AdamDataExp

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```
library(dplyr)
```

```
##
## Attaching package: 'dplyr'

## The following objects are masked from 'package:stats':
##
##     filter, lag

## The following objects are masked from 'package:base':
##
##     intersect, setdiff, setequal, union
```

```
library(tidyverse)
```

```
## -- Attaching core tidyverse packages ------------------------ tidyverse 2.0.0 --
## v forcats   1.0.0     v readr     2.1.4
## v ggplot2   3.4.3     v stringr   1.5.0
## v lubridate 1.9.2     v tibble    3.2.1
## v purrr     1.0.2     v tidyr     1.3.0

## -- Conflicts ------------------------------------------ tidyverse_conflicts() --
## x dplyr::filter() masks stats::filter()
## x dplyr::lag()    masks stats::lag()
## i Use the conflicted package (<http://conflicted.r-lib.org/>) to force all conflicts to become errors
```

```
library(ggthemes)
library(ggplot2)
library(tibble)
```

In my mind, the most interesting variables are likely: -IncidentDistrict -uof_type -IncidentDate -Disposition -department_action -OfficerGender -OfficerRace -subject_age -subject_race -subject_gender -serious

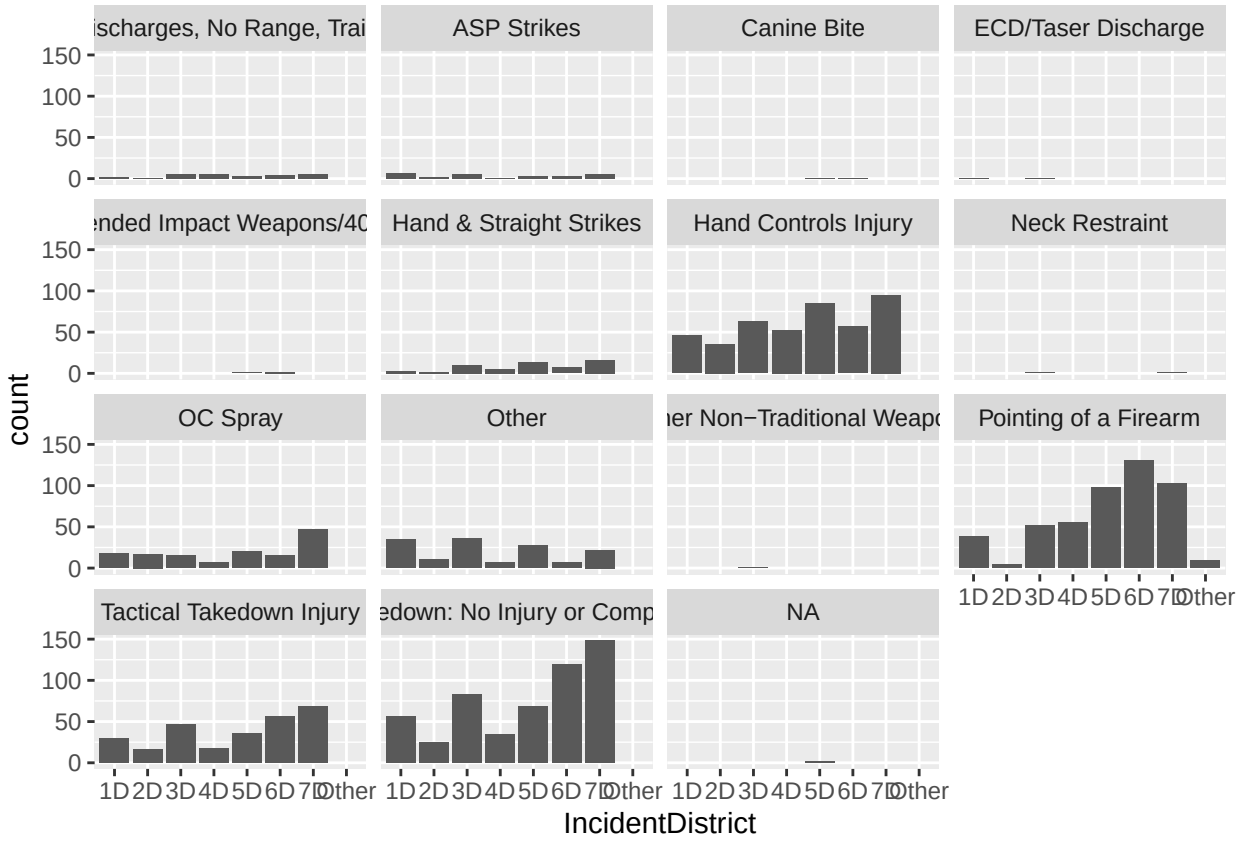
In my mind, we should remove/ignore: -IncidentTime -CaseStatus (I don't think whether the case is close should be an interesting predictor of anything) -DateClosed (Again, how long ago the case closed seemingly doesn't tell us much) -Officer_id (unless we want to look at individual officers we can ignore this) -OfficerAssignment (I could be wrong on this one) -CD (civil disturbance doesn't seem interesting) -animal (we should just remove uses of force against animals)

Hypotheses:

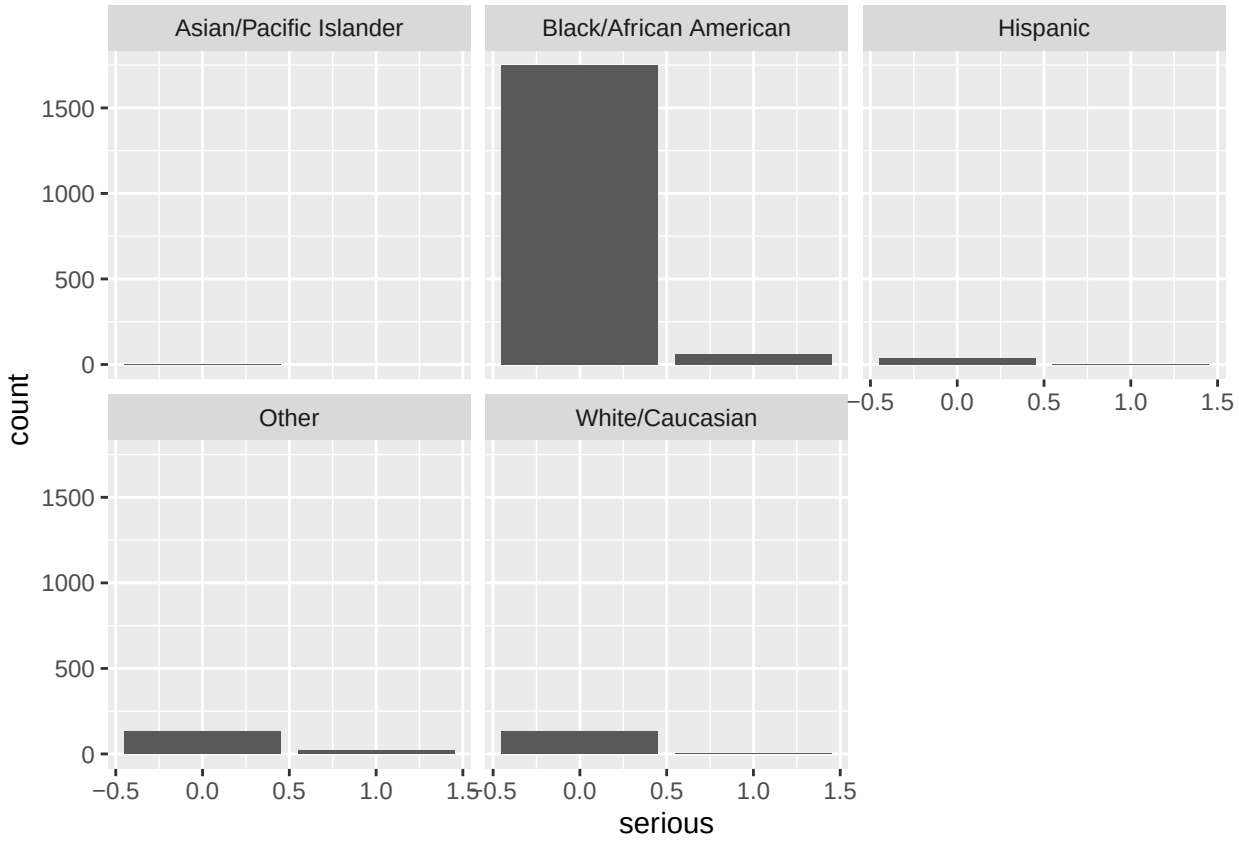
```
mpd_dat <- read.csv('UoF_mpd_2021_public.csv')
head(mpd_dat)
```

