Federal Monitor
NYPD Stop and Frisk Cases

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December 14, 2021

VIA ECF

Honorable Analisa Torres
United States District Judge
United States District Court
Southern District of New York
500 Pearl Street
New York, NY 10007-1312

Re: *Floyd, et al. v. City of New York*, 08-CV-1034 (AT),
Ligon, et al. v. City of New York, et al., 12-CV-2274 (AT),
Davis, et al. v. City of New York, et al., 10-CV-0699 (AT),
Fifteenth Report of the Independent Monitor

Dear Judge Torres,

I am pleased to submit the Fifteenth Report of the Independent Monitor. This report examines the New York City Police Department's (NYPD) trespass enforcement activities from 2013 to 2019. This report was prepared by Dr. John MacDonald, a member of the Monitor Team, under the supervision and with the review of the Monitor, Peter L. Zimroth. This is the first report submitted since Mr. Zimroth passed away in November 2021.

The report analyzes trends and patterns in trespass arrests, trespass summonses, and trespass stops made by NYPD officers in and around New York City Housing Authority (NYCHA) housing developments during those years. It assesses whether Blacks and Hispanics are more likely to be subjected to NYPD trespass enforcement actions relative to Whites and Other racial group members. The analyses

in the report are very similar to the analyses conducted by Plaintiffs' expert, Professor Jeffrey Fagan, and submitted to the Court in *Davis v. City of New York*.

The *Davis* lawsuit challenged the lawfulness of NYPD trespass enforcement activity at NYCHA buildings. The *Davis* settlement mandated reforms to NYPD criminal trespass enforcement policies and practices to improve the lawfulness of trespass enforcement at NYCHA developments and to reduce racial disparities generated by heightened trespass enforcement activity. Since the entry of the *Davis* settlement, citywide NYPD criminal trespass arrests have dropped by almost 74 percent, trespass summonses have declined by 80 percent, and trespass stops have decreased by 96 percent from 2013 to 2019. These substantial declines in NYPD trespass enforcement activities were observed in NYCHA buildings, in areas surrounding NYCHA buildings, and throughout New York City's five boroughs. In addition, the results show clearly that trespass enforcement dropped significantly for Black and Hispanic individuals in NYCHA, and that the decreased trespass enforcement was not associated with increases in other enforcement activity.

The analyses in the report also indicate that the percentages of area residents that are Black and Hispanic are no longer statistically significant predictors of trespass arrest, trespass summons, and trespass stop rates in NYCHA buildings or in census block groups at further distances from NYCHA developments. Black and Hispanic subjects are now no more likely to be subjected to trespass enforcement activities relative to White and other racial group subjects. Importantly, these findings do not change when crime and other community characteristics are considered. The analyses suggest that NYPD has made significant progress in complying with the mandates of the *Davis* settlement with regards to these importance outcome measures.

The enclosed report examines the volume and trends in NYPD trespass enforcement and 14th Amendment racial disparities. The analysis did not, however, examine individual trespass arrests, summonses, and stops for 4th Amendment compliance. That type of review, however, is a routine part of the general reports by the Monitor. The Monitor team regularly audits Body-Worn Camera videos (including interior patrol in NYCHA), trespass arrests and trespass crimes fact sheets (TCFS), and trespass stops for 4th Amendment compliance. These audits were reported in the Monitor's Eleventh Report and will continued to be assessed and reported on as part of ongoing monitoring.

Although the analyses presented in this report have limitations, as with any social science inquiry, the consistency of the findings reported across multiple outcome measures, analyzed using varying statistical models, supports the overall conclusion that NYPD trespass enforcement activities have declined dramatically in NYCHA housing and surrounding areas and that the racial disparities associated with past heightened levels of trespass enforcement have dissipated.

Respectfully submitted,

/s/ Richard Jerome
Richard Jerome
Deputy Monitor

Attachment: Fifteenth Report of the Independent Monitor

Fifteenth Report of the Independent Monitor

Analysis of New York City Police Department (NYPD) Trespass Enforcement Activity in and Around New York City Housing Authority (NYCHA) Buildings

Trends and Patterns in Racial Disparities and Numbers of NYPD Trespass Arrests, Trespass Summonses, and Trespass Stops, 2013 – 2019

Richard Jerome
Deputy Monitor

December 14, 2021

Floyd, et al. v. City of New York
Ligon, et al. v. City of New York, et al.
Davis, et al. v. City of New York, et al.

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***This report was prepared under the supervision and with the review of the Independent Monitor, Peter L. Zimroth. This is the first report submitted since Mr. Zimroth passed away in November 2021.**

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FIFTEENTH REPORT OF THE INDEPENDENT MONITOR

Analysis of New York City Police Department (NYPD) Trespass Enforcement Activity in and Around New York City Housing Authority (NYCHA) Buildings

EXECUTIVE SUMMARY

The *Davis v. City of New York* lawsuit challenged the lawfulness of NYPD trespass enforcement activity at NYCHA buildings. The agreed-upon settlement required a series of reforms to NYPD criminal trespass enforcement practices specifically and, coupled with the *Floyd* and *Ligon* remedial measures, included a much broader set of remedies to reduce racial disparities and improve the lawfulness in NYPD stops of citizens. As documented in past Monitor reports, the number of stops made by NYPD officers has dropped dramatically over the past ten years. NYPD criminal trespass enforcement activities have similarly decreased in the years following the *Davis* settlement.

This report analyses trends and patterns in trespass arrests, trespass summonses, and trespass stops made by NYPD officers in and around NYCHA housing developments between 2013 and 2019. It assesses whether Blacks and Hispanics are more likely to be subjected to NYPD trespass enforcement actions relative to Whites and Other racial group members. Key findings are:

- The yearly number of trespass arrests and total arrests declined across New York City and in all of its boroughs between 2013 and 2019. Citywide trespass arrests dropped by almost 74 percent, from 12,370 in 2013 to 3,250 in 2019. The steep decline in trespass arrests was observed in and around NYCHA buildings and across the rest of the city.

- Trespass arrests made by NYPD officers assigned to Patrol Services and Housing Bureaus dropped precipitously between 2013 and 2019. During this period, Housing Bureau

officers generated the steepest decline, with an 82 percent decrease, from 3,715 trespass arrests in 2013 to 663 in 2019. Trespass arrests made by Patrol Services Bureau officers declined by 71 percent, from 8,042 in 2013 to 2,324 in 2019. Trespass arrests made by Transit officers were relatively stable during this time period with a sudden drop in 2019.

- Trespass arrests dropped significantly for Black and Hispanic individuals in NYCHA.
- The reduction in trespass arrests was not offset by a rise in arrests for other offenses.
- The citywide decline in trespass arrests was not offset by an increase in the issuance of trespass summonses by NYPD officers. The citywide proportion of trespass summonses relative to all summonses issued remained remarkably stable at roughly 2.5 percent between 2013 and 2019. This stability was noted in all five boroughs during this time period.
- The yearly number of trespass summonses issued by NYPD officers in the Patrol, Transit, and Housing Bureaus declined between 2013 and 2019. The large decline in trespass summonses was observed in and around NYCHA buildings and across the rest of the city. The proportion of trespass summonses relative to all summonses issued by Housing officers increased from less than 1 percent to slightly more than 5 percent. This pattern was driven by a dramatic 90 percent decrease in total summonses issued by Housing officers rather than an increase in their issuance of trespass summonses.
- Trespass stop trends were the same as trespass arrest and summons trends between 2013 and 2019. The citywide number of trespass stops dropped by 96 percent from 13,042 stops in 2013 to 490 in 2019. This decline in trespass stops was observed in each of the five

boroughs during this time period. The steep decline in trespass stops was observed in and around NYCHA buildings and across the rest of the city.

- Yearly numbers of Blacks and Hispanics arrested for trespass remained larger than the yearly numbers of Whites and Other racial groups arrested for trespass in and around NYCHA buildings. Nonetheless, trespass arrests for all subject racial groups declined steeply between 2013 and 2019. Logistic regression analyses were used to examine trends and patterns in trespass enforcement actions (arrests, summonses, and stops) over time by subject race and encounter location relative to NYCHA buildings.
- The analyses revealed that the likelihood that a subject was arrested for trespassing in and around NYCHA buildings (compared to being arrested for a different crime) substantially decreased over time. The risk of trespass arrest declined for subjects in all racial groups. There were no statistically significant differences in the average probability of a trespass arrest for Blacks, Hispanics, and White/Other racial groups within a block of NYCHA buildings and at other distances from NYCHA buildings.
- Although Black subjects were more likely to receive a trespass summons when compared to White/Other racial group subjects near NYCHA buildings in 2018, logistic regression analyses found no other year in which there were significant differences in the likelihood of receiving a trespassing summons by racial groups in and around NYCHA buildings and at other distances from NYCHA buildings.
- Trespass stops are more likely than other stops to occur near NYCHA buildings. However, the risk of being stopped for trespassing in and around NYCHA buildings decreased markedly between 2013 and 2019. In most years, logistic regression analyses found no significant differences in the probability of trespass stops by subject racial groups and at

varying distances from NYCHA buildings, controlling for other relevant factors. The only statistically significant differences found were in 2013 and 2014; during those years, Black subjects were less likely to be stopped for trespassing (as opposed to being stopped for other reasons) near NYCHA buildings relative to White/Other subjects. This pattern was present in other years, but was not statistically significant.

- Poisson regressions were used to model the counts of trespass arrests, summonses, and stops by year and location around NYCHA complexes, after statistically controlling for the demographics, socioeconomics, and criminal offenses reported each month within census block groups. These analyses were designed to determine whether the racial composition of census block groups representing areas in and around NYCHA buildings were predictive of NYPD trespass enforcement actions, net of other factors.
- These analyses found that the percentage of Black and percentage of Hispanic residents in census block groups representing NYCHA buildings were not significant predictors of NYPD trespass enforcement actions in recent years. Trespass arrest, summons, and stop rates are no longer different by NYCHA development location or the concentration of Black and Hispanic residential populations.

In summary, the analyses find that trespass stops, summonses, and arrests dropped substantially in and around NYCHA complexes after the *Davis* settlement and that racial disparities in the enforcement of trespass by distance from NYCHA shrank substantially and were no longer significantly different by race or ethnicity. After controlling for reported crime, socioeconomic factors, racial/ethnic composition of census block groups, and month of the year, the analyses continue to show reductions in racial disparities in trespass enforcement over the

years. Although the data used in these analyses have limits, the results indicate that NYPD has made substantial progress in complying with the requirements of the *Davis* settlement.

I. INTRODUCTION

A group of residents of and visitors to New York City Housing Authority (NYCHA) residences filed a class action lawsuit, *Davis, et al. v. City of New York, et al.*, 10-CV-00699 (AT), against NYCHA and the City of New York challenging the lawfulness of New York City Police Department (NYPD) criminal trespass enforcement actions on January 29, 2010. These enforcement actions take place inside NYCHA buildings, such as while officers are on "vertical patrols" of common areas from top to bottom of specific buildings, and outside on NYCHA property. The *Davis* case alleged that NYPD trespass arrests, summonses, and stops targeted Black and Hispanic individuals in violation of the constitutional protections required by the 4th and 14th Amendments. In January 2015, the plaintiffs and defendants reached a settlement. The remedial measures in the *Davis* settlement were combined with the remedial measures from the *Floyd, et al. v. City of New York,* 08 Civ. 1034 (AT) and *Ligon, et al. v. City of New York,* 12-CV-2274 (AT) lawsuits challenging NYPD's "stop, question, and frisk" practices. The federal monitor oversees the implementation of the agreed-upon reforms to NYPD policing activities for all three cases and, with respect to the *Davis* case, assesses the implementation of remedies regarding criminal trespass enforcement in and around NYCHA buildings.

The plaintiffs' case was supported by expert statistical analyses showing racial disparities in NYPD criminal trespass enforcement activities in and around NYCHA residences (see Fagan, 2010; Fagan, Davies, and Carlis, 2012). These analyses found that the incidence of trespass stops and trespass arrests were two times greater in NYCHA housing relative to the surrounding neighborhoods. The findings also suggested that the percent Black and percent Hispanic populations in public housing areas relative to the surrounding neighborhoods predicted excess trespass enforcement activity. These racial disparities were suggestive of 14th Amendment

violations in NYPD trespass enforcement practices. The settlement remedies, such as changes to NYPD trespass enforcement policies, documentation, training, and auditing, were designed to ameliorate these observed racial disparities.

The monitor has worked with the parties to establish baselines from which to measure progress, set milestones for accomplishing reform, and assess NYPD compliance with the court-ordered and agreed-upon remedial measures. Compliance measures in the *Davis* settlement include the reduction in improper trespass enforcement activities in and around NYCHA buildings, as well as the elimination of unjustified racial disparities in who is being subjected to trespass arrests, summonses, and stops. In this report, similar statistical models to those used in the plaintiffs' expert analyses are used to examine whether trespass enforcement activities and any associated racial disparities generated by those activities dissipated between 2013 and 2019. The analytic strategy involves the comparison of NYPD trespass enforcement actions in NYCHA developments over time with trespass enforcement actions in nearby areas, controlling for socioeconomic and crime characteristics.

The first section of this report presents trends and patterns in the yearly numbers of trespass arrests, trespass summonses, and trespass stops between 2013 and 2019, including by location, NYPD Bureau, and the race of the subject of the stop.[1] The second section shows the results of logistic regression analyses of trends and patterns in trespass enforcement actions over time by subject race and encounter location relative to NYCHA buildings. The third section presents the findings of Poisson regressions that analyze whether the racial composition of census block groups

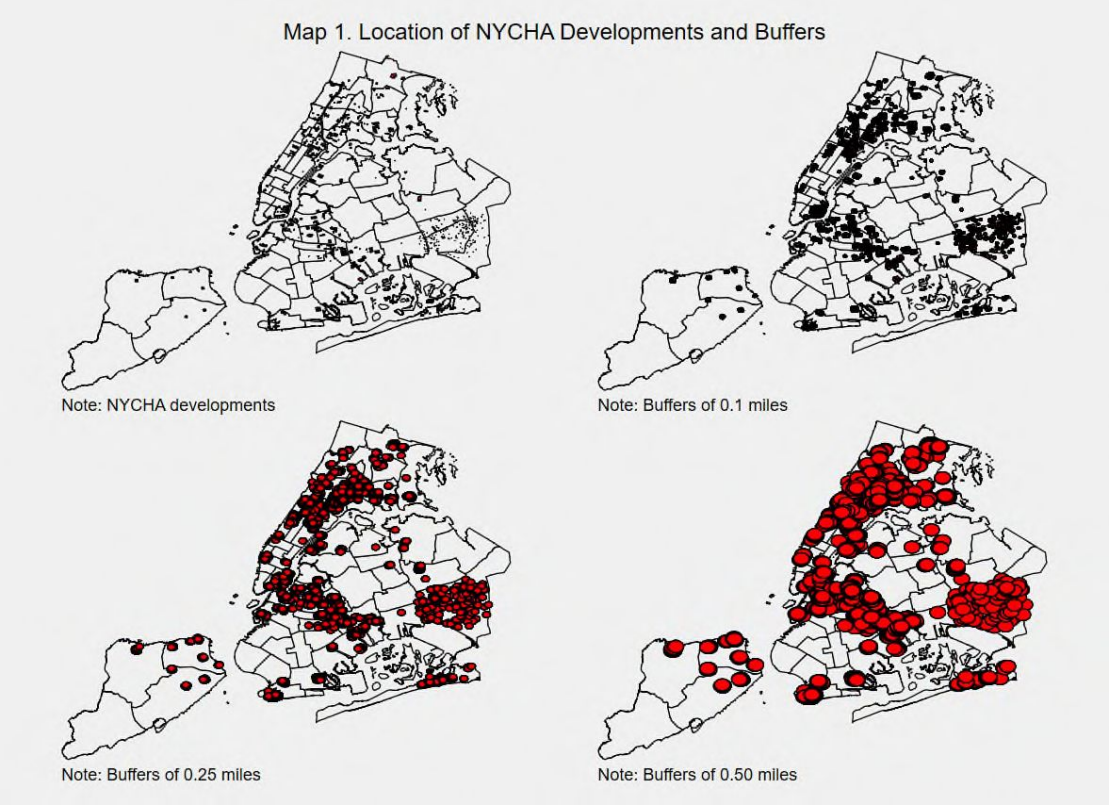
[1] The year 2013 is the starting date for this report because that was the year the Court issued its liability opinion and remedial order. This is the same starting year that was used for the Thirteenth Report (Racial Disparities in NYPD Stop, Question, and Frisk Practices: An Analysis of 2013 to 2019 Stop Reports).

representing areas in and around NYCHA buildings are predictive of NYPD trespass enforcement actions, controlling for crime, socioeconomic characteristics, and other factors.

The research in this report reveals that NYPD trespass enforcement actions decreased markedly between 2013 and 2019. The available evidence further suggests that racial disparities in the subjects of trespass enforcement actions dissipated after the settlement. The concluding section briefly discusses the limitations of the analysis and considers implications of these findings for NYPD compliance with the *Davis* settlement.

II. DATA AND ANALYSIS OF TREPASS ENFORCEMENT

To measure racial disparities in trespass enforcement at NYCHA properties, we examined trespass stops, summonses, and arrests versus other outcomes at distances closer to and further away from NYCHA complexes. Specifically, we looked at trespass arrest, summons, and stop patterns at multiple distance buffers of 0.0-0.1 miles (.10 mile), 0.11-0.25 (.25 mile), 0.26-0.5 miles (.5 miles), and greater than 0.5 miles (outside) around NYCHA buildings. Map 1 shows a visual of the location of NYCHA developments and the areas around NYCHA properties at different distances. We assumed that stops, summonses, or arrests that occur within 0.1 miles -- or roughly the size of a NYC block -- are most likely to be associated with police activity within and emanating from NYCHA housing buildings.



For each distance bandwidth, we rely on census block group level data taken from the American Community Survey's (ACS) 2018 five-year estimates, available through Social Explorer.[2] U.S. Census block groups were relied on because they represent contiguous groups of blocks within the same census tract and are the smallest population enumeration available. We created measures of the percent of the residential population self-identified as Black, Hispanic, White or Other, to measure the demographic makeup of the census block population. Summary measures of the percentage of families living below poverty line, percent of female-headed households, median household income, and population 25 years or older without a college degree were created to capture the socioeconomic characteristics of areas. We then estimated a

[2] Data retrieved from: https://data.cityofnewyork.us/Public-Safety/NYPD-Complaint-Data-Historic/qgea-i56i (crime data); http://www.nyc.gov/html/nypd/html/analysis_and_planning/stop_question_and_frisk_report.shtml (Stop, Question or Frisk -- SQF); http://www.nyc.gov/html/dcp/html/bytes/districts_download_metadata.shtml (census blocks); www.socialexplorer.com/tables/ACS2018_5yr (population estimates) (Accessed December 2020).

socioeconomic (SES) index (average across all measures) using principal components analysis and standardized these measures into one scaled component, mean centered at zero.

In addition to these measures of the spatial composition of areas, we created indicator variables measuring the race of individuals who were stopped, received a summons, or were arrested, and whether these outcomes were for a trespass or another category. For the analysis that follows, we focus on Blacks and Hispanics versus all other groups (White/Others).

A. Trends over Time in Trespass Arrests, Summonses, and Stops

We begin with descriptive analyses of trespass enforcement actions overall, by jurisdiction, and at distances around NYCHA properties. For all analyses presented in this section, we use the 0.0-0.1 miles catchment areas to measure NYPD officer actions at NYCHA properties.

Figure 1 presents a graph of the yearly number of overall arrests and trespass arrests in and nearby NYCHA buildings between 2013 and 2019. The graph shows a steep decline in arrests overall and trespass arrests specifically within a block (<=.1 miles) of NYCHA buildings. Trespass arrests declined faster than the overall decline in other NYPD arrests, though all arrests declined.

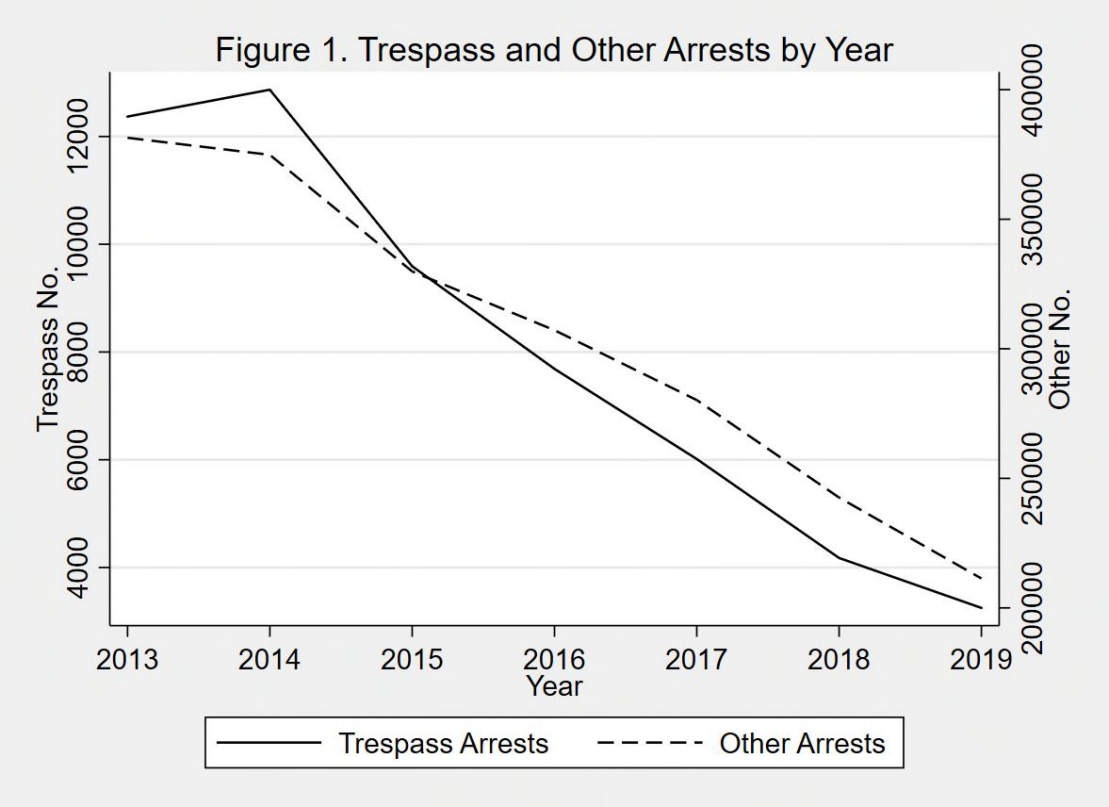


Table 1 shows the basic trends in the number of trespass arrests and the proportion of all arrests that were for criminal trespass between years 2013 and 2019 for the city overall and by borough. The data show that the absolute number of trespass arrests declined from the highest levels in 2013 and 2014 of 3.1 percent and 3.3 percent of all arrests, respectively, to a low of 1.7 percent and 1.5 percent of all arrests in 2018 and 2019. The decline in trespass arrests over time is most clear in the boroughs of the Bronx and Manhattan and to a lesser extent in Brooklyn and Queens. In Staten Island, trespass arrests consistently represented two percent or less of all arrests throughout the entire time period observed.

