Exploratory Data Analysis

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```
## Warning: package 'skimr' was built under R version 4.0.3

## Warning: package 'here' was built under R version 4.0.3

## Warning: package 'zoo' was built under R version 4.0.3

## Warning: 2 parsing failures.
##    row    col   expected     actual
## 596256 sentsas date like  2017-04-   'C:/Users/alsunyu/Box/personalprojects/durham-sentencing/../data
## 596256 NA      88 columns 86 columns 'C:/Users/alsunyu/Box/personalprojects/durham-sentencing/../data

## Warning: current_vars() is deprecated.
## Please use tidyselect::peek_vars() instead
## This warning is displayed once per session.
```
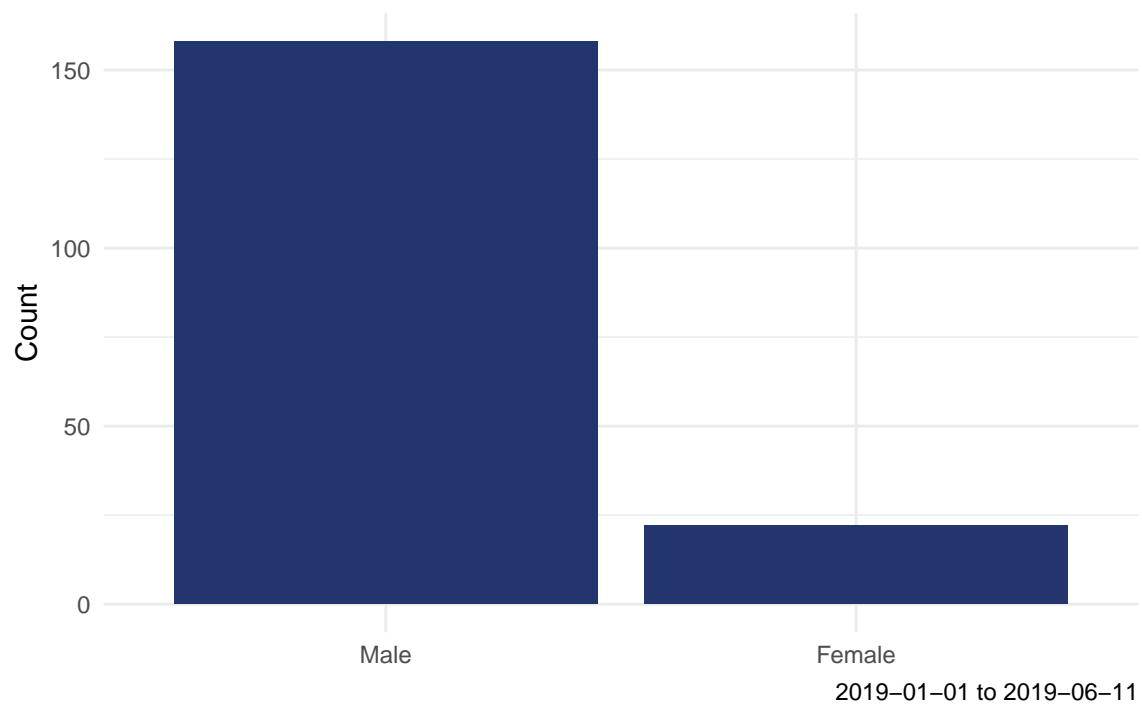
Demographics

