

NYPD Officer Misconduct Analysis

**PUBLIC SAFETY LAB
NEW YORK UNIVERSITY**

September 2020

ABOUT THE PUBLIC SAFETY LAB

The Public Safety Lab at New York University uses the tools of data science and social science to support communities' efforts to improve both equity and efficiency in public safety outcomes. Our work is supported by New York University's Global Institute of Advanced Studies, Arnold Ventures, the Chan Zuckerberg Initiative, the Pew Charitable Trusts, and the William T. Grant Foundation. More information may be found at www.publicsafetylab.org.

Communities and agencies interested in working with the Public Safety Lab can contact us at publicsafetylab@nyu.edu, or follow us at [@publicsafetylab](https://twitter.com/publicsafetylab).

ACKNOWLEDGMENTS

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Suggested Citation

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Executive Summary

- This report benchmarks the recently released data on NYPD officer misconduct complaints filed with the Civilian Complaint Review Board (CCRB) to city-year data on numbers of sworn NYPD officers between 1986-2018, and to precinct-year data on the number of annually reported crimes between 2006-2019, to identify years and precincts in which complaint volume (both for all complaints and for those complaints declared "substantiated" by the CCRB) was both higher and lower than expected values. At the precinct level, we further explore factors that may be related to these "excess" levels of officer misconduct.
- We find that increases in the number of sworn NYPD officers per year are associated with increases in both all and substantiated misconduct complaints per year; these associations are significant at $p < .01$. The annual number of misconduct complaints was lower than expected between 1995-2001, a period during which reported crime fell by 51%. Misconduct complaint volume was higher than expected between 2004-2011, a period during which reported crime fell by only 16%. The latter period of atypically high misconduct complaint volume coincides with the period during which the practice of stop and frisk grew to peak levels. These findings may allow policy makers to identify citywide policing practices that can promote increases in public safety while minimizing officer misconduct.
- We find that increases in the average number of reported crimes per precinct-year are associated with increases in the average number of both all and substantiated misconduct complaints per precinct-year; these associations are significant at $p < .001$. We identify precincts with numbers of complaints and substantiated complaints between 2006-2019 both lower and higher than expected, given precinct-level reported crime volume over the same period. The identification of precincts with atypical levels of misconduct may allow policy makers to identify policing practices that are associated with officer misconduct.
- We find that increases in the average number of reported crimes per precinct-year are also associated with increases in the average number of stops per precinct-year; these associations are significant at $p < .001$. We define "excess" misconduct as the difference between the observed volume of misconduct complaints (both all and substantiated) and the volume one might predict, given reported crime volume, and "excess" stops as the difference between the observed volume of stops and the volume one might predict, given reported crime volume. We find that precincts with higher numbers of excess stops had higher levels of excess misconduct complaints, both all and substantiated, between 2006-2019. This finding suggests that reducing excess stops may also reduce excess officer misconduct.
- We find that precincts with misconduct complaints, both all and substantiated, that were more concentrated among smaller numbers of officers had higher levels of excess

misconduct complaints, both all and substantiated, between 2006-2019. This finding suggests that reducing the misconduct of officers with the largest numbers of misconduct complaints may also reduce excess misconduct overall.

- We find that precincts with higher percentages of Black residents had higher levels of excess misconduct complaints, both all and substantiated, between 2006-2019. Precincts with higher percentages of non-Hispanic white and Asian residents had lower levels of excess misconduct complaints, both all and substantiated, between 2006-2019. This finding suggests a need for policy makers to address racial disparities in the experience of officer misconduct.
- Precincts with higher percentages of Black residents experienced not only disproportionately high levels of excess misconduct complaints between 2006-2019 (both all and substantiated), but also disproportionately high levels of excess stops, and misconduct committed by disproportionately fewer officers. This finding suggests a need for policy makers to address excess stops, misconduct being committed by those officers with the largest numbers of misconduct complaints, and excess misconduct in the precincts with the largest percentages of Black residents.

Introduction

In the wake of George Floyd's death at the hands of officers of the Minneapolis Police Department, New York State repealed Section 50-a of its civil service law, permitting law enforcement agencies to shield personnel records from public disclosure. The New York Civil Liberties Union recently made available 323,911 misconduct complaints filed against officers of the City of New York Police Department (NYPD) with the Civilian Complaint Review Board (CCRB), released in the wake of Section 50-a's repeal. This report benchmarks complaints and substantiated complaints to city-year data on numbers of sworn NYPD officers, and to precinct-year data on numbers of reported crimes, to identify years and precincts in which numbers of complaints and substantiated complaints deviated from their expected values. At the precinct level, we further explore factors that may be related to these "excess" levels of officer misconduct (in both the positive and negative directions).

Citywide numbers of complaints and substantiated complaints per year are first benchmarked to citywide numbers of sworn NYPD officers per year between 1986-2018. We find that increases in the number of sworn NYPD officers per year were associated with increases in both all and substantiated misconduct complaints per year; these associations are significant at $p < .01$. Notably, misconduct complaint volume was lower than expected between 1995-2001, a period during which reported crime fell by 51%, and higher than expected between 2004-2011, a period during which reported crime fell by only 16%. The latter period coincides with the period during which the practice of stop and frisk grew to peak levels (Mummolo 2018).

We then benchmark precinct-level numbers of complaints and substantiated complaints per year between 2006-2019 to precinct-level reported crimes per year between 2006-2019. We find that increases in the average number of reported crimes per precinct-year were associated with increases in the average number of both all and substantiated misconduct complaints per precinct-year; these associations are significant at $p < .001$. We identify precincts with lower and higher numbers of complaints and substantiated complaints than expected, given reported crime volume.

We find that increases in the average number of reported crimes per precinct-year are also associated with increases in the average number of stops per precinct-year; these associations are significant at $p < .001$. We define "excess" misconduct as the difference between the observed volume of misconduct complaints (both all and substantiated) and the volume one might predict, given reported crime volume, and "excess" stops as the difference between the observed volume of stops and the volume one might predict, given reported crime volume. We find that precincts with higher numbers of excess stops had higher levels of excess misconduct complaints, both all and substantiated, between 2006-2019.

We further find that precinct-level excess complaints and substantiated complaints between 2006-2019 were associated with the distribution of complaints and substantiated complaints across accused officers. Precincts with complaints and substantiated complaints that were more concentrated among a smaller number of officers had more excess complaints and substantiated complaints. These associations are significant at $p < .001$.

We also find that precinct-level excess complaints and substantiated complaints between 2006-2019 were associated with precinct-level demographics, as reported in the 2010 Census. Precincts with higher percentages of Black residents had higher levels of excess complaints and substantiated complaints between 2006-2019. Precincts with higher percentages of non-Hispanic white and Asian residents had lower levels of excess complaints and substantiated complaints between 2006-2019. These associations are significant at $p < .001$.

Finally, we find that precincts with higher percentages of Black residents experienced not only disproportionately high levels of excess misconduct complaints between 2006-2019, but also disproportionately high levels of excess stops and misconduct committed by disproportionately fewer officers. We conclude with a discussion of the potential implications of our findings for policies leading to reductions in officer misconduct.

We note that data limitations preclude us from reporting findings at the level of individual officers or complainants. We cannot determine from the CCRB data an officer's duration or location of service for the NYPD. We also have no data on officers against whom no misconduct complaints have been filed. Thus, we cannot comment meaningfully on the relative behavior of individual officers. Additionally, we note that the CCRB data report neither unique complainant identifiers, nor any information about officer or complainant demographic characteristics.

All data and code used to produce these findings may be found at <https://github.com/publicsafetylab/PSL-CCRB>.

NYPD Misconduct Complaints Over Time

Of the 323,911 officer misconduct complaints in the CCRB database, 53,493 complaints do not report an incident date. Of the 270,418 complaints with incident dates, we restrict our attention to the 267,588 complaints made between 1986 and 2019, the years for which there appear to be complete yearly records of complaint data. We merged these complaint data with annual citywide data on the numbers of sworn NYPD officers and the numbers of offenses known to law enforcement between 1986-2018, sourced from the [FBI's Uniform Crime Reporting series](#).

Figure 1 reports the total numbers of all complaints and of complaints adjudged by the CCRB to have been "substantiated" between 1986 and 2019, for those complaints with an incident date. The y-axis for all complaints is scaled to range from 0 - 12,000; the y-axis for substantiated complaints is scaled to range from 0 - 1,000.