Table 1. Trespass and Total Arrests by Borough and Year

	Bronx		Brooklyn		Manhattan		Queens		Staten Island		Total	Total
2013	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Trespass	2,849	3.3	2,800	2.6	4,504	4.1	1,964	2.6	253	2	12,370	3.1
Total	85,859	100	109,568	100	109,742	100	75,919	100	12,721	100	393,809	100
2014	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%

Trespass	3,743	4.4	2,528	2.4	4,591	4.3	1,775	2.3	232	1.7	12,869	3.3
Total	85,679	100	106,677	100	106,188	100	75,906	100	13,277	100	387,727	100
2015	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Trespass	2,919	3.9	2,071	2.2	3,099	3.3	1,391	2.1	112	1	9,592	2.8
Total	75,460	100	93,191	100	93,961	100	65,740	100	11,118	100	339,470	100
2016	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Trespass	1,701	2.5	1,971	2.2	2,809	3.3	1,106	1.8	100	0.8	7,687	2.4
Total	69,212	100	87,607	100	85,357	100	60,344	100	12,344	100	314,864	100
2017	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Trespass	1,122	1.8	1,655	2.1	2,151	2.8	944	1.7	141	1.2	6,013	2.1
Total	62,821	100	80,082	100	76,205	100	55,739	100	11,378	100	286,225	100
2018	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Trespass	716	1.3	1,093	1.6	1,447	2.3	811	1.6	110	1.1	4,177	1.7
Total	55,446	100	68,405	100	62,582	100	49,916	100	10,424	100	246,773	100
2019	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Trespass	530	1.1	849	1.5	1,168	2.2	608	1.4	95	1.1	3,250	1.5
Total	48,815	100	58,288	100	53,915	100	44,567	100	9,032	100	214,617	100

Table 2 shows the basic trends in trespass arrests between years 2013 and 2019 for the city overall and by Patrol Services, Transit, and Housing Bureaus. The data shows that the number of trespass arrests made by Housing Bureau officers steadily declined by 82 percent, from 3,715 in 2013 to 663 in 2019. The number of trespass arrests made by Patrol Service Bureau officers also dropped by 71 percent, from 8,042 in 2013 to 2,324 in 2019. With the exception of a sudden drop in 2019, the number of trespass arrests made by Transit Bureau officers remained mostly the same during this time period. Similar patterns are observed when the trends in the proportions of trespass arrests are compared between 2013 and 2019. Overall, these trends suggest the largest reductions in trespass arrests over time occurred among officers assigned to the Housing Bureau.

Table 2. Trespass and Total Arrests by Bureau

	Patrol		Transit		Housing		Total	
2013	No.	%	No.	%	No.	%	No.	%
Trespass	8,042	2.5	275	0.6	3,715	18.1	12,032	3.1
Total	322,158	100	43,785	100	20,508	100	3864,51	100
2014	No.	%	No.	%	No.	%	No.	%
Trespass	8,674	2.7	295	0.7	3,684	19.3	12,653	3.3
Total	317,812	100	42,639	100	19,133	100	379,584	100
2015	No.	%	No.	%	No.	%	No.	%
Trespass	6482	2.4	202	0.5	2,756	16.1	9,440	2.9
Total	272,425	100	41,386	100	17,073	100	330,884	100
2016	No.	%	No.	%	No.	%	No.	%
Trespass	4,665	1.8	219	0.7	2,669	15.1	7,553	2.5
Total	257,546	100	30,964	100	17,676	100	306,186	100
2017	No.	%	No.	%	No.	%	No.	%
Trespass	3,742	1.6	227	1	1,823	11.3	5,792	2.1
Total	237,974	100	22,679	100	16,109	100	276,762	100
2018	No.	%	No.	%	No.	%	No.	%
Trespass	2,902	1.4	263	2.3	830	8.3	3,995	1.7
Total	214,834	100	11,430	100	10,002	100	236,266	100
2019	No.	%	No.	%	No.	%	No.	%
Trespass	2,324	1.2	131	1.5	663	8.3	3,118	1.5
Total	187,715	100	8,687	100	7,942	100	204,344	100

Table 3 shows the trends in trespass arrests and arrests overall within a block of NYCHA buildings and the rest of New York City each year. Consistent with the other trends by borough and jurisdiction, these data show a clear decline in both the proportion and number of trespass arrests within NYCHA complexes. Trespass arrests were more than six percent of all arrests in 2013 through 2015 and then dropped to less than three percent of arrests in 2018 and 2019. Trespass arrests declined by 82.7 percent within a block of NYCHA buildings between 2013 and 2019. These data clearly indicate that the citywide decline in trespass arrests as a share of all arrests was driven by a change in trespass enforcement activity in NYCHA. The decline in trespass

arrests was not offset by a rise in arrests for other offenses. Arrests in NYCHA for non-trespass offenses declined by 47 percent between 2013 and 2019 compared to 44 percent in the rest of New York City.

Table 3. Trespass and Total Arrests by Area and Year

	Rest of City		NYCHA		Total	
2013	No.	%	No.	%	No.	%
Trespass	7,891	2.4	4,479	6.8	12,370	3.1
Total	328,419	100	65,390	100	393,809	100
2014	No.	%	No.	%	No.	%
Trespass	8,027	2.5	4,842	7.6	12,869	3.3
Total	324,214	100	63,513	100	387,727	100
2015	No.	%	No.	%	No.	%
Trespass	6,089	2.1	3,503	6.5	9,592	2.8
Total	285,310	100	54,160	100	339,470	100
2016	No.	%	No.	%	No.	%
Trespass	4,762	1.8	2,925	5.6	7,687	2.4
Total	262,851	100	52,013	100	314,864	100
2017	No.	%	No.	%	No.	%
Trespass	4,131	1.7	1,882	4.1	6,013	2.1
Total	239,973	100	46,252	100	286,225	100
2018	No.	%	No.	%	No.	%
Trespass	3,125	1.5	1,052	2.7	4,177	1.7
Total	208,333	100	38,440	100	246,773	100
2019	No.	%	No.	%	No.	%
Trespass	2,478	1.4	772	2.3	3,250	1.5
Total	181,513	100	33,104	100	214,617	100

Table 4 shows the results from an examination of summonses issued for all offenses and for trespass each year by borough. Trespass summonses for all of New York City and by borough remained a relatively stable fraction of summonses, indicating that the decline in trespass arrests was not offset by an increase in the issuance of trespass summonses. The citywide number of

trespass summonses issued by the NYPD decreased by 80 percent, from 10,680 in 2013 to 2,120 in 2019.

Table 4. Trespass and Total Summonses by Year and Borough

	Bronx		Brooklyn		Manhattan		Queens		Staten Island		Total	
2013	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Trespass	2,613	3	2,569	2.1	1,884	1.6	2,699	3.4	915	6.9	10,680	2.6
Total	86,985	100	121,711	100	117,533	100	79,274	100	13,231	100	418,734	100
2014	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Trespass	2,160	2.9	2,521	2.5	1,725	1.9	1,949	2.7	756	5.9	9,111	2.6
Total	75,099	100	102,895	100	92,949	100	71,255	100	12,918	100	355,116	100
2015	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Trespass	1,751	2.6	1,809	2	1,174	1.7	1,850	3.2	477	4.9	7,061	2.4
Total	66,564	100	91,012	100	69,155	100	56,989	100	9,710	100	293,430	100
2016	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Trespass	1,531	2.7	1,764	2.3	1,336	2.1	1,501	2.9	517	4.6	6,649	2.5
Total	57,708	100	78,143	100	64,213	100	51,890	100	11,165	100	263,119	100
2017	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Trespass	1,146	3.3	1,436	3	746	1.8	992	3.2	328	4.8	4,648	2.9
Total	34,850	100	47,189	100	41,848	100	31,444	100	6,893	100	162,224	100
2018	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Trespass	691	3	812	3.6	239	0.9	468	3.2	211	5.5	2,421	2.7
Total	23,021	100	22,858	100	25,299	100	14,665	100	3,820	100	89,663	100
2019	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Trespass	594	2.9	652	2.9	325	1.2	379	2.7	170	5.4	2,120	2.5
Total	20,516	100	22,263	100	26,007	100	13,939	100	3,174	100	85,899	100

Table 5 shows the year-to-year trends in summonses for trespass by Patrol, Transit, and Housing Bureaus. The issuance of summonses for trespass declined across all bureaus. However, in the Housing Bureau, the share of summonses issued for trespass increased from less than 1.0 percent between 2013 and 2016 to a high of 5.3 percent in 2019. This reflects the fact that the overall number of summonses issued by Housing Bureau officers declined substantially. Between 2013 and 2019, there was nearly a 90 percent decrease (4,074/37,039) in summonses issued by the Housing Bureau.

Table 5. Trespass and Total Summonses by Bureau

	Patrol		Transit		Housing		Total	
2013	No.	%	No.	%	No.	%	No.	%
Trespass	10,191	2.7	273	6	340	0.9	10,804	2.5
Total	383,328	100	4,573	100	37,039	100	424,940	100
2014	No.	%	No.	%	No.	%	No.	%
Trespass	8,644	2.6	382	9.5	196	0.7	9,222	2.6
Total	328,594	100	4,018	100	27,024	100	359,636	100
2015	No.	%	No.	%	No.	%	No.	%
Trespass	6,990	2.6	90	3.3	108	0.5	7,188	2.4
Total	272,416	100	2,765	100	22,567	100	297,748	100
2016	No.	%	No.	%	No.	%	No.	%
Trespass	6,427	2.6	207	5.3	143	0.7	6,777	2.5
Total	244,639	100	3,884	100	19,427	100	267,950	100
2017	No.	%	No.	%	No.	%	No.	%
Trespass	4,524	3	50	2.1	154	1.6	4,728	2.9
Total	152,861	100	2,378	100	9,854	100	165,093	100
2018	No.	%	No.	%	No.	%	No.	%
Trespass	2,324	2.8	13	0.3	86	2.7	2,423	2.7
Total	82,322	100	4,425	100	3,148	100	89,895	100
2019	No.	%	No.	%	No.	%	No.	%
Trespass	1,879	2.4	25	0.6	216	5.3	2,120	2.5
Total	77,330	100	4,495	100	4,074	100	85,899	100

Table 6 shows the total summonses and trespass summonses issued in and around NYCHA (0.0-0.1 mile buffer) compared to the rest of the city, by year. Summonses for trespass dropped by roughly 72.2 percent between 2013 and 2019 around NYCHA complexes. The data show that summonses overall dropped significantly across the rest of New York City and in and around NYCHA buildings and, in both geographies, trespass summonses remained on average between roughly 2.0 percent and 3.0 percent of summonses issued over time.

Table 6. Trespass and Total Summonses by Area and Year

	Rest of City		NYCHA		Total	
2013	No.	%	No.	%	No.	%
Trespass	9,428	2.7	1,376	2	10,804	2.5
Total	355,294	100	69,646	100	424,940	100
2014	No.	%	No.	%	No.	%
Trespass	8,188	2.7	1,034	1.8	9,222	2.6
Total	301,540	100	58,096	100	359,636	100
2015	No.	%	No.	%	No.	%
Trespass	6,371	2.5	817	1.7	7,188	2.4
Total	250,807	100	46,941	100	297,748	100
2016	No.	%	No.	%	No.	%
Trespass	5,923	2.6	854	2.1	6,777	2.5
Total	228,029	100	39,921	100	267,950	100
2017	No.	%	No.	%	No.	%
Trespass	4,151	2.9	577	2.5	4,728	2.9
	142,450	100	22,643	100	165,093	100
2018	No.	%	No.	%	No.	%
Trespass	2,111	2.7	312	2.4	2,423	2.7
Total	77,057	100	12,838	100	89,895	100
2019	No.	%	No.	%	No.	%
Trespass	1,731	2.4	389	2.8	2,120	2.5
Total	72,161	100	13,738	100	85,899	100

These descriptive data on summonses show that the decline in arrests for trespass was not accompanied by an increase in trespass summonses.

Table 7 shows the trends in trespass stops by borough and year. The trends show that trespass stops declined as a share of total stops across most of the boroughs as reported stops overall were declining in the city. Between 2013 and 2019, the number of trespass stops decreased by 95.3 percent in the Bronx (from 1,782 to 83), 97.0 percent in Brooklyn (from 5,177 to 156), 95.8 percent in Manhattan (from 4,031 to 171), 96.6 percent in Queens (from 1,609 to 54), 94.1 percent in Staten Island (from 443 to 26), and 96.2 percent citywide (from 13,042 to 490).

Table 7. Trespass and Total Stops by Year and Borough

	Bronx		Brooklyn		Manhattan		Queens		Staten Island		Total	
2013	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Trespass	1,782	7.3	5,177	7.3	4,031	10.4	1,609	3.7	443	5.4	13,042	7
Total	2,436	100	71360	100	38,790	100	43,868	100	8,184	100	186,562	100
2014	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Trespass	822	12.5	900	6.8	1,150	16.8	253	2	189	3.9	3,314	7.5
Total	6,582	100	13,180	100	6,859	100	12,728	100	4,788	100	44,137	100
2015	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Trespass	565	12.3	344	5.5	319	8.6	80	1.5	34	2	1,342	6.2
Total	4,582	100	6,257	100	3,717	100	5,471	100	1,720	100	21,747	100
2016	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Trespass	204	8.6	302	8.6	222	9.3	76	2.4	17	2.7	821	6.8
Total	2,377	100	3,519	100	2,393	100	3,125	100	639	100	12,053	100
2017	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Trespass	114	4.6	251	7.5	442	16	100	4.8	24	4.4	931	8.3
Total	2,473	100	3,328	100	2,771	100	2,079	100	546	100	11,197	100
2018	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Trespass	106	4.5	149	4.1	164	5.7	61	3.3	4	1.2	484	4.4
Total	2,331	100	3,632	100	2,857	100	1,848	100	340	100	11,008	100
2019	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Trespass	83	3.4	156	3.6	171	4.6	54	2.2	26	5.1	490	3.6
Total	2,464	100	4,311	100	3,724	100	2,446	100	514	100	13,459	100

Table 8 shows the distribution of trespass stops for Housing and other Bureaus by year. Trespass stops remained a relatively large fraction of stops made by Housing Bureau officers when compared to officers working in other Bureaus. For instance, in 2013, nearly one quarter of all stops made by Housing Bureau officers were reported as involving trespassing. The proportion of Housing Bureau stops that involved trespassing reached a peak of 39.9 percent in 2017 and dropped to a low of 19.9 percent in 2019. However, it is important to note that the total number of recorded trespass stops made by the Housing Bureau declined by 96.4 percent, from 7,190 in 2013 to 490 in 2019. The reduction for all recorded stops overall in Housing was 95.4 percent between 2013 and 2019.

Table 8. Trespass Stops by Bureau

	Other Bureaus		Housing		Total	
2013	No.	%	No.	%	No.	%
Trespass	5,852	3.7	7,190	24.9	13,042	7
Total	157,706	100	28,856	100	186,562	100
	Other Bureaus		Housing		Total	
2014	No.	%	No.	%	No.	%
Trespass	879	2.4	2,435	35.1	3,314	7.5
Total	37,199	100	6,938	100	44,137	100
	Other Bureaus		Housing		Total	
2015	No.	%	No.	%	No.	%
Trespass	379	2.1	963	28.9	1,342	6.2
Total	18,413	100	3,334	100	21,747	100
	Other Bureaus		Housing		Total	
2016	No.	%	No.	%	No.	%
Trespass	283	2.7	538	34.7	821	6.8
Total	10,503	100	1,550	100	12,053	100
	Other Bureaus		Housing		Total	
2017	No.	%	No.	%	No.	%
Trespass	332	3.4	599	39.9	931	8.3
Total	9,697	100	1,500	100	11,197	100
	Other Bureaus		Housing		Total	
2018	No.	%	No.	%	No.	%
Trespass	166	1.7	318	25.2	484	4.4
Total	9,747	100	1,261	100	11,008	100
	Other Bureaus		Housing		Total	
2019	No.	%	No.	%	No.	%
Trespass	229	1.9	261	19.9	490	3.6
Total	12,146	100	1,313	100	13,459	100

Table 9 shows the year-to-year changes in recorded stops overall and for trespass in and around NYCHA housing complexes and the rest of NYC. The total number of recorded stops and percentage of recorded stops that were for trespass declined substantially around NYCHA

buildings between 2013 and 2019. Specifically, recorded trespass stops in and around NYCHA properties dropped by 96.7 percent between 2013 and 2019, consistent with the 95.8 percent reduction in recorded stops in the rest of New York City.

Table 9. Trespass and Total Stops by Area and Year

	Rest of City		NYCHA		Total	
2013	No.	%	No.	%	No.	%
Trespass	7,345	5	5,697	14.7	13,042	7
Total	147,697	100	38,865	100	186,562	100
	Rest of City		NYCHA		Total	
2014	No.	%	No.	%	No.	%
Trespass	1,730	4.9	1,584	18.1	3,314	7.5
Total	35,363	100	8,774	100	44,137	100
	Rest of City		NYCHA		Total	
2015	No.	%	No.	%	No.	%
Trespass	690	3.9	652	15.6	1,342	6.2
Total	17,564	100	4,183	100	21,747	100
	Rest of City		NYCHA		Total	
2016	No.	%	No.	%	No.	%
Trespass	431	4.4	390	17.2	821	6.8
Total	9,789	100	2,264	100	12,053	100
	Rest of City		NYCHA		Total	
2017	No.	%	No.	%	No.	%
Trespass	494	5.5	437	19.6	931	8.3
Total	8,963	100	2,234	100	11,197	100
	Rest of City		NYCHA		Total	
2018	No.	%	No.	%	No.	%
Trespass	252	2.8	232	11	484	4.4
Total	8,901	100	2,107	100	11,008	100
	Rest of City		NYCHA		Total	Total
2019	No.	%	No.	%	No.	%
Trespass	306	2.8	184	7.3	490	3.6
Total	10,947	100	2,512	100	13,459	100

Overall, the trends in trespass arrests, summonses, and stops show a substantial reduction in enforcement actions between 2013 and 2019. During this time period, trespass enforcement was greatly reduced in NYCHA. The decline in trespass enforcement actions was most pronounced in boroughs that contain more NYCHA complexes (Bronx, Brooklyn, Queens, and Manhattan), among Housing Bureau officers, and within one block of NYCHA buildings.

B. Distribution of Trespass Enforcement by Race, Ethnicity, and Area

The reduction of racial disparities in the distribution of individuals subjected to trespass enforcement actions is an important component of the *Davis* settlement. In the following section, we conduct a careful analysis of trends and patterns in trespass enforcement actions over time by subject race and encounter location relative to NYCHA buildings. We specifically examine the fraction of trespass enforcement actions (arrests, summonses, stops) each year and how they vary by buffer distances from NYCHA (0.0-0.1, 0.11-0.25, 0.26-0.5, or >0.5 miles) and race (Black, Hispanic, vs. White/Other). The "outside" area in the tables and figures refers to areas that are outside these buffers around NYCHA buildings at distances of greater than 0.5 miles. We interpret p-values less than 0.01 as a significant effect. We used the lower p-value .01 rather than .05 to account for multiple outcome tests across years. This more restrictive threshold was used to avoid "false discoveries" - by chance alone, the application of the $p<.05$ threshold could lead one to falsely reject the null hypothesis of no racial disparity in trespass enforcement by location in five out of 100 tests.[3]

[3] As we noted in the Thirteenth Report, prominent statisticians have argued that the threshold for the discovery of "new effects" should be $p<.005$ (Benjamin et al., 2018). However, since these analyses are a reproduction of existing findings of racial disparities in trespass enforcement in NYCHA accepted by the court, $p<.005$ is too high a threshold for rejecting the null hypothesis of no racial disparity between Blacks and Hispanics and White/Others in trespass enforcement. The conclusions in the report, however, apply whether one uses a $p<0.05$ or $p<0.01$. This can be seen in key figures that display estimates and the 95 percent confidence intervals.

Figure 2 presents the yearly counts of NYPD trespass arrests in and around NYCHA buildings between 2013 and 2019. The trend lines show that the rate of decline was similar among Blacks, Hispanics, and White/Other groups within 0.10 of NYCHA buildings. While the yearly numbers of Blacks and Hispanics arrested for trespassing are much larger than the yearly numbers of Whites, the numbers of arrestees of all racial groups declined steeply between 2014 and 2019.

