IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF PENNSYLVANIA

Mahari Bailey, et al.,	:	
Plaintiffs	:	**C.A. No. 10-5952**
	:	
v.	:	
	:	
City of Philadelphia, et al.,	:	
Defendants	:	

PLAINTIFFS' EIGHTH REPORT TO COURT AND MONITOR
ON STOP AND FRISK PRACTICES: FOURTEENTH AMENDMENT ISSUES

Racial Analysis of Stop and Frisk Practices, January-June, 2017

I. Introduction

This section sets forth a statistical analysis of the "Stop and Frisk" practices of the PPD for the first half of 2017, conducted by plaintiffs' expert, Professor David Abrams. The benchmarks to be used in the analysis are those set forth in a revised Benchmark Memorandum agreed to by the parties in 2016.

In creating benchmarks to measure compliance of the PPD with the terms of the Agreement, we considered several criteria. First, the benchmarks are designed to be straightforward in terms of computation and interpretation. Second, they are designed to measure characteristics at the core of the Agreement, namely compliance with the Fourteenth Amendment. Third, they consider other potential explanations for patterns in the data beyond suspect race. The benchmarks are based on a combination of those discussed and used in *NAACP v. City of Philadelphia,* academic literature on the topic, and those used recently in other jurisdictions. See, e.g., *Floyd v. City of New York*, 959 F. Supp. 2d 540 (S.D.N.Y. 2013).

II. Summary of the Racial Aspects of the Stop and Frisk Data

We examined data from Q1 and Q2 2017 pedestrian stops. A random sample of the stops was drawn by the Philadelphia Police Department for legal analysis for stop and frisk sufficiency by the plaintiffs. In this report we largely focus on an analysis of this randomly selected sample (see Table 1). We also include a description of the full array of stops (Table 2) at the PSA-race level, which is the way the overall stop rate is analyzed (Table 5).

The sample dataset (Table 1) includes 4,596 total pedestrian stops and the full data set has 55,601. This reflects a slight decline of 3.9% relative to the second half of 2016 and a substantial one (37%) relative to the first half of 2016. It appears that after a period of substantial reductions in the overall stop rate, it has stabilized in late 2016-2017. It should be noted that even this lower stop rate is still close to the highest New York City's rate ever reached prior to the Floyd litigation. Philadelphia's per capita stop rate is currently vastly higher than that in New York and some other major cities.

The mean detainee age is 33 and 86% of detainees are male. The likelihood of being stopped rises sharply in the late teens and early 20's (Figure 1), which is not surprising given the evidence that criminal activity rises sharply at this age. Blacks account for 69% of those stopped, one percentage point lower than in the second half of 2016.

The data is subdivided into 64 Police Service Areas (PSA's). See Table 2 for PSA-level summary statistics.[1] There were an average of 604 stops of Black pedestrians

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[1] Two PSA's are omitted: 77, which is the airport and has no residential population and 254, due to missing demographic information.

per PSA in the first half of 2017, compared with 181 White stops and 72 of Hispanics. In light of the fact that much of this variation is due to variation in residential racial composition, we also report the stop rate by race per 10,000 residents of the same race. This varies from a low of 268 for Hispanics, to 353 for Whites and 707 stops of Blacks for every 10,000 Black residents. These stop rates are similar to the second half of 2016 and there remains a substantial amount of variation in stop rates by race.

Below we use a regression framework to determine whether other factors besides race may account for these differences. The control variables include demographic, economic, and crime factors. The employment rate varies substantially across PSA's. The variation in racial composition is even greater, with the Black residential share ranging from 3% to 98% (Table 2). To account for higher crime rates among juvenile and young adult males, we control for the share of males under 24 in some regression specifications. This rate also varies widely, from 9 to 52 percent, with a mean of 37%. Crime rates are also likely to drive stop rates and thus we control for them using three different measures: violent crime, property crime and overall Part 1 crimes. Crime rates vary by more than a factor of 10 across Philadelphia and thus it is important to include these controls.

Table 3 provides a breakdown of stop, frisk and arrest rates by race. As noted, Blacks account for 69% of stops, Whites for 22% and Latinos account for 9%. Minorities account for an even higher share of individuals frisked, of which 77% are Black, 10% Latino and 12% White. This racial composition is very similar to that of the previous three years. About 1 in 5.5 stops of Black pedestrians result in a frisk, but the rate is only 1 in 10.8 for Whites. The difference is not as great for arrests, with an arrest

of a Black detained resulting from 11.6 stops on average, while for Whites it takes 9.9

stops.   This is a marked change from most previous years where typically the number of

stops per arrest was much greater for Whites than Blacks.

The number of stops varies substantially by district, with the 24th, which includes

Port Richmond and part of North Philadelphia, once again with the largest number,

accounting for 12.1% of the total (Figure 2).   The fewest stops are in the 7th police

district, in Northeast Philadelphia, accounting for under 1% of all stops.

III. Benchmark Applications

A.   Stops, Census and Regression Analysis

The question of whether race is impermissibly used as a factor in the decision to

stop and frisk cannot be answered by a simple comparison of stop and frisk rates to

census data.   Even if stop and frisk rates relative to the same-race residential population

vary by race, there could be non-racial explanations for the disparities.   Before moving

on to more sophisticated analyses that attempt to account for non-racial factors that may

explain differences, it is useful to note the base stop rate by race in comparison to the

census population (Tables 2 and 3):

Black stops=69%; Black census=46%

White stops=22%; White census=42%

Latino stops=9%; Latino census=11%

The next analysis is a cross-PSA comparison of stop rates by Black/Minority

population share. A racial disparity in stops should be expected based on differences in population composition. It is possible to examine variation in the share of Black and Latino stops by PSA, as reported in Tables 4A and 4B, respectively. Each row in the tables represents a PSA (column 1) and the tables are sorted by the Black or Latino share of the population in the district, as reflected in column 2. The third column reports the share of stops that are of Black/Latino pedestrians and the fourth is the ratio of Black/Latino stops to Black/Latino population share. Note that in *all but five* PSAs, Blacks account for a higher share of stops than they do of the population (column 4); in several PSA's, they are stopped at a rate over five times their share of the population. For example, in PSA 91, the population is only 3% Black, but 67% of stops were of Blacks. In PSA 63, the population is 7% Black and 68% of stops were of Blacks. By contrast, in the PSA 192, where Blacks make up 96% of the population, the ratio of Black stops to Black population was close to a 1:1 ratio.

This trend of a vastly inflated minority stop rate in heavily White locations can be seen visually in Figure 3. If the ratio of minority stops were independent of PSA minority share, the points should form a horizontal line. The fact that the points in the left end of the figure (heavily White PSA's) have much higher Black stop ratios, reinforces the results from Table 4A.

The last two columns in Tables 4A and 4B report characteristics based on the census population of the PSA, not just minorities. Column 5 reports total stops per capita and Column 6, the violent crime rate in the PSA (violent crimes per 10,000 residents). Figure 4 visually displays the relationship between overall stop rate and Black population share. It shows that areas with a greater Black population share

experience a higher stop rate than those with a lower share. Of course, regression analysis is necessary to determine whether the violent crime rates or other differences in these PSA's explains the extent of the differences.

