

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

<b>Mahari Bailey, et al.,</b>	:	
<b>Plaintiffs</b>	:	<b>C.A. No. 10-5952</b>
	:	
<b>v.</b>	:	
	:	
<b>City of Philadelphia, et al.,</b>	:	
<b>Defendants</b>	:	

**PLAINTIFFS' SIXTH REPORT TO COURT AND MONITOR  
ON STOP AND FRISK PRACTICES: FOURTH AMENDMENT ISSUES**

**I. Introduction**

This Sixth Report to the Court and Monitor provides an update on stops and frisk practices for 2015 and sets forth plaintiffs' monitoring and enforcement plans for 2016.

As with the previous Reports, this submission presents compelling evidence that the City has failed to remedy serious flaws in the Police Department's stop and frisk practices. The Consent Decree was intended to ensure that stops and frisks are conducted only where there is the requisite "reasonable suspicion" of criminal conduct and to ensure that any racial disparities in stops and frisks are not the result of impermissible bias. On reasonable suspicion issues, the data continues to show very high numbers of illegal stops and frisks. For the First and Second Quarters, 2015, plaintiffs found that 33% of all stops and 42% of all frisks were without reasonable suspicion. The City reports even higher rates: for the Second Quarter, 62% of all stops and 53% of all frisks were without reasonable suspicion. Moreover, using benchmarks agreed upon by the parties, including regression analysis, there is strong evidence that the large difference in stop and

frisk rates by race are not explained by non-racial factors.

Over the past four years the City has asserted that compliance with the Consent Decree could not be achieved until there were new police directives on stop and frisk practices, a reliable electronic data base, re-training of officers, and internal accountability measures. As of 2015, the City had implemented all of these measures and, therefore, continued non-compliance cannot be excused on the need for further training or supervision. We understand that Mayor Kenney has recognized the serious problems in stop and frisk practices and we are willing to work with his Administration in implementing the necessary remedial steps. However, given the four year history of non-compliance, there is an immediate need for the Mayor and Police Commissioner to ensure substantial improvements.

## **II. Procedural History**

On June 21, 2011, the Court approved a Settlement Agreement, Class Certification, and Consent Decree (“Agreement”). On February 6, 2012, plaintiffs submitted their First Report which analyzed stop and frisk data for the first two quarters of 2011. The First Report focused on Fourth Amendment issues, and specifically whether there was sufficient cause for the stops and frisks reported by the Philadelphia Police Department (“PPD”). The audits showed that over 50% of stops and frisks were undertaken without reasonable suspicion.

Plaintiffs’ Second Report was submitted in July 2012, and included (1) a Fourth Amendment analysis of the Third Quarter 2011 stop and frisk data, (2) a racial analysis of the data for the First and Second Quarters, 2011, and (3) a racial analysis of arrests for possession of small amounts of marijuana for the period September 15-November 15,

2011. Plaintiffs reported continued high rates of stops and frisks without reasonable suspicion (over 40% in both categories). On the question of racial disparities, plaintiffs' expert, Professor David Abrams, conducted a series of regression analyses and concluded that the racial disparities in stops and frisks (numbers by race compared to census data) were not fully explainable by non-racial factors. Further, the analysis of marijuana arrests showed even more pronounced disparities, with Blacks and Latinos constituting over 90% of all marijuana arrests.

Plaintiffs' Third Report focused on stop and frisk practices for the first two quarters of 2012 and analyzed marijuana arrests for the period September 15-November 15, 2012. Plaintiffs again found a 40% rate of non-compliance with Fourth Amendment standards, and racial minorities constituted over 90% of arrests for small amounts of marijuana. In response, the City stated that the PPD was providing additional training, issuing revised auditing protocols, and instituting new accountability measures.

The Fourth Report, filed in December, 2013, analyzed stops and frisks in 2012 and 2013, on both Fourth and Fourteenth Amendment grounds. Pedestrian stops were made without reasonable suspicion in 43% of the cases reviewed, and frisks were conducted without reasonable suspicion in over 50% of the cases. There continued to be very low "hit-rates," with only 3 guns recovered in over 1100 stops (0.27%). Overall, contraband of any kind was recovered in only 3% of the stops. We also noted the relatively low number of frisks reported, with only 20% of stops resulting in frisks, and numerous stops based on allegations of violent crime or weapon possession, where no frisk was conducted.

The stops and frisks continued to be racially disproportionate with statistically significant disparities that were not explained by non-racial factors (e.g., crime rates, demographics of police districts, age, and gender). The rate of stops without reasonable suspicion for Blacks was 6.5 percentage points higher than the rate for Whites, demonstrating that police were using a higher threshold of “reasonable suspicion” for stops of White suspects.

On the Fourteenth Amendment issue, the City’s expert, Dr. Ralph Taylor of Temple University, using benchmarks that differed in part from those agreed upon by the parties, disputed certain of plaintiffs’ findings of racial bias. To ensure that the experts were in accord on the proper benchmarks, the parties met and conferred with the Court Monitor, Dean Joanne Epps. These meetings and discussions have produced a draft set of revised benchmarks.<sup>1</sup>

The Fifth Report covered the first two Quarters of 2014 and showed a rate of stops without reasonable suspicion of 37%. The rate of frisks without reasonable suspicion, or as fruits of an impermissible stop, was 53%.<sup>2</sup> Hit rates remained very low, with 433 frisks yielding only two firearms. Indeed, where officers stated that a “bulge” justified a frisk, they seized a gun in only 1 of 78 frisks. On the issue of racial impact, both experts found statistically significant evidence of racial bias in stops and frisks.

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1 The new Benchmark Memorandum is attached as Exhibit A.

2 While the City initially disputed the frisk data, on review it conceded that there were substantial numbers of frisks without reasonable suspicion.

### **III. Review of 75-48a Forms, First Two Quarters, 2015: Fourth Amendment Analysis**

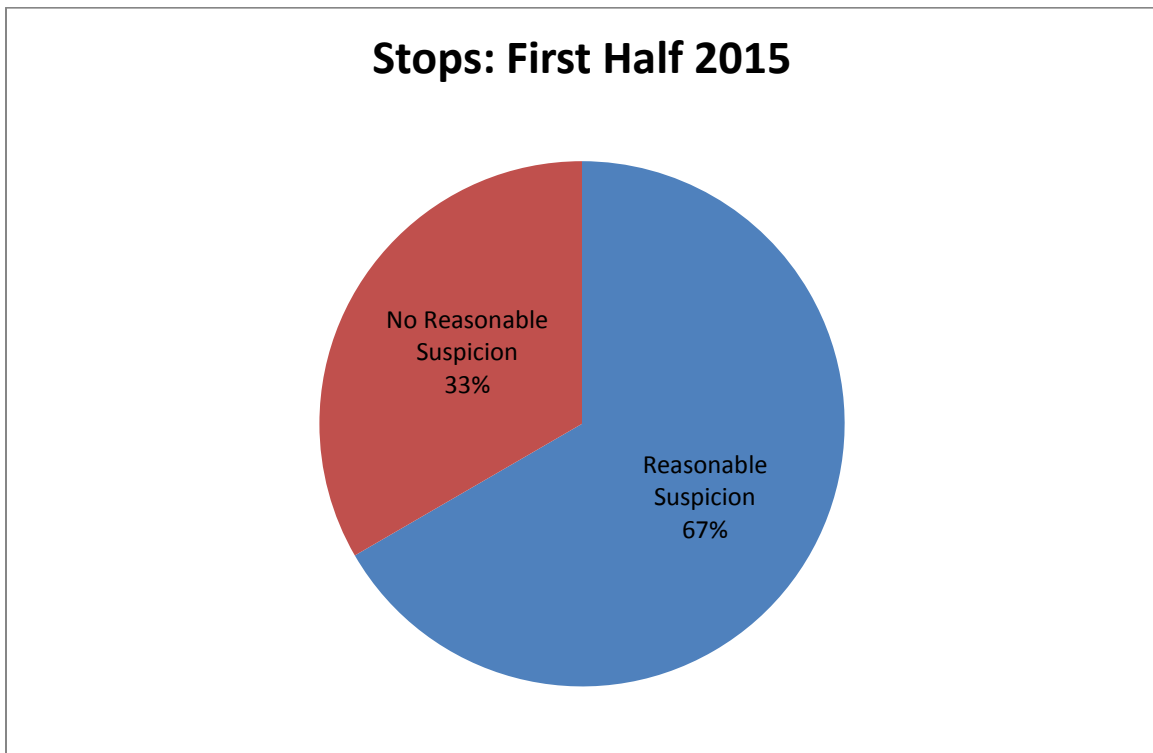
In this section, plaintiffs set forth their findings on the issue of whether stops and frisks for the first two quarters of 2015 were supported by the requisite reasonable suspicion. As in previous audits, in assessing whether reasonable suspicion existed for the stop or frisk, we fully credited the narrative information provided by the officer and in “close” cases credited the assertion of reasonable suspicion.

For the first two quarters of 2015, from the random sample of pedestrian stops produced by the Police Department, we found 2380 pedestrian stops (as opposed to arrests, car stops, or contacts with civilians that did not constitute a *Terry* stop). Of these 2380 pedestrian stops, 67% were supported by reasonable suspicion and 33% were made without reasonable suspicion, an improvement of 4% over the same period in 2014.

Frisks (as opposed to searches) were reported in 326 stops. Of these, 43% were made with reasonable suspicion, 42% were made without reasonable suspicion, and 14% were preceded by a stop without reasonable suspicion (“fruit of the poisonous tree” category). In contrast to the stop data, this shows a 4% slippage from the 2014 compliance rates.