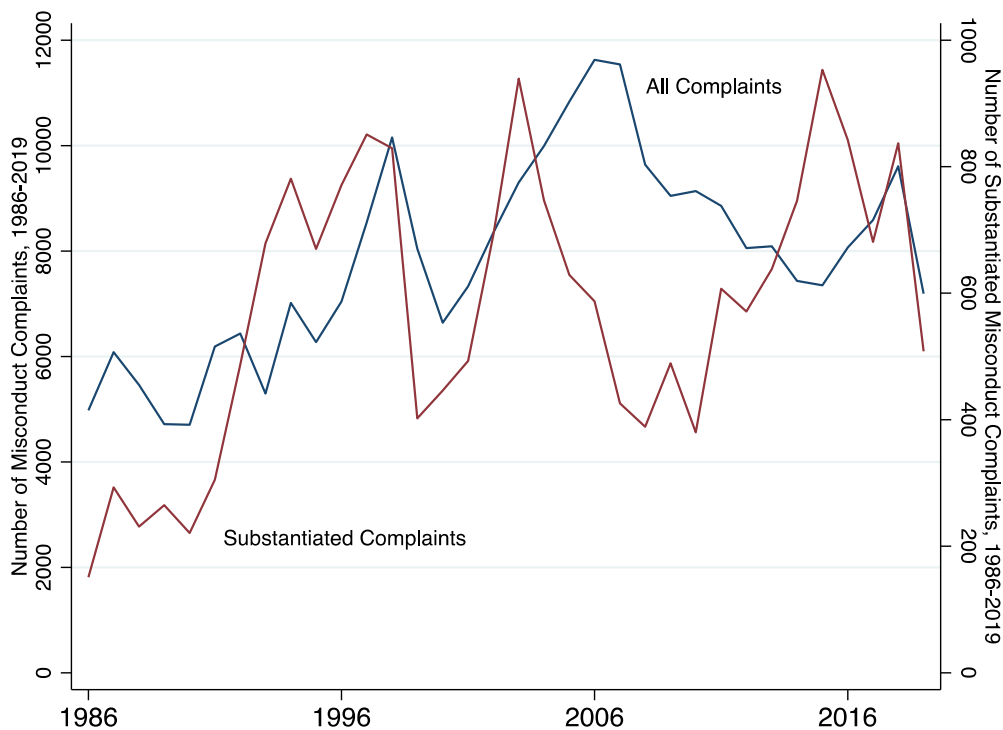


Figure 1

The volume of all complaints and the volume of substantiated complaints have both risen over time. Complaints rose from 4976 in 1986 to 7191 in 2019, an increase of 44.5%. Substantiated complaints rose from 151 in 1986 to 508 in 2019, an increase of 236%.

The number of sworn NYPD officers also increased over this time period. As reported in Figure 2 (the orange dashed line), the number of sworn NYPD officers increased from 27,425 in 1986 to 36,134 in 2018, an increase of 31.8%. Increased numbers of police officers may have resulted in increased opportunities for officer-civilian interactions with the potential to escalate into situations resulting in misconduct complaints.

During this time the number of reported crimes (the green dashed line) fell sharply, from 644,587 in 1986 to 174,164 in 2018, a decrease of 73%. A large body of research, including on New York City, indicates that increases in the number of police officers can cause reductions in crime (see Chalfin and McCrary 2018 for a review of this literature). Figure 2 suggests that, while increases in the number of NYPD officers may have contributed to decreases in crime in New York City, these increases were also associated with increases in both complaints and substantiated complaints about officer misconduct.

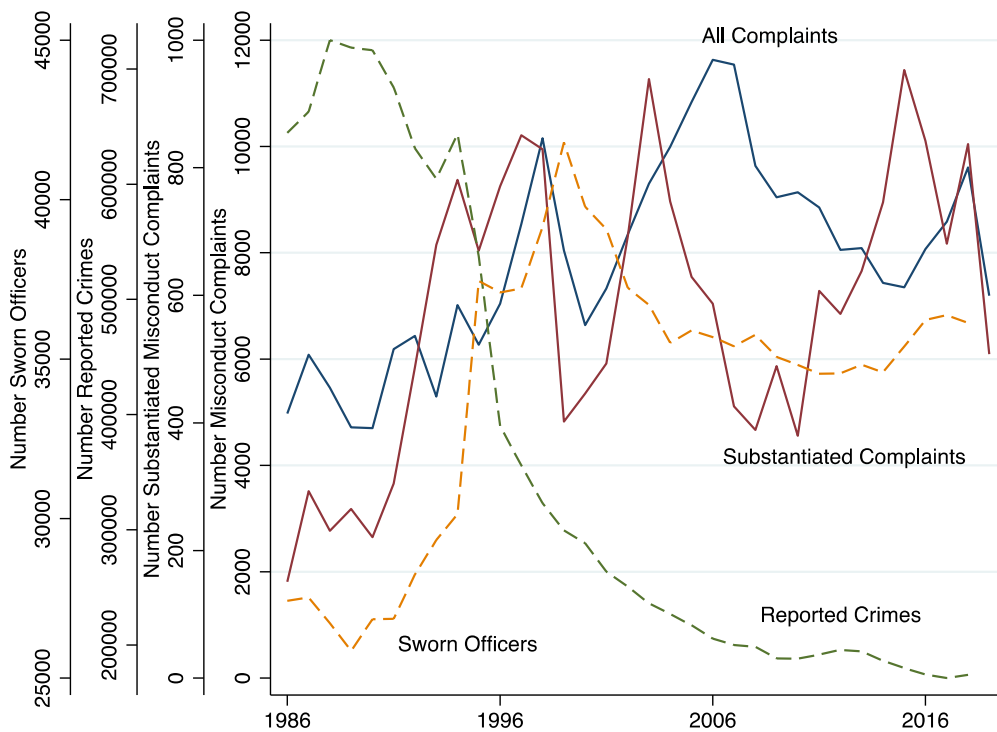


Figure 2

We can use the apparent associations between the number of sworn officers, the number of misconduct complaints, and the number of substantiated complaints to identify years that have more or fewer complaints than we might expect, given the numbers of sworn officers.

As reported in Figure 3, the number of sworn NYPD officers employed per year is clearly associated with the number of officer misconduct complaints per year. An increase of 1,000 sworn officers per year is associated with an additional 274 misconduct complaints per year; this association is significant at $p < .001$.

Notably, there are two clusters of years that have fewer and more misconduct complaints than we might expect, given the numbers of sworn officers. The years between 1995 and 2001 largely have fewer misconduct complaints than would be expected, given the numbers of sworn officers (1997 and 1987 lie within the prediction range). During these years, which approximately coincide with the tenure of NYPD Commissioner Howard Safir, citywide reported crimes fell by 50.9% (from 537,572 in 1995 to 263,695 in 2001). By contrast, the years between 2004 and 2011 have more misconduct complaints than would be expected, given the numbers of sworn officers. During these years, which occur during the tenure of NYPD Commissioner Raymond Kelly, citywide reported crimes fell by only 15.5% (from 226,876 in 2004 to 191,666 in 2011). This is also the period during which the practice of stop and frisk reached record highs (Mummolo 2018).

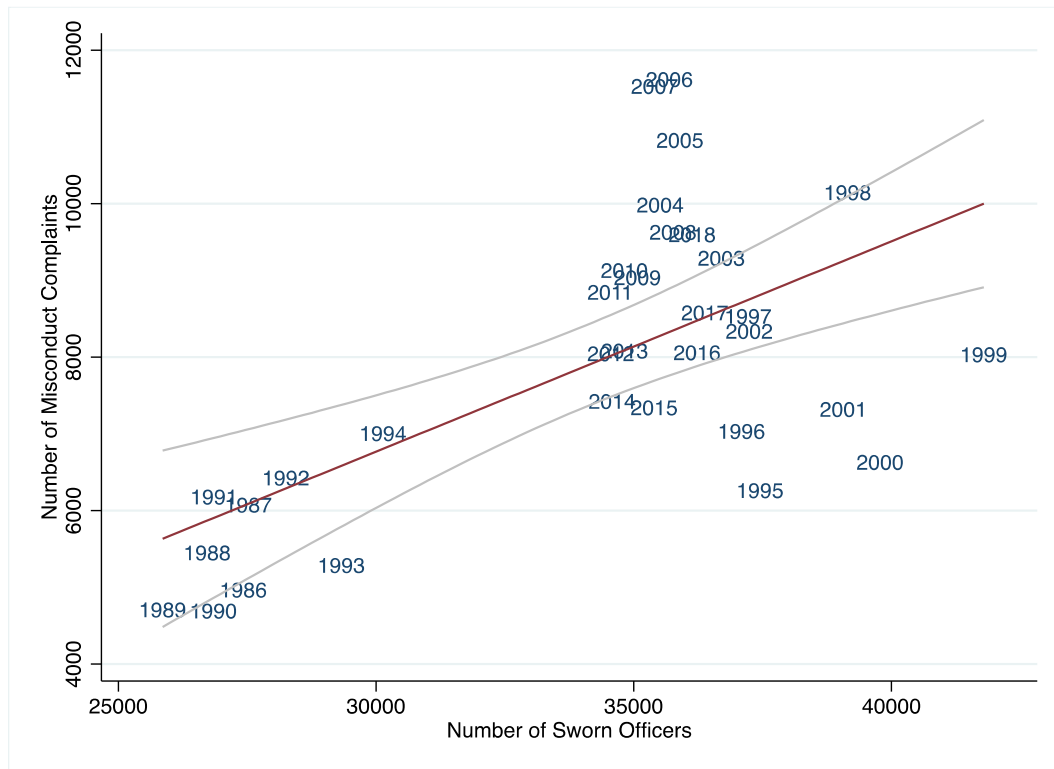


Figure 3

Figure A1 in the Appendix reports the corresponding plot for substantiated misconduct complaints. An increase of 1,000 sworn officers per year is associated with an additional 28 substantiated misconduct complaints per year; this association is significant at $p < .01$.

