

Civitas: Traffic Stops and Racial Disparities in Urbana, IL

Evelyn Cai

Disparity Ratios

According to the Indiana Department of Transportation 2018 annual report, disparity ratios are useful metrics for calculating the number of traffic stops that exceed the number of expected stops predicted from the population distribution.¹ Below, find the disparity ratio calculations by racial group for 2012-2020.

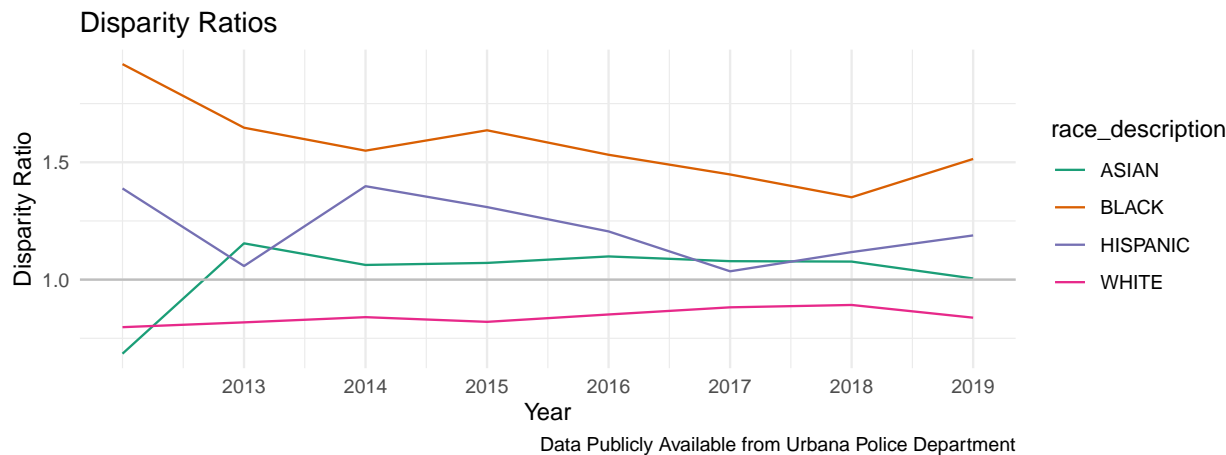


Figure 1: Disparity ratios by race by year

Accounting for the interaction between gender and race, we get:

Age Distributions

Picking joint bandwidth of 3.1

Picking joint bandwidth of 3.73

Picking joint bandwidth of 3.19

¹Insert citation here

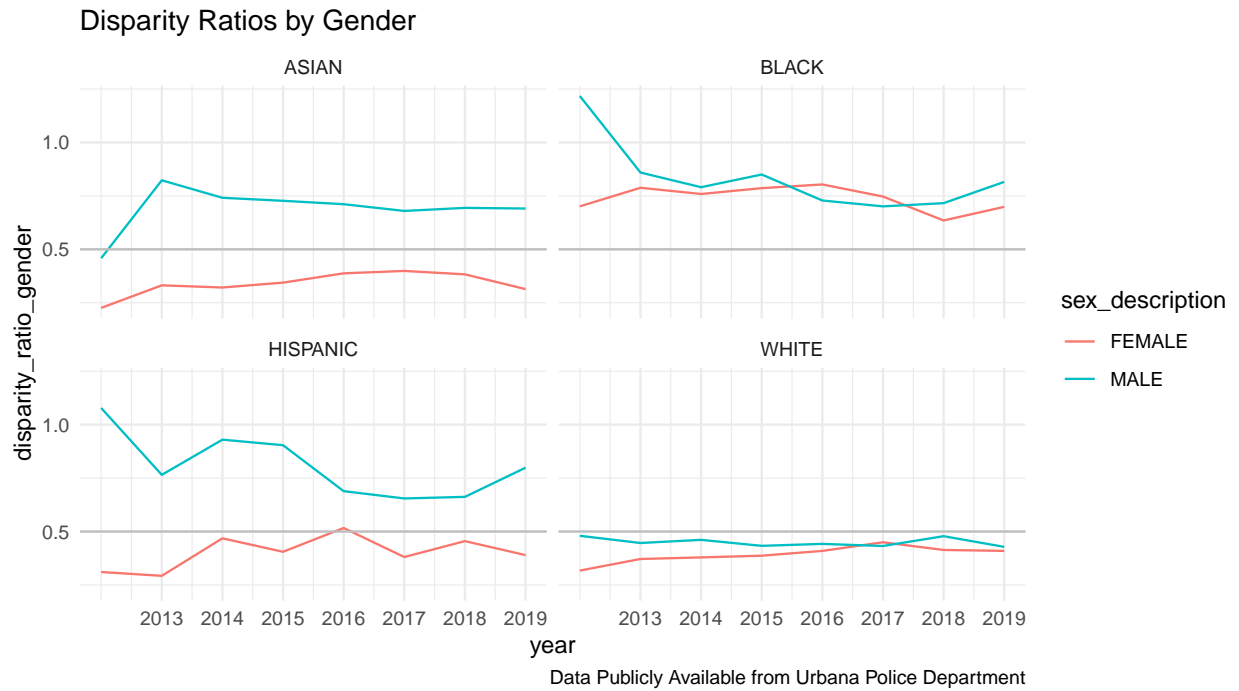
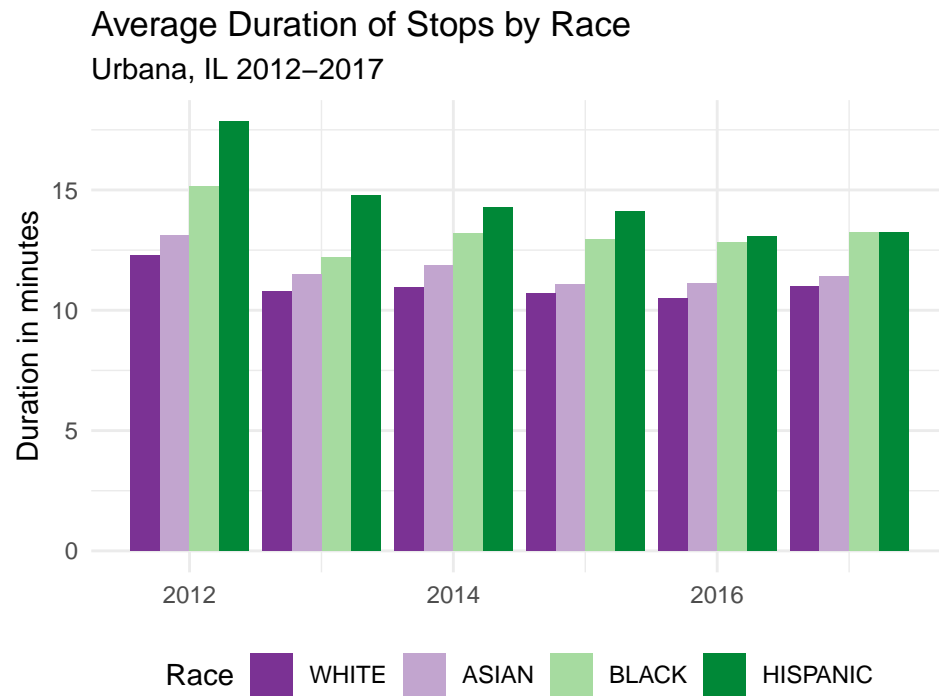
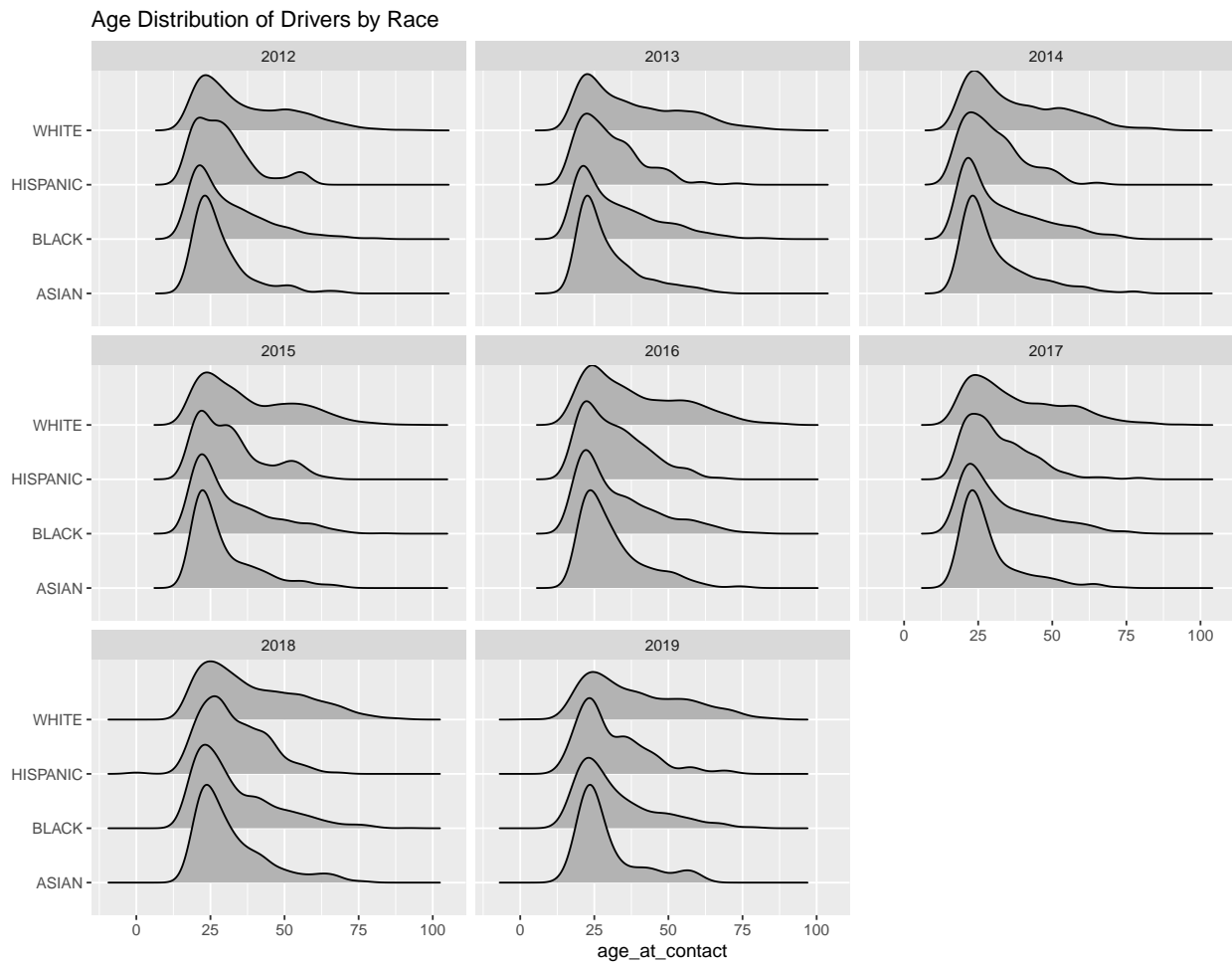