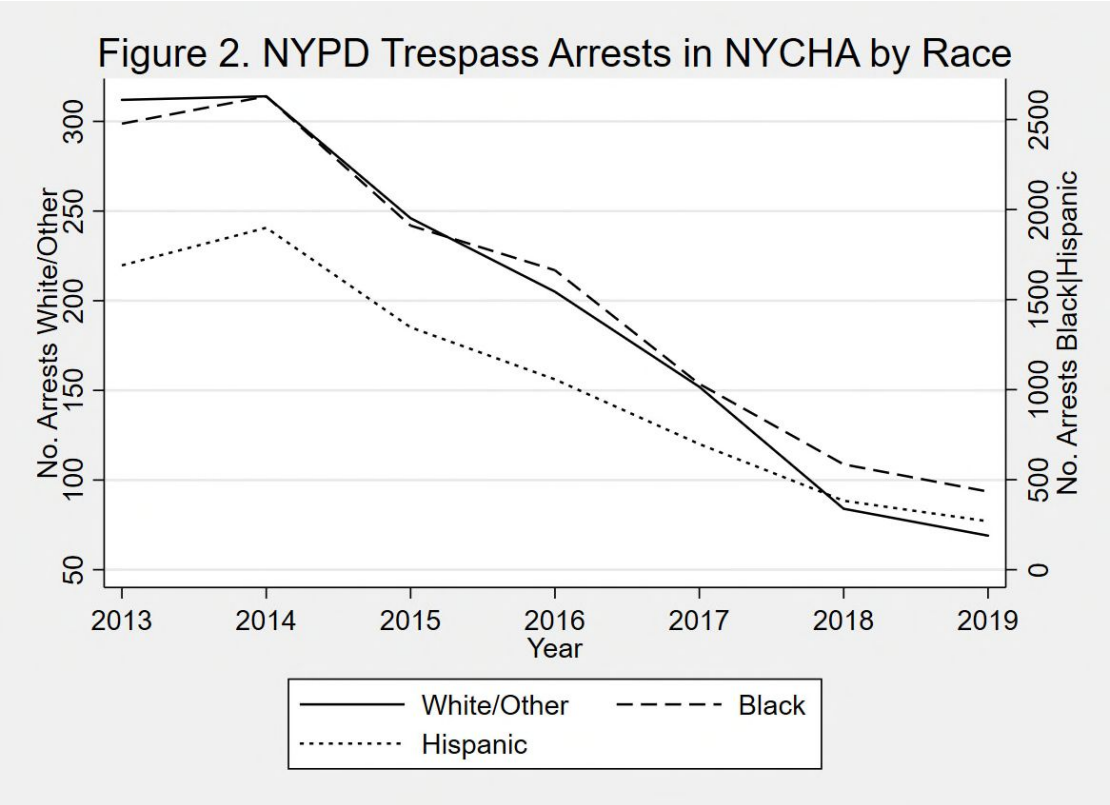


Table 10 shows the results from a logistic regression analysis that predicts the likelihood that an arrest was for trespassing compared to other arrest types, and how this varies by distance from NYCHA and by race. The exponentiated coefficients, commonly referred to as odds ratios, are displayed in this table in the top rows. An odds ratio of 1.0 means equal odds, or no difference. An odds ratio of less than 1.0 means the odds are lower. Odds ratios can be interpreted in terms of the relative odds of a trespass arrest compared to other arrests for a given distance, race, or

combination of race and distance relative to its comparison group. For example, the odds ratio of 3.23 for 0.10 mile in year 2013 means that the likelihood of experiencing a trespass arrest compared to another arrest type increased by a factor of 3.23 relative to being arrested for trespass more than 0.10 miles away from NYCHA housing. The bottom rows display the overall predicted probability for a trespass arrest from the odds ratios for each racial group and are easier to interpret. For example, in 2013, the results show that within 0.10 miles of NYCHA buildings, .056 (or 5.6 percent) of arrests of Whites/Others were for trespass, while .064 (6.4 percent) of arrests of Blacks were for trespass, and .079 (7.9 percent) of arrests of Hispanics were for trespass. These results from the odds ratios for the interactions between race/ethnicity nearby NYCHA complexes show that these differences were not significantly different from each other.

Table 10. Trespass Arrests by Year, Area, and Race

	(2013) trespass	(2014) trespass	(2015) trespass	(2016) trespass	(2017) trespass	(2018) trespass	(2019) trespass
0.10 mile	3.230**	3.348**	3.494**	2.749**	2.332**	1.453**	1.557**
	(0.222)	(0.229)	(0.272)	(0.227)	(0.218)	(0.173)	(0.205)
0.25 mile	1.402**	1.170	1.523**	1.060	1.223	0.703**	0.846
	(0.106)	(0.0952)	(0.132)	(0.105)	(0.123)	(0.0940)	(0.117)
0.5 mile	1.053	0.859	0.873	0.653**	0.956	0.649**	0.642**
	(0.0758)	(0.0660)	(0.0778)	(0.0638)	(0.0856)	(0.0690)	(0.0765)
Black	1.024	0.994	1.002	0.996	1.155	1.005	0.947
	(0.0494)	(0.0474)	(0.0550)	(0.0544)	(0.0649)	(0.0593)	(0.0625)
Hispanic	1.317**	1.353**	1.369**	0.938	1.053	0.876	0.717**
	(0.0619)	(0.0625)	(0.0734)	(0.0538)	(0.0624)	(0.0557)	(0.0533)
0.10 mile #Black	1.119	1.201	1.147	1.214	0.884	0.997	0.914
	(0.0878)	(0.0935)	(0.102)	(0.113)	(0.0927)	(0.132)	(0.134)
0.10 mile #Hispanic	1.088	1.161	1.040	1.477**	1.183	1.335	1.302
	(0.0860)	(0.0907)	(0.0929)	(0.143)	(0.129)	(0.184)	(0.203)
0.25 mile #Black	1.182	1.506**	1.174	1.311	0.863	1.119	1.112
	(0.101)	(0.137)	(0.115)	(0.146)	(0.0981)	(0.166)	(0.171)

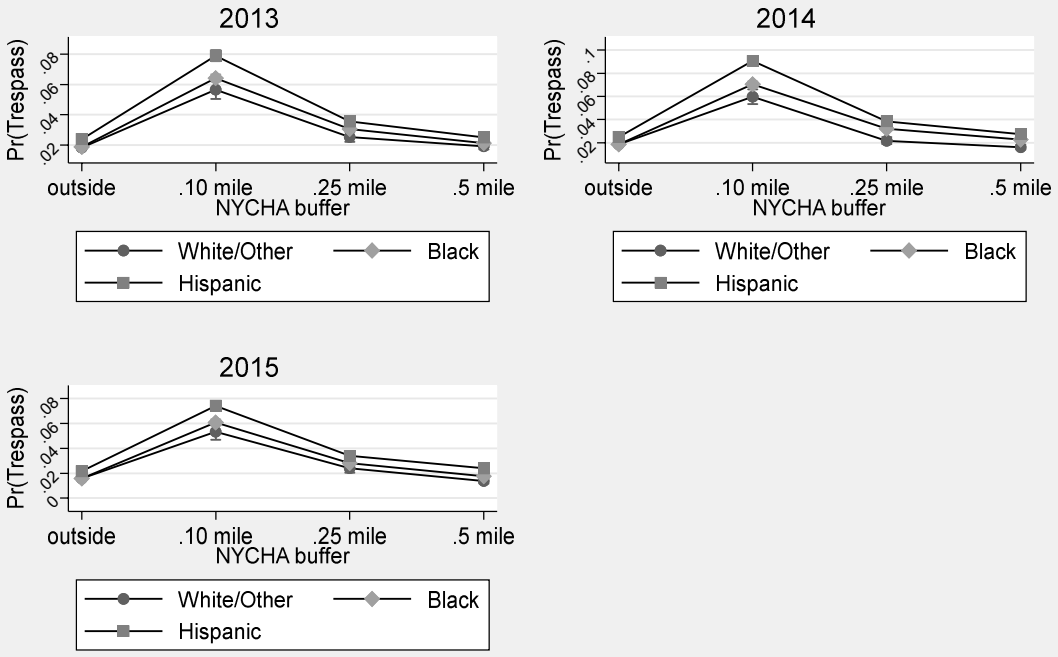
0.25 mile #Hispanic	1.075	1.337**	1.046	1.582**	0.965	1.214	1.181
	(0.0932)	(0.122)	(0.104)	(0.182)	(0.115)	(0.189)	(0.197)
0.5 mile #Black	1.089	1.426**	1.272	1.282	0.830	1.028	1.222
	(0.0928)	(0.127)	(0.131)	(0.145)	(0.0884)	(0.129)	(0.170)
0.5 mile #Hispanic	0.994	1.277**	1.270	1.724**	0.734**	1.191	1.290
	(0.0848)	(0.113)	(0.130)	(0.198)	(0.0835)	(0.155)	(0.194)
Mean Probability							
outside # White/O	0.0182	0.0186	0.0159	0.0171	0.0164	0.0180	0.0168
outside # Black	0.0187	0.0185	0.0159	0.0170	0.0189	0.0181	0.0159
outside # Hispanic	0.0239	0.0250	0.0216	0.0160	0.0172	0.0158	0.0121
.10 mile # White/O	0.0566	0.0597	0.0533	0.0456	0.0374	0.0259	0.0259
.10 mile # Black	0.0643	0.0705	0.0608	0.0546	0.0381	0.0260	0.0225
.10 mile # Hispanic	0.0792	0.0907	0.0743	0.0620	0.0462	0.0302	0.0242
.25 mile # White/O	0.0254	0.0217	0.0240	0.0181	0.0200	0.0127	0.0142
.25 mile # Black	0.0305	0.0321	0.0281	0.0235	0.0199	0.0143	0.0150
.25 mile # Hispanic	0.0356	0.0386	0.0340	0.0266	0.0203	0.0135	0.0121
.5 mile # White/O	0.0192	0.0160	0.0139	0.0112	0.0157	0.0117	0.0108
.5 mile # Black	0.0213	0.0226	0.0176	0.0143	0.0150	0.0121	0.0125
.5 mile # Hispanic	0.0250	0.0274	0.0239	0.0180	0.0122	0.0123	0.0100
Observations	393,809	387,727	339,470	314,864	286,225	246,773	214,617

Exponentiated coefficients; standard errors in parentheses. White/O=White or Others.
** $p < 0.01$

In general, the results from Table 10 show that the likelihood of trespass arrests declined substantially over time within .10 miles of NYCHA buildings and the decline was equally present among all race/ethnic comparisons.

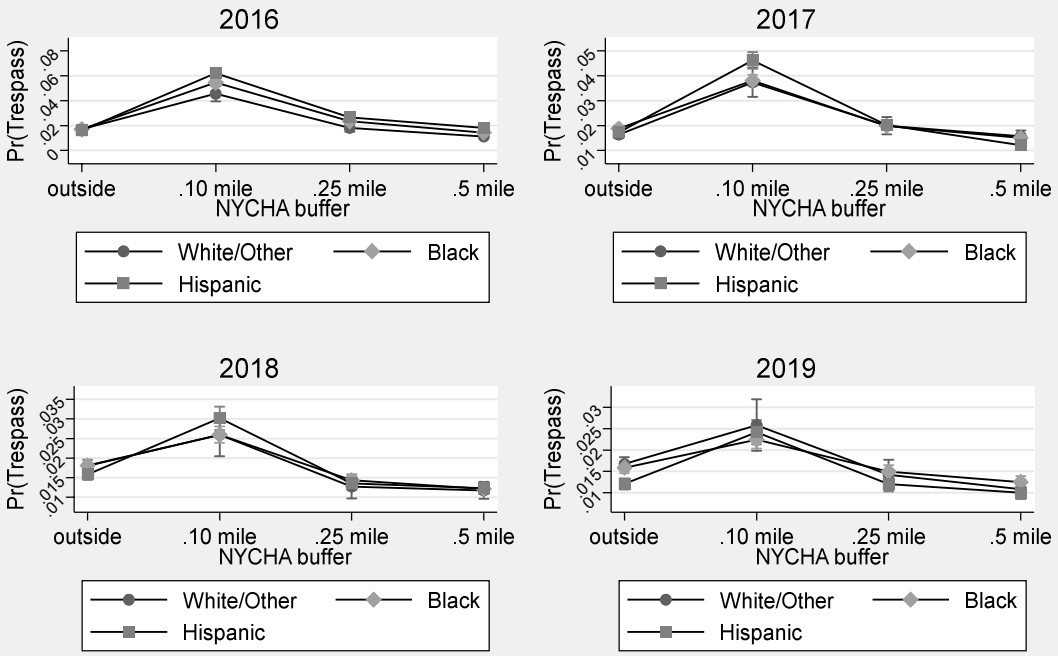
Figure 3a and 3b shows the average probability of a trespass arrest for Black, Hispanic, and White/Other groups by distance from NYCHA each year. The trends are clear in showing that trespass arrests overall declined for all racial groups as a function of the distance from NYCHA. If one compares the buffer distances greater than .5 miles (outside) as well as .25 miles and .5 miles, it is clear that arrests declined for all groups. And as the decline in trespass arrests occurred, the relative share of the decline was slightly greater for Black and Hispanic groups than it was for White/Other groups.

Figure 3a. Race Distributon of Trespass Arrests



Source: Open Data NYCHA

Figure 3b. Race Distribution of Trespass Arrests



Source: Open Data NYCHA

Table 11 shows results for the logistic regressions of trespass summonses by year, distance from NYCHA, and race. Only years 2017 to 2019 are displayed. Prior to 2017, subject race was not consistently recorded on summons data forms. The results show that, among those given a summons, Blacks were more 1.77 times more likely than Whites to receive a trespass summons near NYCHA compared to other summons categories in 2018. The mean probability shows that .036 (3.6 percent) of Blacks given a summons were issued one for trespass in 2018 in NYCHA complexes compared to .019 (1.9 percent) for Whites. Otherwise, there was no overall pattern of racial differences in the probability of receiving a trespass summons in 2017 or 2019.

Table 11. Summonses by Year, Area, and Race

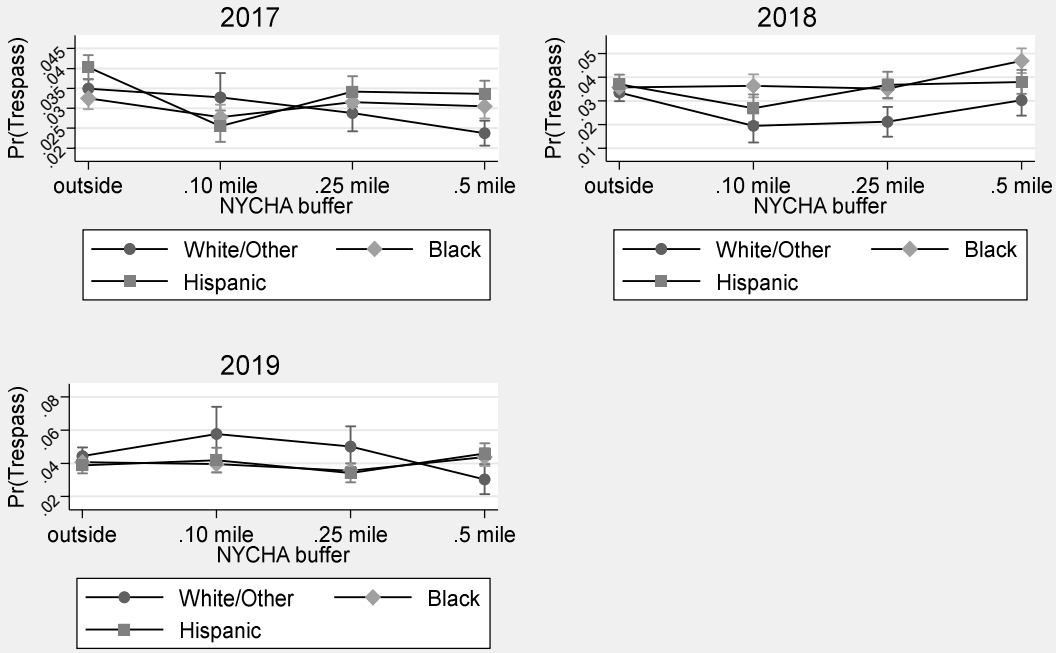
	(2017) trespass	(2018) trespass	(2019) trespass
0.10 mile	0.936	0.572**	1.321
	(0.0972)	(0.112)	(0.220)
0.25 mile	0.819	0.624**	1.137
	(0.0740)	(0.103)	(0.166)
0.5 mile	0.672**	0.900	0.675
	(0.0524)	(0.114)	(0.112)
Black	0.927	1.070	0.916
	(0.0528)	(0.0812)	(0.0793)
Hispanic	1.159**	1.113	0.869
	(0.0631)	(0.0894)	(0.0797)
0.10 mile # Black	0.909	1.777**	0.735
	(0.116)	(0.381)	(0.139)
0.10 mile # Hispanic	0.667**	1.250	0.823
	(0.0916)	(0.293)	(0.167)
0.25 mile # Black	1.186	1.573	0.764
	(0.132)	(0.290)	(0.130)
0.25 mile # Hispanic	1.031	1.590	0.772

	(0.119)	(0.307)	(0.141)
0.5 mile # Black	1.396**	1.476**	1.597
	(0.145)	(0.220)	(0.300)
0.5 mile # Hispanic	1.233	1.139	1.772**
	(0.126)	(0.178)	(0.341)
Mean Probability			
outside # White/Other	0.0349	0.0334	0.0443
outside # Black	0.0325	0.0357	0.0407
outside # Hispanic	0.0403	0.0371	0.0387
.10 mile # White/Other	0.0328	0.0194	0.0577
.10 mile # Black	0.0277	0.0363	0.0396
.10 mile # Hispanic	0.0255	0.0268	0.0420
.25 mile # White/Other	0.0288	0.0211	0.0501
.25 mile # Black	0.0316	0.0350	0.0356
.25 mile # Hispanic	0.0342	0.0368	0.0342
.5 mile # White/Other	0.0238	0.0302	0.0303
.5 mile # Black	0.0305	0.0469	0.0438
.5 mile # Hispanic	0.0336	0.0380	0.0460
Observations	135,097	68,286	52,108

Exponentiated coefficients; standard errors in parentheses. Outside=distances that are greater than the .5 mile buffer.
** $p < 0.01$

Figure 4 shows the average probability of a trespass summons for Black, Hispanic, and White/Other groups by distance from NYCHA each year. The trends are flat, suggesting that locations near NYCHA were not a major source of trespass summonses. The yearly variation overlaps substantially by race, indicating that there was not a significant relationship between distance from NYCHA and race in the issuance of trespass summonses.

Figure 4. Race Distribution of Trespass Summons



Source: Open Data NYCHA

Table 12 shows the results for the logistic regression analysis of trespass stops by year, location, and race. The results show that trespass stops were significantly more likely to occur within .10 miles of NYCHA complexes. The results, however, show that, between 2014 and 2019, the heightened risk of a trespass stop at or near NYCHA buildings decreased substantially, from an odds ratio of 14.39 to 6.62. The results also show that race and location generally did not vary significantly across the years for the majority of comparisons. The one exception was for trespass stops near NYCHA among individuals identified as being Black. In 2013, 2014, and 2015, reported stops for trespass at NYCHA properties were significantly less likely than reported stops for other reasons for Black subjects relative to White/Other group subjects, and this pattern remained consistent in later years.

Table 12. Stops by Year, Area, and Race

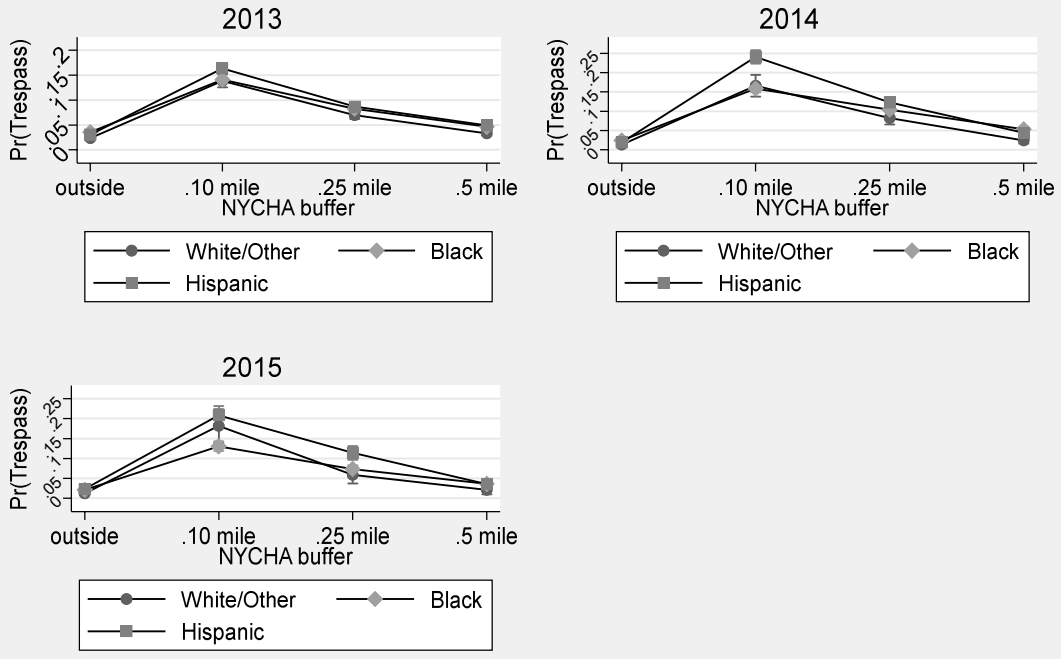
	(2013) trespass	(2014) trespass	(2015) trespass	(2016) trespass	(2017) trespass	(2018) trespass	(2019) trespass
0.10 mile	6.615**	14.39**	17.83**	12.89**	9.668**	6.871**	6.629**
	(0.482)	(2.252)	(4.105)	(2.992)	(2.316)	(2.119)	(1.839)
0.25 mile	3.074**	6.539**	5.037**	3.526**	2.839**	1.867	2.139
	(0.239)	(1.065)	(1.352)	(0.918)	(0.792)	(0.689)	(0.703)
0.5 mile	1.413**	1.832**	1.730	1.494	1.179	0.426	0.947
	(0.129)	(0.384)	(0.577)	(0.464)	(0.387)	(0.262)	(0.362)
Black	1.524**	1.828**	1.733**	0.886	0.698	0.935	0.800
	(0.0873)	(0.255)	(0.368)	(0.196)	(0.143)	(0.226)	(0.173)
Hispanic	1.306**	1.409	1.923**	0.931	0.813	0.548	0.600
	(0.0807)	(0.220)	(0.427)	(0.217)	(0.180)	(0.163)	(0.152)
0.10 mile # Black	0.669**	0.519**	0.390**	0.506	0.560	0.454	0.307**
	(0.0547)	(0.0921)	(0.102)	(0.144)	(0.157)	(0.159)	(0.0987)
0.10 mile # Hispanic	0.931	1.131	0.615	0.793	0.913	1.466	0.811
	(0.0815)	(0.219)	(0.168)	(0.239)	(0.270)	(0.579)	(0.289)
0.25 mile # Black	0.788**	0.705	0.731	0.786	1.112	0.640	0.664
	(0.0685)	(0.130)	(0.219)	(0.248)	(0.353)	(0.266)	(0.246)
0.25 mile # Hispanic	0.976	1.099	1.067	1.157	0.892	1.362	0.602
	(0.0910)	(0.223)	(0.331)	(0.384)	(0.304)	(0.636)	(0.261)
0.5 mile # Black	0.926	1.221	1.001	0.913	0.940	1.405	0.778
	(0.0950)	(0.284)	(0.371)	(0.345)	(0.360)	(0.932)	(0.340)
0.5 mile # Hispanic	1.151	1.301	0.899	1.498	1.056	4.041	0.999
	(0.125)	(0.331)	(0.350)	(0.579)	(0.422)	(2.767)	(0.488)
Mean Probability							
outside # White/Other	0.0238	0.0136	0.0123	0.0279	0.0459	0.0310	0.0336
outside # Black	0.0358	0.0246	0.0212	0.0248	0.0325	0.0291	0.0271
outside # Hispanic	0.0308	0.0191	0.0234	0.0260	0.0377	0.0172	0.0204
0.10 mile # White/Other	0.139	0.166	0.182	0.270	0.318	0.180	0.188
0.10 mile # Black	0.141	0.158	0.131	0.142	0.154	0.0854	0.0536
0.10 mile # Hispanic	0.164	0.240	0.208	0.214	0.257	0.150	0.101
0.25 mile # White/Other	0.0696	0.0828	0.0591	0.0918	0.120	0.0564	0.0693
0.25 mile # Black	0.0824	0.104	0.0737	0.0658	0.0960	0.0345	0.0381
0.25 mile # Hispanic	0.0871	0.123	0.114	0.0983	0.0902	0.0427	0.0262

