

Twelfth Report of the Independent Monitor

The Deployment of Body Worn Cameras on New York City Police Department (NYPD) Officers

A Cluster Randomized Controlled Trial Measuring Effects on
the Civility of Police-Citizen Encounters, Policing Activities,
Police Lawfulness, and Police-Community Relations

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

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TABLE OF CONTENTS

Monitor’s Preface..... 1

Executive Summary 4

I. Evaluation Design: Cluster Randomized Controlled Trial..... 10

A. The Body-Worn Camera Pilot Program..... 10

B. The Design of the Cluster Randomized Controlled Trial 11

C. Precincts Excluded from the Cluster Randomized Controlled Trial 13

D. Choosing the 40 Treatment and Control Precincts 14

E. Matching and Randomization..... 15

F. Randomization of Precincts and Assessment of Cluster Balance 16

G. Comparability of NYPD Officers in Treatment and Control Precincts 19

II. Civility of Police-Citizen Encounters and Policing Activity Outcomes 23

A. Analytical Approach 23

B. Results 27

III. Police Lawfulness Outcomes 30

A. Sample Selection Methodology 30

B. Assessment of the Lawfulness of Police Actions in Stop Reports 33

C. Analytical Approach 34

D. Results 36

IV. Police-Community Relations Outcomes..... 42

A. Telephone Surveys..... 42

B. Community In-Person Surveys..... 43

C. Survey Instrument..... 47

D. Sample Characteristics and Group Balance 48

E. Analytical Approach 55

F.	Results	60
V.	Discussion of Results.....	66
A.	Civility of Police-Citizen Interactions	66
B.	Police Activity	69
C.	Police Lawfulness	72
D.	Police – Community Relations	75
VI.	Conclusion	81
	Appendix	84

Monitor's Preface

This report describes the results of the evaluation of the NYPD's BWC pilot program, as required by the Court's Remedial Order and modified order. *Floyd v. City of New York*, 959 F. Supp. 2d 668, 685 (S.D.N.Y. 2013). The goal of the pilot program was to assess the effects of deploying cameras on policing outcomes, community perceptions of policing in their neighborhoods, and whether deployment of BWCs results in reducing unconstitutional stops and frisks. The report describes the evaluation plan, presents analytical results, and discusses key findings. Before the evaluation was completed, the NYPD's voluntarily decided to expand its use of BWCs and equip more than 22,000 officers with BWCs. NYPD BWCs now generate approximately 120,000-130,000 new videos each week; to date, this represents the largest deployment of body camera technology in the United States.

One of the important goals of the pilot was to quantify the risks and benefits of deploying BWCs in order to assess whether BWCs should be deployed throughout the City. That goal has been overtaken by events: the Department made that decision, before the results of the study were known. However, the study can provide guidance for the continued use of BWCs, not only for the NYPD, but for police departments throughout the country. The use of BWCs is not a panacea, as the results of the study show. But it is a powerful tool for increasing transparency and accountability for police officers, the public and for police officials.

The pilot program evaluation design, developed by Professor Anthony Braga, Professor John MacDonald and other members of the monitor team, was a cluster randomized controlled trial. Forty precincts with the highest numbers of Citizen Complaint Review Board (CCRB) complaints against NYPD officers were identified and then matched into 20 pairs based on demographics, socio-economic characteristics, crime and police activity. Within each pair, one

precinct was randomly assigned to have cameras (the treatment precinct) and the other was assigned to be without cameras (the control precinct). Uniformed officers working the third platoon (3:00 PM to midnight shift) and plainclothes officers working Anti-Crime Unit assignments in the treatment precincts wore BWCs for a one-year period. Professor Braga and the monitor team then compared data from the matched pairs of precincts using four sets of outcome measures: civility of police-citizen interactions, policing activity, police lawfulness, and police–community relations.

The study showed that deployment of body-worn cameras was associated with a statistically significant decrease in CCRB complaints and a statistically significant increase in the number of stop reports completed by treatment officers relative to control officers. Contrary to the fear expressed by some commentators, the number of arrests, arrests with force, summonses, domestic incident reports, and citizen crime complaint reports did not change when officers in the treatment precincts were compared to officers in the control precincts. Concerning police–community relations, based on surveys conducted in the treatment and control precincts both before and after the implementation of BWCs, there was no meaningful differences in resident perceptions of the police and of police–community relations as a result of BWC use. This should not be a surprising result. Views of the police are sometimes deeply imbedded, are formed over long periods of time, and can change based on events that have nothing to do with BWCs or the NYPD. It takes much more than deployment of BWCs for a year to change those perceptions.

In analyzing the stop reports of officers in the treatment and control precincts, the monitor team found that stop reports of officers in the BWC precincts were less likely to be deemed lawful. In stop reports that involved a frisk and/or a search, the justifications reported for frisking or searching citizens in BWC officer stop reports were also less likely to be judged by the monitor

team as constitutional when compared to control officer reports. At first blush, this seems counter-intuitive. Why should using BWCs lead to less lawful results? Actually, there is a much more sensible explanation. When BWCs are being used, the officers know that there are extra sets of eyes on their actions, and therefore a failure to file a stop report when required is much more likely to be discovered. So what could be expected is an increase in the number of stop reports in more arguable situations. That is in fact what happened. There was a meaningful increase in the number of stop reports filed by officers wearing BWCs.

This randomized controlled trial suggests that the placement of BWCs on officers resulted in the increased documentation of stop reports, particularly of those stops that may have reflected unlawful police actions. BWCs can be a useful tool in reducing underreporting of stops and unlawfulness by making stops more transparent to NYPD supervisors and outside monitors (e.g., district attorneys, courts, CCRB).

The Court and other readers will find a wealth of technical data and explanations in the Report. It was very important to include this technical material so that outside experts can closely review the results and the research methods and statistical models used for the study.

Executive Summary

On April 24, 2017, the New York City Police Department (NYPD) launched its body-worn camera pilot program for a one-year period pursuant to the requirements of the amended remedial order in *Floyd v. City of New York*, 959 F. Supp. 2d 668 (S.D.N.Y. 2013) (Remedial Order). The goal of the pilot program is to assess the effects of deploying cameras on policing outcomes, community perceptions of policing in their neighborhoods, and whether deployment results in reducing unconstitutional stops and frisks. The monitor's research and evaluation design for the body-worn camera pilot program was developed and executed by Professor Anthony Braga of Northeastern University, Professor John MacDonald of the University of Pennsylvania, and other members of the monitor team. This report describes the evaluation plan, presents analytical results, and discusses key findings.

The main evaluation design involved the development of a cluster randomized controlled trial. In summary, 40 precincts with the highest numbers of Citizen Complaint Review Board (CCRB) complaints against NYPD officers were identified and then matched into 20 pairs based on demographics, socio-economic characteristics, crime and police activity.¹ Care was taken to ensure that the officers in each precinct pair were also similar in terms of demographics, length of service, rank, and number of citizen complaints. Within each pair, one precinct was randomly assigned to have cameras (the treatment precinct) and the other was assigned to be without cameras (the control precinct). Uniformed officers working the third platoon (3:00 PM to midnight shift)

¹ Because Public Housing Police Service Areas (PSAs) overlap with the 40 precincts in the randomized controlled trial, the experiment does not include NYPD Housing officers assigned to PSAs. The monitor team devised a separate evaluation plan for the use of cameras by NYPD officers working in PSAs. There are only nine PSAs in New York City—too few to conduct a randomized controlled experiment. For this reason, a quasi-experimental research design was used. The monitor's analysis and report for the PSA BWC experiment will be completed after the NYPD provides the monitor with requested data.

and plainclothes officers working Anti-Crime Unit assignments in the treatment precincts were required to wear the body cameras for a one-year period.

The cluster randomized controlled trial of the body-worn camera pilot measured the impact of the presence of cameras using four sets of outcome measures: civility of police-citizen interactions, policing activity, police lawfulness, and police–community relations. With the exception of police-community relations metrics, the data for the study’s outcome measures were collected through official data systems of the NYPD and the Civilian Complaint Review Board. The primary analyses of these outcomes for the treatment and control groups compared data from the 12 months before (pre-intervention) and after (intervention) the deployment of body-worn cameras in each treatment precinct.

Civility of Police-Citizen Interactions. The available research suggests that having cameras on officers may improve the civility of police-citizen interactions by deterring undesirable behaviors—neither officers nor civilians want to be recorded on video doing something inappropriate or illegal—and prompting desirable, respectful behaviors.² For officers in the treatment and control groups, pre-test and post-test data were collected and analyzed for two “civility/de-escalation” outcomes: officer arrest reports listing force and CCRB complaints.

Policing Activity. In the NYPD pilot, police officers with and without cameras were compared over pre-test and post-test periods to determine whether cameras affect policing activity.³ Metrics included pre-test and post-test counts of complaints by citizens of crime, domestic incident reports, and arrests, summons issued, and stop reports made by police officers.

² E.g., see Barak Ariel, William Farrar, and Alex Sutherland. 2015. “The Effect of Police Body-Worn Cameras on Use of Force and Citizens’ Complaints against the Police: A Randomized Controlled Trial.” *Journal of Quantitative Criminology*, 31: 509–535; Cynthia Lum, Megan Stoltz, Christopher Koper, and Amber Scherer. 2019. “Research on Body-Worn Cameras: What We Know, What We Need to Know.” *Criminology & Public Policy*, 18: 93-118.

³ Some observers suggest that wearing cameras might cause officers to be less active or more reluctant to initiate citizen contacts, instead focusing most of their time on dispatched calls. Police Executive Research Forum. 2014.

Police Lawfulness. Stop reports provided an opportunity to examine whether cameras affect the lawfulness of police interactions with citizens. Each quarter the monitor team reviewed stop reports to assess whether NYPD officers complied with the Constitution and provisions of the *Floyd*, *Ligon*, and *Davis* orders and compared whether the level of compliance differs between camera and non-camera precincts. Random sampling techniques were used to select for review a target number of stop reports each quarter, with the goal of ensuring that after four quarters, a sufficient number of reports were reviewed so they were representative of stop reports made in the 20 pairs of precincts in the experiment. The experimental analyses examined whether the presence of cameras influenced the officers' justifications for the stops, and their subsequent frisks and searches.

Police-Community Relations. To evaluate whether cameras affected police-community relations, two sets of surveys of New York City residents were used: one set conducted prior to the introduction of the cameras and the other set conducted after the body worn cameras were in use for a period of time. The first set of surveys were conducted in Spring 2017, and the second series of surveys were fielded in Fall 2018. The survey methodology was the same for both sets of surveys, with interviews divided equally between treatment precincts and control precincts, allowing the monitor team to assess whether the cameras affect civilian interactions with the NYPD and public attitudes towards the police. Control precincts were included in the survey

Implementing a Body-Worn Camera Program: Recommendations and Lessons Learned. Washington, DC: Police Executive Research Forum. However, a few research studies have suggested that officers wearing cameras are *more likely* to initiate encounters and take enforcement actions than their counterparts without cameras. See, e.g., Justin Ready and Jacob Young. 2015. "The Impact of On-Officer Video Cameras on Police-Citizen Contacts: Findings from a Controlled Experiment in Mesa, AZ." *Journal of Experimental Criminology*, 11: 445-458; Braga, Anthony A., William H. Sousa, James R. Coldren, and Denise Rodriguez. 2018. "The Effects of Body Worn Cameras on Police Activity and Police-Citizen Encounters: A Randomized Controlled Trial." *Journal of Criminal Law and Criminology*, 108: 511 - 538.

design so the monitor team could determine whether any changes in survey results in camera precincts are a result of the introduction of cameras, as opposed to other citywide factors.

To conduct the surveys, the monitor brought on two organizations, Hart Research Associates, and the City University of New York (CUNY) Institute for State and Local Governance (ISLG). Hart Research Associates conducted a telephone survey of residents in the 20 treatment precincts and the 20 control precincts. Recognizing that the persons most impacted by past NYPD stop and frisk activities, particularly young minority men, are not always easy to reach in telephone surveys, the monitor team also assigned the CUNY ISLG to conduct a more targeted in-person survey in five treatment and five control precincts.

Key Evaluation Findings. The main results of the experimental analyses detailed in this technical report include:

- The deployment of body-worn cameras was associated with a statistically significant 38.8% increase in the number of stop reports completed by treatment officers and a statistically significant 21.1% reduction in the CCRB complaints made against treatment officers relative to control officers. The increase in stop reports was driven by more documentation of stops rather than a rise in the number of stops made by NYPD officers equipped with body-worn cameras.
- The implementation of body-worn cameras was not associated with any statistically significant changes in the number of arrests, arrests with force, summonses, domestic incident reports, and citizen crime complaint reports when officers in the treatment precincts were compared to officers in the control precincts.
- Subjects were frisked in similar shares of treatment stops recorded by body-worn cameras and unrecorded control stops (67.1% v. 63.2%, respectively). However, subjects in

treatment stops recorded by body-worn cameras relative to unrecorded control stops were significantly less likely to be searched (26.6% v. 38.9%, respectively), arrested (21.1% v. 31.8%, respectively), and summonsed (1.0% v. 3.9%, respectively). These results suggest that, relative to control officers, officers wearing body cameras increased their documentation of stops that did not involve additional enforcement actions.

- When reviewed by the monitor team, the justifications reported by officers in stop reports for stopping citizens were less likely to be regarded as lawful when officers wore a body worn camera relative to officers in the control group who were not wearing cameras (66.8% v. 78.9%). In stops involving a frisk, the frisk was less likely to be judged by the monitor team as constitutional when compared to frisk conducted by officers not wearing cameras (85.0% v. 94.0%). In stop reports involving a search, the search was somewhat less likely to be judged by the monitor team as constitutional when compared to searches conducted by officers not wearing cameras (85.7% v. 94.4%).⁴ These results suggest that officers wearing cameras were more likely to document questionable stops compared to officers not wearing cameras.
- Analyses of telephone surveys and in-person community surveys taken in treatment and control precincts before and after the deployment of body cameras did not find any meaningful differences in resident perceptions of the police.

Summary Conclusion. The study results suggest that the deployment of body-worn cameras reduced complaints against officers. However, the deployment of body-worn cameras did not reduce use of force during arrests or produce any changes in policing activity. The study analyses detailed in the body of the report also suggest that the placement of body cameras on treatment

⁴ A parallel analysis of NYPD Quality Assessment Division reviews of stop, frisk and search lawfulness supported the conclusions of the monitor team reviews of stop, frisk and search lawfulness.

officers resulted in the increased documentation of stop reports, particularly of those stops that may have involved unlawful police actions. This result is explained by the fact that the use of body cameras make interactions on the street more transparent to NYPD supervisors and outside monitors (e.g., district attorneys, courts, CCRB); officers are thus less inclined to neglect to file stop reports. This increased transparency is one way that body worn cameras could be useful in reducing persistent problems with unreported or unlawful citizen stops. Concerning community perceptions, in the short term, the adoption of body cameras did not change community perceptions of the NYPD in precincts that received the technology relative to precincts that did not receive the technology. Nevertheless, there is strong support among NYC residents to outfit NYPD officers with body cameras and an expectation to view videos of controversial police-citizen encounters when these events occur. Given the demonstrated benefits and absence of harmful outcomes, this study supports not only the use of body-worn cameras by the NYPD, but their use by other departments as well.

I. Evaluation Design: Cluster Randomized Controlled Trial

A. The Body-Worn Camera Pilot Program

The remedial order in the New York City stop and frisk case, *Floyd v. City of New York*, noted the potential benefits of outfitting NYPD officers with body-worn cameras (BWCs). Those possible benefits included creating objective records of stop and frisk encounters, encouraging lawful and respectful police-citizen interaction, alleviating mistrust between the NYPD and the public, and offering a way to help determine the validity of accusations of police misconduct.⁵ The court order directed the NYPD to work with the court-appointed independent monitor to conduct a one-year pilot program to determine whether the benefits of the cameras outweigh their financial, administrative, and other costs, and whether the program should be expanded or terminated. The monitor was charged with establishing procedures for the review of stop recordings by supervisors and senior managers, for preserving stop recordings, and for measuring the effectiveness of body-worn cameras in reducing unconstitutional stops and frisks.

The remedial order further called for the one-year camera pilot to be implemented in the NYPD precinct with the highest number of stops reported in 2012 in each of the five boroughs—identified as the 23, 40, 75, 103, and 120 Precincts. After considerable consultation with representatives from the NYPD’s Risk Management Bureau, the Information Technology Bureau, the Office of the Chief of the Department, and the Office of Management, Analysis and Planning, it was determined that the selection of the five NYPD commands was not the best way to design a rigorous evaluation of the pilot program. First, the precincts with the highest reported number of

⁵ See pages 25 – 28, *Floyd et al. v. City of New York, et al.*, 08 Civ. 1034 (AT), *Ligon, et al., v. City of New York, et al.*, 12 Civ 2274 (AT), and *Davis et al., v. City of New York, et al.*, 10-CV-00699 (AT), United States District Court, Southern District of New York, Opinion and Order, filed August 12, 2013.

stops in 2012 were no longer the precincts with the most stops in 2015 and 2016.⁶ Second, dictating which commands would receive body-worn cameras meant that there could not be a randomized controlled trial evaluation of their utility, in which commands would be randomly assigned to treatment and control conditions.⁷ Without a randomized controlled trial, the monitor and the NYPD would not be able to know for sure the benefits of the cameras. Thus, the monitor team recommended, and the court approved, a modification of the remedial order that required a cluster randomized controlled trial, the components of which are described below.

B. The Design of the Cluster Randomized Controlled Trial

Randomized experimental designs allow researchers to assume that the only systematic difference between the control and treatment groups is an intervention, such as the presence of cameras; thus permitting a clearer assessment of effects of the intervention.⁸ The camera pilot used cluster randomization, a variation of the classic design in which clusters (groups) of subjects, rather than individual subjects, are randomly allocated to treatment and control conditions.⁹ The

⁶ The number of reported stops made by NYPD officers plummeted from 532,911 in 2012 to 22,939 in 2015. The relative ranks of NYPD precincts also shifted. In 2012, the 75 Precinct was ranked 1 with 24,408 reported stops, the 40 Precinct was ranked 3 with 18,276 reported stops, the 103 Precinct was ranked 6 with 12,986 reported stops, the 120 Precinct was ranked 7 with 12,368 reported stops, and the 23 Precinct was ranked 10 with 11,095 reported stops. In 2015, the 75 Precinct was ranked 13 with 543 reported stops, the 40 Precinct was ranked 2 with 927 reported stops, the 103 Precinct was ranked 51 with 160 reported stops, the 120 Precinct was ranked 11 with 557 reported stops, and the 23 Precinct was ranked 23 with 340 reported stops.

⁷ One of the key benefits of using a randomized experimental design is the ability to produce a high degree of confidence in the observed effects. This is ultimately achieved through greater control of extraneous factors or threats to internal validity. It is important to move from correlation closer to causality; this is what well-executed and high-quality research designs allow. See Donald T. Campbell and Julian C. Stanley. 1966. *Experimental and Quasi-Experimental Designs for Research*. Chicago: Rand McNally.

⁸ William R. Shadish, Thomas D. Cook, and Donald T. Campbell. 2002. *Experimental and Quasi-Experimental Designs for Generalized Causal Inference*. Boston: Houghton Mifflin.

⁹ Frederick Mosteller and Robert F. Boruch, eds. 2002. *Evidence Matters: Randomized Trials in Education Research*. Washington, DC: Brookings Institution Press; David M. Murray. 1998. *Design and Analysis of Group-Randomized Trials*. New York: Oxford University Press.

NYPD experimental evaluation was designed to randomly allocate body-worn cameras by precinct to the treatment (with cameras) or comparison (without cameras) groups.

The experimental design helped the evaluation control for treatment “contamination” across individual officers and civilians. Other studies suggest officers with body-worn cameras influence the behavior of officers without cameras if they work simultaneously in the same area and interact with the same people.¹⁰ Similarly, the exposure to body-worn cameras through a subset of officers in an area could influence how civilians in that area interact with the police more broadly. Such contamination undermines the ability to detect intervention effects because both treatment and control officers (and civilians) could be modifying their behaviors due to the presence of cameras. Randomly allocating groups of officers who work in distinct precincts to have cameras or not limits the contamination problem.

The random allocation of units of analysis smaller than precincts, such as sectors within precincts, was considered, but ultimately rejected. Depending on calls for service and other demands for police service, patrol officers sometimes work in other sectors within precincts, and this cross-sector work would cause contamination issues. For the NYPD pilot program, rather than ranking eligible precincts by the number of stop reports, precincts were ranked according to the 2012-2015 mean yearly counts of complaints handled by New York City’s Civilian Complaint Review Board (CCRB). This was thought to be a better way to rank precincts because of the dramatic decline in reported stops between 2012 and 2015. Moreover, a 2012 study by the CCRB showed that the police precincts with the highest number of civilian complaints against officers

¹⁰ Barak Ariel, Alex Sutherland, and Lawrence W. Sherman. 2019. “Preventing Treatment Spillover Contamination in Criminological Field Experiments: The Case of Body-Worn Police Cameras.” *Journal of Experimental Criminology*, 15: 569–591; Anthony A. Braga, Lisa M. Barao, Gregory Zimmerman, Stephen Douglas, and Keller Sheppard. 2020. “Measuring the Direct and Spillover Effects of Body Worn Cameras on the Civility of Police-Citizen Encounters and Police Work Activities.” *Journal of Quantitative Criminology*, available at: <https://doi.org/10.1007/s10940-019-09434-9>

had the highest stop rates.¹¹ The top-ranked 40 precincts were then matched into 20 pairs based on CCRB counts, crime, police activity, and neighborhood characteristics. In each pair, one precinct was randomly assigned to receive cameras and one to the comparison group.

Identifying a well-defined group of officers is important to ensure an “apples to apples” comparison of officers in the treatment and control groups. To do so, it was decided to select all officers assigned to a specific shift or unit that would see the most citizens interactions. Specifically, cameras were provided to all uniformed patrol officers working the third platoon (3:00 pm to midnight shift) in the treatment precincts. Cameras were also provided to plainclothes Anti-Crime Unit officers working a majority of their shift on the third platoon (i.e., tours of duty beginning between 12:00 pm and 8:00 pm).¹² The comparison group in the control precincts was composed of uniformed patrol officers working the third platoon and plainclothes officers in Anti-Crime Units working a majority of their shift on the third platoon.

C. Precincts Excluded from the Cluster Randomized Controlled Trial

Six precincts were excluded from the cluster randomized controlled trial. Prior to this court-ordered pilot program, the NYPD conducted a small-scale voluntary body-worn camera program (not ordered by the court) that began in December 2014, in which 54 officers in five precincts and one housing Police Service Area (PSA) volunteered to wear cameras. This trial ended on March 31, 2016, and was intended to test body-worn camera equipment, enhance understanding of the information technology infrastructure necessary to support their use, and gain insight on other matters of policy and practical implementation. The NYPD ran this small pilot in

¹¹ See <http://www.nydailynews.com/new-york/brooklyn/complaints-cops-mirror-stop-and-frisk-numbers-article-1.1388735>. (Accessed May 30, 2015). For all NYPD precincts, 2012 precinct CCRB counts and 2012 precinct stop counts were highly correlated (Pearson’s $r = .84, p < .000$).

¹² On June 15, 2020, the NYPD disbanded the plainclothes Anti-Crime Units and reassigned approximately 600 officers to uniformed patrol and other responsibilities. See <https://www.nytimes.com/2020/06/15/nyregion/nypd-plainclothes-cops.html>. (Accessed June 28, 2020).

the 23, 40, 75, 103, and 120 Precincts. Prior use of cameras in those precincts excluded them from the experiment, owing to contamination concerns. Finally, the 22 Precinct serving Central Park was excluded because it has relatively low levels of police activity and an almost non-existent residential population. There is also no natural comparison precinct for Central Park.

As Table 1 shows, all five boroughs had at least one precinct eligible for inclusion in the randomized field experiment.

Table 1. Eligibility of NYPD Precincts for Inclusion in BWC Experiment

	<u>Eligible</u>	<u>Not Eligible</u>	<u>Total</u>
Manhattan	20	2	22
Bronx	11	1	12
Brooklyn	22	1	23
Queens	15	1	16
Staten Island	3	1	4
Total	71	6	77

D. Choosing the 40 Treatment and Control Precincts

The seventy-one eligible precincts were ranked according to 2012-2015 mean yearly counts of CCRB complaints (mean = 61.1, median = 50.5, range = 17.8 to 160.3).¹³ The 2012-2015 mean CCRB complaint rate per 100,000 residents was considered as a possible ranking metric of these 71 precincts. Ultimately, this measure was not used because precincts with lower residential populations and higher levels of commercial and recreational activity often had artificially high ranks. It was decided to use raw complaint *counts* instead of complaint *rates*.

¹³ Work on the design for the randomized controlled trial was completed over the course of 2016. Precincts within matched pairs were randomized in July 2016 so planning for officer training, information technology upgrades in the selected precincts, and other implementation requirements could proceed. The ranking used 2012-2015 full-year CCRB data. However, as presented below, full-year 2015-2016 CCRB data were included in the assessment of treatment and control group balance prior to the roll-out of the cameras in April 2017.

For 2012-2015 CCRB mean yearly counts, the top 40 precincts chosen for inclusion in the trial had a mean = 80.9, median = 76.5, and range = 49.0 to 160.3.¹⁴ The 31 precincts omitted from the trial had a mean = 35.6, median = 36.8, and range = 17.8 to 48.8. In sum, CCRB complaints were a little more than two times higher in the top 40 precincts selected for the trial relative to CCRB complaints in the 31 precincts excluded. As Table 2 shows, all five boroughs had at least one eligible precinct in the top 40 precincts ranked by yearly mean CCRB counts.

Table 2. The Inclusion of Eligible NYPD Precincts in Top 40 CCRB Yearly Mean Counts by Borough

	<u>Top 40</u>	<u>Not Top 40</u>	<u>Total</u>
Manhattan	10	10	20
Bronx	9	2	11
Brooklyn	13	9	22
Queens	7	8	15
Staten Island	1	2	3
Total	40	31	71

E. Matching and Randomization

Simple, but deliberate, matching exercises ensure that any peculiarities found in one sample will most likely occur in the other as well.¹⁵ Precincts were matched into pairs within boroughs by first comparing mean yearly CCRB counts to ensure that treatment and control groups would be balanced on this key outcome measure. Other relevant variables were then considered.

These variables included 2012-2015 mean yearly arrest counts, 2012-2015 mean yearly arrest

¹⁴ In July 2013, the 121 Precinct was formed from areas in the 120 and 122 Precincts in Staten Island. Unfortunately, data for the newly formed precinct was not available in 2012 and 2013. CCRB complaints in these areas were included in the 120 and 122 Precinct counts in 2012 and 2013. Therefore, only 2014-2015 CCRB counts were considered for these three precincts rather than the mean 2012-2015 CCRB counts.

