

NYPD Shooting Incident Data

Analyzing shootings in NYC between 2006-2023



Which Borough in NYC has the most shootings?

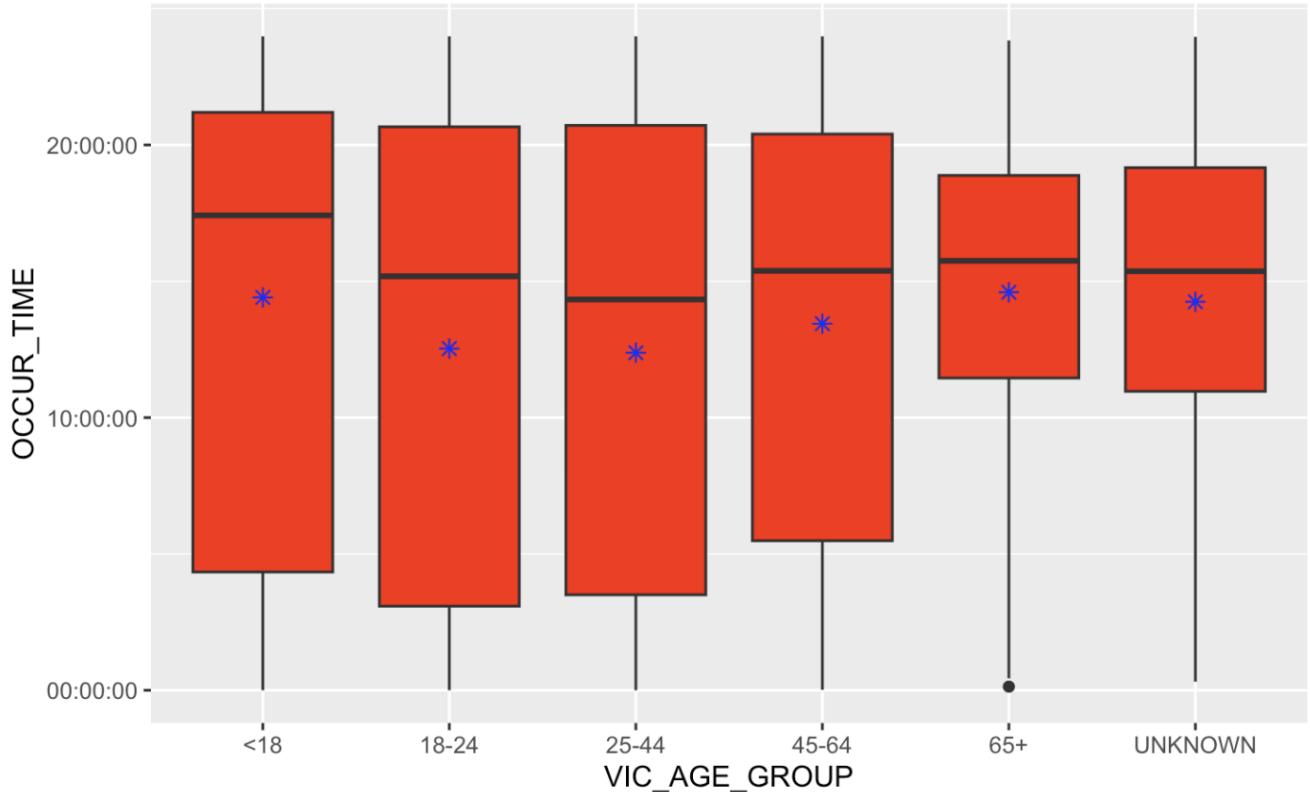
How old are the victims?

When do shootings occur?

Do all shooting lead to murder?