To address non-racial influences, we next move to a multivariate regression analysis. This approach is more robust than a comparison of averages because it examines the relationship among multiple variables simultaneously. To determine the impact of suspect race on the likelihood of a stop or frisk, we control for factors that include the demographic makeup and crime rate of the neighborhood.

First, we add data collected from the U.S. Census as well as data on reported crimes by PSA from the Philadelphia Police Department. We begin by examining differences in overall stop rates by race in Table 5. This table (and tables 6, 8, 9 and 11) share the same format: each column in the table reports results from a separate regression that identifies the relationship between the variables listed in the first column and the dependent variable, which is the title of the table. For example, the regression that is reported in column 4 can be written as:

$$(1) \quad StopRate = \alpha + \beta_1 Black + \beta_2 Latino + \beta_3 Male + \beta_4 Age + \epsilon$$

Stop Rate is the number of stops in the sample examined per 10,000 residents of the same race in a district and *Black* is coded 0 if the detainee is White and 1 if the detainee is Black. Similarly, *Latino* is coded 1 if the detainee is Latino and zero otherwise.[2] Male is coded 1 for men and 0 for women. Age is the detainee's age in years. By including 4 variables in the equation, this regression can better isolate the impact of race and Latino identity on the likelihood of being stopped, even if sex or age are important factors

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[2] If a detainee is both Black and Latino, he is counted as Black.

affecting the stop rate.

The coefficient on *Black* found in column 4 is 400.5, which means that in the full dataset about 385 more Black individuals were stopped than White individuals for every 10,000 same-race residents of a PSA. To put the magnitude of this racial difference in perspective, note that the average stop rate for Whites is 353 per 10,000 same-race PSA residents.   This means that Blacks are stopped well over twice as frequently – 213% the rate of Whites.   The standard errors are reported in parentheses below the coefficient and the double stars on the standard error indicates that this result is statistically significant at better than the 1% level. This means that there is less than a 1% chance that the difference in stop rates between Blacks and Whites is zero.

There may be reasons other than race that minorities are stopped at higher rates. For example, if minorities tend to be younger on average, since more crime is committed by younger individuals, one might expect a higher stop rate for minorities. We control for this factor (as in equation 1 above) and others relevant to this issue.   Column 5 adds controls for the PSA racial composition and Column 6 the share of the male population under 24 years of age.   Even after adding these controls, the coefficient on Detainee Black (397.6) is still similar to what it was with no controls.   Column 7 adds the PSA employment rate to the regression.   Not surprisingly, PSA's with higher employment rates have lower stop rates, but this control does not have a substantial impact on the race effect.

Columns 8-10 add different controls for PSA crime rates. The crime rates are based on crimes reported to the police (not arrests) in 2016.   It is preferable to use lagged crime because current crime levels could be influenced by policing policies. In

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each case, PSA's with higher crime rates have more stops, but controlling for crime rates does not affect the influence of detainee race on stop rate.

The final column reproduces column 9, but includes additional econometric safeguards. It controls for other potential differences across districts (district fixed effects) as well as potential correlations in the errors within a district (clustering standard errors at the district level). A comparison between columns 10 and 12 shows that the coefficients on Black and Latino are not greatly impacted by these additions. All of the regressions reported were run with the addition of district fixed effects and clustering of standard errors, and the results were not materially changed.

A number of additional specification checks were run to insure the robustness of the results. Instead of using stop rate as the outcome, the number of stops was also examined. The results from these regressions were consistent with those reported. While the number of stops per PSA is large enough that an ordinary least squares (OLS) regression is appropriate, we also made use of a negative binomial regression, which is appropriate for use with count data. Again the results were consistent with those reported. Next, we varied the types of control variables used, including replacing the demographic and economic control variables with those provided by the defendant's expert. This, too, did not change the results.

Table 6 is analogous to Table 5, but it reports the results of a regression of the incidence of pedestrian frisks (rather than stops) on detainee race and various controls. Rather than aggregating data to the PSA-race level, the data in Table 6 is at the stop level and controls for the quarter of the year. In each regression, the coefficient on Detainee Black is statistically significantly different from zero and ranges from about 0.062 –

0.087.   The preferred estimate is .071 which may be found in column 9 and controls for

demographic, economic and crime variables. This means the frisk rate for Black

detainees is 7.1 percentage points higher than for Whites, once controlling for the entire

array of variables described above. Since the frisk rate for Whites is 9.2%, this means

black detainees are over 75% more likely to be frisked than Whites detainees.   This

result is statistically significant at the 1% level.   It is robust to the array of alternative

specifications described above for the stop rate regressions.

There are several other interesting results reflected in Table 6.   Latinos are also

more likely than Whites to be frisked (*see* second row) and the rate is similar to that of

Black detainees.   Also statistically significant are results for age and gender.   An extra

decade of age decreases likelihood of frisk by about 3.5 percentage points and male

detainees are far more likely to be frisked than females. Overall, in assessing data as to

frisks, and controlling for non-racial factors, there is a substantially higher frisk rate for

minorities.

B.   Reasonable Suspicion for Stops and Frisks: Racial Analysis

As the Plaintiffs' Eighth Report, Fourth Amendment Analysis (filed, December,

2017) demonstrates, a substantial number of the pedestrian stops still do not meet the

reasonable suspicion standard.   Table 7 shows that the share of stops without reasonable

suspicion remains high and similar across racial and ethnic categories, at 21% for Whites,

19% for Latinos and 21% for Blacks.   The average of 21% of unfounded stops is an

improvement of 4 percentage points over the second half of 2016 and 12 percentage

points lower than in 2015.   This movement continues to be in the right direction, but

shows that 1 in 5 stops of pedestrians lack reasonable suspicion.   The share of frisks made without reasonable suspicion is far higher, at 41% overall, which is the same as the rate in the second half of 2016.   This is a decrease of 15 percentage points from 2015 and down 14 percentage points from the 55% unfounded frisk rate in 2012.   The unfounded rate is highest for minorities, making up 49% of Latino frisks and 41% for Blacks, whereas the rate for Whites is still quite high at 38%.

As with stop rates and frisks, summary statistics can only get you so far, and regressions are necessary to control for potentially confounding factors.   Table 8 reports results from such regressions, with each column representing a separate regression where the dependent variable is whether there was reasonable suspicion for the stop.   As before, additional control variables are added in the different columns.   In most of the columns the coefficient on Detainee Black is between just -.013 and just above but none of these results are statistically significant.   The results for Latino detainees are all positive, ranging between .01 and .035 but none are of these are statistically significant either.   There is no evidence in the data for a racial disparity in the rate at which stops are made without reasonable suspicion.   The only demographic variable that does have a statistically significant impact is age, with older detainees more likely to be stopped with reasonable suspicion.

Table 9 is similar to Table 8 and describes regressions of the rate of reasonable suspicion, but now for a frisk rather than a stop. The coefficient on Detainee Black covers a wide range, but as in Table 8, none of these coefficients are statistically significant. The same is true for Latino detainees.   Overall there is little evidence that there are significant disparities in the rates of unfounded frisks, although this is largely due to the

less precise estimates due to the smaller sample size.