NYPD Misconduct Complaints Across Precincts

The NYPD does not report numbers of officers across precincts. The numbers of officers assigned to precincts is, however, likely correlated with reported crime volume per precinct. We can use precinct-level data to explore the cross-precinct relationships between levels of misconduct complaints and levels of reported crime. These relationships may help us to identify precincts that have more or fewer complaints than we might expect, given reported crime levels. We can also investigate what factors may be associated with these "excess" complaints (in both the positive and negative directions).

The CCRB complaint data report the command to which the accused officer was assigned. 59,687 misconduct complaints were made between 2006 and 2019 against officers assigned to one of the 77 precincts or the 12 transit bureau districts. We matched these complaints to the approximately 7 million crime incidents recorded as occurring in the 77 precincts or 12 transit bureau districts between 2006 and 2019, as reported by [NYC Open Data](#). We also matched the

subset of these complaints originating in one of the 77 precincts to 2010 census data, as mapped onto NYPD precincts.

Figure 4 reports the association between precinct-level average annual numbers of reported crimes and average annual numbers of misconduct complaints between 2006 and 2019. An increase of 1,000 additional reported crimes per precinct per year is associated with 7.5 additional misconduct complaints per precinct per year; this relationship is significant at $p < .001$. Figure A2 in the Appendix reports the corresponding figure for substantiated misconduct complaints. An increase of 1,000 additional reported crimes per precinct per year is associated with 0.6 additional substantiated misconduct complaints per precinct per year; this relationship is significant at $p < .001$.

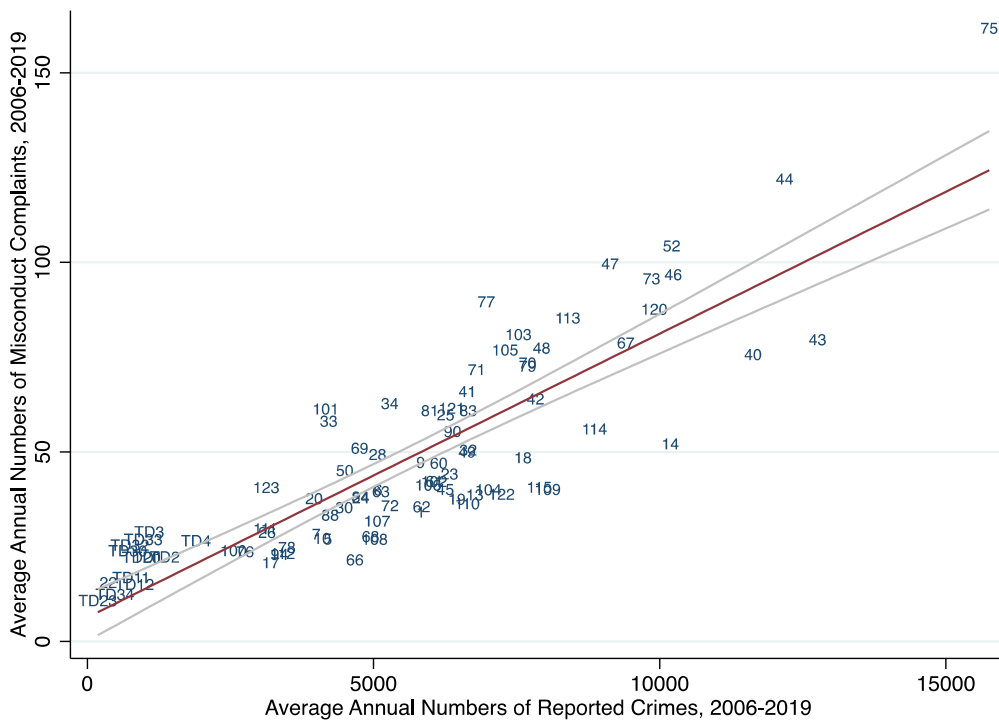


Figure 4

Some precincts lie below and some above the regression line in Figure 4. Table 1 lists the precincts with the largest values of "excess" misconduct, or differences between observed and predicted numbers of misconduct complaints. The 75th Precinct has both the highest level of reported crime during this period, and the highest number of misconduct complaints. However, the level of reported crime in Precinct 75 does not fully account for the level of misconduct complaints; the precinct also has the highest level of "excess" misconduct complaints, with an additional 38 misconduct complaints per year greater than the predicted value. The 77th, 47th, 44th, and 101st precincts also had high levels of excess misconduct complaints, ranging between

24 and 31 additional misconduct complaints per year relative to predicted values. These excess levels of misconduct complaints represent increases ranging between 25% - 64% over predicted levels.

Table 1

| Precinct | Boro | Location | Excess Misconduct Complaints | Precinct | Boro | Location | Excess Misconduct Complaints |
|----------|-------|----------------|------------------------------|----------|-------|--------------|------------------------------|
| 75 | Bklyn | East New York | 37.7 | 109 | Qns | Flushing | -26.2 |
| 77 | Bklyn | Crown Heights | 31.3 | 115 | Qns | Jackson Hts | -24.6 |
| 47 | Bx | Woodlawn | 25.1 | 43 | Bx | Parkchester | -22 |
| 44 | Bx | Grnd Concourse | 24.6 | 122 | SI | New Dorp | -21.5 |
| 101 | Qns | Far Rockaway | 24 | 66 | Bklyn | Borough Park | -19.6 |

By contrast, the 109th, 115th, 43d, 122d, and 66th precincts had 20 to 26 fewer misconduct complaints per year than expected, or complaint levels that were 22% - 39% lower than predicted levels.

Precincts with levels of officer misconduct complaints that are lower than one might expect, given reported crime, may offer opportunities to identify and promote policing practices that are associated with lower levels of officer misconduct complaints. Conversely, precincts with more officer misconduct complaints than we might expect, given levels of reported crime, offer opportunities to identify and eliminate policing practices associated with excessive officer misconduct complaints.

We can further explore precinct-level factors associated with observed levels of misconduct complaints that deviate from predicted levels. One factor may be differences in enforcement strategies across precincts. For example, even after considering reported crime levels, some precincts may have relied more on aggressive enforcement strategies between 2006 - 2019. These more aggressive enforcement strategies may have been more likely to generate both misconduct complaints and findings of substantiated misconduct, relative to less aggressive enforcement strategies.

We matched the misconduct complaint data to the over 4 million stops recorded as occurring in the 77 precincts between 2006 and 2019, as reported in the [NYPD Stop, Question, and Frisk](#)

Database. We first modeled precinct-level average annual stops between 2006 - 2019 as a function of average annual reported crime over the same period. Precincts with higher reported crime levels may have pursued higher numbers of stops. Figure 5 reports this relationship.

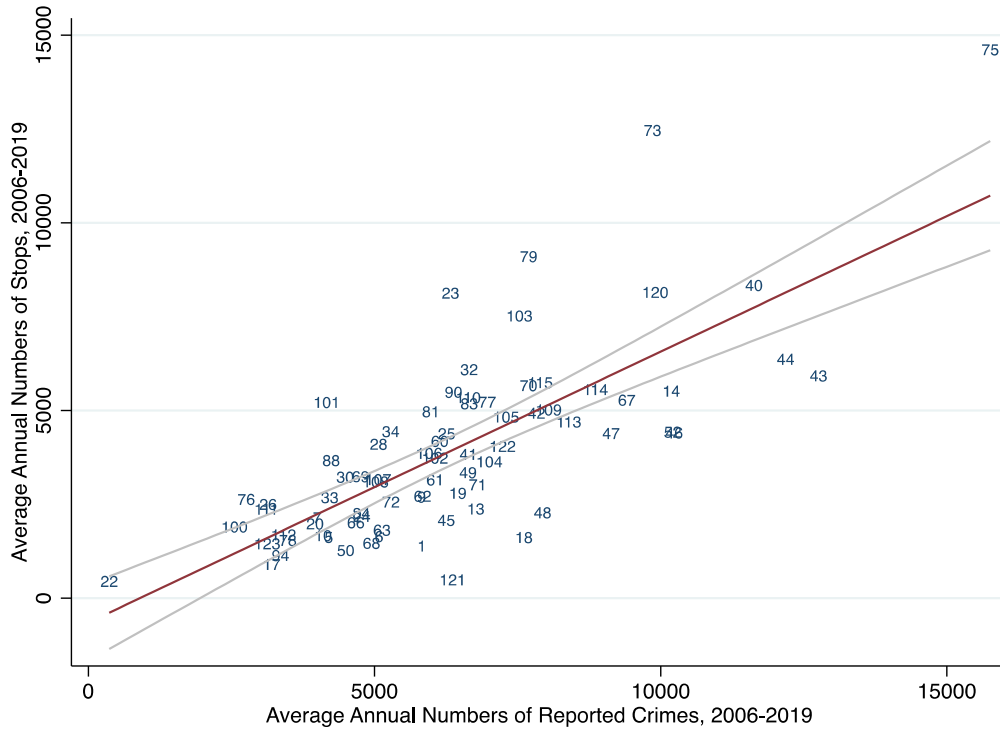


Figure 5

There is indeed a positive association between reported crime levels and numbers of stops. An increase of 1,000 additional reported crimes per precinct per year is associated with 722 additional stops per precinct per year; this relationship is significant at $p < .001$.