¹⁵ Hubert Blalock. 1979. *Social Statistics*. Revised second edition. New York, NY: McGraw-Hill; Peter H. Rossi, Mark Lipsey, and Howard Freeman. 2006. *Evaluation: A Systematic Approach*. Seventh edition. Newbury Park, CA: Sage Publications. Research shows that matching (clusters) in community-level trials prior to random assignment provides efficiency gains. See Laurence S. Freedman, Sylvan B. Green, and David P. Byar. 1990. "Assessing the Gain in Efficiency Due to Matching in a Community Intervention Study." *Statistics in Medicine*, 9: 943-952.

counts where force was used, 2012-2015 mean yearly major crime counts,¹⁶ 2012-2015 mean yearly counts of sworn officers, 2014-2015 mean 911 calls for service counts,¹⁷ 2016 New York City Housing Authority resident population data, and an overall concentrated disadvantage index for the neighborhoods that comprised the precincts, based on census block data from the 2013 U.S. Census Bureau's American Community Survey.¹⁸

These data were supplemented by information regarding neighborhood characteristics and dynamics that might not appear in the data. With the support of the NYPD, Professor Braga, who led the design effort for the monitor team, visited all 77 precincts to develop qualitative information relevant to the matching. The matching process yielded 20 similar pairs.¹⁹

F. Randomization of Precincts and Assessment of Cluster Balance

A randomization algorithm was used to determine randomly which precinct within each pair would receive the body-worn cameras. The precincts not selected from each of the pairs were control precincts. Table 3 presents the camera (treatment) and no-camera (control) precincts from each of the matched pairs. All five boroughs had at least one precinct included in the camera group. Manhattan had five camera precincts (13, 18, 25, 30, and 34), Bronx had five camera

¹⁶ The seven major crime categories reported by the NYPD are: murder, rape, robbery, felony assault, burglary, grand larceny, and grand larceny auto.

¹⁷ The NYPD 911 call center transitioned to a new computer-aided dispatch (CAD) system in May 2013. The new CAD system changed the 911 calls for service counting procedures. Due to inconsistent counts over time, the monitor team was limited to using 2014 and 2015, the most recent two years of calls for service data available.

¹⁸ The concentrated disadvantage index is a standardized index composed of the percentage of residents who are Black, the percentage of residents receiving public assistance, the percentage of families living below the poverty line, the percentage of female-headed households with children under the age of 18, and the percentage of unemployed residents (as measured by the percentage of men over the age 16 who did not work in the previous year). For instance, see Robert J. Sampson, Stephen W. Raudenbush, and Felton Earls. 1997. "Neighborhoods and Violent Crime: A Multilevel Study of Collective Efficacy." *Science*, 277: 918 – 924.

¹⁹ In general, the most appropriate precinct matches were found within boroughs. There were two exceptions. One Bronx precinct was matched to a precinct in Brooklyn, and one precinct in Queens was matched to a precinct in Staten Island.

precincts (42, 43, 44, 47, and 48), Brooklyn had six camera precincts (60, 63, 67, 71, 79, and 83), Queens had three camera precincts (102, 105, and 115), and Staten Island had one camera precinct (121).

Implementing a body-worn camera pilot program in a very large police department that provides services to citizens in a diverse set of communities across a sprawling metropolitan area is a very complex process. For the NYPD, it required coordinating the training of line-level officers and supervisors in the policies governing the camera program and technological operations, ensuring the appropriate information technology resources were available in each precinct to facilitate uploading acquired video from cameras, and addressing other matters of implementation. To accommodate these needs, the NYPD used a staggered roll-out of the cameras over seven months beginning in April 2017. Despite varying start dates, all treatment precincts used the cameras for one full year. Table 3 presents the one-year intervention periods for each of the 20 pairs of precincts included in the cluster randomized controlled trial.

Table 3. Treatment Precincts, Control Precincts, and Intervention Periods for 20 Matched Pairs

Bold = Treatment precinct

<u>Pair</u>	<u>Intervention Period Observed</u>	
Pair 1 – Precinct 6, Precinct 13	Begin – October 18, 2017	End – October 18, 2018
Pair 2 – Precinct 14, Precinct 18	Begin – October 31, 2017	End – October 31, 2018
Pair 3 – Precinct 25 , Precinct 28	Begin – August 24, 2017	End – August 24, 2018
Pair 4 – Precinct 30 , Precinct 32	Begin – October 16, 2017	End – October 16, 2018
Pair 5 – Precinct 33, Precinct 34	Begin – April 24, 2017	End – April 24, 2018
Pair 6 – Precinct 41, Precinct 42	Begin – July 17, 2017	End – July 17, 2018
Pair 7 – Precinct 43 , Precinct 46	Begin – August 28, 2017	End – August 28, 2018
Pair 8 – Precinct 47 , Precinct 52	Begin – July 24, 2017	End – July 24, 2018
Pair 9 – Precinct 48 , Precinct 49	Begin – July 13, 2017	End – July 13, 2018
Pair 10 – Precinct 44 , Precinct 73	Begin – September 25, 2017	End – September 25, 2018
Pair 11 – Precinct 60 , Precinct 83	Begin – June 7, 2017	End – June 7, 2018
Pair 12 – Precinct 62, Precinct 63	Begin – September 13, 2017	End – September 13, 2018
Pair 13 – Precinct 67 , Precinct 70	Begin – November 6, 2017	End – November 6, 2018
Pair 14 – Precinct 69, Precinct 72	Begin – June 20, 2017	End – June 20, 2018
Pair 15 – Precinct 71 , Precinct 77	Begin – August 14, 2017	End – August 14, 2018

Pair 16 – Precinct 79 , Precinct 81	Begin – August 8, 2017	End – August 8, 2018
Pair 17 – Precinct 102 , Precinct 104	Begin – October 10, 2017	End – October 10, 2018
Pair 18 – Precinct 105 , Precinct 113	Begin – October 23, 2017	End – October 23, 2018
Pair 19 – Precinct 114, Precinct 115	Begin – October 3, 2017	End – October 3, 2018
Pair 20 – Precinct 101, Precinct 121	Begin – November 14, 2017	End – November 14, 2018

This evaluation was implemented in the context of a larger effort by the NYPD to outfit all uniformed patrol officers and all officers assigned to specific specialized units with BWCs between December 2017 and August 2019.²⁰ This larger BWC implementation was explicitly designed not to threaten the integrity of the treatment and control groups during the one-year intervention period. The citywide effort to place BWCs on all uniformed NYPD officers commenced with the 37 precincts not included in the cluster randomized experiment. The placement of BWCs on eligible specialized unit officers did not begin until March 2019, after the last matched pair of precincts completed the one-year experimental intervention period (November 2018). As matched pairs completed the one-year intervention period, all uniformed patrol and Anti-Crime Unit officers in the control precincts and non-third platoon uniformed patrol officers in the treatment precincts were then eligible to be outfitted with BWCs during the larger deployment of cameras.

Table 4 compares the treatment and control precincts based on selected police, crime, and neighborhood characteristics for 2015-2017, prior to body-worn camera assignment. The results of these comparisons (using the means of these characteristics), shown in Table 4, show that the treatment and control precincts were similar, all having small mean differences.²¹ Treatment and

²⁰ <https://www1.nyc.gov/site/nypd/about/about-nypd/equipment-tech/body-worn-cameras.page> (accessed July 12, 2020).

²¹ Social science convention was followed in referring to small mean differences as those that are less than .20 standard deviations. While randomization by design should mean that treatment and control groups are on average comparable, there is always the chance that some differences will emerge. Randomization does not ensure perfect comparability in a single experiment. What matters is how different the groups are on pre-existing differences. As such, statisticians recommend using a comparison of average differences, like a standardized effect size, rather than a test statistic and *p*-value. See Kosuke Imai, Gary King, and Elizabeth A. Stuart. 2008. “Misunderstandings between Experimentalists and Observationalists about Causal Inference.” *Journal of The Royal Statistical Society: Series A (Statistics in Society)*, 171: 481-502.

control precincts were also compared using two-sample Kolmogorov-Smirnov (K-S) tests for equality of distribution functions. K-S tests are used to compare the characteristics of the distributions of two samples of data to determine whether the samples are significantly different from each other. These distribution comparisons suggested that the treatment and control precincts were similar in their joint distributions (see Table 4). These comparisons indicate that the matching and randomization procedure generated balanced treatment and control clusters. Although conditions varied within precincts, the balanced clusters helped to ensure that the camera and control officers worked in broadly similar neighborhood, crime, and policing contexts.

Table 4. Comparison of Treatment and Control Precinct Characteristics

	Treatment <u>Mean</u>	Control <u>Mean</u>	Std. Mean <u>Difference</u>	Combined <u>K-S D</u>
Population	115,557.2	102,705.1	.143	.250
NYCHA population	4,986.2	4,609.2	.031	.200
Concentrated disadvantage	.247	.409	-.077	.250
Officers	228.5	215.9	.118	.200
Major crimes	1,567.6	1,413.4	.161	.250
Arrests	4,878.1	4,820.9	.016	.300
Arrests w/force	63.6	66.9	-.046	.250
911 calls	72,730.4	70,269.5	.064	.250
CCRB	67.4	67.5	-.001	.350

N= 40 (20 treatment precincts, 20 control precincts)

Notes: The standardized mean differences are Beta coefficients generated by ordinary least squares regressions of each precinct characteristic on group assignment. Meaningful differences between treatment and control groups would be noted by standardized mean differences in excess of $|\text{.20}|$. As Table 4 indicates, no standardized mean differences exceeded this benchmark. The distributions of treatment and control precinct characteristics were also compared using two-sample Kolmogorov-Smirnov (K-S) tests for equality of distribution functions. Values closer to 0 indicate more comparability between distributions.

G. Comparability of NYPD Officers in Treatment and Control Precincts

The NYPD maintained records of the monthly rosters of all third platoon patrol officers and Anti-Crime Unit officers in the twenty pairs of treatment and control precincts during their

respective one-year intervention periods. At the end of the intervention period, these rosters were provided to the monitor team. It is important to note here that NYPD precincts experience natural shifts over time in the stock and flow of officers into and out of third platoon and Anti-Crime Unit assignments for a variety of reasons, including changing to other work shifts within precincts, earning promotions, moving to other precincts, going on leave due to injury or health reasons, retire from service, and being terminated. The NYPD provided data on N=3,889 officers who worked uniformed third platoon (N = 3,495, 89.9%) or applicable plainclothes Anti-Crime (N = 394, 10.1%) assignments and who appeared on the monthly precinct rosters during the one-year intervention period in twenty-matched precincts. The treatment group was comprised of N = 1,991 officers (51.2%) and the control group was comprised on N = 1,898 (48.8%) officers.

Attrition represents a threat to the internal validity of randomized experiments, as it introduces bias into the analysis of experimental data.²² Table 5 reveals that there were nearly identical attrition rates for the treatment and control groups.²³ Officers in the treatment and control groups remained in these assignments, on average, for more than eight months. Nearly 72% of the officers in each group were observed for at least six months and some 46% of the officers in each group was observed on NYPD precinct rosters for the full 12-month intervention period. The NYPD provided termination dates for the officers but did not note the reason for termination (e.g., retirement, fired). Only 8% of officers who were not observed for the full 12 months were terminated (167 out of 2,092; 84 control and 83 treatment). It is assumed that the other officers were not observed for the full 12 months because they received a new assignment, went off active

²² William R. Shadish, Thomas D. Cook, and Donald T. Campbell. 2002. *Experimental and Quasi-Experimental Designs for Generalized Causal Inference*. Boston: Houghton Mifflin.

²³ The attrition rate reported in the control precincts represents the natural stock and flow of NYPD officers in the third platoon and Anti-Crime Unit assignments in the absence of the body-worn camera intervention. As such, the matching attrition rates between treatment and control precincts suggests that the implementation of the body-worn camera did not result in officers changing assignments to avoid wearing the cameras.

duty due injury, or some other reason. NYPD did not provide data on work assignment changes for this small sample of officers.

As anticipated, the precinct roster data suggested that there was very little contamination between treatment and control conditions. Only 18 officers (0.5% of 3,889) appeared in both the treatment group (third platoon or Anti-Crime assignment in treatment precinct) and control group (third platoon or Anti-Crime assignment in control precinct). During the intervention period, the movement observed included 12 officers moving from control to treatment conditions and six officers moving from treatment to control conditions.

Table 5. Months Observed in Treatment and Control Precincts During One Year Intervention Period

	<u>Control</u>	<u>Treatment</u>
1 month	6.7% (128)	7.6% (151)
2 months	8.4% (159)	8.7% (173)
3 months	5.1% (97)	5.1% (102)
4 months	4.2% (79)	3.9% (78)
5 months	3.6% (69)	3.0% (60)
6 months	5.3% (101)	4.9% (97)
7 months	4.6% (87)	3.5% (69)
8 months	3.4% (65)	3.8% (75)
9 months	4.7% (89)	4.9% (98)
10 months	3.6% (69)	3.8% (76)
11 months	4.3% (81)	4.5% (89)
12 months	46.0% (874)	46.4% (923)
Total	100.0% (1,898)	100.0% (1,991)
Mean	8.43	8.43
Standard deviation	4.08	4.13

Standardized mean difference = -.0006

Notes: The standardized mean difference is a Beta coefficient generated by an ordinary least squares regression of intervention observation time on group assignment.

Part of ensuring the validity of the cluster randomized controlled trial design entails testing whether officers involved in the camera and control groups possess similar characteristics.

Comparisons of group characteristics (Table 6) did not reveal any meaningful average differences in officer rank, sex, race/ethnicity, age, and years on the job, for officers included in the treatment and control groups. An examination of the distribution of the data from the two groups of officers (treatment and control) also indicate that the distributions of the two sets of precincts are similar. Officers in the treatment and control groups also did not substantively differ in their average work activities, arrests that involved use of force, and CCRB complaints during the 12 months prior to their inclusion in the cluster randomized controlled trial. Taken as a whole, these analyses suggest that randomization was achieved, as the process generated balanced clusters and units of analysis.

Table 6. Comparison of Pre-Intervention Outcome Measures and Characteristics of NYPD Patrol Officers Working the Third Platoon and Anti-Crime Units in Treatment and Control Precincts

	<u>Treatment</u>	<u>Control</u>	<u>Std. Mean Difference</u>	<u>Combined K-S D</u>
Officer sex				
% Male	84.2%	84.0%	-.003	.002
% Female	15.8%	16.0%		
Officer race / ethnicity				
% White	47.2%	47.0%	.002	.002
% Hispanic	30.7%	28.9%	.020	
% Black	13.2%	14.8%	-.024	
% Asian / other	8.9%	9.3%	-.007	
Officer assignment				
% Third platoon patrol	89.7%	90.1%	.007	.004
% Anti-crime	10.3%	9.9%		
Officer rank				
% Police officer	90.9%	90.3%	-.010	.006
% Sergeant	9.1%	9.7%		
	<i>Mean (SD)</i>	<i>Mean (SD)</i>		
Officer age	29.82 (6.55)	29.85 (6.59)	-.002	.011
Officer years on the job	4.33 (3.99)	4.41 (5.21)	-.007	.028
Stop Reports	.72 (1.76)	.73 (1.81)	-.003	.006
Arrests	10.39 (11.60)	10.67 (12.37)	-.012	.021

Arrests with force	.13 (.46)	.15 (.47)	-.022	.017
Summons	8.85 (17.13)	8.18 (14.11)	.021	.033
Domestic incident reports	.32 (2.31)	.23 (1.78)	.020	.024
Crime complaint reports	34.39 (29.99)	33.36 (29.68)	.017	.024
CCRB complaints	.26 (.62)	.27 (.63)	-.011	.009

N = 3,889 (1,991 treatment officers, 1,898 control officers)

Notes: SD = Standard deviation. The standardized mean differences are Beta coefficients generated by ordinary least squares regressions of each precinct characteristic on group assignment. The pre-intervention outcome measures are based on 12 month counts. Meaningful differences between treatment and control groups would be noted by standardized mean differences in excess of |.20|. The distributions of treatment and control precinct characteristics were also compared using two-sample Kolmogorov-Smirnov (K-S) tests for equality of distribution functions. Values closer to 0 indicate more comparability between distributions.

II. Civility of Police-Citizen Encounters and Policing Activity Outcomes

A. Analytical Approach

A little more than half of NYPD officers (N=2,092, 53.4% of 3,889) in the treatment and control groups did not remain in those assignments for the full one-year intervention period. However, they were in these assignments, on average, for more than eight months and the observed attrition of officers was balanced in the treatment and control groups. As such, we used intention-to-treat (ITT) analyses based on the initial random assignment to treatment rather than analyses of the treatment as actually received. This means that unless an officer was terminated from service, all treatment and control officers were observed for a full one-year period even if they were assigned to an experimental precinct for less than twelve months. ITT analyses provide fair comparisons between treatment and control groups because it avoids the bias associated with the

non-random loss of study participants.²⁴ As such, all N=1,991 treatment officers and N=1,898 control officers were included in our analyses.

Encounter civility and policing activity outcomes were measured for officers in both treatment and control groups during one-year pre-intervention (prior to the adoption of cameras by treatment officers) and intervention (treatment officers wearing cameras) periods. Count data represent the number of times that an event occurs within a specific time frame (e.g., the number of stops conducted by an officer during a one-year time period). As Table 6 suggests, these outcome measures were distributed in the form of event counts. There are well-documented problems associated with treating event count variables, which are discrete, as continuous realizations of a normal data generating process.²⁵ As such, methods such as standard mean difference tests and ordinary least squares regression that assume population normality of the dependent variable should not be used to analyze count data.²⁶ Rather, Poisson regression is generally used to estimate models of the event counts.²⁷ The Poisson regression model has the defining characteristic that the conditional mean of the outcome is equal to the conditional variance. However, in practice, the conditional variance often exceeds the conditional mean. We used robust standard errors to adjust for overdispersion in our Poisson regression models.²⁸

²⁴ Sally Hollis and Fiona Campbell. 1999. “What is Meant by Intention to Treat Analysis? Survey of Published Randomized Controlled Trials.” *British Medical Journal*, 319: 670-4.

²⁵ Gary King. 1989. “Event Count Models for International Relations: Generalizations and Applications.” *International Studies Quarterly*, 33: 123–147

²⁶ William Gardner, Edward Mulvey, and Esther Shaw. 1995. “Regression Analyses of Counts and Rates: Poisson, Overdispersed Poisson, and Negative Binomial Models.” *Psychological Bulletin*, 118: 392-404.

²⁷ J. Scott Long. 1997. *Regression Models for Categorical and Limited Dependent Variables*. Advanced Quantitative Techniques in the Social Sciences, Volume 7. Thousand Oaks, CA: Sage Publications.

²⁸ Richard Berk and John MacDonald. 2008. “Overdispersion and Poisson Regression.” *Journal of Quantitative Criminology*, 24: 269 – 284. As a robustness check, all models were also estimated with negative binomial regressions. The results presented below do not change.

The impact of body-worn cameras on treatment officer outcomes relative to control officer outcomes was calculated via the difference-in-differences (DID) estimator. The DID estimates the difference in treatment officers' post-intervention outcomes at time t compared to their pre-intervention outcomes, relative to the same difference for the control officers in the experiment.²⁹ As such, our Poisson regression model was as follows:

$$(1) \ln Y_{it} = \beta_0 + \beta_1 \text{Group}_i + \beta_2 \text{Period}_t + \beta_3 \text{Group}_i \times \text{Period}_t + u_i$$

In this model, variation in the officer outcome variable (Y_{it}) is a function of a series of predictor variables. The regressor Group_i is a dummy variable identifying whether an officer was in the treatment group (1) or not (0). The omitted group comprises control officers in the experiment. The regressor Period_t is a dummy variable for whether the month is during the intervention period (1) or during the pre-intervention period (0). The coefficient β_3 , conforming to the product of the group and period dummy variables, is the DID estimate of the effect of body-worn cameras on selected officer outcomes for treatment officers relative to control officers.

The units of analysis in the DID panel design were officer-observation periods. As described above, outcomes for each officer were observed for one-year pre-intervention and one-year intervention periods, bringing the total units of analysis included in our statistical models to $N = 3,982$ treatment units (1,991 treatment officers * 2 observations) and $N = 3,796$ control units (1,898 control officers * 2 observations). Robust standard errors clustered by precinct pair were used to address heteroskedasticity in the model's unexplained variation over pre-intervention and intervention time periods.³⁰ The parameter estimates were expressed as incidence rate ratios (IRR)

²⁹ David Card and Alan Krueger. 1994. "Minimum Wages and Employment: A Case Study of the Fast-Food industry in New Jersey and Pennsylvania." *American Economic Review*, 84: 772-793.

³⁰ Following convention on statistical analysis of cluster randomized controlled trials, we clustered standard errors on groups (matched pairs) using STATA statistical software. See William H. Rogers. 1993. "Regression standard errors in clustered samples." *Stata Technical Bulletin*, 13: 19-23. This approach is advantageous because it allows the errors to vary differently between clusters, rather than assume they are fixed. An alternative approach would be to estimate

(i.e., exponentiated coefficients), or the percentage change in the count.³¹ Following convention, a two-tailed 5% level of significance was selected as the benchmark to reject the null hypothesis of “no difference.”

The statistical power of an experimental design represents the probability that a statistical test will reject the null hypothesis (suggesting no difference between treatment and control groups on a selected outcome) when a specific alternative hypothesis is actually true (suggesting a bona fide difference between treatment and control groups on a selected outcome).³² As statistical power increases, the likelihood of making a Type II error (failing to reject a true null hypothesis of no difference between treatment and control groups) decreases. Statistical power estimates range from 0 to 1, with a .80 power level to detect a small effect size (Cohen’s $d = .20$) generally recognized as a desirable level of design sensitivity to detect program impacts in experimental research.³³ In cluster randomized controlled trials, statistical power is a function of the number of clusters and the cluster size; the degree to which outcomes are correlated within clusters also needs to be considered (known as the intraclass correlation coefficient).³⁴ With some $N=7,778$ observations nested within 20 cluster pairs, our cluster randomized controlled trial had more than

with the model with a group-level random effect. This alternative approach, however, assumes that the clusters are random draws of the population of precincts in NYC, when in fact the study was set up to provide an apples-to-apples comparison of the impact of body-worn cameras on outcomes in precincts with the highest levels of interactions between the NYPD and civilians. See Michael J. Campbell, Allan Donner, and Neil Klar. 2007. “Developments in Cluster Randomized Trials and Statistics in Medicine.” *Statistics in Medicine*, 26: 2-19.

³¹ For instance, an IRR = 1.10 would represent a ten percent increase in the outcome counts and an IRR = 0.90 would represent a ten percent decrease in the outcome counts for the treatment officers relative to the control officers when pre-test and post-test counts are compared.

³² Mark W. Lipsey. 1990. *Design Sensitivity: Statistical Power for Experimental Research*. Thousand Oaks, CA: Sage Publications.

³³ Jacob Cohen. 1988. *Statistical Power Analysis for the Behavioral Sciences*. Second edition. Hillsdale, NJ: Lawrence Erlbaum.

³⁴ Karla Hemming, Sandra Eldridge, Gordon Forbes, and Charles Weijer. 2017. “How to Design Efficient Cluster Randomised Trials.” *British Medical Journal*, 358: j3064.

adequate statistical power to detect small group differences in pre-intervention and intervention outcomes. For instance, our design had a statistical power of .89 ($\alpha = .05$) to detect small differences in stop reports and statistical power of .92 ($\alpha = .05$) to detect small differences in CCRB complaints.

B. Results

Table 7 presents the DID estimator results of the panel Poisson regression models comparing pre-intervention and intervention civility of police-citizen encounters and policing activities outcomes for treatment officers relative to control officers. Controlling for group and period, the body-worn camera intervention was not associated with any statistically significant changes in the number of arrests, arrests with force, summonses, domestic incident reports, and citizen crime complaint reports.³⁵ However, controlling for group and period, the body-worn camera intervention was associated with a statistically significant 38.8% increase in the number of stop reports submitted by NYPD officers and a statistically significant 21.1% reduction in the CCRB complaints made against police officers ($p < .05$ for both outcomes).

The robustness of these findings was assessed by using two alternate model specifications. First, the DID panel Poisson regression model was re-estimated with precinct pair fixed effects included and robust standard errors clustered by individual officers (see Appendix 1). Second, OLS regressions were used to calculate Cohen's d standardized mean differences for treatment officer outcomes relative to control officer outcomes during the intervention period, with associated t -tests and p -values were estimated using robust standard errors clustered by precinct (see Appendix 2). The evaluation findings did not change with these alternate specifications: the

³⁵ Controlling for group (whether an officer is in the treatment group or control group) and period (whether the outcome is measured during the pre-intervention or intervention period), allows the DID estimator to calculate the relative difference in outcomes associated with being a BWC treatment officer as compared to being a control officer during the intervention period as compared to the pre-intervention period.

placement of body worn cameras generated a statistically significant increase in stop reports submitted by NYPD officers and a statistically significant reduction in CCRB complaints against NYPD officers. Null findings were reported for the other outcome measures (number of arrests, arrests with force, summonses, domestic incident reports, and citizen crime complaint reports) using these two differing analytical approaches.

Table 7. The Effects of Body Worn Cameras on Selected Policing Activity and Encounter Civility Outcomes

	Stop Reports <u>IRR (RSE)</u>	Arrests <u>IRR (RSE)</u>	Arrests with Force <u>IRR (RSE)</u>	Summons <u>IRR (RSE)</u>	Domestic Incidents <u>IRR (RSE)</u>	Crime Complaints <u>IRR (RSE)</u>	CCRB Complaints <u>IRR (RSE)</u>
Impact (Group X Intervention)	1.388 (.134)*	1.052 (.071)	1.019 (.163)	.931 (.156)	.631 (.256)	.997 (.045)	.789 (.078)*
Group (1 = Treatment)	.987 (.149)	.974 (.081)	.867 (.103)	1.082 (.157)	1.356 (.600)	1.031 (.045)	.949 (.111)
Period (1 = Intervention)	.951 (.075)	1.053 (.082)	1.149 (.134)	.661 (.067)*	2.382 (.588)*	1.146 (.038)*	1.349 (.111)*
Constant	.726 (.089)*	10.665 (.787)*	.151 (.016)*	8.176 (.955)*	.233 (.068)*	33.357 (1.763)*	.268 (.028)*
N	7,778	7,778	7,778	7,778	7,778	7,778	7,778
Log pseudolikelihood	-11789.542	-55903.757	-3647.082	-63264.262	-10906.364	-126345.410	-5472.451
Wald X^2 ($df=3$)	22.39*	7.751	3.40	56.71*	50.13*	20.75*	14.88*

* p < .05

Note: Robust standard errors clustered by matched pairs. IRR = Incidence Rate Ratio. RSE = Robust Standard Error.