0.5 mile # White/Other	0.0333	0.0247	0.0211	0.0411	0.0537	0.0135	0.0319
0.5 mile # Black	0.0463	0.0534	0.0360	0.0335	0.0359	0.0176	0.0201
0.5 mile # Hispanic	0.0492	0.0443	0.0360	0.0564	0.0465	0.0293	0.0194
Observations	186,562	44,137	21,747	12,053	11,197	11,008	13,459

Exponentiated coefficients; standard errors in parentheses.
** $p < 0.01$

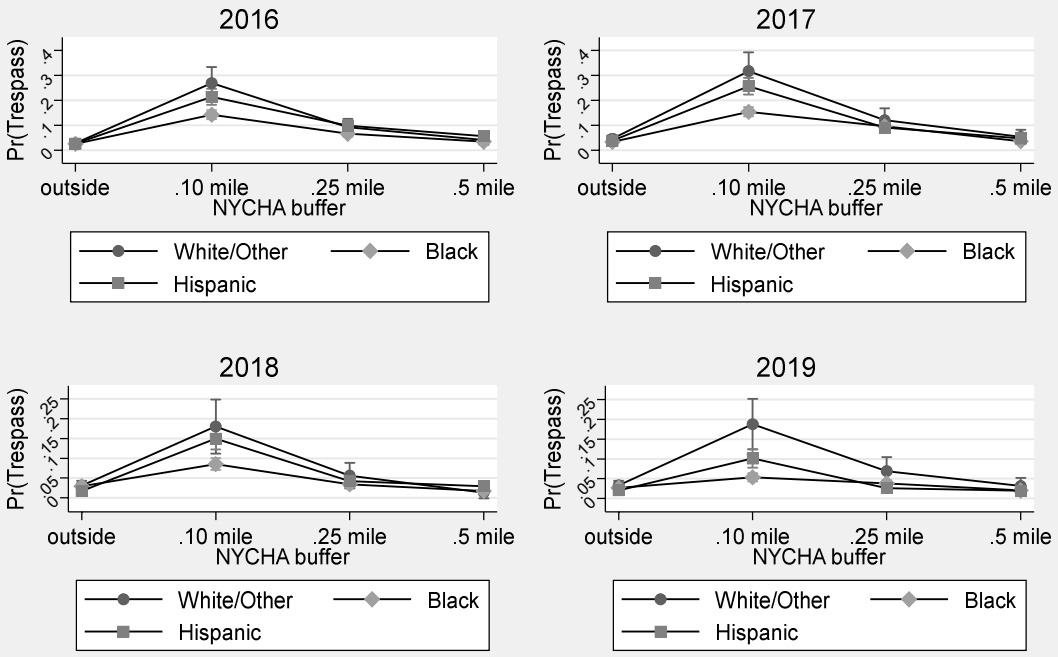
Figures 5a and 5b show the average probability of trespass stops by race and distance from NYCHA complexes each year. The figure shows that Whites/Others had a higher average probability of trespass stops within 0.10 miles of NYCHA complexes in years 2017 to 2019.

Figure 5a. Race Distributon of Trespass Stops



Source: Open Data NYCHA

Figure 5b. Race Distribution of Trespass Stops



Source: Open Data NYCHA

These results show that NYPD trespass enforcement decreased substantially between 2013 and 2019. This large reduction was prominently observed in and around NYCHA buildings as well as in the rest of the city. Subjects of all racial groups experienced reductions in their likelihood of arrests, stops, and summons for trespassing in and around NYCHA buildings. The consistency of the reductions across these NYPD enforcement actions suggests that the decrease in trespassing arrests was not offset by an increase in trespassing summonses or stops. Importantly, these analyses suggest that Blacks and Hispanics are no longer disproportionately subjected to trespass enforcement actions relative to Whites/Other racial groups in and around NYCHA buildings.

C. Multivariate Analysis of Trespass Enforcement in NYCHA

Table 13 shows a descriptive comparison of the demographic, monthly counts of total crime reports, and monthly counts of trespass arrests per census block group within 0.0-0.10 miles, 0.10-0.25 miles, 0.25-0.5 miles, and outside of this range in New York City. The demographic data are displayed in proportions of the population. The results show that the demographic and economic makeup of each block group area differs substantially. Within the nearest buffer of NYCHA developments, the population self-reports as 43.3 percent Black, 37.8 percent Hispanic, and 24 percent White according to ACS 2018 five-year estimates. By contrast, block groups that are 0.25-0.5 miles away from NYCHA developments have populations that self-report as 33 percent Black, 36.3 percent Hispanic, and 32.3 percent White. The level of poverty is also considerably higher in NYCHA block groups compared to areas outside. Within 0.1 miles of NYCHA developments, 25.8 percent of families live in poverty compared to 18.7 percent in block groups located 0.25 to 0.5 miles away. The differences in economic circumstances by distance from NYCHA projects overall is captured by the socioeconomic index (SES), which shows that the NYCHA areas are on average considerably poorer, with fewer adults with college degrees. There is a roughly .33 standard deviation difference in SES between block groups located near NYCHA (0.0-0.1 miles) compared to those more than 0.5 miles away. In general, the data show that the demographic and economics characteristics of block groups are more similar to NYCHA in the closer ring buffers. These differences underscore the need to take into account socioeconomic factors when comparing levels of trespass enforcement in NYCHA compared to other distances.

Table 13. Summary Statistics by Buffer

0.0-0.10 mile	N	Mean	Standard Dev.
% Black	65,872	.433	.279
% Hispanic	65,872	.378	.25
% White	65,872	.24	.219
% Other	65,872	.327	.212
% Pop <18	65,872	.223	.094
%Female head household	65,732	.284	.161
% Pop 25+ No College	65,872	.532	.186
Median House Income	59,620	46,280	30,207
% Vacant Housing	65,732	.075	.073
% Families in Poverty	65,633	.258	.187
SES	59,577	.87	1.732
Total Offenses	70,804	6.187	6.318
Trespass Arrests	70,804	.275	1.038
0.10-0.25 mile			
% Black	94,651	.412	.295
% Hispanic	94,651	.362	.264
% White	94,651	.254	.239
% Other	94,651	.334	.231
% Pop <18	94,651	.216	.094
Female head household	94,346	.256	.153
% Pop 25+ No College	94,651	.497	.196
Median House Income	87,253	54,926	34,847
% Vacant Housing	94,346	.083	.074
% Families in Poverty	94,207	.218	.174
SES	87,242	.44	1.76
Total Offenses	101,984	5.529	6.627
Trespass Arrests	101,984	.118	.6
0.25-0.5 mile			
% Black	94,492	.33	.296
% Hispanic	94,492	.363	.279
% White	94,492	.323	.271
% Other	94,492	.347	.24
% Pop <18	94,492	.208	.097
Female head household	94,251	.22	.149
% Pop 25+ No College	94,492	.465	.211
Median House Income	86,915	63,560	39,591
% Vacant Housing	94,251	.087	.081
% Families in Poverty	94,063	.187	.16
SES	86,909	.01	1.843
Total Offenses	103,071	5.641	7.243
Trespass Arrests	103,071	.088	.531
Outside 0.5 mile			
% Black	171,983	.194	.281
% Hispanic	171,983	.271	.244

% White	171,983	.477	.296
% Other	171,983	.329	.243
% Pop <18	171,983	.199	.088
Female head household	171,442	.162	.122
% Pop 25+ No College	171,983	.43	.2
Median House Income	163,660	72,699	37,487
% Vacant Housing	171,442	.093	.086
% Families in Poverty	170,998	.13	.128
SES	163,498	-.557	1.569
Total Offenses	181,386	6.382	8.904
Trespass Arrests	181,386	.085	.535

Note: N=no. block group buffer areas X 84 months (years 2013-2019). SES=standardized socioeconomic index of % families below poverty, % female-headed household, median household income, and % population 25 years or older with no college degree.

In the following analysis, we model the counts of trespass arrests, summonses, and stops by year and location around NYCHA complexes, after statistically controlling for the demographic and economic characteristics, and criminal offenses reported each month, within the block groups. The distribution of monthly trespass arrests, summonses, and stop counts by census blocks are skewed to the right, so we estimate the model using Poisson regression. The model we estimate takes the following form:

$$\log(E(Trespass\ Enforcement|\lambda_{ibt})) = \beta_0 + \beta_1 \%Black_i + \beta_2 \%Hispanic_i + \beta_3 \%Other_i + \beta_4 SES_i + \sum_{k=1}^{4} \beta_k Crime_{it} + \alpha_b + \gamma_t + \Upsilon_m + \sum_{j=1}^{7} \beta_j Buffer * Year_t + \varepsilon_{ibt}$$

The terms α, γ, Υ, denote fixed effects for each buffer (b), year (t), and month (m). To control for crime reports in a given month, we measure each block groups ranking in four quartiles of crime (0-25th, 25th-50th, 50th-75th, 75th-100th). We control total offenses in our primary specification. We also add a model that controls for drugs and weapons offenses separately (see Fagin, Davies, Carlis, 2012). We focus the analysis primarily on the change between trespass enforcement in each buffer and year (Buffer*Year), to assess the level of enforcement across distances from

NYCHA and time. Therefore, the number of trespass arrests, summonses, and stops per census block group is effectively a rate per unit of residential population.[4] The model is estimated with robust standard errors clustered at the census block group level to correct for over-dispersion and unmeasured dependence within blocks. Census block groups occupy more territory in areas where the residential population and housing density is lower. We use this approach because estimates from a Poisson regression with robust standard errors are more robust than a negative binomial regression model (Berk & MacDonald, 2008; Wooldridge, 2010).

Table 14 shows the results for an analysis of the predicted number of trespass arrests, summonses, and stops per month. Columns 1, 2, and 3 show the results from the regression models predicting the trespass arrests, summonses, and stop rates. The exponentiated coefficients or incidence-rate ratios (IRR) are displayed. The IRR provides an estimate of the change in the relative rates of trespass enforcement for a unit change in a given measure. The results indicate that in each year, the rate of trespass arrests per block group is substantially higher within 0.1 miles of NYCHA projects, and declines significantly at distances further away.[5] The socioeconomic composition of a block group is associated with a significant increase in the monthly number of predicted trespass arrests. Specifically, moving from the level of socioeconomic disadvantage inside NYCHA to the neighboring buffer (.44 to .258 on SES) reduces the expected number of trespass arrests per month by 2.4 percent ($e^{(0.131*-.182)}$). The monthly number of reported crimes is also associated with more trespass arrests. The percentage of the population that is Black after controlling for buffer location, levels of report crime, and SES is negatively associated with the

[4] We do not include the residential population as an exposure variable to convert the counts to a rate per population, as the census block group already scales counts to population. The results are substantively similar if the residential population is included as an exposure variable.

[5] A Wald-test shows that the differences between bandwidths are statistically significant at the $p<.001$ level. *See* https://www.stata.com/support/faqs/statistics/chi-squared-and-f-distributions/

trespass arrest rate. For a 10 percent increase in the percentage of the population that is Black, a census block group can expect about a five percent decrease in the trespass arrest rate ($e^{(-.4748*.10)}$). The percentage of the population that is Hispanic has no independent association with trespass arrest rates per census block group. One should, however, not read much into these demographic associations given that public housing is highly segregated by race and poverty. In short, by controlling for the buffer distance around public housing, we are also controlling for a large share of the variation in race and poverty in NYC.

The results show that summons rates for trespass are significantly lower in NYCHA development areas than in buffers further away. On the other hand, the location within a NYCHA development predicts a significantly higher rate of trespass stops. The level of crime is also associated with higher trespass summons and stop rates in census block groups. For trespass arrests (column 1), summonses (column 2), and stops (column 3), the year interaction with NYCHA location shows a significantly decline in trespass arrest and stop rates. The estimates for each year also reveal a statistically significant decline in all three trespass enforcement actions, suggesting there was an overall decline in trespass enforcement rates citywide after controlling for crime levels, socioeconomic factors, and racial concentration of residential populations.

Table 14. Trespass Enforcement Actions in Buffers Around NYCHA Developments

	(1) Arrests	(2) Summonses	(3) Stops
0.0-0.1 mile	3.247**	0.695**	3.600**
	(0.267)	(0.0701)	(0.425)
0.1-.0.25 mile	1.679**	0.848	1.901**
	(0.126)	(0.0977)	(0.215)
0.25-0.5 mile	1.275	0.837	1.108
	(0.151)	(0.0931)	(0.133)
0.1 mile # year=2014	1.058	0.854	1.592**
	(0.0904)	(0.0871)	(0.232)

0.1 mile # year=2015	0.982 (0.0914)	0.848 (0.0926)	1.111 (0.226)
0.1 mile # year=2016	0.930 (0.0909)	0.937 (0.118)	0.923 (0.229)
0.1 mile # year=2017	0.606** (0.0665)	0.931 (0.127)	0.625 (0.136)
0.1 mile # year=2018	0.387** (0.0582)	0.956 (0.151)	0.501** (0.123)
0.1 mile # year=2019	0.370** (0.0652)	1.307 (0.239)	0.310** (0.0788)
0.25 mile # year=2014	0.993 (0.0809)	0.936 (0.0909)	1.959** (0.321)
0.25 mile # year=2015	0.993 (0.0995)	0.958 (0.119)	1.291 (0.273)
0.25 mile # year=2016	0.849 (0.0855)	0.922 (0.124)	1.027 (0.252)
0.25 mile # year=2017	0.635** (0.0687)	0.968 (0.119)	0.767 (0.198)
0.25 mile # year=2018	0.418** (0.0608)	0.908 (0.140)	0.464** (0.121)
0.25 mile # year=2019	0.483** (0.0796)	1.077 (0.202)	0.403** (0.111)
0.5 mile # year=2014	0.933 (0.0919)	1.139 (0.111)	1.524 (0.275)
0.5 mile # year=2015	0.948 (0.111)	1.083 (0.117)	1.139 (0.275)
0.5 mile # year=2016	0.785 (0.103)	1.084 (0.153)	1.032 (0.292)
0.5 mile # year=2017	0.684** (0.0918)	1.093 (0.152)	0.679 (0.189)

0.5 mile # year=2018	0.599**	1.129	0.485
	(0.0976)	(0.186)	(0.164)
0.5 mile # year=2019	0.647	1.208	0.350**
	(0.116)	(0.223)	(0.110)
SES	1.141**	1.015	1.476**
	(0.0280)	(0.0242)	(0.0552)
% Black Population	0.622**	0.826	1.044
	(0.0705)	(0.111)	(0.163)
% Hispanic Population	1.140	1.065	0.718
	(0.140)	(0.178)	(0.149)
25-50th of offenses	1.586**	1.241**	1.108
	(0.0495)	(0.0501)	(0.0682)
50-75th of offenses	2.431**	1.654**	1.356**
	(0.0839)	(0.0799)	(0.0990)
75-100th of offenses	6.371**	3.592**	2.383**
	(0.402)	(0.237)	(0.242)
year=2014	1.076	1.002	0.318**
	(0.0505)	(0.0591)	(0.0346)
year=2015	0.854**	0.838	0.284**
	(0.0507)	(0.0584)	(0.0459)
year=2016	0.744**	0.803**	0.324**
	(0.0550)	(0.0622)	(0.0660)
year=2017	0.766**	0.727**	0.531**
	(0.0629)	(0.0591)	(0.0967)
year=2018	0.691**	0.538**	0.348**
	(0.0833)	(0.0525)	(0.0694)
year=2019	0.569**	0.487**	0.434**
	(0.0790)	(0.0609)	(0.0845)
Observations	397,226	281,405	89,271

Note: Exponentiated coefficients; standard errors in parentheses. Model also includes year fixed effects.
** $p < 0.01$

The interaction between NYCHA location and the year-to-year variation in trespass enforcement is shown in Figures 6 to 8. Figure 6 shows that by 2018, the rate of trespass arrests per census block group is significantly lower in NYCHA developments than other bandwidths.[6]

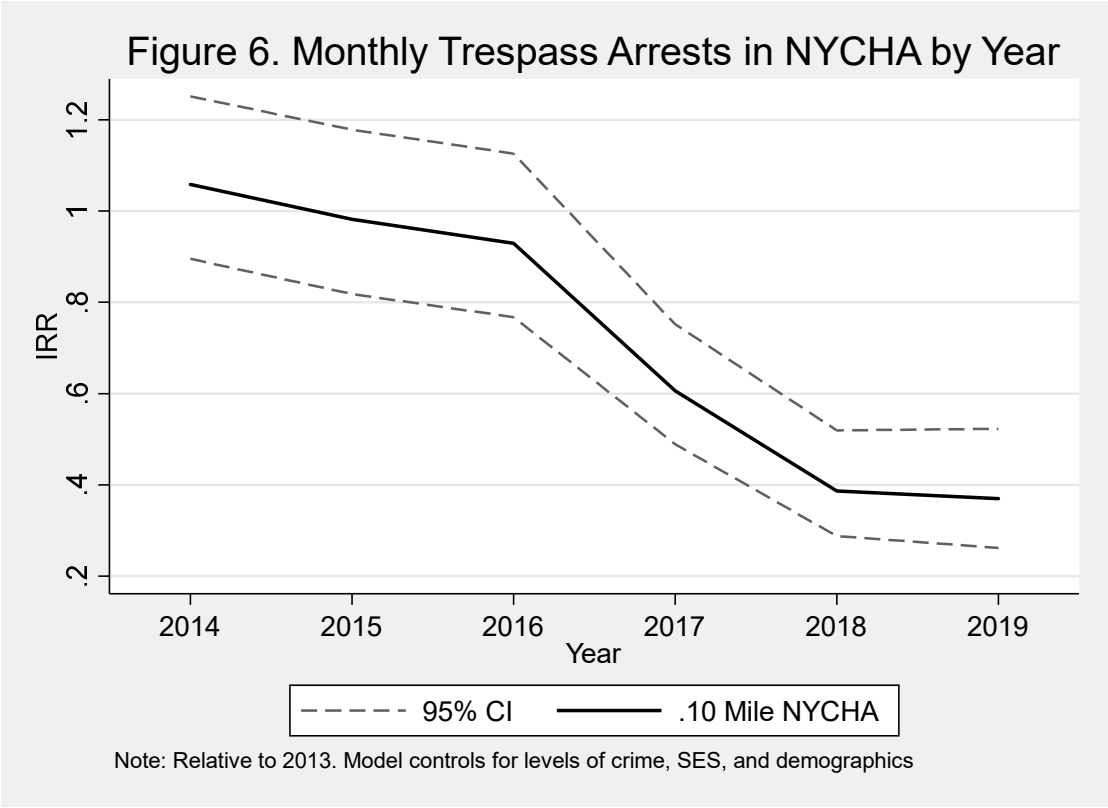


Figure 7 shows that, while trespass arrests declined significantly near NYCHA developments (Figure 6), the summons rate for trespass remained relatively flat. The slight upward trend in the graph is not significantly different from a chance expectation, as is evident from the fact that the 95% confidence intervals are on both side of an IRR of 1.0.

[6] A Wald-test shows that these interactions are significant at the p<.00001 level.