Here are three graphs showing race, gender, and age for Misdemeanor Convictions in 2019. The NC Setencing Commissions' dataset is limited up until 2019-06-11, so these graphs only contain data for the first half of 2019. The dates refer to the sentence date of the most serious offense, not necessarily when the offense occurred. As such, these visualizations are meant to focus on the effects of how the Durham legal system has adjudicated these crimes.
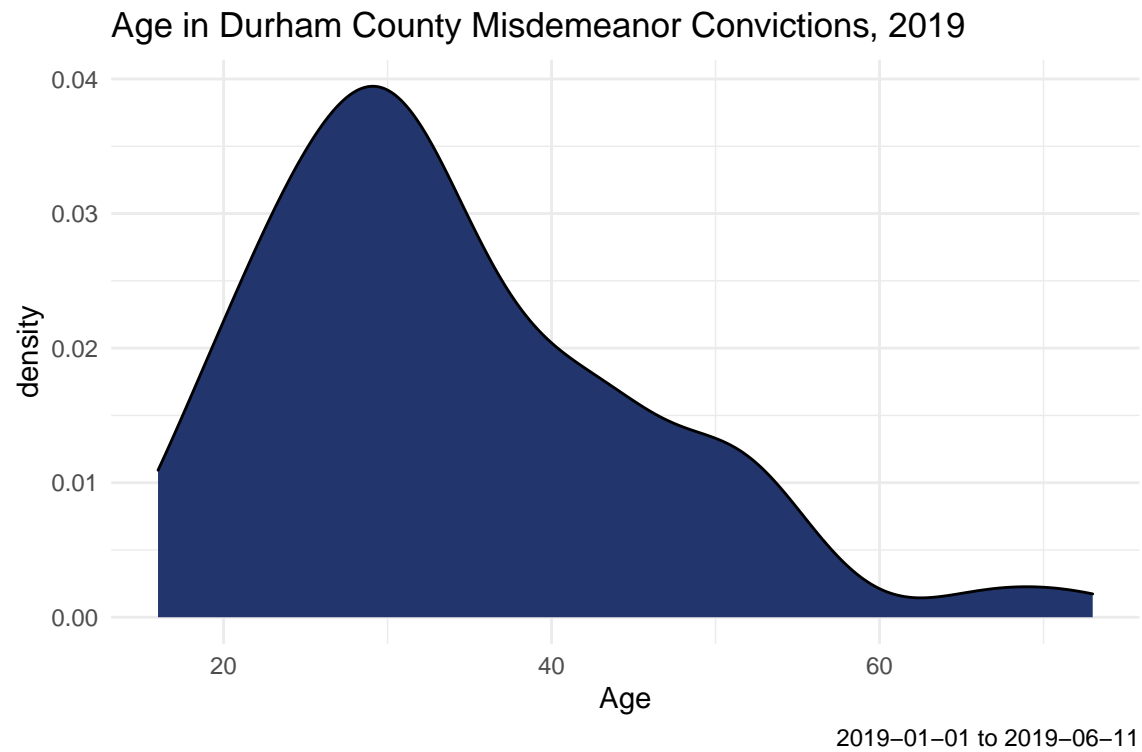
Race in Durham County Misdemeanor Convictions, 2019

Count

100

50

0

Black   White   Hispanic   Other   American Indian

2019−01−01 to 2019−06−11
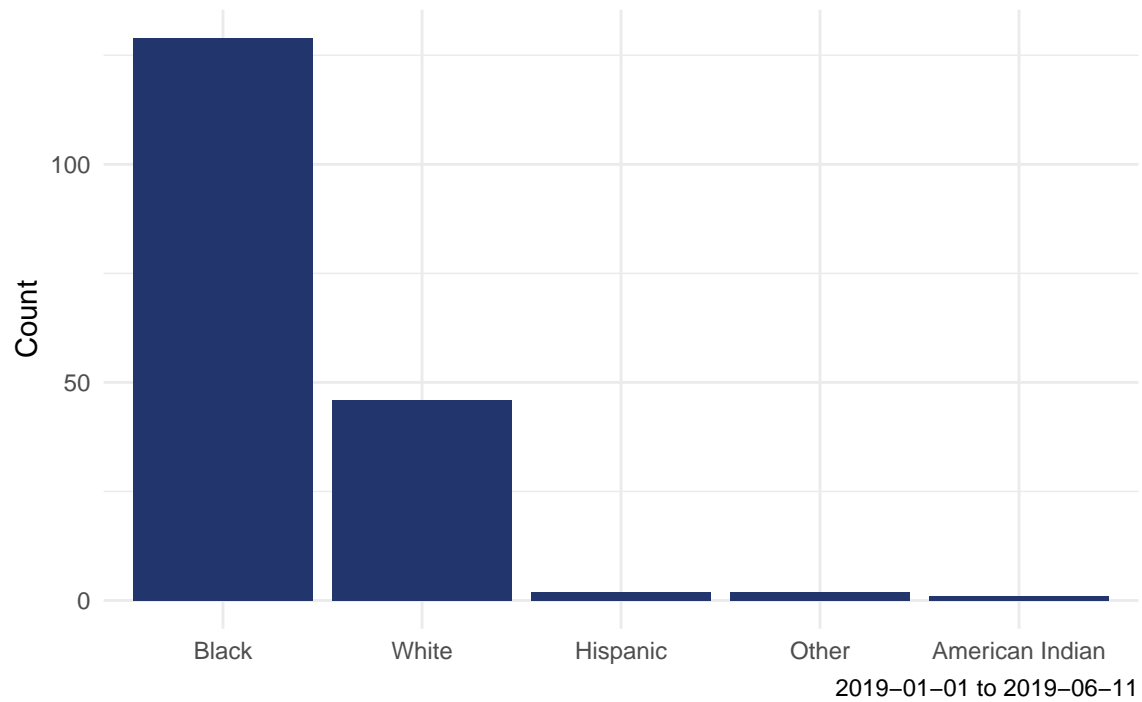
Gender Durham County Misdemeanor Convictions, 2019

Count

150

100

50

0

Male   Female

2019−01−01 to 2019−06−11

