incident, and 17% of cases involved a victim who was an uninvolved bystander. Almost 9% of the time victims were determined to be under the influence of alcohol and/or drugs when they were shot. A total of 1.3% of cases were determined to result from the application of self-defense.



### Weapon Use

As expected, handguns accounted for a disproportionately large proportion of shooting incidents. Among cases for which firearm data were available, 85.42% of shooting incidents involved handguns, while 8.85% involved shotguns, and 5.73% involved rifles. However, almost 30% of all weapons discharged in the incidents were of an undetermined firearm type. There was usually only one firearm present during each incident (84% of cases), and 2 firearms present around 12% of the time.

Occasionally there were 3 firearms in an incident (2.2%), but more than that was a rarity, occurring only .97% of the time. In most cases, firearms were the only weapons found to be present in the incident. 74% of incidents documented between 1 and 4 shots fired. The most common number of shots fired during an incident was 1 (29% of cases), and the overall highest number of shots documented was 18.



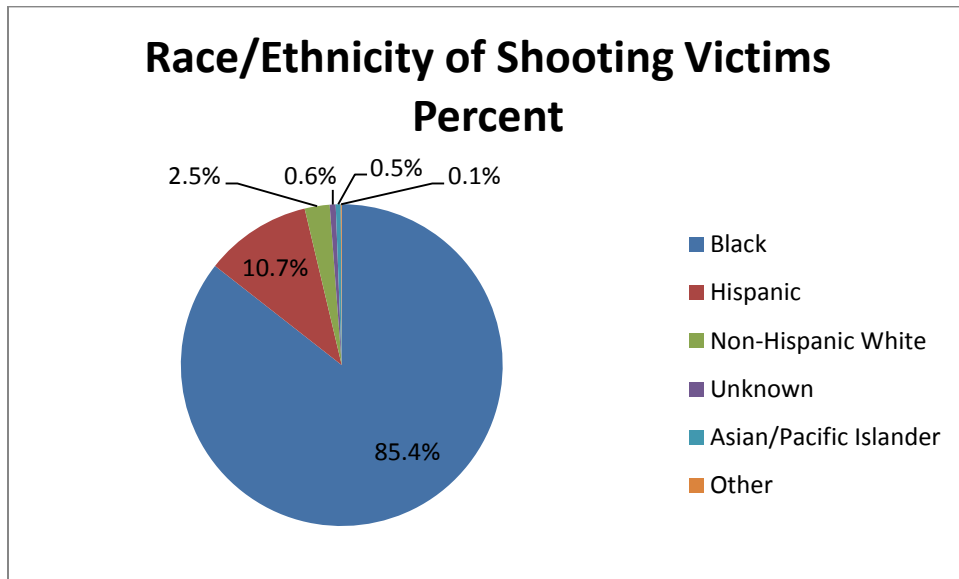
Firearms were recovered in about 11.8% of cases. Of these cases, around 55% were recovered at the scene and 45% recovered during investigation. Spent ammunition was found at the scene of 58.5% of shootings and live ammunition was recovered in 7% of the shooting incidents. The most common calibers of weapons used were .22 and 9mm, accounting for over 21% of the identified firearms.

### **Suspect**

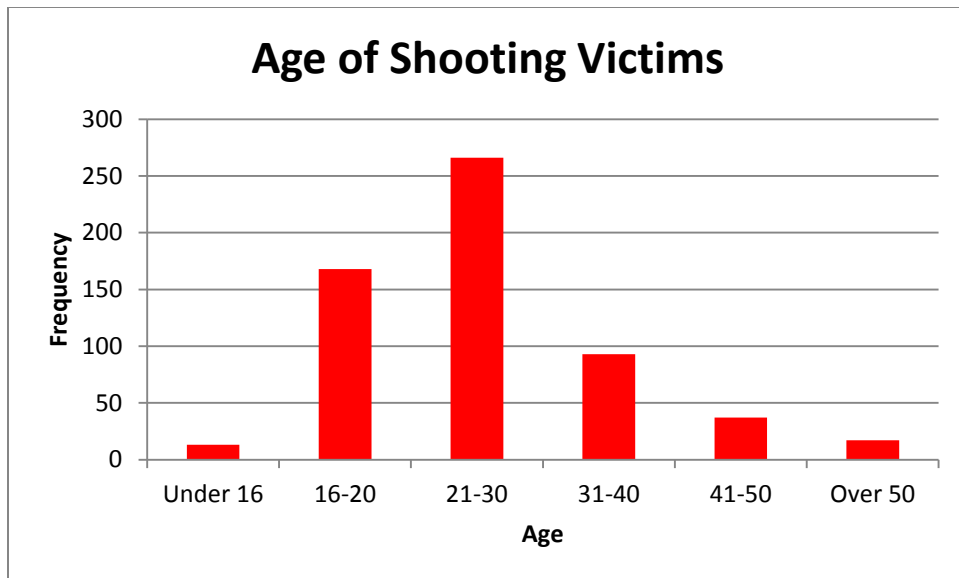
Suspect information was provided for 76% of all incidents. This suspect information is provided to RPD by witnesses and, as a result of this fact, is relatively vague. For those incidents in which suspect information was presented, black males were suspects in more than 90% of the shooting incidents. Because suspect information is limited, a detailed discussion of suspect characteristics is not possible at this time.

## Victims

The majority of shooting victims in the city of Rochester are young black males who have criminal records and reside in impoverished neighborhoods in the city. African Americans made up 85% of all shooting victims in Rochester during the study period. Combined, African Americans and Hispanics made up 96% of all shooting victims.



93% of the shooting victims were male. The average age of shooting victims was 25, and the overwhelming majority of shooting victims were above the age of 16. 87.5% of all shooting victims had a previous criminal history at the time of the shooting incident. 40% of victims had been cited for possession of an illicit substance. 37% of shooting victims had been arrested for a violent crime, and 46% had been arrested for a property crime. Although most of the victims were not gang affiliated, gang affiliates did make up a considerable percentage of shooting victims (37%). Importantly, 1/3 of all shooting victims previously had been victims of violent crime and 29% had been known victims of property crime.



### Criminal Justice Investigation/ Outcomes

911 calls are the primary method that police are notified about shootings. In 55% of the incidents, police officials were informed about the shootings by an unknown informant or an uninvolved witness. Of the 331 cases for which there are data, 75 (23%) of shooting incidents occurred near a city camera. Shotspotter data were available for 147 (27%) of the shootings that occurred in the city. 226 (42%) of shooting victims had been mentioned in an FIF sometime during the six months prior to the shooting incident. To date, 246 of the shooting incidents have been cleared and another 167 have been closed by investigation. 188 shooting suspects have been identified; 112 of which have been arrested. Of those arrested, the average investigation time before arrest was 35 days. A significant proportion of these arrests were made within 48 hours of the incident. This suggests that, for those cases in which investigators are able to gather sufficient information regarding the suspect, arrests are often made shortly after the incident occurs. For most shooting suspects, trial time and sentence are currently unavailable. MCAC analysts are currently attempting to access this data from the District Attorney's office. Results of this data will be analyzed and reported once data become available.



## **Next Steps**

The next steps in the analysis will proceed in the following manner. First, means tests of dispute-related shootings and non-dispute related shootings will be performed. These tests will inform us about how dispute-related shootings differ from non-dispute-related shootings in the categories discussed above. Second, regression analyses will be performed to identify those factors that cause dispute-related shootings. Third, factor analysis will be performed to determine if the variables that cause dispute-related shootings coalesce around a single factor.