1. C.   Hit-Rate Analysis

An important measure of the propriety of stops and particularly of frisks is the rate at which they lead to the discovery of contraband, and particularly weapons, since frisks are permitted only where the officer reasonably believes that the suspect is armed and dangerous. Moreover, seizures of weapons are often cited as justification for a robust stop and frisk program. The rates of discovery of contraband from frisks are reported in Table 10. Contraband is categorized as firearms, drugs, or other. "Other" may include small amounts of cash or unspecified materials.

Table 10 reports an overall detection rate for firearms that is low, with only 1 in 49 pedestrian frisks yielding a firearm. Drugs were by far the most commonly detected type of contraband, and were found in every 18 frisks.   Overall, contraband was found in about 9% of all frisks.

Table 11 is a more sophisticated approach to the firearms hit-rate analysis. The regressions report the rate of discovery of a firearm in pedestrian frisks.   All of the results here are statistically insignificant, impacted by the fact that there were only slightly more than 700 frisks available to analyze.   If we examined a larger set of frisks, there might be evidence of a statistically significantly lower firearm recovery rate from Black detainees.

This suggests that the full dataset may be more useful than the sample to understand the impact of race on contraband hit-rates.   These results are presented in Table 12, which examines 8,177 frisks in Q1 and Q2 of 2017, of which 9.7% resulted in

the recovery of some kind of contraband or evidence (the type is not categorized in the full data).   Hit rates for blacks are 9.8% while they are 10.5% for Whites.   Even given the larger data set the low rates still mean that once adding control variables, these differences are not statistically significant, unlike in the 2015 analysis.

IV.   Commentary

We have examined the relationship of race to stop and frisk practices from multiple perspectives, following standard statistical theories.   It is significant that using regression analysis, there is strong evidence that the large differences in stop and frisk rates by race in Philadelphia are not explained by non-racial factors.   To the contrary, the data show statistically significant racial disparities that in almost all respects are not explainable by non-racial factors.