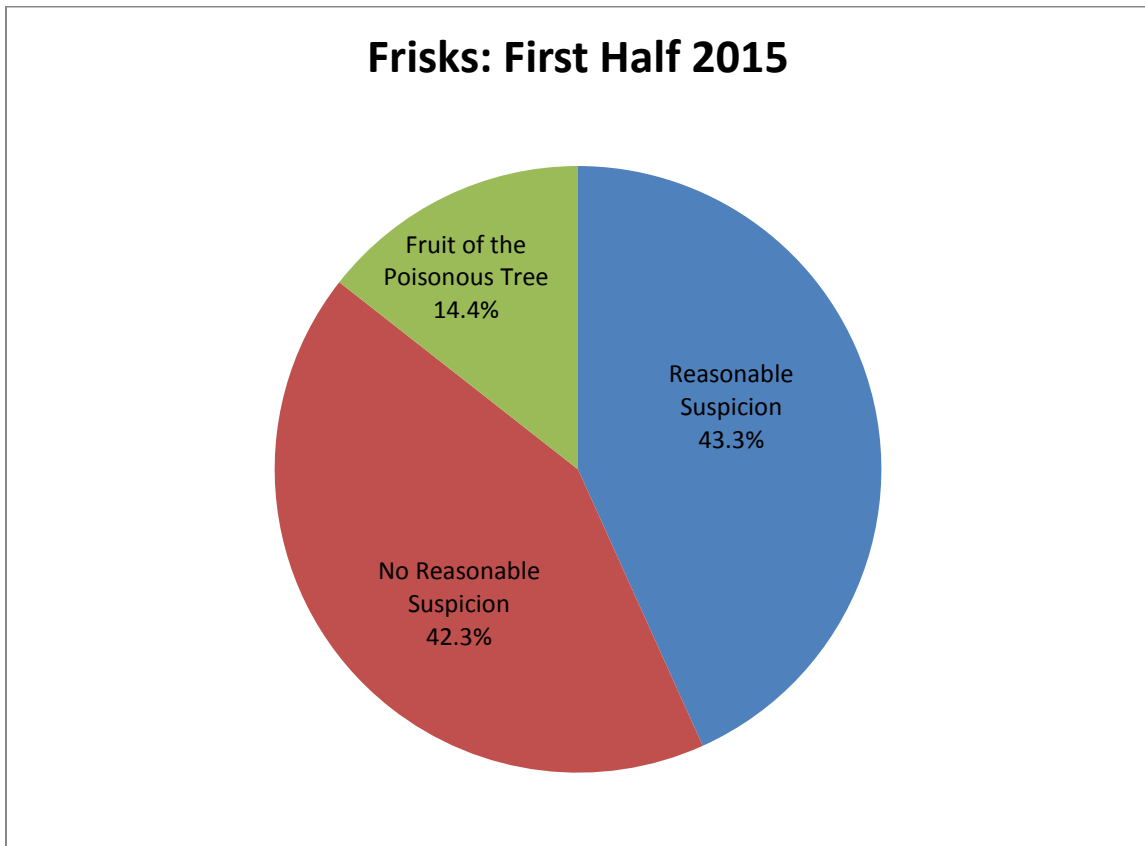
## 1. Stop Data

Actual Stops	2380	
Reasonable Suspicion	1586	67%
No Reasonable Suspicion	794	33%



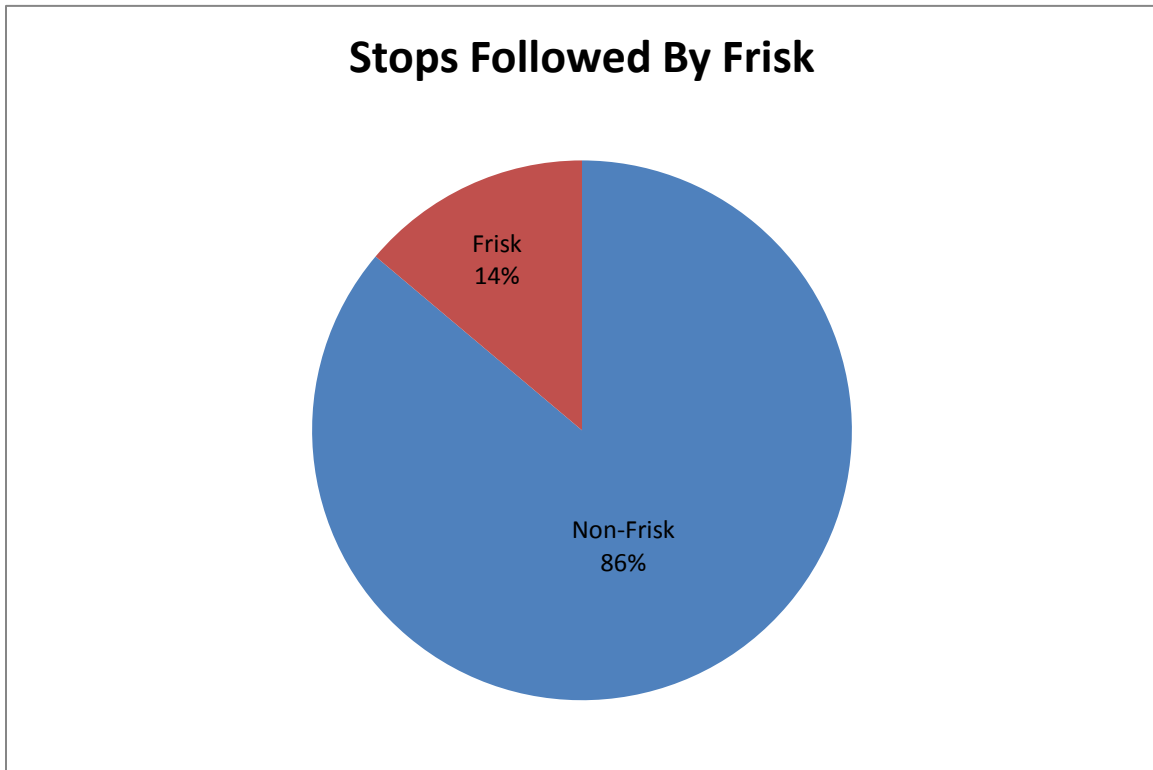
## 2. Frisk Data

<b>Frisks</b>	326	
Reasonable Suspicion	141	43.3%
No Reasonable Suspicion	138	42.3%
Fruit of the Poisonous Tree	47	14.4%



### 3. Stop/Frisk Ratio

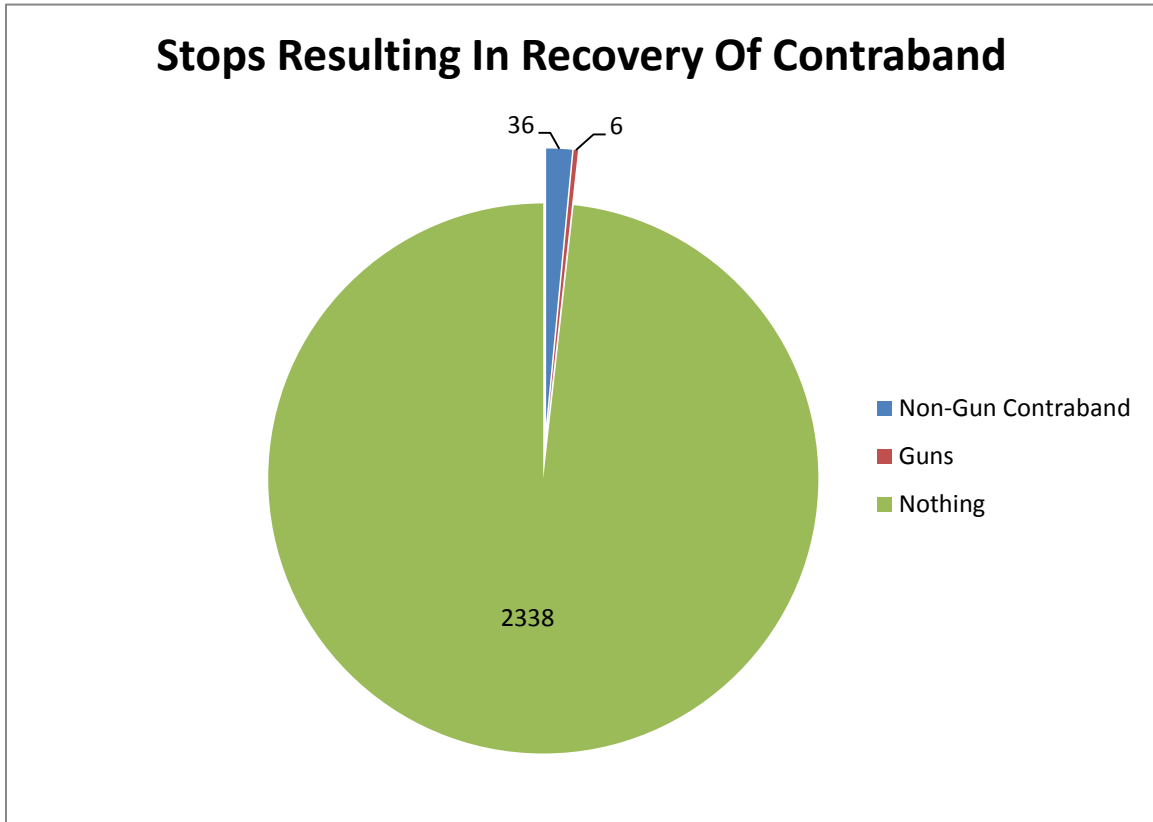
The 326 frisks represent 13.6% of the 2380 stops.





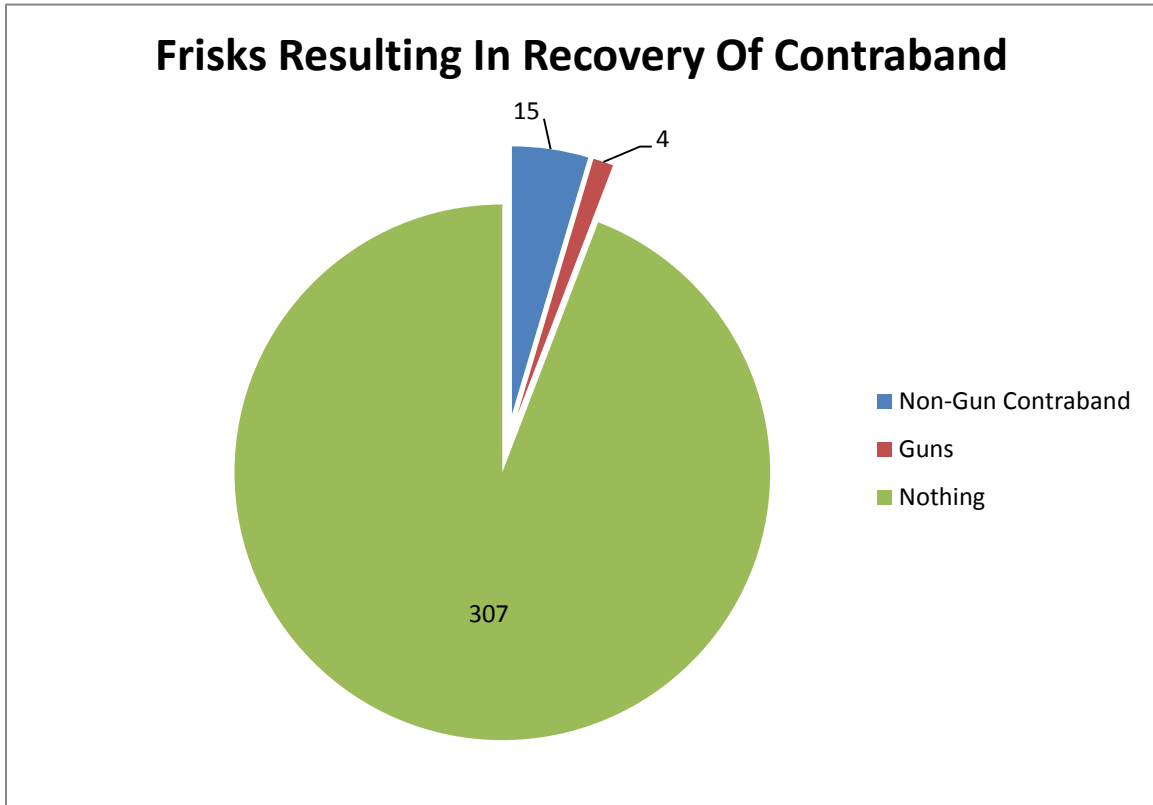
#### 4. Contraband Recovered by Stops

Non-Gun Contraband	36
Guns	6
No contraband	2338
Total Stops	2380



## 5. Contraband Recovered by Frisks

Non-Gun Contraband	15
Guns	4
No contraband	307
Total Frisks	326



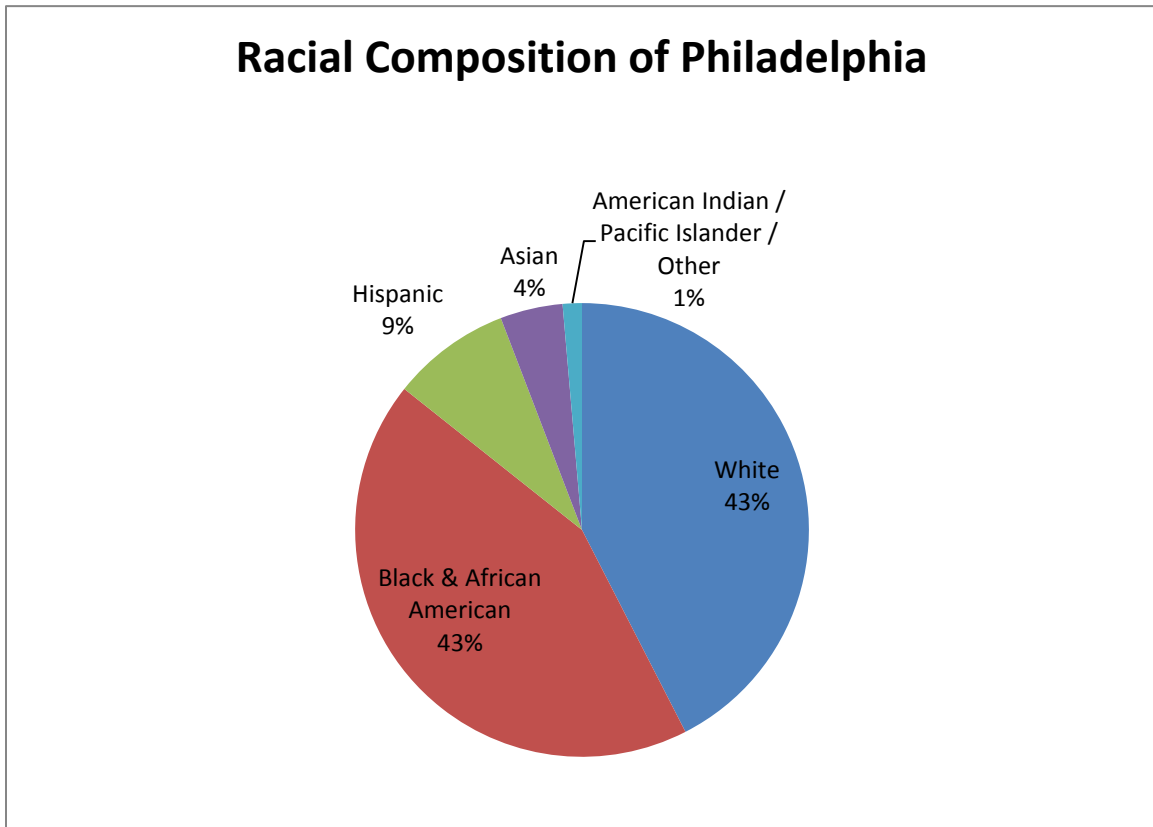
## 6. Contraband Recovered By Frisks, With and Without Reasonable Suspicion

Reasonable Suspicion	9
No Reasonable Suspicion	9
Fruit of the Poisonous Tree	1

**7. Racial Composition of Philadelphia (2010 Census)**

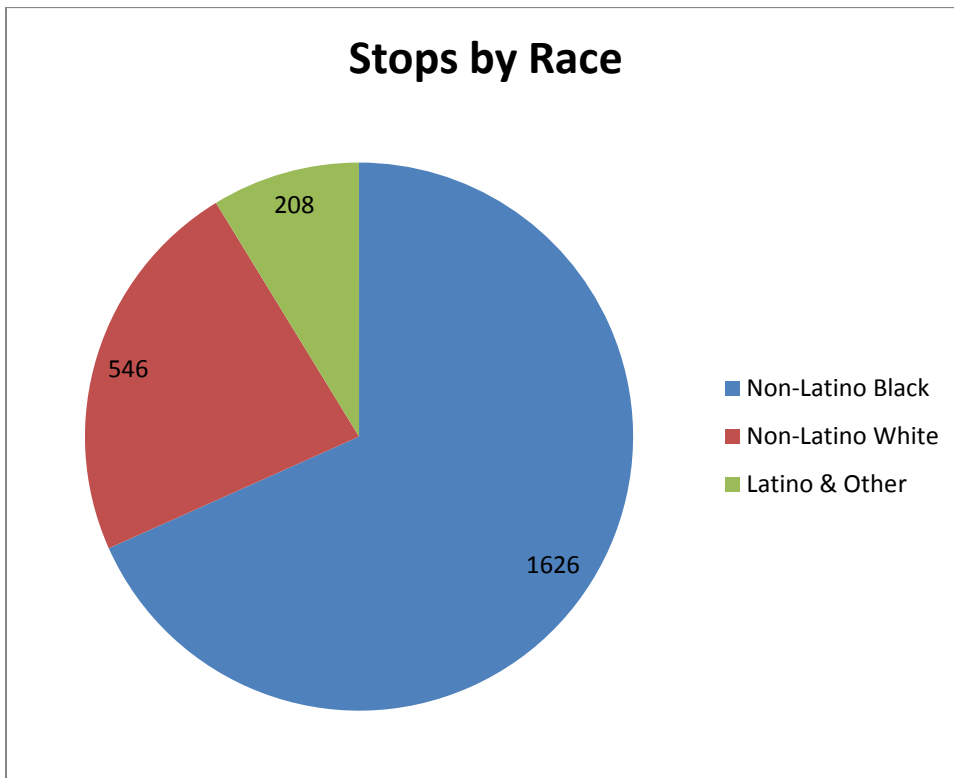
1,517,550 total

White	644,395	42.46%
Black & African American	655,824	43.22%
Hispanic	128,928	8.50%
Asian	67,654	4.46%
American Indian / Pacific Islander / Other	20,749	1.37%



