

NYPD Shooting Incident

23/10/2021

Import

Starting out by reading in the NYPD Shooting Incident Data form Catalog Data

Import Summary

```
summary(nypd_data)
```

```
## INCIDENT_KEY      OCCUR_DATE      OCCUR_TIME      BORO
## Min.   : 9953245   Length:23568   Length:23568   Length:23568
## 1st Qu.: 55317014   Class :character   Class1:hms     Class :character
## Median : 83365370   Mode  :character   Class2:difftime   Mode  :character
## Mean   :102218616               Mode :numeric
## 3rd Qu.:150772442
## Max.   :222473262
##
## PRECINCT          JURISDICTION_CODE LOCATION_DESC      STATISTICAL_MURDER_FLAG
## Min.   : 1.00     Min.   :0.0000   Length:23568     Mode :logical
## 1st Qu.: 44.00     1st Qu.:0.0000   Class :character   FALSE:19080
## Median : 69.00     Median :0.0000   Mode  :character   TRUE :4488
## Mean   : 66.21     Mean   :0.3323
## 3rd Qu.: 81.00     3rd Qu.:0.0000
## Max.   :123.00     Max.   :2.0000
## NA's      :2
## PERP_AGE_GROUP    PERP_SEX          PERP_RACE          VIC_AGE_GROUP
## Length:23568      Length:23568      Length:23568      Length:23568
## Class :character   Class :character   Class :character   Class :character
## Mode  :character   Mode  :character   Mode  :character   Mode  :character
##
##
##
## VIC_SEX           VIC_RACE           X_COORD_CD         Y_COORD_CD
## Length:23568      Length:23568      Min.   : 914928    Min.   :125757
## Class :character   Class :character   1st Qu.: 999900    1st Qu.:182565
## Mode  :character   Mode  :character   Median :1007645    Median :193482
##                               Mean   :1009363    Mean   :207312
##                               3rd Qu.:1016807    3rd Qu.:239163
##                               Max.   :1066815    Max.   :271128
##
## Latitude          Longitude          Lon_Lat
## Min.   :40.51     Min.   : -74.25   Length:23568
```

```
## 1st Qu.:40.67 1st Qu.: -73.94 Class :character
## Median :40.70 Median : -73.92 Mode  :character
## Mean   :40.74 Mean   : -73.91
## 3rd Qu.:40.82 3rd Qu.: -73.88
## Max.   :40.91 Max.   : -73.70
##
```

Tidy

After taking a look at `nypd_data`. According to what I want to analyze just needs two variables, `PERP_SEX` and `VIC_SEX`. I will tidy the data up by removing all other variables

Tidy Summary

```
summary(nypd_data)
```

```
##      PERP_SEX      VIC_SEX
## Length:23568      Length:23568
## Class :character  Class :character
## Mode  :character  Mode  :character
```

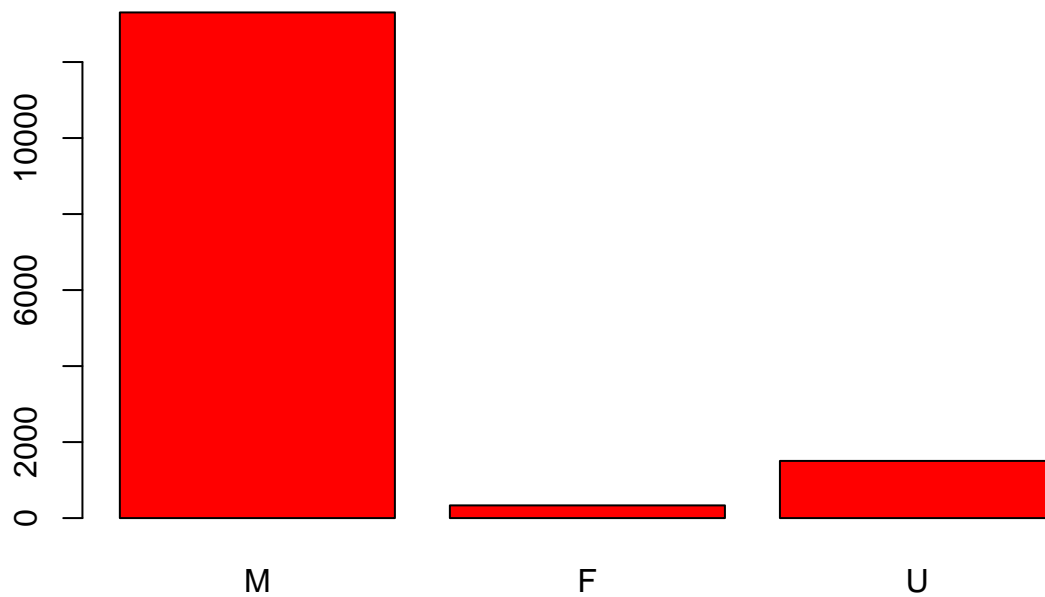
Missing Data (N/A)

