# Final_Project

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Introduction

Policing has become the subject of national and international attention in recent years with much criticism and towards the ways dangerous situations are handled. I will be exploring a record of police shootings for the years 2015-2018 published by The Washington Post. I will specifically be exploring the demographics of victims and whether or not it is related to fleeing status and manner of death of individuals fatally shot by police.

Univariate Exploration

First, we will look at the demographics of those fatally shot by police.

```
ggplot(police, aes(x=race, fill=race)) + geom_bar(aes(y=..count..), show.legend = FALSE) + theme_gray()
```
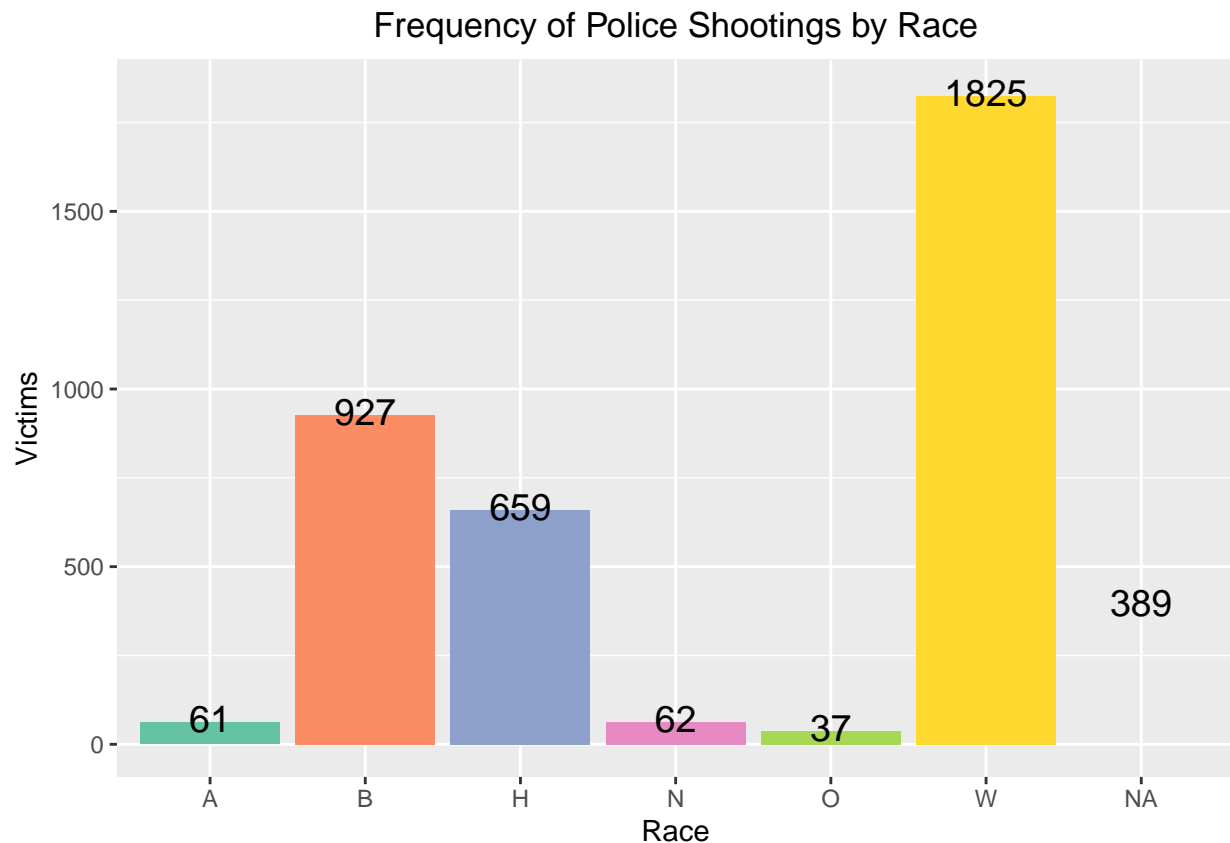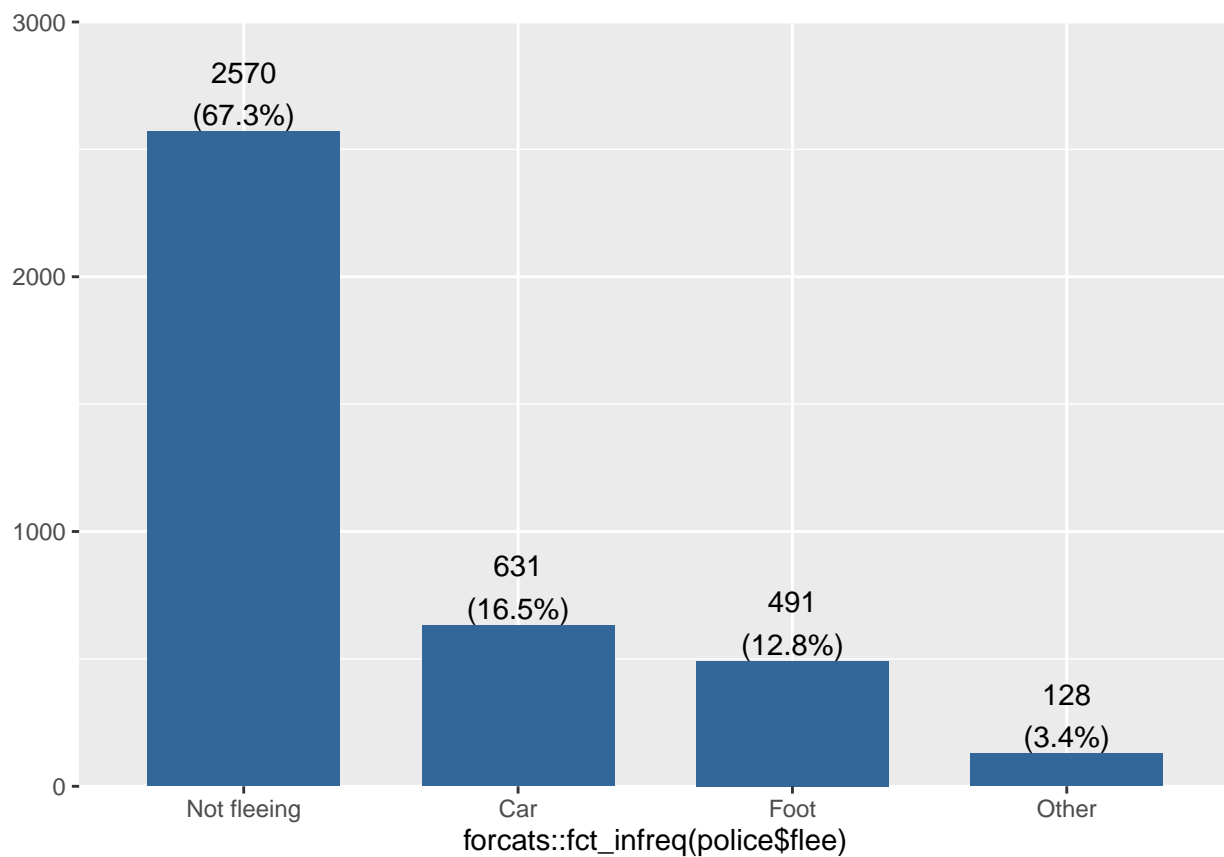
```
table(police$race) %>%
prop.table() %>%
round(3)
```

```
##
##     A     B     H     N     O     W
## 0.017 0.260 0.185 0.017 0.010 0.511
```