Respectfully submitted,

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Figure 1

Detainee Age

Figure 2

Figure 3

Black Stop Ratio vs Black Population Share
By PSA, 2017 Q1 & Q2

Figure 4

Annual Stop Rate vs. Black Population Share
By PSA, 2017 Q1 & Q2
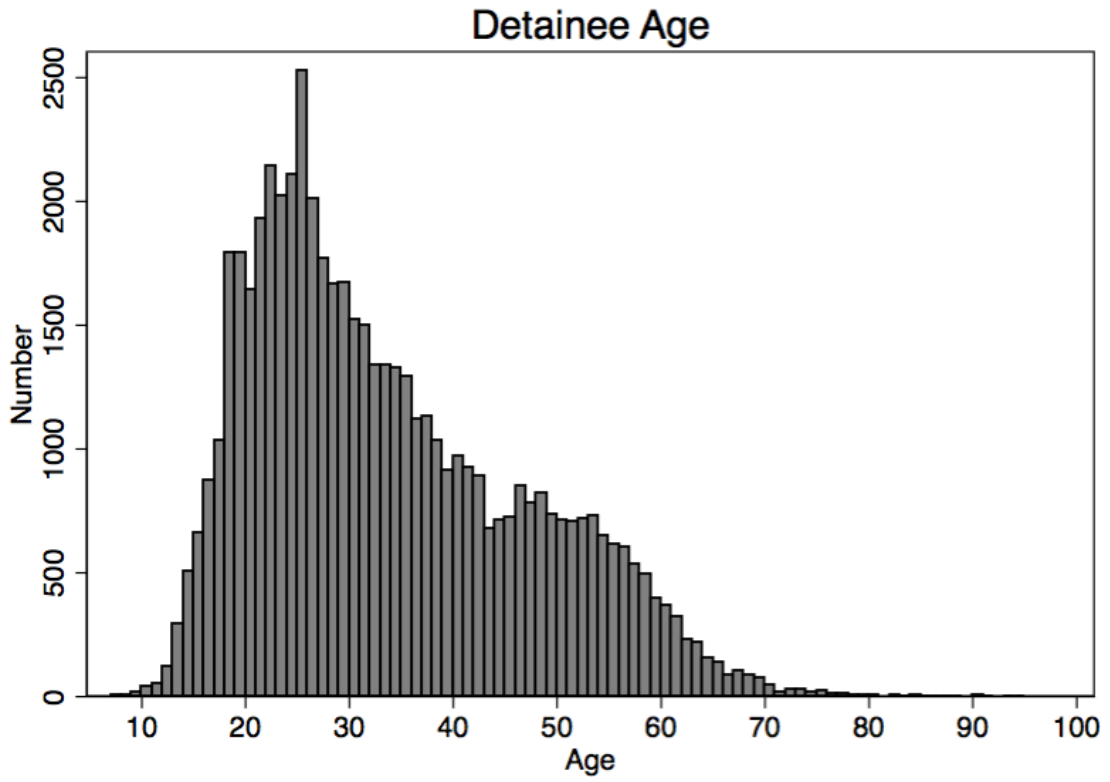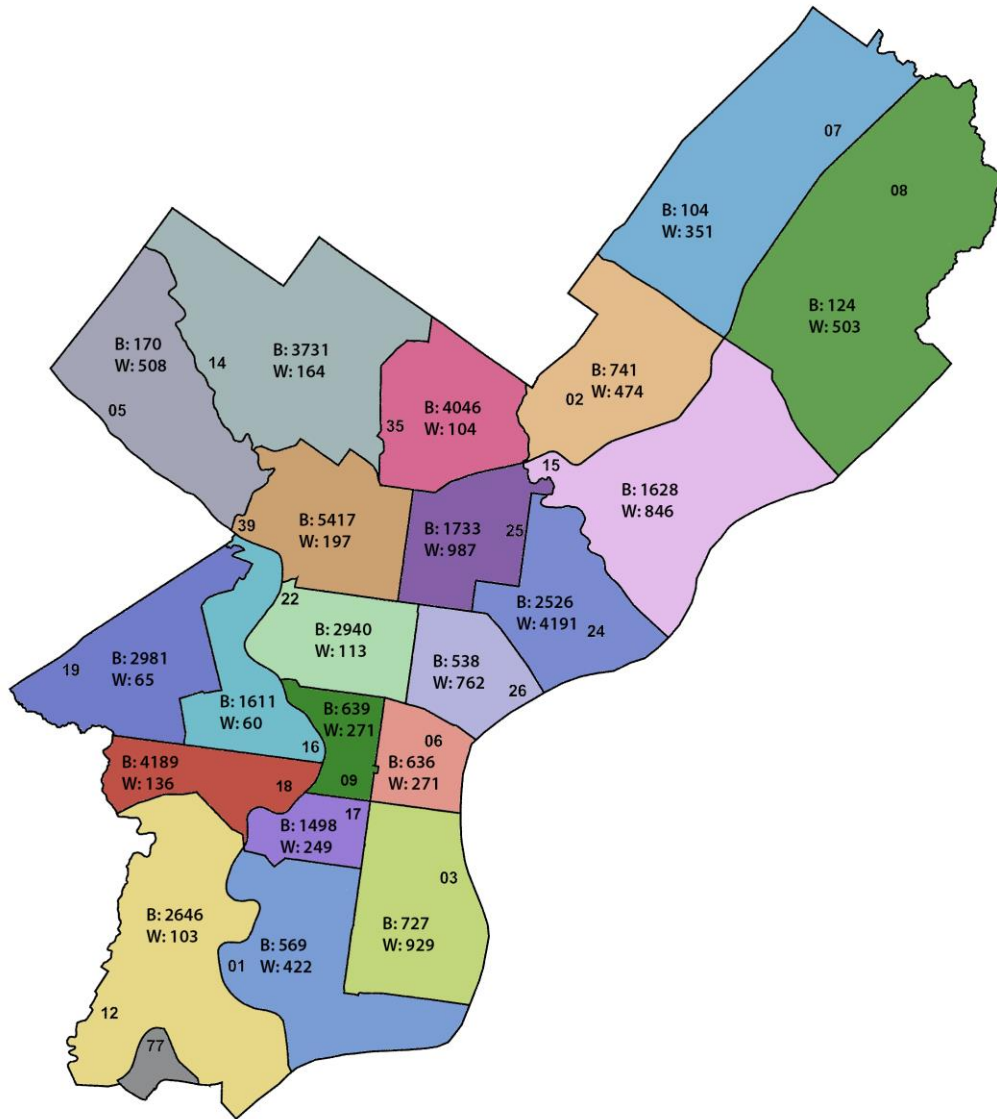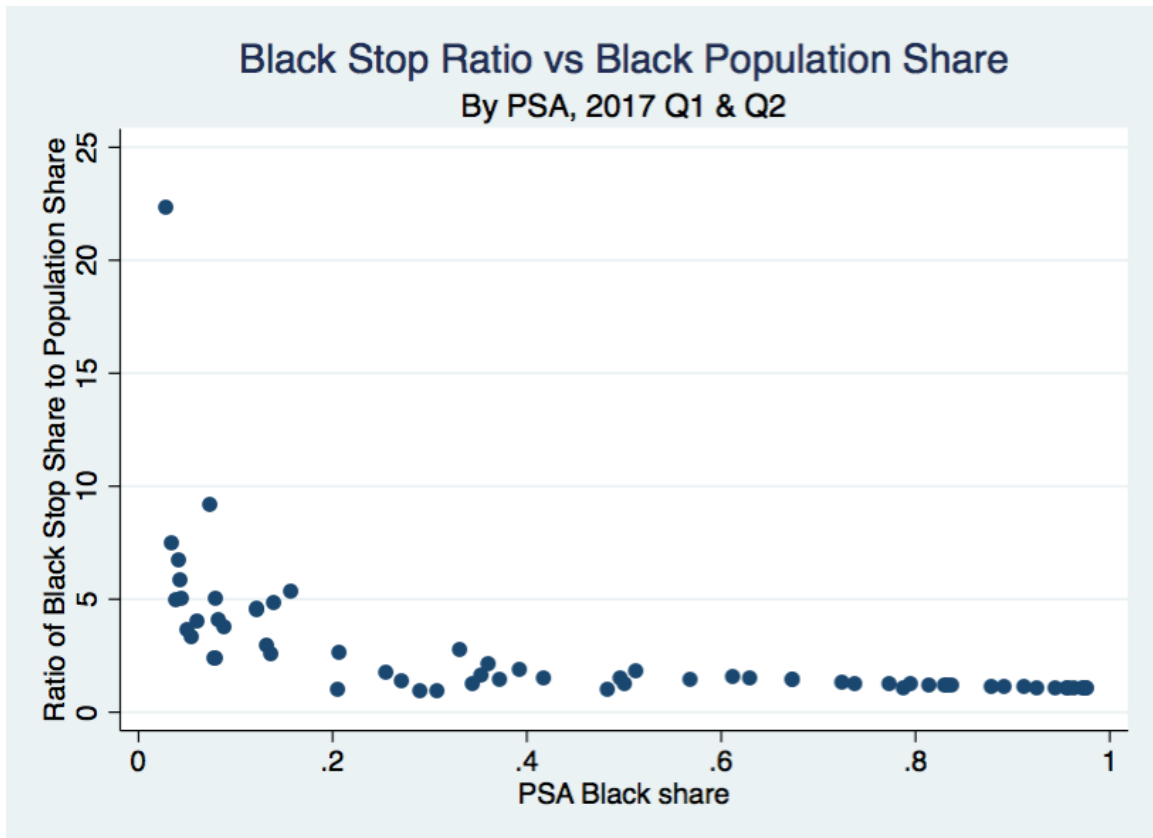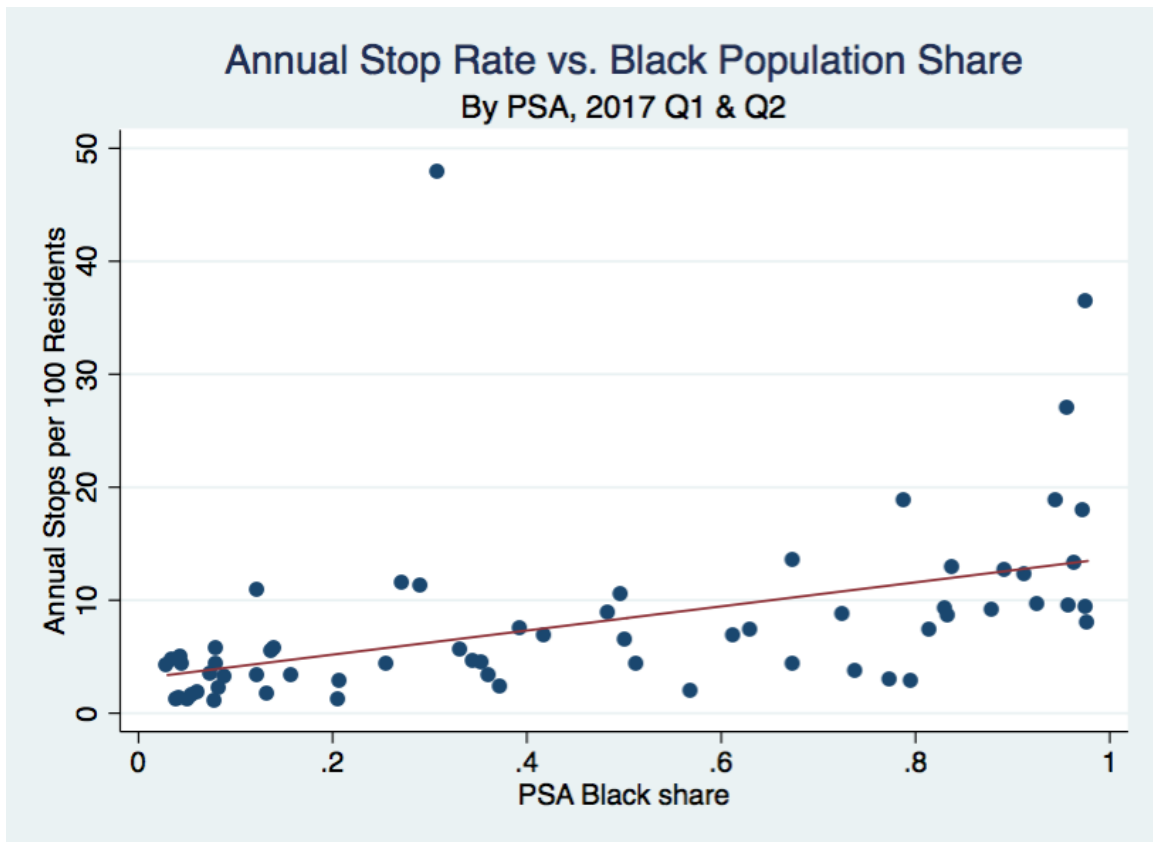
Table 1

2017 Q1 & Q2 Random Sample Summary Statistics

VARIABLES	(1) Mean	(2) N
Reasonable Suspicion for stop?	79%	4596
Individual Frisked	16%	4595
Reasonable Suspicion for frisk?	59%	743
Search Made	9.1%	4596
Arrest Made	8.8%	4595
Evidence or Contraband Found	3.3%	4595
Firearm Found	0.61%	4595
Drugs Found	1.7%	4595
Detainee Age	33.1	4586
Detainee Male	86%	4594
Detainee Black	69%	4512
Detainee Latino	9.5%	4596

Table includes summary statistics from 2017 Q1 & Q2 random sample, excluding observations incorrectly coded as stops.