Figure 2: Disparity ratios by gender and race by year

Duration of Stops by Race





Data Publicly Available from the Urbana Police Department

Figure 3: Age distributions of stopped drivers by race

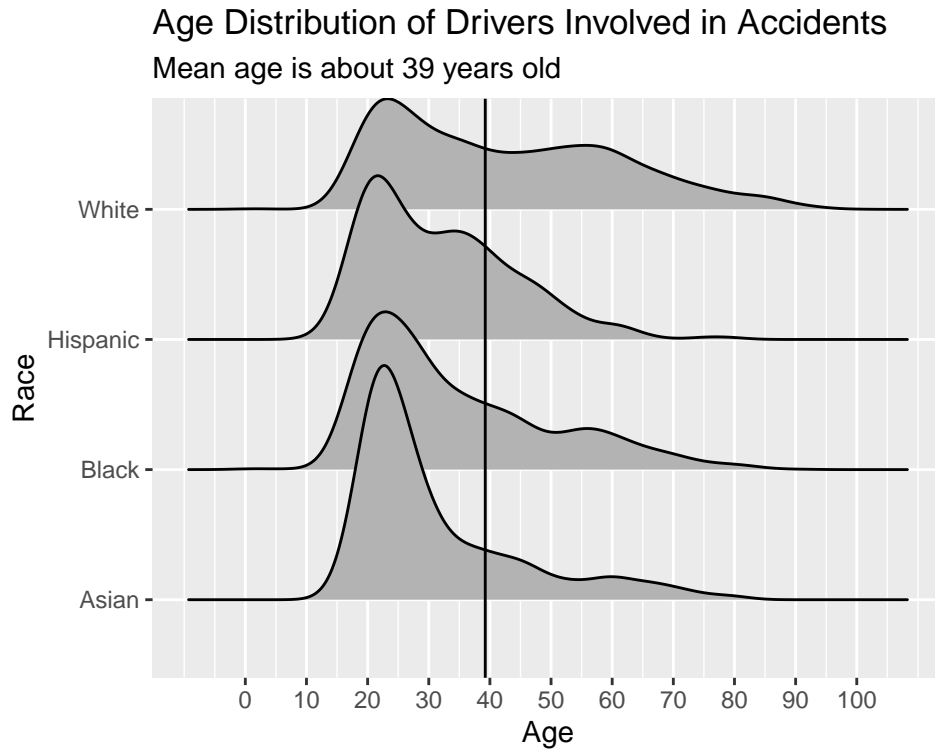


Figure 4: Age distribution of drivers in accidents