Again, some precincts lie above the regression line plotted in Figure 5; some lie below. We define "excess" misconduct as the difference between the observed and predicted numbers of misconduct complaints from Figure 4, and "excess" stops as the difference between the observed and predicted numbers of stops from Figure 5. Figure 6 plots the relationship between excess stops and excess misconduct. Precincts in the upper right quadrant of Figure 6 have both more stops and more misconduct complaints than predicted between 2006 - 2019; precincts in the lower left quadrant of Figure 6 have both fewer stops and fewer misconduct complaints than predicted over the same period. An increase of one standard deviation in excess stops per precinct per year (1670 stops) is associated with 4 additional excess misconduct complaints per precinct per year; this relationship is significant at $p < .05$. This finding indicates that precincts that engaged in the aggressive use of stops between 2006 - 2019, in greater numbers than expected given reported crime levels, also saw officer misconduct complaints in greater numbers

than expected given reported crime levels. Figure A3 in the Appendix reports the corresponding figure for substantiated misconduct complaints. An increase of one standard deviation in excess stops per precinct per year (1670 stops) is associated with 0.4 additional excess substantiated misconduct complaints per precinct per year; this relationship is significant at $p < .05$.

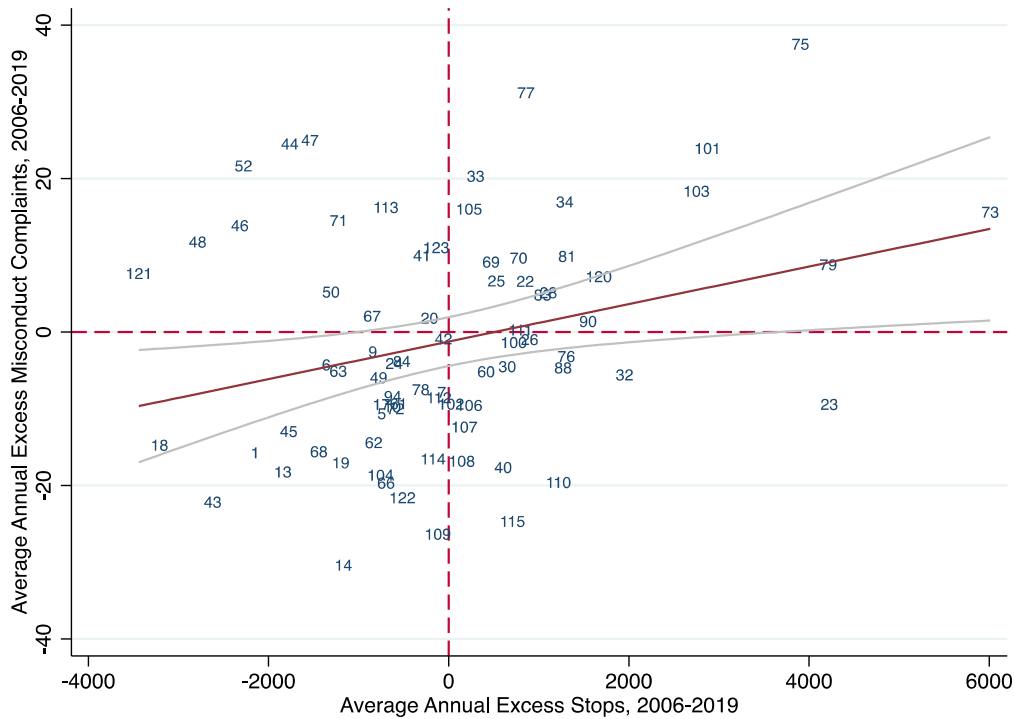


Figure 6

We might also ask whether precinct-level distributions of complaints across accused officers are related to excess officer misconduct. Figure 7 reports the relationship between precinct-level average numbers of misconduct complaints per accused officer between 2006-2019, and precinct-level average annual excess misconduct complaints over the same period.

Precincts with misconduct complaints concentrated among fewer accused officers have more excess misconduct complaints. Each additional misconduct complaint per accused officer per precinct between 2006 and 2019 is associated with an additional 8.2 additional excess misconduct complaints per precinct per year over the same period; this association is significant at $p < .001$. Figure A4 in the Appendix reports the corresponding figure for substantiated misconduct complaints. Each additional substantiated misconduct complaint per accused officer per precinct between 2006 and 2019 is associated with an additional 9.3 additional excess substantiated misconduct complaints per precinct per year over the same period; this association is significant at $p < .001$. These associations suggest that precincts with the highest levels of excess misconduct complaints, both all and substantiated, may be able to efficiently reduce those

levels by targeting officers with the highest numbers of misconduct complaints (both all and substantiated).

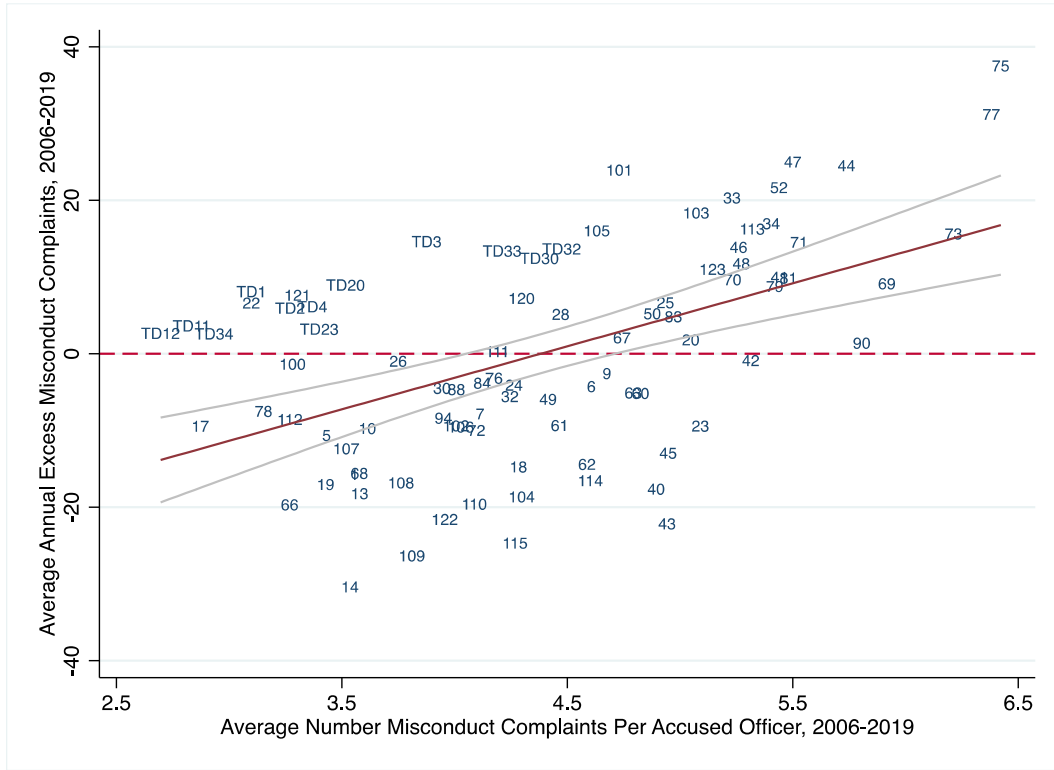


Figure 7

Finally, we can ask whether precinct demographics are related to excess misconduct. Figure 8 reports the relationship between the percentage of Black residents in 2010 and average annual excess misconduct complaints. There is a clear relationship between the percentage of Black residents in a precinct and excess misconduct complaints. An increase of one standard deviation of Black residents in a precinct (26.4 percentage points) is associated with an additional 8.9 excess misconduct complaints per precinct per year between 2006 and 2019; this relationship is significant at $p < .001$ and represents an 18.4% increase in misconduct complaints over the average rate of 48.3 misconduct complaints per precinct per year. Figure A5 in the Appendix reports the corresponding figure for substantiated misconduct complaints. An increase of one standard deviation of Black residents in a precinct (26.4 percentage points) is associated with an additional 0.8 excess misconduct complaints per precinct per year between 2006 and 2019; this relationship is significant at $p < .001$ and represents a 23.5% increase in substantiated misconduct complaints over the average rate of 3.4 substantiated misconduct complaints per precinct per year.