Table 2

2017 Q1 & Q2 PSA-Level All Stops Summary Statistics

VARIABLES	(1) Mean	(2) Median	(3) SD	(4) Min	(5) Max	(6) Obs
Stop of Black Pedestrian	604	386	616	30	2361	64
Stop of White Pedestrian	181	81	407	14.0	3141	64
Stop of Hispanic Pedestrian	72	12	213	0.0	1486	64
Stops per 10,000 Black Residents	707	504	652	55	4245	64
Stops per 10,000 White Residents	353	145	660	27	4274	64
Stops per 10,000 Hispanic Residents	268	159	301	0	1292	64
Detainee Age	33.4	33.2	2.8	27.7	40.2	64
Detainee Male	85%	86%	5%	68%	92%	64
PSA Population	23578	21097	10529	5278	46642	64
PSA Black share	46%	38%	34%	3.0%	98%	64
PSA White share	42%	39%	32%	0.9%	93%	64
PSA Latino share	11%	4%	16%	0.7%	75%	64
PSA Asian share	5.2%	3.4%	5.1%	0.03%	22%	64
Employment Rate	40%	40%	11%	20%	67%	64
Male population under 24	37%	39%	11%	9%	52%	64
Violent Crime Rate (per 10k residents)	275	243	140	51	618	64
Property Crime Rate (per 10k residents)	506	439	262	171	1818	64
Drug Crime Rate (per 10k residents)	54	30	92	0.7	693	64
UCR Part 1 Crime Rate (per 10k residents)	670	617	328	189	2259	64

Table includes PSA-level summary statistics from 2017 Q1 & Q2 all stops, excluding PSA 77 and 254.

Table 3

Counts by Race in Random Sample, 2017 Q1 & Q2

	Black	Latino	White	Total
Stops	3132	399	985	4516
Stop Share	69%	9%	22%	100%
Frisks	569	75	91	735
Frisk Share	77%	10%	12%	100%
Stops/Frisk	5.5	5.3	10.8	6.1
Searches	294	42	81	417
Stops/Search	10.7	9.5	12.2	10.8
Arrests	269	31	100	400
Stops/Arrest	11.6	12.9	9.9	11.3
Contraband or Evidence	116	11	24	151
Frisks/Contraband	4.9	6.8	3.8	4.9

Table 4A

PSA-Level Statistics, Black Stops 2017 Q1 & Q2

PSA	PSA Black share	Black Share of Stops	Ratio of Black Stop Share to Population Share	Total Stops per 100 Residents	Violent Crime Rate (per 10k residents)
222	98%	98%	1.00	7.9	519
124	98%	98%	1.00	9.3	355
393	98%	97%	0.99	36.4	568
181	97%	98%	1.01	17.9	449
192	96%	98%	1.02	13.2	415
141	96%	97%	1.01	9.5	249
392	96%	96%	1.00	26.9	474
182	95%	98%	1.04	18.7	516
224	93%	95%	1.02	9.6	443
162	91%	97%	1.06	12.2	389
142	89%	97%	1.08	12.6	394
353	88%	97%	1.10	9.0	219
221	84%	94%	1.12	12.9	535
122	83%	94%	1.13	8.5	312
123	83%	95%	1.15	9.2	410
223	82%	94%	1.15	7.3	486
193	80%	97%	1.22	2.8	192
172	79%	81%	1.03	18.7	433
191	77%	96%	1.24	2.9	220
121	74%	90%	1.22	3.7	179
173	73%	93%	1.28	8.8	222
352	68%	93%	1.37	13.4	322
351	68%	93%	1.38	4.3	160
161	63%	93%	1.48	7.3	318
391	61%	92%	1.49	6.8	204
144	57%	78%	1.37	1.8	117
143	51%	91%	1.77	4.2	174
251	50%	59%	1.18	6.4	226
61	50%	71%	1.42	10.5	364
261	48%	46%	0.94	8.8	360
11	42%	60%	1.43	6.8	229
151	39%	71%	1.81	7.4	370

Table 4A, continued

PSA-Level Statistics, Black Stops 2017 Q1 & Q2

PSA	PSA Black share	Black Share of Stops	Ratio of Black Stop Share to Population Share	Total Stops per 100 Residents	Violent Crime Rate (per 10k residents)
22	37%	52%	1.40	2.3	187
171	36%	75%	2.06	3.3	139
21	35%	57%	1.61	4.4	209
262	35%	41%	1.19	4.6	281
183	33%	90%	2.71	5.5	155
242	31%	27%	0.89	47.8	424
253	29%	26%	0.90	11.3	307
241	27%	36%	1.31	11.4	300
252	26%	44%	1.73	4.4	312
152	21%	54%	2.59	2.7	294
81	21%	20%	0.96	1.2	127
93	16%	84%	5.28	3.3	203
92	14%	68%	4.81	5.7	455
32	14%	35%	2.52	5.5	239
23	13%	39%	2.93	1.7	108
62	12%	56%	4.50	10.8	618
31	12%	56%	4.54	3.3	165
12	9%	34%	3.75	3.1	113
153	8%	34%	4.03	2.2	220
33	8%	40%	4.99	4.3	178
263	8%	19%	2.36	5.7	248
82	8%	18%	2.30	1.1	102
63	7%	68%	9.15	3.4	249
53	6%	24%	3.96	1.8	66
83	6%	18%	3.27	1.5	93
72	5%	18%	3.58	1.1	51
52	5%	23%	5.00	4.3	139
51	4%	26%	5.78	5.0	139
71	4%	28%	6.69	1.3	83
73	4%	20%	4.94	1.1	72
243	3%	26%	7.45	4.6	276
91	3%	67%	22.31	4.1	219