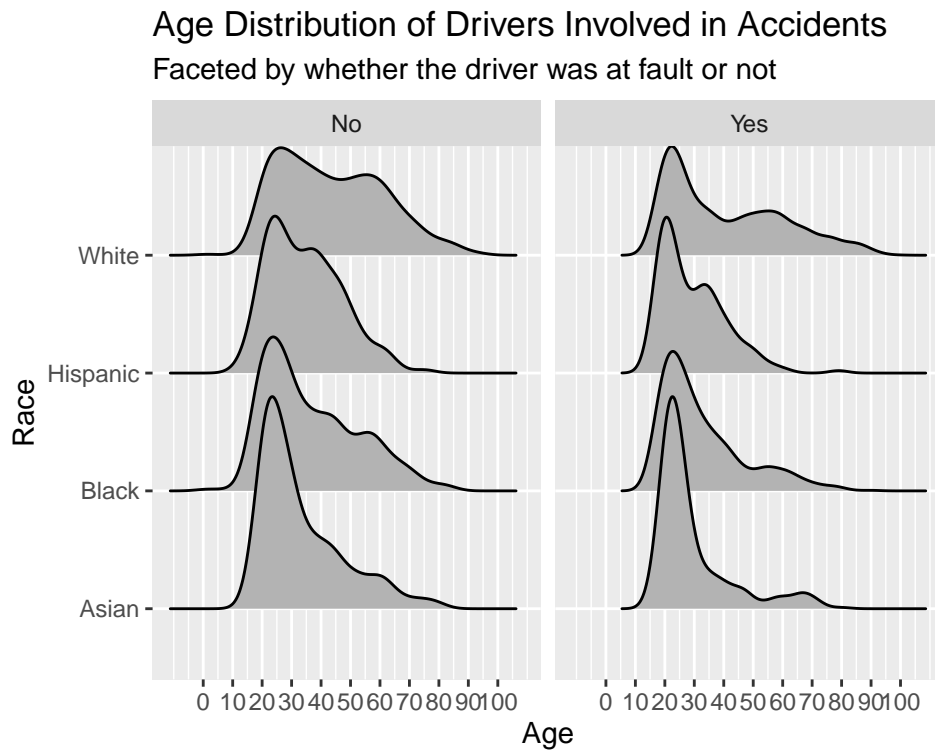
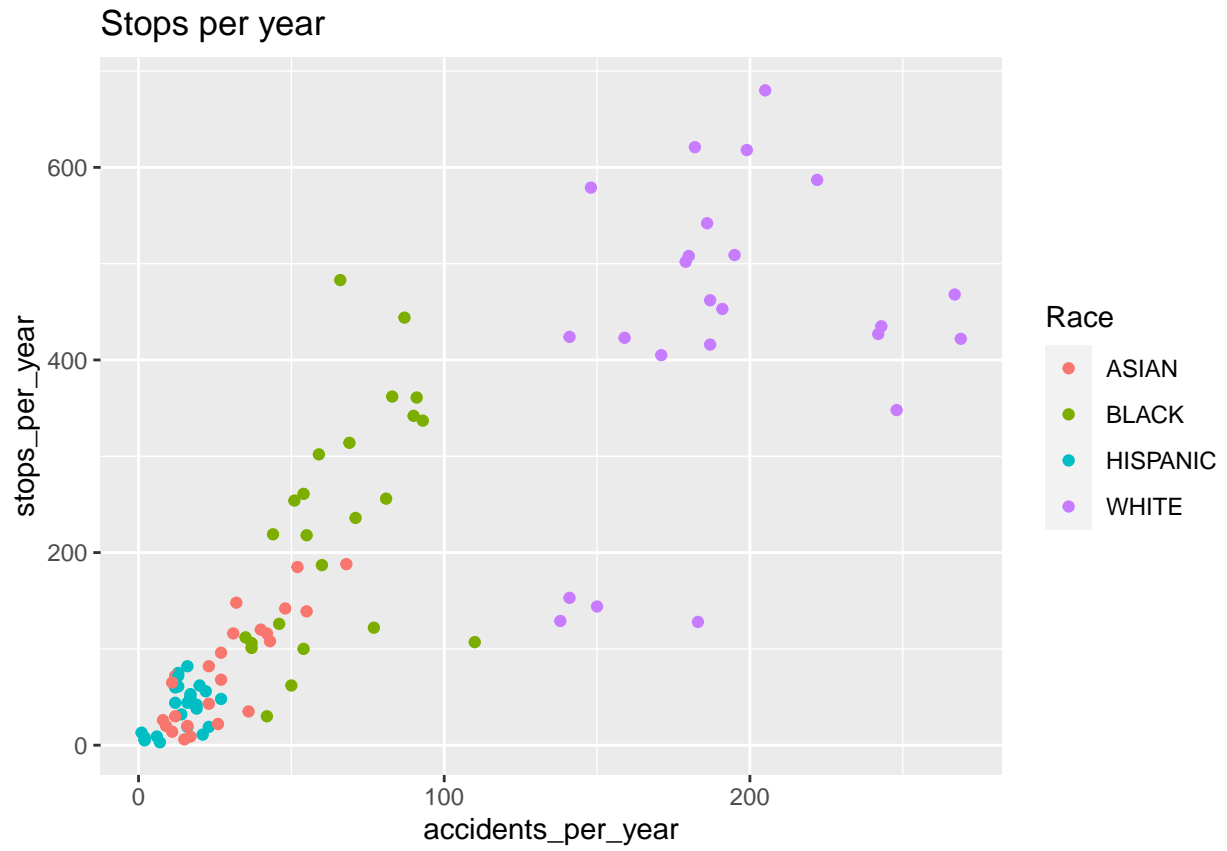
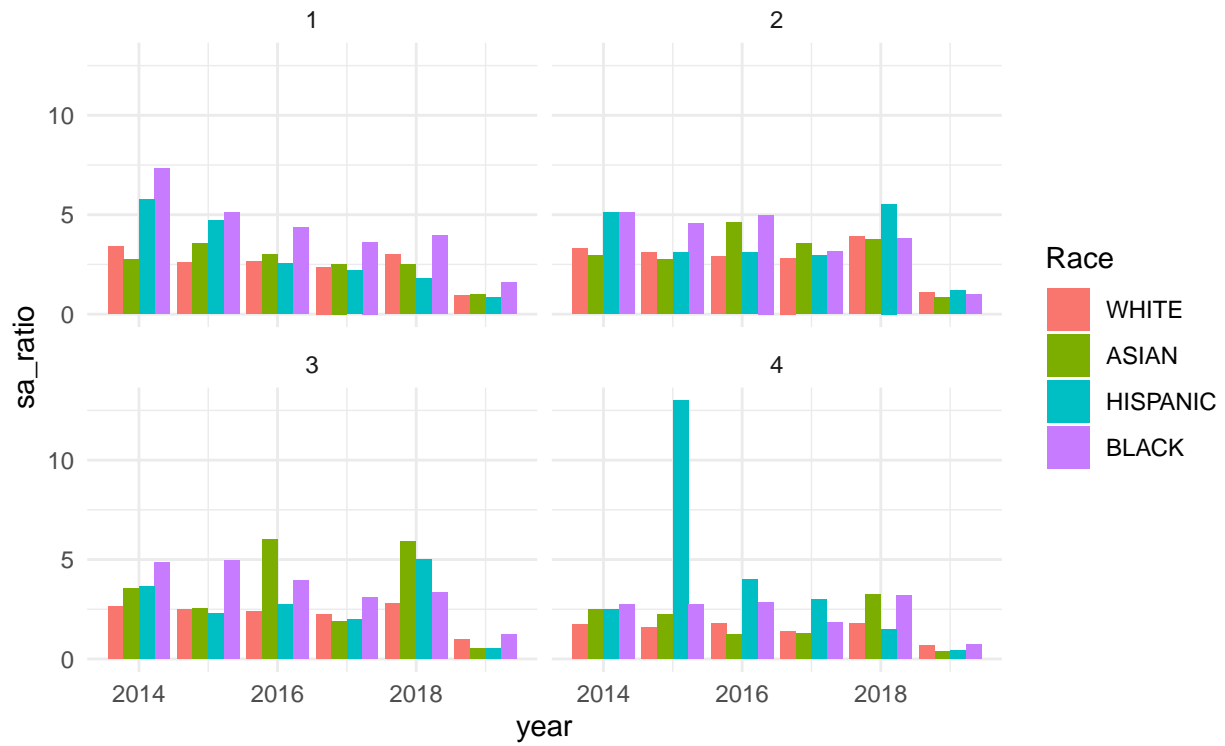