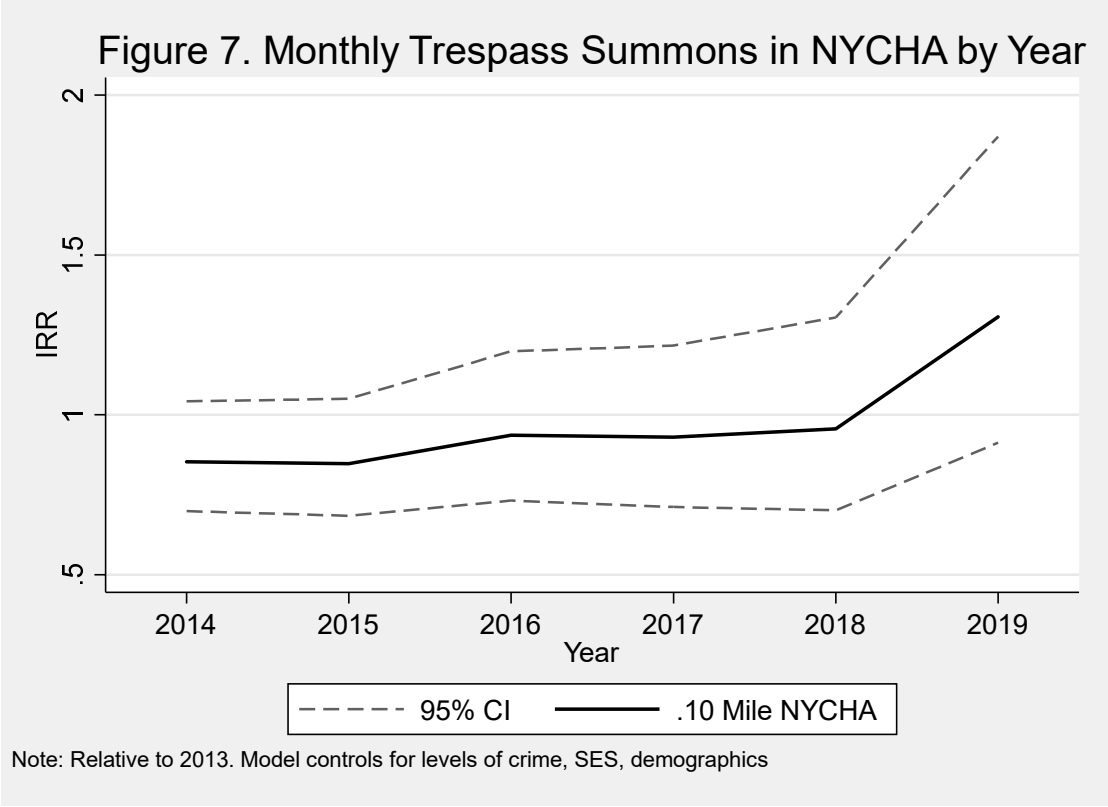
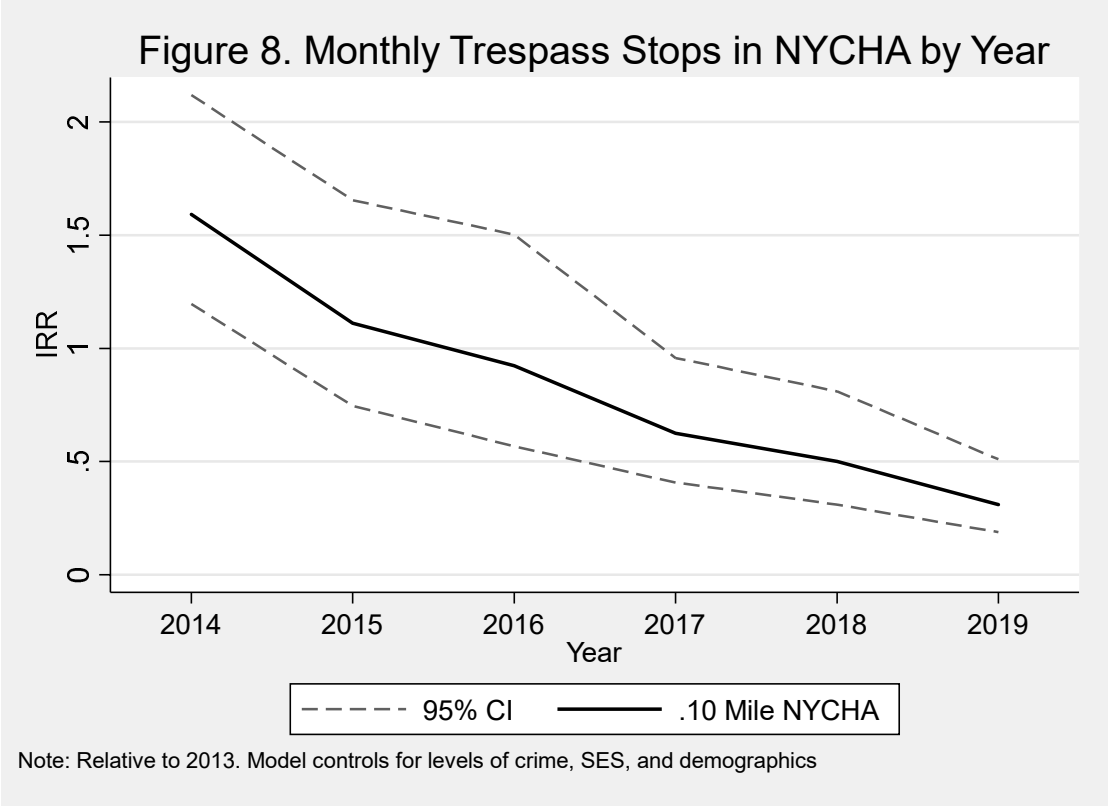


Figure 8 shows that the decline in trespass arrests within NYCHA complexes over time was also accompanied by a significant decline in the number of reported stops for trespass. By 2018, the number of trespass stops within NYCHA developments was significantly lower than elsewhere.



In summary, the results suggest substantial declines in arrests and stop rates for trespass in NYCHA developments over time, with little change in summonses. By 2109, the rate of trespass arrests and stops were significantly lower within NYCHA developments than in other areas of NYC, suggesting a fundamental change in trespass enforcement.

Table 15 displays the results when we estimate the trespass arrest, summons, and stop rates, controlling for the reported level of weapons and drug offenses, instead of the total amount of reported crime. The direction and the size of each association is roughly the same as total offenses, suggesting the pattern of overall higher trespass arrest and reported stop rates in public housing, and lower rates of trespass summonses, is not driven by one specific type of suspected crime stop type. For all trespass enforcement actions, there again is a notable decline per year that is most pronounced within .1 miles of NYCHA developments. Trespass arrest rates (column 1) and stop

rates (column 3) are significantly higher in census blocks ranked in the top 25th percentile of weapons- and drug-related reported offenses.

Table 15. Trespass Enforcement Actions in Buffers around NYCHA Developments, Controlling for Weapons and Drug Offenses

	(1) Arrests	(2) Summons	(3) Stops
0.0-.0.1 mile	2.908**	0.658**	3.484**
	(0.248)	(0.0669)	(0.426)
0.1-0.25 mile	1.511**	0.793	1.839**
	(0.117)	(0.0916)	(0.211)
0.25-0.5 mile	1.129	0.782	1.068
	(0.135)	(0.0875)	(0.130)
0.1 mile # year=2014	1.090	0.861	1.635**
	(0.0929)	(0.0877)	(0.236)
0.1 mile # year=2015	1.002	0.848	1.110
	(0.0930)	(0.0928)	(0.225)
0.1 mile # year=2016	0.975	0.953	0.920
	(0.0947)	(0.120)	(0.227)
0.1 mile # year=2017	0.654**	0.975	0.627
	(0.0708)	(0.133)	(0.137)
0.1 mile # year=2018	0.422**	0.989	0.495**
	(0.0630)	(0.156)	(0.123)
0.1 mile # year=2019	0.419**	1.387	0.325**
	(0.0737)	(0.253)	(0.0836)
0.25 mile # year=2014	1.005	0.940	1.969**
	(0.0823)	(0.0915)	(0.325)
0.25 mile # year=2015	0.991	0.946	1.248
	(0.0991)	(0.117)	(0.263)
0.25 mile # year=2016	0.871	0.930	1.017
	(0.0875)	(0.126)	(0.248)
0.25 mile # year=2017	0.670**	0.999	0.763
	(0.0716)	(0.124)	(0.197)

0.25 mile # year=2018	0.453**	0.954	0.461**
	(0.0650)	(0.148)	(0.121)
0.25 mile # year=2019	0.526**	1.113	0.414**
	(0.0865)	(0.210)	(0.114)
0.5 mile # year=2014	0.949	1.133	1.535
	(0.0940)	(0.110)	(0.277)
0.5 mile # year=2015	0.969	1.083	1.129
	(0.113)	(0.117)	(0.271)
0.5 mile # year=2016	0.848	1.126	1.079
	(0.111)	(0.159)	(0.306)
0.5 mile # year=2017	0.751	1.159	0.700
	(0.0998)	(0.161)	(0.195)
0.5 mile # year=2018	0.647**	1.179	0.494
	(0.104)	(0.193)	(0.167)
0.5 mile # year=2019	0.707	1.262	0.365**
	(0.126)	(0.231)	(0.115)
SES	1.129**	0.988	1.466**
	(0.0300)	(0.0240)	(0.0572)
% Black Population	0.629**	0.821	1.033
	(0.0673)	(0.109)	(0.161)
% Hispanic Population	1.140	1.101	0.696
	(0.140)	(0.179)	(0.148)
75-100th of drugs offenses	2.272**	1.761**	1.634**
	(0.120)	(0.0746)	(0.113)
75-100th weapons offenses	1.818**	1.769**	1.363**
	(0.132)	(0.102)	(0.117)
Observations	397,226	281,405	89,271

Exponentiated coefficients; standard errors in parentheses. Model also includes year and month fixed effects.
** $p < 0.01$

To assess whether trespass enforcement actions (arrests, summonses, and stops) vary substantially by the racial composition of the residential population within NYCHA areas, we

extended the multivariate regression analysis to examine the interaction between the quartiles of the residential population (0-25th percentile, 25-50th percentile, 50-75th percentile, 75-100th percentile) that is Black or Hispanic and the buffers around NYCHA (within 0-.10 miles, .10-.25 miles, .25-.5 miles, and outside of this range in New York City). Each regression is estimated similarly, but includes the quartiles of Black or Hispanic population and their interaction with NYCHA buffers in place of the standard linear approximation of percentage of residential population that is Black or Hispanic. This analysis allows us to examine the relative rate of trespass enforcement per census blocks at different distances from NYCHA developments that have lower to higher concentrations of Black and Hispanic residents. For ease of exposition, we first focus on comparing census block groups in NYCHA locations (0-.1 miles) to their nearest neighbors (.1-.25 miles).

Figure 9 shows the results for the rate of trespass arrests. The results show that trespass arrest rates in NYCHA developments are not significantly different than the arrest rates of their nearest neighbors, regardless of the concentration level of Black residents. Trespass arrest rates are higher on average in areas with Hispanic residents, but the rate does not change as neighborhoods move from lower to higher concentrations of residents of this ethnicity.

Figure 9.

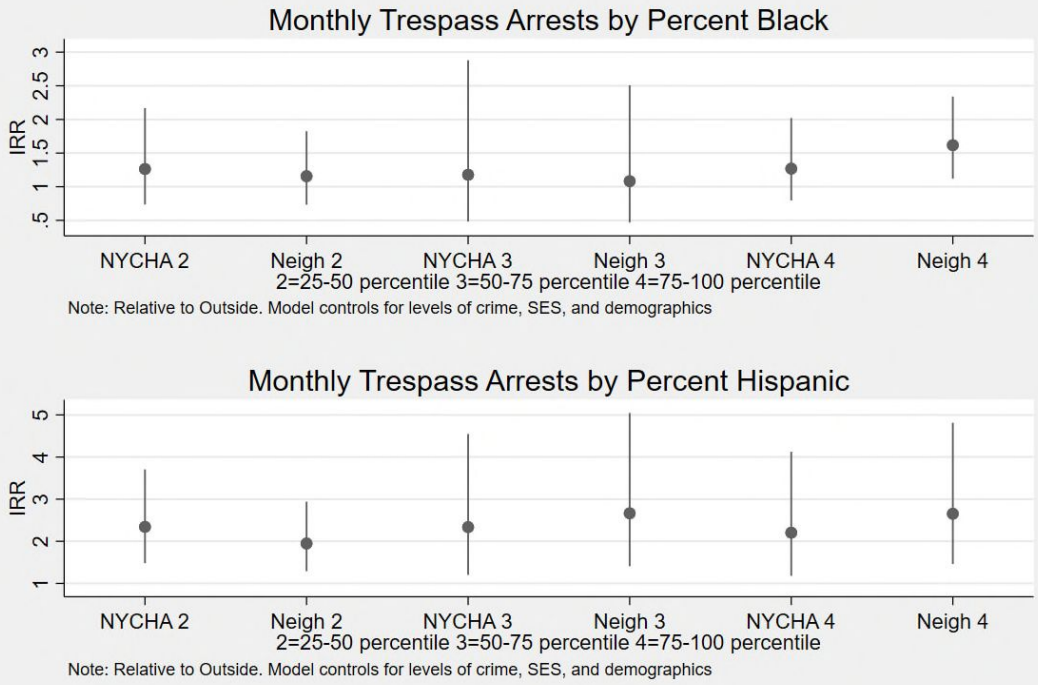
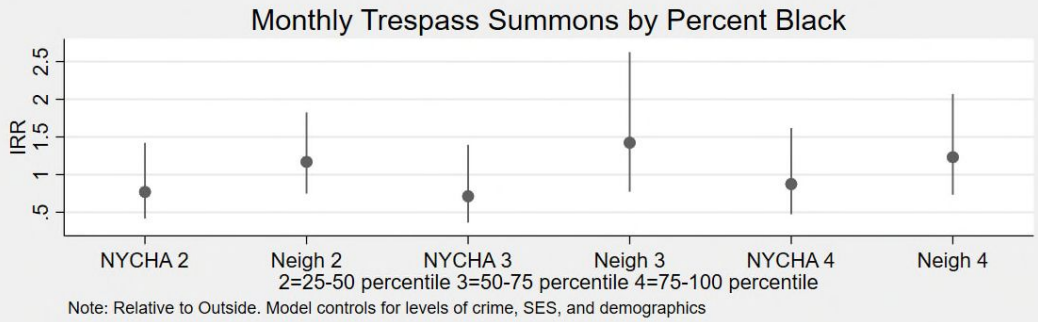


Figure 10 shows the results from the analysis of trespass summons rates. The results show that the rate of trespass summons does not vary significantly by NYCHA location relative to its nearest neighbors, nor does it vary significantly by the concentration of residents that are Black or Hispanic.

Figure 10.



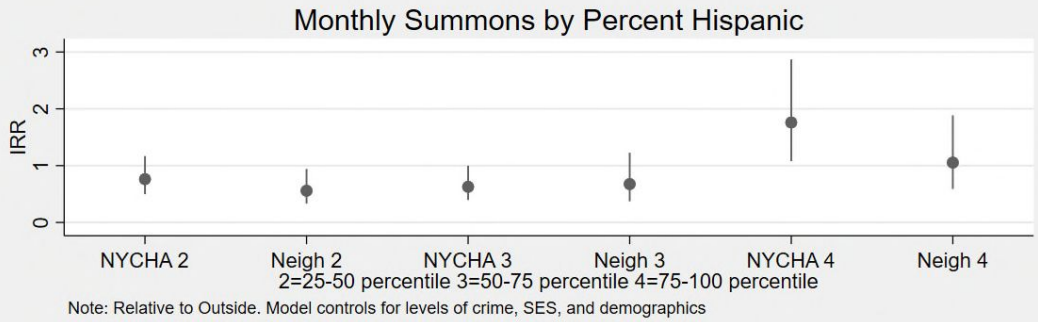
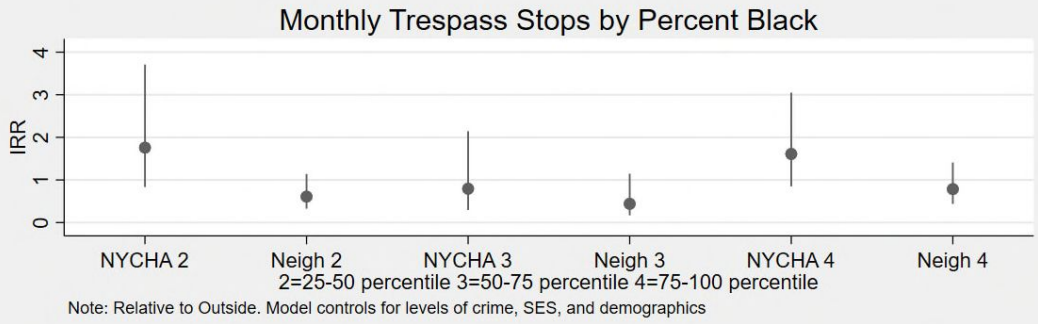
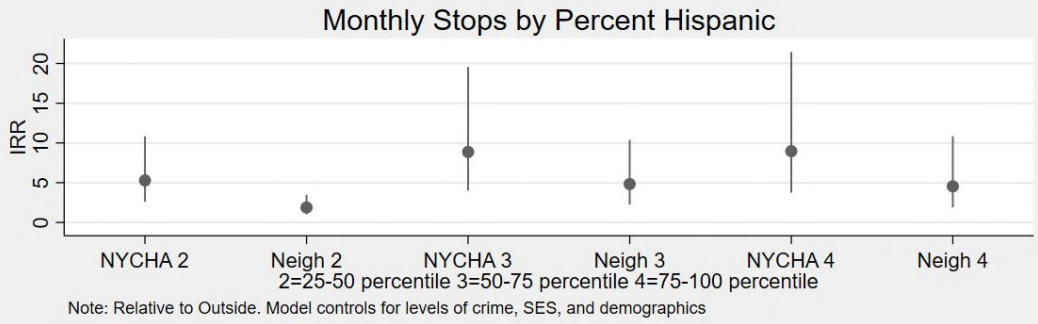


Figure 11 shows the results for the rate of trespass stops. The results show that trespass stops at NYCHA locations are not significantly different from their nearest neighbors. Trespass stop rates are higher on average in areas with Hispanic residents, but the rate does not change as NYCHA or the nearest neighboring areas move from lower to higher concentrations of residents of this ethnicity.

Figure 11



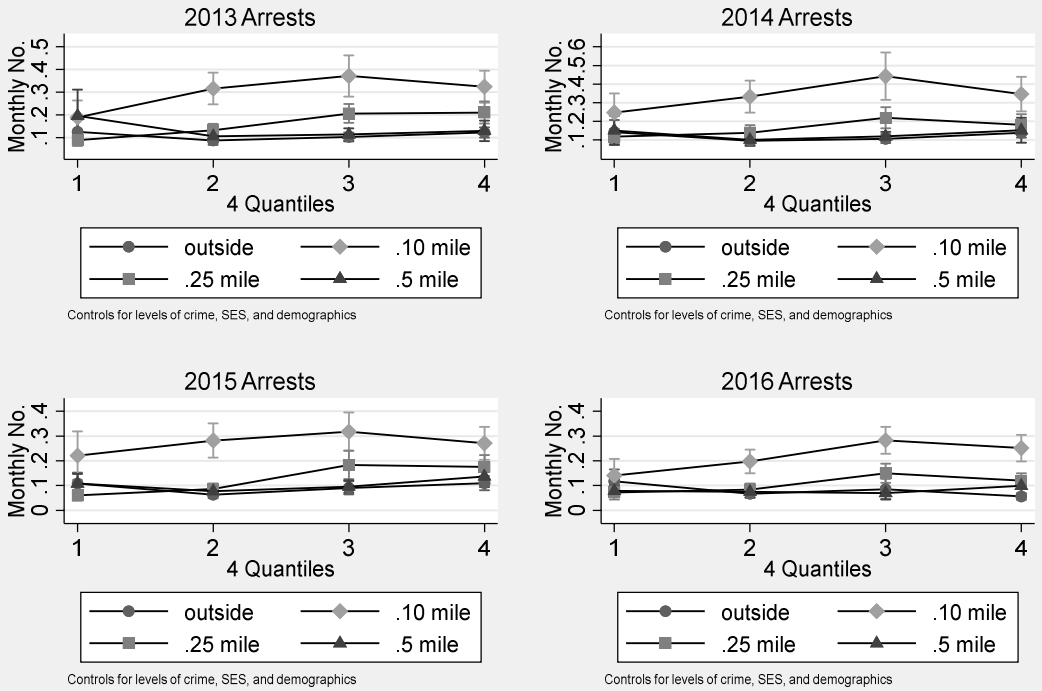


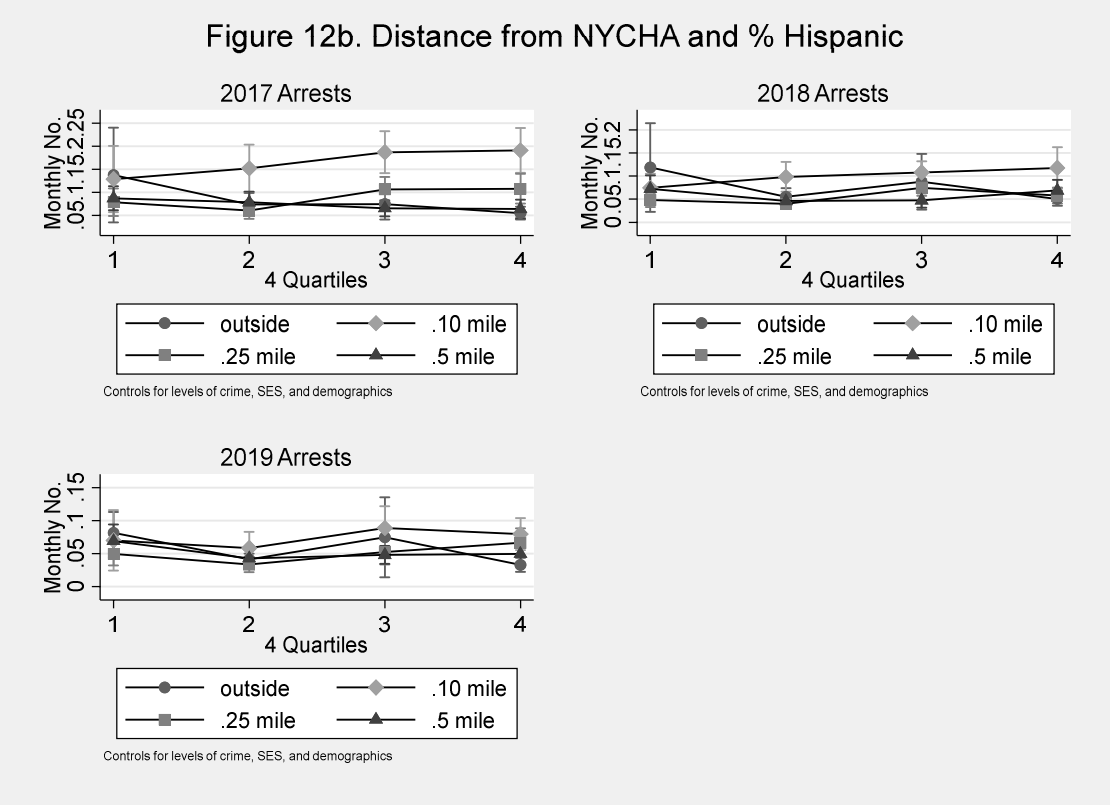
Finally, to assess how trespass enforcement actions vary by NYCHA location and the concentration of Black and Hispanic residential populations each year, we estimate separate models for each year and calculated the predicted monthly rate of each enforcement action per census block group. This allows us to focus on whether the yearly decline in enforcement actions for trespass shown in our previous analyses are also apparent by NYCHA location and the racial/ethnic composition of neighborhoods. All models are estimated to include the same set of control variables. We first display the results in a series of graphs. The actual predicted monthly rates are reported in Appendix A.