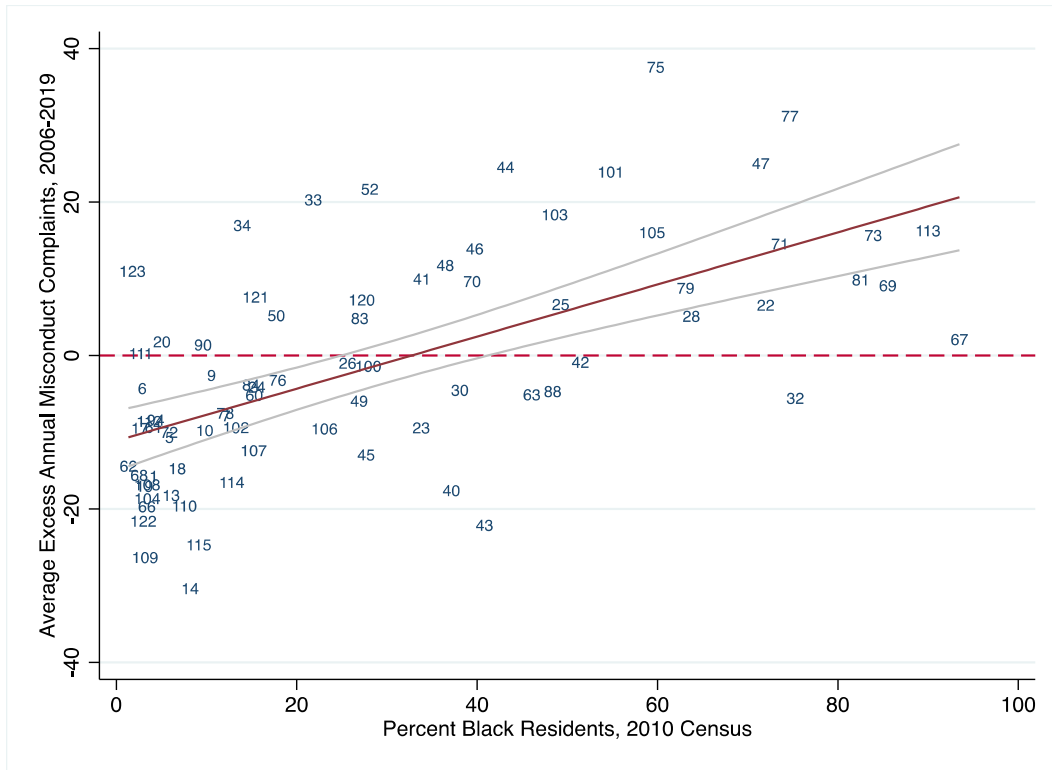


Figure 8

These relationships raise concerns about disparities in levels of officer misconduct across precincts with varying percentages of Black residents, even after considering levels of reported crime. For example, Precinct 75 in Brooklyn (East New York) had the highest rate of excess or unexplained misconduct complaints between 2006 - 2019, averaging 38 more misconduct complaints per year than predicted by its reported crime volume, for an observed rate of misconduct complaints 31% higher than the predicted rate. In the 2010 Census, Precinct 75 was recorded as having 60% Black residents. By contrast, Precinct 122 on Staten Island had one of the lowest rates of excess misconduct complaints, averaging 22 fewer complaints per year than predicted by its reported crime volume, for an observed rate of misconduct complaints 36% lower than the predicted rate. In the 2010 Census, Precinct 122 was recorded as having 3% Black residents. These patterns hold throughout the data, both for all and for substantiated misconduct complaints.

Further, we can ask if these findings are related. Figure 9 reports the relationship between the percentage of a precinct's residents who are Black, and precinct-level average excess stops between 2006-2019. An increase of one standard deviation in the percentage of Black residents in a precinct (26.4 percentage points) is associated with an increase of 597 excess stops per precinct per year; this association is significant at $p < .01$.

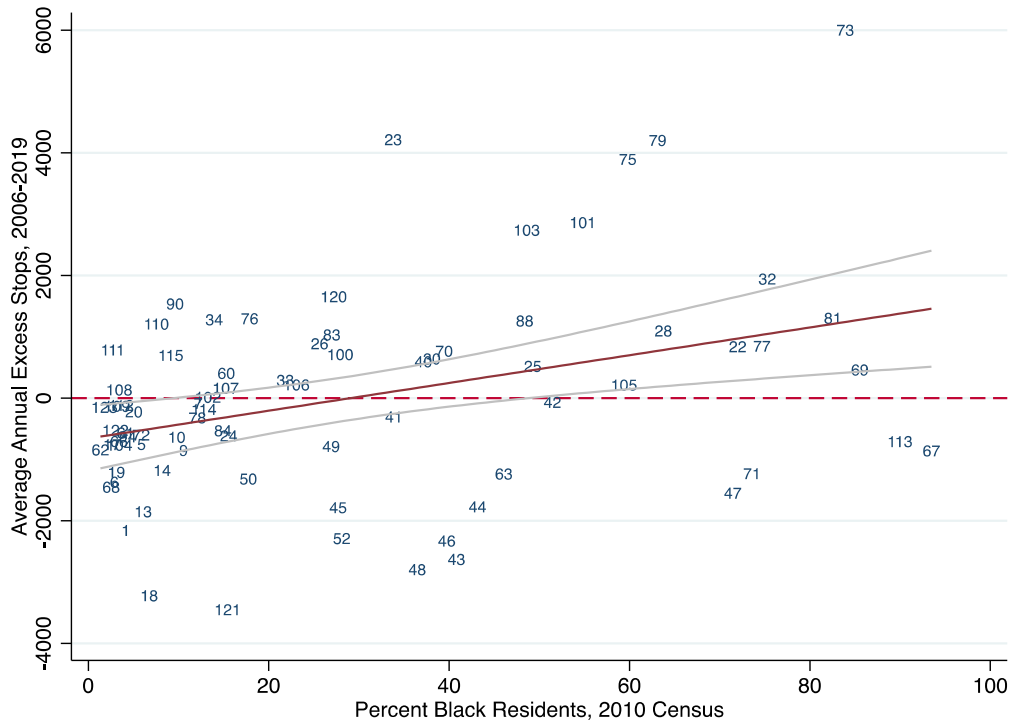


Figure 9

Figure 10 reports the relationship between the percentage of a precinct's residents who are Black, and precinct-level average numbers of misconduct complaints per accused officer between 2006-2019. An increase of one standard deviation in the percentage of Black residents in a precinct (26.4 percentage points) is associated with an increase of .5 complaints per accused officer; this association is significant at $p < .001$ and represents an increase of 10.8% over the average rate of 4.4 complaints per accused officer. Figure A6 in the Appendix reports the corresponding figure for substantiated complaints. An increase of one standard deviation in the percentage of Black residents in a precinct is associated with an increase of .05 substantiated complaints per accused officer; this association is significant at $p < .001$ and represents an increase of 17.8% over the average rate of 0.3 substantiated complaints per accused officer.

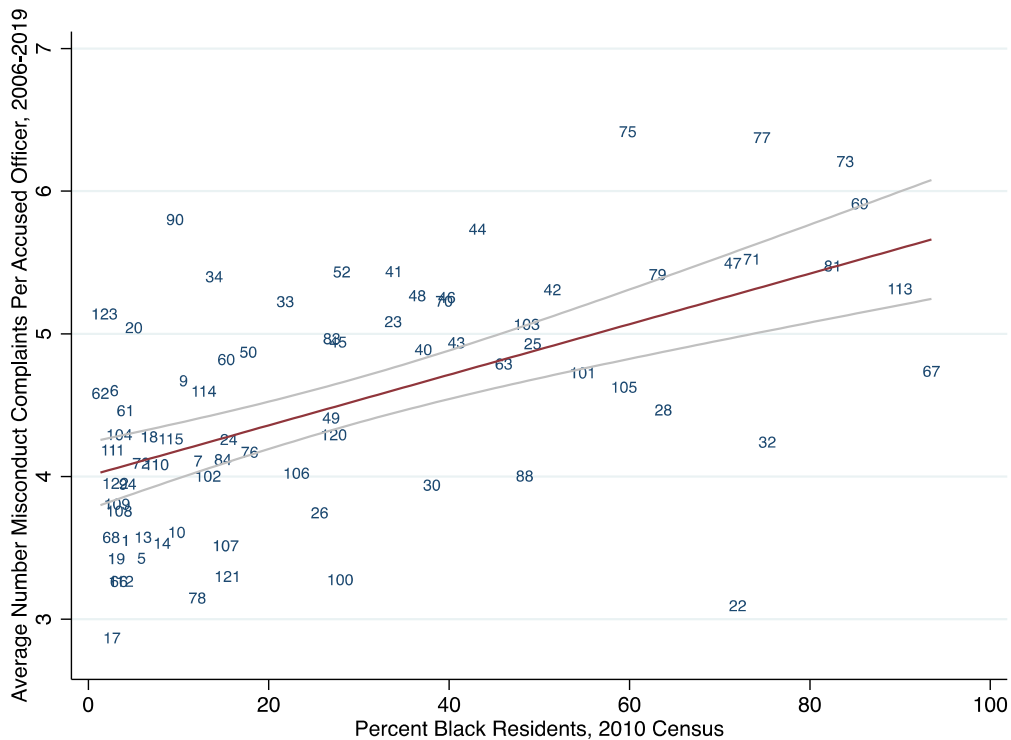


Figure 10

In short, between 2006-2019 precincts that had larger proportions of Black residents experienced not only disproportionately high levels of excess misconduct complaints (both all and substantiated), but also disproportionately high levels of excess stops and misconduct that was concentrated among a smaller number of accused officers.