```
##                             IS_ID IncidentDate IncidentTime IncidentDistrict
## 1 ddc91c2470607ae729a0598904d4d9f3   2021-01-01     02:45:00               5D
## 2 ddc91c2470607ae729a0598904d4d9f3   2021-01-01     02:45:00               5D
## 3 ddc91c2470607ae729a0598904d4d9f3   2021-01-01     02:45:00               5D
## 4 ddc91c2470607ae729a0598904d4d9f3   2021-01-01     02:45:00               5D
## 5 ddc91c2470607ae729a0598904d4d9f3   2021-01-01     02:45:00               5D
## 6 ddc91c2470607ae729a0598904d4d9f3   2021-01-01     02:45:00               5D
##   CaseStatus DateClosed               uof_type
## 1     Closed 01/01/2022    Hand Controls Injury
## 2     Closed 01/01/2022    Hand Controls Injury
## 3     Closed 01/01/2022    Hand Controls Injury
## 4     Closed 01/01/2022    Hand Controls Injury
## 5     Closed 01/01/2022 Hand & Straight Strikes
## 6     Closed 01/01/2022    Hand Controls Injury
##                                  disposition         department_action
## 1 Justified - Tactical Improvement Opportunity         training referral
## 2 Justified - Tactical Improvement Opportunity performance documentation
## 3 Justified - Tactical Improvement Opportunity         training referral
## 4 Justified - Tactical Improvement Opportunity         training referral
## 5 Justified - Tactical Improvement Opportunity         training referral
## 6 Justified - Tactical Improvement Opportunity         training referral
##                          Officer_id OfficerAssignment OfficerGender
## 1 469fba90a485636efdee71f6d6841300                5D          Male
## 2 68ad5fe43145b20dc953947775bdc233                5D          Male
## 3 78b4b7169a68658581b7fd2880d8f466                5D        Female
## 4 32ea1a3efcf01a49c0a70b793832c17b                5D          Male
## 5 f4ef4d8e38bee0eac21eb26c99f979f9                5D        Female
## 6 66911ba905047137d75401e8c7fb6032                5D          Male
##              OfficerRace year_force subject_age           subject_race
## 1 Black/African American         15          31 Black/African American
## 2 Black/African American          5          31 Black/African American
## 3 Black/African American          4          31 Black/African American
## 4               Hispanic          1          31 Black/African American
## 5 Black/African American         14          31 Black/African American
## 6 Asian/Pacific Islander          2          31 Black/African American
##   subject_gender serious CD animal
## 1           Male       1  0      0
## 2           Male       1  0      0
## 3           Male       1  0      0
## 4           Male       1  0      0
## 5           Male       1  0      0
## 6           Male       1  0      0
```

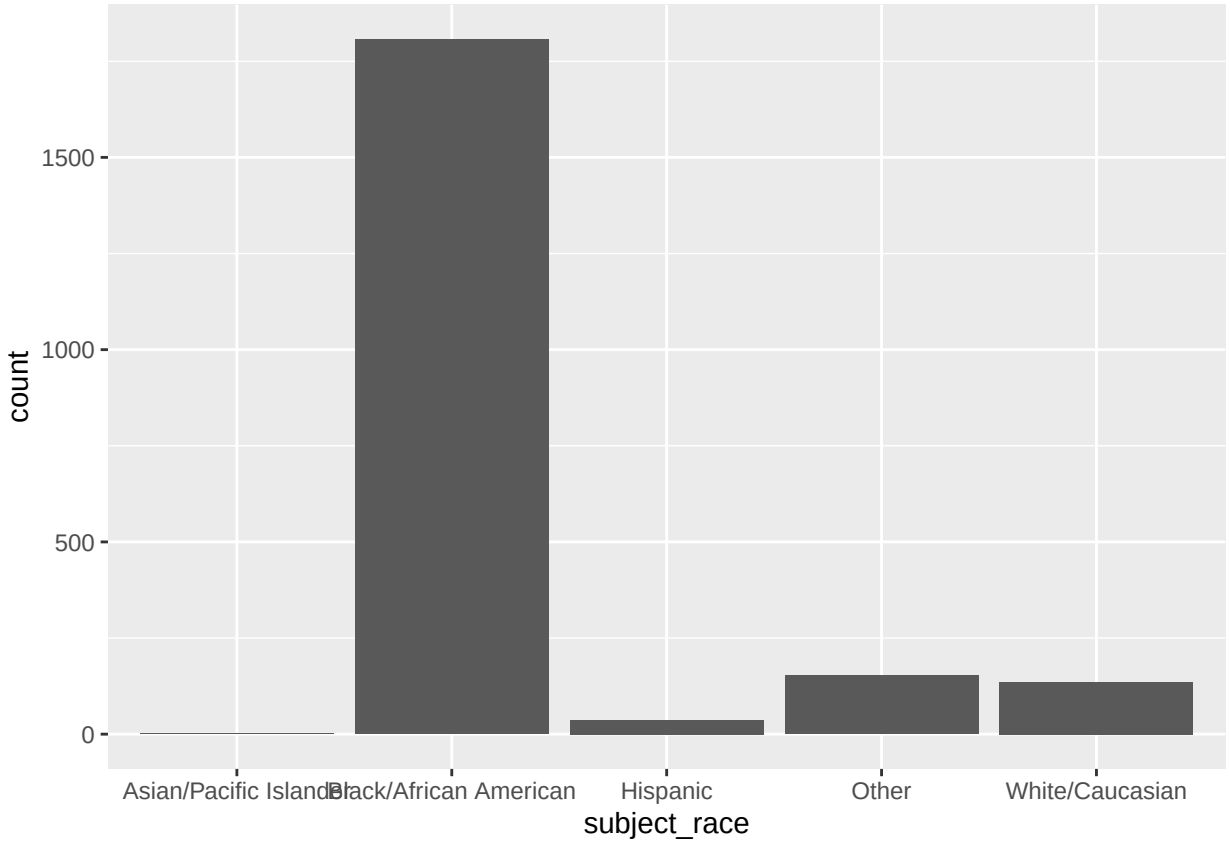
```
View(mpd_dat)