Figures 12a and 12b show the monthly trespass arrests by concentration of Hispanic residential population for each year. The graph shows the average monthly number of trespass arrests across the four quartiles of percentage Hispanic residents. NYCHA developments are

located within the buffer of .10 mile. Figure 12a shows that the rate of trespass arrests after controlling for poverty and levels of crime are significantly higher on average in NYCHA development areas than the nearest neighbors of 0.25 mile (0.1-0.25 mile) for most of the comparisons in years 2013 to 2016 and appear to rise slightly as the concentration of Hispanic residents moves from the first (0-25th percentile) to the fourth quartile (75-100th percentile). Figure 12b shows that the disparity in trespass arrests rates is no longer significantly different between NYCHA locations and elsewhere in years 2017 to 2019, suggesting that the overall decline in enforcement actions for trespass arrests was focused in NYCHA regardless of the concentration of Hispanic residents.

Figure 12a. Distance from NYCHA and % Hispanic





Figures 13a and 13b show the estimated rate of trespass arrests by NYCHA and other locations and across the four quantiles of percentage of Black residents each year. The results show that trespass arrest rates are higher in NYCHA locations (0.1 mile) than elsewhere in several quartiles for years 2013 to 2016, but that the differences across NYCHA and other areas declined, becoming no longer substantively different from each other in years 2017 to 2019. There is also no clear pattern of higher trespass arrests rates in NYCHA developments that have a higher concentration of Black residents after controlling for socioeconomic factors and crime levels.

Figure 13a. Distance from NYCHA and % Black

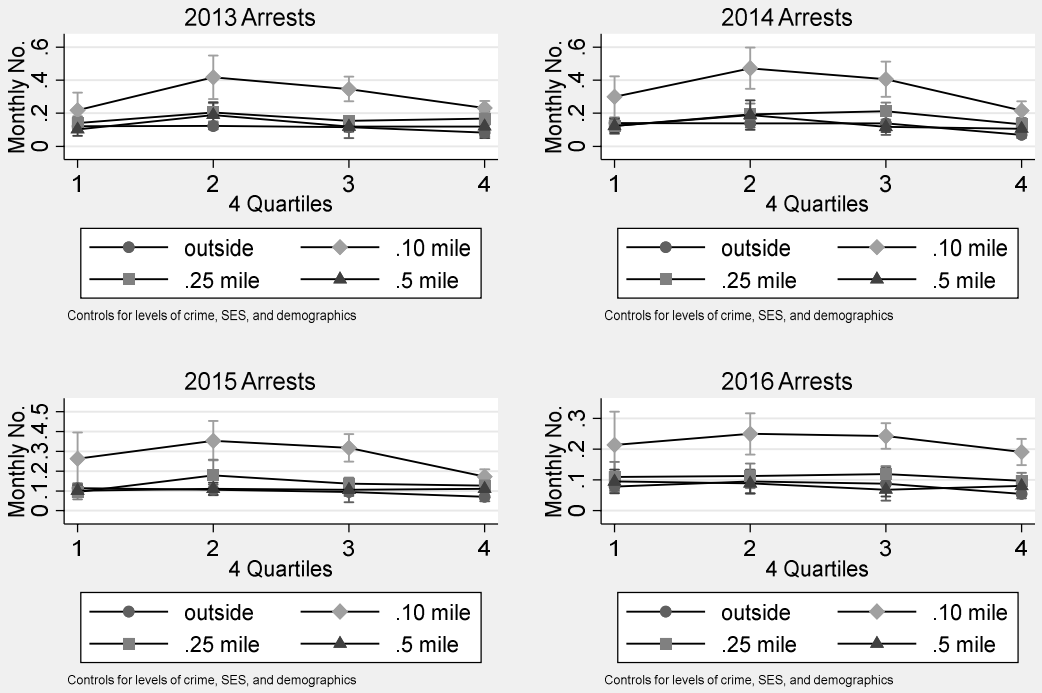
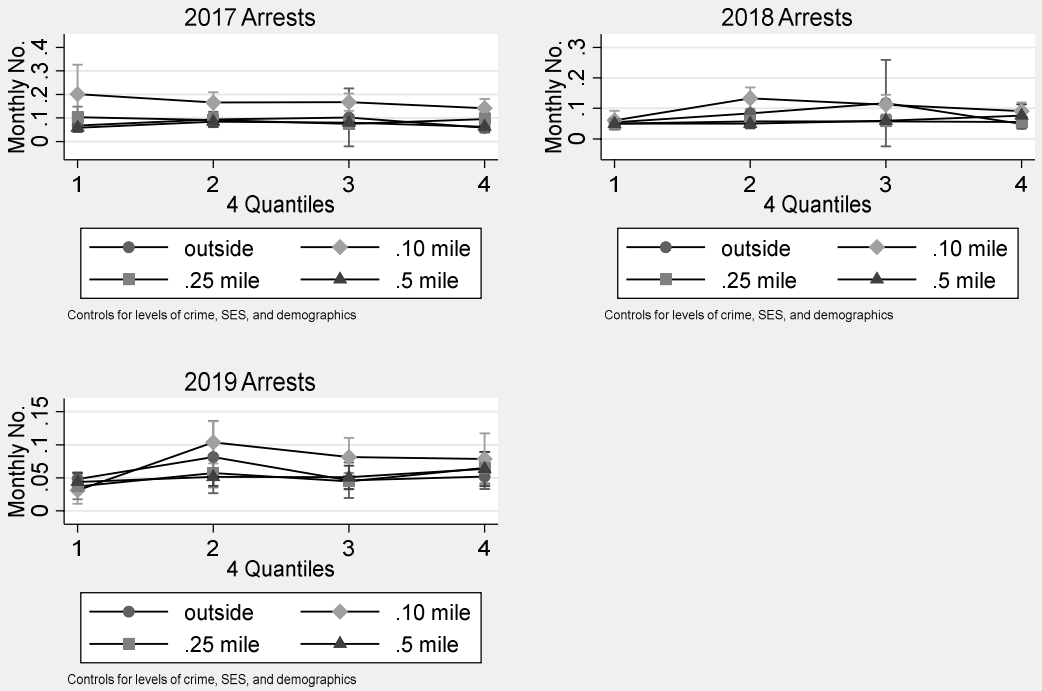
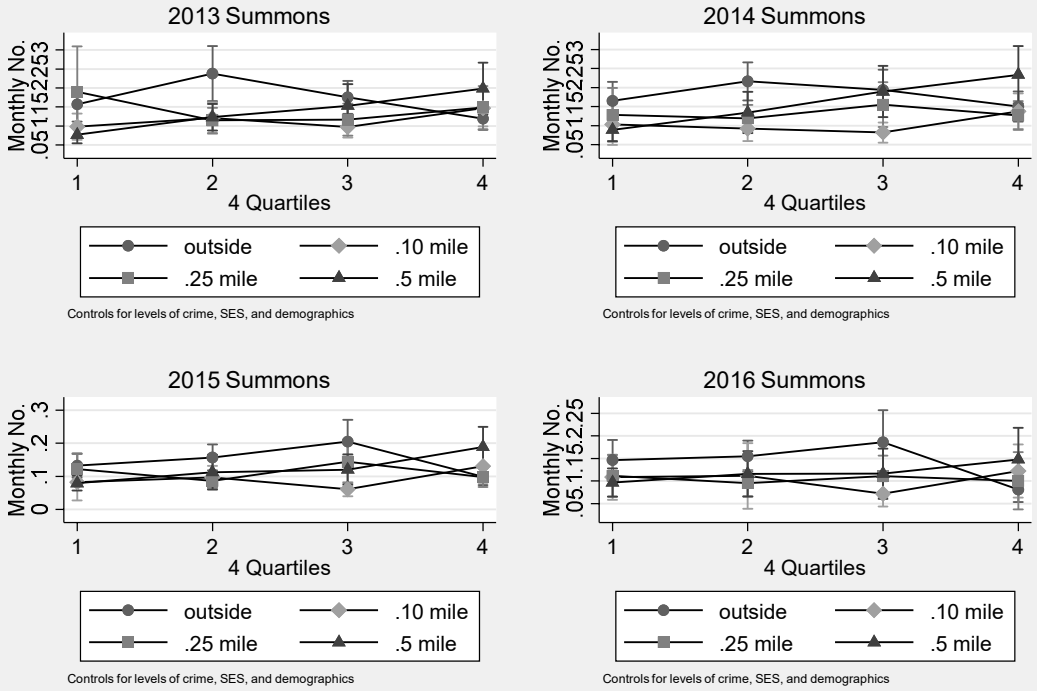


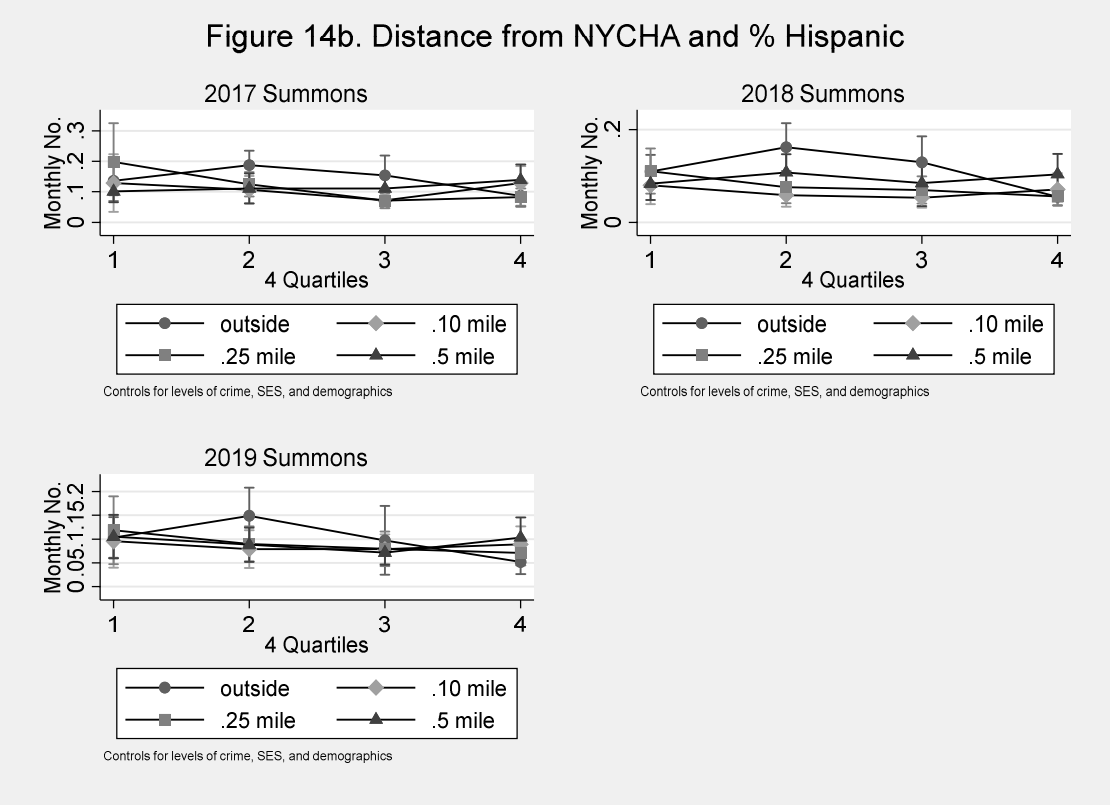
Figure 13b. Distance from NYCHA and % Black



Figures 14a and 14b show the average expected rate of trespass summonses by concentration of Hispanic populations and distance from NYCHA developments. Consistent with earlier analyses, the graphs show that the average rate of trespass summonses per block group does not vary by concentration of Hispanic population.

Figure 14a. Distance from NYCHA and % Hispanic





Figures 15a and 15b show the average rate of trespass summonses by distance from NYCHA complexes and concentration of Black residents. The results show that trespass summonses are no different by NYCHA locations or percentage of Black residents in neighborhoods. Trespass summons rates decline slightly over time.

Figure 15a. Distance from NYCHA and % Black

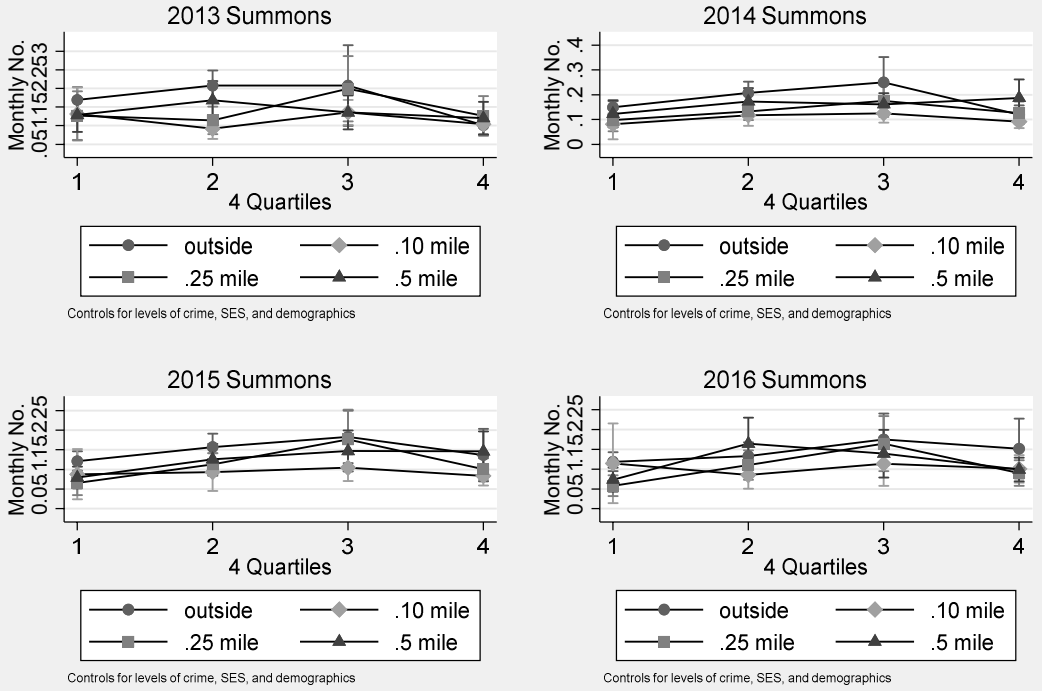
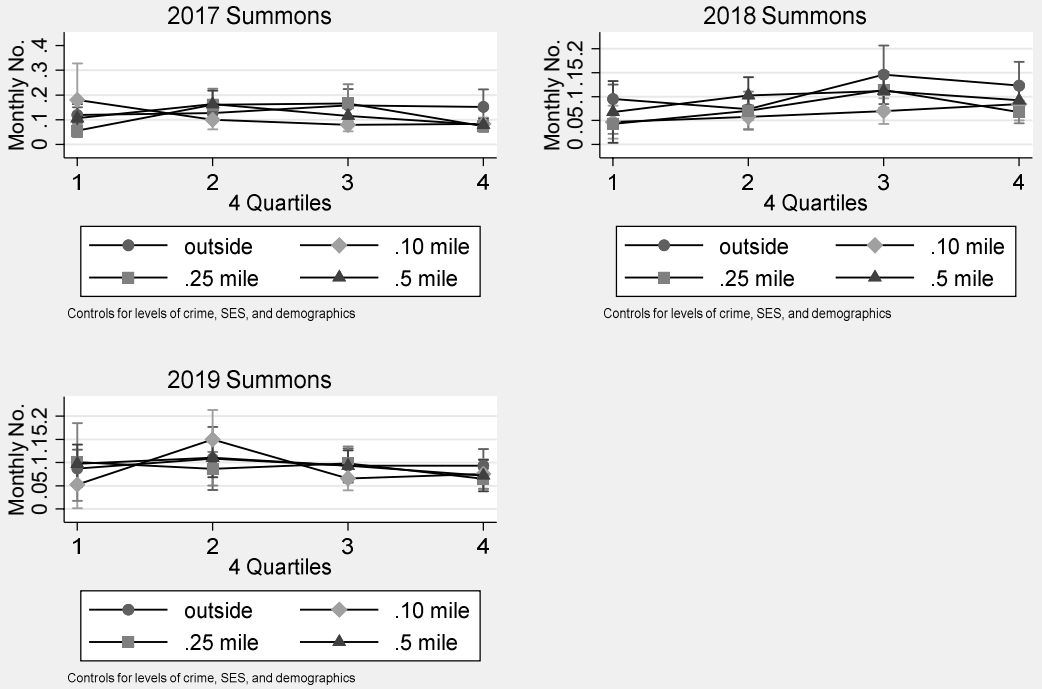
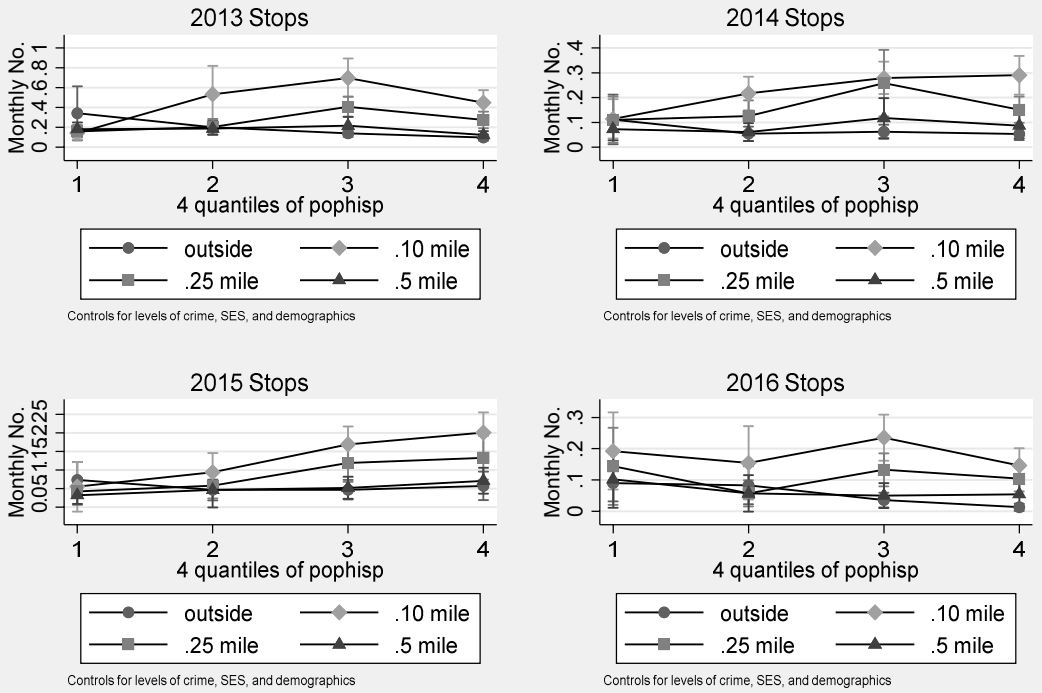


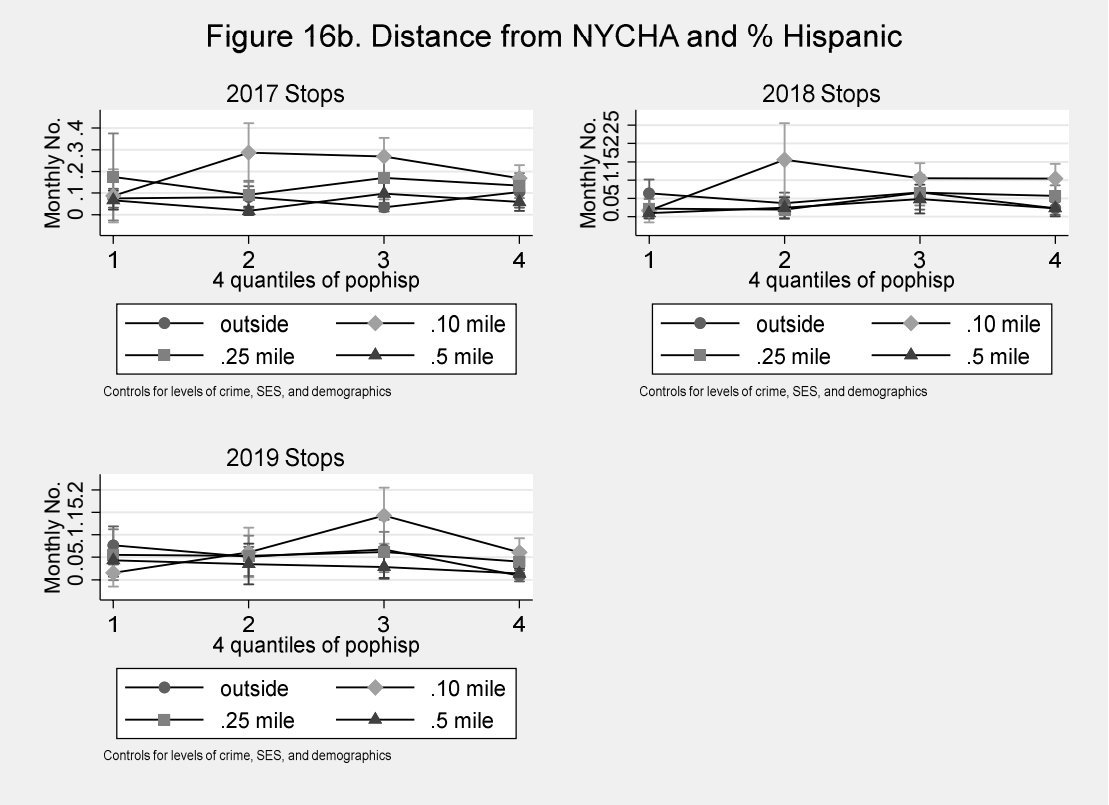
Figure 15b. Distance from NYCHA and % Black



Figures 16a and 16b show the rate of trespass stops by year, distance from NYCHA, and concentration of Hispanic residents. The graphs show that rates of trespass stops are marginally higher in NYCHA complexes after controlling for crime levels and socioeconomic factors in year 2013, but these differences shrink over the years. Trespass stops rates do appear to vary significantly by concentration of Hispanic residents in years 2013-2015, but those rates are no longer significantly different by years 2016-2019.

Figure 16a. Distance from NYCHA and % Hispanic





Figures 17a and 17b show the trespass stop rates for each year by distance from NYCHA and concentration of Black residents. The figures show that the stop rate for trespass was significantly higher in NYCHA developments in the areas with the highest concentration of Black residents (75th-100th percentile) in 2013, but these differences disappear in 2014. After 2015, the trespass stop rate is no longer different by NYCHA development location or the concentration of Black residential populations.