Finally, Figures A7 - A10 in the Appendix report the associations between percent non-Hispanic white, percent Asian, and excess misconduct complaints (both all and substantiated). Precincts with higher percentages of non-Hispanic white and Asian residents had lower levels of excess complaints and substantiated complaints between 2006 and 2019; these relationships are all significant at $p < .001$.

Discussion

Our analysis reveals several insights that may be of interest to policy makers.

First, after considering citywide numbers of sworn NYPD officers between 1986 and 2018, citywide numbers of misconduct complaints were lower than expected between 1995-2001, a period during which reported crime decreased by 51%, but were higher than expected between 2004-2011, a period during which reported crime decreased by only 16%. This later period of excess misconduct complaints coincided with the period during which the practice of stop and

frisk grew to peak levels. This finding may help policy makers to identify citywide policing practices that can promote increases in public safety while minimizing officer misconduct.

Second, after considering precinct-wide numbers of reported crimes between 2006-2019, some precincts had more misconduct complaints (both all and substantiated) than expected, and some had fewer. These estimates of "excess" misconduct complaints (both positive and negative) may help policymakers to identify precinct-specific policing practices that can promote increases in public safety while minimizing misconduct.

Third, again after considering precinct-wide numbers of reported crimes between 2006-2019, precincts with more excess stops had more excess misconduct complaints, both all and substantiated. This finding suggests that policy makers may be able to reduce excess misconduct by reducing excess stops.

Fourth, precincts with misconduct complaints concentrated among fewer officers had more excess misconduct complaints, both all and substantiated. This finding suggests that policy makers may be able to reduce excess misconduct by reducing the misconduct being committed by those officers with the largest numbers of misconduct complaints (both all and substantiated).

Fifth, precincts with higher percentages of Black residents had more excess misconduct complaints, both all and substantiated, while precincts with higher percentages of non-Hispanic white and Asian residents had fewer excess misconduct complaints, both all and substantiated. This finding indicates the need for greater attention to racial disparities in how communities are policed.

Sixth, precincts with higher percentages of Black residents experienced not only disproportionately high excess misconduct complaint volume between 2006-2019, for both all and substantiated complaints, but also disproportionately high excess stop volume and misconduct committed by disproportionately fewer officers. This finding suggests a need for policy makers to address excess stops, misconduct being committed by those officers with the largest numbers of misconduct complaints, and excess misconduct in the precincts with the largest percentages of Black residents.

References

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Mummolo, Jonathan. 2018. Modern Police Tactics, Police-Citizen Interactions, and the Prospects for Reform. *The Journal of Politics* 80:1, 1-15.

