CP3: Findings

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In our project, we are trying to analyze the North vs. South sides of Chicago police complaints data to investigate the correlation between racial differences and police violence. For this checkpoint, we wanted to investigate the following two questions using interactive visualizations:

1. **What is the distribution of complaint categories across the North and South of the city? Then, within those categories, how many complaints involved using weapons or firearms by police officers?**

   Answering this question will help us understand the most frequent police misconduct types in the north vs. south sides of Chicago. This will also implicitly show whether police officers are behaving more violently in the south vs. the north sides.

2. **What is the distribution of police misconduct allegations (total count and per capita values) per police district across the North and South of the city? Then, what is the racial distribution of the civilian community and police officers per given police district?**

   Answering these questions will shed light on whether there is more police violence misconduct in various neighborhoods across the North and South of the city. It will also allow us to understand whether there is any correlation between racial distribution and police violence levels.

To answer the first question, we used two bubble maps representing the North and South sides of the city, where larger bubbles represent the more prominent category. Once you click on the bubble, you will see a popup with the category name, subcategories breakdown and associated reported values, and the number of cases that involved gun use by police officers. To answer the second question, we will use a choropleth map of Chicago structured by police districts. When you click on the police district, you will see a pop-up that will include such information as the name of the police district, total count or per capita value of the police misconduct allegations, and racial distribution of police officers or the civilian community.

Insights From the Visualization for Q1:

Our bubble map shows that the top three complaint categories in the North are: Operation/Personnel Violations, Use of Force, and Verbal Abuse. Similarly, in the South, the top

three complaint categories are Operation/Personnel Violations, Use of Force, and Illegal Search. Overall, our findings show that the distribution of complaint categories across the city is pretty similar except for a few categories with swapped places. It is, however, disturbing that Use of Force is the second most frequent complaint category for both sides of the city and is worth taking into account for potential future policy change proposals. Then, upon manual inspection, we can see that most police misconduct incidents did not involve the use of weapons or firearms by police officers. However, not surprisingly, the category that had significant numbers of incidents that involved firearms was "Use of Force." Overall, we can observe pretty similar numbers across both sides of the city.

Insights From the Visualization for Q2:

Our chloropleth map shows that there are more police misconduct allegations (both total count and per capita values) in the South side of the city as opposed to the North side of Chicago. Furthermore, it was interesting to see that in the North side of Chicago, for the majority of police districts, the racial distribution of the police officers roughly matched that of the civilian community: predominantly White districts had more white police officers, predominantly Hispanic districts had more hispanic police officers, etc. However, the 25th police district is an exception. Despite it being populated predominantly by Hispanic community (66.37%) with the White community being a minority (14.66%), the police force of this district was dominated by White police officers and accounted for 56.25% of the force.

When it comes to the police districts in the South of Chicago, the situation looks slightly different. The disparities between the racial distribution of civilian community has drastic differences than that of the police force. For instance, the 7th district, which has reported one of the highest per capita value of police misconduct allegations, is predominantly populated by the Black community (96.79%) with the White community being a very small one (0.37%). However, its police force consists mostly of White officers (46.34%). These results makes us ponder how such a huge disparity is possible in the first place, and whether there is any correlation between the racial factor and police misconduct. Therefore, this relationship should be further researched.