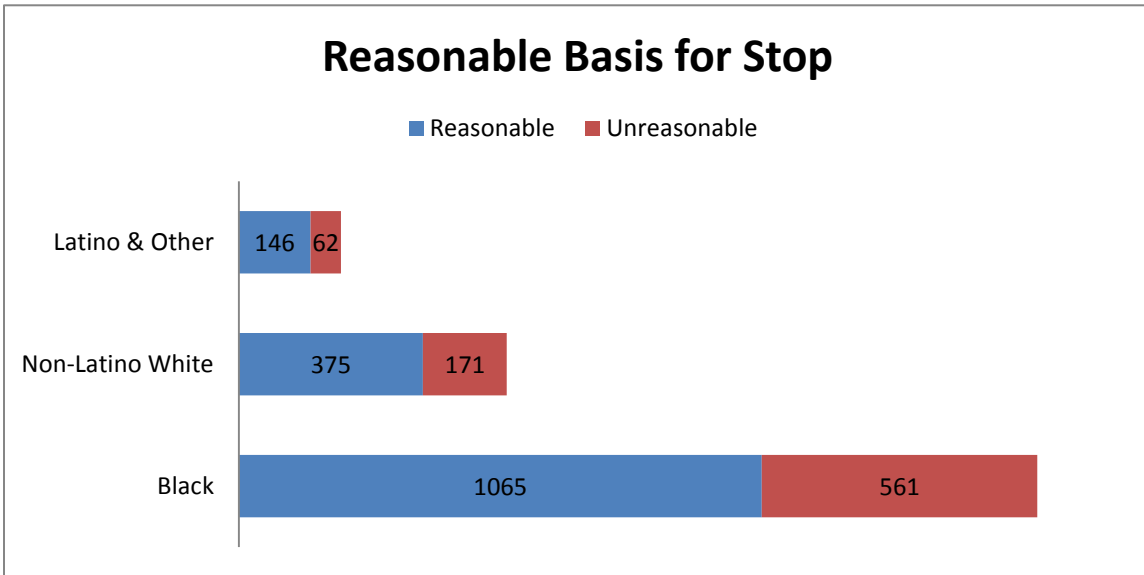
## 8. Stops by Race

Black	1626	68.32%	<b>77.06%</b> minorities
White	546	22.94%	
Latino	208	8.74%	
Total	2380		



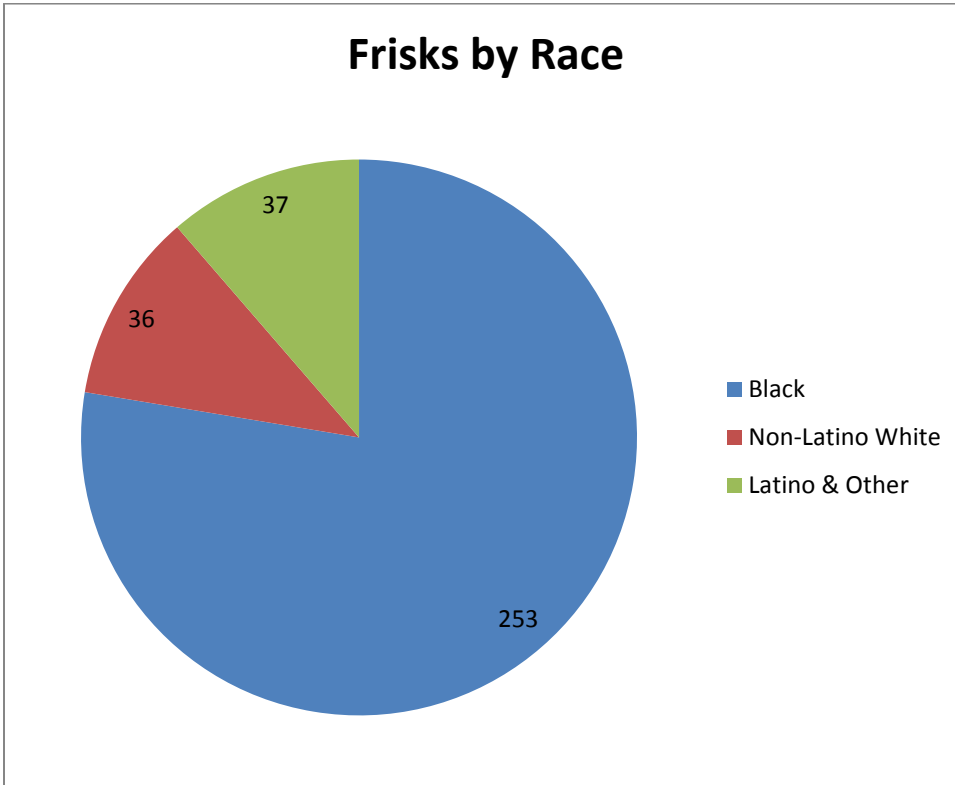
**9. Stops by Race and Reasonable Suspicion**

	Reasonable	Unreasonable	Reasonable %
Black	1065	561	65.50%
White	375	171	68.68%
Latino	146	62	70.19%
<b>Total</b>	<b>1586</b>	<b>794</b>	<b>2380</b>
	66.64%	33.36%	



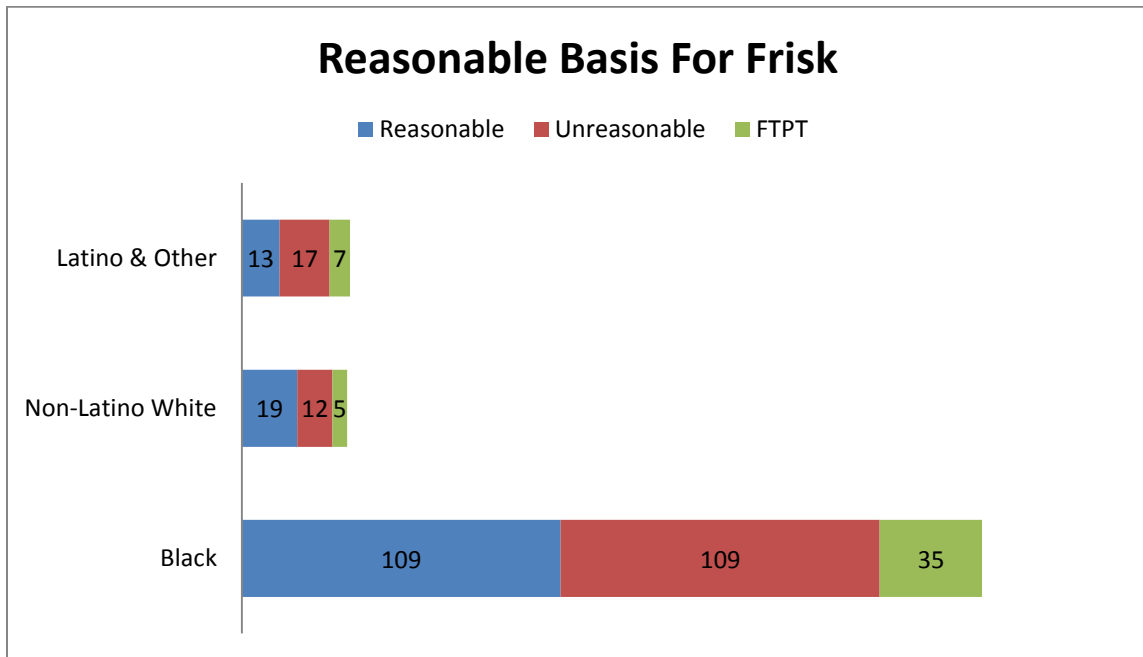
## 10. Frisks By Race

Black	253	77.61%	<b>88.96%</b> minorities
White	36	11.04%	
Latino	37	11.35%	
<hr/>			
Total	326		



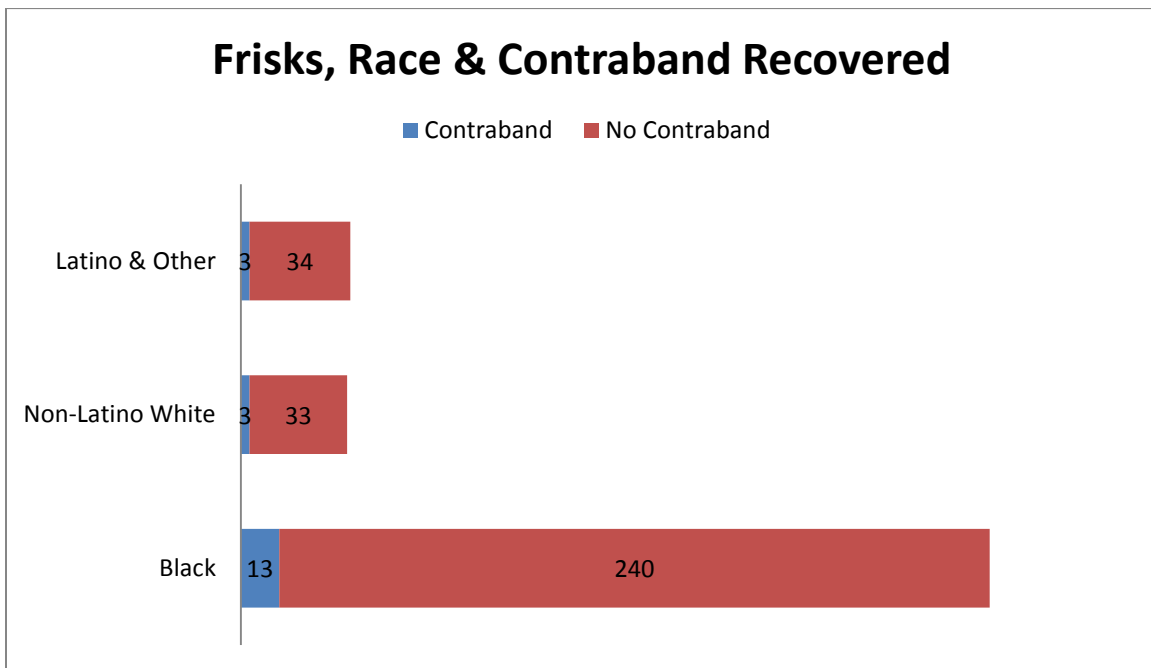
### 11. Frisks by Race and Reasonable Suspicion

	Reasonable	Unreasonable	FTPT	Reasonable %
Black	109	109	35	43.08%
White	19	12	5	52.78%
Latino	13	17	7	35.14%
<b>Total</b>	<b>141</b>	<b>138</b>	<b>47</b>	<b>326</b>
	43.25%	42.23%	14.42%	



## 12. Frisks by Race and Contraband Recovery

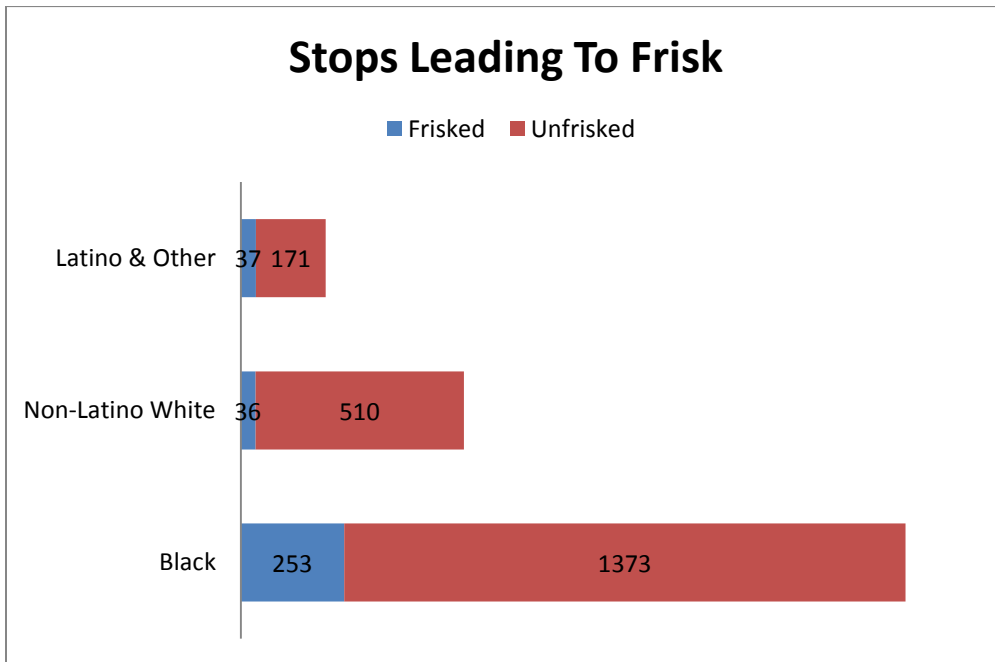
	Contraband	No Contraband	Total	% w/ Contraband
Black	13	240	253	5.14%
Non-Latino White	3	33	36	8.33%
Latino & Other	3	34	37	8.11%
	19	307		
	5.83%	94.17%	326	





### 13. Stops Leading to Frisks by Race

Stops Leading To Frisk	Frisked	Unfrisked	Stopped	Frisked %
Black	253	1373	1626	15.56%
Non-Latino White	36	510	546	6.59%
Latino & Other	37	171	208	17.79%
	326	2054	2380	



## **Commentary on Fourth Amendment Issues**

There are a number of significant findings from the data review.