Based on this exploration we see that the majority of those fatally shot by police were white.

Next, we will look at the proportions of whether those fatally shot fled or not.

```
plot_frq(forcats::fct_infreq(police$flee))
```



```
table(police$flee) %>%
prop.table() %>%
round(3)
```

```
##
##        Car       Foot Not fleeing      Other
##      0.165      0.129      0.673      0.034
```

With these calculations we see that the majority of victims did not flee but some did try to escape either on foot or by car. For the 29% of individuals shot while fleeing, this likely means they were not attacking the officer while because shot and brings the question of whether or not lethal force was necessary

Next we will look at whether or not a taser was used on the victims before the use of lethal force.

```
ggplot(police, aes(x=manner_of_death)) + geom_bar()
```
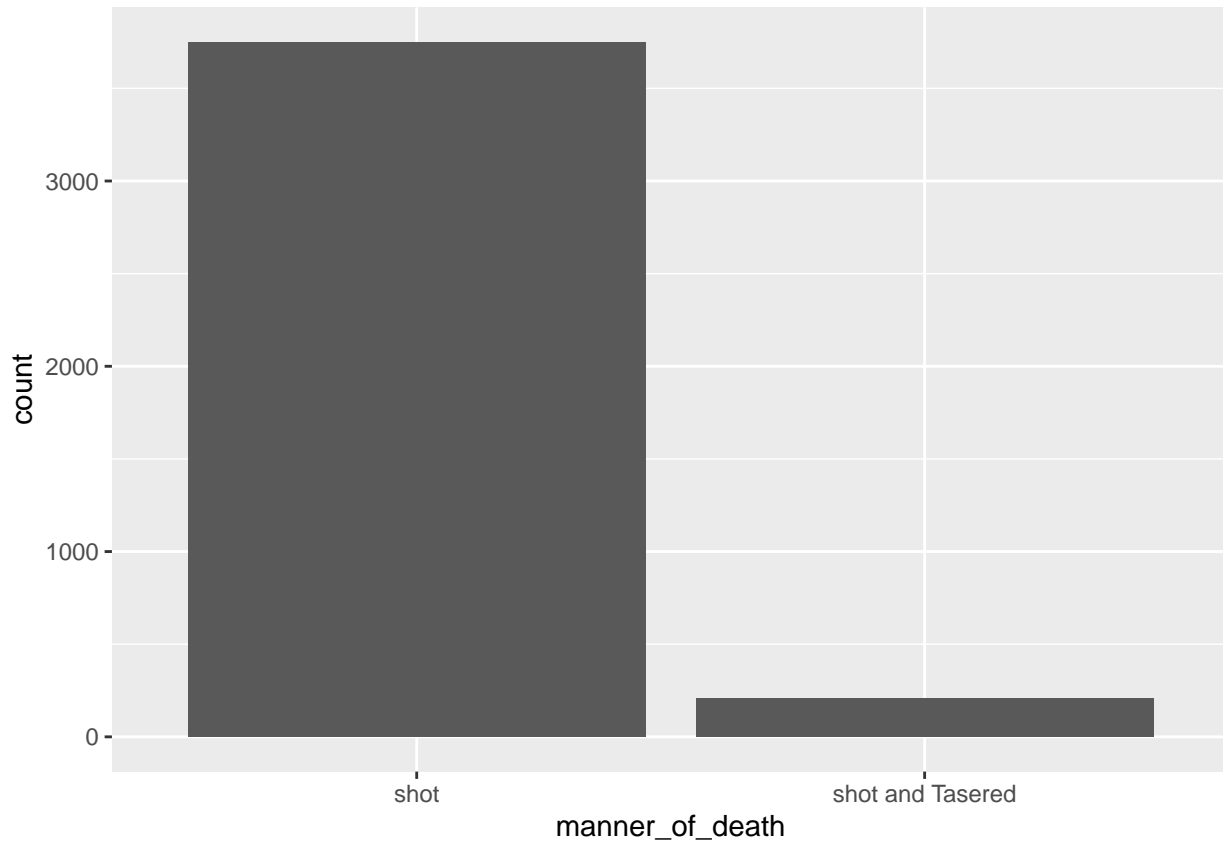


```
table(police$manner_of_death)
```

```
##
##             shot shot and Tasered
##             3750              210
```

As we can see from the data above there were very little instances in which a taser was used, again questioning the neccessity of lethal force by police.