Table 4B

PSA-Level Statistics, Latino Stops 2017 Q1 & Q2

PSA	PSA Latino share	Latino Share of Stops	Ratio of Latino Stop Share to Population Share	Total Stops per 100 Residents	Violent Crime Rate (per 10k residents)
253	75%	39%	0.53	11.3	307
252	58%	38%	0.65	4.4	312
242	52%	23%	0.45	47.8	424
261	50%	28%	0.56	8.8	360
251	48%	25%	0.52	6.4	226
241	46%	21%	0.45	11.4	300
262	37%	19%	0.51	4.6	281
21	20%	15%	0.77	4.4	209
352	20%	5%	0.24	13.4	322
151	19%	9%	0.44	7.4	370
152	14%	9%	0.62	2.7	294
22	14%	22%	1.62	2.3	187
32	14%	7%	0.52	5.5	239
263	12%	11%	0.90	5.7	248
33	11%	7%	0.60	4.3	178
351	11%	3%	0.29	4.3	160
23	10%	12%	1.17	1.7	108
31	9%	4%	0.43	3.3	165
61	9%	8%	0.91	10.5	364
81	8%	7%	0.92	1.2	127
93	8%	3%	0.46	3.3	203
153	7%	9%	1.22	2.2	220
92	7%	3%	0.39	5.7	455
83	6%	5%	0.74	1.5	93
72	6%	6%	0.97	1.1	51
71	5%	6%	1.21	1.3	83
62	5%	6%	1.12	10.8	618
82	5%	3%	0.70	1.1	102
243	5%	17%	3.56	4.6	276
73	4%	6%	1.48	1.1	72
183	4%	1%	0.26	5.5	155
192	4%	0%	0.12	13.2	415

Table 4B, continued

PSA-Level Statistics, Latino Stops 2017 Q1 & Q2

PSA	PSA Latino share	Latino Share of Stops	Ratio of Latino Stop Share to Population Share	Total Stops per 100 Residents	Violent Crime Rate (per 10k residents)
191	4%	0%	0.06	2.9	220
171	4%	1%	0.42	3.3	139
53	4%	0%	0.00	1.8	66
143	3%	2%	0.62	4.2	174
63	3%	4%	1.14	3.4	249
11	3%	2%	0.75	6.8	229
144	3%	4%	1.16	1.8	117
121	3%	2%	0.58	3.7	179
223	3%	1%	0.35	7.3	486
91	3%	4%	1.49	4.1	219
173	3%	2%	0.61	8.8	222
161	3%	1%	0.24	7.3	318
51	2%	3%	1.12	5.0	139
141	2%	1%	0.30	9.5	249
123	2%	1%	0.69	9.2	410
391	2%	1%	0.47	6.8	204
392	2%	2%	0.78	26.9	474
221	2%	1%	0.72	12.9	535
193	2%	0%	0.00	2.8	192
182	2%	0%	0.16	18.7	516
122	2%	1%	0.66	8.5	312
162	2%	1%	0.39	12.2	389
393	2%	1%	0.70	36.4	568
142	1%	0%	0.24	12.6	394
52	1%	2%	1.23	4.3	139
353	1%	2%	1.29	9.0	219
222	1%	1%	0.54	7.9	519
224	1%	2%	2.62	9.6	443
12	1%	3%	3.39	3.1	113
181	1%	0%	0.57	17.9	449
124	1%	0%	0.52	9.3	355
172	1%	1%	0.96	18.7	433

Table 5
Stop Rate per 10,000 Residents

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Detainee Black	396.9	354.7	356.7	400.5	409.9	397.6	399.5	395.1	388.9	397.7	405.2
	(86.09)**	(99.49)**	(104.1)**	(106.6)**	(105.5)**	(103.6)**	(102.0)**	(98.57)**	(95.29)**	(99.90)**	(120.3)**
Detainee Latino		-84.25	-73.89	-7.085	4.260	-20.05	-20.76	-38.17	-45.01	-34.29	-31.43
		(99.49)	(104.1)	(110.3)	(109.5)	(107.8)	(106.2)	(102.6)	(99.22)	(104.0)	(69.70)
Detainee Male			-27.42	39.57	-1.826	-188.0	-251.3	-402.0	-290.8	-423.1	-514.4
			(405.0)	(404.7)	(410.0)	(407.6)	(402.3)	(390.6)	(375.6)	(398.1)	(285.8)
Detainee Age				17.75	20.09	10.83	9.909	4.426	5.016	4.819	5.215
				(10.16)	(10.51)	(10.82)	(10.66)	(10.40)	(9.997)	(10.58)	(7.626)
PSA Asian share					-1,066	-619.9	-278.8	-891.4	-927.0	-676.9	-1,440
					(943.7)	(939.3)	(934.8)	(917.7)	(881.4)	(924.9)	(675.2)*
PSA Black share					107.1	561.1	452.3	177.8	-127.0	291.5	-195.5
					(139.6)	(210.9)**	(212.1)*	(217.6)	(226.7)	(214.6)	(318.9)
PSA Latino share					523.4	1,174	954.7	699.8	563.8	791.4	530.2
					(271.2)	(351.7)**	(356.8)**	(351.4)*	(341.4)	(353.6)*	(739.3)
Male population under 24						-1,810	-3,438	-2,286	-1,972	-2,561	69.49
						(639.3)**	(895.0)**	(918.0)*	(881.1)*	(924.7)**	(1,040)
Employment Rate							-2,249	-1,752	-1,029	-1,968	68.62
							(878.2)*	(858.6)*	(852.2)	(864.9)*	(1,009)
UCR Part 1 Crime Rate (per 10k residents)								0.497			
								(0.133)**			
Violent Crime Rate (per 10k residents)									1.878		2.023
									(0.358)**		(0.721)*
Property Crime Rate (per 10k residents)										0.498	
										(0.168)**	
Constant	310.4	352.5	374.3	-310.9	-410.0	427.6	2,054	1,603	1,065	1,800	75.42
	(49.71)**	(70.35)**	(329.2)	(510.9)	(512.9)	(583.8)	(856.9)*	(836.4)	(821.9)	(843.3)*	(879.0)
Observations	192	192	190	190	190	190	190	190	190	190	190
R-squared	0.101	0.104	0.101	0.115	0.149	0.185	0.214	0.271	0.319	0.251	0.477