Appendix

Substantiated Misconduct Complaints

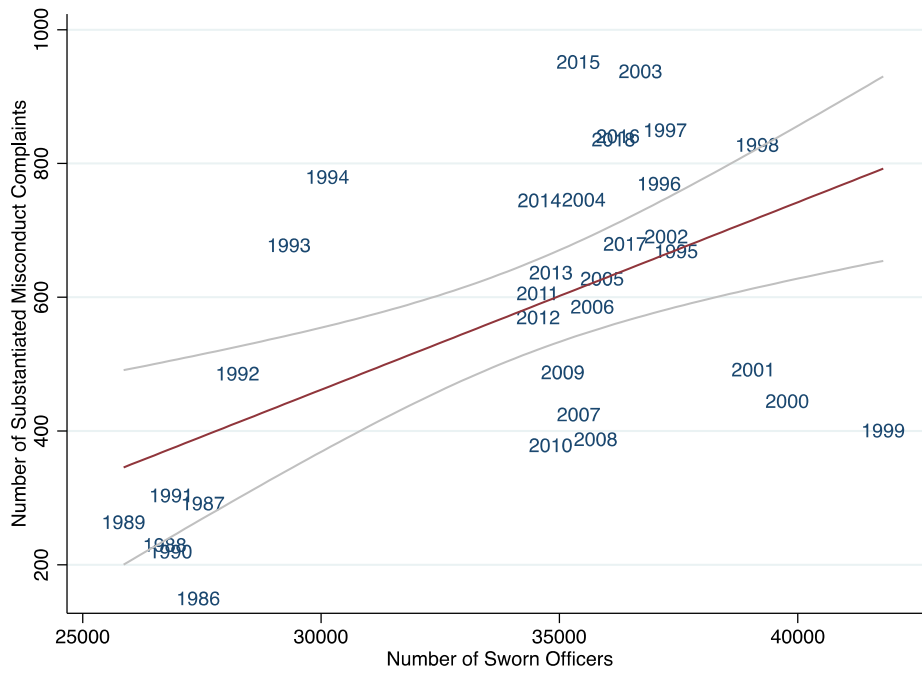


Figure A1

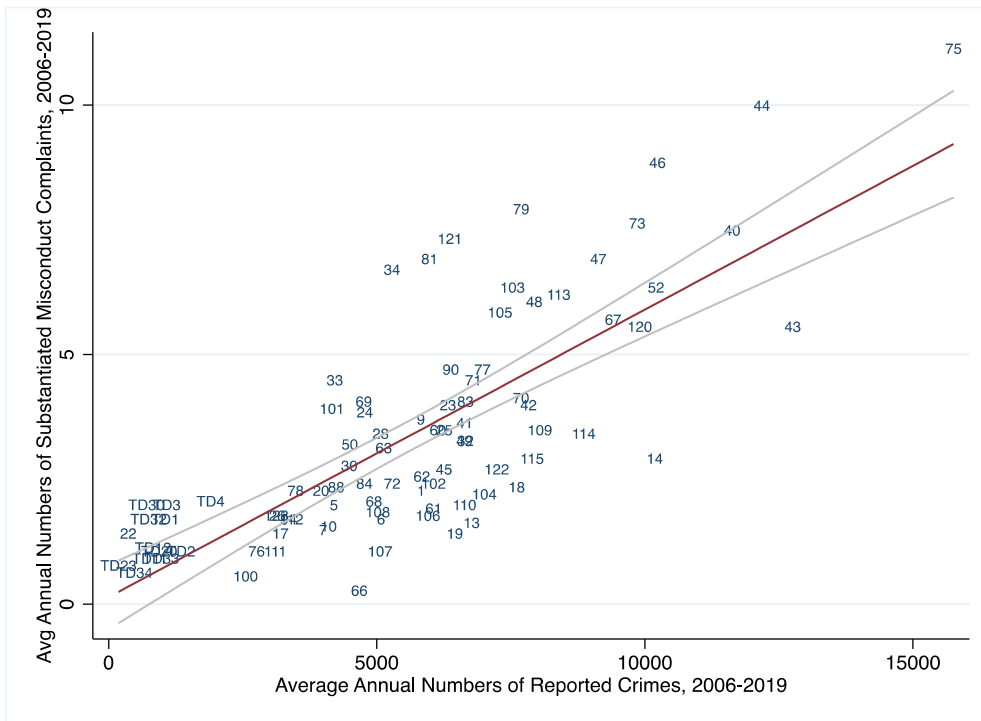


Figure A2

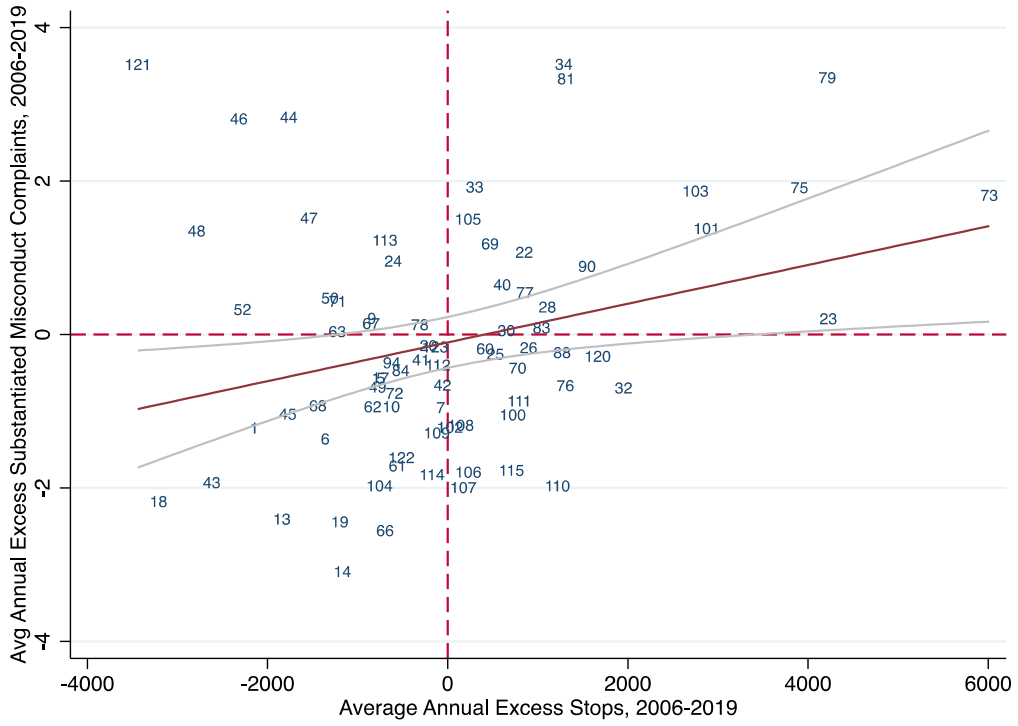


Figure A3

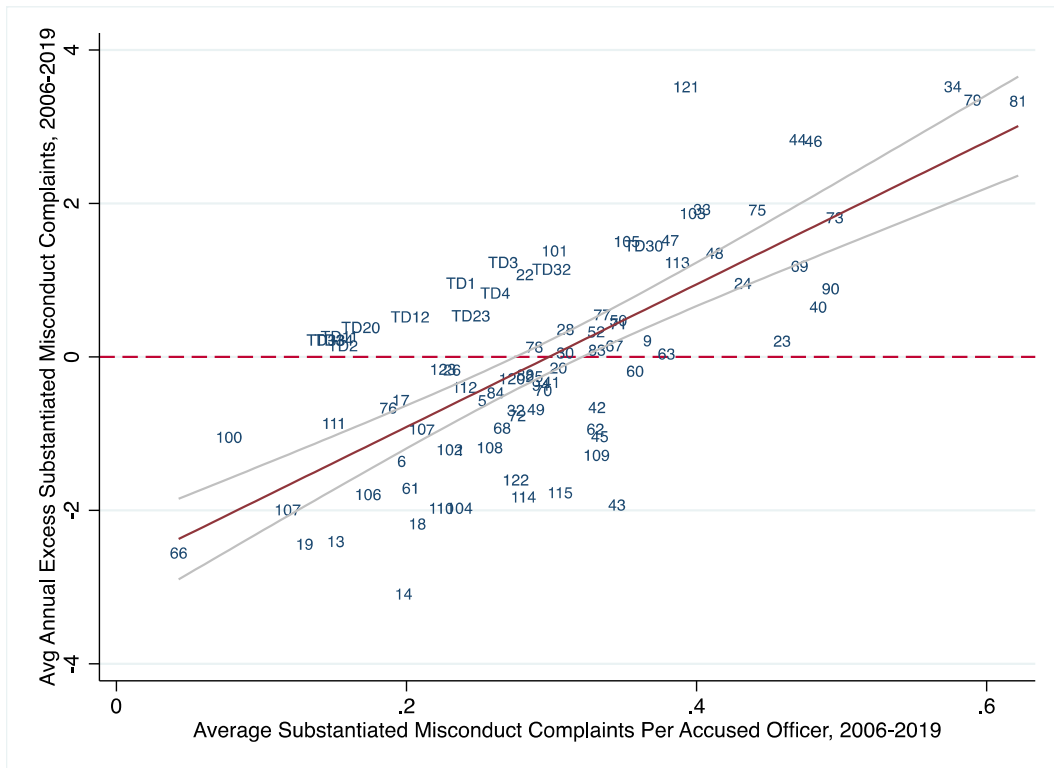


Figure A4

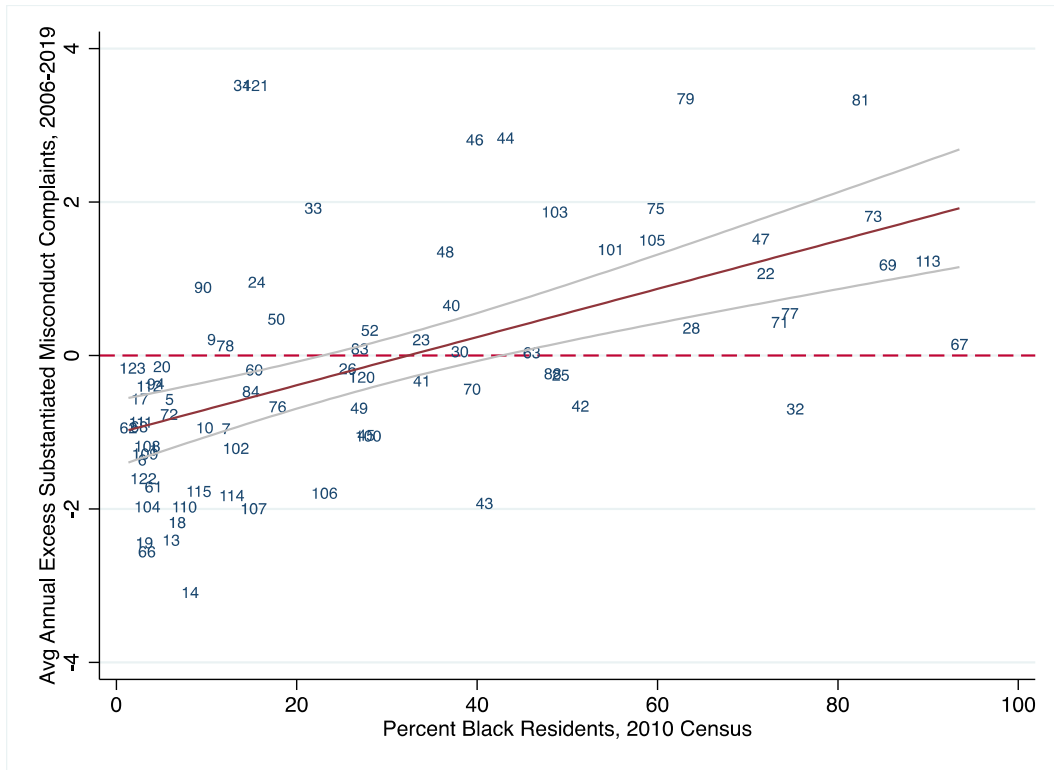


Figure A5

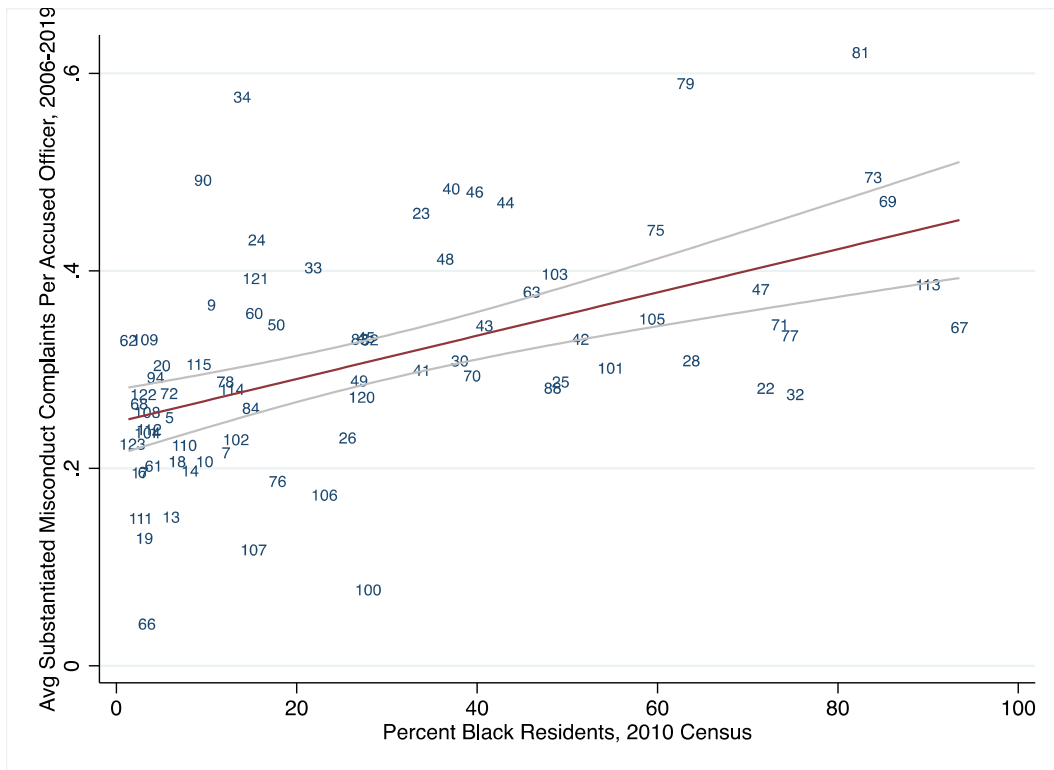


