The Majestic Roadrunners
Data Science Seminar

Checkpoint 3 - Interactive Visualization

For this checkpoint Interactive visualization our goal is to iterate our analysis from the previous checkpoints by examining the Tactical Response Report(TRR) counts. We have tried to study the trend of TRR counts over the years with the attributes like civilian race and location. We have examined the data from the trr_trr_refresh table which is available from 2004 to 2020.

1. **What is the number of TRRs coming from different districts? Is there a trend in the number of TRR received over the years from these districts?**

   In the firearm related cases, we wanted to understand if we could find a relationship between the trend in TRRs with respect to the neighbourhoods and location. This would help us significantly in gaining insight about the locations that are particularly involved in frequent firearm cases. Moving on we look for the race of the population at these locations to identify if race plays a significant role in these cases.
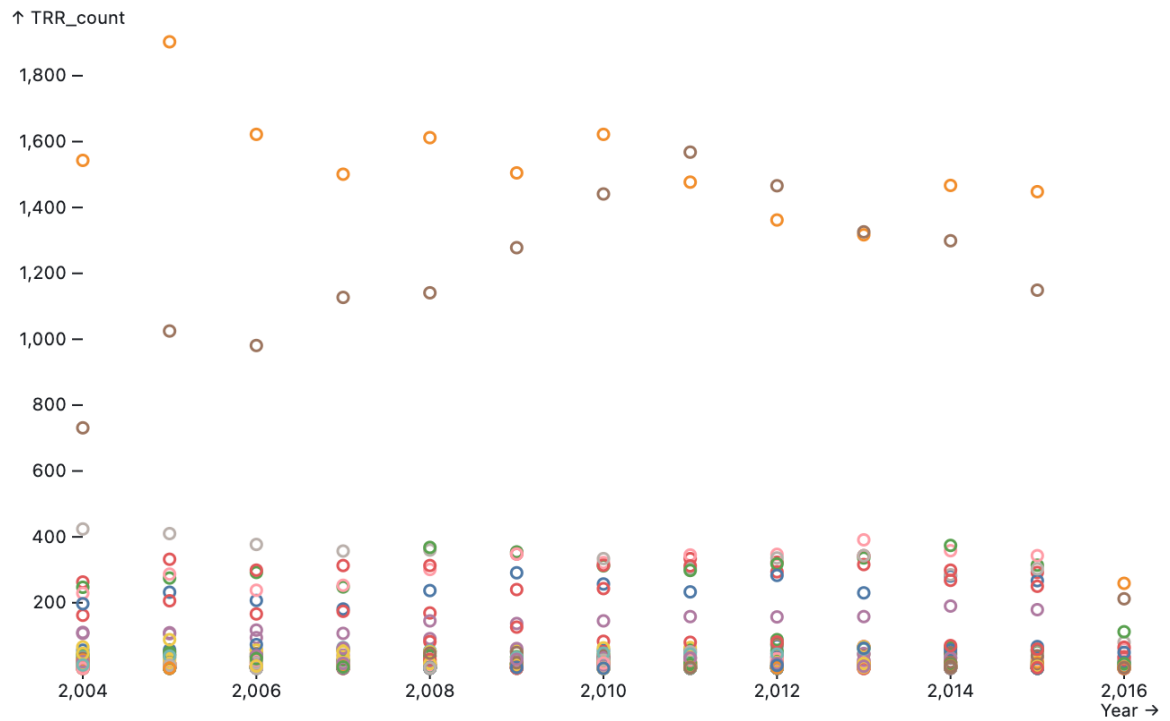
   Link: https://observablehq.com/@3d648a34c9857641/q1