1. 33% of all stops were made without the requisite reasonable suspicion.

Significantly, the PPD audits show even higher rates of stops without reasonable suspicion: the audits for the first two quarters of 2015 by the PPD show stops without reasonable suspicion at 36% and 62%, respectively. In light of the over 200,000 pedestrian stops for 2015, tens of thousands of persons in Philadelphia continue to be stopped each year without reasonable suspicion.

2. 42% of all frisks were made without reasonable suspicion and an additional 14% were made in cases where the stop itself was not supported by reasonable suspicion (“fruit of the poisonous tree”). The PPD audit for the Second Quarter (the first audit conducted after significant changes were made in the standards for assessing frisks) show frisks without reasonable suspicion at a comparable rate of 53%.<sup>3</sup>

3. As with previous data analysis, the number of reported frisks is quite low, with only 13.6% of stops recording a frisk (and an additional 3.5% resulting in a search). There is good reason to believe that officers have not been reporting many frisks. For example, in stops based on suspicion of gun possession or a violent crime, the police frequently report no frisk of the suspect. Of the 159 stops in which guns or gun-related activity are referenced as a basis for the stop, there were no frisks recorded on 55 stops, or 35% of the total. It is simply not plausible to suggest that frisks are not conducted in these situations.

4. The very low “hit-rate” of stops and frisks is further cause for serious

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<sup>3</sup> The Department’s First Quarter frisk analysis, which showed a very low rate of frisks without reasonable suspicion, was conducted with what the Department concedes was flawed metrics.

concern. Contraband of any kind was recovered in only 42 stops (with 54 seizures of different types of contraband (2.3 % of all stops) and 6 guns were seized (0.25 % of all stops), but 2 of these seizures were the result of searches, not frisks. We recognize that some legitimate stops are not likely to disclose contraband or lead to an arrest, but such low hit rates are troubling and are likely the product of the high rate of stops without reasonable suspicion.

By contrast, hit-rates for frisks are a highly reliable metric as officers must have reasonable suspicion that the suspect is armed and dangerous before a frisk can be conducted. Thus, we would expect that seizure of weapons or other contraband would be made in a significant number of these cases if the officers are accurately reporting facts that establish reasonable suspicion. Yet, the rate of recovery is vanishingly small. Of 326 frisks, only 4 firearms were seized (98.8% of all frisks yielded no weapons) and contraband other than weapons was seized in only 15 other frisks (a 95% rate of no contraband or weapon seizure). And it is highly likely that the hit-rates are even lower, given the fact that police reported no frisks in 80 stops involving violent crimes or reports of weapons.

Moreover, the data raise serious questions regarding the justifications for many frisks. Most frisk reports assert that the suspect has a “bulge” in a pocket, refuses to take his hands out of his pockets, does not cooperate with police, or that the stop was based on a report of a gun or violent crime. “Bulges” inevitably turn out to be cell phones or wallets and the other triggering factors are very weak indicators of criminal activity. Thus, in 38 cases in which police conducted a frisk based on a “bulge,” not a single weapon was detected. The fact that so few frisks lead to the recovery of a weapon raises

serious questions as to whether the police are accurately reporting what they observe and whether the reasons generally provided for frisks are appropriate indicators of weapon possession.

5. Analyzing improper stops and frisks by category, there continue to be significant numbers of stops for conduct which the Agreement and federal and state case law make clear are not justifiable grounds for stops or frisks. These include:

- loitering (or persons hanging out; congregating)<sup>4</sup>
- person involved in a “disturbance”
- single person “obstructing” the sidewalk
- anonymous information (e.g., man with gun; man with drugs)<sup>5</sup>
- person on steps of or near “abandoned” property
- person involved in “verbal dispute” (non-domestic)<sup>6</sup>
- high crime area/roll call complaints
- panhandling
- suspicion of narcotics activity

As for frisks, problematic grounds include:

- frisk for “officer protection”
- frisk based on “narcotics investigation”

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4 The PPD has instructed officers that “loitering” is not a valid basis for a stop. And while the number of such stops has decreased, the PPD has recognized that officers are using other vague narratives (e.g., blocking buildings) to justify stops.

5 Notwithstanding clear case law, e.g. *Florida v. J.L.*, 529 U.S. 266 (2000) and the terms of the Consent Decree, the Police Department was until this year training officers to make a stop and frisk based on anonymous information only.

6 We credit reports of “domestic” disputes.

- frisk because suspect stopped in “high crime” or high drug area

6. Although the continued high rates of impermissible stops and frisks are the result of several factors, we believe that the primary cause at this point is the lack of accountability of officers and their supervisors for violations of the Consent Decree. The Police Department delayed implementation of the accountability process until 2015 (following establishment of the electronic data base, re-training of officers with respect to stop and frisk practices, and the institution of an internal auditing process). These accountability measures are set forth in the Department’s Directive on stop and frisk practices (currently Directive 12.11, Appendix B), and include:

1. Under Section 7, patrol supervisors must review each 75-48a, send incomplete forms back to the officer, and note what actions were taken where the officer did not provide sufficient reasons for the stop or frisk.
2. Under Section 8, Commanding Officers must take necessary actions to correct errors in stop and frisk practices including the identification of officers who fail to state reasonable suspicion and they are accountable for officers and their supervisors who repeatedly engage in impermissible stops or frisks. The Commanding Officers must submit memorandum on a periodic basis detailing corrective actions taken.
3. Under Section 9, Special Unit Inspectors must complete audits of randomly selected stop and frisk reports, provide Commanding Officers under their supervision and command with memorandum detailing errors and deficiencies in these reports, review responses by the Commanding Officers as to remedial actions taken by the Commanding Officers, and to forward all findings and actions taken to the Chief Inspector, Office of Standards and Accountability.
4. Under Section 9, the Office of Standards and Accountability must ensure departmental compliance with stop and frisk procedures under the Directive (including reports on any racially biased or other discriminatory patterns), and provide quarterly audits of stop and frisk reports to various officials and offices within the Police Department, including the Police Commissioner, Deputy Police Commissioner and all Inspectors.

We have reviewed the reports generated pursuant to this accountability process for the Third Quarter, 2015 and, as we have already informed the City, that process has failed

to produce anything near the level of supervision, accountability, or remedial measures required by the Directive, and which are essential to compliance with the Consent Decree. A few Commanders have acknowledged Fourth Amendment and Consent Decree compliance issues, but overall there is only minimal recognition of the scope of the problems and the fact that tens of thousands of persons are being stopped and frisked each year without reasonable suspicion. Some Commanders continue to assert that 75-48a reports that do not state reasonable suspicion for stops and frisks are the product of “incomplete paperwork;” others do not even address the reasons for impermissible stops. There is no indication of any process for identifying officers (or their supervisors) who repeatedly engage in stops or frisks without reasonable suspicion or of any specific retraining, increased supervision, or other remedial action. Nor does there appear to be a remedial process of accountability in place.

In short, plaintiffs have been more than reasonable in giving the City the means and the time to implement what the Police Department has insisted are the necessary measures for compliance. We have also stated from the start that the kind of organizational/cultural change envisioned by the Consent Decree cannot be achieved simply by new Directives or training. Unless officers and supervisors are held accountable, the current state of affairs will not change. The time for such action cannot be delayed.

#### **IV. Racial Analysis of Stop and Frisk Practices, January-June, 2015**

##### **A. Introduction**

This section sets forth a statistical analysis of the “Stop and Frisk” practices of the PPD for the first half of 2015, 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. *See* Exhibit A.

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).

##### **B. Summary of the Racial Aspects of the Stop and Frisk Data**

We examined data from Q1 and Q2 2015 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).<sup>7</sup> 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).

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<sup>7</sup> The Tables and Figures are set forth, *infra* 35-53.

The sample dataset (Table 1) includes 2,380 total pedestrian stops and the full data set has 117,559.<sup>8</sup> The mean detainee age is 34 and 82% 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 and compared to 2014, Black stop share has decreased by 3 percentage points.

The data is subdivided into 64 Police Service Areas (PSA). See Table 2.<sup>9</sup> There were an average of 1251 stops of Black pedestrians per PSA in the first half of 2015, compared with 375 White stops and 136 of Hispanics. In light of the fact that much of this variation is due to different resident racial composition, we also report the stop rate by race per 10,000 residents of the same race. This varies from a low of 583 to Hispanics, to 747 for Whites and 1,611 stops of Blacks for every 10,000 Black residents. Below we use a regression framework to determine whether other factors account for these differences.

The control variables include demographic, economic and crime factors. The employment rate varies substantially across PSA's, from 20% to 67%. The variation in racial composition is even greater, with the Black residential share ranging from 3% to 98%. 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

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<sup>8</sup> The data originally provided contains 300 additional observations that were incorrectly coded as stops. These observations were dropped from the analysis.

<sup>9</sup> Two PSA's are omitted: 77, which is the airport and has no residential population and 254, due to missing demographic information.



drive stop rates and thus we control for them using three different measures of violent crime, property crime and overall Part 1 crimes.

Table 3 provides a breakdown of stop, frisk and arrest rates by race. As mentioned, Blacks account for 69% of stops, and Whites are 23% with Latinos accounting for 7%. Minorities account for an even higher share of individuals frisked, of which 79% are Black, 10% Latino and 11% White. This racial composition is identical to that in 2014. About 1 in 6.4 stops of Black pedestrians result in a frisk, but the rate is only 1 in 15.2 for Whites. The difference is greater for arrests, with an arrest of a Black detained resulting from 16.3 stops on average, while for Whites it takes 28.7 stops. The arrest rate for Blacks and Latinos is similar to 2014, while the White arrest rate dropped somewhat.

The number of stops varies substantially by district, with the 19th, which includes Overbrook and parts of West Philadelphia, accounting for the most, with 9% (Figure 2). The fewest stops are in the 7<sup>th</sup> police district, in Northeast Philadelphia, accounting for less than 1% of all stops.

## **C. Benchmark Applications**

### **1. 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. Non-racial factors may explain the disparities. However, the stop rate/census comparison is the first step in this process. As set forth in Tables 2 and 3, the stop rate by race in comparison to the census is as follows:

Black stops=69%; Black census=46%

White stops=23%; White census=42%

Latino stops=7%; Latino census=11%

The next step 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 four* PSAs, Blacks account for a higher share of stops than they do in the population; in some PSA's, they are stopped at a rate over five times their share of the population. Thus, in PSA 243, where the population is 3% Black, 24% of the stops were of Blacks and in PSA 63, where the population is 7% Black, 59% of the stops were of Blacks. By contrast, in the PSA 192, where Blacks make up 96% of the population, the ratio of stops by race 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 district, not just minorities. Column 5 reports total stops per capita and Column 6, the violent crime rate in the district (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 experience a higher stop rate than those with a lower Black population share.

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 Uniform Crime Report data on reported crimes, by PSA. 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 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. *Male* is coded 1 for men and 0 for women. *Age* is the detainee's age in years. By including four 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 affecting the stop rate.

The coefficient on *Black* found in column 4 is 962.0, which means that in the full dataset about 962 more Black individuals were stopped than White individuals for every 10,000 residents of a PSA. 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 (978.3) is still similar to what it was with no controls. The 7<sup>th</sup> column includes a control for whether flash information led to the stop, which does not have a statistically significant influence on the stop rate. Column 8 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 9-11 add different controls for PSA crime rates. The crime rates are based on crimes reported to the police in 2014. It is preferable to use lagged crime because current crime levels could be influenced by policing policies. In 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 10, 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. The coefficient on Black is of a similar magnitude, although now significant at the 5% level, not 1%. 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, economic and crime 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 0.044 – 0.084. The preferred estimate is .047 and may be found in column 10 and controls for demographic, economic and crime variables. This means the frisk rate for Black detainees is 4.7 percentage points higher than for Whites, once controlling for the entire array of variables described above. Since the frisk rate for Whites is 6.6%, this translates to an 71% greater likelihood that a Black detainee is frisked compared to a White detainee. This results 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 far more likely than Whites to be frisked (*see* second row) as the coefficient of .072 indicates that Latinos have a 7.2 percentage point higher frisk rate than Whites, which is over twice as high a rate, accounting for all of the control variables. This result is statistically significant at the 1% level. Also statistically significant are results for age and gender: an extra decade of age decreases likelihood of frisk by 2 percentage points and male detainees are far more likely to be frisked than females. Additionally, if a detainee matches flash information, that individual is 27 percentage points more likely to be frisked than otherwise. Overall, in assessing data as to frisks, and controlling for non-racial factors, there is a substantially higher frisk rate of minorities.

## 2. Reasonable Suspicion for Stops and Frisks: Racial Analysis

As the previous Reports and Section II of this Report demonstrate, a substantial number of the pedestrian stops do not meet the reasonable suspicion standard. Table 7 shows the share of stops without reasonable suspicion across racial and ethnic categories,

at 31% for Whites and Latinos and 35% for Blacks. The average of 33% unfounded stops is 4 percentage points lower than in 2014. This is a move in the right direction, but still an extraordinarily high rate of stops without reasonable suspicion. The share of frisks made without reasonable suspicion is far higher, at 56% overall. This is an increase of 4 percentage points from 2014 and very close to the 55% unfounded frisk rate in 2012. The unfounded rate is highest for minorities, making up 62% of Latino frisks and 57% for Blacks, whereas the rate for Whites is still quite high at 47%.