III. Police Lawfulness Outcomes

Body worn cameras have been suggested as a potentially effective approach to enhancing the constitutionality of officer actions while performing their law enforcement duties.³⁶ While these suggested benefits were a significant part of the push for the placement of body worn cameras on officers, a recent systematic review of the available program evaluation evidence concluded that we know little about the impacts of the technology on police lawfulness beyond speculation.³⁷ In this evaluation, the availability of NYPD stop reports allowed for an analysis to consider whether cameras impact the constitutionality of police encounters with citizens. Professor James McCabe of Sacred Heart University and other monitor team members developed a stratified random sampling methodology, described below, to select representative samples of NYPD stop reports. The NYPD Quality Assurance Division (QAD) provided copies of the sampled reports that included narratives completed by third platoon officers and Anti-Crime officers during the 12-month intervention periods in the treatment and control precincts.

A. Sample Selection Methodology

Each quarter, the NYPD QAD sends the monitor team a list of all audits conducted on 131 commands' stop reports during the previous quarter. The list of 131 commands is stratified to ensure that stop reports in the treatment and control precincts are adequately represented when commands are randomly selected each quarter. The random selection of commands to be audited by the monitor team was guided by the steps outlined below. First, to ensure that the monitor team

³⁶ Jay Stanley. 2015. *Police Body-Mounted Cameras: With Right Policies in Place, A Win for All*. New York: American Civil Liberties Union.

³⁷ Cynthia Lum, Megan Stoltz, Christopher Koper, and Amber Scherer. 2019. "Research on Body-Worn Cameras: What We Know, What We Need to Know." *Criminology & Public Policy*, 18: 93-118.

could assess the lawfulness of a representative annual group of NYPD stop encounters, a statistical power analysis determined that a yearly sample of at least 1,200 stop reports was required. These 1,200 stop reports were selected on a rolling quarterly basis with a sample of at least 300 stop reports identified each quarter. This approach allowed sufficient numbers of cases to inform decision-making on compliance and to provide timely feedback to the NYPD and QAD auditors on the accuracy of their own internal assessments.

Second, selecting stop reports in aggregate by command allowed the monitor team to evaluate the overall stop reporting process from report preparation, through the command's self-inspection process, to the final audits done by QAD. Using the command as the sampling unit allowed the monitor team to identify a representative sample of stop reports and command self-inspections. This permitted a more global view of the entire process. Third, selecting a simple random number of stop reports would have been overly burdensome. Each stop report selected requires the NYPD to produce the officer's Activity Log entry on that stop as well as the Intergraph Computer Aided Dispatch System (ICAD) printout. Assembly of these varied data sources is a difficult and time-consuming task. However, QAD already collects these data from each command for its ongoing audits. As such, the reproduction and provision of the command-level data through QAD was determined to be a more efficient and reliable process.

The adequate representation of treatment and control precincts among the randomly selected commands was ensured by mandating the inclusion of five matched pairs of precincts in each quarterly sample. Therefore, the list of 131 commands was stratified by whether a command was included in the cluster randomized controlled trial prior to randomization. The first five random selections were made from the 20 matched pairs. As such, the first five randomly selected pairs of treatment and control precincts (10 precincts total) were always included in the monitor

team stop report assessment during the quarters of the intervention time period. Once the five precinct pairs were identified and included in the sample, the rest of the commands included in the sample were randomly selected from commands in the non-experimental strata. The number of stop reports needed to meet the 300 stop reports per quarter goal determined the number of additional commands selected. For example, if 150 stop reports were generated by the selected 10 experimental precincts in that particular quarter, then additional non-experimental commands were randomly selected until a minimum of 150 more stop reports were included in the quarterly assessment.

Table 8 illustrates the number and type of command selected each quarter. Once the included experimental and non-experimental commands were randomly selected, the NYPD provided all of the stop reports, activity logs, and ICAD data for each stop recorded by officers in those commands, and the QAD assessments of the stop reports. For instance, in the second quarter of 2017, stop reports from nine non-experimental commands were randomly selected after the 10 experimental precinct commands (5 pairs of treatment and control precincts) were selected to meet the 300 stop reports per quarter minimum.

Table 8. Stratified Random Sample Selection Process

	Experimental Commands	Non-Experimental Commands
2Q2017	10	9
3Q2017	10	10
4Q2017	10	5
1Q2018	10	7
2Q2018	10	9
3Q2018	10	10
4Q2018	10	10

B. Assessment of the Lawfulness of Police Actions in Stop Reports

Once the quarterly stop report data from randomly-selected experimental precincts were provided to the monitor team, a structured process was followed to assess the lawfulness of the stops, frisks, and searches in the included reports. As part of the court-mandated *Floyd* reforms, the NYPD provided mandatory training to all officers on the federal and New York State requirements for lawful stops, and proper documentation of those stops.³⁸ QAD developed an auditing plan to determine the lawfulness of stops, frisks, and searches that was based on the training materials; this auditing plan was subsequently approved by the monitor and the federal court. QAD and monitor team reviewers of the sampled stop reports assessed the narratives that described specific officer actions during these encounters relative to the legal standards in the training. The steps below describe the multi-stage process used by the monitor team:

1. Two monitor team reviewers (Reviewer 1 and Reviewer 2) independently assessed the lawfulness of the stop, frisk, and search described in the narrative provided in each included stop report.
2. Each monitor team member reviewed the stop report, the activity log, and any associated ICAD printout (the radio dispatch). The team member would examine the officer's narrative describing the circumstances that led to the stop, as well as what was listed by the officer as the crime suspected, to determine whether the officer articulated reasonable suspicion of a felony or Penal Law misdemeanor. If a frisk and/or a search was conducted, the team member would review the officer's narrative describing the circumstances of the frisk and/or the search to assess whether the officer had reasonable suspicion that the

³⁸ This training occurred before, during, and after the one-year evaluation period. Officers were instructed that the use of "conclusory language" such as "furtive movements" or "fits description" was insufficient to provide reasonable suspicion. The stop narratives need to include greater details, including fulsome descriptions of persons stopped and how those descriptions were related to victim accounts and radio transmissions. Officers were also cautioned not to use overly broad language relying solely on age, race, and gender, or "high-crime" or "drug prone" locations to justify their actions. Reviewers, both QAD auditors and monitor team members, required specific facts that were corroborated and individualized to the person encountered. The assessments of the lawfulness of frisks and searches had similar requirements. Frisks must be based upon reasonable suspicion that the person was armed and dangerous. This could be established in one of two ways: either the person was suspected of a violent crime, which permitted an automatic frisk; or, that that officer observed or heard something about the person that gave a reasonable suspicion that person was armed with a weapon. This could be the observation of a bulge that looks like a weapon, a statement by a witness or the suspect that a weapon was observed or possessed. Under these circumstances the officer was legally permitted to conduct a limited frisk of the area where the suspicious bulge was observed. If the frisk was permitted, and the officer felt what could be a weapon, then a lawful search of that area was warranted.

person stopped was armed and dangerous, justifying a frisk, or if the officer had a justifiable legal basis for the search.

3. Reviewer 1 and 2 shared their independent assessments with each other and discussed their findings. This discussion generated a list of stops where disagreements existed. There were two types of disagreement: (1) both monitor team reviewers disagreed with the assessment of lawfulness made by QAD on either the stop, frisk, or search; and (2) the monitor team reviewers disagreed with each other on the lawfulness of the police actions described in each report. The two monitor team reviewers then considered each other's assessments and subsequently made any rating changes they deemed appropriate.
4. The list of both types of disagreements was then sent to Reviewer 3. Reviewer 3 assessed the lawfulness of the stop, frisk, and search of the stop reports under disagreement and then shared those views with Reviewers 1 and 2. All three Reviewers discussed their views and a final list of stop reports with disagreement (either with QAD or among the team) was created.
5. The final list of stop reports with disagreements was sent to the monitor and deputy monitor for their review and assessment of lawfulness.
6. All five monitor team members (monitor, deputy monitor, and Reviewers 1, 2, and 3) then discussed all stop reports with disagreement and made a final decision on the lawfulness of the encounter described in the narrative of each stop report.
7. The final list of disagreements was subsequently sent to the NYPD for review.
8. The monitor team and representative from the NYPD Risk Management Bureau (RMB) and QAD then met to discuss the stop reports identified by the monitor team that did not articulate lawfulness in either the stop, frisk, or search.³⁹
9. After the monitor team meeting with RMB and QAD, a final assessment was made of the lawfulness of police actions in the selected stop reports for that quarter.

C. Analytical Approach

The stratified random sampling methodology generated $N = 801$ stop reports during the body camera intervention period (351 in control precincts, 450 in treatment precincts). Of these

³⁹ There were few disagreements at the initial stage of review. Even when comparing the monitor team reviews with the QAD reviews, disagreements were few. For instance, the Cronbach's alpha metric assessing agreement between the initial shared assessment by the monitor reviewers and the QAD review was .868 for stop lawfulness ratings, .806 for frisk lawfulness ratings, and .730 for search lawfulness ratings. Alpha varies from zero to one with higher values indicating a greater degree of reliability in measurement. These statistics suggest good internal consistency in lawfulness ratings within the monitor team and when the monitor ratings were compared to the QAD ratings. See Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, 16, 297–334.

stop reports, $N = 474$ were made by uniformed officers working the third platoon or made by plainclothes Anti-Crime Unit officers. It is noteworthy that the sampling procedure yielded 56.2% additional stop reports (+104) for review in the treatment precincts (289 stop reports) relative to the control precincts (185 stop reports). Given that the sampling procedure allowed all stop reports within each pair to have an equal probability of selection, this suggests that third platoon officers and anti-crime unit officers outfitted with body cameras in the treatment filled out more stop reports. This finding is consistent with the results of the policing activity DID regression analysis suggesting a 38.8% increase in the number of stop reports made by the treatment officers relative to control officers over the course of the pre-intervention and intervention observation periods.

The random selection of stop reports from pairs of experimental precincts started with the commencement of the cluster randomized controlled trial in April 2017. Stop reports sampled in experimental precincts prior to April 2017 were selected for review by the monitor team with a different sampling methodology. As such, DID analyses was not possible. Statistical analyses of police lawfulness outcomes focused on the differences in stop reports in the treatment precincts relative to control precincts during the intervention period for each pair. The monitor team assessments of lawfulness of stops, frisks, and searches served as the key outcome variables. The NYPD provided the results of their internal QAD assessments of the lawfulness of these police actions and were also analyzed as a parallel set of outcomes.

A series of bivariate chi-square and standardized mean difference statistical tests were used to explore differences in stop characteristics, officer actions, and lawfulness assessment outcomes in treatment and control groups.⁴⁰ Multivariate logistic regressions model binary outcome

⁴⁰ The sampling frame for stop reports was not designed to follow the cluster randomized design. As such, these analyses are descriptive. Since there is a modest number of cases ($N_1 = 185$, $N_2 = 289$), the statistical power to detect an effect in the stop legality analysis is somewhat diminished relative to the larger cluster randomized controlled trial. For instance, using monitor team assessments of the lawfulness of the stop as an outcome measure, this design

variables, in which the log odds of the probability of the outcomes occurring versus not occurring are modeled as a linear combination of the predictor variables.⁴¹ Multivariate logistic regressions were used to estimate the impact of the body-worn cameras on officer actions and lawfulness assessments of those actions controlling for characteristics of the stops. To ensure that the coefficient variances were robust to violations of the homoskedastic errors assumption of linear regression models, robust standard errors clustered by precinct pair were used. Parameter estimates were expressed as odds ratios (OR).⁴² Once again, the conventional two-tailed 5% level of significance was selected as the benchmark to reject the null hypothesis of “no difference.”

D. Results

Table 9 compares the gender, race / ethnicity, mobilization modality, suspected crime, officer actions, and the lawfulness of those actions for the treatment stop reports relative to the control stop reports. In both groups, stopped citizens tended to be younger Black and Hispanic males who were suspected of a range of crimes. Stopped individuals were more likely to be Black non-Hispanic subjects (61.6% v. 50.8%, respectively, $p < .05$) and less likely to be White non-Hispanic subjects (4.8% v. 9.7%, respectively, $p < .05$) in treatment stop reports relative to control stop reports.⁴³ Treatment and control officers in the stop reports were mobilized through radio

has statistical power = .654 to detect a small difference between the treatment and control ($d = .20$). Statistical power exceeds the desirable .80 level when a slightly larger but still small difference ($d = .27$) between the treatment and control groups is tested. The design has statistical power = .996 to detect a medium difference ($d = .50$) and statistical power = 1.00 to detect a large difference ($d = .80$) between the treatment and control groups. Given that statistically-significant differences were found between treatment and control groups, statistical power is not a problem for these subgroup analyses. In fact, these findings are conservative towards showing no difference.

⁴¹ John H. Aldrich and Forrest D. Nelson. 1984. *Linear Probability, Logit, and Probit Models*. Quantitative Applications in the Social Sciences, Paper 45. Newbury Park, CA: Sage Publications.

⁴² The OR is defined as the ratio of the odds of A in the presence of B and the odds of A in the absence of B. OR greater than 1 suggests a positive relationship between the occurrence of A and the presence of B while OR less than 1 suggests a negative relationship. See Magdalena Szumilas. 2010. “Explaining Odds Ratios.” *Journal of the Canadian Academy of Child and Adolescent Psychiatry*, 19: 227–229.

⁴³ Multivariate logistic regressions of the BWC treatment on stop characteristics found that sampled stop reports were more likely to involve Black non-Hispanic subjects relative to White non-Hispanic subjects when made by treatment

runs in more than half of the reports, with self-initiated encounters and complaints by victims and crime witnesses representing equal shares of the other mobilization modalities. While citizens were frisked in similar shares of treatment and control stops (67.1% v. 63.2%, respectively), citizens in BWC stops relative to control stops were much less likely to be searched (26.6% v. 38.9%, respectively, $p < .05$), arrested (21.1% v. 31.8%, respectively, $p < .05$), and summonsed (1.0% v. 3.9%, respectively, $p < .05$).

Table 9 also presents the results of the stop lawfulness audits conducted by the monitor team and the NYPD QAD during the intervention period for stop reports completed by treatment officers outfitted with BWCs and stop reports completed by control officers without the BWCs. The monitor team and QAD assessments show a high degree of agreement that stop report narratives completed by BWC officers were more likely to include descriptions of police actions that were not constitutional relative to stop report narratives completed by control officers. The monitor team ratings only are described here. Overall, the justifications reported for stopping citizens were less likely to be regarded as lawful in treatment stop reports relative to control stop reports (66.8% v. 78.9%, respectively, $p < .05$). In stop reports that involved a frisk ($N=310$), the justifications reported for frisking citizens in BWC officer reports were less likely to be regarded as constitutional when compared to control officer reports (85.4% v. 95.8%, respectively, $p < .05$). In the smaller number of stop reports that involved a search ($N=149$), the justifications reported for searching citizens in BWC officer reports were also less likely to be regarded as lawful when compared to control officer reports (85.7% v. 94.4%, respectively, $p < .05$).

officers outfitted with BWCs relative to control officers holding the other covariates constant. This difference was statistically significant at the less restrictive $p < .10$ level, however (see Appendix 3).

Table 9. Comparison of Stop Characteristics by Treatment and Control Officers

Total N = 474 (Control N = 185, Treatment N = 289)

	Control		Treatment		Std. Mean Difference
	N	%	N	%	
Male	173	94.0%	259	89.1%	-.071
Female	11	6.0%	29	10.1%	
Missing	1	<0.1%	1	<0.1%	
Black non-Hispanic	94	50.8%	178	61.6%	.106*
White Hispanic	39	21.1%	56	19.4%	-.021
Black Hispanic	30	16.2%	35	12.1%	-.058
White non-Hispanic	18	9.7%	14	4.8%	-.095*
Asian / other / missing	4	2.2%	6	2.1%	.026
Mean age (SD)	172	28.4 (12.3)	274	26.5 (12.0)	-.077
<i>Mobilization</i>					
Radio run	105	56.8%	167	57.8%	.010
Self-initiated	40	21.6%	61	21.1%	-.006
Complainant / witness	40	21.6%	61	21.1%	-.006
<i>Suspected crime</i>					
Violent	66	35.7%	101	35.0%	-.007
Weapon	56	30.3%	92	31.8%	.016
Property	48	26.0%	66	22.8%	-.035
Disorder	6	3.2%	9	3.1%	-.004
Drug	5	2.7%	17	5.9%	.073
Other / unknown	4	2.1%	4	1.4%	-.029
<i>Officer action outcomes</i>					
Monitor – Lawful stop	146	78.9%	193	66.8%	-.131*
QAD – Lawful stop	155	83.8%	214	74.1%	-.114*
Frisked suspect	117	63.2%	194	67.1%	.039
Monitor – Lawful frisk	113	95.8%	164	85.4%	-.126*
QAD – Lawful frisk	110	94.0%	164	85.4%	-.138*
Searched suspect	72	38.9%	77	26.6%	-.129*
Monitor – Lawful search	68	94.4%	66	85.7%	-.145*
QAD – Lawful search	71	98.6%	68	88.3%	-.157*
Not arrested / summonsed	119	64.3%	225	77.9%	.162*
Arrested suspect	59	31.8%	61	21.1%	
Issued summons	7	3.9%	3	1.0%	

* $p < .05$

Given the observed differences in the measured characteristics of audited stop reports in the treatment compared to control precincts, Table 10 presents the results of the multivariate logistic regressions of the effects of the BWC treatment on officer stop outcomes controlling for stop characteristics. Similar to the bivariate analyses, subjects stopped by treatment officers outfitted with BWCs were not more or less likely to be frisked, but were much less likely to be searched and arrested / summonsed relative to subjects stopped by control officers without cameras.⁴⁴ Controlling for stop characteristics, treatment stop reports were associated with a statistically-significant 51.0% decrease ($p < .05$) in the odds that a search was conducted relative to the odds that it was not conducted when compared to control stop reports. Holding the other covariates constant, the predicted marginal effects of the placement of BWCs on officers suggests that 25.4% of treatment stops involved a search, while 39.7% of the control stops involved a search. Further, relative to control stop reports, BWC stop reports were associated with a statistically-significant 51.2% decrease ($p < .05$) in the odds that a subject was arrested / summonsed relative to the odds that a subject was arrested / summonsed holding the other covariates constant. The predicted marginal effects of the placement of BWCs on officers suggests that 22.1% of treatment stops resulted in an arrest / summons issued while 37.2% of control stops resulted in an arrest / summons issued controlling for the other variables.

Table 10 also presents the results of the multivariate logistic regressions of the effects of the BWC treatment on monitor team assessments of the lawfulness of stops and frisks / searches in the stops controlling for stop characteristics.⁴⁵ Controlling for stop characteristics, treatment

⁴⁴ Due to the small number of stop reports involving the issuance of a summons, the arrest and summons officer action outcomes were collapsed into one binary variable (1= arrested / summonsed, 0 = not arrested / summonsed).

⁴⁵ As a result of the small number of stop reports involving searches, the frisk and search officer action outcomes were collapsed into one binary variable (1= frisked / searched, 0 = not frisked / searched).

stop reports were associated with a statistically-significant 48.1% decrease ($p < .05$) in the odds that the stop was assessed as lawful relative to the odds that it was not conducted in a lawful manner when compared to control stop reports. Holding the other covariates constant, the predicted marginal effects of the placement of BWC on officers suggests that 75.7% of treatment stops met the appropriate lawfulness standard while 85.6% of the control stops met the appropriate lawfulness standard. Relative to control stop reports, BWC stop reports were associated with a statistically-significant 78.9% decrease ($p < .05$) in the odds that a frisk / search conducted during a stop was assessed as constitutional relative to the odds that a frisk / search conducted during a stop was assessed as not constitutional holding the other covariates constant. The predicted marginal effects of the placement of BWCs on officers suggests that 68.2% of treatment stops met the appropriate lawfulness standard while 81.3% of the control stops met the appropriate lawfulness standard controlling for the other covariates.

Table 10. Multivariate Logistic Regressions of Officer Outcomes on BWC Treatment Controlling for Stop Characteristics

Covariate	Frisked OR (RSE)	Searched OR (RSE)	Arrested/ Summonsed OR (RSE)	Lawful Stop OR (RSE)	Lawful Frisk/Search OR (RSE)
BWC treatment	1.109 (.366)	.490 (.094)*	.488 (.120)*	.519 (.133)*	.211 (.108)*
<i>Marginal effect:</i>					
Treatment	.725	.254	.221	.757	.682
Control	.691	.397	.372	.856	.813
Male	2.690 (1.065)*	1.346 (.486)	1.537 (.465)	1.583 (.733)	.272 (.364)
Black non-Hispanic	1.139 (.484)	2.969 (1.539)*	1.161 (.421)	.472 (.269)	.389 (.444)
White Hispanic	.923 (.373)	4.221 (2.527)*	1.617 (.580)	.411 (.264)	.296 (.368)
Black Hispanic	1.064 (.477)	2.032 (1.049)	.950 (.331)	.258 (.239)	.219 (.311)
Asian / other	.602 (.721)	2.299 (2.234)	1.381 (1.413)	.689 (1.067)	---
Age	.992 (.011)	1.011 (.008)	1.001 (.005)	1.013 (.011)	1.014 (.022)
Radio run	1.821 (.760)	1.192 (.380)	.859 (.317)	.724 (.286)	.535 (.196)
Self-initiated	1.442 (.733)	.934 (.504)	1.492 (.647)	.726 (.284)	.526 (.312)
Violent	4.364 (2.101)*	.761 (.412)	.434 (.292)	1.876 (1.001)	.963 (1.408)
Property	2.171 (1.293)	.928 (.380)	.401 (.286)	1.398 (.771)	.390 (.560)
Drug	9.621 (8.965)*	.935 (.591)	.178 (.106)*	2.503 (2.323)	1.417 (1.242)
Weapon	36.151 (16.127)*	.752 (.449)	.208 (.171)	1.044 (.532)	.831 (.977)
Constant	.107 (.108)*	.158 (.123)*	1.611 (.162)*	3.851 (.887)*	4.076 (.895)*
Log pseudolikelihood	-228.607	-264.594	-249.506	-248.378	-116.862
Pseudo R ²	0.201	0.044	0.059	.052	.092
N	444	444	442	444	324

* $p < .05$

Note: OR = Odds Ratio. RSE = Robust Standard Error. Robust standard errors were clustered by precinct pair. Female was reference category for the male covariate. White non-Hispanic suspect was the reference category for the other race covariates. Complainant / witness initiated stop was the reference category for the mobilization covariates. Other and unknown suspected crime was the reference category for the suspected crime type categories. The Asian dummy variable was omitted from the Lawful Frisk / Search regression due to zero cases.

IV. Police-Community Relations Outcomes

The evaluation of the impact of the body-worn camera program on NYC resident perceptions of the NYPD involved two different survey data collection methods: telephone surveys and in-person community surveys.⁴⁶ Each methodological approach involved the administration of surveys prior to the introduction of the body cameras (pre-intervention) and after the BWCs had been in use for a one-year intervention period (intervention).

A. Telephone Surveys

Hart Research Associates was selected by the NYPD monitor to conduct the pre-intervention and intervention telephone survey data collection effort. TargetSmart, a telephone list vendor with 6.2 million names in its NYC database, was provided shape files of the 40 experimental precincts to develop a sampling frame of NYC residents who lived in these areas. The U.S. Census Bureau's 2010 American Community Survey (ACS) was used in conjunction with the shape file data to set allocations by age, gender, and race for the control and treatment samples. Additional telephone numbers, including contract and prepaid mobile phone numbers, were supplied by a second vendor, Link2Tek. This allowed substantial numbers of interviews with cellphone users in all samples. Prospective interview subjects were randomly-selected from the lists of phone numbers of residents in the 40 experimental precincts provided by TargetSmart and Link2Tek. No incentives were offered prospective interview subjects.

The pre-intervention survey involved live telephone interviews with 6,000 residents reflecting a 26.2% response rate: a total of 3,000 residents were interviewed in the 20 treatment

⁴⁶ Due to New York State Criminal Procedure Law 140.50(4) prohibiting the entry of these data elements, the NYPD does not maintain computerized records of the names and DOBs of individuals who were stopped by its officers. As such, it was not possible to design a data collection strategy that conducted follow-up surveys with the subjects of NYPD stop reports.

precincts and 3,000 residents in the 20 control precincts prior to the implementation of body cameras.⁴⁷ The intervention survey involved live telephone interviews with 6,057 residents reflecting a 29.1% response rate: 3,037 in the 20 treatment precincts and 3,020 in the 20 control precincts. Eighteen to 34-year old men in both the treatment and control precincts were oversampled to obtain a sufficient number of respondents who had interactions with the NYPD. However, the treatment and control samples were weighted by age and gender to reflect the actual demographics of these precincts. In addition, weights were applied to race, education, and precinct to ensure that the samples were representative of the larger populations in each of these areas.

The interviewing firm American Directions fielded the pre-intervention survey in English and Spanish (by respondent choice) during March 2017 and April 2017. The intervention surveys were conducted as the one-year intervention period expired in matched pairs of treatment and control precincts, beginning in May 2018 and continuing through December 2018. The demographic distributions in the weighted survey samples closely matched those reported for adults in the 40 precincts by the 2010 ACS (see Appendix 4 for pre-intervention comparisons).

B. Community In-Person Surveys

In-person surveys were also conducted to capture the perceptions of NYPD among residents in selected treatment and control precinct pairs, with a particular interest in residents who are most likely to experience NYPD stop, question, and frisk practices (i.e., Black/African

⁴⁷ The response rate does not include cases in which there was no possibility of conducting a survey, such as with disconnected/wrong numbers. The response rate is consistent with other recent phone-based studies of citizens who have interacted with police (34.4% in Rosenbaum et al., 2015; 25.0% in Malm et al., 2016; 27.8% in White et al., 2017). See Malm, A., LaVigne, N., & Lawrence, D.S. (2016). Cameras and police legitimacy. Paper presented at the Western Society of Criminology, Vancouver, February 4-6; Rosenbaum, D. P., Lawrence, D.S., Hartnett, S., McDevitt, J., & Posick, C. (2015). Measuring procedural justice and legitimacy at the local level: the police community interaction survey. *Journal of Experimental Criminology*, 11, 335-366; White, M.D., Todak, N., & Gaub, J.E. (2017). Assessing citizen perceptions of body-worn cameras after encounters with police. *Policing: An International Journal of Police Strategies & Management*, 40, 689-703.