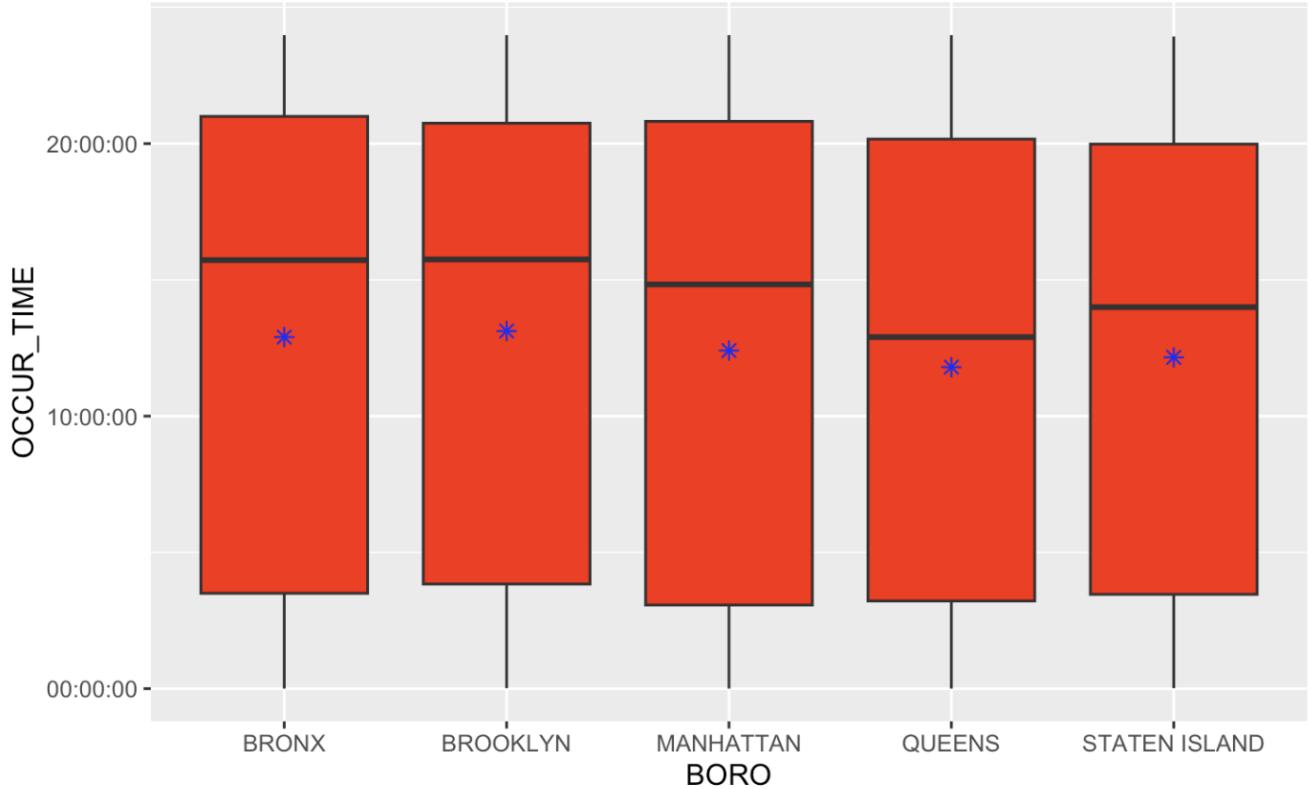
Victim Age vs Shooting Time

Shootings on average take place in the *afternoon* for all age groups



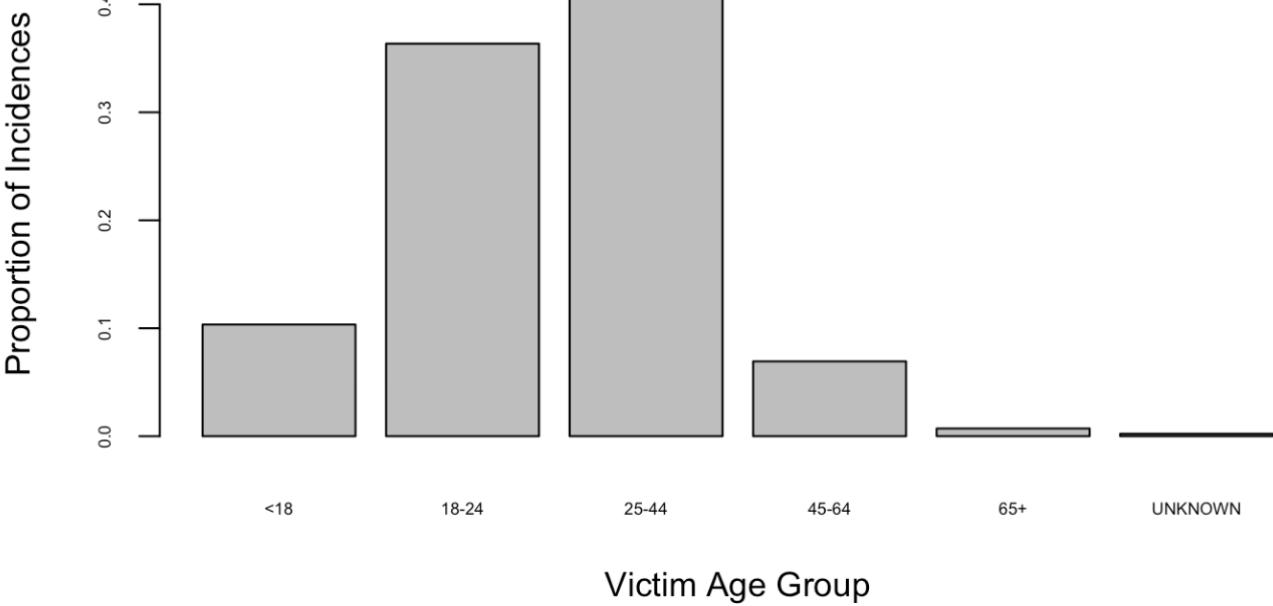
Borough vs Shooting Time

Shootings on average occurred in the *afternoon* in each Borough



Victim Age vs Number of Shootings

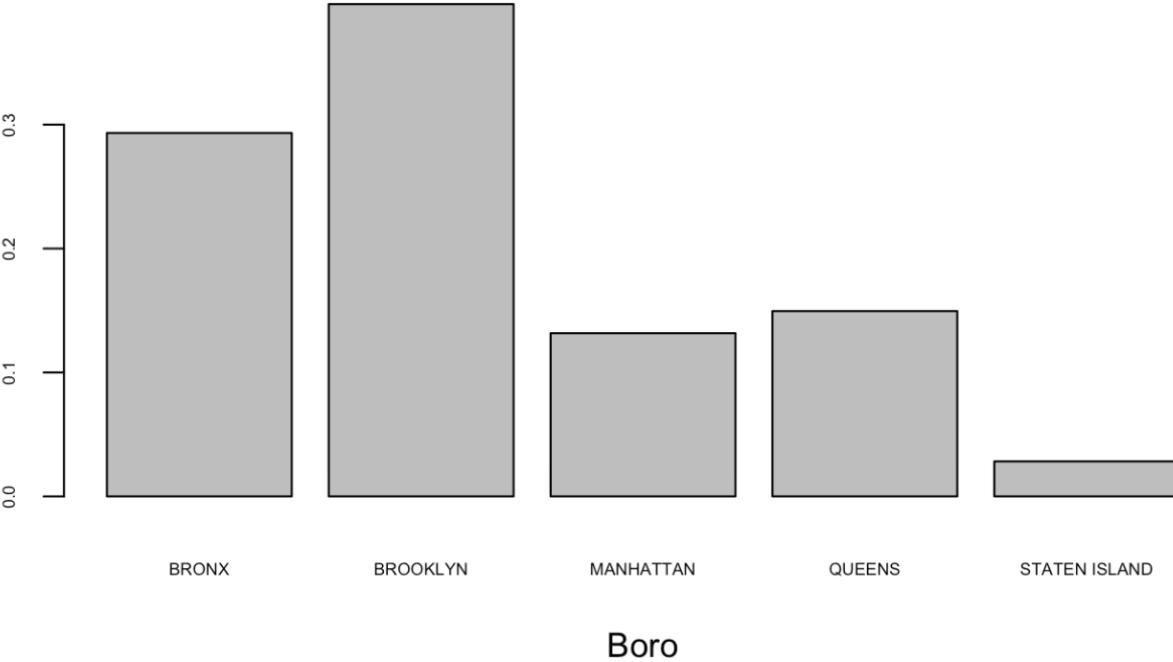
18-24 and 25-44 years olds were victims of most shootings



Borough vs Number of Shootings

Most shootings
occurred in *the*
Bronx and
Brooklyn

Proportion of Incidences



VIC_AGE_GROUP <i><chr></i>	Total <i><int></i>	BORO <i><chr></i>	Total <i><int></i>
18-24	10384	BRONX	8376
25-44	12973	BROOKLYN	11346
45-64	1981	MANHATTAN	3761
65+	205	QUEENS	4271
<18	2954	STATEN ISLAND	807
UNKNOWN	64		

- ❖ A total of roughly 28,500 shootings between 2006 and 2023. Victims aged 25-44 experienced the most shootings and Brooklyn had the highest number of shootings.

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Call:  
lm(formula = STATISTICAL_MURDER_FLAG ~ VIC_AGE_GROUP, data = NYPD_data)  
  
Residuals:  
    Min      1Q  Median      3Q     Max  
-0.3220 -0.2188 -0.1666 -0.1303  0.8697  
  
Coefficients:  
              Estimate Std. Error t value Pr(>|t|)  
(Intercept) 0.130332  0.007239 18.005 < 2e-16 ***  