Chart1: Allegation count relating to different Locations

2. **To observe if the districts from where the TRR percentage is higher is occupied predominantly by a particular race?**
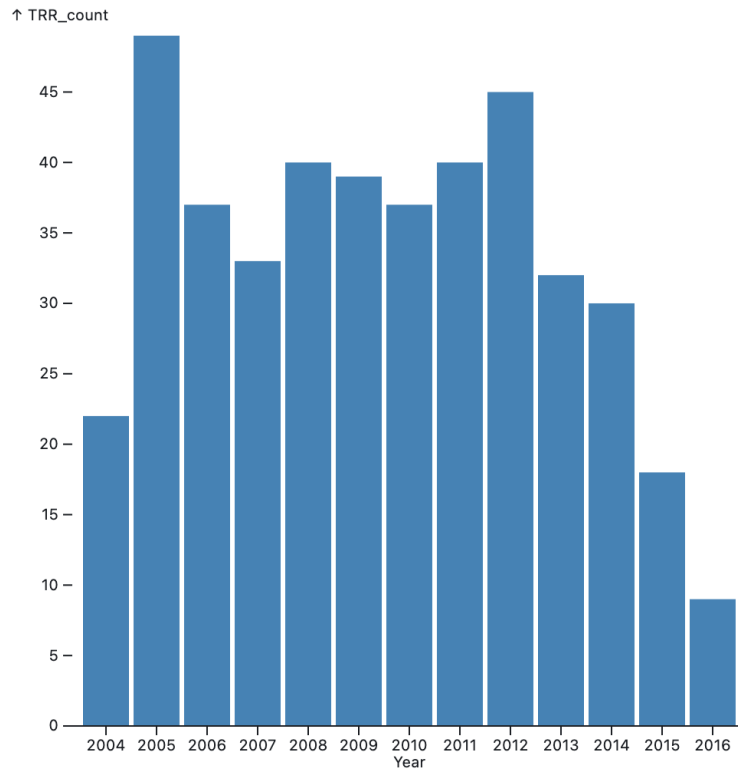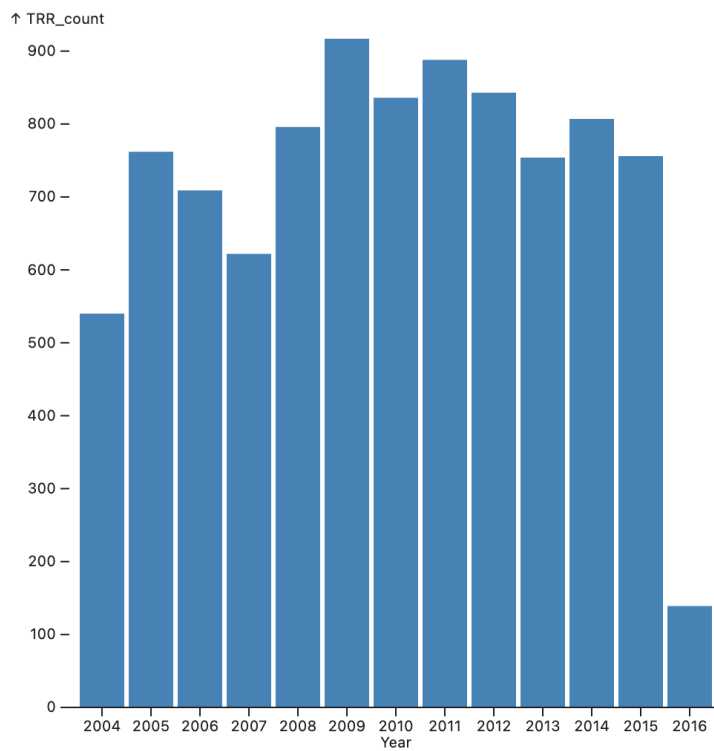
Chart2: Allegation count relating to Asians