American and Hispanic/Latino young men). It was anticipated that these residents might be underrepresented in the telephone survey, and thus, the in-person survey sampling methodology was developed to ensure adequate representation of this population of interest. The NYPD monitor selected the Institute for State and Local Governance (ISLG) at the City University of New York (CUNY) to carry out the data collection effort. ISLG employed a three-tiered sampling approach that included selection of police precincts, sites within those precincts, and residents within those sites. In-person surveys were carried out in 10 precincts (5 matched pairs) selected from the pool of 40 precincts participating in the cluster randomized controlled trial. The five matched pairs were selected from the 20 matched pairs in the cluster randomized controlled trial based on racial/ethnic composition, presence of NYCHA developments, police activity and crime patterns, among other relevant variables.

1. Selection of in-person survey sites. Within each of the 10 precincts selected for in-person surveys, ISLG selected five to seven specific sites. The goal was to select sites where populations affected by NYPD stop, question, and frisk practices would be likely to be included as participants. Toward that end, selection was informed by spatial analyses of three features: (1) stop reports in 2010 and 2015; (2) crime complaints in 2016; and (3) locations of NYCHA developments and public transportation stops/stations. Based on this analysis, ISLG selected sites that had higher concentrations of reported stops and crime complaints; some were near NYCHA developments and/or public transportation locations as well. Each of the sites was approximately four blocks long and one to three blocks wide.

2. Selection of potential participants. Finally, within each site a probability sampling design was employed to engage potential survey participants. Specifically, every third person and every third group containing someone who appeared as though they could be age 18 or older was

approached and asked to participate in the study. The number of individuals and group members who agreed and declined to participate was recorded. The estimated overall response rate was 15.1% and 13.6% for the pre and post-treatment surveys (respectively), reflecting the proportion of people who agreed to participate in the study among the estimated total number of people who were approached during each data collection period. While this response rate is low, the demographics of the in-person community survey respondents indicated that the sampling approach produced a sample that broadly reflected the population of the precincts in which they were conducted, with a particular focus on young black and Hispanic/Latino men.⁴⁸

In total, 1,181 respondents completed in-person surveys across the 10 NYPD precincts during the pre-treatment data collection period (596 in the treatment precincts and 585 in the control precincts). Six surveys (<1%) were submitted but discarded due to substantial incompleteness (i.e., with fewer than 25% of items completed by the respondent). During the post-treatment data collection period, 1,400 respondents completed in-person surveys across the 10 NYPD precincts (701 in the treatment precincts and 699 in the control precincts), with eight surveys (<1%) discarded due to substantial incompleteness.

3. Recruitment of Participants. Surveys were administered by students enrolled in associate's, bachelor's, and master's degree programs at CUNY (39 students and 41 students during the pre and post-treatment periods, respectively). Most students were also members of the

⁴⁸ The pre-intervention sample comparison with the 2010 ACS is briefly described here. 17.5% of survey respondents were Black or Hispanic/Latino males age 34 or younger—approximately five percentage points higher than the 11.8% of the general adult population in those precincts estimated from the ACS. The proportion of Black and Hispanic/Latino respondents in the sample was also higher than ACS estimates of the general precinct population (79.6% vs. 68.5%, respectively). The representation of Black individuals was substantially higher in the sample than in the general population (40.1% vs. 29.1%); Hispanic/Latino respondents, in turn, were only slightly overrepresented (39.5% vs. 38.9%). Nearly half (45.8%) of respondents were age 34 or younger, including 21.0% who were age 18-24. More than one fifth of the sample (22.0%) consisted of NYCHA residents, compared to 7.5% of the general population.

Service Corps, a professional development and experiential learning program offered by CUNY. Students were assigned to administer surveys in two-person teams at one or more sites per day, according to a schedule created by ISLG. All pre-treatment surveys were completed between the hours of 11 AM and 6 PM, in April 2017. Post-treatment surveys were completed between the hours of 10 AM and 6 PM, beginning in July 2018 and continuing through December 2018. The schedule and site assignments were designed with the goal of minimizing bias in the survey work—by having the surveys administered during the same time of the day, for example, and ensuring adequate representation of all targeted sites within a precinct. Each shift lasted between two and six hours. Before beginning the work, students were required to participate in a three-hour training covering the project background, research ethics, the study protocol, and tips for safe and effective fieldwork (many also had prior fieldwork experience).

Once on site, team members assumed one of two unique roles to recruit participants in accordance with the sampling framework. One member was responsible for counting passers-by and recording acceptances and declinations to participate, and the other was responsible for approaching potential respondents and requesting their participation in the survey. In general, teams assigned to sites in precincts with higher concentrations of Hispanic/Latino residents included at least one Spanish speaker, to increase the likelihood of a representative survey sample.

Potential respondents who informally agreed to participate were read a consent protocol in English or Spanish, and asked to verify that they were 18 or older and a resident of New York City. To maintain anonymity, participants were only asked to provide verbal consent, and were not asked to provide any other identifying information. Once consent was given, each participant was provided with an English or Spanish version of the survey (depending on their preference) to complete, along with a clipboard and a pen. The survey questionnaire generally took between 10

and 15 minutes to complete, and all participants were provided with a \$10 gift card when they returned the completed survey to the team. The last page of the survey contained contact information for the study and a list of resources that participants could access if they became upset as a result of participating.

C. Survey Instrument

The survey questionnaire measured the demographics of respondents and a series of 26 close-ended items (totaling 49 possible outcome measures), including questions on specific experiences of being stopped by police or other interactions with police occurring in the prior year. The in-person survey instrument was nearly identical to the telephone instrument, with minor variations in introductory wording due to the more sophisticated skip logic possible on a telephone survey. The included outcome questions were borrowed from prior surveys on individual experiences during police encounters and attitudes towards the police more generally.⁴⁹ In addition to the use of previously-validated questions, the survey instrument was piloted to ensure that the questions adequately captured the information needed.⁵⁰ The English versions of the telephone and in-person surveys are included in Appendices 5 and 6. Pre-intervention responses to the survey question outcome measures are reported in Appendix 7.

⁴⁹ For example, see Tyler, T. R., & Huo, Y. (2002), *Trust in the law: Encouraging public cooperation with the police and courts*. New York: Russell Sage Foundation; Reisig, M. D., Bratton, J., & Gertz, M. (2007). The construct validity and refinement of process-based policing measure. *Criminal Justice and Behavior*, 34, 1005-1028; Braga, A., Winship, C., Tyler, T., Fagan, J., & Meares, T. (2014). The salience of social contextual factors in appraisals of police interactions with citizens: A randomized factorial experiment. *Journal of Quantitative Criminology*, 30, 599 – 627.

⁵⁰ For instance, in March 2017, 190 preliminary telephone interviews were completed, and these responses were analyzed before proceeding with the full survey. One question was adjusted to ensure respondents were reliably reporting whether they had a close friend or family member who was an NYPD officer. The average length of the interview was a little shorter than anticipated which allowed two additional outcome questions to be added to the final instrument.

The in-person survey instrument and telephone survey instrument also differed in the structure of the questions pertaining to race and ethnicity. The in-person survey asked respondents whether they were of Hispanic, Latino, or Spanish origin in a first question. Then, a second question asked respondents to identify their race as white, black/African American, Asian, biracial or multiracial, or other. However, the telephone survey asked respondents whether they were of Hispanic, Latino, or Spanish origin, and individuals were only asked to further identify as a racial category if they answered that they were not Hispanic. Thus, Hispanic identification and other racial categorizations were mutually exclusive in the telephone survey, making race and ethnicity indistinguishable.⁵¹

D. Sample Characteristics and Group Balance

Similarity between the treatment and control groups on key demographic variables was assessed using Cohen's d standardized mean difference metrics for both telephone surveys and in-person community surveys. Telephone survey data analyses were weighted to ensure that the comparisons and inferences were generalizable to resident populations in the 40 precincts included in the cluster randomized controlled trial. Table 11 presents the basic descriptive information on in-person community and telephone survey respondents during the pre-intervention period. For binary variables, means are expressed as percentages. Covariate imbalance would be exhibited by Cohen's $|d|$ in excess of .20.

Telephone survey respondents in the treatment and control precincts were similar on all demographic characteristic variables. None of the Cohen's $|d|$ results exceeded .20. This suggests that the telephone survey methodology and the associated cluster randomization process created

⁵¹ As described in Appendix 4, 30 percent of the control respondents and 33 percent of the treatment respondents in the telephone survey identified themselves as Hispanic during the pre-intervention telephone survey. For analytic purposes, Hispanic, Black, and Asian/other racial group telephone survey respondents were collapsed into a general "non-White" racial category given the lack of distinct race and ethnicity attributions (see Table 11).

on average treatment and control groups that were similar across the two data collection periods. In general, the weighted samples of telephone survey respondents were mostly nonwhite in the treatment and control groups. Telephone survey respondents were slightly more likely to be female and, on average, in their mid to late 40s. More than half of respondents were high school graduates and many reported having earned a 4-year college or higher degree. Less than 20% of participants reported living in NYCHA housing, and fewer than 20% also said that they had a friend or family member currently in the NYPD.

Table 11. Pre-Intervention Characteristics of Survey Respondents

Respondent Characteristics	Community In-Person (<i>n</i> =1181)			Telephone (<i>n</i> =5997)		
	Treatment	Control	<i>d</i>	Treatment	Control	<i>d</i>
Group	50.5%	49.5%		50.0%	50.0%	
<i>Race</i>						
Nonwhite	82.9%	88.2%	0.151	77.9%	72.8%	0.118
White	17.1%	11.8%		22.1%	27.2%	
<i>Ethnicity</i>						
Hispanic	50.2%	29.5%	0.432	--	--	
Not Hispanic/Latino	49.8%	70.5%				
<i>Sex</i>						
Male	46.5%	44.8%	0.035	45.7%	46.0%	0.007
Female	53.5%	55.2%		54.3%	54.0%	
Age (Mean)	39.9	39.1	0.057	44.5	44.3	0.006
	(SD 15.8)	(SD 15.5)		(SD 18.4)	(SD 18.1)	
<i>NYCHA Housing</i>						
Yes	18.0%	26.1%	0.194	9.8%	11.8%	0.066
No	82.0%	74.0%		90.2%	88.2%	
<i>Friend/Family of NYPD Officer</i>						
Yes	24.9%	21.1%	0.089	17.7%	17.7%	0.002
No	75.1%	78.9%		82.3%	82.3%	
<i>Last Grade Completed</i>						
Some high school or less	16.0%	11.6%	0.126	8.7%	7.3%	0.052
High school graduate	54.6%	56.9%	0.045	55.0%	55.6%	0.012
4-yr college degree or higher	29.4%	31.5%	0.463	36.3%	37.1%	0.016

The in-person community survey respondents shared generally similar demographic characteristics as the telephone survey respondents. However, moderate imbalances were noted

for a few demographic variables for in-person community survey respondents in the treatment and control groups. During the pre-intervention period ($|d| = .43$), control group respondents were much less likely to identify as Hispanic (29.5%) when compared to treatment respondents (50.1%). Additionally, treatment precinct respondents in the pre-intervention period were comparatively less likely to live in NYCHA housing: 18% of treatment subjects relative to 26% of control subjects reported living in NYCHA. However, the NYCHA residency comparison did not produce a Cohen's $|d|$ result in excess of .20.

Several sets of questions were included in the survey instrument to measure “latent variables” of interest that could not be directly observed.⁵² The covariance of the responses collected from these sets of questions were analyzed to develop seven outcome measures. The questions were designed to capture subject perceptions of the NYPD in general and, for those who had contact with NYPD officers in the prior year, their perceptions of officer behaviors and procedural justice during car stops, pedestrian stops, and contacts for emergency assistance. The observed variables were constructed as Likert scales (e.g., very satisfied, satisfied, dissatisfied, very dissatisfied). Cronbach's alpha metric was used to measure the internal consistency of the observed items that comprised the latent outcome variables.⁵³ Alpha coefficients range from zero to one with high values suggesting increased measurement reliability. All latent outcome variables had Cronbach's alpha results that exceeded .70, suggesting good internal consistency (Table 12).

⁵² Long, J.S. (1983). *Confirmatory factor analysis*. Quantitative applications in the social sciences, paper 33. Newbury Park, CA: Sage Publications.

⁵³ Cronbach, L. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, 16, 297–334.

Confirmatory factor analysis showed that survey items representing outcome measures had strong intra-item correlations.⁵⁴

⁵⁴ The variances of all outcome variables in Table 12 were constrained to equal 1 and can be interpreted as correlations that range from 0 to 1. See Kim, J-O, & Mueller, C. (1978) *Introduction to factor analysis*. Quantitative applications in the social sciences, paper 13. Newbury Park, CA: Sage Publications.

Table 12. Pre-Intervention Outcome Latent Variables: Cronbach's Alpha & Factor Loadings											
Latent Variables	Community Survey					Telephone Survey					
	N	α	Mean	<i>b</i>	SE	N	α	Mean	<i>b</i>	SE	
Positive Perceptions of Neighborhood Officers	1180	0.903				5990	0.856				
Q4: Overall, how would you describe your feelings about the NYPD officers in your neighborhood			3.28	0.860	0.044 *			3.74	0.796	0.025 *	
Q5: How would you rate the job that NYPD officers are doing in your neighborhood			3.28	0.841	0.043 *			3.74	0.762	0.024 *	
Q6-1: If I needed police assistance, I would feel comfortable seeking help			3.11	0.704	0.012 *			3.52	0.560	0.025 *	
Q6-2: I respect the police officers in my neighborhood			3.24	0.641	0.032 *			3.66	0.379	0.020 *	
Q6-3: Police officers in my neighborhood respect people's rights			2.80	0.801	0.028 *			3.19	0.681	0.020 *	
Q6-4: Police officers in my neighborhood treat people fairly, regardless of race or background			2.67	0.802	0.031 *			3.03	0.736	0.018 *	
Negative Perceptions of Neighborhood Officers	1159	0.833				5954	0.798				
Q6-5: Police officers in my neighborhood often abuse their authority			2.43	0.719	0.021 *			2.06	0.866	0.020 *	
Q6-6: I sometimes feel nervous when I see police officers in my neighborhood approach me			2.42	0.726	0.034 *			1.92	0.622	0.020 *	
Q6-7: Police officers stop and frisk too many people in my neighborhood			2.33	0.848	0.025 *			2.04	0.734	0.025 *	
Q6-8: Police officers in my neighborhood use more force than necessary			2.45	0.923	0.025 *			2.01	0.811	0.024 *	
Procedural Justice Perceptions During Car Stop	288	0.816				961	0.822				
Q9: Thinking about ..., how satisfied were you with the way officers handled the situation			2.47	0.736	0.060 *			2.66	0.910	0.054 *	
Q11-1: The police officers treated you with respect			2.68	0.910	0.075 *			3.10	0.796	0.036 *	
Q11-2: The police officers had a good reason for stopping you			2.16	0.707	0.066 *			2.35	0.802	0.066 *	
Q11-3: The amount of time you were stopped was reasonable			2.38	0.752	0.050 *			2.82	0.853	0.049 *	
Negative Perceptions During Car Stop	274	0.770				960	0.703				
Q11-4: The police officers used language that you found threatening or abusive			2.17	0.767	0.090 *			1.69	0.787	0.072 *	
Q11-5: You felt the police officers stopped you because of your race/ethnicity			2.61	0.790	0.071 *			2.11	0.684	0.054 *	
Q11-6: The police officers used more force than necessary			2.09	0.939	0.076 *			1.57	0.745	0.060 *	
Procedural Justice During Pedestrian Stop	262	0.823				519	0.845				
Q14: Thinking about ..., how satisfied were you with the way officers handled the situation			2.31	0.675	0.056 *			2.28	0.920	0.044 *	
Q16-1: The police officers treated you with respect			2.57	0.725	0.079 *			2.66	0.978	0.050 *	
Q16-2: The police officers had a good reason for stopping you			2.08	0.730	0.063 *			1.99	0.854	0.077 *	
Q16-3: The amount of time you were stopped was reasonable			2.25	0.886	0.022 *			2.53	0.858	0.066 *	
Negative Perceptions During Pedestrian Stop	251	0.740				497	0.712				
Q16-4: The police officers used language that you found threatening or abusive			2.41	0.767	0.041 *			2.09	0.992	0.085 *	
Q16-5: You felt the police officers stopped you because of your race/ethnicity			2.77	0.679	0.073 *			2.64	0.581	0.093 *	
Q16-6: The police officers used more force than necessary			2.28	0.910	0.069 *			1.94	0.954	0.073 *	
Procedural Justice During Contact for Assistance	268	0.898				1111	0.894				
Q19: Thinking about ..., how satisfied were you with the way officers handled the situation			2.93	0.867	0.038 *			3.19	0.928	0.028 *	
Q20-1: The police officers treated you with respect			3.30	0.743	0.057 *			3.61	0.572	0.039 *	
Q20-2: The police officers clearly explained where you could get the help or information you needed			3.10	0.890	0.039 *			3.30	0.872	0.040 *	
Q20-3: The police officers took your problem or question seriously			2.97	0.962	0.074 *			3.36	0.900	0.025 *	

*p<.05

Table 13 summarizes the pre-intervention differences between telephone survey and in-person community survey respondents in the treatment and control groups. Treatment and control respondents in the telephone survey had very similar perceptions of the NYPD and neighborhood safety during pre-intervention period. Appendix 7 presents the detailed results of the pre-intervention telephone and in-person community surveys on the outcome measures. As Appendix 1 suggests, some 57% of treatment and control telephone survey respondents reported somewhat favorable or very favorable feelings towards the NYPD officers in their neighborhood and roughly 90% of treatment and control telephone survey respondents considered their neighborhood safe or very safe prior to the launch of the BWC program.

During the pre-intervention period, very few telephone survey respondents reported being subjected to a car stop while driving in their neighborhood (12% of treatment subjects, 13% of control subjects) or being subjected to a pedestrian stop while in their building or other public places in their neighborhood (6% of treatment subjects, 5% of control subjects). Roughly 19% of treatment telephone survey subjects and 20% of control telephone survey subjects reported contacting the police for emergency assistance during the year preceding. The Cohen's $|d|$ results suggest that treatment and control telephone survey respondents reported the same perceptions of police behaviors and procedural justice during the pre-intervention period. The only exception ($|d| = .29$) was that a higher share of control telephone survey respondents who were subjected to a pedestrian stop reported being "patted down on the outside of their clothing" (51%) relative to treatment respondents who were subjected to a pedestrian stop (33%).

Table 13. Pre-Intervention Respondent Outcome Measures

	Community In-Person					Telephone				
	Treatment		Control		d	Treatment		Control		d
	N	Mean	N	Mean		N	Mean	N	Mean	
Items										
Q3 - Neighborhood safety	596	3.00	579	2.94	0.07	2987	3.30	2978	3.33	0.05
Q7 - Complaint investigation	580	2.67	569	2.55	0.13	2786	2.76	2778	2.77	0.01
Q8 - Car stop	594	0.20	578	0.30	0.23	2999	0.12	2999	0.13	0.03
Q10-1 - Explained reason	102	0.64	155	0.59	0.10	355	0.83	385	0.79	0.10
Q10-2 - Used force	102	0.22	155	0.19	0.07	353	0.05	385	0.05	0.01
Q10-3 - Frisked	100	0.43	149	0.42	0.03	356	0.15	384	0.17	0.06
Q10-4 - Searched	102	0.47	161	0.44	0.06	356	0.12	386	0.16	0.10
Q10-5 - Issued summons	102	0.40	151	0.39	0.02	353	0.39	384	0.44	0.10
Q10-6 - Arrested	103	0.19	156	0.18	0.04	355	0.04	386	0.06	0.09
Q13 - Pedestrian stop	581	0.20	568	0.26	0.16	2999	0.06	2999	0.05	0.05
Q15-1 - Explained reason	103	0.59	132	0.49	0.18	176	0.60	140	0.58	0.03
Q15-2 - Provided receipt	96	0.24	131	0.22	0.04	173	0.12	141	0.18	0.14
Q15-3 - Frisked	97	0.61	131	0.48	0.26	177	0.33	140	0.51	0.29
Q15-4 - Searched	104	0.49	133	0.62	0.26	177	0.39	141	0.46	0.12
Q15-5 - Used force	100	0.26	135	0.24	0.05	176	0.15	137	0.15	0.01
Q15-6 - Arrested / summonsed	102	0.37	132	0.32	0.11	177	0.18	141	0.24	0.11
Q18 - Contacted for assistance	574	0.23	567	0.24	0.02	2986	0.19	2990	0.20	0.02
Q21 - Favor BWCs	582	3.59	565	3.58	0.02	2679	3.68	2709	3.66	0.03
Q24 - Household stopped	584	0.24	572	0.30	0.15	2924	0.10	2931	0.09	0.03
Q26 - Know officers	581	0.18	573	0.15	0.08	2990	0.13	2989	0.11	0.05
Q28 - Frequency outside	577	3.25	567	3.42	0.17	2891	3.14	2883	3.15	0.01
Latent Variables										
1: Positive Perceptions of Neighborhood Officers	596	0.004	584	-0.164	0.18	2932	-0.047	2922	-0.028	0.02
2: Negative Perceptions of Neighborhood Officers	555	-0.060	548	0.109	0.19	2493	0.013	2465	-0.023	0.04
3: Procedural Justice Perceptions During Car Stop	117	0.017	171	-0.103	0.14	356	-0.004	386	-0.012	0.01
4: Negative Perceptions During Car Stop	105	-0.053	155	-0.078	0.03	354	-0.035	376	0.017	0.05
5: Procedural Justice Perceptions During Pedestrian Stop	113	0.027	149	-0.102	0.15	177	0.067	139	-0.061	0.11
6: Negative Perceptions During Pedestrian Stop	106	0.121	139	-0.115	0.28	172	-0.061	137	0.048	0.10
7: Procedural Justice Perceptions During Contact for Assistance	133	0.087	135	-0.185	0.28	576	-0.056	597	-0.001	0.06

Treatment and control respondents in the in-person community survey had similar perceptions of the NYPD and neighborhood safety during the pre-intervention period. Roughly 45% of treatment and 40% of control in-person respondents reported somewhat favorable or very favorable feelings towards NYPD officers in their neighborhood and some 79% of treatment and

77% of control in-person survey respondents considered their neighborhood safe or very safe prior to the launch of the BWC program (Appendix 7). The in-person respondents, both control and treatment, had somewhat less favorable perceptions of the police and somewhat lower responses regarding neighborhood safety than of the respondents in the telephone survey. Relative to the telephone survey results, higher shares of in-person community survey respondents reported being subjected to a car stop while driving in their neighborhood (20% of treatment subjects, 30% of control subjects; $|d| = .23$) or being subjected to a pedestrian stop while in their building or other public places in their neighborhood during last 12 months (20% of treatment subjects, 26% of control subjects; Table 3). Some 23% of treatment in-person community survey subjects and 24% of control in-person community survey subjects reported contacting the police for emergency assistance during the year preceding the BWC implementation. Beyond the very mild difference noted in car stop prevalence noted above, the in-person community survey outcome measures for the treatment and control groups were generally balanced during the pre-intervention. The only other exceptions were small pre-intervention differences between the treatment and control groups noted by Cohen's $|d|$ results in excess of .20 for pat-down frisks and more intrusive searches during pedestrian stops.

E. Analytical Approach

Since experiments control for confounding factors by design, analyses of experimental data do not require extensive statistical modeling to ensure rival causal influences are identified and controlled.⁵⁵ As such, our initial analyses of outcomes for the treatment and control groups over the pre-intervention and post-intervention time period consisted of simple comparisons. For each

⁵⁵ David Weisburd. 2010. "Justifying the Use of Non-Experimental Methods and Disqualifying the Use of Randomized Controlled Trials." *Journal of Experimental Criminology*, 6: 209-227.

of the 49 reported outcomes in the two surveys, we present the frequency distributions and associated means and standard deviations for responses in the treatment and control groups over the pre-intervention and post-intervention periods. Simple chi-square tests were used to test differences in binary outcome data for treatment and control groups over the two observation periods.⁵⁶ For Likert scales, we collapsed the outcome data into two-by-two frequency tables and used chi-square tests to determine whether observed values of a given outcome were significantly different from the expected values of that outcome.

The impact of BWCs on resident perceptions in the treatment precincts relative to the control precincts was estimated through a difference-in-differences (DID) estimator.⁵⁷ The DID estimator evaluated the difference in resident perceptions in the treatment precincts during post-intervention time t compared to during the pre-intervention, relative to the same difference for residents in the control precincts.⁵⁸ The general equation for our regression models was:

$$Y_{it} = \beta_0 + \beta_1 BWC_i + \beta_2 Period_t + \beta_3 (BWC_i \times Period_t) + u_i$$

In this model, (Y_{it}) represents our outcome measure for residents (i) during a specific observation period (t) . The regressor BWC_i is a dummy variable identifying whether residents (i) were in the treatment precinct receiving body cameras (1) or not (0). The reference group comprises control residents in the experiment. The regressor $Period_t$ is a dummy variable for whether the resident perception outcome was measured during the intervention period (1) or during the pre-intervention

⁵⁶ Pearson chi-square values were used for the unweighted in-person community survey comparisons and Rao-Scott chi-square values were used for the weighted telephone survey comparisons.

⁵⁷ David Card and Alan Krueger. 1994. "Minimum Wages and Employment: A Case Study of the Fast-Food industry in New Jersey and Pennsylvania." *American Economic Review*, 84: 772-793.

⁵⁸ It is worth noting here that the pre-intervention and post-intervention survey responses represent repeated cross-sectional data (newly-sampled subjects interviewed each time over two data collection periods) rather than pure panel data (the same subjects interviewed each time over two data collection periods). In this study, the unit of experimentation is the precinct, so we consider subjects as exposed to the BWC intervention if they lived in the treatment precincts.

period (0). Our primary interest is on coefficient β_3 , which represents the DID estimate of the product of the BWC group and the intervention period. Standard errors were clustered by precinct pairs to guard against unmeasured dependence within precincts biasing the estimates of BWCs impact on public perceptions of the NYPD.

Given the mild imbalances in treatment and control group subjects noted above, the DID models were estimated with subject demographic covariates to adjust for these differences. Probit regression models were used to estimate the DID when outcomes variables involved binary conditions (e.g., Do you know any of the police officers that work in your neighborhood by name? 0 = No, 1 = Yes). Ordered probit regression models were estimated when outcomes variables involved Likert scales (e.g. capturing resident perceptions ranging from “very satisfied” to “very dissatisfied”). Resident perception outcome variables measured using Likert scales were reverse-coded to facilitate interpretation of the DID estimator.⁵⁹ Finally, DID estimates were based on structural equation models when outcomes involved latent variables.⁶⁰ We excluded cases with missing values on outcome variables in each regression model.⁶¹

⁵⁹ For instance, reverse coding involved switching the scale to run from “very satisfied to “very dissatisfied” to run from “very satisfied” to “very dissatisfied.” As such, negative coefficients on the DID estimator would then be interpreted as treatment conditions generated a negative effect on the selected outcome relative to control conditions over the pre-intervention and post-intervention periods.

