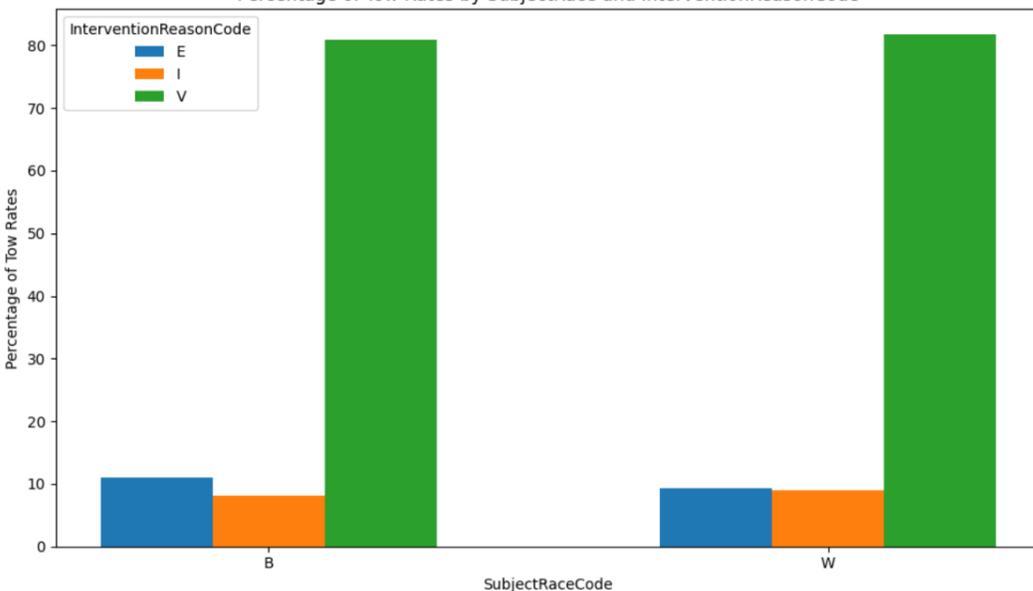


New York University – Marron Institute of Urban Management

Assessing Racial bias in traffic stops

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Percentage of Tow Rates by SubjectRace and InterventionReasonCode



A grouped bar chart for where I looked at the percentage of tow rates by race and the reason for being stopped in a bar chart.

Overview of the Data Fellowship

During my Data Fellowship I was hosted by The Marron Institute of Urban Management at New York University. This consisted of analysing 5 years worth of data (2018-2022) collected by police departments in Connecticut on Traffic Stops. My project aim was to assess to what extent there may be racial bias in traffic stops. In particular, looking at whether the law change on October 1st 2020 had an effect on racial disparities in traffic stops. The aim of the law change was to try and prevent traffic stops for no unwarranted reason, only being allowed to search a car if they have a probable reason to do so. To assess this question, I mainly looked at the tow rate of peoples cars and how this was affected by an individuals race, the reason for why they were stopped and the techniques used to stop that individual. I used Python programming language to code in Visual Studio Code.

Data Analysis

At the start, I looked at each datasets individually but eventually combined all 5 datasets into one single data frame to be able to identify patterns and trends across time. Through bivariate and multivariate analysis, I looked at basic descriptive statistics of the drivers race, ethnicity, age and sex, looking at how these changed when compared against other variables such as tow rate and the reason for being stopped. This involved me creating crosstabulations and converting counts into percentages. I filtered the data to show values for tow rate before and after the October 1st 2020 law change per race; presenting this in a line graph with a vertical line down the centre to represent the law change date.

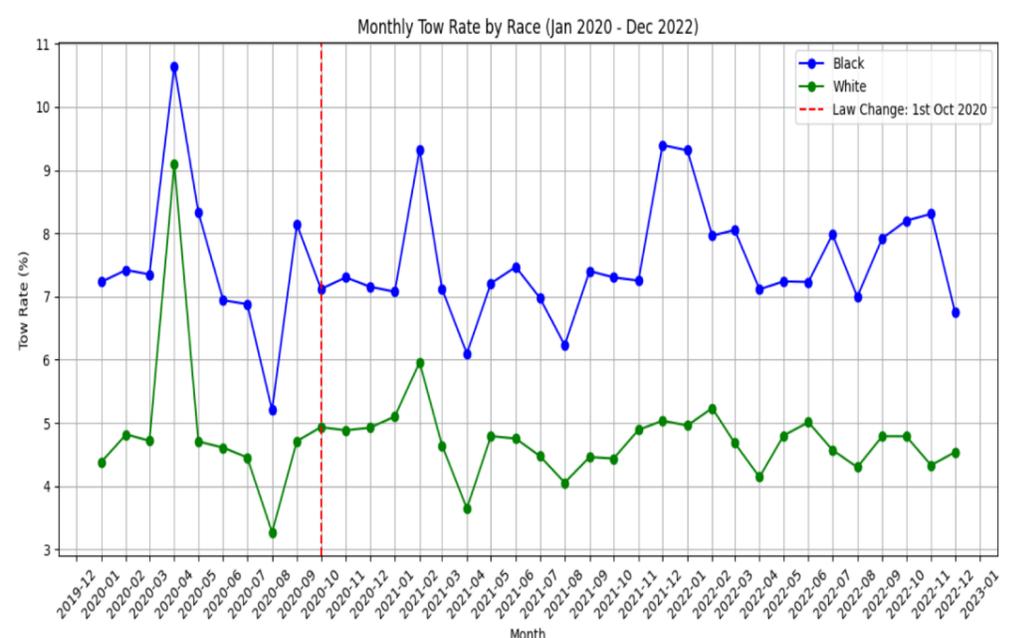
Findings

- I found that there was a higher tow rate percentage of people who are black, compared to white people. During some months, for example November 2022, almost double the amount of black individuals cars were towed (8.3%) in comparison to white people (4.3%).

- The graph I produced suggests it was more inconsistent for black people too, with larger, more frequent dips from January 2020 – December 2022.
- For both races, the most common reason for being stopped was for motor vehicle violations, contributing to 81.7% of reasons for being stopped for white people and 80.9% for black people.

Key Skills Learnt

- Manipulating, analysing and filtering data: this was a key skill which I had previously learnt on my University course, but during my data fellowship I developed it, using a different programming language; Python. I analysed and filtered data throughout the 8 weeks. An example of where I filtered data was when I wanted to look specifically at how an individuals race affected the reason for being stopped and if their car was towed away or not.
- Communication: whilst doing a data fellowship completely remotely and in different time zones, it made the reason for regular communication. Much more important. My skills of being able to communicate and ask questions confidently has grown massively over the 8 weeks.
- Time Management: I practiced good time management over the course of the data fellowship. The timetable consisted of having weekly meetings, where we would discuss the following week's tasks. This meant I had to efficiently manage my time so I could have tasks completed and therefore progress to the next ones.



Line graph, including data from January 2020- December 2022, with law change line down the center.