Figure 17a. Distance from NYCHA and % Black

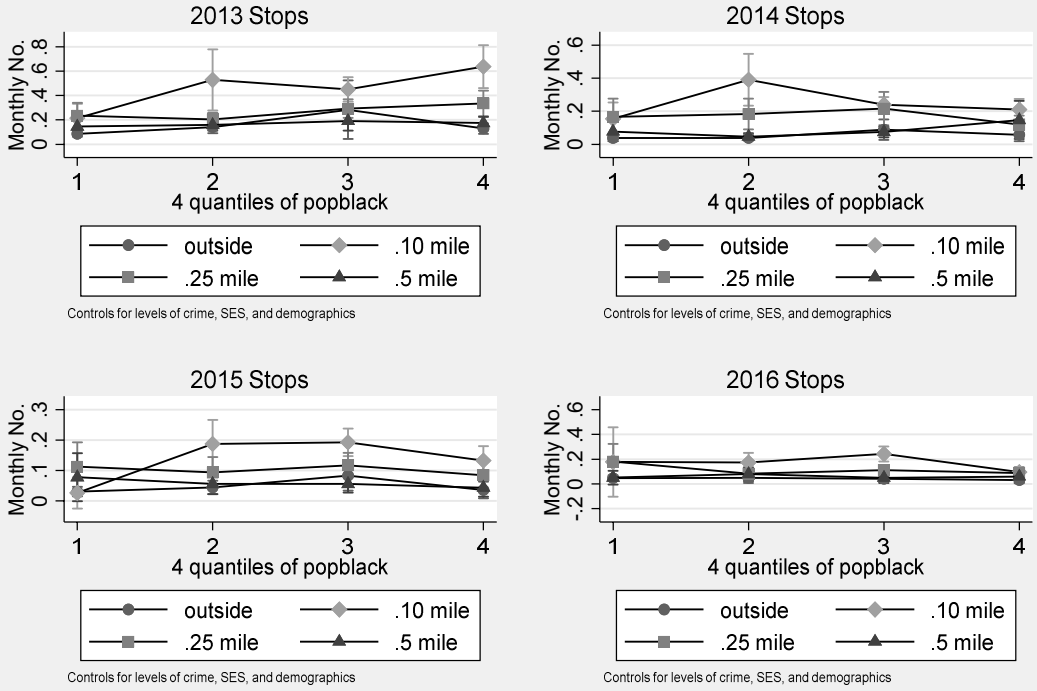
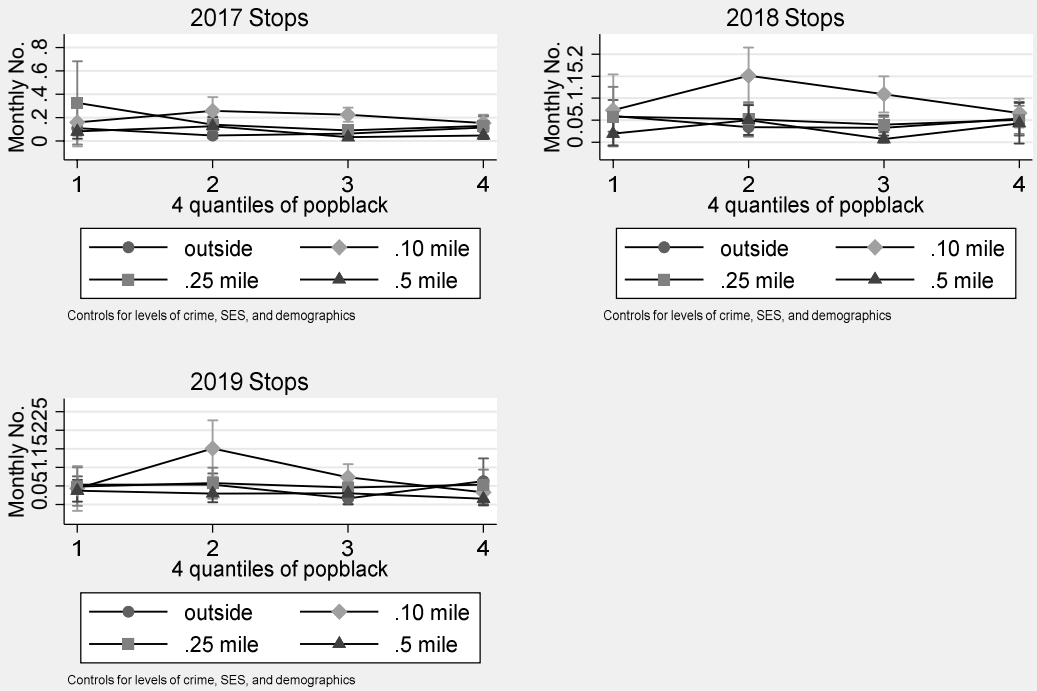


Figure 17b. Distance from NYCHA and % Black



III. CONCLUSION

The *Davis* settlement mandated that the NYPD adopt a series of reforms intended to reduce the amount of improper criminal trespass enforcement conducted at NYCHA developments and to eliminate observed racial disparities generated by heightened trespass enforcement activity. In the years following the settlement, citywide NYPD trespass arrests dropped by almost 74 percent, trespass summonses declined by 80 percent, and trespass stops decreased by 96 percent between 2013 and 2019. These remarkable declines in NYPD trespass enforcement activities were observed in and around NYCHA buildings and throughout New York City's five boroughs. What is more, the analyses in this report suggest that the percentages of area residents who are Black and Hispanic are no longer statistically significant predictors of the trespass arrest, trespass summons, and trespass stop rates in NYCHA buildings and in census block groups at further distances from NYCHA developments. Black and Hispanic subjects are now no more likely to be subjected to trespass enforcement activities than are White and Other racial group subjects. Importantly, these findings do not change when crime and other community characteristics are considered. In summary, the analyses indicate that NYPD has made significant progress in complying with the mandates of the *Davis* settlement with regard to these important outcome measures.

Although these results are certainly very encouraging, they should be interpreted with caution. As with any social science inquiry, the analyses presented here have some limitations. For instance, the Poisson regressions use external benchmarks–-percentages of resident populations that are Black and Hispanic-–to determine whether racial disparities in trespass enforcement exist. Although this approach was used by the plaintiffs' expert, several academic reviews suggest that residential populations are not adequate measures of the population at risk for

police encounters, given that officers generally do not stop people at random (Ridgeway and MacDonald, 2010; National Academies, 2018). Further, as documented in several Monitor reports, NYPD officers do not report all of their stops. Therefore, the analyses of trespass stop reports may be biased to an unknown degree by officer underreporting of these kinds of trespass enforcement actions. Nevertheless, the consistency of the findings reported across multiple outcome measures analyzed using varying statistical models supports the overall conclusion that NYPD trespass enforcement activities have declined dramatically in NYCHA housing and surrounding areas and that the racial disparities associated with past heightened levels of trespass enforcement have dissipated.

These findings support the position that the NYPD's implementation of the agreed-upon *Davis* remedies correlates with significantly lower levels of trespass enforcement that did not generate 14th Amendment violations. More careful analysis is needed to determine which elements of the *Davis*, *Floyd*, and *Ligon* remedies seem to be most important in achieving the observed reductions in NYPD trespass enforcement and associated racial disparities over time. As encouraging as the results of these analyses might be, the NYPD needs to continue its reform efforts to ensure that they comply with the *Davis* settlement.

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Appendix A. Marginal Monthly Rate of Trespass Enforcement (Arrest, Summons, Stops) by Year, Location, and Concentration of Hispanic or Black Residents.[7]

A1. Trespass Arrest Rate Per Month by Quartile of Hispanic Population

Arrest	CI_5	CI_95	Quartile Hispanic	Buffer	Year
0.125	0.073	0.178	1	outside	2013
0.189	0.114	0.263	1	0.1 mile	2013
0.088	0.062	0.114	1	0.25 mile	2013
0.195	0.080	0.311	1	0.5 mile	2013
0.086	0.066	0.106	2	outside	2013
0.316	0.246	0.386	2	0.1 mile	2013
0.131	0.103	0.160	2	0.25 mile	2013
0.105	0.076	0.134	2	0.5 mile	2013
0.102	0.083	0.122	3	outside	2013
0.371	0.280	0.463	3	0.1 mile	2013
0.206	0.164	0.248	3	0.25 mile	2013
0.113	0.085	0.140	3	0.5 mile	2013
0.122	0.099	0.145	4	outside	2013
0.324	0.253	0.395	4	0.1 mile	2013
0.210	0.162	0.259	4	0.25 mile	2013
0.129	0.084	0.175	4	0.5 mile	2013
0.142	0.078	0.206	1	outside	2014
0.247	0.145	0.349	1	0.1 mile	2014
0.117	0.076	0.159	1	0.25 mile	2014
0.151	0.073	0.229	1	0.5 mile	2014
0.095	0.072	0.118	2	outside	2014
0.332	0.246	0.418	2	0.1 mile	2014
0.139	0.099	0.179	2	0.25 mile	2014
0.101	0.067	0.135	2	0.5 mile	2014
0.106	0.082	0.131	3	outside	2014
0.442	0.314	0.570	3	0.1 mile	2014
0.219	0.163	0.276	3	0.25 mile	2014
0.119	0.094	0.144	3	0.5 mile	2014
0.138	0.113	0.163	4	outside	2014
0.346	0.252	0.440	4	0.1 mile	2014
0.182	0.125	0.238	4	0.25 mile	2014
0.152	0.085	0.218	4	0.5 mile	2014
0.108	0.064	0.152	1	outside	2015

[7] All averages are the estimated rate from a Poisson model controlling for SES, levels of crime, and month fixed effects. CI_5=5% lower bound of estimate. CI_95=95% upper bound of estimate.

0.221	0.124	0.318	1	0.1 mile	2015
0.060	0.040	0.080	1	0.25 mile	2015
0.108	0.069	0.147	1	0.5 mile	2015
0.063	0.049	0.077	2	outside	2015
0.282	0.212	0.352	2	0.1 mile	2015
0.087	0.065	0.109	2	0.25 mile	2015
0.077	0.055	0.099	2	0.5 mile	2015
0.091	0.065	0.117	3	outside	2015
0.317	0.240	0.395	3	0.1 mile	2015
0.183	0.126	0.241	3	0.25 mile	2015
0.096	0.070	0.121	3	0.5 mile	2015
0.110	0.081	0.139	4	outside	2015
0.271	0.204	0.337	4	0.1 mile	2015
0.175	0.128	0.223	4	0.25 mile	2015
0.137	0.094	0.179	4	0.5 mile	2015
0.118	0.071	0.165	1	outside	2016
0.141	0.074	0.207	1	0.1 mile	2016
0.073	0.044	0.102	1	0.25 mile	2016
0.079	0.056	0.101	1	0.5 mile	2016
0.068	0.052	0.084	2	outside	2016
0.198	0.150	0.246	2	0.1 mile	2016
0.084	0.061	0.108	2	0.25 mile	2016
0.075	0.051	0.099	2	0.5 mile	2016
0.086	0.044	0.127	3	outside	2016
0.283	0.228	0.337	3	0.1 mile	2016
0.150	0.111	0.189	3	0.25 mile	2016
0.070	0.045	0.095	3	0.5 mile	2016
0.056	0.043	0.070	4	outside	2016
0.251	0.198	0.305	4	0.1 mile	2016
0.120	0.090	0.150	4	0.25 mile	2016
0.099	0.060	0.138	4	0.5 mile	2016
0.138	0.035	0.240	1	outside	2017
0.129	0.057	0.200	1	0.1 mile	2017
0.079	0.049	0.109	1	0.25 mile	2017
0.087	0.061	0.113	1	0.5 mile	2017
0.074	0.049	0.098	2	outside	2017
0.152	0.101	0.203	2	0.1 mile	2017
0.061	0.043	0.079	2	0.25 mile	2017
0.078	0.055	0.102	2	0.5 mile	2017
0.075	0.041	0.108	3	outside	2017
0.187	0.142	0.233	3	0.1 mile	2017
0.106	0.079	0.134	3	0.25 mile	2017
0.065	0.048	0.083	3	0.5 mile	2017
0.055	0.041	0.069	4	outside	2017

0.191	0.142	0.239	4	0.1 mile	2017
0.108	0.075	0.140	4	0.25 mile	2017
0.064	0.044	0.084	4	0.5 mile	2017
0.119	0.023	0.214	1	outside	2018
0.074	0.044	0.105	1	0.1 mile	2018
0.048	0.033	0.063	1	0.25 mile	2018
0.072	0.043	0.102	1	0.5 mile	2018
0.055	0.036	0.074	2	outside	2018
0.098	0.066	0.130	2	0.1 mile	2018
0.040	0.029	0.051	2	0.25 mile	2018
0.046	0.031	0.060	2	0.5 mile	2018
0.087	0.027	0.148	3	outside	2018
0.108	0.084	0.132	3	0.1 mile	2018
0.075	0.057	0.093	3	0.25 mile	2018
0.047	0.031	0.063	3	0.5 mile	2018
0.050	0.036	0.065	4	outside	2018
0.118	0.073	0.162	4	0.1 mile	2018
0.058	0.041	0.075	4	0.25 mile	2018
0.069	0.046	0.092	4	0.5 mile	2018
0.082	0.050	0.113	1	outside	2019
0.070	0.024	0.116	1	0.1 mile	2019
0.050	0.032	0.067	1	0.25 mile	2019
0.069	0.044	0.094	1	0.5 mile	2019
0.041	0.033	0.050	2	outside	2019
0.059	0.034	0.083	2	0.1 mile	2019
0.033	0.022	0.045	2	0.25 mile	2019
0.043	0.030	0.056	2	0.5 mile	2019
0.075	0.014	0.135	3	outside	2019
0.089	0.056	0.122	3	0.1 mile	2019
0.053	0.034	0.072	3	0.25 mile	2019
0.048	0.035	0.062	3	0.5 mile	2019
0.033	0.022	0.044	4	outside	2019
0.080	0.055	0.104	4	0.1 mile	2019
0.066	0.044	0.089	4	0.25 mile	2019
0.050	0.031	0.068	4	0.5 mile	2019

A2. Trespass Arrest Rate Per Month by Quartile of Black Population

Arrest	CI_5	CI_95	Quartile Black	Buffer	Year
0.121	0.101	0.142	1	outside	2013
0.219	0.112	0.326	1	.10 mile	2013
0.140	0.099	0.181	1	.25 mile	2013
0.103	0.063	0.142	1	.5 mile	2013

0.123	0.101	0.144	2	outside	2013
0.418	0.287	0.549	2	.10 mile	2013
0.205	0.150	0.261	2	.25 mile	2013
0.190	0.113	0.266	2	.5 mile	2013
0.115	0.050	0.180	3	outside	2013
0.346	0.272	0.421	3	.10 mile	2013
0.154	0.128	0.180	3	.25 mile	2013
0.119	0.088	0.150	3	.5 mile	2013
0.082	0.061	0.102	4	outside	2013
0.231	0.188	0.275	4	.10 mile	2013
0.169	0.127	0.210	4	.25 mile	2013
0.120	0.050	0.191	4	.5 mile	2013
0.141	0.115	0.168	1	outside	2014
0.300	0.176	0.424	1	.10 mile	2014
0.124	0.076	0.172	1	.25 mile	2014
0.123	0.081	0.165	1	.5 mile	2014
0.140	0.113	0.166	2	outside	2014
0.473	0.348	0.598	2	.10 mile	2014
0.193	0.127	0.260	2	.25 mile	2014
0.189	0.100	0.278	2	.5 mile	2014
0.139	0.069	0.208	3	outside	2014
0.406	0.300	0.513	3	.10 mile	2014
0.213	0.161	0.264	3	.25 mile	2014
0.117	0.086	0.148	3	.5 mile	2014
0.070	0.050	0.090	4	outside	2014
0.216	0.159	0.272	4	.10 mile	2014
0.133	0.094	0.171	4	.25 mile	2014
0.106	0.069	0.144	4	.5 mile	2014
0.114	0.089	0.139	1	outside	2015
0.263	0.132	0.394	1	.10 mile	2015
0.094	0.058	0.131	1	.25 mile	2015
0.101	0.074	0.128	1	.5 mile	2015
0.105	0.079	0.132	2	outside	2015
0.353	0.254	0.453	2	.10 mile	2015
0.179	0.101	0.257	2	.25 mile	2015
0.110	0.079	0.142	2	.5 mile	2015
0.094	0.042	0.147	3	outside	2015
0.317	0.247	0.386	3	.10 mile	2015
0.137	0.106	0.168	3	.25 mile	2015
0.105	0.075	0.135	3	.5 mile	2015
0.070	0.047	0.093	4	outside	2015
0.171	0.134	0.209	4	.10 mile	2015
0.127	0.095	0.160	4	.25 mile	2015
0.110	0.068	0.153	4	.5 mile	2015

0.079	0.065	0.093	1	outside	2016
0.213	0.105	0.322	1	.10 mile	2016
0.110	0.061	0.158	1	.25 mile	2016
0.095	0.056	0.133	1	.5 mile	2016
0.095	0.056	0.133	2	outside	2016
0.249	0.183	0.316	2	.10 mile	2016
0.113	0.073	0.153	2	.25 mile	2016
0.089	0.057	0.120	2	.5 mile	2016
0.087	0.033	0.142	3	outside	2016
0.242	0.201	0.284	3	.10 mile	2016
0.119	0.093	0.145	3	.25 mile	2016
0.068	0.046	0.091	3	.5 mile	2016
0.055	0.040	0.070	4	outside	2016
0.191	0.148	0.234	4	.10 mile	2016
0.097	0.072	0.123	4	.25 mile	2016
0.080	0.052	0.109	4	.5 mile	2016
0.068	0.053	0.083	1	outside	2017
0.201	0.076	0.326	1	.10 mile	2017
0.104	0.060	0.148	1	.25 mile	2017
0.059	0.041	0.078	1	.5 mile	2017
0.094	0.061	0.127	2	outside	2017
0.165	0.121	0.210	2	.10 mile	2017
0.092	0.063	0.121	2	.25 mile	2017
0.085	0.062	0.107	2	.5 mile	2017
0.102	-0.021	0.225	3	outside	2017
0.167	0.130	0.203	3	.10 mile	2017
0.075	0.055	0.094	3	.25 mile	2017
0.081	0.059	0.102	3	.5 mile	2017
0.059	0.038	0.079	4	outside	2017
0.142	0.102	0.181	4	.10 mile	2017
0.095	0.068	0.123	4	.25 mile	2017
0.063	0.043	0.083	4	.5 mile	2017
0.055	0.041	0.069	1	outside	2018
0.061	0.029	0.092	1	.10 mile	2018
0.050	0.033	0.067	1	.25 mile	2018
0.050	0.032	0.068	1	.5 mile	2018
0.084	0.035	0.133	2	outside	2018
0.133	0.099	0.168	2	.10 mile	2018
0.057	0.041	0.074	2	.25 mile	2018
0.050	0.037	0.063	2	.5 mile	2018
0.117	-0.025	0.259	3	outside	2018
0.112	0.080	0.145	3	.10 mile	2018
0.057	0.044	0.071	3	.25 mile	2018
0.059	0.043	0.076	3	.5 mile	2018

0.049	0.033	0.065	4	outside	2018
0.091	0.061	0.120	4	.10 mile	2018
0.056	0.039	0.073	4	.25 mile	2018
0.077	0.041	0.113	4	.5 mile	2018
0.048	0.038	0.058	1	outside	2019
0.031	0.011	0.052	1	.10 mile	2019
0.037	0.018	0.056	1	.25 mile	2019
0.044	0.030	0.057	1	.5 mile	2019
0.081	0.027	0.136	2	outside	2019
0.104	0.072	0.136	2	.10 mile	2019
0.057	0.036	0.079	2	.25 mile	2019
0.051	0.038	0.065	2	.5 mile	2019
0.046	0.019	0.073	3	outside	2019
0.082	0.053	0.110	3	.10 mile	2019
0.045	0.032	0.057	3	.25 mile	2019
0.051	0.033	0.068	3	.5 mile	2019
0.052	0.033	0.071	4	outside	2019
0.078	0.039	0.117	4	.10 mile	2019
0.065	0.042	0.089	4	.25 mile	2019
0.063	0.037	0.089	4	.5 mile	2019

A3. Trespass Summons Rate Per Month by Quartile of Hispanic Population

Summons	CI_5	CI_95	Quartile Hispanic	Buffer	Year
0.157	0.112	0.202	1	outside	2013
0.098	0.063	0.133	1	.10 mile	2013
0.190	0.069	0.310	1	.25 mile	2013
0.077	0.054	0.099	1	.5 mile	2013
0.238	0.166	0.311	2	outside	2013
0.121	0.080	0.162	2	.10 mile	2013
0.115	0.081	0.148	2	.25 mile	2013
0.123	0.088	0.158	2	.5 mile	2013
0.175	0.132	0.218	3	outside	2013
0.097	0.070	0.125	3	.10 mile	2013
0.117	0.075	0.159	3	.25 mile	2013
0.153	0.097	0.210	3	.5 mile	2013
0.119	0.090	0.149	4	outside	2013
0.147	0.099	0.195	4	.10 mile	2013
0.148	0.092	0.205	4	.25 mile	2013
0.199	0.130	0.267	4	.5 mile	2013
0.165	0.115	0.215	1	outside	2014
0.104	0.049	0.158	1	.10 mile	2014
0.129	0.058	0.199	1	.25 mile	2014

0.089	0.060	0.119	1	.5 mile	2014
0.216	0.166	0.266	2	outside	2014
0.092	0.059	0.125	2	.10 mile	2014
0.119	0.084	0.155	2	.25 mile	2014
0.135	0.081	0.189	2	.5 mile	2014
0.194	0.141	0.247	3	outside	2014
0.082	0.056	0.109	3	.10 mile	2014
0.155	0.096	0.214	3	.25 mile	2014
0.190	0.123	0.257	3	.5 mile	2014
0.150	0.111	0.190	4	outside	2014
0.138	0.091	0.185	4	.10 mile	2014
0.127	0.089	0.165	4	.25 mile	2014
0.234	0.158	0.309	4	.5 mile	2014
0.133	0.096	0.170	1	outside	2015
0.082	0.027	0.138	1	.10 mile	2015
0.122	0.076	0.168	1	.25 mile	2015
0.079	0.057	0.102	1	.5 mile	2015
0.157	0.118	0.196	2	outside	2015
0.097	0.063	0.131	2	.10 mile	2015
0.086	0.066	0.106	2	.25 mile	2015
0.113	0.060	0.166	2	.5 mile	2015
0.205	0.139	0.272	3	outside	2015
0.061	0.040	0.082	3	.10 mile	2015
0.145	0.079	0.210	3	.25 mile	2015
0.120	0.074	0.166	3	.5 mile	2015
0.099	0.074	0.124	4	outside	2015
0.131	0.080	0.182	4	.10 mile	2015
0.097	0.068	0.127	4	.25 mile	2015
0.189	0.129	0.250	4	.5 mile	2015
0.147	0.102	0.191	1	outside	2016
0.109	0.059	0.158	1	.10 mile	2016
0.111	0.066	0.157	1	.25 mile	2016
0.097	0.065	0.128	1	.5 mile	2016
0.155	0.121	0.189	2	outside	2016
0.111	0.039	0.184	2	.10 mile	2016
0.095	0.066	0.124	2	.25 mile	2016
0.116	0.066	0.166	2	.5 mile	2016
0.186	0.116	0.257	3	outside	2016
0.072	0.044	0.100	3	.10 mile	2016
0.111	0.065	0.156	3	.25 mile	2016
0.116	0.061	0.172	3	.5 mile	2016
0.081	0.054	0.109	4	outside	2016
0.122	0.063	0.181	4	.10 mile	2016
0.100	0.037	0.164	4	.25 mile	2016