⁶⁰ Structural equation models (SEMs) are well-known social science methods that can encompass a broad range of statistical models including linear regression, measurement models, and simultaneous equations. This approach is very attractive to social science analysts due to its generality and flexibility. SEMs allow the consideration of simultaneous equations with multiple endogenous variables, permit measurement error in exogenous and endogenous variables, allow multiple indicators of latent constructs, permit more general measurement models than traditional factor-analytic structures, and enable the researcher to specify structural relationships among the latent variables (see Bollen, K. (1989). *Structural equations with latent variables*. New York: Wiley; Bollen, K., & Long, J. (Eds). (1993). *Testing structural equation models*. Newbury Park, CA: Sage Publications). In addition to the generalized structural equation models (GSEM), we also used factor score regressions with a Bartlett predictor and two-step GSEMs to calculate the DID estimators for the latent variable outcomes. While there are limitations to each approach, the findings did not differ substantively across the three modeling strategies.

⁶¹ The exclusion rates varied across the regression models. For the community survey, exclusion rates ranged from 1.2% - 12.8% with an average of 8.9%. For the phone survey, exclusions ranged from 1.5% - 8.0% with an average of 6.5%. Sub-questions generated higher rates of exclusions given the smaller number of respondents who answered affirmatively to the larger question. For instance, a smaller number of respondents reported being stopped by the

As described earlier, the telephone survey had 12,057 observations clustered in 20 precinct pairs and the community in-person survey had 2,581 observations clustered in 5 precinct pairs. Our power analyses suggested sufficient statistical power to detect small differences between the treatment and control groups in pre-intervention and intervention outcomes. This design had statistical power of .80 ($\alpha = .05$) to detect small effect sizes in the telephone survey outcomes ($|d| = .035$ to $.139$) and in the community in-person survey outcomes ($|d| = .067$ to $.149$).

1. Multiple comparisons problem. Statistical analyses that involve multiple comparisons run the risk of reporting “false discoveries” as multiple simultaneous statistical tests are conducted.⁶² As the number of comparisons increases, it becomes increasingly likely that the two groups being compared will differ on some particular outcome. When compared to analyses that involve only a single outcome as a comparison, confidence in analyses that involve multiple comparison outcomes is generally weaker. Using a single comparison and a conventional two-tailed $p < .05$ statistical significance level, there is only a 5% chance of incorrect rejecting the null hypothesis when it in fact is true (also known as a “false positive” or Type I error). In this study, there were 98 simultaneous comparisons made between treatment and control respondents (2 surveys * 49 questions). At the $p < .05$ level, we would expect five false positive test results ($98 * .05 = 4.9$) by chance alone. After reducing selected outcome data into latent variables, there were 52 simultaneous comparisons made between treatment and control respondents (2 surveys * 26

police and, as such, missing responses on sub-questions on their stop experiences generated larger percentage of missing values. To determine whether any statistically-significant differences between included and excluded cases existed for the covariates used in our main models, simple t -test comparisons were used. No statistically-significant differences were noted between the missing and included cases. As such, these analyses suggested that the data were missing at random and listwise case deletions were appropriate to address these modest missing data problems.

⁶² See, e.g., Rupert G. Miller. 1981. *Simultaneous Statistical Inference*. Second edition. New York: Springer Verlag.

outcome variables) and associated expectation of roughly three false positive test results ($52 * .05 = 2.6$).

There are many techniques that can be used to correct multiple comparison problems by re-calculating probabilities obtained from a statistical test which was repeated multiple times. The traditional Bonferroni method and other family-wise error rate approaches⁶³ to correct for multiple comparisons have been suggested to be too conservative.⁶⁴ These methods risk missing many true findings by imposing stringent safeguards which control the probability of making at least one Type I error. In this analysis, we used the False Discovery Rate (FDR) approach.⁶⁵ FDR procedures control the expected proportion of false discoveries (incorrectly rejected null hypotheses). The FDR method generates an adjusted p -value known as the q -value that assesses false positive rates and allows for an interpretation of risk levels when rejecting null hypotheses.⁶⁶ For instance, a p -value = .05 for a particular statistical comparison suggests that that 5% of all tests will result in false positives (e.g., proportion of all tested subjects who do not have a disease who will be identified as having the disease). In contrast, a q -value = .05 for a particular statistical comparison suggests that 5% of statistically-significant results will be false discoveries (e.g., the proportion of all subjects identified as having the disease who do not actually have the disease). Like p -values, q -values range from 0 to 1, with $q < .05$ suggesting a bona fide statistically-significant difference between treatment and control groups. A q -value = 1 suggests the result is not statistically significant under any circumstances. For all telephone and in-person community

⁶³ Family-wise error rate approaches assess the probability of making one or more false discoveries, or Type I errors when performing multiple hypotheses tests.

⁶⁴ Yoav Benjamini. 2010. "Discovering the False Discovery Rate." *Journal of the Royal Statistical Society, Series B*, 72: 405–416.

⁶⁵ Yoav Benjamini and Yosef Hochberg. 1995. "Controlling the False Discovery Rate: A Practical and Powerful Approach to Multiple Testing." *Journal of the Royal Statistical Society, Series B*, 57: 289–300.

⁶⁶ Roger Newson. 2010. "Frequentist q -values for Multiple-Test Procedures." *The Stata Journal*, 10: 568–584.

survey questions involving outcome measures, the FDR procedure was used to determine whether any significant results generated through the traditional p -values generated by the DID estimators were actually “false discoveries.”

F. Results

The details of the simple chi-square tests and DID analyses for each survey instrument question involving an outcome measure are presented in Appendix 8 for the telephone surveys and Appendix 9 for the community in-person surveys. All regressions were initially run as baseline DID estimator models (designated Model 1 in the Appendix results tables) and then estimated with subject demographic covariates to adjust for these differences (designated Model 2 in the Appendix results tables). DID models estimating the impact of BWCs on single outcome measures (e.g., In the past 12 months, have you been stopped by police officers in your neighborhood while you were in a car?) and latent variables (e.g., subject perceptions of procedural justice during the car stop) controlling for subject demographic covariates are presented below (26 outcome measures). Baseline DID models and DID models with covariates for the outcome variables that comprise the latent variables are available in Appendices 8 and 9 only. The findings of those analyses do not substantively differ from the results presented here.

Table 14 presents the results of the probit and ordered probit regressions comparing differences in survey subject responses over the course of the pre-intervention and intervention time periods in the treatment precincts relative to the control precincts. The q -values associated with the DID estimates show that the presence of BWCs in the treatment precincts did not generate any statistically-significant changes in the community in-person survey and telephone survey subject responses between the pre-intervention and intervention periods when compared to the control subject responses. Relative to control subjects, subjects in the BWC treatment areas did

not report any differences over time in their perceptions of neighborhood safety, how complaints would be handled by the NYPD, their knowledge of NYPD officer names in their neighborhood, whether they contacted the NYPD for assistance, and whether they personally or someone in their household had been stopped by the NYPD between the pre-intervention and interventions periods. For those subjects who had experienced a pedestrian and/or car stop, no significant differences were reported by subjects in BWC areas relative to control areas over time in terms of officer behaviors during the stop. Relative to control subjects, stopped treatment subjects did report that NYPD officers were less likely to explain the reason for their stop after the adoption of the BWCs in their precincts, but this difference has a q -value of 0.16, indicating this was not a statistically meaningful difference.

Table 15 presents the results of the model estimating the differences in survey subject responses for the items comprising the outcome variables assessed as latent measures perceptions of the NYPD. Once again, covariates controlling for individual characteristics were included in the models but not shown in Table 15. Similar to the results shown in Table 14, the generalized structural equations suggested there were no bona fide statistically-significant changes in the perceptions held by subjects in the BWC treatment precincts relative to subjects in the control precincts. Relative to control precinct in-person subjects who experienced a pedestrian stop, treatment precinct in-person subjects expressed seemingly mixed views on officer behaviors during the stop. While the p -values associated with the DID estimates suggested that their negative perceptions of police officer behaviors decreased (i.e., became more positive) and their perceptions of procedural justice during the encounter diminished, the q -values indicate these contradictory findings are false discoveries. The FDR analysis also suggests that the improvement in negative

perceptions of NYPD officers noted by treatment precinct telephone survey subjects relative to control subjects was also a false discovery.

An exploratory analysis of all responses by white, black, and Hispanic/ Latino subjects was conducted by pooling the data from the community in-person surveys and telephone surveys (included as unweighted data) for the pre-intervention and intervention periods (Table 16). We then ran the same probit, ordered probit, and generalized structural equation models to determine whether the BWCs generated any noteworthy changes in citizen perceptions of the NYPD held by treatment and control subjects in distinct racial groups. As the q -values in Table 16 reveal, there were no genuine statistically-significant differences in citizen perceptions of the NYPD generated by the deployment of BWCs on NYPD officers in the treatment and control precincts over the course of the pre-intervention and intervention periods.

Table 14. Probit and Ordered Probit Regressions of Selected Outcomes on DID Estimators and Control Variables

	Model	Community In-Person Survey						Telephone Survey					
		DID				Pseudo R ²	N	DID				Pseudo R ²	N
		Coef. (RSE)	<i>p</i>	<i>q</i>				Coef. (RSE)	<i>p</i>	<i>q</i>			
Q3 - Neighborhood safety	Ordered Probit	-0.017 (0.047)	0.721		1	0.010	2342	0.047 (0.063)	0.452		1	0.039	11004
Q7 - Complaint investigation	Ordered Probit	0.062 (0.126)	0.621		1	0.017	2291	0.069 (0.064)	0.277		1	0.021	10383
Q8 - Car stop	Probit	0.267 (0.135)	0.049		1	0.049	2302	0.026 (0.093)	0.777		1	0.043	11082
Q10-1 - Explained reason	Probit	-0.096 (0.357)	0.787		1	0.029	473	0.162 (0.164)	0.323		1	0.038	1590
Q10-2 - Used force	Probit	-0.376 (0.256)	0.142		1	0.057	468	-0.593 (0.328)	0.071		1	0.134	1606
Q10-3 - Frisked	Probit	-0.429 (0.337)	0.204		1	0.074	464	-0.309 (0.233)	0.185		1	0.135	1608
Q10-4 - Searched	Probit	-0.354 (0.421)	0.400		1	0.047	477	-0.068 (0.207)	0.745		1	0.121	1605
Q10-5 - Issued summons	Probit	-0.089 (0.115)	0.423		1	0.027	470	0.213 (0.225)	0.344		1	0.010	1603
Q10-6 - Arrested	Probit	-0.532 (0.485)	0.273		1	0.050	476	-0.273 (0.370)	0.460		1	0.062	1610
Q13 - Pedestrian stop	Probit	0.169 (0.225)	0.454		1	0.060	2280	-0.201 (0.114)	0.078		1	0.059	11082
Q15-1 - Explained reason	Probit	-0.515 (0.174)	0.003 ***	0.162		0.018	429	-0.283 (0.173)	0.100		1	0.017	924
Q15-2 - Provided receipt	Probit	-0.221 (0.189)	0.243		1	0.038	413	0.050 (0.264)	0.850		1	0.047	917
Q15-3 - Frisked	Probit	-0.412 (0.391)	0.292		1	0.083	424	0.268 (0.259)	0.301		1	0.082	930
Q15-4 - Searched	Probit	-0.587 (0.352)	0.096		1	0.064	431	0.482 (0.268)	0.072		1	0.035	928
Q15-5 - Used force	Probit	-0.120 (0.244)	0.622		1	0.054	426	0.070 (0.291)	0.810		1	0.037	924
Q15-6 - Arrested / summonsed	Probit	-0.463 (0.241)	0.054		1	0.029	426	-0.282 (0.319)	0.376		1	0.062	930
Q18 - Contacted for assistance	Probit	-0.059 (0.170)	0.726		1	0.010	2299	0.039 (0.076)	0.607		1	0.028	11023
Q21 - Favor BWCs	Ordered Probit	0.096 (0.105)	0.360		1	0.006	2330	-0.070 (0.071)	0.326		1	0.004	10526
Q24 - Household stopped	Probit	0.144 (0.173)	0.406		1	0.027	2351	-0.241 (0.118)	0.040		1	0.032	10718
Q26 - Know officers	Probit	-0.157 (0.142)	0.267		1	0.046	2352	-0.066 (0.115)	0.568		1	0.040	11047
*** <i>p</i> < .01													
Covariates included but not shown: Race, ethnicity, gender, age, education, and NYPD friend/family													
All models used robust standard errors clustered by precinct matched pair													

Table 15. Generalized Structural Equation Models of Outcome Latent Variables, DID, and Control Variables

<i>Outcome Latent Variables</i>	<i>Community In-Person Survey</i>					<i>Telephone Survey</i>				
	DID					DID				
	Coef. (RSE)	<i>p</i>	<i>q</i>	N		Coef. (RSE)	<i>p</i>	<i>q</i>	N	
1: Positive Perceptions of Neighborhood Officers	-0.025 (0.100)	0.800	1	2151		0.063 (0.063)	0.328	1	9394	
2: Negative Perceptions of Neighborhood Officers	0.057 (0.071)	0.425	1	2140		-0.162 (0.069)	0.031 *	1	8681	
3: Procedural Justice Perceptions During Car Stop	0.002 (0.096)	0.984	1	467		-0.057 (0.128)	0.662	1	1543	
4: Negative Perceptions During Car Stop	-0.191 (0.155)	0.219	1	480		-0.153 (0.180)	0.405	1	1511	
5: Procedural Justice Perceptions During Pedestrian Stop	-0.385 (0.087)	0.000 **	0.166	436		-0.292 (0.189)	0.139	1	883	
6: Negative Perceptions During Pedestrian Stop	-0.395 (0.168)	0.018 *	1	440		0.176 (0.202)	0.396	1	886	
7: Procedural Justice Perceptions During Contact for Assistance	-0.221 (0.095)	0.021 *	1	533		0.046 (0.111)	0.685	1	1685	
<i>*p < .05, **p < .01</i>										
Covariates included but not shown: Race, ethnicity, gender, age, education, and NYPD friend/family										
All models used robust standard errors clustered by precinct matched pair										

Table 16. Probits, Ordered Probits, and Generalized Structural Equation Models by Respondent Race

	Model	White Respondents (N = 3463)					Black Respondents (N = 4763)					Hispanic Respondents (N = 4921)				
		DID			N	DID			N	DID			N			
		Coef. (RSE)	p	q		Coef. (RSE)	p	q		Coef. (RSE)	p	q				
Q3 - Neighborhood safety	Ordered Probit	0.122 (0.134)	0.360		1	3248	-0.015 (0.062)	0.815		1	4453	0.068 (0.065)	0.297		1	4380
Q7 - Complaint investigation	Ordered Probit	0.051 (0.094)	0.589		1	3085	0.025 (0.058)	0.667		1	4269	0.050 (0.098)	0.606		1	4134
Q8 - Car stop	Probit	0.066 (0.188)	0.725		1	3258	0.143 (0.068)	0.037		1	4460	-0.004 (0.079)	0.960		1	4393
Q10-1 - Explained reason	Probit	0.176 (0.272)	0.517		1	338	-0.147 (0.180)	0.413		1	885	-0.211 (0.202)	0.298		1	673
Q10-2 - Used force	Probit	-1.152 (0.356)	0.001 **	0.126		341	-0.170 (0.261)	0.514		1	880	-0.099 (0.274)	0.719		1	681
Q10-3 - Frisked	Probit	-0.745 (0.431)	0.084		1	341	-0.075 (0.264)	0.775		1	882	0.174 (0.237)	0.462		1	682
Q10-4 - Searched	Probit	-0.751 (0.435)	0.085		1	340	0.131 (0.233)	0.575		1	890	0.105 (0.201)	0.603		1	688
Q10-5 - Issued summons	Probit	0.056 (0.259)	0.828		1	342	0.289 (0.171)	0.091		1	884	0.115 (0.170)	0.499		1	681
Q10-6 - Arrested	Probit	-0.759 (0.487)	0.119		1	343	-0.102 (0.409)	0.803		1	885	0.404 (0.320)	0.208		1	691
Q13 - Pedestrian stop	Probit	-0.049 (0.125)	0.694		1	3258	0.063 (0.147)	0.668		1	4453	-0.180 (0.130)	0.165		1	4381
Q15-1 - Explained reason	Probit	-0.681 (0.408)	0.095		1	201	-0.501 (0.170)	0.003 **	0.608		628	-0.331 (0.212)	0.119		1	447
Q15-2 - Provided receipt	Probit	-0.071 (0.364)	0.844		1	197	-0.465 (0.176)	0.008 **	0.806		619	0.207 (0.262)	0.428		1	442
Q15-3 - Frisked	Probit	-0.059 (0.410)	0.886		1	198	-0.043 (0.214)	0.840		1	632	-0.098 (0.229)	0.667		1	452
Q15-4 - Searched	Probit	-0.397 (0.455)	0.383		1	198	0.120 (0.216)	0.577		1	636	-0.007 (0.268)	0.979		1	455
Q15-5 - Used force	Probit	0.666 (0.445)	0.134		1	199	0.000 (0.205)	1.000		1	632	0.090 (0.329)	0.784		1	453
Q15-6 - Arrested / summonsed	Probit	-0.212 (0.530)	0.690		1	195	-0.376 (0.198)	0.057		1	631	-0.027 (0.249)	0.915		1	457
Q18 - Contacted for assistance	Probit	0.023 (0.107)	0.827		1	3244	-0.064 (0.073)	0.382		1	4445	0.018 (0.082)	0.823		1	4372
Q21 - Favor BWCs	Ordered Probit	-0.022 (0.075)	0.772		1	3094	0.034 (0.068)	0.611		1	4290	0.067 (0.093)	0.472		1	4282
Q24 - Household stopped	Probit	-0.333 (0.120)	0.005 **	0.672		3192	0.018 (0.091)	0.845		1	4340	-0.110 (0.097)	0.188		1	4318
Q26 - Know officers	Probit	-0.105 (0.138)	0.446		1	3256	-0.011 (0.072)	0.877		1	4475	-0.168 (0.082)	0.041 *		1	4401
1: Positive Perceptions of Neighborhood Officers	GSEM	0.105 (0.058)	0.070		1	2732	-0.052 (0.066)	0.433		1	3892	-0.025 (0.078)	0.753		1	3848
2: Negative Perceptions of Neighborhood Officers	GSEM	-0.156 (0.075)	0.037 *		1	2502	0.017 (0.059)	0.769		1	3722	-0.019 (0.067)	0.778		1	3632
3: Procedural Justice Perceptions During Car Stop	GSEM	-0.008 (0.192)	0.965		1	336	-0.059 (0.141)	0.677		1	863	-0.099 (0.139)	0.478		1	663
4: Negative Perceptions During Car Stop	GSEM	-0.273 (0.159)	0.086		1	334	-0.082 (0.172)	0.635		1	846	0.339 (0.138)	0.014		1	655
5: Procedural Justice Perceptions During Pedestrian Stop	GSEM	-0.217 (0.277)	0.433		1	192	-0.238 (0.123)	0.052		1	624	-0.320 (0.187)	0.087		1	443
6: Negative Perceptions During Pedestrian Stop	GSEM	0.209 (0.262)	0.425		1	191	-0.111 (0.190)	0.560		1	639	0.049 (0.193)	0.799		1	438
7: Procedural Justice Perceptions During Contact for Assistance	GSEM	0.026 (0.175)	0.880		1	573	-0.275 (0.168)	0.102		1	708	0.148 (0.115)	0.200		1	732

*p < .05, **p < .01

Covariates included but not shown: Race, ethnicity, gender, age, education, and NYPD friend/family

All models used robust standard errors clustered by precinct matched pair. GSEM = Generalized structural equation model.

V. Discussion of Results

This section discusses the results of the cluster randomized controlled trial testing the effects of outfitting NYPD officers with BWCs on the four sets of key outcome measures: civility of police-citizen interactions, policing activities, police lawfulness, and police-community relations. For each set of outcomes, the available evaluation literature is briefly reviewed and then the results of this program evaluation are considered.

A. Civility of Police-Citizen Interactions

1. Summary of the Evaluation Literature. A number of other randomized controlled trials and quasi-experimental evaluations have estimated the impacts of BWCs on citizen complaints of inappropriate police behavior and misconduct during encounters with officers. Many of these other evaluations report large reductions in citizen complaints when officers are outfitted with BWCs relative to their non-BWC wearing officers,⁶⁷ while a smaller number do not find any noteworthy reductions.⁶⁸ The overall empirical evidence to date suggests that BWCs do lead to a decrease in citizen complaints against officers; however, it remains unclear whether these

⁶⁷ Ariel, B., Farrar, W. A., & Sutherland, A. (2015). The effect of police body-worn cameras on use of force and citizens' complaints against the police: A randomized controlled trial. *Journal of Quantitative Criminology*, *31*, 509-535; Braga, A., Sousa, W., Coldren, J. R., Jr., & Rodriguez, D. (2018). The effects of body-worn cameras on police activity and police-citizen encounters: A randomized controlled trial. *Journal of Criminal Law and Criminology*, *108*, 511-538; Jennings, W. G., Lynch, M. D., & Fridell, L. A. (2015). Evaluating the impact of police officer body-worn cameras (BWCs) on response-to-resistance and serious external complaints: Evidence from the Orlando Police Department (OPD) experience utilizing a randomized controlled experiment. *Journal of Criminal Justice*, *43*, 480-486; Hedberg, E. C., Katz, C. M., & Choate, D. E. (2017). Body-worn cameras and citizen interactions with police officers: Estimating plausible effects given varying compliance levels. *Justice Quarterly*, *34*, 627-651; Mesa Police Department. (2013). *On-officer body camera system: Program evaluation and recommendations*. Mesa, AZ: Mesa Police Department.

⁶⁸ Grossmith, L., Owens, C., Finn, W., Mann, D., Davies, T., & Baika, L. (2015). *Police, camera, evidence: London's cluster randomised controlled trial of body worn video*. London: College of Policing and Mayor's Office for Policing and Crime; White, M. D., Gaub, J. E., & Todak, N. (2018). Exploring the potential for body-worn cameras to reduce violence in police-citizen encounters. *Policing: A Journal of Policy and Practice*, *12*, 66-76; Yokum, D., Ravishanakar, A., & Coppock, A. (2017). *Evaluating the effects of police body worn cameras: A randomized controlled trial*. Washington, DC: The Lab @ DC.

reductions represent bona fide improvements in police behavior during encounters or changes in citizen reporting behavior prompted by a diminished tendency to file complaints against officers.⁶⁹

Other program evaluations considering the effects of BWC on police officer use of force during interactions with citizens is much more mixed. Some of these other controlled evaluations have reported no differences in various police use of force outcomes when BWC officers are compared to control non-BWC officers.⁷⁰ In contrast, there is a noteworthy group of rigorous studies that do find reductions in police use of force outcomes for BWC officers relative to control non-BWC officers.⁷¹ A multisite randomized controlled trial involving eight police departments in England and Wales and 2,122 officers suggests that these divergent findings may be explained by variations in BWC policies and the willingness of officers to comply with established camera activation guidelines.⁷² Significant reductions in officer use of force were reported in the three sites with high officer compliance to BWC policy that required upfront notifications of video

⁶⁹ Lum, C., Stoltz, M., Koper, C. S., & Scherer, J. A. (2019). The research on body-worn cameras: What we know, what we need to know. *Criminology & Public Policy*, 18, 93-118.

⁷⁰ Headley, A. M., Guerette, R. T., & Shariati, A. (2017). A field experiment of the impact of body-worn cameras (BWCs) on police officer behavior and perceptions. *Journal of Criminal Justice*, 53, 102-109; Peterson, B., Yu, L., La Vigne, N., and Lawrence, D. (2018). *The Milwaukee Police Department's body-worn camera program*. Washington, DC: Urban Institute; White, M. D., Gaub, J. E., & Todak, N. (2018). Exploring the potential for body-worn cameras to reduce violence in police-citizen encounters. *Policing: A Journal of Policy and Practice*, 12, 66-76; Yokum, D., Ravishanakar, A., & Coppock, A. (2017). *Evaluating the effects of police body worn cameras: A randomized controlled trial*. Washington, DC: The Lab @ DC.

⁷¹ Ariel, B., Farrar, W. A., & Sutherland, A. (2015). The effect of police body-worn cameras on use of force and citizens' complaints against the police: A randomized controlled trial. *Journal of Quantitative Criminology*, 31, 509-535; Braga, A., Sousa, W., Coldren, J. R., Jr., & Rodriguez, D. (2018). The effects of body-worn cameras on police activity and police-citizen encounters: A randomized controlled trial. *Journal of Criminal Law and Criminology*, 108, 511-538; Jennings, W. G., Lynch, M. D., & Fridell, L. A. (2015). Evaluating the impact of police officer body-worn cameras (BWCs) on response-to-resistance and serious external complaints: Evidence from the Orlando Police Department (OPD) experience utilizing a randomized controlled experiment. *Journal of Criminal Justice*, 43, 480-486; Hedberg, E. C., Katz, C. M., & Choate, D. E. (2017). Body-worn cameras and citizen interactions with police officers: Estimating plausible effects given varying compliance levels. *Justice Quarterly*, 34, 627-651; Mesa Police Department. (2013). *On-officer body camera system: Program evaluation and recommendations*. Mesa, AZ: Mesa Police Department.

⁷² Ariel, B., Sutherland, A., Henstock, D., Young, J., Drover, P., Sykes, J., Megicks, S., Henderson, R. (2016). Wearing body-cameras increases assaults against officers and do not reduce police-use of force: results from a global multisite experiment. *European Journal of Criminology*, 136, 744-755.

recording when encounters with citizens were initiated, while the five sites with low compliance to BWC notification policy reported increases in officer use of force. Whether divergent findings in the effect of BWC across police departments are a result of compliance with policies on their activation or differences between departmental cultures and practices of use of force remains unclear. After all, the only way to know if compliance causes differences in use of force would be to vary compliance in a randomized controlled trial.

2. Discussion of Evaluation Findings. In this study, the placement of BWCs on treatment NYPD officers relative to control NYPD officers generated mixed effects on the two outcomes measuring the civility of police-citizen interactions. CCRB complaints against BWC officers dropped by slightly more than 21% when compared to CCRB complaints against control officers over the course of the pre-intervention and post-intervention observation periods. In contrast, the number of arrest reports that listed force used during the encounter did not change significantly as a result of the BWC deployment on treatment officers relative to control officers. The BWCs seemed to produce more civil encounters that caused fewer citizens to file CCRB complaints against the treatment officers encountered. Any improved civility associated with decreased CCRB complaints did not appear to diminish the need to use force when officers made arrests. NYPD officers with BWCs used force to complete arrests as frequently as NYPD officers without cameras. However, it is important to note that only about 1.5% of arrests made during the one-year intervention period involved the use of force and slightly more than 0.1% of the experimental officers reported using force during an arrest. The use of force during an arrest may have such a low base rate that even a well-powered test might not detect differences in such a rare event.