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 -.019 and -.034 indicating that reasonable suspicion was found in 1.9 to 3.4 percentage points fewer cases when the detainee was black. However, none of these differences are statistically significant. There is also no statistically significant impact of Latino status on likelihood of an improper stop. The two variables for which there are consistently significant effects are age and sex. Younger detainees and males are far more likely to be subject to unfounded stops than older detainees and females.

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, but 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 from a smaller sample size.

### 3. 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” includes small amounts of cash or unspecified materials.

Table 10 reports an overall detection rate for firearms that is extremely low, with fewer than 1 in 80 pedestrian frisks yielding a firearm. Drugs were by far the most commonly detected type of contraband, and were found in 1 of every 46 frisks. Overall, contraband was found in under 6% 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. None of the coefficients on Detainee Black or Detainee Latino are statistically significant, but this is likely due to the fact that firearms are very rarely discovered and there are just over 300 frisks available for analysis in the sample.

This suggests that the full dataset will 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 15,821 frisks in Q1 and Q2 of 2015, of which 9.2% resulted in the recovery of some kind of contraband (the type is not categorized in the full data).



An examination of column 10, one of the most conservative specifications, shows that Blacks who are frisked are 2.9 percentage points less likely to have contraband, and this result is statistically significant at the 1% level. From an overall contraband recovery rate of 9.2% this means that frisks of Blacks are 31% less productive than those of Whites, even when controlling for a whole host of variables. Frisks of males are also vastly less productive than those of females. Due to the recent introduction of electronic data collection by the Philadelphia Police Department, this is the first time the contraband analysis has been done using all available stops and is thus vastly more powerful than prior analyses, which were akin to the results shown in Table 11. These new findings are some of the strongest evidence yet that Blacks are treated differently from Whites, in ways that cannot be explained by a host of other factors.

#### 4. Marijuana Arrests

In previous Reports to the Court, plaintiffs analyzed arrest data to determine whether there were racial disparities in cases involving arrests for small amounts of marijuana. The data from 2011, 2012 and 2013 showed that Blacks and Latinos accounted for over 90% of those charged. These rates were not explainable by patterns of use or possession of marijuana, as all reliable data shows that Blacks and Whites use and possess marijuana at approximately the same rate.

In 2014, an Ordinance sponsored by Mayor (then Council Member) Kenney was enacted and provides that possession of under 30 grams of marijuana is to be treated as a Civil Code Violation punishable by a fine. In most circumstances, the offender is not

subject to arrest or prosecution.<sup>1</sup> This legislation has had a significant positive impact. In the period March 1-May 15, 2015, there were 203 possession of marijuana arrests, an 80% decline from previous years during the same time frame. The racial disparities continue, with over 90% of arrests of Blacks and Latinos, and with no arrests in several predominantly White police districts. Most (80%) of the arrests were the result of observed marijuana transactions.

#### **D. Commentary**

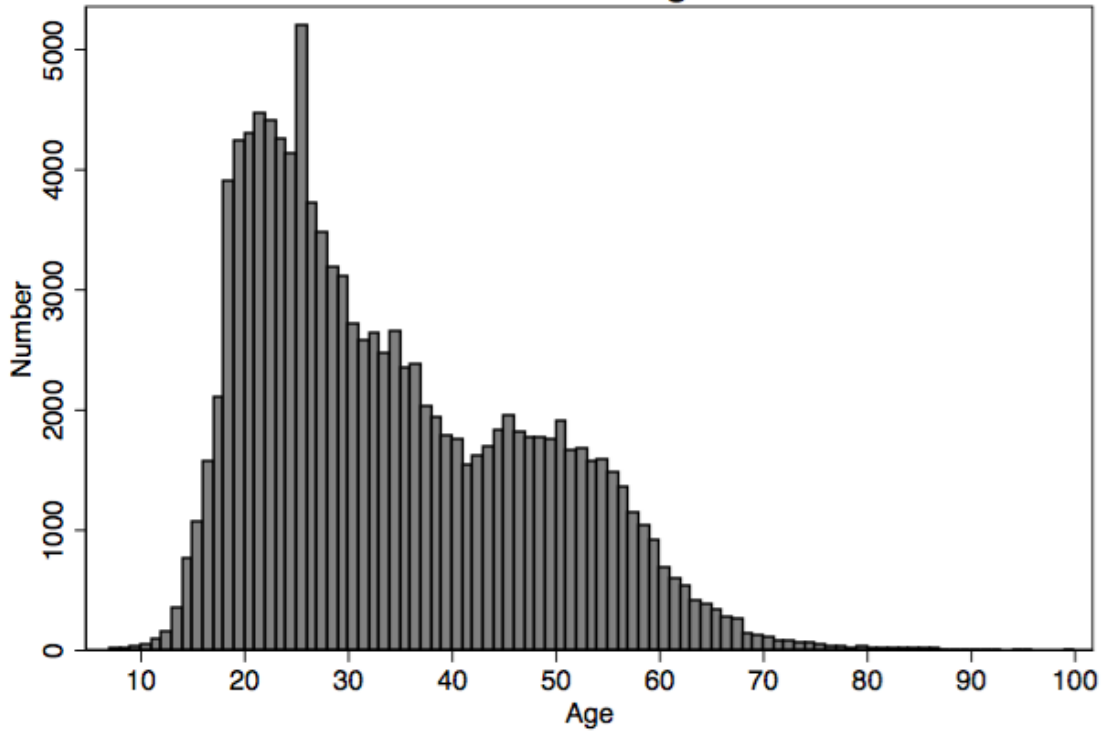
We have examined the relationship of race to stop and frisk practices from multiple perspectives, following standard statistical theories. It is significant that on the key benchmarks that provide the most reliable measures of racial bias—regression analysis, comparisons of stops without reasonable suspicion by race, and hit rate analysis—there is strong evidence that the large difference 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.

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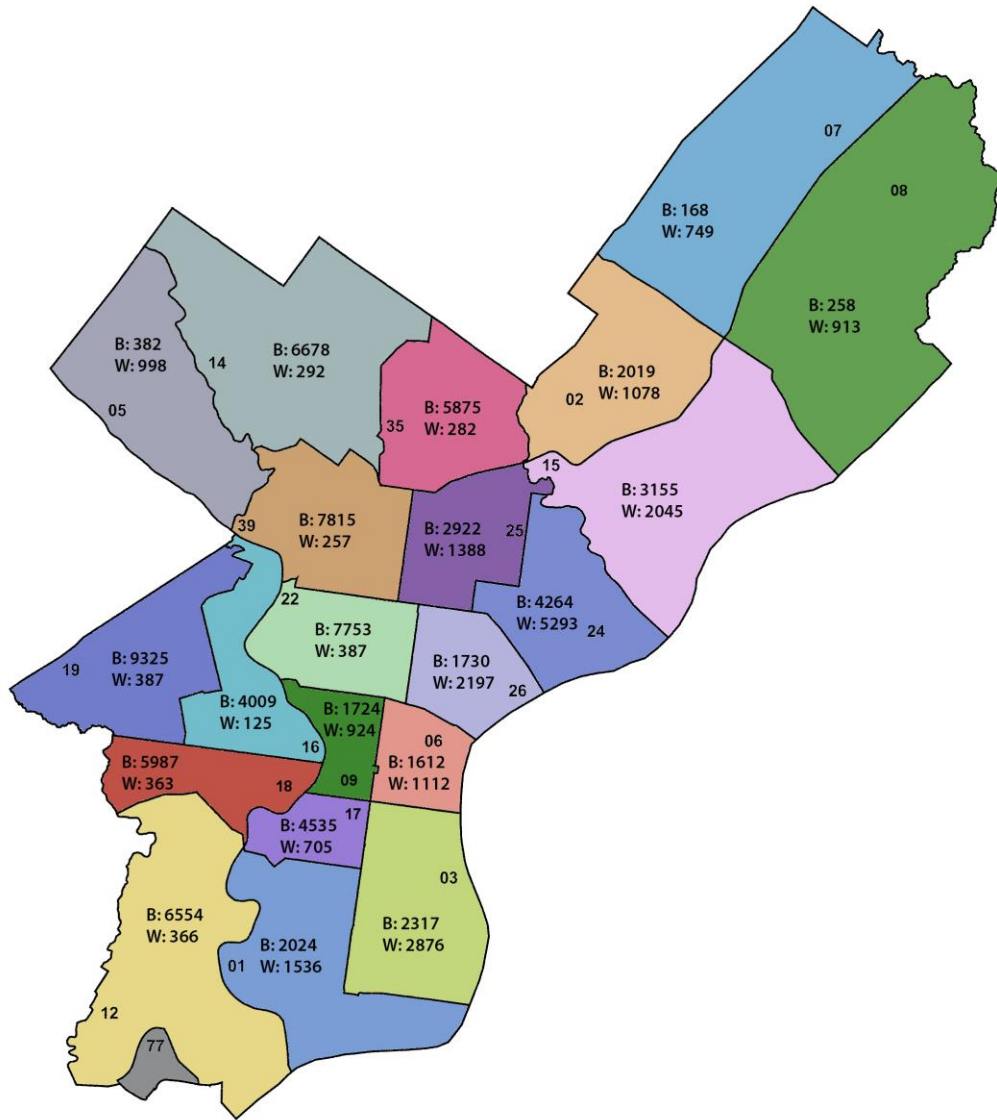
<sup>1</sup> Philadelphia Code, Chapter 10-2100.

**Figure 1**

**Detainee Age**



**Figure 2**



**Figure 3**

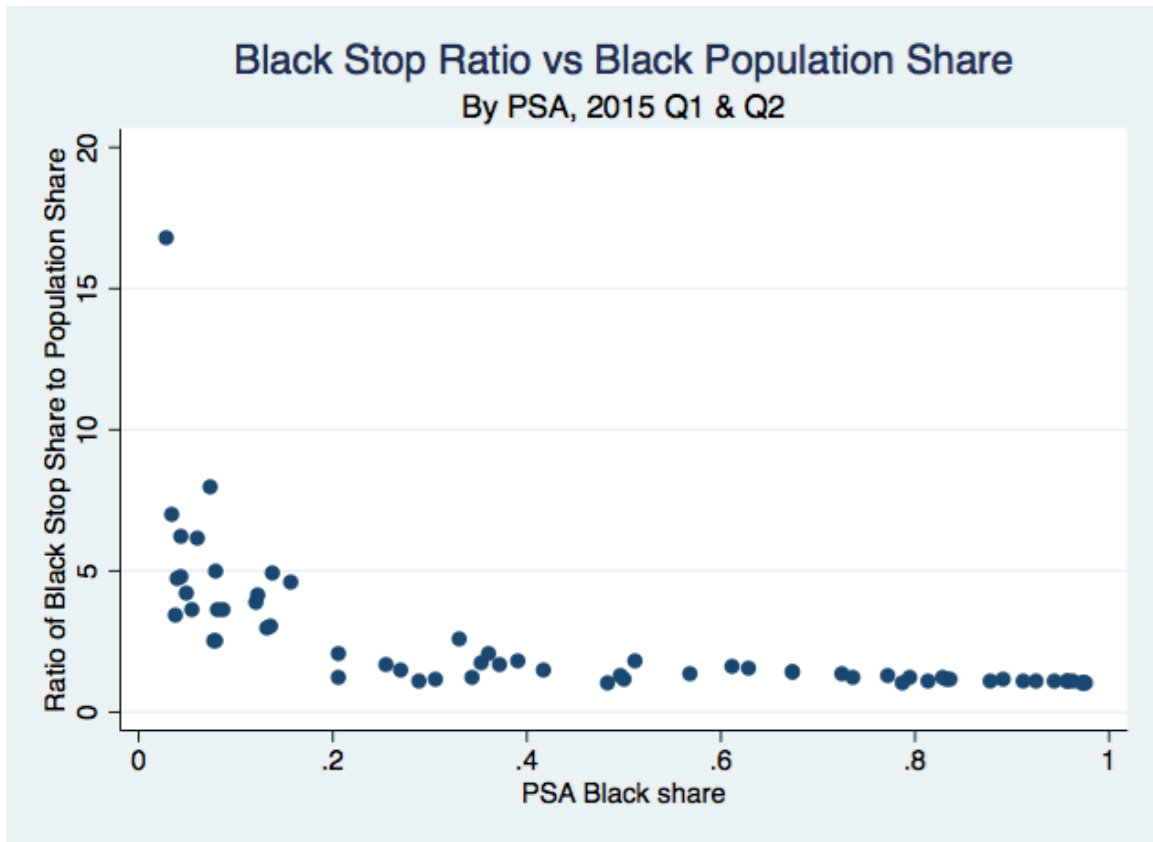




Table 1

2015 Q1 & Q2 Random Sample Summary Statistics

VARIABLES	(1) Mean	(2) N
Reasonable Suspicion for Stop?	67%	2,380
Individual Frisked	14%	2,352
Reasonable Suspicion for Frisk?	43%	326
Search Made	6.4%	2,380
Arrest Made	5.7%	2,352
Evidence or Contraband Found	1.7%	2,352
Firearm Found	0.26%	2,352
Drugs Found	0.85%	2,352
Detainee Age	33.8	2,375
Detainee Male	82%	2,376
Detainee Black	69%	2,342
Detainee Latino	8.6%	2,380

Table includes Summary Statistics from 2015 Q1 & Q2 Random Sample, excluding 300 observations incorrectly coded as stops.