Figure A6

Non-Hispanic White and Asian Residents and Excess Misconduct

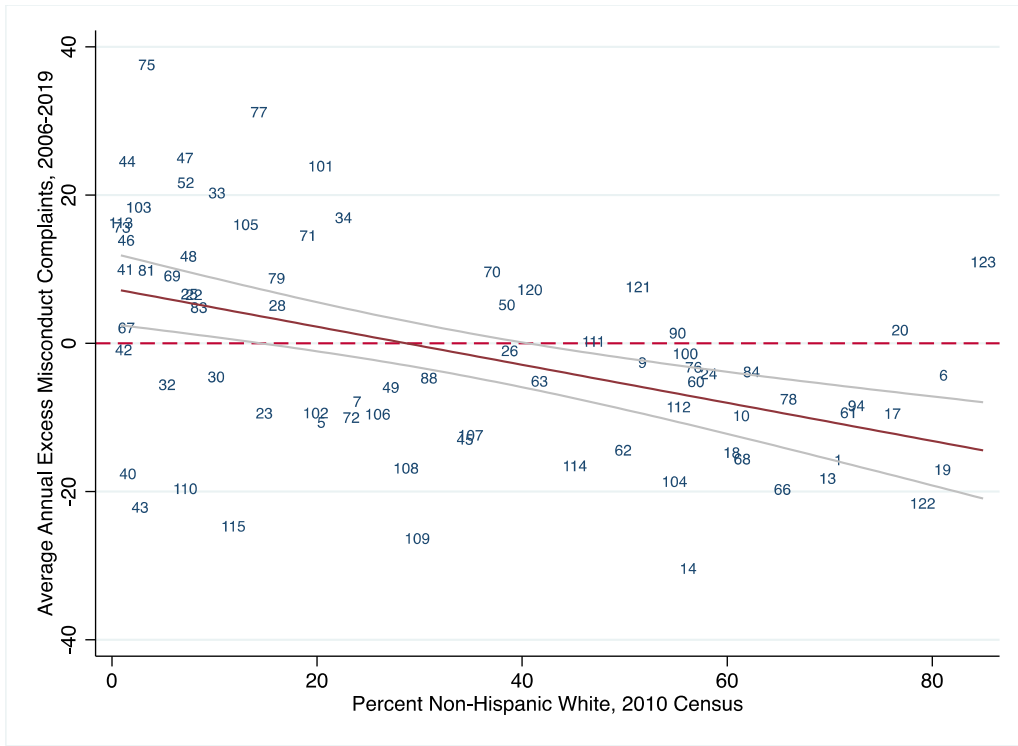


Figure A7

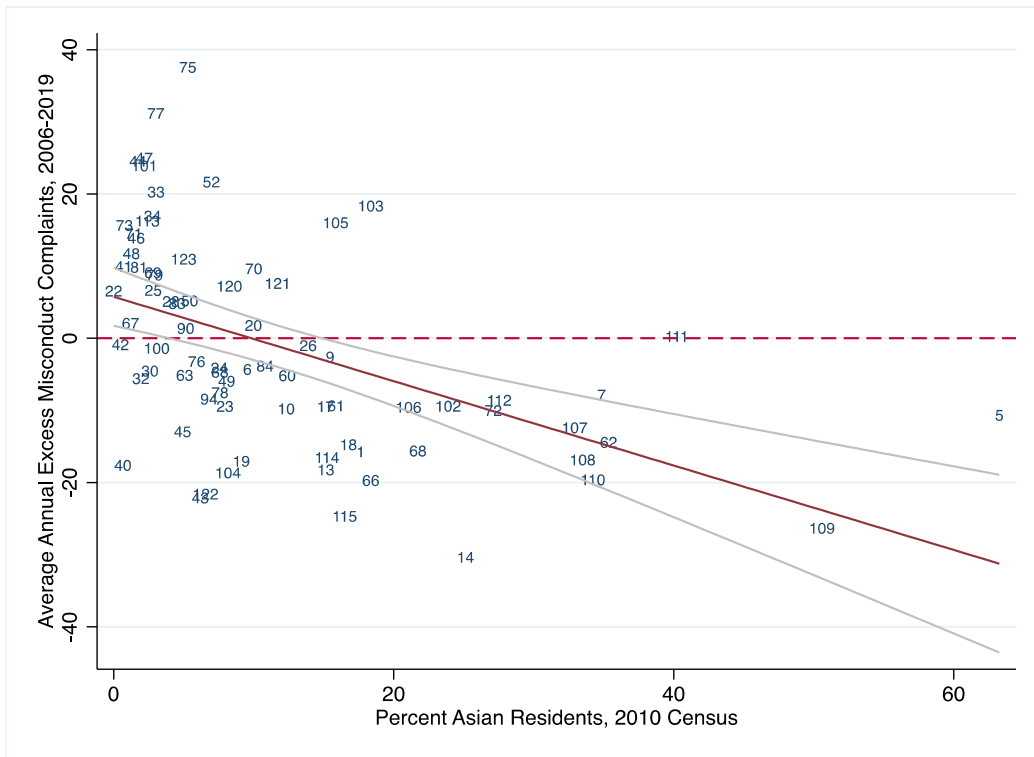


Figure A8

Non-Hispanic White and Asian Residents and Excess Substantiated Misconduct

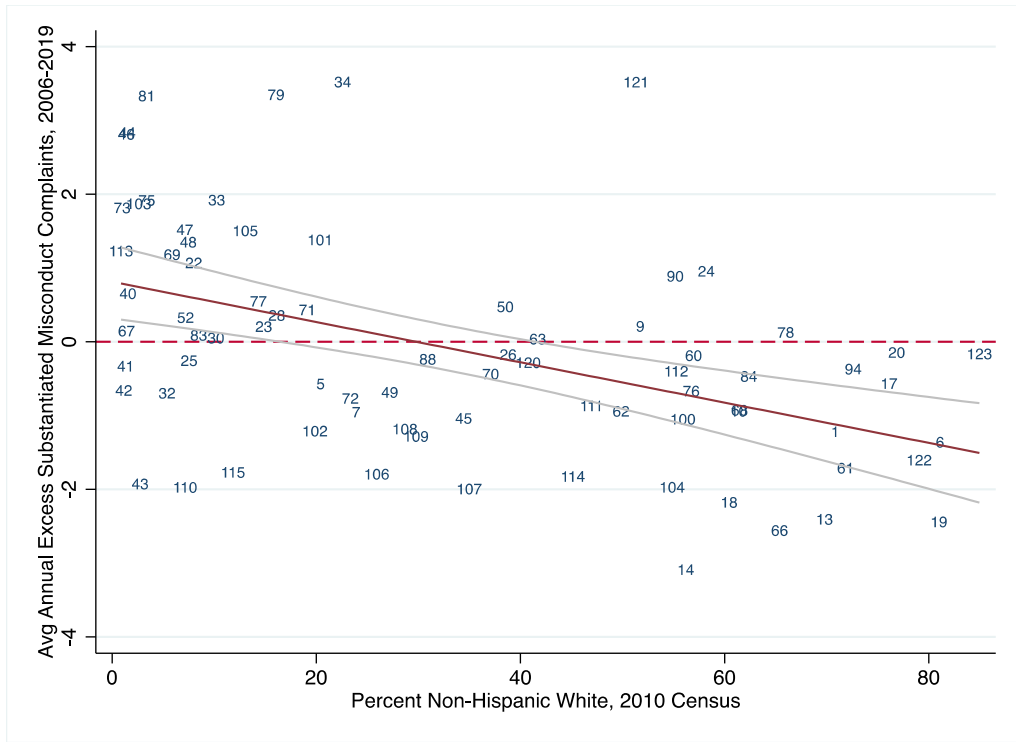


Figure A9

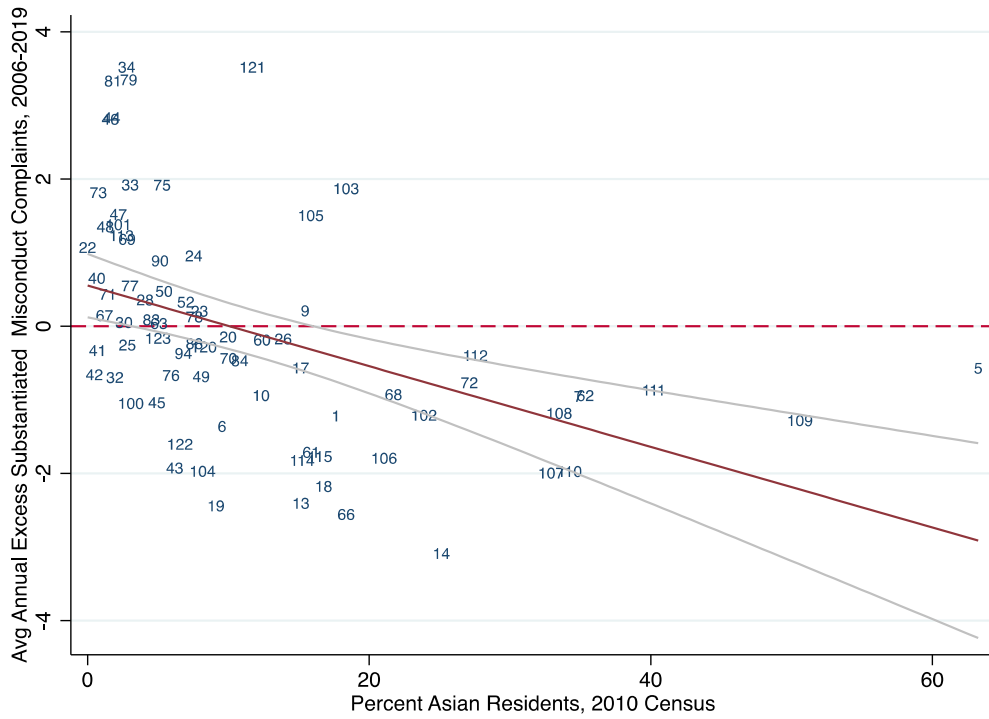


Figure A10