For the NYPD and other police departments, increased civility could generate considerable collateral benefits such as fewer injuries to civilians and officers and reduced civil litigation. Civil

police-citizen interactions are less likely to escalate into unfortunate outcomes, such as officer-involved shootings. In addition, a recent CCRB report suggests that deployment of BWCs support civilian oversight by reducing the time needed to investigate complaints, helping in the determination of what happened in the police-civilian encounter, and increasing the share of cases being closed with a disposition of substantiated, unfounded, or exonerated rather than being closed because the facts could not be sufficiently determined.⁷³

B. Police Activity

1. Summary of the Evaluation Literature. A review of other research studies suggest mixed effects of BWCs on police officer work behaviors, such as their inclination to use proactive policing tactics and their propensity to use discretion when resolving crime incidents through arrests.⁷⁴ Surveys of police officers conducted in these other studies suggest that BWCs are viewed as potentially important tools to create video evidence that capture events in police-citizen encounters that support the arrest and prosecution of offenders.⁷⁵ Other studies suggest that officers are concerned that they will be unfairly disciplined for not making arrests or issuing citations to civilians when these actions are found to be legally justified after supervisors review

⁷³ Civilian Complaint Review Board. (2020). *Strengthening accountability: The impact of the NYPD's body-worn camera program on CCRB investigations*. New York: New York City Civilian Complaint Review Board.

⁷⁴ Katz, C. M., Choate, D. E., Ready, J. R., & Nuño, L. (2014). *Evaluating the impact of officer worn body cameras in the Phoenix Police Department*. Phoenix, AZ: Arizona State University, Center for Violence Prevention & Community Safety; Rowe, M., Pearson, G., & Turner, E. (2018). Body-worn cameras and the law of unintended consequences: Some questions arising from emergent practices. *Policing: A Journal of Policy and Practice*, 12, 83-90; Wallace, D., White, M., Gaub, J., & Todak, N. (2018). Body-worn cameras as a potential source of de-policing: Testing for camera-induced passivity. *Criminology*, 56, 481-509.

⁷⁵ Goodall, M. (2007). *Guidance for the police use of body-worn video devices*. London: Home Office; ODS Consulting. (2011). *Body worn video projects in Paisley and Aberdeen, self-evaluation evaluation report*. Glasgow, UK: ODS Consulting.

videos.⁷⁶ Some observers suggest that outfitting police officers with BWCs leads to the “de-policing” of high crime areas as officers become less willing to engage proactive tactics, such as stopping citizens and frisking them for weapons.⁷⁷

The conflicting results of a series of other controlled studies highlights the unclear effects of the BWC technology on police officer work behaviors. In Boston, a randomized controlled trial found no differences between BWC treatment and non-BWC control officers in police officer responses to dispatched calls for service, self-initiated calls to report proactive interventions, the number of crime incidents handled, arrest reports made to resolve crime incidents, and street stops completed.⁷⁸ Yet in Spokane, the placement of BWCs on treatment officers relative to non-BWC control officers in a randomized experiment found that the cameras increased self-initiated calls,⁷⁹ while a randomized experiment in Las Vegas found cameras increased arrests and citations.⁸⁰ A quasi-experimental evaluation in Phoenix found that BWCs increased arrests.⁸¹ When compared with their control counterparts, BWC officers were no more likely to initiate traffic stops of citizens

⁷⁶ Police Executive Research Forum. (2014). *Implementing a body-worn camera program: Recommendations and lessons learned*. Washington, DC: Office of Community Oriented Policing Services; Ready, J., & Young, J. (2015). The impact of on-officer video cameras on police-citizen contacts: Findings from a controlled experiment in Mesa, AZ. *Journal of Experimental Criminology*, 11, 445-458.

⁷⁷ Rushin, S. & Edwards, G. (2017). De-policing. *Cornell Law Review*, 102 (3): 721 – 782.

⁷⁸ Braga, A. A., Barao, L., Zimmerman, G., Douglas, S., & Sheppard, K. (2020). Measuring the direct and spillover effects of body worn cameras on the civility of police-citizen encounters and police work activities.” *Journal of Quantitative Criminology*, <https://doi.org/10.1007/s10940-019-09434-9>

⁷⁹ Wallace, D., White, M., Gaub, J., & Todak, N. (2018). Body-worn cameras as a potential source of de-policing: Testing for camera-induced passivity. *Criminology*, 56, 481-509.

⁸⁰ Braga, A., Sousa, W., Coldren, J. R., Jr., & Rodriguez, D. (2018). The effects of body-worn cameras on police activity and police-citizen encounters: A randomized controlled trial. *Journal of Criminal Law and Criminology*, 108, 511-538.

⁸¹ Hedberg, E. C., Katz, C. M., & Choate, D. E. (2017). Body-worn cameras and citizen interactions with police officers: Estimating plausible effects given varying compliance levels. *Justice Quarterly*, 34, 627-651.

in a Milwaukee randomized experiment,⁸² and no more likely to conduct stop-and-frisks in a London cluster randomized trial.⁸³ However, in Mesa, Arizona, a controlled evaluation reported that BWC officers were more likely to initiate encounters with citizens and give them citations, but less likely to conduct stop-and-frisks and make arrests relative to non-BWC comparison officers.⁸⁴

2. *Discussion of Evaluation Findings.* This NYPD study found that the BWC treatment officers generated 38.8% more stop reports when compared to non-BWC control officers over the course of the pre-intervention and intervention observation periods. But the implementation of BWCs was not associated with any statistically significant changes in the number of arrests, arrests with force, summonses, domestic incident reports, and citizen crime complaint reports when officers in the treatment precincts were compared to officers in the control precincts. As described above, the results of other studies are highly mixed on whether BWCs have any influence on police proactivity.⁸⁵ The results of the NYPD BWC evaluation are consistent with other studies finding that officers outfitted with BWCs generated higher numbers of self-initiated calls⁸⁶ and enforcement actions⁸⁷ relative to their non-BWC counterparts. Some of these other studies

⁸² Peterson, B., Yu, L., La Vigne, N., and Lawrence, D. (2018). *The Milwaukee Police Department's body-worn camera program*. Washington, DC: Urban Institute.

⁸³ Grossmith, L., Owens, C., Finn, W., Mann, D., Davies, T., & Baika, L. (2015). *Police, camera, evidence: London's cluster randomised controlled trial of body worn video*. London: College of Policing and Mayor's Office for Policing and Crime.

⁸⁴ Ready, J., & Young, J. (2015). The impact of on-officer video cameras on police-citizen contacts: Findings from a controlled experiment in Mesa, AZ. *Journal of Experimental Criminology*, 11, 445-458.

⁸⁵ Lum, C., Stoltz, M., Koper, C. S., & Scherer, J. A. (2019). The research on body-worn cameras: What we know, what we need to know. *Criminology & Public Policy*, 18, 93-118.

⁸⁶ Wallace, D., White, M., Gaub, J., & Todak, N. (2018). Body-worn cameras as a potential source of de-policing: Testing for camera-induced passivity. *Criminology*, 56, 481-509.

⁸⁷ Braga, A., Sousa, W., Coldren, J. R., Jr., & Rodriguez, D. (2018). The effects of body-worn cameras on police activity and police-citizen encounters: A randomized controlled trial. *Journal of Criminal Law and Criminology*, 108, 511-538

speculate that increased enforcement activity associated with BWC deployments may be due to enhanced evidence collection offered by capturing events and crime scenes on video or, perhaps, officer concerns that the technology diminishes their discretion to not make arrests and issue citations.⁸⁸

In the context of this study, however, these explanations do not seem adequate to explain the observed increase in the number of stop reports filed by BWC officers, when at the same time there is no increase in other enforcement activities such as arrests. As part of the reforms ordered by the court in *Floyd*, the NYPD implemented a series of changes to move away from the excessive use of stops to control crime.⁸⁹ In this context, it seems unlikely that the BWCs somehow inspired NYPD officers to conduct more stops of citizens on video. On the contrary, the increased number of stops reported in the treatment precincts may be the result of the surveillance potential of the BWC technology: officers, aware that the encounter is recorded, may be more likely to document that encounter.

C. Police Lawfulness

1. *Summary of the Evaluation Literature.* Community concerns over police accountability for the lawfulness of police actions during encounters with citizens, was a key factor motivating

⁸⁸ Goodall, M. (2007). *Guidance for the police use of body-worn video devices*. London: Home Office; ODS Consulting. (2011). *Body worn video projects in Paisley and Aberdeen, self-evaluation evaluation report*. Glasgow, UK: ODS Consulting; Police Executive Research Forum. (2014). *Implementing a body-worn camera program: Recommendations and lessons learned*. Washington, DC: Office of Community Oriented Policing Services.

⁸⁹ See, e.g., <http://nypdmonitor.org/monitor-reports/>; Shira Scheindlin, United States District Court, Southern District of New York, Opinion and Order, *Floyd et al. v. City of New York, et al.*, 08 Civ. 1034 (AT), *Ligon, et al., v. City of New York, et al.*, 12 Civ 2274 (AT), and *Davis et al., v. City of New York, et al.*, 10-CV-00699 (AT), filed August 12, 2013; MacDonald, J., & Braga, A.A. (2019). Did post-*Floyd et al.* reforms reduce racial disparities in NYPD stop, question, and frisk practices? An exploratory analysis using external and internal benchmarks. *Justice Quarterly*, 36, 954 – 983.

the adoption of BWCs by US police departments.⁹⁰ This particularly salient aspect of changing police lawfulness has been surprisingly absent from BWC program evaluation research. A recent systematic review of 70 other empirical studies concluded that little is known about the impact of BWCs on the constitutionality of police officer actions.⁹¹ Police compliance with the law is an important element of democratic societies.⁹² Law enforcement officers are expected to comply with federal and state laws, local ordinances, and the policies and standards of their departments. Critics of proactive policing strategies, such as stop-and-frisk, broken windows, and hot spots policing, raise concerns that these crime control efforts lead police departments to break the law.⁹³ Important legal constraints on proactive policing include the U.S. Constitution's Fourth Amendment offering citizens protections against illegal searches and seizures, and the Equal Protection Clause of the Fourteenth Amendment protecting citizens against policing actions that discriminate against individuals on the basis of race, religion, country of origin, and other characteristics.⁹⁴

2. *Discussion of Evaluation Findings.* In this study, the analyses of the lawfulness of NYPD stops of citizens support the position that the increase in stop reports made by BWC treatment officers may be influenced by a heightened willingness of NYPD officers to file reports of their

⁹⁰ Stanley, J. (2015). *Police body-mounted cameras: With right policies in place, a win for all*. New York: American Civil Liberties Union; Todak, N., Gaub, J. E., White, M. D. (2018). The importance of external stakeholders for police body-worn camera diffusion. *Policing: An International Journal of Police Strategies & Management*, 41, 448-464.

⁹¹ Lum, C., Stoltz, M., Koper, C. S., & Scherer, J. A. (2019). The research on body-worn cameras: What we know, what we need to know. *Criminology & Public Policy*, 18, 93-118.

⁹² Rawls, J. (1971). *A theory of justice*. Cambridge, MA: Harvard University Press; Skogan, W. & Meares, T. (2004). Lawful Policing. *The Annals of the American Academy of Political and Social Science*, 593, 66-83.

⁹³ For a summary of these critiques, see National Academies of Sciences, Engineering, and Medicine (2018). *Proactive policing: Effects on crime and communities*. Washington, DC: The National Academies Press.

⁹⁴ Cohen, W. & Kaplan, J. (1982). *Constitutional law: Civil liberty and individual rights*. Mineola, NY: Foundation Press.

stops due to the associated video documentation of stops created by the BWCs. The stops made by the treatment officers, as well as frisks and searches in those stops, were less likely to be judged as lawful by the monitor team and NYPD QAD auditors alike, relative to stops made by control officers. It seems highly unlikely that increased unlawfulness would be caused by the presence of BWCs that are capable of producing evidence that could be used to punish officers who willingly violate citizen rights. More likely is that officers were willing to file reports on questionable stops because the officers knew that their actions could be reviewed more easily if they were recorded on BWCs. The stops made by BWC treatment officers were also less likely to produce reports that involved full searches, the issuance of summonses, or the arrest of suspects when compared to non-BWC control officer stops. The decreased share of stop reports with these additional enforcement actions suggests that BWC officers have increased their documentation of less intrusive encounters that would not have resulted in official reports in the absence of the technology. Therefore, the presence of the BWCs may be enhancing officer compliance with NYPD policy directives requiring the documentation of citizen stops.

Our analyses also suggest that the stop reports filed by BWC treatment officers are somewhat more likely to involve stops of Black subjects and somewhat less likely to involve stops of White subjects. This modest racial disparity may mean that the undocumented encounters could be obscuring continued stop practices and patterns that violate the 4th Amendment and the Equal Protection Clause of the 14th Amendment. However, in order to determine whether this is true, rigorous and systematic analysis of NYPD stop reports is necessary, along the lines of what the monitor team is already pursuing.⁹⁵ In addition is important for the NYPD to continue in its efforts

⁹⁵ [11th Report; other efforts]

to ensure compliance with stop reporting requirements.⁹⁶ In the absence of compliance with these requirements the NYPD cannot ensure that NYPD officers are conducting citizen stops in a lawful manner.

D. Police – Community Relations

1. Summary of the Evaluation Literature. The available research suggests that citizens support the adoption of BWC by police departments and hold high expectations for the technology in improving accountability, and thus enhance citizen confidence in the police.⁹⁷ Using data collected from interviews and focus groups in two cities, researchers found that judges, prosecutors, mental health workers, city leaders, civilian oversight members, victim advocates and other key external stakeholders were highly supportive of BWC implementation by their police departments.⁹⁸ Detained suspects of crime also favor the deployment of BWCs on police officers.⁹⁹ However, consistent with the broader literature on public perceptions of the police, non-White citizens generally view the potential benefits of BWCs with less enthusiasm and are more skeptical than whites of its efficacy in holding officers accountable for misconduct.¹⁰⁰

⁹⁶ Precinct commanders are now required to meet twice each year with NYPD command staff to account for their compliance with stop reporting policy directives and other *Floyd* settlement issues. Data analysis and BWC video reviews are currently being used to identify potential encounters that require stop documentation. These efforts are being supported by more robust stop auditing processes and enhanced supervisory training. The Tenth report by the independent monitor lists the methods being used by the NYPD to detect and eliminate the underreporting of stops: <http://nypdmonitor.org/wp-content/uploads/2020/01/Monitors-Corrected-Tenth-Report.pdf> (accessed August 13, 2020). See also the Ninth and Eleventh reports of the independent monitor available at <http://nypdmonitor.org/monitor-reports/>.

⁹⁷ Lum, C., Stoltz, M., Koper, C. S., & Scherer, J. A. (2019). The research on body-worn cameras: What we know, what we need to know. *Criminology & Public Policy*, 18, 93-118.

⁹⁸ Todak, N., Gaub, J., & White, M. D. (2018). The importance of external stakeholders for police body-worn camera diffusion. *Policing: An International Journal of Police Strategies & Management*, 41, 448-464.

⁹⁹ Taylor, E., Lee, M., Willis, M., & Gannoni, A. (2017). Police detainee perspectives on police body-worn cameras. *Trends & Issues in Crime & Criminal Justice*, 537, 1–14.

¹⁰⁰ Crow, M., Snyder, J., Crichlow, V., & Smykla, J. O. (2017). Community perceptions of police body-worn cameras: The impact of views on fairness, fear, performance, and privacy. *Criminal Justice and Behavior*, 44, 589-610;

Very few studies have attempted to measure the impacts of BWCs on community-wide citizen perceptions of the police before and after the technology was implemented. Researchers conducted a mail-in survey of Isle of Wight (UK) residents before and after BWCs were placed on police officers.¹⁰¹ Public approval of the police was very high before and after BWC adoption, and public confidence the police changed very little. A quasi-experimental evaluation of the influence of BWCs on citizen crime reporting behaviors was conducted in Denver (CO).¹⁰² Based on an analysis of calls for service data in treatment and control areas, this study found that BWCs increased the number of calls to the police in low-crime residential street segments but did not influence the number of calls in high-crime street segments. The research concluded that the greater willingness of citizens from treatment low-crime residential places to report crimes to the police was a likely result of improved police-community relations stimulated by the placement of BWCs on officers.

Other research has examined the influence of BWCs on citizen perceptions after specific encounters with the police, tending to focus on police legitimacy and procedural justice issues. The available evidence on the impacts of BWCs on citizen perceptions of the police following encounters with officers wearing the cameras is mixed. In Spokane (WA), telephone interviews with 249 citizens who recently had an encounter with the police found that their perceptions of

Kerrison, E. M., Cobbina, J., & Bender, K. (2018). Stop-gaps, lip service, and the perceived futility of body-worn police officer cameras in Baltimore City. *Journal of Ethnic & Cultural Diversity in Social Work*, 27, 271-288; Sousa, W. H., Miethe, T. D., & Sakiyama, M. (2018). Inconsistencies in public opinion of body-worn cameras on police: Transparency, trust, and improved police–citizen relationships. *Policing: A Journal of Policy and Practice*, 12, 100-108.

¹⁰¹ Ellis, T., Jenkins, C., & Smith, P. (2015). *Evaluation of the introduction of personal issue body worn video cameras (Operation Hyperion) on the Isle of Wight: Final report to Hampshire Constabulary*. Portsmouth, UK: University of Portsmouth.

¹⁰² Ariel, B. (2016). Increasing cooperation with the police using body worn cameras. *Police Quarterly*, 19, 326-362.

procedural justice during the encounter improved when they were aware that the officer was wearing a BWC (only 28% of the subjected reported being aware of the BWC).¹⁰³ However, a randomized controlled trial in Arlington (TX) found no differences in perceptions of legitimacy, satisfaction, and police professionalism by citizens who recently had an encounter with officers who were equipped with cameras compared to control officers who did not have cameras.¹⁰⁴ In Anaheim (CA), a randomized controlled trial that surveyed respondents after encounters with the police reported that the presence of a BWC combined with the use of procedurally-just scripts to guide officer behaviors during encounters generated larger impacts on citizen satisfaction relative to the presence of the BWC alone.¹⁰⁵

Two studies suggest that outfitting officers with BWCs may stimulate procedurally-just behaviors during encounters with citizens. In Los Angeles (CA), researchers used systematic social observations of police-citizen encounters to conduct a pre-post analysis of the effects of BWCs on officer behaviors.¹⁰⁶ They found that, after the study officers were equipped with BWCs, the technology generated significant increases in displays of procedurally-just behaviors during their interactions with citizens. In the Eskisehir province of Turkey, a quasi-experimental evaluation concluded that drivers stopped by traffic officers wearing BWCs reported improved perceptions of procedural justice during the stop and enhanced perceptions of the legitimacy of the

¹⁰³ White, M.D., Todak, N., & Gaub, J.E. (2017). Assessing citizen perceptions of body-worn cameras after encounters with police. *Policing: An International Journal of Police Strategies & Management*, 40, 689-703.

¹⁰⁴ Goodison, S., & Wilson, T. (2017). *Citizen perceptions of body worn cameras: A randomized controlled trial*. Washington, DC: Police Executive Research Forum.

¹⁰⁵ McClure, D., La Vigne, N., Lynch, M., Golian, L., Lawrence, D., & Malm, A. (2017). *How body cameras affect community members' perceptions of police: Results from a randomized controlled trial of one agency's pilot*. Washington, DC: Urban Institute.

¹⁰⁶ McCluskey, J., Uchida, C., Solomon, S. E., Wooditch, A., Connor, C., & Revier, L. (2019). Assessing the effects of body-worn cameras on procedural justice in the Los Angeles police department. *Criminology*, 57, 208-236.

traffic officers and the police in general, relative to drivers stopped by non-BWC comparison officers.¹⁰⁷

2. *Discussion of Evaluation Findings.* In both the telephone survey and community in-person samples, the findings of this study indicate that the deployment of BWCs on NYPD officers working in treatment precincts did not produce any statistically-significant differences in resident perceptions of the NYPD and their experiences with NYPD officers over the course of the pre-intervention and intervention periods relative to the perceptions held by residents in the control precincts. During the pre-intervention period, our research found that surveyed residents in the experimental precincts held mixed opinions of the NYPD: less than 60% of telephone survey respondents and less than 45% of in-person survey respondents reported somewhat favorable or very favorable feelings towards NYPD officers in their neighborhood. Similar to the UK study,¹⁰⁸ our experimental evaluation found that the BWC deployment did little to change these pre-existing resident perceptions of the NYPD and their encounters with NYPD officers in treatment precincts relative to control precincts. Our findings do diverge from existing research suggesting that the presence of BWCs enhance citizen perceptions of procedural justice during their encounters with the police. These differences may, in part, be due to varying methodological approaches.

The NYPD study did not ask whether treatment respondents noticed BWCs on officers during encounters; as such, we are not able to do a subgroup analysis of respondents who did or did not notice BWC presence during the encounter.¹⁰⁹ Other studies conducted in-person

¹⁰⁷ Demir, M., Apel, R., Braga, A., Brunson, R., & Ariel, B. (2020). Body worn cameras, procedural justice, and police legitimacy: A controlled experimental evaluation of traffic stops. *Justice Quarterly*, 37, 53 – 84.

¹⁰⁸ Ellis, T., Jenkins, C., & Smith, P. (2015). *Evaluation of the introduction of personal issue body worn video cameras (Operation Hyperion) on the Isle of Wight: Final report to Hampshire Constabulary*. Portsmouth, UK: University of Portsmouth

¹⁰⁹ NYPD policy requires officers to notify citizens that an interaction is being recorded “as soon as reasonably practical.” BWC officer compliance with this policy requirement is not quantifiable. The surveys conducted in this research study assumed that NYPD officers outfitted with BWCs were indeed notifying citizens that encounters were

interviews with stopped motorists immediately following their encounter with traffic police officers. Consistent with the US Bureau of Justice Statistics Police-Public Contact Survey methodology,¹¹⁰ our research asked respondents if they experienced a pedestrian stop, automobile stop, and/or a contact for assistance within the past 12 months and, if they affirmed, then collected data on their perceptions of police behaviors during the encounter. Although we did not ask how long ago their contacts with police occurred, it is possible that any positive or negative perceptions of officer behaviors decayed in the time between the encounter and subsequent interview. However, other studies suggest that citizens often have detailed memories of their interactions with police officers, especially when those interactions generate negative perceptions of officer behaviors.¹¹¹

Research underscores the importance of examining direct and vicarious associations between police contacts and appraisals of the police.¹¹² Like asymmetrical effects noted in other cities,¹¹³ a Vera Institute of Justice survey found that positive experiences with the police were not associated with substantially higher levels of confidence in the NYPD, while negative experiences were associated with low confidence levels.¹¹⁴ Further, across nine monthly surveys of New York

being captured on video. However, when officers are not required to provide notification, research suggests most citizens are not aware that the encounters are being recorded by BWCs. See White, M.D., Todak, N., & Gaub, J.E. (2017). Assessing citizen perceptions of body-worn cameras after encounters with police. *Policing: An International Journal of Police Strategies & Management*, 40, 689-703.

¹¹⁰ See US Bureau of Justice Statistics (2018). *Contacts between the police and the public, 2015*. Washington, DC: US Bureau of Justice Statistics.

¹¹¹ Brunson, R. (2007). 'Police don't like black people': African American young men's accumulated police experiences. *Criminology & Public Policy*, 6, 71-102; Rios, V. (2011). *Punished: Policing the Lives of Black and Latino Boys*. New York: New York University Press.

¹¹² Rosenbaum, D. P., Schuck, A., Costello, S., Hawkins, D., & Ring, M. (2005). Attitudes toward the police: The effects of direct and vicarious experience. *Police Quarterly*, 8, 343-365; Weitzer, R., & Tuch, S. (2005). Racially biased policing: Determinants of citizen perceptions. *Social Forces*, 83, 1009-1030.

¹¹³ Skogan, W. (2006). Asymmetry in the impact of encounters with police. *Policing & Society*, 16, 99-126.

¹¹⁴ Miller, J., Davis, R., Henderson, N., Markovic, J., & Ortiz, C. 2004. *Public opinions of the police: The influence of friends, family, and news media*. New York: Vera Institute of Justice.

City residents, the Vera study reported that citizen perceptions of the police, whether positive or negative, were quite durable over time. Numerous studies have consistently found that Blacks express lower levels of trust in and satisfaction with the police; differences between Blacks and Whites were shaped by varying perceptions of their treatment during prior encounters with the police, feelings of safety in their own neighborhood, crime control efficacy and police use of community policing strategies, and exposure to police misconduct.¹¹⁵ The placement of BWCs on NYPD officers seemed to improve the civility of police-citizen encounters as evidenced by a 21% reduction in citizen complaints against BWC treatment officers relative to control officers. However, citizen complaints of poor police behavior during encounters are fortunately rare events (see Table 6). NYPD officers in the treatment and control groups generated, on average, only one citizen complaint for every four years of service. Although noteworthy, the reduction in a very low base rate event may not be a powerful enough change over a long enough time period to generate a meaningful shift in how residents perceive the NYPD given longstanding positive and negative feelings about the department and its officers.

It is also important to note here that the NYPD implemented a series of citywide reforms over the course of the BWC evaluation period – these reforms included the launch of a new neighborhood policing plan, improved training of the officers to enhance the lawfulness of stops, and new training on fair and impartial policing that included instruction on how to minimize implicit bias and ensure procedural justice in their interactions with the public. Although any

¹¹⁵ See, e.g., Weitzer, R., & Tuch, S. (2006). *Race and policing in America: Conflict and reform*. New York: Cambridge University Press; MacDonald, J., & Stokes, R. (2006). Race, social capital, and trust in the police. *Urban Affairs Review*, 41, 358 – 375; MacDonald, J., Stokes, R., Ridgeway, G., & Riley, K.J. (2007). Race, neighborhood context, and perceptions of injustice by the police in Cincinnati. *Urban Studies*, 44, 2567–2585; Taylor, T., Turner, K., Esbensen, F.A., Winfree, T. (2001). Copping an attitude: Attitudinal differences among juveniles toward the police. *Journal of Criminal Justice*, 29, 295-305; Hurst, Y., & Frank, J. (2000). How kids view cops: The nature of juvenile attitudes toward the police. *Journal of Criminal Justice*, 28, 189-202; Leiber, M., Nalla, M., & Farnsworth, M. (1998). Explaining juveniles' attitudes toward the police. *Justice Quarterly*, 15, 151-174.

impacts of these reforms should have been felt in treatment and control precincts alike, it is possible that these reform efforts could have muted any detectable changes in public perceptions of the NYPD associated with the BWC deployment. Indeed, the telephone and community in-person surveys suggest that citizen perceptions of the NYPD did not change, and on some outcome measures became more negative, over the course of the pre-intervention and intervention periods in both the treatment and control precincts.¹¹⁶

VI. Conclusion

In New York City and elsewhere, BWCs have been nominated as a potential technological solution (at least in part) to the problem of unlawful policing. This study finds that the placement of BWCs on officers can increase their compliance with department directives to document stops of citizens. These data can then be used to determine whether officers are adhering to the rule of law in their enforcement efforts. In addition to reducing CCRB complaints against NYPD officers, BWCs could be useful in reducing persistent problems with unlawful citizen stops.