**Table 2**  
**2015 Q1-Q2 PSA-Level All Stops Summary Statistics**

VARIABLES	(1) Mean	(2) Median	(3) SD	(4) Min	(5) Max	(6) Obs
Stop Black Pedestrian	1251	897	1127	50	5732	64
Stop White Pedestrian	375	195	495	43	3137	64
Stop Hispanic Pedestrian	136	24	314	1	1810	64
Stops per 10,000 Black Residents	1611	1258	1536	113.6	9619	64
Stops per 10,000 White Residents	747	364	980	70.95	5309	64
Stops per 10,000 Hispanic Residents	583	355	618	11.96	3448	64
Detainee Age	33.9	33.3	3	28.06	40.97	64
Detainee Male	82%	82%	5%	71%	92%	64
PSA Population	23578	21097	10529	5278	46642	64
PSA Black Share	46%	38%	34%	3%	98%	64
PSA White Share	42%	39%	32%	1%	93%	64
PSA Latino Share	11%	4%	16%	1%	75%	64
PSA Asian Share	5%	3%	5%	0%	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)	272	262	134	59	609	64
Property Crime Rate (per 10k residents)	520	455	249	196	1740	64
Drug Crime Rate (per 10k residents)	64	39	93	2	647	64
UCR Part 1 Crime Rate (per 10k residents)	687	640	314	219	2155	64

Table includes PSA-level summary statistics from 2015 Q1-Q2 All stops, excluding SA 7 and 54.



**Table 3****Counts by Race in Random Sample, 2015 Q1 & Q2**

	Black	Latino	White	Total
Stops	1626	172	546	2344
Stops Share	69%	7%	23%	100%
Frisks	253	32	36	321
Frisk Share	79%	10%	11%	100%
Stops/Frisk	6.4	5.4	15.2	7.3
Searches	107	16	28	151
Stops/Search	15.2	10.8	19.5	15.5
Arrests	100	13	19	132
Stops/Arrest	16.3	13.2	28.7	17.8
Contraband Discovered	28	7	6	41
Frisks/Contraband	9.0	4.6	6.0	7.8

### Table 4A

PSA-Level Statistics, Black Stops 2015 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%	97%	0.99	23.2	454
124	98%	97%	0.99	19.9	299
393	98%	97%	1.00	52.2	609
181	97%	96%	0.99	27.6	337
192	96%	97%	1.00	36.0	384
141	96%	97%	1.02	16.4	261
392	96%	97%	1.01	29.6	390
182	95%	96%	1.01	26.4	439
224	93%	93%	1.01	27.2	606
162	91%	97%	1.07	30.1	393
142	89%	97%	1.09	22.9	367
353	88%	94%	1.06	10.2	261
221	84%	94%	1.12	36.2	517
122	83%	93%	1.12	23.3	277
123	83%	95%	1.14	23.3	411
223	82%	86%	1.06	12.2	392
193	80%	92%	1.16	7.8	182
172	79%	79%	1.00	37.3	461
191	77%	94%	1.22	16.8	203
121	74%	88%	1.20	11.0	168
173	73%	92%	1.26	36.2	263
352	68%	91%	1.35	21.1	368
351	68%	90%	1.34	8.0	192
161	63%	95%	1.50	18.2	311
391	61%	94%	1.53	15.2	205
144	57%	74%	1.29	2.3	112
143	51%	90%	1.74	9.6	196
251	50%	57%	1.13	8.6	284
61	50%	61%	1.22	18.3	386
261	48%	46%	0.95	27.8	441
11	42%	59%	1.40	25.2	206
151	39%	69%	1.75	15.4	369
22	37%	60%	1.62	7.6	211
171	36%	72%	2.00	9.8	138
21	35%	60%	1.68	9.3	231
262	35%	41%	1.19	15.5	260
183	33%	85%	2.55	8.0	121
242	31%	33%	1.07	55.5	380
253	29%	30%	1.05	18.4	332
241	27%	38%	1.40	25.4	375
252	26%	41%	1.61	6.0	291
152	21%	42%	2.02	5.9	281

## Table 4A, continued

### PSA-Level Statistics, Black Stops 2015 Q1 & Q2

PSA	PSA Black Share	Black Share of Stops	Ratio of Black Stops to Population Share	Total Stops per 100 Residents	Violent Crime Rate (100 Residents)
81	21%	24%	1.17	2.0	142
93	16%	72%	4.56	9.5	180
92	14%	68%	4.84	18.2	320
32	14%	41%	2.98	18.2	266
23	13%	39%	2.93	5.2	122
62	12%	50%	4.07	35.2	575
31	12%	47%	3.85	11.1	186
12	9%	32%	3.56	9.0	100
153	8%	30%	3.59	4.7	214
33	8%	40%	4.91	12.9	198
263	8%	20%	2.44	16.7	260
82	8%	20%	2.48	2.5	101
63	7%	59%	7.91	16.2	278
53	6%	38%	6.09	3.9	62
83	6%	20%	3.57	2.4	103
72	5%	21%	4.15	1.7	59
52	5%	28%	6.15	9.9	141
51	4%	21%	4.76	9.0	146
71	4%	20%	4.70	2.7	87
73	4%	13%	3.34	2.7	83
243	3%	24%	6.91	10.0	264
91	3%	50%	16.71	12.4	176

**Table 4B**  
**PSA-Level Statistics, Latino Stops 2015 Q1 & Q2**

PSA	PSA Latino Share	Latino Share of Stops	Ratio of Latino Stops to Populat Share	Total Stops per Residents	Violent Crime Rate (10k Residents)
253	75%	44%	0.59	18.4	332
252	58%	39%	0.68	6.0	291
242	52%	24%	0.47	55.5	380
261	50%	33%	0.67	27.8	441
251	48%	29%	0.59	8.6	284
241	46%	23%	0.49	25.4	375
262	37%	15%	0.40	15.5	260
21	20%	21%	1.07	9.3	231
352	20%	5%	0.24	21.1	368
151	19%	8%	0.40	15.4	369
152	14%	12%	0.81	5.9	281
22	14%	20%	1.43	7.6	211
32	14%	7%	0.50	18.2	266
263	12%	14%	1.11	16.7	260
33	11%	8%	0.72	12.9	198
351	11%	5%	0.44	8.0	192
23	10%	13%	1.35	5.2	122
31	9%	3%	0.37	11.1	186
61	9%	6%	0.73	18.3	386
81	8%	6%	0.78	2.0	142
93	8%	4%	0.49	9.5	180
153	7%	9%	1.23	4.7	214
92	7%	2%	0.23	18.2	320
83	6%	3%	0.50	2.4	103
72	6%	6%	1.04	1.7	59
71	5%	8%	1.48	2.7	87
62	5%	6%	1.05	35.2	575
82	5%	4%	0.74	2.5	101
243	5%	16%	3.37	10.0	264
73	4%	2%	0.48	2.7	83
183	4%	1%	0.22	8.0	121
192	4%	1%	0.15	36.0	384
191	4%	0%	0.11	16.8	203
171	4%	4%	1.07	9.8	138
53	4%	4%	1.09	3.9	62
143	3%	1%	0.20	9.6	196
63	3%	2%	0.55	16.2	278
11	3%	2%	0.68	25.2	206
144	3%	0%	0.10	2.3	112
121	3%	1%	0.39	11.0	168
223	3%	2%	0.83	12.2	392
91	3%	1%	0.49	12.4	176

## Table 4B, continued

### PSA-Level Statistics, Latino Stops 2015: Q1 & Q2

PSA	PSA Latino Share	Latino Share of Stops	Ratio of Latino Stops to Population Share	Total Stops per 10k Residents	Violent Crime Rate (10k Residents)
173	3%	2%	0.58	36.2	263
161	3%	1%	0.25	18.2	311
51	2%	2%	0.89	9.0	146
141	2%	1%	0.27	16.4	261
123	2%	1%	0.31	23.3	411
391	2%	1%	0.44	15.2	205
392	2%	1%	0.46	29.6	390
221	2%	1%	0.63	36.2	517
193	2%	1%	0.37	7.8	182
182	2%	1%	0.32	26.4	439
122	2%	1%	0.69	23.3	277
162	2%	0%	0.25	30.1	393
393	2%	1%	0.66	52.2	609
142	1%	0%	0.21	22.9	367
52	1%	2%	1.20	9.9	141
353	1%	2%	1.45	10.2	261
222	1%	1%	1.11	23.2	454
224	1%	2%	1.84	27.2	606
12	1%	3%	3.82	9.0	100
181	1%	0%	0.53	27.6	337
124	1%	1%	0.73	19.9	299
172	1%	1%	1.92	37.3	461

**Table 5**  
**Stop Rate per 10,000 Residents**

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Detainee Black	946.4 (169.9)**	864.6 (196.4)**	781.6 (213.0)**	962.0 (213.3)**	981.9 (217.1)**	978.3 (215.1)**	1,079 (222.0)**	1,113 (217.9)**	1,101 (206.5)**	1,104 (201.2)**	1,101 (210.0)**	1,125 (489.6)*
Detainee Latino		-163.7 (196.4)	-245.2 (212.4)	23.39 (220.3)	45.42 (225.0)	16.97 (223.3)	72.69 (224.5)	101.5 (220.3)	79.16 (208.9)	97.86 (203.4)	75.17 (212.4)	137.0 (316.3)
Detainee Male			1,165 (1,159)	485.3 (1,143)	257.2 (1,200)	-198.8 (1,209)	-257.0 (1,203)	-177.5 (1,180)	-609.9 (1,122)	-492.0 (1,091)	-588.7 (1,142)	-954.9 (1,354)
Detainee Age				80.75 (23.17)**	82.96 (24.20)**	60.92 (26.18)*	62.80 (26.07)*	70.43 (25.69)**	54.01 (24.60)*	65.19 (23.74)**	52.53 (25.18)*	71.80 (62.37)
PSA Asian Share					532.7 (1,769)	1,108 (1,774)	117.1 (1,857)	389.3 (1,823)	-1,267 (1,764)	-870.2 (1,698)	-906.9 (1,788)	-1,887 (1,249)
PSA Black Share					34.30 (270.7)	747.9 (432.9)	426.7 (469.8)	12.87 (482.2)	-530.1 (471.7)	-1,072 (484.3)*	-279.1 (470.7)	-1,003 (696.6)
PSA Latino Share					396.0 (530.9)	1,360 (698.0)	1,135 (706.6)	482.6 (728.5)	-121.6 (702.5)	-474.2 (693.3)	161.6 (706.8)	-1,158 (1,050)
Male Population Under 24					-2,817 (1,341)*		-2,333 (1,364)	-5,611 (1,752)**	-3,446 (1,725)*	-3,060 (1,679)	-3,960 (1,742)*	318.5 (2,257)
Detainee Matches Flash Information							-2,306 (1,348)	-2,976 (1,342)*	-2,596 (1,274)*	-2,414 (1,243)	-2,672 (1,295)*	-1,853 (1,201)
Employment Rate								-5,040 (1,742)**	-3,932 (1,667)*	-2,531 (1,667)	-4,411 (1,686)**	-325.8 (2,189)
UCR Part Time Rate per 10k Residents									1,219 (0.262)**			
Violent Crime Rate per 10k Residents										4.102 (0.721)**		4.537 (0.883)**
Property Crime Rate per 10k Residents											1.294 (0.334)**	
Constant	664.7 (98.11)**	746.5 (138.9)**	-148.1 (900.6)	-2,471 (1,100)*	-2,459 (1,112)*	-763.1 (1,366)	-551.4 (1,364)	2,618 (1,728)	1,830 (1,647)	618.1 (1,634)	2,250 (1,668)	-1,440 (2,591)
Observations	192	192	192	192	192	192	192	192	192	192	192	192
R-squared	0.140	0.143	0.148	0.200	0.203	0.221	0.234	0.268	0.346	0.379	0.324	0.446

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

**Table 6**  
**Frisk**

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
DetaineeBlack	0.061 (0.016)**	0.084 (0.017)**	0.076 (0.017)**	0.075 (0.017)**	0.052 (0.019)**	0.052 (0.019)**	0.044 (0.018)*	0.046 (0.019)*	0.046 (0.019)*	0.047 (0.019)*	0.046 (0.019)*	0.046 (0.014)**
DetaineeLatino		0.11 (0.027)**	0.092 (0.027)**	0.085 (0.027)**	0.074 (0.029)**	0.074 (0.029)**	0.071 (0.028)*	0.071 (0.028)*	0.071 (0.028)*	0.072 (0.028)**	0.071 (0.028)*	0.073 (0.023)**
DetaineeMale			0.11 (0.019)**	0.11 (0.019)**	0.11 (0.019)**	0.11 (0.019)**	0.094 (0.018)**	0.094 (0.018)**	0.093 (0.018)**	0.093 (0.018)**	0.093 (0.018)**	0.097 (0.018)**
DetaineeAge				-0.0023 (0.00052)**	-0.0025 (0.00053)**	-0.0025 (0.00053)**	-0.0019 (0.00051)**	-0.0019 (0.00051)**	-0.0020 (0.00051)**	-0.0020 (0.00051)**	-0.0020 (0.00051)**	-0.0018 (0.00060)**
PSAAsianShare					-0.58 (0.17)**	-0.61 (0.17)**	-0.50 (0.17)**	-0.49 (0.17)**	-0.49 (0.17)**	-0.48 (0.17)**	-0.49 (0.17)**	-0.20 (0.22)
PSABlackShare					0.020 (0.031)	-0.041 (0.043)	-0.0086 (0.042)	-0.027 (0.045)	-0.032 (0.046)	-0.051 (0.047)	-0.026 (0.045)	-0.0037 (0.097)
PSALatinoShare					-0.027 (0.046)	-0.11 (0.062)	-0.077 (0.060)	-0.10 (0.065)	-0.11 (0.065)	-0.12 (0.066)	-0.10 (0.065)	0.0034 (0.083)
MalePopulationUnder24					0.24 (0.12)*	0.24 (0.12)*	0.18 (0.12)	0.044 (0.17)	0.074 (0.17)	0.11 (0.17)	0.059 (0.17)	-0.20 (0.39)
DetaineeMatchesFlashInformation							0.27 (0.024)**	0.27 (0.024)**	0.27 (0.024)**	0.27 (0.024)**	0.27 (0.024)**	0.27 (0.041)**
EmploymentRate								-0.21 (0.18)	-0.19 (0.18)	-0.11 (0.19)	-0.20 (0.18)	0.015 (0.29)
UCRPartTimeCrimeRate(per10kresidents)									0.000025 (0.000026)			
ViolentCrimeRate(per10kresidents)										0.00014 (0.000074)		0.00017 (0.00017)
PropertyCrimeRate(per10kresidents)											0.000015 (0.000032)	
Constant	0.096 (0.013)**	0.071 (0.014)**	-0.0097 (0.020)	0.069 (0.027)*	0.11 (0.035)**	0.059 (0.044)	0.030 (0.042)	0.17 (0.13)	0.14 (0.14)	0.092 (0.14)	0.16 (0.14)	0.092 (0.27)
Observations	2,314	2,314	2,310	2,305	2,269	2,269	2,269	2,269	2,269	2,269	2,269	2,269
R-squared	0.007	0.013	0.027	0.035	0.044	0.046	0.097	0.098	0.098	0.100	0.099	0.109

