

Checkpoint 1: SQL Analytics Findings

The Freedom Deer: Tianchang Li, Hualiang Qin, Qingwei Lan

October 13, 2021

The main goal of our research is to investigate the conditions under which police officers tend to use force on civilians. Specifically we believe that race and environmental conditions play a critical role in this, therefore in this report, we utilized SQL to analyze and answer some important questions.

The questions are split into sections and each section contains multiple questions.

Note that all `.sql` files can be run with `psql cpdb cpdb < filename.sql`.

1. Information about Victims and Officers

We would like to first gather some information about the officers and victims in the use of force cases. The data in this section is taken from the `trr_trr` and `data_officer` datasets.

1a. What is the racial distribution of the victims involved in cases of use of force?

SQL file: `1a.sql`

Results:

subject_race	count
Black	49747
Hispanic	9369
White	6540
Asian/Pacific Islander	431
Native American/Alaskan Native	54

From the results, we can see the race distribution of the subjects involved in use of force cases. As we can see, black subjects are most common.

1b. What is the racial distribution of police officers involved in these cases?

SQL file: `1b.sql`

Results:

officer_race	count
White	38731
Hispanic	15064
Black	10599
Asian/Pacific	2028
Native American/Alaskan Native	310

From the results, we can see the race distribution of police officers involved in use of force cases. At the top is white police officers.

1c. What portion of the total use of force cases involves an officer that is of a different race than that of the victim (cross-race use of force)?

SQL file: 1c.sql

Results:

cross_race_percentage
0.732046

Based on the results, we can see that cross-race use of force cases make up 73.2% of total use of force cases.

1d. What portion of the cases in use of force cases contained firearm usage.

SQL file: 1d.sql

Results:

firearm_used_percentage
0.0153

Based on the results, we can see that only 1.5% use of force cases involved the usage of firearms.

1e. What are the percentages of use of force cases grouped by officer race and subject race? (i.e. what is the percentage of white officers using force on black subjects)

SQL file: 1e.sql

Results:

percentage	officer_race	subject_race
0.416733	White	Black
0.157269	Hispanic	Black

0.141796	Black	Black
0.083096	White	Hispanic
0.065161	White	White
0.043256	Hispanic	Hispanic
0.020457	Hispanic	White
0.019950	Asian/Pacific Islander	Black
0.008147	White	
0.006923	Black	White
0.006849	Black	Hispanic
0.005536	Asian/Pacific Islander	Hispanic
0.004238	White	Asian/Pacific Islander
0.003969	Asian/Pacific Islander	White
0.003357	Native American/Alaskan Native	Black
0.002552	Hispanic	
0.001805	Black	
0.001044	Hispanic	Asian/Pacific Islander
0.000731	Black	Asian/Pacific Islander
0.000627	Native American/Alaskan Native	Hispanic
0.000537	White	Native American/Alaskan Native
0.000463	Native American/Alaskan Native	White
0.000418	Asian/Pacific Islander	Asian/Pacific Islander
0.000358	Asian/Pacific Islander	
0.000194	Hispanic	Native American/Alaskan Native
0.000179	Native American/Alaskan Native	
0.000045	Black	Native American/Alaskan Native
0.000030	Asian/Pacific Islander	Native American/Alaskan Native

The results give us a high level overview of the racial distribution of both subjects and police officers in all the use of force cases. A cursive scan shows us that 41% of all cases come from white police officers' use of force on black subjects. Further analysis shows that cases with black subjects make up 71.58% of all use of force cases.