0.148	0.078	0.218	4	.5 mile	2016
0.136	0.089	0.183	1	outside	2017
0.129	0.034	0.223	1	.10 mile	2017
0.198	0.070	0.325	1	.25 mile	2017
0.101	0.065	0.137	1	.5 mile	2017
0.188	0.140	0.235	2	outside	2017
0.107	0.062	0.151	2	.10 mile	2017
0.124	0.085	0.164	2	.25 mile	2017
0.111	0.061	0.160	2	.5 mile	2017
0.154	0.088	0.219	3	outside	2017
0.072	0.045	0.099	3	.10 mile	2017
0.071	0.047	0.095	3	.25 mile	2017
0.110	0.065	0.156	3	.5 mile	2017
0.087	0.051	0.123	4	outside	2017
0.128	0.072	0.185	4	.10 mile	2017
0.083	0.054	0.111	4	.25 mile	2017
0.139	0.088	0.189	4	.5 mile	2017
0.110	0.074	0.146	1	outside	2018
0.079	0.039	0.120	1	.10 mile	2018
0.110	0.062	0.159	1	.25 mile	2018
0.083	0.048	0.118	1	.5 mile	2018
0.162	0.110	0.214	2	outside	2018
0.059	0.034	0.083	2	.10 mile	2018
0.075	0.041	0.110	2	.25 mile	2018
0.107	0.069	0.146	2	.5 mile	2018
0.129	0.073	0.185	3	outside	2018
0.053	0.032	0.074	3	.10 mile	2018
0.069	0.040	0.099	3	.25 mile	2018
0.085	0.035	0.134	3	.5 mile	2018
0.055	0.036	0.074	4	outside	2018
0.071	0.036	0.106	4	.10 mile	2018
0.055	0.036	0.075	4	.25 mile	2018
0.103	0.060	0.147	4	.5 mile	2018
0.104	0.061	0.146	1	outside	2019
0.095	0.040	0.151	1	.10 mile	2019
0.119	0.047	0.190	1	.25 mile	2019
0.105	0.060	0.151	1	.5 mile	2019
0.149	0.090	0.208	2	outside	2019
0.079	0.040	0.119	2	.10 mile	2019
0.090	0.053	0.127	2	.25 mile	2019
0.088	0.052	0.124	2	.5 mile	2019
0.097	0.025	0.170	3	outside	2019
0.079	0.048	0.110	3	.10 mile	2019
0.080	0.044	0.116	3	.25 mile	2019

0.072	0.046	0.097	3	.5 mile	2019
0.052	0.026	0.078	4	outside	2019
0.089	0.051	0.127	4	.10 mile	2019
0.071	0.045	0.098	4	.25 mile	2019
0.103	0.061	0.145	4	.5 mile	2019

A4. Trespass Summons Rate Per Month by Quartile of Black Population

Summons	CI_5	CI_95	Quartile Black	Buffer	Year
0.169	0.135	0.204	1	outside	2013
0.131	0.060	0.203	1	.10 mile	2013
0.127	0.062	0.192	1	.25 mile	2013
0.129	0.083	0.174	1	.5 mile	2013
0.207	0.166	0.249	2	outside	2013
0.092	0.065	0.119	2	.10 mile	2013
0.114	0.077	0.151	2	.25 mile	2013
0.168	0.117	0.220	2	.5 mile	2013
0.208	0.099	0.316	3	outside	2013
0.136	0.102	0.169	3	.10 mile	2013
0.199	0.111	0.287	3	.25 mile	2013
0.136	0.090	0.181	3	.5 mile	2013
0.101	0.076	0.126	4	outside	2013
0.104	0.073	0.135	4	.10 mile	2013
0.126	0.073	0.179	4	.25 mile	2013
0.120	0.076	0.164	4	.5 mile	2013
0.150	0.125	0.175	1	outside	2014
0.081	0.021	0.142	1	.10 mile	2014
0.097	0.052	0.142	1	.25 mile	2014
0.123	0.068	0.178	1	.5 mile	2014
0.207	0.162	0.253	2	outside	2014
0.118	0.075	0.161	2	.10 mile	2014
0.133	0.098	0.169	2	.25 mile	2014
0.173	0.119	0.227	2	.5 mile	2014
0.250	0.148	0.352	3	outside	2014
0.125	0.087	0.163	3	.10 mile	2014
0.175	0.110	0.240	3	.25 mile	2014
0.162	0.117	0.206	3	.5 mile	2014
0.120	0.084	0.157	4	outside	2014
0.091	0.065	0.117	4	.10 mile	2014
0.127	0.081	0.172	4	.25 mile	2014
0.187	0.113	0.261	4	.5 mile	2014
0.121	0.097	0.146	1	outside	2015
0.088	0.024	0.152	1	.10 mile	2015

0.066	0.035	0.097	1	.25 mile	2015
0.079	0.051	0.107	1	.5 mile	2015
0.157	0.123	0.191	2	outside	2015
0.093	0.045	0.141	2	.10 mile	2015
0.113	0.084	0.142	2	.25 mile	2015
0.126	0.086	0.165	2	.5 mile	2015
0.183	0.116	0.250	3	outside	2015
0.104	0.070	0.138	3	.10 mile	2015
0.176	0.100	0.252	3	.25 mile	2015
0.147	0.095	0.199	3	.5 mile	2015
0.136	0.070	0.203	4	outside	2015
0.084	0.059	0.108	4	.10 mile	2015
0.101	0.073	0.128	4	.25 mile	2015
0.146	0.095	0.197	4	.5 mile	2015
0.119	0.095	0.142	1	outside	2016
0.115	0.014	0.215	1	.10 mile	2016
0.058	0.032	0.084	1	.25 mile	2016
0.073	0.043	0.103	1	.5 mile	2016
0.133	0.097	0.168	2	outside	2016
0.085	0.050	0.119	2	.10 mile	2016
0.110	0.073	0.148	2	.25 mile	2016
0.164	0.099	0.229	2	.5 mile	2016
0.175	0.110	0.240	3	outside	2016
0.113	0.057	0.170	3	.10 mile	2016
0.164	0.095	0.234	3	.25 mile	2016
0.139	0.079	0.199	3	.5 mile	2016
0.152	0.076	0.227	4	outside	2016
0.101	0.066	0.136	4	.10 mile	2016
0.090	0.057	0.123	4	.25 mile	2016
0.099	0.069	0.129	4	.5 mile	2016
0.119	0.088	0.150	1	outside	2017
0.180	0.033	0.328	1	.10 mile	2017
0.056	0.030	0.083	1	.25 mile	2017
0.106	0.049	0.163	1	.5 mile	2017
0.127	0.093	0.162	2	outside	2017
0.100	0.062	0.138	2	.10 mile	2017
0.161	0.097	0.226	2	.25 mile	2017
0.163	0.108	0.217	2	.5 mile	2017
0.159	0.093	0.224	3	outside	2017
0.080	0.053	0.106	3	.10 mile	2017
0.166	0.088	0.244	3	.25 mile	2017
0.116	0.074	0.157	3	.5 mile	2017
0.152	0.083	0.222	4	outside	2017
0.083	0.056	0.109	4	.10 mile	2017

0.074	0.051	0.097	4	.25 mile	2017
0.080	0.055	0.104	4	.5 mile	2017
0.095	0.065	0.125	1	outside	2018
0.047	0.013	0.081	1	.10 mile	2018
0.043	0.022	0.064	1	.25 mile	2018
0.068	0.004	0.132	1	.5 mile	2018
0.074	0.052	0.096	2	outside	2018
0.057	0.032	0.082	2	.10 mile	2018
0.070	0.031	0.110	2	.25 mile	2018
0.103	0.065	0.140	2	.5 mile	2018
0.146	0.084	0.207	3	outside	2018
0.070	0.043	0.097	3	.10 mile	2018
0.114	0.077	0.150	3	.25 mile	2018
0.112	0.072	0.152	3	.5 mile	2018
0.123	0.073	0.173	4	outside	2018
0.084	0.050	0.118	4	.10 mile	2018
0.068	0.044	0.091	4	.25 mile	2018
0.092	0.058	0.127	4	.5 mile	2018
0.087	0.047	0.128	1	outside	2019
0.053	0.001	0.105	1	.10 mile	2019
0.101	0.017	0.185	1	.25 mile	2019
0.097	0.056	0.139	1	.5 mile	2019
0.109	0.041	0.177	2	outside	2019
0.150	0.086	0.214	2	.10 mile	2019
0.087	0.050	0.123	2	.25 mile	2019
0.110	0.068	0.152	2	.5 mile	2019
0.094	0.057	0.130	3	outside	2019
0.066	0.040	0.092	3	.10 mile	2019
0.098	0.062	0.135	3	.25 mile	2019
0.093	0.061	0.126	3	.5 mile	2019
0.093	0.057	0.129	4	outside	2019
0.075	0.043	0.107	4	.10 mile	2019
0.065	0.043	0.087	4	.25 mile	2019
0.072	0.038	0.106	4	.5 mile	2019

A5. Trespass Stop Rate Per Month by Quartile of Hispanic Population

Stops	CI_5	CI_95	Quartile	Buffer	Year
0.341	0.069	0.614	1	outside	2013
0.142	0.074	0.210	1	.10 mile	2013
0.160	0.097	0.222	1	.25 mile	2013
0.182	0.116	0.249	1	.5 mile	2013
0.200	0.126	0.273	2	outside	2013
0.535	0.249	0.820	2	.10 mile	2013

0.205	0.127	0.283	2	.25 mile	2013
0.187	0.127	0.248	2	.5 mile	2013
0.138	0.103	0.174	3	outside	2013
0.700	0.506	0.894	3	.10 mile	2013
0.407	0.304	0.509	3	.25 mile	2013
0.216	0.125	0.308	3	.5 mile	2013
0.098	0.066	0.131	4	outside	2013
0.448	0.321	0.575	4	.10 mile	2013
0.274	0.190	0.358	4	.25 mile	2013
0.122	0.083	0.161	4	.5 mile	2013
0.112	0.011	0.212	1	outside	2014
0.114	0.035	0.194	1	.10 mile	2014
0.110	0.017	0.204	1	.25 mile	2014
0.073	0.027	0.119	1	.5 mile	2014
0.054	0.025	0.083	2	outside	2014
0.217	0.149	0.284	2	.10 mile	2014
0.126	0.063	0.188	2	.25 mile	2014
0.061	0.024	0.097	2	.5 mile	2014
0.062	0.034	0.091	3	outside	2014
0.279	0.214	0.345	3	.10 mile	2014
0.259	0.124	0.393	3	.25 mile	2014
0.117	0.037	0.198	3	.5 mile	2014
0.053	0.029	0.077	4	outside	2014
0.290	0.212	0.369	4	.10 mile	2014
0.151	0.098	0.204	4	.25 mile	2014
0.087	0.035	0.140	4	.5 mile	2014
0.073	0.025	0.122	1	outside	2015
0.055	-0.012	0.122	1	.10 mile	2015
0.042	0.006	0.078	1	.25 mile	2015
0.032	0.009	0.056	1	.5 mile	2015
0.046	0.019	0.074	2	outside	2015
0.094	0.042	0.146	2	.10 mile	2015
0.058	0.023	0.093	2	.25 mile	2015
0.046	-0.001	0.094	2	.5 mile	2015
0.047	0.021	0.073	3	outside	2015
0.169	0.122	0.217	3	.10 mile	2015
0.119	0.068	0.170	3	.25 mile	2015
0.052	0.022	0.082	3	.5 mile	2015
0.057	0.019	0.096	4	outside	2015
0.201	0.146	0.255	4	.10 mile	2015
0.133	0.074	0.193	4	.25 mile	2015
0.071	0.036	0.106	4	.5 mile	2015
0.090	0.031	0.148	1	outside	2016
0.193	0.069	0.316	1	.10 mile	2016

0.144	0.020	0.267	1	.25 mile	2016
0.102	0.011	0.193	1	.5 mile	2016
0.083	0.022	0.144	2	outside	2016
0.155	0.037	0.272	2	.10 mile	2016
0.057	0.015	0.099	2	.25 mile	2016
0.057	-0.001	0.115	2	.5 mile	2016
0.035	0.012	0.059	3	outside	2016
0.236	0.162	0.310	3	.10 mile	2016
0.133	0.080	0.185	3	.25 mile	2016
0.050	0.010	0.090	3	.5 mile	2016
0.012	0.000	0.025	4	outside	2016
0.147	0.091	0.202	4	.10 mile	2016
0.104	0.063	0.145	4	.25 mile	2016
0.054	0.016	0.093	4	.5 mile	2016
0.075	0.032	0.119	1	outside	2017
0.087	-0.035	0.209	1	.10 mile	2017
0.174	-0.027	0.376	1	.25 mile	2017
0.067	0.024	0.110	1	.5 mile	2017
0.081	0.032	0.131	2	outside	2017
0.286	0.150	0.423	2	.10 mile	2017
0.092	0.027	0.157	2	.25 mile	2017
0.017	-0.002	0.036	2	.5 mile	2017
0.034	0.014	0.054	3	outside	2017
0.269	0.185	0.354	3	.10 mile	2017
0.170	0.071	0.270	3	.25 mile	2017
0.097	0.048	0.146	3	.5 mile	2017
0.105	0.033	0.178	4	outside	2017
0.168	0.107	0.229	4	.10 mile	2017
0.134	0.076	0.192	4	.25 mile	2017
0.058	0.018	0.099	4	.5 mile	2017
0.064	0.026	0.101	1	outside	2018
0.017	-0.015	0.050	1	.10 mile	2018
0.022	-0.005	0.049	1	.25 mile	2018
0.010	-0.004	0.024	1	.5 mile	2018
0.037	0.008	0.066	2	outside	2018
0.155	0.055	0.255	2	.10 mile	2018
0.020	-0.006	0.045	2	.25 mile	2018
0.025	-0.004	0.053	2	.5 mile	2018
0.067	0.020	0.114	3	outside	2018
0.105	0.065	0.146	3	.10 mile	2018
0.066	0.031	0.100	3	.25 mile	2018
0.048	0.009	0.088	3	.5 mile	2018
0.023	0.005	0.041	4	outside	2018
0.104	0.065	0.144	4	.10 mile	2018

0.057	0.028	0.086	4	.25 mile	2018
0.023	0.001	0.045	4	.5 mile	2018
0.076	0.034	0.119	1	outside	2019
0.015	-0.015	0.046	1	.10 mile	2019
0.056	-0.001	0.112	1	.25 mile	2019
0.043	0.007	0.080	1	.5 mile	2019
0.051	0.029	0.073	2	outside	2019
0.061	0.006	0.116	2	.10 mile	2019
0.053	0.008	0.098	2	.25 mile	2019
0.035	-0.010	0.080	2	.5 mile	2019
0.067	0.002	0.133	3	outside	2019
0.143	0.080	0.205	3	.10 mile	2019
0.062	0.017	0.106	3	.25 mile	2019
0.028	0.004	0.053	3	.5 mile	2019
0.009	-0.004	0.021	4	outside	2019
0.061	0.030	0.092	4	.10 mile	2019
0.041	0.016	0.066	4	.25 mile	2019
0.014	0.002	0.025	4	.5 mile	2019

A6. Trespass Stop Rate Per Month by Quartile of Hispanic Population

Stops	CI_5	CI_95	Quartile	Buffer	Year
0.086	0.062	0.110	1	outside	2013
0.214	0.095	0.333	1	.10 mile	2013
0.235	0.130	0.339	1	.25 mile	2013
0.145	0.089	0.201	1	.5 mile	2013
0.141	0.090	0.191	2	outside	2013
0.528	0.278	0.779	2	.10 mile	2013
0.203	0.147	0.259	2	.25 mile	2013
0.158	0.112	0.205	2	.5 mile	2013
0.284	0.044	0.523	3	outside	2013
0.450	0.350	0.550	3	.10 mile	2013
0.293	0.217	0.368	3	.25 mile	2013
0.192	0.113	0.271	3	.5 mile	2013
0.129	0.086	0.173	4	outside	2013
0.637	0.461	0.813	4	.10 mile	2013
0.336	0.231	0.440	4	.25 mile	2013
0.174	0.122	0.226	4	.5 mile	2013
0.038	0.019	0.057	1	outside	2014
0.155	0.058	0.252	1	.10 mile	2014
0.165	0.055	0.276	1	.25 mile	2014
0.077	0.019	0.135	1	.5 mile	2014
0.039	0.023	0.055	2	outside	2014
0.391	0.235	0.548	2	.10 mile	2014

0.184	0.091	0.276	2	.25 mile	2014
0.047	0.025	0.068	2	.5 mile	2014
0.088	0.027	0.150	3	outside	2014
0.240	0.195	0.286	3	.10 mile	2014
0.216	0.115	0.316	3	.25 mile	2014
0.075	0.042	0.107	3	.5 mile	2014
0.058	0.019	0.097	4	outside	2014
0.211	0.147	0.275	4	.10 mile	2014
0.120	0.067	0.173	4	.25 mile	2014
0.147	0.031	0.262	4	.5 mile	2014
0.030	0.014	0.046	1	outside	2015
0.026	-0.026	0.077	1	.10 mile	2015
0.113	0.033	0.193	1	.25 mile	2015
0.078	-0.001	0.156	1	.5 mile	2015
0.045	0.023	0.067	2	outside	2015
0.187	0.109	0.266	2	.10 mile	2015
0.093	0.042	0.144	2	.25 mile	2015
0.056	0.022	0.089	2	.5 mile	2015
0.083	0.033	0.133	3	outside	2015
0.192	0.147	0.238	3	.10 mile	2015
0.117	0.076	0.158	3	.25 mile	2015
0.056	0.027	0.084	3	.5 mile	2015
0.036	0.009	0.063	4	outside	2015
0.132	0.084	0.180	4	.10 mile	2015
0.085	0.036	0.133	4	.25 mile	2015
0.044	0.013	0.074	4	.5 mile	2015
0.047	0.023	0.070	1	outside	2016
0.177	-0.104	0.458	1	.10 mile	2016
0.181	0.039	0.323	1	.25 mile	2016
0.050	-0.005	0.106	1	.5 mile	2016
0.050	0.006	0.093	2	outside	2016
0.173	0.097	0.250	2	.10 mile	2016
0.084	0.039	0.128	2	.25 mile	2016
0.079	0.024	0.134	2	.5 mile	2016
0.040	0.010	0.070	3	outside	2016
0.242	0.181	0.303	3	.10 mile	2016
0.112	0.072	0.152	3	.25 mile	2016
0.050	0.008	0.092	3	.5 mile	2016
0.031	0.006	0.056	4	outside	2016
0.096	0.058	0.135	4	.10 mile	2016
0.089	0.044	0.134	4	.25 mile	2016
0.060	0.012	0.109	4	.5 mile	2016
0.108	0.046	0.170	1	outside	2017
0.158	-0.049	0.365	1	.10 mile	2017

0.325	-0.030	0.681	1	.25 mile	2017
0.081	0.019	0.143	1	.5 mile	2017
0.047	0.021	0.073	2	outside	2017
0.256	0.140	0.373	2	.10 mile	2017
0.140	0.072	0.209	2	.25 mile	2017
0.126	0.051	0.201	2	.5 mile	2017
0.062	0.021	0.103	3	outside	2017
0.224	0.162	0.285	3	.10 mile	2017
0.089	0.049	0.128	3	.25 mile	2017
0.031	0.013	0.050	3	.5 mile	2017
0.113	0.016	0.210	4	outside	2017
0.154	0.084	0.224	4	.10 mile	2017
0.129	0.043	0.214	4	.25 mile	2017
0.046	0.015	0.077	4	.5 mile	2017
0.060	0.024	0.096	1	outside	2018
0.073	-0.008	0.154	1	.10 mile	2018
0.058	-0.010	0.126	1	.25 mile	2018
0.019	-0.008	0.046	1	.5 mile	2018
0.034	0.013	0.055	2	outside	2018
0.151	0.087	0.216	2	.10 mile	2018
0.052	0.013	0.091	2	.25 mile	2018
0.050	0.016	0.085	2	.5 mile	2018
0.033	0.004	0.061	3	outside	2018
0.109	0.068	0.150	3	.10 mile	2018
0.040	0.022	0.057	3	.25 mile	2018
0.007	-0.001	0.015	3	.5 mile	2018
0.054	0.015	0.092	4	outside	2018
0.066	0.033	0.099	4	.10 mile	2018
0.051	0.019	0.083	4	.25 mile	2018
0.043	-0.003	0.089	4	.5 mile	2018
0.053	0.031	0.075	1	outside	2019
0.043	-0.018	0.104	1	.10 mile	2019
0.048	-0.004	0.100	1	.25 mile	2019
0.037	0.008	0.066	1	.5 mile	2019
0.053	0.023	0.083	2	outside	2019
0.151	0.075	0.227	2	.10 mile	2019
0.057	0.016	0.099	2	.25 mile	2019
0.029	0.006	0.053	2	.5 mile	2019
0.016	0.000	0.031	3	outside	2019
0.073	0.037	0.109	3	.10 mile	2019
0.046	0.020	0.072	3	.25 mile	2019
0.030	0.001	0.059	3	.5 mile	2019
0.063	0.001	0.124	4	outside	2019
0.033	0.012	0.053	4	.10 mile	2019

0.053	0.012	0.094	4	.25 mile	2019
0.015	-0.003	0.033	4	.5 mile	2019