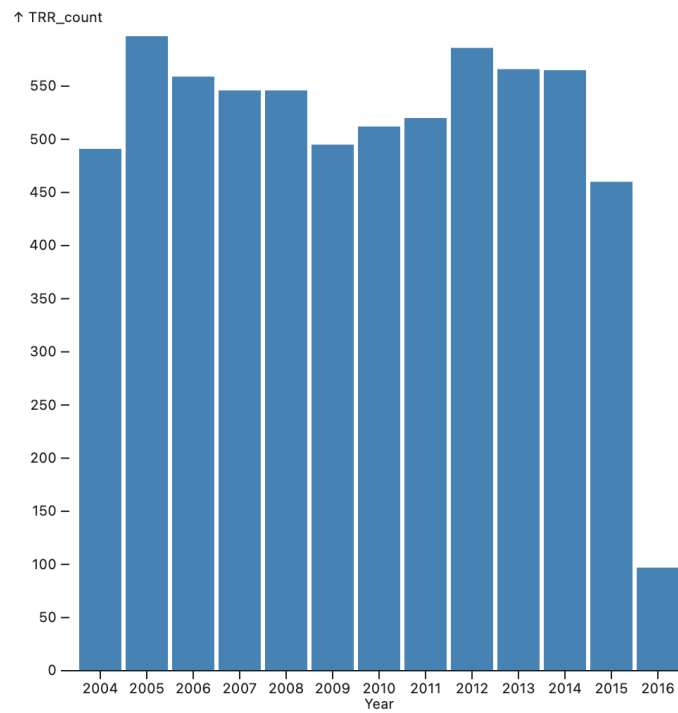*Chart3: Allegation count relating to Hispanic*
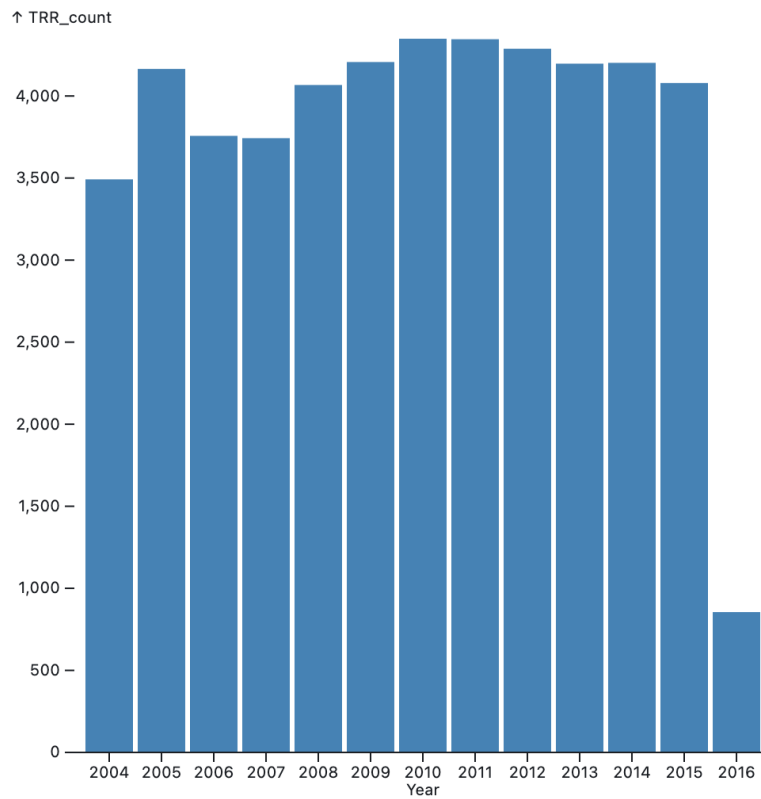
Chart4: Allegation count relating to White

Chart5: Allegation count relating to Black

As part of interactive visualization, we have used a search bar for selecting the Race of the Subject, to see the rise and fall in the number of allegations over the period of years. These are filtered on the basis of the firearm cases. After going through all the graphs, we observe that the subjects belonging to the Black community are the most affected ones in the cases where firearms are used. Though it is early to conclude, firearm cases predominantly occur in this community.

Link: https://observablehq.com/@3d648a34c9857641/q2

Conclusion

After seeing both the graphs, we can observe that the neighbourhoods where the black community resides is most targeted when it comes to the firearm cases. The previous checkpoints analysis also gave an insight that the most subject injuries for the firearm cases were happening to black young adults aged between 18-27 years. This observation is alarming, and sad. We are still not able to conclude why this community is being targeted or if it is motivated because of racial bias as there is no substantial data available in CPDB that proves the racial bias among these cases. But the numbers that we see compel us to conclude that racial bias plays a crucial role in all such cases and is a deep rooted problem.