Bivariate Exploration

Now we will compare race to methods of fleeing and manner of death.

```
table(police$race, police$flee) %>%
  prop.table() %>%
  round(3)
```

```
##
##        Car  Foot Not fleeing Other
```

```
##   A 0.001 0.002        0.014 0.000
##   B 0.043 0.051        0.157 0.009
##   H 0.033 0.025        0.117 0.008
##   N 0.002 0.003        0.011 0.000
##   O 0.002 0.001        0.008 0.000
##   W 0.084 0.050        0.361 0.017
```

```
plot_xtab(police$race, police$flee,
margin="row",
coord.flip = "TRUE",
expand.grid = "TRUE",
title = "Fleeing Method by Race")
```


Fleeing Method by Race
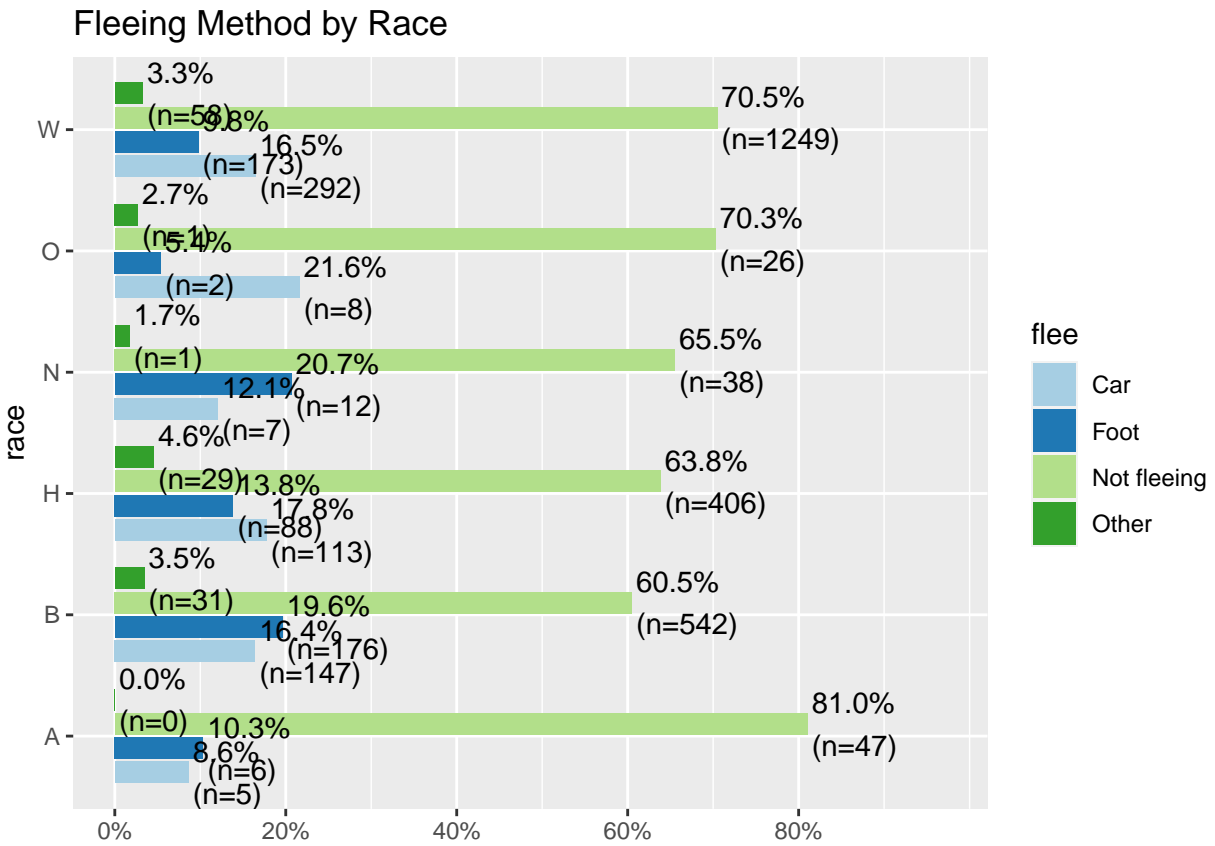
As we can see with this data, all races have similar distributions with Black people (B) having the lowest proportion of victims shot while not fleeing.

```
plot_xtab(police$race, police$manner_of_death,
margin="row",
coord.flip = "TRUE",
expand.grid = "TRUE",
title = "Fleeing Method by Race")
```

