



Equal Punishment for All: Evidence From 2018 Traffic Stop Data

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Introduction

- Since relations between the police and minority members across the United States have been tense as of late (Krieger, 2020), it has become ever more pertinent to examine interactions between the groups to validate or clarify assumptions currently held by the general public.
- A primary accusation towards law enforcement is that the police show bias towards certain racial groups over others (Lim, 2017). Surveys have shown that minority members report experiencing “more severe consequences and unfair treatment” compared to their white counterparts when it comes to police encounters (Dennison, & Finkeldey, 2021.)
- This paper will look at interactions between police and different racial groups during traffic stops for speeding violations to better understand the consequences of committing the same crime for multiple races.

Research Questions

- Is there an association between drivers receiving a punishment of speeding tickets or worse and their race?

Methods

Sample

- The sample from the racial profiling study consists of every single traffic stop recorded in the year 2018 located in the state of Connecticut and consisted of 1,016,722 participants. Given the legal age of driving in Connecticut is 16, and our research question is focused only on speeding related incidents, this paper's analysis only consists of 284,294 participants who met both of those criteria. Only 39.67% of the sample size is female, and the non-White drivers make up 18.27% of the sample size.

Measures

- Variable SubjectRaceCode measured driver race under the following variables: A=Asian, B=Black, W=White, I=Indigenous
- Variable SubjectSexCode measured driver sex as the following: 0=Female, 1=Male

Results

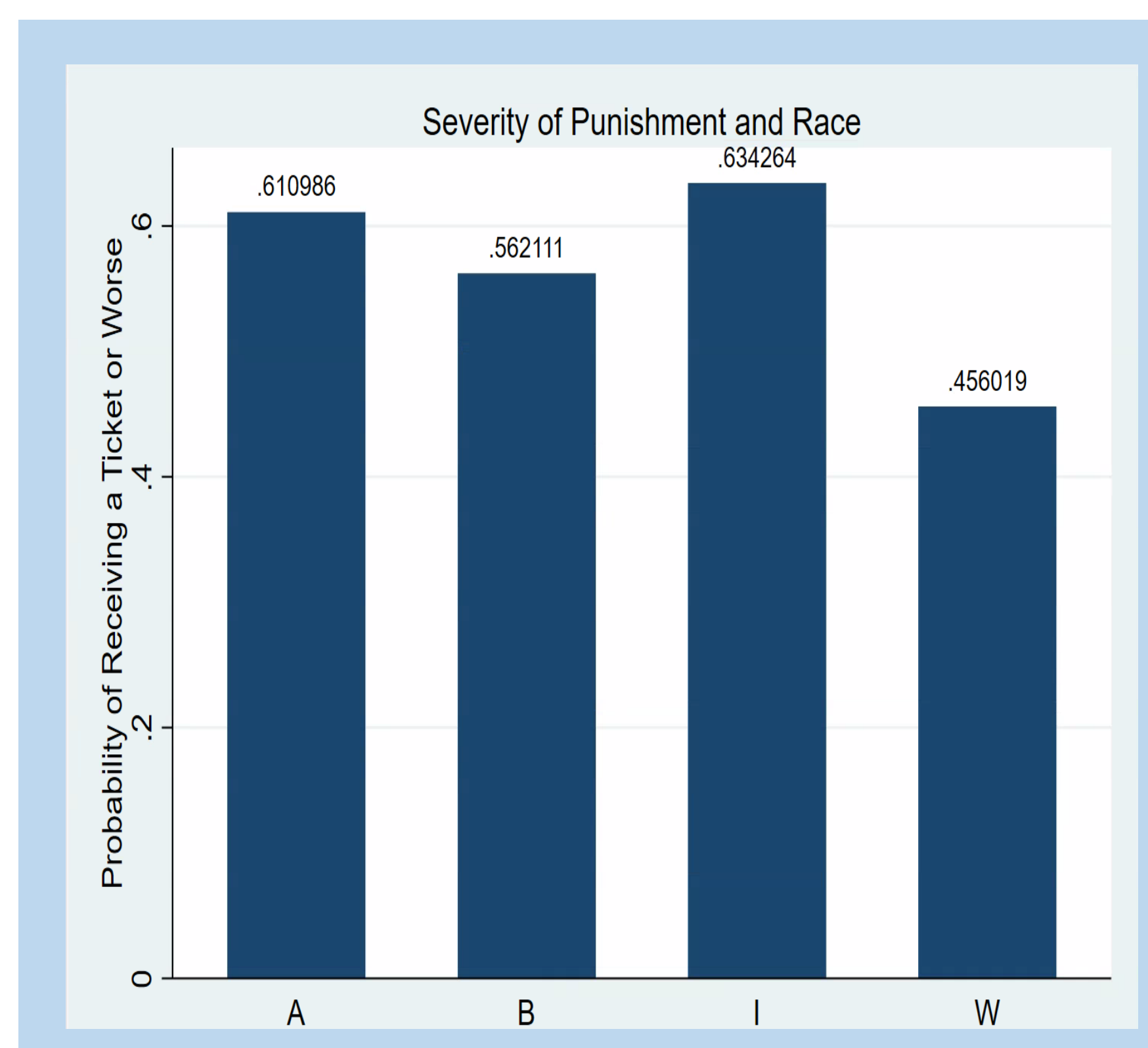
Univariate

- Sex: 40% female, 60% male
- Race: 82% White, 14% Black, 3% Asian, and 1% Indigenous