Standard errors in parentheses ** p<0.01, * p<0.05

Table 6

Table 6

Frisk

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Detainee Black	0.062	0.087	0.075	0.070	0.063	0.064	0.071	0.071	0.071	0.071	0.064
	(0.012)**	(0.013)**	(0.013)**	(0.013)**	(0.015)**	(0.015)**	(0.015)**	(0.015)**	(0.015)**	(0.015)**	(0.020)**
Detainee Latino		0.093	0.079	0.070	0.075	0.075	0.078	0.079	0.078	0.078	0.074
		(0.021)**	(0.020)**	(0.020)**	(0.021)**	(0.021)**	(0.021)**	(0.021)**	(0.021)**	(0.021)**	(0.030)*
Detainee Male			0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13
			(0.016)**	(0.016)**	(0.016)**	(0.016)**	(0.016)**	(0.016)**	(0.016)**	(0.016)**	(0.015)**
Detainee Age				-0.0035	-0.0035	-0.0034	-0.0035	-0.0034	-0.0034	-0.0035	-0.0035
				(0.00041)**	(0.00041)**	(0.00041)**	(0.00041)**	(0.00041)**	(0.00041)**	(0.00041)**	(0.00042)*
PSA Asian share					-0.013	-0.027	-0.00073	0.0020	-0.0095	-0.00074	0.29
					(0.13)	(0.13)	(0.13)	(0.13)	(0.13)	(0.13)	(0.16)
PSA Black share					0.011	-0.014	-0.064	-0.061	-0.052	-0.064	0.11
					(0.025)	(0.033)	(0.036)	(0.036)	(0.037)	(0.036)	(0.072)
PSA Latino share					-0.0055	-0.040	-0.11	-0.11	-0.11	-0.11	-0.17
					(0.035)	(0.045)	(0.050)*	(0.051)*	(0.051)*	(0.051)*	(0.067)*
Male population under 24						0.11	-0.21	-0.23	-0.24	-0.21	-0.28
						(0.088)	(0.13)	(0.13)	(0.13)	(0.13)	(0.22)
Employment Rate							-0.50	-0.51	-0.54	-0.50	-0.45
							(0.15)**	(0.15)**	(0.15)**	(0.15)**	(0.19)*
UCR Part 1 Crime Rate (per 10k residents)								-0.000011			
								(0.000020)			
Violent Crime Rate (per 10k residents)									-0.000063		-0.00018
									(0.000053)		(0.000071)
Property Crime Rate (per 10k residents)										2.4e-08	
										(0.000026)	
Constant	0.11	0.083	-0.019	0.10	0.100	0.076	0.41	0.43	0.45	0.41	0.39
	(0.011)**	(0.013)**	(0.018)	(0.023)**	(0.029)**	(0.036)*	(0.11)**	(0.11)**	(0.11)**	(0.11)**	(0.16)*
Observations	4,511	4,511	4,509	4,499	4,443	4,443	4,443	4,443	4,443	4,443	4,443
R-squared	0.007	0.011	0.026	0.041	0.041	0.041	0.044	0.044	0.044	0.044	0.059

Standard errors in parentheses ** $p<0.01$, * $p<0.05$, All regressions include control for quarter of the year

Table 7

Reasonable Suspicion by Race in Random Sample, 2017 Q1 & Q2

	Black	Latino	White	Total
Stops	3132	399	985	4516
Reasonable Suspicion	2459	322	782	3563
Share of Stops with Reasonable Suspicion	79%	81%	79%	79%
Frisks	566	75	91	732
Reasonable Suspicion	335	38	56	429
Share of Frisks with Reasonable Suspicion	59%	51%	62%	59%

Table 8

Reasonable Suspicion for Stop

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Detainee Black	-0.013	-0.0048	-0.0032	0.000088	-0.0024	-0.0042	-0.0044	-0.0049	-0.0045	-0.0051	-0.0063
	(0.013)	(0.015)	(0.015)	(0.015)	(0.017)	(0.017)	(0.017)	(0.017)	(0.017)	(0.017)	(0.027)
Detainee Latino		0.029	0.031	0.035	0.011	0.011	0.011	0.011	0.011	0.010	0.012
		(0.023)	(0.023)	(0.023)	(0.024)	(0.024)	(0.024)	(0.024)	(0.024)	(0.024)	(0.014)
Detainee Male			-0.018	-0.017	-0.017	-0.017	-0.017	-0.018	-0.018	-0.018	-0.016
			(0.018)	(0.018)	(0.018)	(0.018)	(0.018)	(0.018)	(0.018)	(0.018)	(0.014)
Detainee Age				0.0017	0.0017	0.0017	0.0017	0.0016	0.0016	0.0016	0.0015
				(0.00046)**	(0.00047)**	(0.00047)**	(0.00047)**	(0.00047)**	(0.00047)**	(0.00047)**	(0.00058)*
PSA Asian share					0.22	0.24	0.24	0.24	0.25	0.24	0.22
					(0.15)	(0.15)	(0.15)	(0.15)	(0.15)	(0.15)	(0.17)
PSA Black share					0.074	0.12	0.13	0.12	0.12	0.12	0.15
					(0.028)**	(0.037)**	(0.040)**	(0.041)**	(0.042)**	(0.041)**	(0.087)
PSA Latino share					0.15	0.22	0.22	0.21	0.21	0.21	-0.090
					(0.039)**	(0.051)**	(0.057)**	(0.057)**	(0.057)**	(0.057)**	(0.098)
Male population under 24						-0.21	-0.20	-0.17	-0.19	-0.17	0.015
						(0.099)*	(0.14)	(0.15)	(0.15)	(0.15)	(0.22)
Employment Rate							0.011	0.029	0.031	0.023	0.22
							(0.17)	(0.17)	(0.17)	(0.17)	(0.18)
UCR Part 1 Crime Rate (per 10k residents)								0.000019			
								(0.000023)			
Violent Crime Rate (per 10k residents)									0.000030		0.000049
									(0.000060)		(0.000075
Property Crime Rate (per 10k residents)										0.000025	
										(0.000029)	
Constant	0.80	0.79	0.81	0.75	0.68	0.73	0.72	0.69	0.70	0.70	0.58
	(0.012)**	(0.014)**	(0.020)**	(0.025)**	(0.033)**	(0.040)**	(0.12)**	(0.12)**	(0.13)**	(0.12)**	(0.15)**
Observations	4,512	4,512	4,510	4,500	4,444	4,444	4,444	4,444	4,444	4,444	4,444
R-squared	0.000	0.001	0.001	0.004	0.007	0.008	0.008	0.008	0.008	0.008	0.015

Standard errors in parentheses ** $p<0.01$, * $p<0.05$, All regressions include control for quarter of the year

Table 9

Reasonable Suspicion for Frisk

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Detainee Black	0.027	0.019	0.017	0.023	0.048	0.033	0.034	0.036	0.037	0.034	0.032
	(0.044)	(0.053)	(0.053)	(0.054)	(0.058)	(0.059)	(0.059)	(0.059)	(0.059)	(0.059)	(0.065)
Detainee Latino		-0.019	-0.020	-0.014	-0.051	-0.062	-0.061	-0.061	-0.061	-0.061	-0.081
		(0.069)	(0.069)	(0.070)	(0.075)	(0.075)	(0.075)	(0.075)	(0.075)	(0.075)	(0.056)
Detainee Male			0.075	0.077	0.059	0.061	0.061	0.063	0.064	0.062	0.078
			(0.097)	(0.097)	(0.098)	(0.097)	(0.097)	(0.098)	(0.098)	(0.098)	(0.088)
Detainee Age				0.0011	0.0015	0.0012	0.0012	0.0012	0.0012	0.0012	0.0014
				(0.0017)	(0.0017)	(0.0017)	(0.0017)	(0.0017)	(0.0017)	(0.0017)	(0.0015)
PSA Asian share					0.27	0.32	0.31	0.29	0.25	0.31	0.69
					(0.47)	(0.48)	(0.48)	(0.48)	(0.48)	(0.48)	(0.85)
PSA Black share					0.0040	0.13	0.12	0.12	0.13	0.12	0.0080
					(0.088)	(0.12)	(0.13)	(0.13)	(0.13)	(0.13)	(0.32)
PSA Latino share					0.21	0.37	0.35	0.34	0.33	0.35	-0.20
					(0.13)	(0.16)*	(0.18)	(0.18)	(0.18)	(0.18)	(0.66)
Male population under 24						-0.51	-0.61	-0.65	-0.66	-0.62	0.42
						(0.31)	(0.46)	(0.47)	(0.47)	(0.47)	(1.11)
Employment Rate							-0.15	-0.20	-0.27	-0.16	-0.13
							(0.53)	(0.54)	(0.56)	(0.54)	(1.27)
UCR Part 1 Crime Rate (per 10k residents)								-0.000029			
								(0.000073)			
Violent Crime Rate (per 10k residents)									-0.00014		-0.00019
									(0.00019)		(0.00040)
Property Crime Rate (per 10k residents)										-5.6e-06	
										(0.000092)	
Constant	0.55	0.55	0.48	0.44	0.40	0.53	0.63	0.68	0.73	0.63	0.38
	(0.045)**	(0.055)**	(0.11)**	(0.12)**	(0.14)**	(0.16)**	(0.39)	(0.42)	(0.42)	(0.41)	(0.92)
Observations	731	731	731	731	717	717	717	717	717	717	717
R-squared	0.002	0.002	0.003	0.003	0.009	0.012	0.013	0.013	0.013	0.013	0.033