The results of this experimental evaluation suggest that the adoption of BWCs is not a panacea to problems of police-community relations. Although a 20% reduction in citizen complaints is a very positive development, there are relatively few citizen complaints, and a one-year reduction in an uncommon event does not seem powerful enough to change durable citizen perceptions of the NYPD and assessments of officer behaviors during specific encounters. The NYPD and other police departments may be best served if, in addition to adopting using BWC,

¹¹⁶ For instance, the telephone survey shows that proportion of subjects who thought the NYPD was doing a poor or not-so-good job in their neighborhoods increased from 10.2% (pre-intervention) to 13.2% (intervention) in the treatment precincts and from 8.9% (pre-intervention) to 13.1% in the control precincts; the proportion of subjects who felt very unfavorable or somewhat unfavorable increased from 10.8% (pre-intervention) to 14.2% (intervention) in the treatment precincts and from 10.1% (pre-intervention) to 12.5% (intervention) in the control precincts; and the proportion of subjects who felt very unsafe or unsafe in their neighborhoods increased from 10.5% (pre-intervention) to 21.4% (intervention) in the treatment precincts and from 10.2% (pre-intervention) to 21.9% (intervention) in the control precincts. See Appendix 8.

they double down on other programs that have solid scientific evidence of enhancing community attitudes towards the police. For instance, evaluations generally show that citizen perceptions of police performance, satisfaction, and legitimacy are improved by community policing programs.¹¹⁷ Although the growing evidence base is not yet strong enough to support causal assertions,¹¹⁸ studies show that citizen perceptions of procedural justice during their encounters with the police are associated with increased perceptions of police legitimacy and cooperation with the police.¹¹⁹ Police departments should be formally training their officers to embrace procedural justice principles during all interactions with the public and not just rely on technology to do so.

As stated, this study does not support the perspective that BWCs lead to short-term changes in public perceptions of the police. However, it remains possible that the BWC technology could produce longer term benefits. When controversial events happen, the public expects to see video of the police-citizen encounter so they can judge whether officers acted lawfully and behaved appropriately. NYC residents are overwhelmingly in favor of the placement of BWCs on NYPD officers, and express hope that the technology may improve police-community relations.¹²⁰ At the very least, the presence of BWCs on officers suggests to community members

¹¹⁷ Gill, C., Weisburd, D., Telep, C., Vitter, Z., & Bennett, T. (2014). Community-oriented policing to reduce crime, disorder and fear and increase satisfaction and legitimacy among citizens: A systematic review. *Journal of Experimental Criminology*, 10, 399–428.

¹¹⁸ Nagin, D. S., & Telep, C. W. (2017). Procedural justice and legal compliance. *Annual Review of Law and Social Science*, 13, 5-28.

¹¹⁹ Tyler, T. R. (2003). Procedural justice, legitimacy, and the effective rule of law. In M. Tonry (Ed.), *Crime and justice: A review of research* (Vol. 30, pp. 431-505). Chicago, IL: University of Chicago Press; Tyler, T. R. (2006). *Why people obey the law*. Princeton, NJ: Princeton University Press; Tyler, T. R. & Fagan, J. (2008). Legitimacy and cooperation: Why do people help the police fight crime in their communities? *Ohio State Journal of Criminal Law*, 6, 231-275.

¹²⁰ Prior to the launch of the BWC pilot program, the NYU Policing Project surveyed roughly 25,000 NYC residents on their attitudes towards deploying BWCs on NYPD officers. Some 92% of respondents either “strongly agreed” or “agreed” that NYPD officers should be using BWCs. Further, strong majorities perceived that BWCs would improve police-community relations and public trust (82%), promote the safety of officers and members of the public (82%), and improve the conduct of officers (89%) and members of the public (73%) alike. See New York University School

that mechanisms exist to ensure transparency and hold officers accountable when they misbehave. And, as a component of a broader set of evidence-based strategies to improve community perceptions, the placement of BWCs on officers could help to enhance the legitimacy of the police to the public they serve. Given the demonstrated benefits and absence of harmful outcomes, this study supports not only the use of body-worn cameras by the NYPD, but their use by other departments as well.

of Law Policing Project (2016). *Report to the NYPD summarizing public feedback on its proposed body-worn camera policy*. New York: New York University School of Law.

Appendix 1

The Effects of Body Worn Cameras on Selected Policing Activity and Encounter Civility Outcomes: Matched Pair Fixed Effects and Robust Standard Errors Clustered by Officers

	Stop Reports <u>IRR (RSE)</u>	Arrests <u>IRR (RSE)</u>	Arrests with Force <u>IRR (RSE)</u>	Summons <u>IRR (RSE)</u>	Domestic Incidents <u>IRR (RSE)</u>	Crime Complaints <u>IRR (RSE)</u>	CCRB Complaints <u>IRR (RSE)</u>
Impact (Group X Intervention)	1.388 (.112)*	1.052 (.034)	1.019 (.134)	.931 (.059)	.630 (.162)	.997 (.029)	.789 (.068)*
Group (1 = Treatment)	.985 (.077)	.969 (.035)	.869 (.091)	1.061 (.061)	1.353 (.319)	1.030 (.028)	.930 (.070)
Period (1 = Intervention)	.950 (.056)	1.053 (.023)*	1.149 (.102)	.661 (.028)*	2.383 (.484)*	1.146 (.024)*	1.349 (.081)*
Constant	.560 (.091)*	8.992 (.852)*	.193 (.042)*	3.927 (.633)*	.053 (.025)*	36.031 (2.217)*	.094 (.020)*
N	7,778	7,778	7,778	7,778	7,778	7,778	7,778
Log pseudolikelihood	-11455.649	-54898.736	-3596.593	-58394.508	-10158.248	-123967.490	-5374.887
Wald X^2 ($df = 22$)	210.14*	125.64*	68.91*	649.16*	173.11*	238.38*	172.02*

* $p < .05$

Note: IRR = Incidence Rate Ratio. RSE = Robust Standard Error. Robust standard errors clustered by officers. Fixed effects for matched pairs included but not shown.

Appendix 2

Comparison of Intervention Outcome Measures for NYPD Patrol Officers Working the Third Platoon and Anti-Crime Units in Treatment and Control Precincts

	<u>Treatment</u>	<u>Control</u>	<u>Std. Mean Difference</u>	<u>t</u>	<u>p> t </u>
<i>Stops</i>					
Mean	.946	.691	.077	2.55	0.015
Standard deviation	1.849	1.417			
<i>Arrests</i>					
Mean	11.506	11.228	.012	0.33	0.744
Standard deviation	11.736	10.961			
<i>Arrests with force</i>					
Mean	.153	.173	-.020	-0.74	0.466
Standard deviation	.475	.527			
<i>Summons</i>					
Mean	5.445	5.402	.002	0.04	0.971
Standard deviation	11.801	9.122			
<i>Domestic incident reports</i>					
Mean	.476	.557	-.011	-0.48	0.637
Standard deviation	2.961	4.420			
<i>Crime complaint reports</i>					
Mean	39.330	38.257	.017	0.51	0.610
Standard deviation	30.506	30.326			
<i>CCRB complaints</i>					
Mean	.271	.362	-.071	-2.34	0.025
Standard deviation	.602	.675			

N = 3,889 (1,991 treatment officers, 1,898 control officers)

Notes: The intervention outcome measures are based on 12 month counts. The standardized mean differences are Beta coefficients generated by ordinary least squares regressions of each precinct characteristic on group assignment. The *t*-tests and *p*-values were estimated using robust standard errors clustered by precinct.

Appendix 3

Multivariate logistic regression of BWC treatment on stop characteristics

<u>Covariate</u>	<u>Model 1</u> <u>OR (RSE)</u>	<u>Model 2</u> <u>OR (RSE)</u>
Black non-Hispanic	3.098 (2.114) ⁺	3.419 (2.320) ⁺
White Hispanic	2.374 (1.301)	2.936 (1.679) ⁺
Black Hispanic	1.744 (1.026)	1.864 (1.111)
Asian / other	4.352 (3.524)	4.930 (4.279)
Male	.589 (.280)	.626 (.292)
Age	.991 (.006)	.992 (.007)
Radio run	1.060 (.439)	1.006 (.394)
Self-initiated	1.126 (.532)	1.188 (.592)
Violent	1.394 (1.071)	1.146 (.746)
Property	1.215 (1.118)	1.074 (.913)
Drug	3.031 (3.99)	2.172 (2.626)
Weapon	1.431 (1.148)	1.037 (.715)
Frisked	---	1.245 (.389)
Searched	---	.674 (.109)*
Arrested / Summoned	---	.574 (.108)*
Constant	.907 (1.149)	1.102 (1.301)
Log pseudolikelihood	-286.428	-276.886
Pseudo R ²	.0321	.058
N	444	442

+ $p < .10$, * $p < .05$

Note: OR = Odds Ratio. RSE = Robust Standard Error. Robust standard errors were clustered by precinct pair. Female was reference category for the male covariate. White non-Hispanic suspect was the reference category for the other race covariates. Complainant / witness initiated stop was the reference category for the mobilization covariates. Other and unknown suspected crime was the reference category for the suspected crime type categories.

Appendix 4

Weighted Demographics of Adult Telephone Survey Respondents in Control Precincts

	Survey Sample %	Census (ACS 2010) %
Men	46	46
Women	54	54
Ages 18-34	36	37
Ages 35-49	26	27
Ages 50-64	21	22
Ages 65/older	16	14
Don't know/refused	1	-
White (non-Hispanic)	27	27
African American	30	35
Hispanic	30	30
Asian	8	9
Manhattan	14	15
Bronx	20	21
Queens	28	27
Brooklyn	38	37

Weighted Demographics of Adult Telephone Survey Respondents in Treatment Precincts

	Survey Sample %	Census (ACS 2010) %
Men	46	46
Women	54	54
Ages 18-34	36	36
Ages 35-49	25	26
Ages 50-64	22	23
Ages 65/older	16	15
Don't know/refused	1	-
Whites (non-Hispanic)	22	22
African Americans	31	36
Hispanics	33	33
Asians	9	9
Manhattan	18	18
Bronx	25	26
Queens	21	22
Brooklyn	31	30
Staten Island	5	5

Appendix 5

Telephone Survey

Gender (DO NOT ASK.) Record respondent's gender.

Male	1	109
Female	2	

Qlang Would you prefer to take this survey in English or in Spanish?

English	1	138
Spanish	2	

Q1a To ensure that we have a representative sample, in what year were you born?

.....		
Numeric Range		
Don't Know	Y	139-142

Permitted Range
1900 TO 1999 (Go to QAGE)

(ASK ONLY OF RESPONDENTS WHO SAY "DON'T KNOW" IN AGE.)

Q1b Well would you tell me which age group you belong to? (READ LIST.)

18-24	1	143-144
25-29	2	
30-34	3	
35-39	4	
40-44	5	
45-49	6	
50-54	7	
55-59	8	
60-64	9	
65-69	0	
70-74	1	
75 and over	2	
Refused (DO NOT READ)	3	

QAGE Age range

18-29	1
30-34	2
35-39	3
40-49	4
50-59	5
60-69	6
70 and over	7
Not sure/refused	8

IF (SAMPLE = Men 18-34 control OR SAMPLE = Men 18-34 treatment) AND Gender = Female
THEN SKIP TO Termin

IF SAMPLE = Men 18-34 control AND (QAGE = 35-39 OR QAGE = 40-49 OR QAGE = 50-59 OR QAGE = 60-69 OR QAGE = 70 and over OR QAGE = Not sure/refused)
THEN SKIP TO Termin

IF SAMPLE = Men 18-34 treatment AND (QAGE = 35-39 OR QAGE = 40-49 OR QAGE = 50-59 OR QAGE = 60-69 OR QAGE = 70 and over OR QAGE = Not sure/refused)
THEN SKIP TO Termin

IF (SAMPLE = Men 18-34 control OR SAMPLE = Men 18-34 treatment)
THEN SKIP TO Q2a

IF SAMPLE = Women 18-34 control AND (QAGE = 35-39 OR QAGE = 40-49 OR QAGE = 50-59 OR QAGE = 60-69 OR QAGE = 70 and over)
THEN SKIP TO Termin

IF SAMPLE = Women 18-34 treatment AND (QAGE = 35-39 OR QAGE = 40-49 OR QAGE = 50-59 OR QAGE = 60-69 OR QAGE = 70 and over)
THEN SKIP TO Termin

IF SAMPLE = Adults 35+ control OR SAMPLE = Adults 35+ treatment
THEN SKIP TO Q2a

Q2a Do you currently live in New York City?

Yes	1	146
No	2	TERMINATE
Not sure/refused	3	TERMINATE

Q2b Are you of Hispanic, Latino, or Spanish origin, or not?

Yes, Latino/Hispanic	1	(Skip to Q2bc)
No, not Latino/Hispanic	2	
Not sure/refused	3	147

(ASK ONLY OF RESPONDENTS WHO SAY "NO, NOT LATINO/HISPANIC" OR "NOT SURE" IN Q2b.)

Q2c And could you please tell me if you are white, black or African American, Asian, bi-racial or multi-racial, or something else?

White	1	148
Black/African American	2	
Asian	3	
Bi-racial or multi-racial	4	
Other	5	
Latino/Hispanic (VOL)	6	
Not sure/refused	7	

Q2bc Are you of Hispanic, Latino, or Spanish origin, or not? (IF "NO" OR "NOT SURE," ASK:) And could you please tell me if you are white, black or African American, Asian, bi-racial or multi-racial, or something else?

White	1	149
Black/African American	2	
Asian	3	
Bi-racial or multi-racial	4	
Other	5	
Latino/Hispanic	6	
Not sure/refused	7	

(ASK EVERYONE.)

Q3 When it comes to the problem of crime, how safe do you feel in your neighborhood (ROTATE:)--very safe, somewhat safe, somewhat unsafe, or very unsafe?

Very safe	1	150
Somewhat safe	2	
Somewhat unsafe	3	
Very unsafe	4	
Not sure	5	

Now I have some questions about N-Y-P-D police officers who patrol in your neighborhood...

Q4 Overall, how would you describe your feelings about the N-Y-P-D officers in your neighborhood? Do you feel (ROTATE:) very favorable, somewhat favorable, neutral, somewhat unfavorable, or very unfavorable?

Very favorable	1	151
Somewhat favorable	2	
Neutral	3	
Somewhat unfavorable	4	
Very unfavorable	5	

Not sure6

Q5 How would you rate the job that N-Y-P-D officers are doing in your neighborhood--would you say they are doing a (ROTATE:) very good job, a good job, a fair job, a not so good job, or a poor job?

Very good1 152
 Good2
 Fair3
 Not so good4
 Poor5
 Not sure6

Q6 Now I'm going to read you a few statements about police officers. Thinking about N-Y-P-D officers in your neighborhood, please tell me if you strongly agree, somewhat agree, somewhat disagree, or strongly disagree with each statement.

If I needed police assistance, I would feel comfortable seeking help from police officers in my neighborhood 153
 I respect the police officers in my neighborhood. 154
 Police officers in my neighborhood respect people's rights. 155
 Police officers in my neighborhood treat people fairly, regardless of race or background. 156
 Police officers in my neighborhood often abuse their authority. 157
 I sometimes feel nervous when I see police officers in my neighborhood approach me. 158
 Police officers stop and frisk too many people in my neighborhood. 159
 Police officers in my neighborhood use more force than necessary. 160

Strongly agree1
 Somewhat agree2
 Somewhat disagree3
 Strongly disagree4
 Not sure5

Q7 If you or someone in your neighborhood filed a complaint against a police officer for unfair treatment, do you think the complaint would be investigated fairly and objectively? Would you say it definitely would, probably would, probably would not, or definitely would not be investigated fairly and objectively?

Definitely would1 161
 Probably would2
 Probably would not3
 Definitely would not4
 Not sure5

Q8a In the past twelve months, have you been stopped by police officers in your neighborhood while you were in a car? (IF REFUSED, SAY:) I promise that your answers are completely confidential, and we are asking only for research purposes.

Yes1 162
 No2 (Skip to Q8ab)
 Not sure/refused3 (Skip to Q8ab)

(ASK ONLY OF RESPONDENTS WHO SAY "YES" IN Q8a.)

Q8b And is that one time, or multiple times?

Stopped one time1 163

 Stopped multiple times2
 Not sure3

Q8ab In the past twelve months, have you been stopped by police officers in your neighborhood while you were in a car? (IF "YES," ASK:) And is that one time, or multiple times?

Yes--stopped one time1 164

Yes--stopped multiple times	2
Yes--not sure	3
No	4
Not sure/refused	5

(QUESTIONS Q8c, Q8d, Q8e, AND Q8f ARE ASKED ONLY OF RESPONDENTS WHO SAY "YES" IN Q8a.)

Q8c Thinking about the last time you were stopped by police officers in your neighborhood while you were in a car, how satisfied were you with the way the officers handled that situation--very satisfied, somewhat satisfied, somewhat dissatisfied, or very dissatisfied?

Very satisfied	1	165
Somewhat satisfied	2	
Somewhat dissatisfied	3	
Very dissatisfied	4	
Not sure	5	

Q8d And thinking about this same stop, please tell me whether the following happened or did not happen.

The police officers explained the reason for the stop	166
The police officers used physical force during the stop.	167
You were patted down on the outside of your clothing.	168
The police officers searched the inside of your clothing, your bag, or other personal belongings.	169
You were given a ticket or a summons for a moving violation.	170
You were arrested (ALWAYS LAST)	171
Yes, did happen	1
No, did not happen	2
Not sure/don't remember	3

Q8f Still thinking about this same stop, please tell me whether you strongly agree, somewhat agree, somewhat disagree, or strongly disagree with each of the following statements.

The police officers treated you with respect	172
The police officers had a good reason for stopping you.	173
The amount of time you were stopped was reasonable.	174
The police officers used language that you found threatening or abusive.	175
You felt the police officers stopped you because of your race or ethnicity.	176
The police officers used more force than necessary.	177
Strongly agree	1
Somewhat agree	2
Somewhat disagree	3
Strongly disagree	4
Not sure/does not apply	5

(ASK ONLY OF RESPONDENTS WHO SAY "NO" OR "NOT SURE" IN Q8a.)

Q9a In the past twelve months, have you been stopped by police officers in your neighborhood while you were walking or standing on the street, in your building, or in some other place or building in your neighborhood? (IF REFUSED, SAY:) I promise that your answers are completely confidential, and we are asking only for research purposes.

Yes	1	178
No	2	(Skip to Q9ab)
Not sure/refused	3	(Skip to Q9ab)

(ASK ONLY OF RESPONDENTS WHO SAY "YES" IN Q9a.)

Q9b And is that one time, or multiple times?

Stopped one time	1	179
Stopped multiple times	2	
Not sure	3	

Q9ab In the past twelve months, have you been stopped by police officers in your neighborhood while you were walking or standing on the street, in your building, or in some other place or building in your neighborhood? (IF "YES," ASK:) And is that one time, or multiple times?

Yes--stopped one time	1	180
Yes--stopped multiple times	2	
Yes--not sure	3	
No	4	
Not sure/refused	5	

(ASK ONLY OF RESPONDENTS WHO SAY "YES" IN Q8a.)

Q9c Now, in the past twelve months, have you been stopped by police officers in your neighborhood at a time you were not in a car, such as while you were walking or standing on the street, in your building, or in some other place or building in your neighborhood? (IF REFUSED, SAY:) I promise that your answers are completely confidential, and we are asking only for research purposes.

Yes	1	208
No	2	(Skip to Q9cd)
Not sure/refused	3	(Skip to Q9cd)

(ASK ONLY OF RESPONDENTS WHO SAY "YES" IN Q9c.)

Q9d And is that one time, or multiple times?

Stopped one time	1	209
Stopped multiple times	2	
Not sure	3	

Q9cd Now, in the past twelve months, have you been stopped by police officers in your neighborhood at a time you were not in a car, such as while you were walking or standing on the street, in your building, or in some other place or building in your neighborhood? (IF "YES," ASK:) And is that one time, or multiple times?

Yes--stopped one time	1	210
Yes--stopped multiple times	2	
Yes--not sure	3	
No	4	
Not sure/refused	5	

(READ ONLY TO RESPONDENTS WHO SAY "YES" IN Q8a and in Q9c.)

Now I have a few questions about the last time you were stopped by police officers in your neighborhood and were not in a car.

(QUESTIONS Q9e, Q9f, Q9g AND Q9h ASKED ONLY OF RESPONDENTS WHO SAY "YES" IN Q9a OR Q9c.)

Q9e Thinking about the last time you were stopped by police officers while you were on the street, in your building, or some other place or building in your neighborhood, how satisfied were you with the way the officers handled that situation--very satisfied, somewhat satisfied, somewhat dissatisfied, or very dissatisfied?

Very satisfied	1	211
Somewhat satisfied	2	
Somewhat dissatisfied	3	
Very dissatisfied	4	
Not sure	5	

Q9f And thinking about this same stop, please tell me whether the following happened or did not happen.

- The police officers explained the reason for the stop 212
- The police officers gave you a receipt or information card after the stop. 213
- You were patted down on the outside of your clothing. 214
- The police officers searched the inside of your clothing, your bag, or other personal belongings 215

(ALWAYS LAST.)

- The police officers used physical force during the stop 216
- You were arrested or given a summons. 217

- Yes, did happen1
- No, did not happen2
- Not sure/don't remember3

Q9h Still thinking about this same stop, please tell me whether you strongly agree, somewhat agree, somewhat disagree, or strongly disagree with each of the following statements.

- The police officers treated you with respect 218
- The police officers had a good reason for stopping you. 219
- The amount of time you were stopped was reasonable. 220
- The police officers used language that you found threatening or abusive. 221
- You felt the police officers stopped you because of your race or ethnicity. 222
- The police officers used more force than necessary. 223

- Strongly agree1
- Somewhat agree2
- Somewhat disagree3
- Strongly disagree4
- Not sure/does not apply5

(ASK ONLY OF RESPONDENTS WHO SAY "YES" IN Q8a, Q9a, OR Q9c.)

Q10a In the past twelve months, have you spoken to or contacted any police officers in your neighborhood for help, such as asking a police officer on the street for assistance, reporting a crime or an accident to an officer, or having an officer respond to your nine-one-one call? To be clear, I mean any contact with a police officer other than the stop situations I asked about earlier.

- Yes1 (Skip to TextOnly17)
- No2 (Skip to FACTUAL)
- Not sure3 224 (Skip to FACTUAL)

(ASK ONLY OF RESPONDENTS WHO SAY "NO" OR "NOT SURE" IN Q8a, AND "NO" OR "NOT SURE" IN Q9a.)

Q10b In the past twelve months, have you spoken to or contacted any police officers in your neighborhood for help, such as asking a police officer on the street for assistance, reporting a crime or an accident to an officer, or having an officer respond to your nine-one-one call?

- Yes1 225
- No2 (Skip to FACTUAL)
- Not sure3 (Skip to FACTUAL)

(READ ONLY TO RESPONDENTS WHO SAY "NO" OR "NOT SURE" IN Q8a, AND "NO" OR "NOT SURE" IN Q9a, AND "YES" IN Q10b.)

Now I have a few questions about the last time you contacted or spoke to police officers....

(READ ONLY TO RESPONDENTS WHO SAY "YES" IN Q8a, Q9a, OR Q9c, WHO ALSO SAY "YES" IN Q10a.)

Now I have a few questions about the last time you contacted or spoke to police officers, not including the times you were stopped by police that we discussed earlier....

(QUESTIONS Q10c AND Q10d ARE ASKED ONLY OF RESPONDENTS WHO SAY "YES" IN Q10a OR Q10b.)

Q10c Thinking about the last time you spoke to or contacted police officers in your neighborhood, how satisfied were you with how the officers handled that situation--very satisfied, somewhat satisfied, somewhat dissatisfied, or very dissatisfied?

- Very satisfied1 226
- Somewhat satisfied2
- Somewhat dissatisfied3
- Very dissatisfied4
- Not sure5

Q10d And still thinking about the last time you spoke to or contacted police officers in your neighborhood, please tell me whether you strongly agree, somewhat agree, somewhat disagree, or strongly disagree with each of the following statements.

- The police officers treated you with respect 227
- The police officers clearly explained where you could get the help or information you needed. 228

The police officers took your problem or question seriously. 229

- Strongly agree1
- Somewhat agree2
- Somewhat disagree3
- Strongly disagree4
- Does not apply (VOL)5
- Not sure6

Q11 Some police departments require officers to wear body cameras that provide an audio and video recording of an officer's interactions with the public. Do you (ROTATE:) strongly favor, somewhat favor, somewhat oppose, or strongly oppose having N-Y-P-D police officers wear body cameras?

- Strongly favor 1
- Somewhat favor 2
- Somewhat oppose 3
- Strongly oppose 4
- Not sure 5

(READ TO EVERYONE.)

FACTUALS: Now I am going to ask you a few questions for statistical purposes only.

QF1 What is the last grade that you completed in school? (DO NOT READ LIST.)

- Some high school or less1 230
- High school graduate2
- Some college, no degree3
- Vocational training/2-year college4
- 4-year college/bachelor's degree5
- Some postgraduate work, no degree6
- Postgraduate or professional degree7
- Not sure/refused8

QF2 In the past twelve months, has anyone in your household, not counting yourself, been stopped by police officers in your neighborhood?

- Yes1 231
- No2
- Not sure/refused3

QF3a Do you have a family member who is an N-Y-P-D officer? 232

- Yes, family member is a police officer1
- No, family member is NOT a police officer2
- Not sure3

QF3b Do you know any of the police officers that work in your neighborhood by name?

- Yes1 233
- No2
- Not sure/refused3

QF4 Do you currently live in NYCHA ("NYE-cha") housing?

- Yes1 234
- No2
- Not sure/refused3

QF4b How often do you go out in your neighborhood, outside your home, in the evening? Do you do that frequently, sometimes, just a little, or rarely?

- Frequently 1
- Sometimes 2
- Just a little 3
- Rarely 4
- Not sure/refused 5

QF5 And do you identify as male, female, or another gender?

Male	1	235
Female	2	
Another gender	3	
Refused	4	

That concludes my interview today. Thank you for your time and cooperation.

Appendix 6

Community In-Person Survey

1. How old are you?
____ years

2. Do you currently live in New York City?

Yes
No

3. When it comes to the problem of crime, how safe do you feel in your neighborhood-- very safe, somewhat safe, somewhat unsafe, or very unsafe?