Bivariate

- A chi-square test of independence revealed that among 2018 drivers in CT who had been pulled over, race and receiving a ticket or worse as punishment were significantly associated. ($X^2 = 2.5e+03$, $p < 0.001$)

Figure 1. Drivers Race and Probability of Receiving a Ticket or Worse in 2018 CT



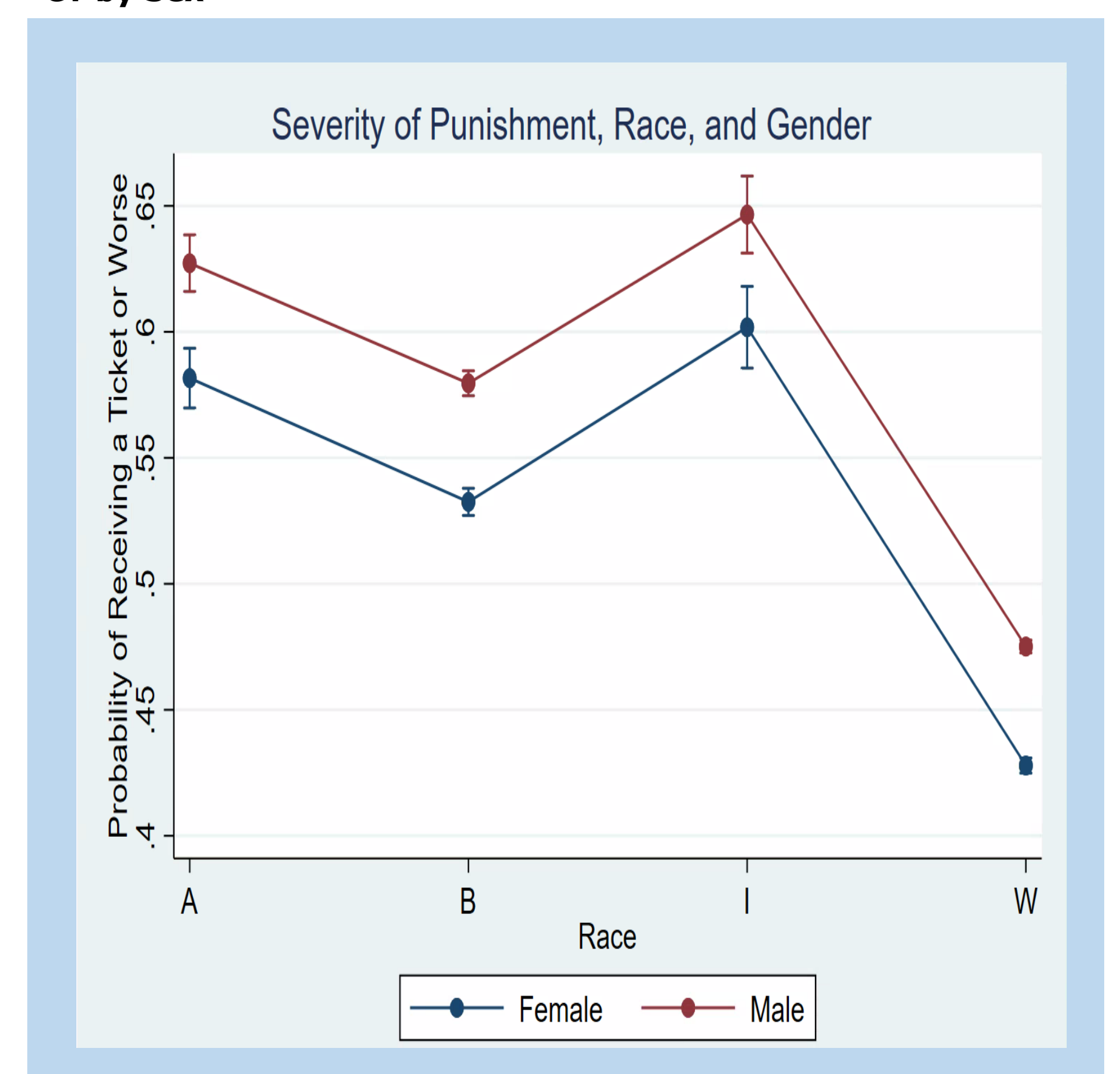
- The group with the highest rate of receiving a ticket or worse as punishment were the Indigenous drivers, followed by the Asian drivers, then Black drivers, and lastly white drivers.
- White drivers had significantly lower rates of receiving a ticket or worse as punishment than every other race group (Figure 1)

Multivariate

After accounting for sex (Figure 2) it was found that:

- Black drivers were significantly less likely to get receive a ticket or worse than Asian drivers ($OR = .82$, $p < 0.001$)
- White drivers were significantly less likely to receive a ticket or worse than Asian drivers ($OR = .54$, $p < 0.001$)
- Indigenous drivers were significantly more likely to receive a ticket or worse than Asian drivers ($OR = 1.09$, $p < 0.049$)

Figure 2. Driver's Race and Receiving a Ticket or Worse in 2018 CT by Sex



Discussion

- There is sufficient evidence to suggest that the race of the driver in Connecticut could predict the severity of the punishment of the traffic stop, with Indigenous male drivers having the greatest chance, and Asian male drivers having the second greatest chance.
- Regardless of sex, White drivers as a group have the lowest rate of receiving a ticket or worse.
- Females are consistently less likely to receive a ticket or worse than their male counterparts of their same race.
- Further experimentation and research is needed to test the possible remedies to these hypothetical organizational biases.