Standard errors in parentheses ** $p<0.01$, * $p<0.05$, All regressions include control for quarter of the year

Table 10

Contraband by Race in Random Sample, 2017 Q1 & Q2

	Black	Latino	White	Total
Frisks	569	75	91	735
Firearm	11	2	2	15
Drugs	33	2	5	40
Any	54	5	10	69
Frisks/Firearm	52	38	46	49
Frisks/Drugs	17	38	18	18
Frisks/Any	11	15	9	11

Table 11

Firearm Recovered

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Detainee Black	-0.0062	-0.0064	-0.0068	-0.0052	-0.0074	-0.0075	-0.0082	-0.0064	-0.0063	-0.0068	-0.0081
	(0.013)	(0.015)	(0.015)	(0.015)	(0.017)	(0.017)	(0.017)	(0.017)	(0.017)	(0.017)	(0.024)
Detainee Latino		-0.00028	-0.00040	0.0013	0.0016	0.0015	0.00078	0.0021	0.0012	0.0023	0.00055
		(0.020)	(0.020)	(0.020)	(0.022)	(0.022)	(0.022)	(0.022)	(0.022)	(0.022)	(0.018)
Detainee Male				0.020	0.021	0.023	0.023	0.023	0.026	0.025	0.027
				(0.028)	(0.028)	(0.028)	(0.028)	(0.028)	(0.028)	(0.028)	(0.011)
Detainee Age				0.00036	0.00032	0.00032	0.00032	0.00031	0.00031	0.00031	0.00033
				(0.00049)	(0.00050)	(0.00051)	(0.00051)	(0.00050)	(0.00051)	(0.00050)	(0.00050)
PSA Asian share					-0.14	-0.14	-0.14	-0.17	-0.18	-0.16	0.13
					(0.14)	(0.14)	(0.14)	(0.14)	(0.14)	(0.14)	(0.10)
PSA Black share					-0.012	-0.011	-0.00036	-0.00075	0.0052	-0.0033	0.054
					(0.025)	(0.034)	(0.037)	(0.037)	(0.037)	(0.037)	(0.046)
PSA Latino share					-0.022	-0.022	-0.0036	-0.017	-0.016	-0.018	-0.080
					(0.037)	(0.047)	(0.052)	(0.053)	(0.053)	(0.053)	(0.061)
Male population under 24						-0.0012	0.075	0.020	0.043	0.017	0.16
						(0.091)	(0.13)	(0.14)	(0.14)	(0.14)	(0.14)
Employment Rate							0.12	0.053	0.039	0.067	0.032
							(0.15)	(0.16)	(0.16)	(0.16)	(0.11)
UCR Part 1 Crime Rate (per 10k residents)								-0.000042			
								(0.000021)			
Violent Crime Rate (per 10k residents)									-0.000089		-0.00009
									(0.000056)		(0.000075
Property Crime Rate (per 10k residents)										-0.000051	
										(0.000027)	
Constant	0.031	0.031	0.011	-0.0017	0.016	0.016	-0.064	0.0099	0.0036	0.0033	-0.066
	(0.013)*	(0.016)	(0.031)	(0.036)	(0.042)	(0.048)	(0.11)	(0.12)	(0.12)	(0.12)	(0.085)
Observations	734	734	734	734	720	720	720	720	720	720	720
R-squared	0.001	0.001	0.002	0.003	0.005	0.005	0.005	0.011	0.009	0.011	0.038

Standard errors in parentheses ** p<0.01, * p<0.05, All regressions include control for quarter of the year

Table 12

Contraband Recovered

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Detainee Black	0.00080	-0.0072	-0.0061	-0.010	-0.0015	-0.0011	0.0019	0.0015	0.0013	0.0016	-0.00008
	(0.0081)	(0.010)	(0.010)	(0.010)	(0.011)	(0.011)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)
Detainee Latino		-0.019	-0.018	-0.022	-0.012	-0.011	-0.011	-0.011	-0.011	-0.011	-0.012
		(0.015)	(0.015)	(0.015)	(0.016)	(0.016)	(0.016)	(0.016)	(0.016)	(0.016)	(0.015)
Detainee Male			-0.020	-0.023	-0.021	-0.021	-0.021	-0.021	-0.021	-0.021	-0.023
			(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	(0.019)
Detainee Age				-0.0010	-0.0010	-0.0010	-0.0011	-0.0011	-0.0011	-0.0011	-0.00093
				(0.00030)**	(0.00030)**	(0.00030)**	(0.00030)**	(0.00030)**	(0.00030)**	(0.00030)**	(0.00044)
PSA Asian share					-0.071	-0.091	-0.049	-0.043	-0.025	-0.046	-0.035
					(0.089)	(0.091)	(0.093)	(0.093)	(0.093)	(0.093)	(0.14)
PSA Black share					-0.046	-0.061	-0.080	-0.078	-0.084	-0.078	-0.035
					(0.017)**	(0.021)**	(0.022)**	(0.023)**	(0.023)**	(0.023)**	(0.045)
PSA Latino share					-0.068	-0.089	-0.12	-0.12	-0.11	-0.12	-0.16
					(0.023)**	(0.030)**	(0.033)**	(0.033)**	(0.033)**	(0.034)**	(0.062)*
Male population under 24						0.064	-0.068	-0.047	-0.028	-0.057	-0.016
						(0.059)	(0.081)	(0.085)	(0.084)	(0.085)	(0.16)
Employment Rate							-0.22	-0.19	-0.14	-0.21	-0.11
							(0.096)*	(0.10)	(0.11)	(0.100)*	(0.17)
UCR Part 1 Crime Rate (per 10k residents)								0.000014			
								(0.000016)			
Violent Crime Rate (per 10k residents)									0.000070		0.000074
									(0.000037)		(0.000065
Property Crime Rate (per 10k residents)										8.8e-06	
										(0.000020)	
Constant	0.096	0.10	0.12	0.16	0.19	0.18	0.32	0.29	0.25	0.31	0.21
	(0.0080)**	(0.010)**	(0.016)**	(0.019)**	(0.023)**	(0.026)**	(0.067)**	(0.076)**	(0.077)**	(0.075)**	(0.13)
Observations	8,177	8,177	8,172	8,153	8,004	8,004	8,004	8,004	8,004	8,004	8,004
R-squared	0.000	0.000	0.000	0.002	0.004	0.004	0.004	0.005	0.005	0.004	0.014

Standard errors in parentheses ** p<0.01, * p<0.05, All regressions include control for quarter of the year