Fleeing Method by Race
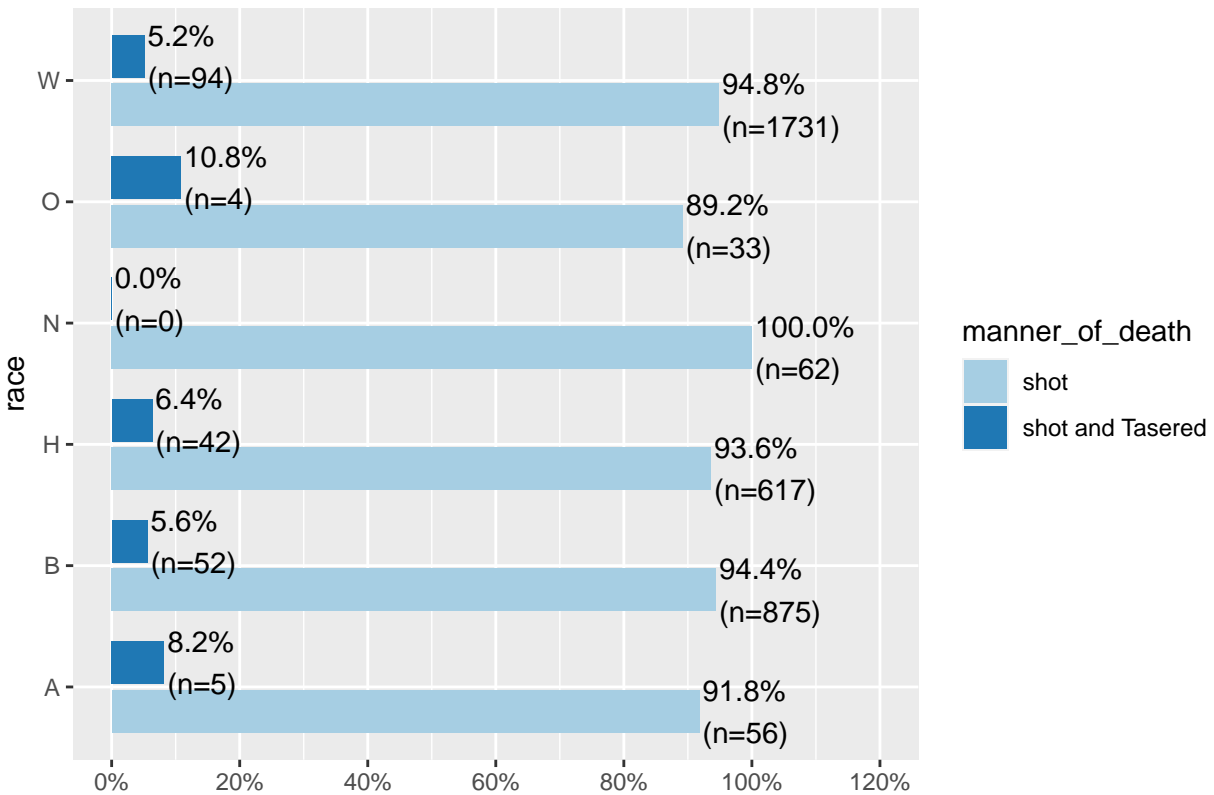

```
table(police$race, police$manner_of_death) %>%
  prop.table() %>%
  round(3)
```

```
##
##     shot shot and Tasered
##   A 0.016           0.001
##   B 0.245           0.015
##   H 0.173           0.012
##   N 0.017           0.000
##   O 0.009           0.001
##   W 0.485           0.026
```

This data shows a relatively even distribution of victims either being shot or shot and tasered among races.

Conclusion

After conducting this analysis, the data suggests that the race of an individual is not related to whether or not they attempted to flee or were tasered before being shot. Ultimately this project was effective at demonstrating the way rstudio can be used to manipulate and observe data.