ggplot(data = mpd_dat, mapping = aes(x = IncidentDistrict)) +
  geom_bar() +
    facet_wrap(~uof_type)
```



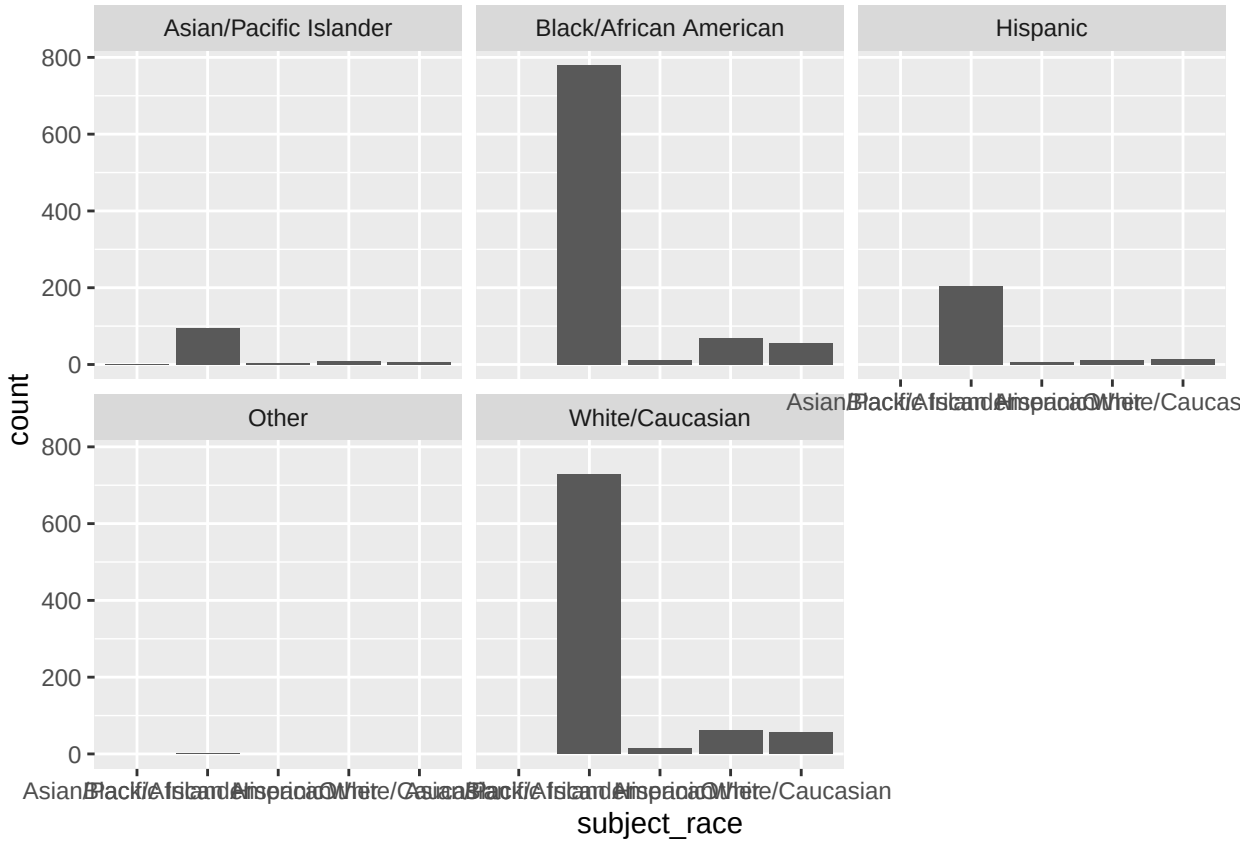

```
ggplot(data = mpd_dat, mapping = aes(x = serious)) +
  geom_bar() +
    facet_wrap(~subject_race)
```




```
ggplot(data = mpd_dat, mapping = aes(x = subject_race)) +
  geom_bar()
```




```
ggplot(data = mpd_dat, mapping = aes(x = subject_race)) +
  geom_bar() +
    facet_wrap(~OfficerRace)
```


Asian/Pacific Islander
Black/African American
Hispanic
Other
White/Caucasian
count
800
600
400
200
0
subject_race