Standard errors in parentheses \*p<0.01, \*\*p<0.05, \*\*\*p<0.01. All regressions include control for quarter and year

**Table 7**

**Reasonable Suspicion by Race in Random Sample, 2015 Q1 & Q2**

	Black	Latino	White	Total
Stops	1626	172	546	2344
Reasonable Suspicion Share of Stops with Reasonable Suspicion	1065 65%	119 69%	375 69%	1559 67%
Frisks	253	32	36	321
Reasonable Suspicion Share of Frisks with Reasonable Suspicion	109 43%	12 38%	19 53%	140 44%



Table 8

Reasonable Suspicion for Stop

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
DetaineeBlack	-0.034 (0.021)	-0.031 (0.023)	-0.023 (0.023)	-0.024 (0.023)	-0.019 (0.026)	-0.019 (0.026)	-0.020 (0.026)	-0.024 (0.026)	-0.024 (0.026)	-0.025 (0.026)	-0.024 (0.026)	-0.032 (0.022)
DetaineeLatino		0.014 (0.037)	0.026 (0.037)	0.031 (0.037)	0.028 (0.039)	0.029 (0.039)	0.028 (0.039)	0.028 (0.039)	0.029 (0.039)	0.028 (0.039)	0.029 (0.039)	0.029 (0.032)
DetaineeMale			-0.096 (0.026)**	-0.097 (0.026)**	-0.091 (0.026)**	-0.092 (0.026)**	-0.093 (0.026)**	-0.093 (0.026)**	-0.093 (0.026)**	-0.093 (0.026)**	-0.093 (0.026)**	-0.090 (0.024)**
DetaineeAge				0.0024 (0.00072)**	0.0023 (0.00073)**	0.0023 (0.00073)**	0.0023 (0.00073)**	0.0024 (0.00073)**	0.0024 (0.00073)**	0.0024 (0.00073)**	0.0024 (0.00073)**	0.0022 (0.00080)*
PSAAsianShare					-0.33 (0.24)	-0.29 (0.24)	-0.28 (0.24)	-0.30 (0.24)	-0.30 (0.24)	-0.31 (0.24)	-0.30 (0.24)	-0.66 (0.38)
PSABlackShare					-0.046 (0.043)	0.043 (0.060)	0.046 (0.060)	0.081 (0.064)	0.083 (0.065)	0.090 (0.067)	0.082 (0.064)	-0.12 (0.17)
PSALatinoShare					-0.072 (0.064)	0.050 (0.085)	0.053 (0.086)	0.11 (0.092)	0.11 (0.094)	0.11 (0.093)	0.11 (0.092)	-0.019 (0.15)
MalePopulationUnder24						(0.16)*	(0.16)*	(0.24)	(0.24)	(0.24)	(0.24)	(0.51)
DetaineeMatchesFlashInformation							0.024 (0.033)	0.027 (0.034)	0.027 (0.034)	0.027 (0.034)	0.027 (0.034)	0.029 (0.046)
EmploymentRate								0.40 (0.26)	0.39 (0.26)	0.37 (0.27)	0.40 (0.26)	-0.00074 (0.45)
UCRPartTimeCrimeRate(per10kresidents)									-8.8e-06 (0.000036)			
ViolentCrimeRate(per10kresidents)										-0.000050 (0.00010)		-0.000077 (0.00011)
PropertyCrimeRate(per10kresidents)											-6.9e-06 (0.000046)	
Constant	0.68 (0.020)**	0.67 (0.022)**	0.75 (0.029)**	0.67 (0.038)**	0.72 (0.050)**	0.79 (0.061)**	0.79 (0.061)**	0.52 (0.19)**	0.53 (0.19)**	0.55 (0.20)**	0.52 (0.19)**	0.87 (0.39)*
Observations	2,342	2,342	2,338	2,333	2,297	2,297	2,297	2,297	2,297	2,297	2,297	2,297
R-squared	0.002	0.002	0.008	0.012	0.012	0.014	0.014	0.015	0.015	0.016	0.015	0.026

Standard errors in parentheses; \* p < 0.1, \*\* p < 0.05, \*\*\* p < 0.01

**Table 9**

**Reasonable Suspicion for Risk**

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Detainee Lack	-0.024 (0.068)	-0.066 (0.083)	-0.066 (0.082)	-0.066 (0.082)	0.0066 (0.088)	0.0065 (0.088)	0.0062 (0.088)	0.0056 (0.088)	-0.0014 (0.088)	0.0023 (0.088)	-0.00083 (0.088)	0.0014 (0.084)
Detainee Latino		-0.094 (0.10)	-0.076 (0.10)	-0.077 (0.10)	-0.065 (0.11)	-0.064 (0.12)	-0.064 (0.12)	-0.055 (0.12)	-0.060 (0.12)	-0.052 (0.12)	-0.062 (0.12)	-0.031 (0.12)
Detainee Male			0.22 (0.12)	0.22 (0.12)	0.18 (0.12)	0.19 (0.12)	0.19 (0.12)	0.19 (0.12)	0.20 (0.12)	0.19 (0.12)	0.20 (0.13)	0.18 (0.085)*
Detainee Age				-0.0018 (0.0021)	-0.0011 (0.0022)	-0.0011 (0.0022)	-0.0011 (0.0022)	-0.00057 (0.0023)	-0.00085 (0.0023)	-0.00081 (0.0023)	-0.00078 (0.0023)	0.00025 (0.0033)
PSA Asian Share					0.44 (0.80)	0.50 (0.80)	0.49 (0.81)	0.43 (0.81)	0.64 (0.83)	0.66 (0.83)	0.58 (0.83)	0.90 (1.36)
PSA Lack Share					-0.22 (0.14)	-0.13 (0.18)	-0.13 (0.18)	-0.059 (0.19)	-0.032 (0.19)	-0.075 (0.19)	-0.026 (0.19)	0.36 (0.52)
PSA Latino Share					-0.044 (0.21)	0.092 (0.27)	0.094 (0.27)	0.19 (0.28)	0.26 (0.29)	0.22 (0.28)	0.26 (0.29)	-1.04 (0.37)*
Male Population Under 4						-0.43 (0.52)	-0.44 (0.52)	0.18 (0.79)	0.095 (0.79)	0.19 (0.79)	0.091 (0.80)	4.03 (1.15)**
Detainee Matches Flash Information							0.0090 (0.065)	0.012 (0.065)	-0.00017 (0.066)	0.0058 (0.065)	0.0015 (0.066)	-0.016 (0.068)
Employment Rate								0.88 (0.85)	0.99 (0.85)	1.21 (0.89)	0.90 (0.85)	2.83 (1.31)*
UCR Part Time Rate (per 10k residents)									0.00014 (0.00012)			
Violent Crime Rate (per 10k residents)										0.00039 (0.00032)		0.000049 (0.00038)
Property Crime Rate (per 10k residents)											0.00013 (0.00016)	
Constant	0.47 (0.066)**	0.52 (0.082)**	0.30 (0.14)*	0.36 (0.16)*	0.46 (0.19)*	0.55 (0.22)*	0.55 (0.22)*	-0.080 (0.64)	-0.21 (0.65)	-0.32 (0.67)	-0.15 (0.65)	-2.49 (1.05)*
Observations	321	321	320	320	311	311	311	311	311	311	311	311
R-squared	0.002	0.004	0.014	0.017	0.037	0.039	0.039	0.043	0.046	0.047	0.045	0.133

Standard errors in parentheses. \* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001. Regressions include controls for quarter and year.

**Table 10**

**Contraband by Race in Random Sample, 2015 Q1 & Q2**

	Black	Latino	White	Total
Frisks	253	32	36	321
Firearm	4	0	0	4
Drugs	6	1	0	7
Other	2	1	2	5
Any	13	3	3	19
Frisks/Firearm	63	∞	∞	80
Frisks/Drugs	42	32	∞	46
Frisks/Other	127	32	18	64
Frisks/Any	19	11	12	17

# Table 11

## Firearm Recovered

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
DetaineeBlack	0.016 (0.015)	0.014 (0.018)	0.014 (0.019)	0.014 (0.019)	0.013 (0.020)	0.013 (0.020)	0.013 (0.020)	0.013 (0.020)	0.012 (0.020)	0.013 (0.020)	0.011 (0.020)	0.0030 (0.0044)
DetaineeLatino		-0.0042 (0.023)	-0.0038 (0.024)	-0.0037 (0.024)	0.0049 (0.026)	0.0060 (0.026)	0.0061 (0.026)	0.0054 (0.026)	0.0045 (0.026)	0.0056 (0.026)	0.0036 (0.026)	0.0054 (0.0069)
DetaineeMale		0.013 (0.027)	0.013 (0.027)	0.012 (0.027)	0.016 (0.028)	0.024 (0.028)	0.024 (0.028)	0.024 (0.028)	0.025 (0.028)	0.024 (0.028)	0.026 (0.028)	0.028 (0.020)
DetaineeAge			0.00037 (0.00047)	0.00037 (0.00051)	0.00028 (0.00050)	0.00030 (0.00050)	0.00030 (0.00051)	0.00027 (0.00052)	0.00022 (0.00053)	0.00025 (0.00052)	0.00022 (0.00053)	0.00056 (0.00085)
PSAAsianShare			-0.14 (0.18)	-0.097 (0.18)	-0.098 (0.18)	-0.097 (0.18)	-0.098 (0.18)	-0.093 (0.18)	-0.057 (0.19)	-0.082 (0.19)	-0.054 (0.19)	-0.0055 (0.21)
PSABlackShare			-0.028 (0.031)	-0.028 (0.040)	0.043 (0.041)	0.043 (0.041)	0.044 (0.041)	0.039 (0.043)	0.044 (0.044)	0.038 (0.043)	0.047 (0.044)	-0.00042 (0.061)
PSALatinoShare			-0.058 (0.048)	0.044 (0.060)	0.044 (0.060)	0.044 (0.060)	0.044 (0.060)	0.037 (0.064)	0.048 (0.066)	0.038 (0.065)	0.054 (0.067)	0.028 (0.048)
MalePopulationUnder24				-0.32 (0.12)**	-0.32 (0.12)**	-0.32 (0.12)**	-0.32 (0.12)**	-0.37 (0.18)*	-0.38 (0.18)*	-0.37 (0.18)*	-0.39 (0.18)*	-0.15 (0.24)
DetaineeMatchesFlashInformation				0.0013 (0.015)	0.0013 (0.015)	0.0013 (0.015)	0.0013 (0.015)	0.0010 (0.015)	-0.0012 (0.015)	0.00068 (0.015)	-0.0017 (0.015)	-0.00036 (0.014)
EmploymentRate								-0.064 (0.19)	-0.045 (0.19)	-0.047 (0.20)	-0.058 (0.19)	-0.0025 (0.33)
UCRPartTimeCrimeRate(per10kresidents)									0.000024 (0.000028)			
ViolentCrimeRate(per10kresidents)										0.000020 (0.000073)		0.000036 (0.000082)
PropertyCrimeRate(per10kresidents)											0.000033 (0.000036)	
Constant	0.00014 (0.015)	0.0021 (0.018)	-0.011 (0.032)	-0.021 (0.035)	0.0073 (0.044)	0.075 (0.050)	0.075 (0.050)	0.12 (0.15)	0.098 (0.15)	0.11 (0.15)	0.10 (0.15)	0.012 (0.27)
Observations	321	321	320	320	311	311	311	311	311	311	311	311
R-squared	0.003	0.003	0.004	0.006	0.012	0.036	0.036	0.036	0.039	0.037	0.039	0.094