In the following analysis, the missing data has been ignored.

Analysis

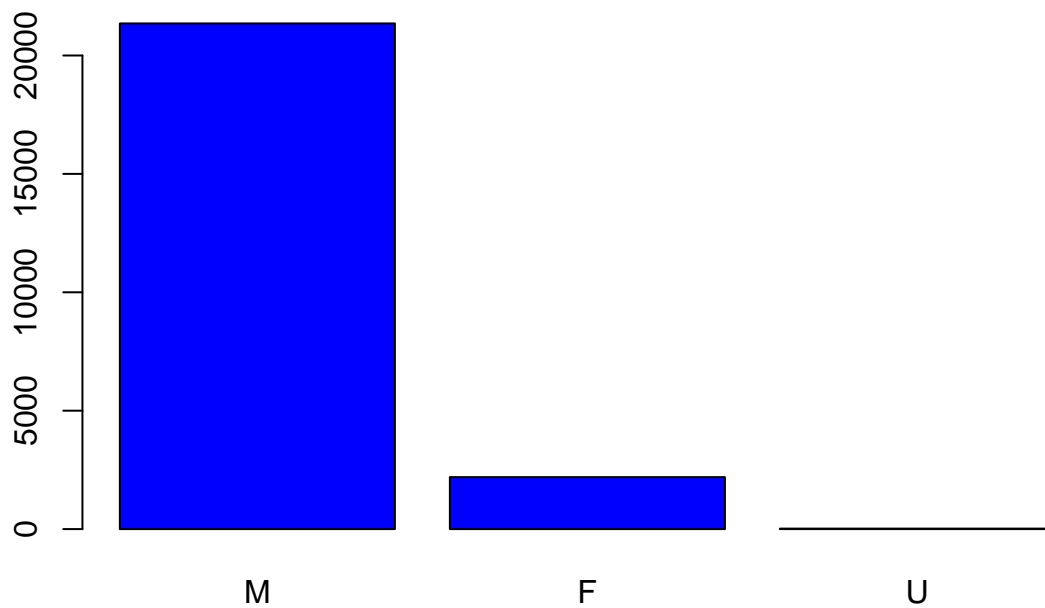
Gender based comparison of Perpatrators

```
x <- c("M", "F", "U")
y <- c(nrow(nypd_data %>% filter(PERP_SEX == 'M')),
      nrow(nypd_data %>% filter(PERP_SEX == 'F')),
      nrow(nypd_data %>% filter(PERP_SEX == 'U')))
barplot(y, names.arg = x, col = 'red', width = c(0.5, 0.5, 0.5))
```



Gender based comparison of Victims

```
x <- c("M", "F", "U")
y <- c(nrow(nypd_data %>% filter(VIC_SEX == 'M')),
      nrow(nypd_data %>% filter(VIC_SEX == 'F')),
      nrow(nypd_data %>% filter(VIC_SEX == 'U')))
barplot(y, names.arg = x, col = 'blue', width = c(2,2,2))
```



Conclusion

In this report, the visualization is on how the Rate of Gender compare to each other in Perpetrators and Victims. This is a very basic report. Many other analysis are further possible, such as a Demographics based Visualization or a Age-Group based Visualization etc.