VIC_AGE_GROUP18-24 0.036271  0.008204  4.421 9.85e-06 ***  
VIC_AGE_GROUP25-44 0.088430  0.008021 11.026 < 2e-16 ***  
VIC_AGE_GROUP45-64 0.118028  0.011425 10.331 < 2e-16 ***  
VIC_AGE_GROUP65+ 0.191619  0.028415  6.744 1.58e-11 ***  
VIC_AGE_GROUPUNKNOWN 0.104043  0.049708  2.093  0.0363 *  
---  
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1  
  
Residual standard error: 0.3934 on 28555 degrees of freedom  
Multiple R-squared:  0.008309, Adjusted R-squared:  0.008135  
F-statistic: 47.85 on 5 and 28555 DF, p-value: < 2.2e-16
```

Linear Model between Victim Age Group and Statistical Murder Flag

- Statistically significant relationship/correlation between victim age group and statistical murder flag (shooting results in a death/murder)
- Assuming an alpha of .05, given the F-stat (47.85) and p-value (2.2e-16)



Bias

Conclusion

- On average shootings occur in the afternoon across all victim age groups and boroughs
- Roughly 28,500 recorded shootings between 2006 and 2023 in New York
- Brooklyn (11346) and the Bronx (8376) had the most shootings
- 25-44 years old (12973) and 18-24 year olds (10384) most likely to be a shooting victim
- Potential bias in policing and how crime data is obtained/recorded
- Potential personal bias in assuming older people less likely to be involved in violent crime