Standard errors in parentheses \*p<0.01, \*\*p<0.05, \*\*\*p<0.001

Table 12

Contraband Recovered

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
DetaineeBlack	-0.058 (0.0056)**	-0.053 (0.0070)**	-0.050 (0.0070)**	-0.049 (0.0071)**	-0.029 (0.0079)**	-0.030 (0.0079)**	-0.030 (0.0079)**	-0.029 (0.0079)**	-0.029 (0.0080)**	-0.029 (0.0080)**	-0.029 (0.0080)**	-0.023 (0.010)**
DetaineeLatino	0.013 (0.010)	0.017 (0.010)	0.016 (0.010)	0.017 (0.010)	-0.0032 (0.011)	-0.0035 (0.011)	-0.0034 (0.011)	-0.0034 (0.011)	-0.0032 (0.011)	-0.0034 (0.011)	-0.0031 (0.011)	-0.00097 (0.018)
DetaineeMale		-0.047 (0.0099)**	-0.048 (0.0098)**	-0.047 (0.0099)**	-0.048 (0.0100)**	-0.048 (0.0100)**	-0.047 (0.0100)**	-0.048 (0.0100)**	-0.048 (0.0100)**	-0.048 (0.0100)**	-0.048 (0.0100)**	-0.046 (0.017)**
DetaineeAge		0.00033 (0.00020)	0.00038 (0.00020)	0.00033 (0.00020)	0.00037 (0.00020)	0.00036 (0.00020)	0.00036 (0.00020)	0.00036 (0.00020)	0.00036 (0.00021)	0.00036 (0.00020)	0.00037 (0.00021)	0.00035 (0.00026)
PSAAsianShare		-0.011 (0.061)	-0.011 (0.061)	0.012 (0.062)	0.012 (0.062)	0.011 (0.062)	0.011 (0.062)	0.022 (0.063)	0.017 (0.064)	0.019 (0.064)	0.016 (0.064)	-0.10 (0.095)
PSALackShare		-0.018 (0.012)	-0.018 (0.012)	0.0052 (0.015)	0.0049 (0.015)	0.0052 (0.015)	0.0049 (0.015)	0.00073 (0.016)	-0.00066 (0.016)	0.00089 (0.016)	-0.0021 (0.016)	-0.048 (0.043)
PSALatinoShare		0.098 (0.016)**	0.13 (0.020)**	0.13 (0.020)**	0.13 (0.020)**	0.13 (0.020)**	0.13 (0.020)**	0.12 (0.022)**	0.12 (0.023)**	0.12 (0.023)**	0.12 (0.024)**	0.15 (0.040)**
MalePopulationUnder24		-0.10 (0.042)*	-0.10 (0.042)*	-0.10 (0.042)*	-0.10 (0.042)*	-0.10 (0.042)*	-0.10 (0.042)*	-0.14 (0.060)*	-0.14 (0.060)*	-0.14 (0.060)*	-0.14 (0.060)*	-0.24 (0.13)
DetaineeMatchesFlashInformation				-0.0028 (0.0052)	-0.0028 (0.0052)	-0.0028 (0.0052)	-0.0028 (0.0052)	-0.0028 (0.0052)	-0.0029 (0.0052)	-0.0028 (0.0052)	-0.0029 (0.0052)	-0.0022 (0.011)
EmploymentRate				-0.053 (0.067)	-0.053 (0.067)	-0.053 (0.067)	-0.053 (0.067)	-0.053 (0.067)	-0.061 (0.069)	-0.059 (0.072)	-0.062 (0.068)	-0.20 (0.11)
UCRPartTimeCrimeRate(per10kresidents)									-5.2e-06 (0.000010)			
ViolentCrimeRate(per10kresidents)										-6.5e-06 (0.000028)		0.000028 (0.000035)
PropertyCrimeRate(per10kresidents)											-8.9e-06 (0.000013)	
Constant	0.13 (0.0054)**	0.13 (0.0069)**	0.17 (0.011)**	0.16 (0.013)**	0.14 (0.016)**	0.16 (0.019)**	0.16 (0.019)**	0.20 (0.048)**	0.21 (0.051)**	0.20 (0.053)**	0.21 (0.051)**	0.31 (0.091)**
Observations	15,821	15,821	15,814	15,774	15,372	15,372	15,372	15,372	15,372	15,372	15,372	15,372
R-squared	0.007	0.007	0.009	0.009	0.014	0.014	0.014	0.014	0.014	0.014	0.014	0.021

Standard errors in parentheses \*p<0.01, \*\*p<0.05, \*\*\*p<0.001

Respectfully submitted,

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<sup>10</sup> Counsel express their appreciation to Jon Dilks who organized and structured the data collection.

## EXHIBIT A

## **BENCHMARKS FOR BAILEY V. CITY OF PHILADELPHIA**

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### **I. Introduction**

This Memorandum sets forth agreed upon benchmarks for evaluating the compliance of the Philadelphia Police Department (“PPD”) with the Settlement Agreement, Class Certification and Consent Decree (“Agreement”).

The Agreement provides for monitoring of the stop and frisk practices of the PPD to measure and ensure compliance with the terms of the Agreement. The parties agreed to a set of benchmarks in 2010 and plaintiffs have employed those benchmarks in assessing compliance in their Reports to the Courts. In 2013, the City’s expert, Professor Ralph Taylor, suggested additional benchmarks in his analysis of the racial distribution of stops and frisks. Thereafter, the parties met and discussed these issues and as a result of further collaboration between the respective experts, some modifications in the Benchmark Memorandum have been made. These modified benchmarks are intended to fairly measure and assess PPD compliance with the provisions of the Agreement under the Fourth and Fourteenth Amendments.

### **II. Fourth Amendment Issues**

The major question with respect to Fourth Amendment compliance in pedestrian and car stops (and related frisks, searches and/or arrests) is whether the PPD is stopping and frisking suspects with the requisite reasonable suspicion mandated by the Fourth Amendment. The substantive standards on reasonable suspicion are set forth in the Agreement and applicable court decisions. Under the Agreement and Consent Decree, the Court has the power to determine whether the rate of stops and/or frisks made without reasonable suspicion are grounds for a finding of non-compliance with the Consent Decree. To measure compliance, both sides review randomly selected 75-48a forms by the PPD on a quarterly basis. To ensure the most accurate analysis, the following procedures will be used.

First, the PPD will ensure that the randomly selected files do not contain more than a single 75-48a from a particular incident. Where multiple persons are stopped and/or frisked in one incident, only one of these stops will be part of the randomly selected files for review.



Second, in each quarterly review both sides will screen the reported stops and frisks to separate out (1) “stops” that are either sight arrests or are otherwise not forcible stops under the Fourth Amendment and (2) “frisks” that are searches (often incident to arrest). In these cases, officers have filed 75-48a reports even though the incident was not within the Departmental definition of a stop or frisk pursuant to Directive 12.11. These incidents will not be included in the Fourth Amendment “reasonable suspicion” analysis.

Third, the category of “fruit of an illegal stop” will be used to signify where a frisk, though proper given the officers observations, was made pursuant to a stop without reasonable suspicion.

Finally, there will be a “hit-rate” analysis on the Fourth Amendment issues. More specifically, the ratio of “hits” (i.e., finding of weapons or contraband) to the number of frisks will be tabulated. In addition, there will be a designation of cases in which the officer marks “no frisk” in cases in which a frisk was highly likely to have occurred (e.g., stop for a robbery investigation).

### **III. Fourteenth Amendment Issues: Racial Fairness**

The Agreement requires monitoring and analysis with respect to the question of whether race is being impermissibly used as a factor in the decision to stop and frisk. Over the years, a number of “benchmarks” have been used by economists, statisticians, lawyers and courts to measure possible racial bias in stop and frisk practices. The following benchmarks will be used in *Bailey*.

#### **A. Regression Analysis Regarding Police Stops and Frisks.**

There is no dispute over the fact that racial minorities are stopped and frisked far more frequently than whites, but this fact alone does not prove race bias, as non-racial factors may be contributing causal influences.

To assess possible bias, both sides will start with a comparison of actual stop and frisk rates by race by Police Service Areas (PSA), which are geographical subdivisions of Police Districts in Philadelphia, to those that would be expected based on census data on the racial composition for

that PSA. This analysis will use race specific data comparing stops and frisks and the census population by race.

A multivariate regression analysis will then be used to assess the relationship among multiple variables simultaneously. To determine the impact of suspect race on the likelihood of a stop or frisk, it is important to control for factors that include the demography and crime rates of the PSA. The regressions have been used in all previous reports, but they have been modified by agreement.

The following regressions will be used, with the dependent variable of **number of stops and frisks**.

- a. Defendant race;
- b. Defendant race, Latino status;
- c. Defendant race, Latino status, sex;
- d. Defendant race, Latino status, sex, age;
- e. Defendant race, Latino status, sex, age, district racial composition;
- f. Defendant race, Latino status, sex, age, district racial composition, district age composition;
- g. Defendant race, Latino status, sex, age, district racial composition, district age composition, defendant matches flash information;
- h. Defendant race, Latino status, sex, age, district racial composition, district age composition, defendant matches flash information, district employment rate;
- i. Defendant race, Latino status, sex, age, district racial composition, district age composition, defendant matches flash information, district employment rate; district crime rate;
- j. Defendant race, Latino status, sex, age, district racial composition, district age composition, defendant matches flash information, district employment rate; district violent crime rate;
- k. Defendant race, Latino status, sex, age, district racial composition, district age composition, defendant matches flash information, district employment rate; district property crime rate;

The above regressions are summarized in the following table:

	<b>a</b>	<b>b</b>	<b>c</b>	<b>d</b>	<b>e</b>	<b>f</b>	<b>g</b>	<b>h</b>	<b>i</b>	<b>j</b>	<b>k</b>
<b>Defendant Race</b>	X	X	X	X	X	X	X	X	X	X	X
<b>Defendant Latino Status</b>		X	X	X	X	X	X	X	X	X	X
<b>Defendant Sex</b>			X	X	X	X	X	X	X	X	X
<b>Defendant Age</b>				X	X	X	X	X	X	X	X
<b>District Racial Composition</b>					X	X	X	X	X	X	X
<b>District Age Composition</b>						X	X	X	X	X	X
<b>Presence of Flash Information</b>							X	X	X	X	X
<b>District Employment Rate</b>								X	X	X	X
<b>District Crime Rate</b>									X		
<b>District Violent Crime Rate</b>										X	
<b>District Property Crime Rate</b>											X

The following protocols will be followed in the regression analysis:

1. The PSA as opposed to Police Districts will be the geographical areas for data analysis. The City has agreed to provide to Professor Abrams the relevant PSA population data.
2. Crime rates will be measured by the incidence of serious crime (using lagged data, i.e., the crime rate from the previous Quarter or Year), but the parties will initially use somewhat different measures of serious crime, including violent and property crimes. The operating assumption is that these different metrics will not lead to different conclusions, but the experts will confer again if there are significant differences reported.
3. Economic and social data will be used as controls and these will account for cross-PSA variation in economic and demographic circumstances. As with crime rates, there may be some differences in the regression factors used by each side, and to the degree there appear to be different conclusions based on different factors, the experts will determine which are the most relevant and reliable.

4. The data will be presented cumulatively for two or more consecutive quarters and may also include controls for time period or be broken out by quarter.
5. Professors Abrams and Taylor may perform “robustness” checks beyond the regressions outlined above. Thereafter, these experts will confer as to their usefulness.

Regression analysis allows for more precise statements about the effects of different variables on outcomes, but it is also important to determine whether any differences in the racial data is *statistically significant*. If the effect of race is not statistically significant, it means that the effect of race is lower than the ability of the regression to detect. This relates to the power of the regression, which is affected by the sample size. If the sample size is large enough, a statistically insignificant coefficient indicates that the difference by race is statistically indistinguishable from zero (i.e., no race effect) to a high degree of accuracy. Regression analysis provides measures for determining statistically significant racial disparities and in the social sciences, the standard significance threshold for the likelihood of finding the same result is 95%.<sup>11</sup> For some of the benchmarks, including analysis of gross numbers of stops and frisks with regression for salient factors, there is no need for sampling as all of this data is available in the electronic data base.

Even if the coefficient on race is statistically significant, the magnitude may be so small that it is not meaningful. For example, if blacks are frisked 10% of the time and whites 10.1% of the time, even though the difference might be statistically significant, it is not likely to be of great concern. For evaluating these regression results, a good rule of thumb for a meaningful amount of difference is about 20% of the variable mean. Using the same numbers from the frisk example above, this means that if the frisk rates differed by more than 20% of the 10% frisk rate ( $0.2 * 0.1 = 0.02$  or 2 percent) that would represent a meaningful racial disparity.

## **B. Regression Analysis/Dependent Variable of No Reasonable Suspicion for Stop or Frisk**

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<sup>11</sup> This corresponds to a p-value of .05

The same set of regressions will be used where the dependent variable is whether there was reasonable suspicion for the stop or frisk. Since this variable is only available for the sample of the data that has been analyzed for reasonable suspicion, it will contain a smaller number of observations than the regressions described above.

### **C. Stops and Frisks by Race, Contraband Recovered, and Racial Characteristics of PSA**

In addition to the regressions described above, other benchmarks will be used to determine possible racial bias.

First, there will be an analysis of the rate of frisks by race.

Second, a hit-rate analysis will be used to determine possible racial effects of stop and frisk practices. As an example, if hit-rates for Whites are higher than for Blacks, there is a question as to whether the police are employing different thresholds for reasonable suspicion. An example of a hit-rate is the share of frisks that result in a firearm.

Third, there will be a hit-rate analysis at the PSA-level to test for the possibility that stops or frisks may increase at a disproportionate level for all persons in heavily minority neighborhoods. In this analysis, there will be calculations of the PSA-level stop and frisk rates per reported crimes to determine whether these ratios are correlated with PSA racial demographics. The question in this context is whether there is a possible racial effect of stop and frisk practices if the crime rate in PSA-1 is five times the crime rate in PSA-2, but the stop rate is 10 times higher in PSA-1.