Figure 5: Age distribution of drivers in accidents



Ratio of Stops and Accidents

By age group and year



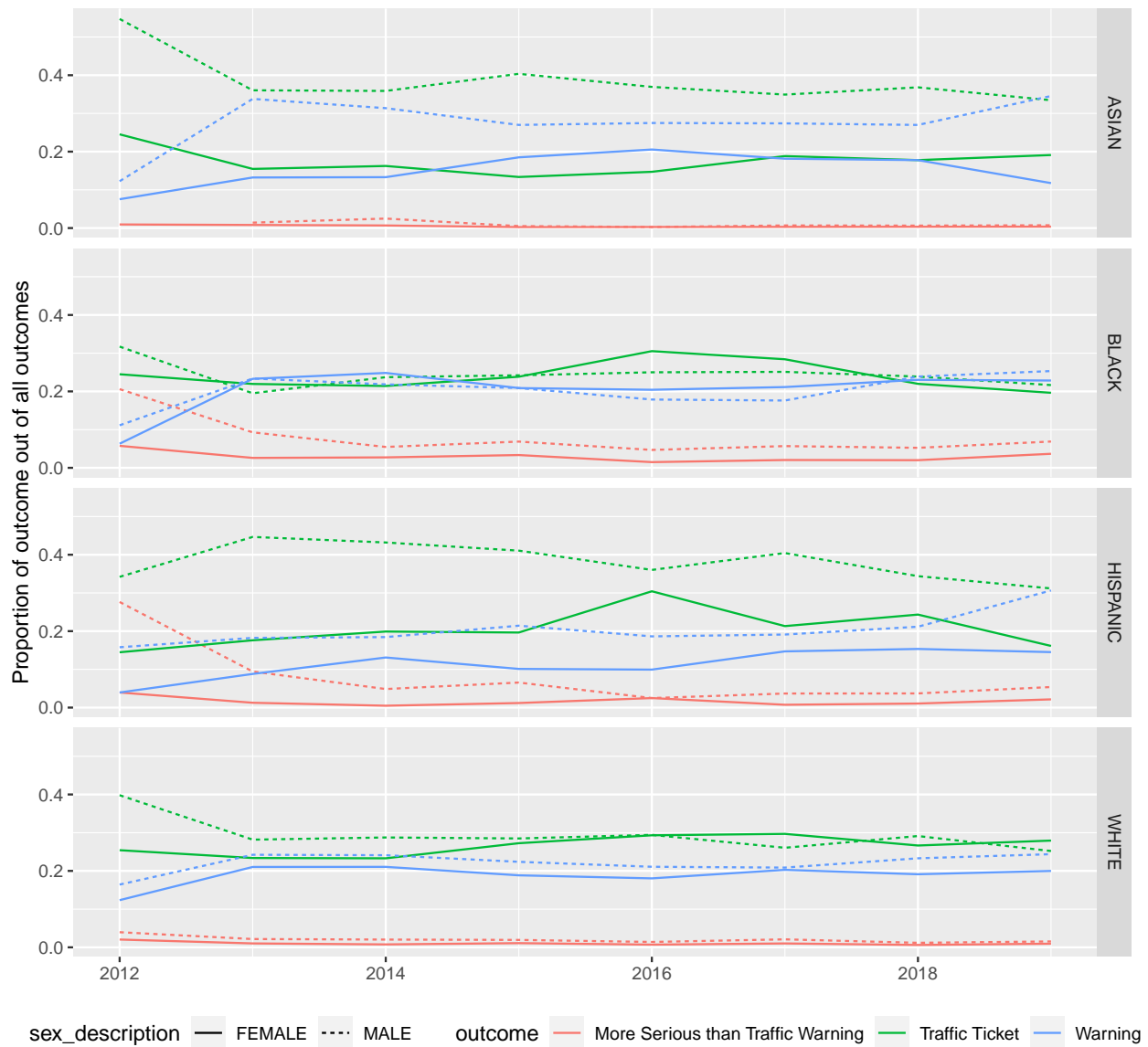
Traffic Stop Outcomes by Race

Proportions of tickets, warnings, and more serious outcomes by race



Traffic Stop Outcomes by Race

Proportions of tickets, warnings, and more serious outcomes by race and gender



Discuss: vertical vs horizontal variation for scatterplots and what that means; younger folks and ratios of being stopped vs being in accidents compared to the general trends of the age of drivers involved in stops; disparity ratios across gender/race and other factors (time of day?)

Methodology

Appendix

References

Take out 2020, take out ugly line graph of age

- UT: traffic ticket/citation

- UW: warning - warning ticket
- UU: more serious than a warning (DUI, warrant, etc) - a report had to be written for it.