```
## Warning: Ignoring unknown parameters: binwidth
```

Age in Durham County Misdemeanor Convictions, 2019

2019–01–01 to 2019–06–11

```
## # A tibble: 1 x 2
##   mean_age median_age
##      <dbl>      <dbl>
## 1     34.0         32
```

The average age for Misdemeanor Convictions for Durham County in the first half of 2019 is 34 years.

Pleas

Age in 2019 Durham County Misdemeanor Convictions

2019–01–01 to 2019–06–11
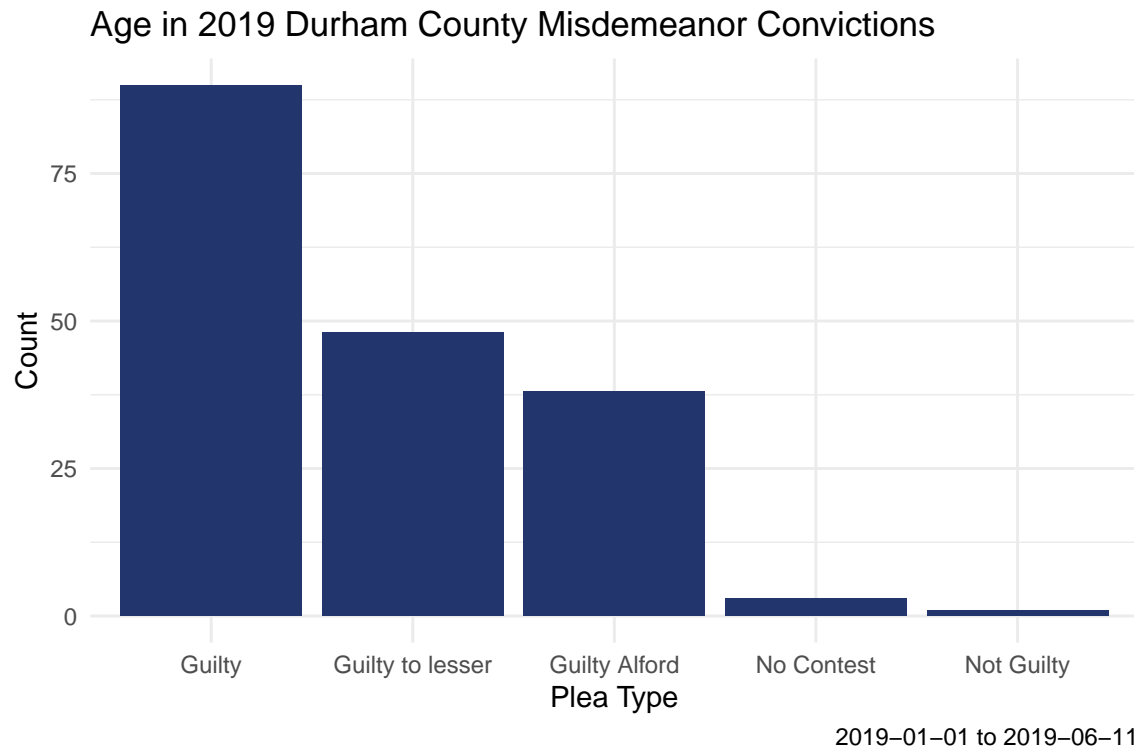
Time-series Graphs

Given the small sample size of Misdemeanor Convictions in a monthly span, the following graph will fluctuate.

Total Misdemeanor Convictions
