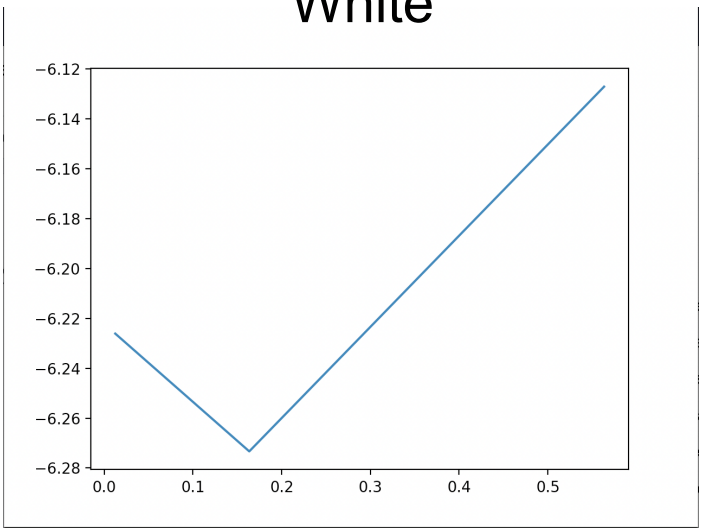
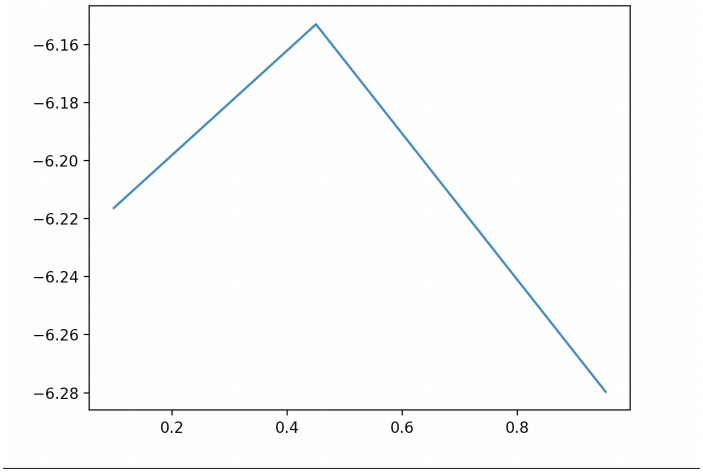
For our checkpoint 5 we wanted to analyze the sentiment of complaints narratives specifically in relation to the proportion of Black residents in the neighborhood. As we have seen throughout our project, statistically significant discrepancies exist in the way different racial groups are policed–in particular we have observed Black residents are far more likely to be victims of police misconduct. With this checkpoint we wanted to investigate how officers perceive interactions with the residents who have submitted complaints about them through their complaint narratives. After running the sentiment analysis for White, Black, Hispanic and Asian residents, we have the following four graphs with the proportion of residents that are the selected race on the x-axis and the mean sentiment for the selected race on the y-axis:

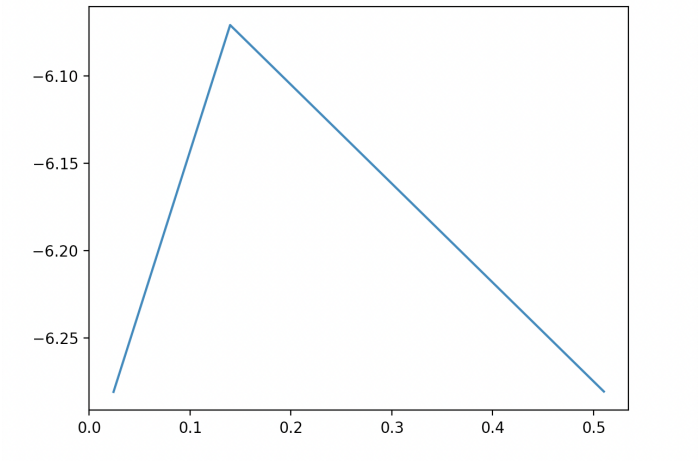
White



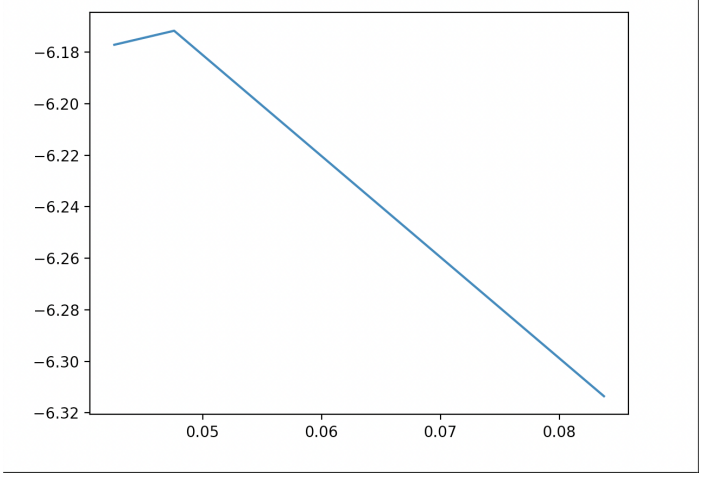
Black



Hispanic



Asian



I will be focusing primarily on the White, Black, and Hispanic data as they make up the majority of Chicago's population. Neighborhoods in Chicago only range from 0-8% Asian, so without sufficient data no correlative conclusions can be drawn. Overall, complaints have negative narratives with none reaching about -6, but this is expected as they are complaints being filed using supposedly strict, unbiased language. Thus we would expect the sentiments to be relatively negative to begin with. In the White data, the average sentiment of the complaints starts low reaching about -6.275 around 17% white and then trends upward from there. Thus, we observe neighborhoods with higher proportions of White residents have more positive average sentiments from the police and sentiment increases positively as the proportion fo White residents increases. The slight decrease in sentiment from 0%-17% White neighborhoods can most likely be explained by the officers perception of the neighborhood as a whole. Although the individual is White, the officer's perception of the neighborhood most likely influences the complaint narrative written by the officer.

In the Black and Hispanic data we see similar trend lines. Both start with relatively negative average sentiments, then have a peak and a sharp decline. For Hispanic residents, the sentiment value peaks around -6.7 at a Hispanic proportion of 12%. For Black residents, the sentiment peaks around -6.15 at a Black proportion of 43%. After the peak both Hispanic and Black residents have declines in their average sentiment value to around -6.28. However this happens for Hispanic residents around 0.5 on the x-axis whereas it happens to Black residents around 0.8 on the x-axis. Although it happens later for Black residents, in both the Black and Hispanic graphs, have the lowest average sentiment at the highest represented x value indicating a strong negative correlation between sentiment and the complainant race.

Again we see a targeting of racial minorities by the Chicago police department. Interestingly this targeting is not only against Black residents, but also Hispanic residents suggesting a stronger White vs non-White correlation instead of the Black vs non-Black relationships we have analyzed previously. Additionally, it is possible their complaints are not

deliberately more negative towards non-white residents. Instead, officers subconsciously use more negative language towards non-White residents. If this were the case it would reveal a larger picture of systemic prejudices held by the officers as the prejudices they project are subconscious. Another interesting observation is the decreasing portion of the White trendline from around 0.0 to 0.7. Because Chicago remains highly segregated, it is possible the sample size in neighborhoods with less than 10% of residents identifying as White is very small leading to this oddity. However, no clear answer exists.