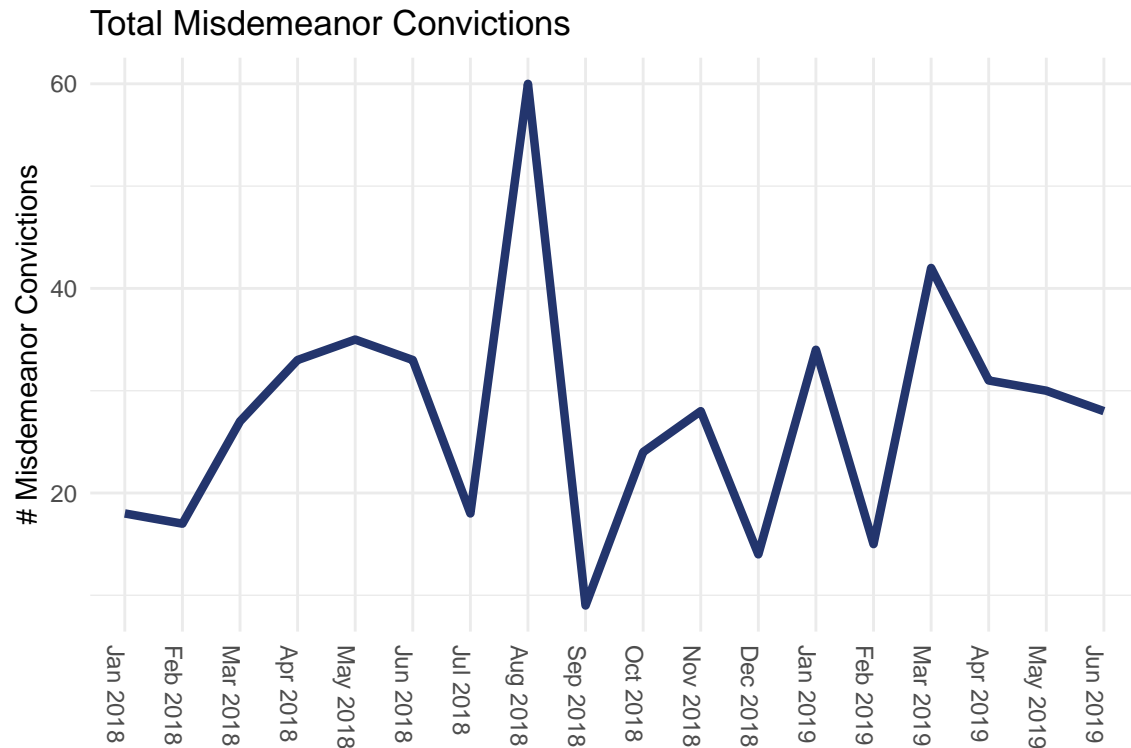
NOTE: For the following graph, the count for 2019 only includes the first half of 2019, because the dataset ends at 2019-06-11.

Misdemeanor Convictions by Type of Offense

● Person   ▲ Property   ■ Drug (Non Trafficking)   + Other
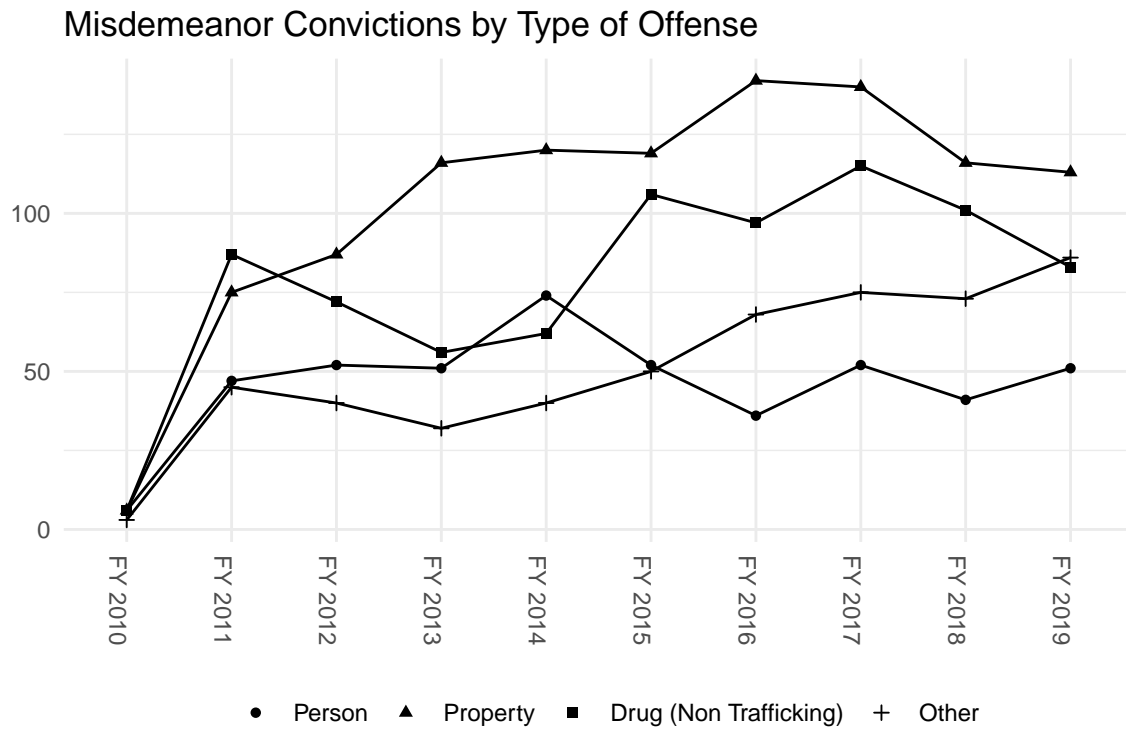
Look at next:

- Fine imposed

- Add place showing where santana deberry is elected

- Add images: https://stackoverflow.com/questions/9917049/inserting-an-image-to-ggplot2

Plots to add:

- Top 5 misemeanor convictions by offense

- Convictions by type of offense (Person, Property, Drug, Public Order)

- Interaction between race and actual sentence