Very safe
Somewhat safe
Somewhat unsafe
Very unsafe

4. Overall, how would you describe your feelings about the NYPD officers in your neighborhood? Do you feel very favorable, somewhat favorable, neutral, somewhat unfavorable, or very unfavorable?

Very favorable
Somewhat favorable
Somewhat unfavorable
Very unfavorable

5. How would you rate the job that NYPD officers are doing in your neighborhood-- would you say they are doing a very good job, a good job, a fair job, a not so good job, or a poor job?

Very good
Good
Fair
Not so good
Poor

6. Below are a few statements about police officers. Thinking about NYPD officers in your neighborhood, please indicate if you strongly agree, somewhat agree, somewhat disagree, or strongly disagree with each statement?

If I needed police assistance, I would feel comfortable seeking help from police officers in my neighborhood.

I respect the police officers in my neighborhood.

Police officers in my neighborhood respect people's rights.

Police officers in my neighborhood treat people fairly, regardless of race or background.

Police officers in my neighborhood often abuse their authority.

I sometimes feel nervous when I see police officers in my neighborhood approach me.

Police officers stop and frisk too many people in my neighborhood.

Police officers in my neighborhood use more force than necessary.

7. If you or someone in your neighborhood filed a complaint against a police officer for unfair treatment, do you think the complaint would be investigated fairly and objectively? Would you say it definitely would, probably would, probably would not, or definitely would not be investigated fairly and objectively?

Definitely would
Probably would
Probably would not

Definitely would not

8. In the past 12 months, have you been stopped by police officers in your neighborhood while you were in a car? Were you stopped one time or multiple times? Your answers are completely confidential, and we are only asking for research purposes.

Yes, one time
Yes, multiple times
No (Skip to Q12)

9. Thinking about the last time you were stopped by police officers in your neighborhood while you were in a car, how satisfied were you with the way officers handled that situation-- very satisfied, somewhat satisfied, somewhat dissatisfied, or very dissatisfied?

Very satisfied
Somewhat satisfied
Somewhat dissatisfied
Very dissatisfied

10. And thinking about this same stop, please tell me whether the following happened or did not happen. (Includes "Don't remember" response option.)

The police officers explained the reason for the stop.
The police officers used physical force during the stop.
You were patted down on the outside of your clothing.
The police officers searched the inside of your clothing, your bag, or other personal belongings.
You were given a ticket or a summons for a moving violation.
The police officers were wearing video cameras on their bodies that recorded your interaction with them.
You were arrested.

11. Still thinking about this same stop, please indicate whether you strongly agree, somewhat agree, somewhat disagree, or strongly disagree with each of the following statements.

The police officers treated you with respect.
The police officers had a good reason for stopping you.
The amount of time you were stopped was reasonable.
The police officers used language that you found threatening or abusive.
You felt the police officers stopped you because of your race or ethnicity.
The police officers used more force than necessary.

12. If you responded in question 10 that police officers were wearing a video camera, from your perspective, did the fact that police officers were wearing video cameras to record the interaction make this experience more satisfactory, make this experience less satisfactory, or not really affect your satisfaction with the experience either way?

More satisfactory
Less satisfactory
Did not really affect satisfaction
Not sure

13. In the past 12 months, have you been stopped by police officers in your neighborhood while you were walking or standing on the street, in your building, or in some other place or building in your neighborhood? Were you stopped one time or multiple times? Your answers are completely confidential, and we are asking only for research purposes.

Yes, one time
Yes, multiple times
No (Skip to Q17)

14. Thinking about the last time you were stopped by police officers while you were on the street, in your building, or some other place or building in your neighborhood, how satisfied were you with the way officers handled that situation-- very satisfied, somewhat satisfied, somewhat dissatisfied, or very dissatisfied?

Very satisfied
Somewhat satisfied
Somewhat dissatisfied
Very dissatisfied

15. And thinking about this same stop, please indicate whether the following happened or did not happen. (Includes "Don't remember" response option.)

The police officers explained the reason for the stop.
The police officers gave you a receipt or information card after the stop.
You were patted down on the outside of your clothing.
The police officers searched the inside of your clothing, your bag, or other personal belongings.
The police officers were wearing video cameras on their bodies that recorded your interaction with them.
The police officers used physical force during the stop.
You were arrested or given a summons.

16. Still thinking about this same stop, please indicate whether you strongly agree, somewhat agree, somewhat disagree, or strongly disagree with each of the following statements.

The police officers treated you with respect.
The police officers had a good reason for stopping you.
The amount of time you were stopped was reasonable.
The police officers used language that you found threatening or abusive.
You felt the police officers stopped you because of your race or ethnicity.
The police officers used more force than necessary.

17. If you responded in question 15 that police officers were wearing a video camera, from your perspective, did the fact that police officers were wearing video cameras to record the interaction make this experience more satisfactory, make this experience less satisfactory, or not really affect your satisfaction with the experience either way?

More satisfactory
Less satisfactory
Did not really affect satisfaction
Not sure

18. In the past 12 months, have you spoken to or contacted any police officers in your neighborhood for help, such as asking a police officer on the street for assistance, reporting a crime or an accident to an officer, or having an officer respond to your 911 call? To be clear, this means any contact with a police officer other than the stop situations described earlier.

Yes
No (Skip to Q21)

19. Thinking about the last time you spoke to or contacted police officer in your neighborhood, how satisfied were you with how the officers handled that situation-- very satisfied, somewhat satisfied, somewhat dissatisfied, very dissatisfied?

- Very satisfied
- Somewhat satisfied
- Somewhat dissatisfied
- Very dissatisfied

20. And still thinking about the last time you spoke to or contacted police officers in your neighborhood, please indicate whether you strongly agree, somewhat agree, somewhat disagree, or strongly disagree with each of the following statements.

- The police officers treated you with respect.
- The police officers clearly explained where you could get the help or information you needed.
- The police officers look your problem or question seriously.

21. Some police departments require officers to wear body cameras that provide an audio and video recording of an officer's interactions with the public. Do you strongly favor, somewhat favor, somewhat oppose, or strongly oppose having NYPD police officers wear body cameras?

- Strongly favor
- Somewhat favor
- Somewhat oppose
- Strongly oppose

22. As far as you know, do NYPD police officers in your neighborhood wear video cameras on their bodies to record interactions with the public, do they not wear cameras, or are you not sure?

- Yes
- No
- Not sure

23. What is the last grade you completed in school?

- Some high school or less
- High school graduate
- Some college, no degree
- Vocational training/2-year college
- 4-year college/bachelor's degree
- Some postgraduate work, no degree
- Postgraduate or professional degree

24. In the past 12 months, has anyone in your household, not counting yourself, been stopped by police officers in your neighborhood?

- Yes
- No

25. Do you have a family member who is an NYPD officer?

- Yes
- No

26. Do you know any of the police officers that work in your neighborhood by name?

- Yes
- No

27. Do you currently live in NYCHA housing?

Yes
No

28. How often do you go out in your neighborhood, outside your home, in the evening? Do you do that frequently, sometimes, just a little, or rarely?

Frequently
Sometimes
Just a little
Rarely

29. Are you of Hispanic, Latino, or Spanish origin, or not?

Yes
No

30. And could you please indicate if you are white, black or African American, Asian, biracial or multiracial, or something else?

White
Black/African American
Asian
Biracial or multiracial
Other

31. And do you identify as male, female, or another gender?

Male
Female
Another gender

Appendix 7

Pre-Intervention Results for Community In-Person and Telephone Survey Outcome Questions

Telephone Survey N = 5,997

Community In-Person Survey N = 1,181

Number	Question					
3	When it comes to the problem of crime, how safe do you feel in your neighborhood?					
		<i>Telephone</i>		<i>In-Person</i>		
		<i>Treatment</i>	<i>Control</i>	<i>Treatment</i>	<i>Control</i>	
	Very unsafe	4.1%	2.6%	6.7%	6.9%	
	Unsafe	6.4%	7.6%	14.3%	15.7%	
4	Overall, how would you describe your feelings about the NYPD officers in your neighborhood?					
		<i>Telephone</i>		<i>In-Person</i>		
		<i>Treatment</i>	<i>Control</i>	<i>Treatment</i>	<i>Control</i>	
	Very unfavorable	4.5%	3.6%	6.9%	10.0%	
	Somewhat unfavorable	6.3%	6.5%	14.3%	16.0%	
5	How would you rate the job that NYPD officers are doing in your neighborhood?					
		<i>Telephone</i>		<i>In-Person</i>		
		<i>Treatment</i>	<i>Control</i>	<i>Treatment</i>	<i>Control</i>	
	Very poor job	4.8%	3.9%	5.9%	6.5%	
	Poor job	5.4%	5.0%	13.8%	18.4%	
6	Thinking about NYPD officers in your neighborhood ...					
	6 - 1	If I needed police assistance, I would feel comfortable seeking help				
			<i>Telephone</i>		<i>In-Person</i>	
			<i>Treatment</i>	<i>Control</i>	<i>Treatment</i>	<i>Control</i>
		Strongly disagree	5.2%	4.5%	6.2%	8.9%
Somewhat disagree		4.3%	4.3%	13.4%	13.1%	
6 - 2	I respect the police officers in my neighborhood					
		<i>Telephone</i>		<i>In-Person</i>		
		<i>Treatment</i>	<i>Control</i>	<i>Treatment</i>	<i>Control</i>	
	Strongly disagree	2.4%	2.2%	5.2%	7.0%	
	Somewhat disagree	2.2%	2.4%	9.8%	12.0%	
	<i>Telephone</i>		<i>In-Person</i>			
	<i>Treatment</i>	<i>Control</i>	<i>Treatment</i>	<i>Control</i>		
Somewhat agree	22.8%	22.4%	35.9%	36.2%		
Strongly agree	72.6%	72.9%	49.1%	44.8%		

6 - 3	Police officers in my neighborhood respect people's rights	<i>Telephone</i>		<i>In-Person</i>	
		<i>Treatment</i>	<i>Control</i>	<i>Treatment</i>	<i>Control</i>
	Strongly disagree	7.8%	8.3%	8.1%	15.2%
	Somewhat disagree	8.9%	8.8%	20.3%	21.3%
	Somewhat agree	38.8%	39.1%	45.5%	41.3%
	Strongly agree	44.6%	43.8%	26.1%	22.2%
6 - 4	Police officers in my neighborhood treat people fairly, regardless of race or background	<i>Telephone</i>		<i>In-Person</i>	
		<i>Treatment</i>	<i>Control</i>	<i>Treatment</i>	<i>Control</i>
	Strongly disagree	12.8%	12.1%	12.6%	19.5%
	Somewhat disagree	13.0%	12.1%	23.6%	22.6%
	Somewhat agree	34.1%	34.4%	41.0%	36.9%
	Strongly agree	40.1%	41.4%	22.9%	21.0%
6 - 5	Police officers in my neighborhood often abuse their authority	<i>Telephone</i>		<i>In-Person</i>	
		<i>Treatment</i>	<i>Control</i>	<i>Treatment</i>	<i>Control</i>
	Strongly disagree	41.3%	43.0%	25.4%	22.1%
	Somewhat disagree	24.6%	24.7%	28.8%	26.1%
	Somewhat agree	20.3%	17.1%	31.1%	30.6%
	Strongly agree	13.9%	15.2%	14.7%	21.2%
6 - 6	I sometimes feel nervous when I see police officers in my neighborhood approach me	<i>Telephone</i>		<i>In-Person</i>	
		<i>Treatment</i>	<i>Control</i>	<i>Treatment</i>	<i>Control</i>
	Strongly disagree	52.0%	52.3%	30.7%	28.6%
	Somewhat disagree	17.5%	17.5%	22.7%	18.8%
	Somewhat agree	15.6%	17.0%	27.2%	27.9%
	Strongly agree	15.0%	13.3%	19.5%	24.7%
6 - 7	Police officers stop and frisk too many people in my neighborhood	<i>Telephone</i>		<i>In-Person</i>	
		<i>Treatment</i>	<i>Control</i>	<i>Treatment</i>	<i>Control</i>
	Strongly disagree	42.5%	42.7%	28.4%	23.9%
	Somewhat disagree	25.5%	26.9%	28.9%	28.2%
	Somewhat agree	16.5%	15.6%	27.8%	25.9%
	Strongly agree	15.5%	14.7%	15.0%	22.1%
6 - 8	Police officers in my neighborhood use more force than necessary	<i>Telephone</i>		<i>In-Person</i>	
		<i>Treatment</i>	<i>Control</i>	<i>Treatment</i>	<i>Control</i>
	Strongly disagree	42.0%	43.0%	28.2%	23.3%
	Somewhat disagree	27.0%	27.6%	26.3%	24.0%
	Somewhat agree	17.4%	16.5%	26.3%	28.8%

	Strongly agree	13.6%	12.8%	19.3%	24.0%
7	If you or someone in your neighborhood filed a complaint against a police officer for unfair treatment, do you think the complaint would be investigated fairly and objectively?				
		<i>Telephone</i>		<i>In-Person</i>	
		<i>Treatment</i>	<i>Control</i>	<i>Treatment</i>	<i>Control</i>
	Definitely would not	9.7%	9.5%	10.0%	16.0%
	Probably would not	25.0%	24.7%	31.2%	30.6%
	Probably would	44.9%	45.0%	41.0%	36.0%
	Definitely would	20.4%	20.8%	17.8%	17.4%
8	In the past 12 months, have you been stopped by police officers in your neighborhood while you were in a car? (Yes/No)				
		<i>Telephone</i>		<i>In-Person</i>	
		<i>Treatment</i>	<i>Control</i>	<i>Treatment</i>	<i>Control</i>
	No	88.1%	87.1%	80.3%	19.7%
	Yes	11.9%	12.9%	70.2%	29.8%
9	Thinking about the last time you were stopped by police officers in your neighborhood while you were in a car, how satisfied were you with the way officers handled that situation?				
		<i>Telephone</i>		<i>In-Person</i>	
		<i>Treatment</i>	<i>Control</i>	<i>Treatment</i>	<i>Control</i>
	Very dissatisfied	26.1%	24.5%	20.7%	26.5%
	Somewhat dissatisfied	16.7%	13.9%	22.4%	23.5%
	Somewhat satisfied	28.0%	28.3%	39.7%	30.6%
	Very satisfied	29.2%	33.3%	17.2%	19.4%
10	Thinking about this same stop, please tell me whether the following happened or did not happen. (Yes, did happen/No, did not happen)				
10 - 1	The police officers explained the reason for the stop				
		<i>Telephone</i>		<i>In-Person</i>	
		<i>Treatment</i>	<i>Control</i>	<i>Treatment</i>	<i>Control</i>
	No	16.7%	20.8%	36.3%	41.3%
	Yes	83.4%	79.2%	63.7%	58.7%
10 - 2	The police officers used physical force during the stop				
		<i>Telephone</i>		<i>In-Person</i>	
		<i>Treatment</i>	<i>Control</i>	<i>Treatment</i>	<i>Control</i>
	No	94.9%	94.6%	78.4%	81.3%
	Yes	5.1%	5.4%	21.6%	18.7%
10 - 3	You were patted down on the outside of your clothing				
		<i>Telephone</i>		<i>In-Person</i>	
		<i>Treatment</i>	<i>Control</i>	<i>Treatment</i>	<i>Control</i>
	No	85.5%	83.2%	57.0%	58.4%
	Yes	14.5%	16.8%	43.0%	41.6%
10 - 4	The police officers searched the inside of your clothing, your bag, or other personal belongings				

		<i>Telephone</i>		<i>In-Person</i>	
		<i>Treatment</i>	<i>Control</i>	<i>Treatment</i>	<i>Control</i>
	No	88.3%	84.5%	52.9%	55.9%
	Yes	11.7%	15.5%	47.1%	44.1%
10 - 5	You were given a ticket or summons for a moving violation				
		<i>Telephone</i>		<i>In-Person</i>	
		<i>Treatment</i>	<i>Control</i>	<i>Treatment</i>	<i>Control</i>
	No	61.1%	55.8%	59.8%	60.9%
	Yes	39.0%	44.2%	40.2%	39.1%
10 - 6	You were arrested				
		<i>Telephone</i>		<i>In-Person</i>	
		<i>Treatment</i>	<i>Control</i>	<i>Treatment</i>	<i>Control</i>
	No	96.5%	94.5%	80.6%	82.0%
	Yes	3.5%	5.6%	19.4%	18.0%
11	Still thinking about this same stop ...				
11 - 1	The police officers treated you with respect				
		<i>Telephone</i>		<i>In-Person</i>	
		<i>Treatment</i>	<i>Control</i>	<i>Treatment</i>	<i>Control</i>
	Strongly disagree	12.1%	14.8%	15.5%	21.8%
	Somewhat disagree	9.9%	9.5%	20.9%	15.2%
	Somewhat agree	31.0%	29.3%	40.9%	37.6%
	Strongly agree	47.0%	46.4%	22.7%	25.5%
11 - 2	The police officers had a good reason for stopping you				
		<i>Telephone</i>		<i>In-Person</i>	
		<i>Treatment</i>	<i>Control</i>	<i>Treatment</i>	<i>Control</i>
	Strongly disagree	40.5%	41.7%	30.8%	41.7%
	Somewhat disagree	14.1%	10.7%	27.1%	25.8%
	Somewhat agree	19.4%	15.4%	26.2%	15.3%
	Strongly agree	26.0%	32.3%	15.9%	17.2%
11 - 3	The amount of time you were stopped was reasonable				
		<i>Telephone</i>		<i>In-Person</i>	
		<i>Treatment</i>	<i>Control</i>	<i>Treatment</i>	<i>Control</i>
	Strongly disagree	22.0%	29.0%	17.8%	33.3%
	Somewhat disagree	9.2%	11.1%	30.8%	22.2%
	Somewhat agree	23.2%	19.0%	33.6%	26.5%
	Strongly agree	45.6%	40.9%	17.8%	17.9%
11 - 4	The police officers used language that you found threatening or abusive				
		<i>Telephone</i>		<i>In-Person</i>	
		<i>Treatment</i>	<i>Control</i>	<i>Treatment</i>	<i>Control</i>
	Strongly disagree	67.2%	66.8%	35.9%	39.7%
	Somewhat disagree	12.8%	10.4%	28.3%	20.5%

	Somewhat agree	8.2%	6.4%	20.8%	21.2%
	Strongly agree	11.9%	16.4%	15.1%	18.6%
11 - 5	You felt the police officers stopped you because of your race or ethnicity				
		<i>Telephone</i>		<i>In-Person</i>	
		<i>Treatment</i>	<i>Control</i>	<i>Treatment</i>	<i>Control</i>
	Strongly disagree	50.9%	51.4%	19.4%	29.6%
	Somewhat disagree	13.1%	8.7%	25.0%	14.2%
	Somewhat agree	13.1%	14.2%	27.8%	24.1%
	Strongly agree	22.9%	25.7%	27.8%	32.1%
11 - 6	The police officers used more force than necessary				
		<i>Telephone</i>		<i>In-Person</i>	
		<i>Treatment</i>	<i>Control</i>	<i>Treatment</i>	<i>Control</i>
	Strongly disagree	67.4%	68.4%	38.9%	44.2%
	Somewhat disagree	17.9%	14.6%	26.9%	20.9%
	Somewhat agree	6.5%	6.7%	18.5%	17.8%
	Strongly agree	8.2%	10.3%	15.7%	17.2%
13	In the past 12 months, have you been stopped by police officers in your neighborhood while you were walking or standing on the street, in your building, or in some other place or building in your neighborhood? (Yes/No)				
		<i>Telephone</i>		<i>In-Person</i>	
		<i>Treatment</i>	<i>Control</i>	<i>Treatment</i>	<i>Control</i>
	No	94.1%	95.3%	80.4%	73.8%
	Yes	5.9%	4.7%	19.6%	26.2%
14	Thinking about the last time you were stopped by police officers while you were on the street, in your building, or some other place or building in your neighborhood, how satisfied were you with the way the officers handled that situation?				
		<i>Telephone</i>		<i>In-Person</i>	
		<i>Treatment</i>	<i>Control</i>	<i>Treatment</i>	<i>Control</i>
	Very dissatisfied	32.6%	34.3%	24.8%	27.7%
	Somewhat dissatisfied	21.4%	19.9%	34.5%	28.4%
	Somewhat satisfied	27.5%	34.9%	26.6%	27.7%
	Very satisfied	18.5%	11.0%	14.2%	16.2%
15	And thinking about this same stop, please indicate whether the following happened or did not happen. (Yes, did happen/No, did not happen)				
15 - 1	The police officers explained the reason for the stop				
		<i>Telephone</i>		<i>In-Person</i>	
		<i>Treatment</i>	<i>Control</i>	<i>Treatment</i>	<i>Control</i>
	No	40.1%	42.2%	41.8%	50.8%
	Yes	59.9%	57.8%	58.3%	49.2%
15 - 2	The police officers gave you a receipt or information card after the stop				
		<i>Telephone</i>		<i>In-Person</i>	
		<i>Treatment</i>	<i>Control</i>	<i>Treatment</i>	<i>Control</i>
	No	88.5%	82.1%	76.0%	77.9%

	Yes	11.5%	17.9%	24.0%	22.1%
15 - 3	You were patted down on the outside of your clothing				
		<i>Telephone</i>		<i>In-Person</i>	
		<i>Treatment</i>	<i>Control</i>	<i>Treatment</i>	<i>Control</i>
	No	66.9%	48.9%	39.2%	51.9%
	Yes	33.1%	51.1%	60.8%	48.1%
15 - 4	The police officers searched the inside of your clothing, your bag, or other personal belongings				
		<i>Telephone</i>		<i>In-Person</i>	
		<i>Treatment</i>	<i>Control</i>	<i>Treatment</i>	<i>Control</i>
	No	61.3%	53.8%	38.5%	51.1%
	Yes	38.8%	46.2%	61.5%	48.9%
15 - 5	The police officers used physical force during the stop				
		<i>Telephone</i>		<i>In-Person</i>	
		<i>Treatment</i>	<i>Control</i>	<i>Treatment</i>	<i>Control</i>
	No	85.3%	84.8%	74.0%	76.3%
	Yes	14.7%	15.2%	26.0%	23.7%
15 - 6	You were arrested or given a summons				
		<i>Telephone</i>		<i>In-Person</i>	
		<i>Treatment</i>	<i>Control</i>	<i>Treatment</i>	<i>Control</i>
	No	81.6%	75.9%	62.8%	68.2%
	Yes	18.4%	24.2%	37.3%	31.8%
16	Still thinking about this same stop ...				
16 - 1	The police officers treated you with respect				
		<i>Telephone</i>		<i>In-Person</i>	
		<i>Treatment</i>	<i>Control</i>	<i>Treatment</i>	<i>Control</i>
	Strongly disagree	27.4%	27.6%	13.8%	22.9%
	Somewhat disagree	11.8%	14.0%	26.6%	26.4%
	Somewhat agree	24.1%	29.5%	39.5%	28.5%
	Strongly agree	36.8%	28.9%	20.2%	22.2%
16 - 2	The police officers had a good reason for stopping you				
		<i>Telephone</i>		<i>In-Person</i>	
		<i>Treatment</i>	<i>Control</i>	<i>Treatment</i>	<i>Control</i>
	Strongly disagree	52.0%	56.2%	31.8%	42.7%
	Somewhat disagree	11.6%	11.7%	32.7%	29.4%
	Somewhat agree	15.4%	17.1%	18.7%	14.7%
	Strongly agree	21.1%	15.1%	16.8%	13.3%
16 - 3	The amount of time you were stopped was reasonable				
		<i>Telephone</i>		<i>In-Person</i>	
		<i>Treatment</i>	<i>Control</i>	<i>Treatment</i>	<i>Control</i>
	Strongly disagree	31.5%	42.0%	24.5%	35.5%
	Somewhat disagree	8.9%	11.4%	33.0%	29.8%
	Somewhat agree	19.7%	17.5%	24.5%	17.7%
	Strongly agree	39.9%	29.2%	17.9%	17.0%

16 - 4	The police officers used language that you found threatening or abusive				
		<i>Telephone</i>		<i>In-Person</i>	
		<i>Treatment</i>	<i>Control</i>	<i>Treatment</i>	<i>Control</i>
	Strongly disagree	51.9%	43.7%	18.7%	34.5%
	Somewhat disagree	19.0%	15.8%	26.2%	23.7%
	Somewhat agree	5.4%	18.6%	30.8%	23.0%
	Strongly agree	23.7%	21.8%	24.3%	18.7%
16 - 5	You felt the police officers stopped you because of your race or ethnicity				
		<i>Telephone</i>		<i>In-Person</i>	
		<i>Treatment</i>	<i>Control</i>	<i>Treatment</i>	<i>Control</i>
	Strongly disagree	36.8%	31.6%	16.2%	25.4%
	Somewhat disagree	11.0%	6.7%	11.4%	17.6%
	Somewhat agree	13.6%	14.7%	35.2%	23.9%
	Strongly agree	38.6%	47.0%	37.1%	33.1%
16 - 6	The police officers used more force than necessary				
		<i>Telephone</i>		<i>In-Person</i>	
		<i>Treatment</i>	<i>Control</i>	<i>Treatment</i>	<i>Control</i>
	Strongly disagree	56.0%	53.5%	25.5%	35.7%
	Somewhat disagree	18.5%	11.7%	31.1%	28.7%
	Somewhat agree	4.3%	17.5%	21.7%	16.1%
	Strongly agree	21.2%	17.3%	21.7%	19.6%
18	In the past 12 months, have you spoken to or contacted any police officers in your neighborhood for help, such as asking a police officer on the street for assistance, reporting a crime or an accident to an officer, or having an officer respond to your 911 call? (Yes/No)				
		<i>Telephone</i>		<i>In-Person</i>	
		<i>Treatment</i>	<i>Control</i>	<i>Treatment</i>	<i>Control</i>
	No	80.7%	79.9%	76.8%	76.2%
	Yes	19.3%	20.1%	23.2%	23.8%
19	Thinking about the last time you spoke to or contacted police officers in your neighborhood, how satisfied were you with how the officers handled that situation?				
		<i>Telephone</i>		<i>In-Person</i>	
		<i>Treatment</i>	<i>Control</i>	<i>Treatment</i>	<i>Control</i>
	Very dissatisfied	14.6%	12.4%	12.2%	20.3%
	Somewhat dissatisfied	7.7%	8.7%	13.0%	13.5%
	Somewhat satisfied	26.7%	21.5%	32.8%	30.1%
	Very satisfied	51.0%	57.3%	42.0%	36.1%
20	And still thinking about the last time you spoke to or contacted police officers in your neighborhood ...				
20 - 1	The police officers treated you with respect				
		<i>Telephone</i>		<i>In-Person</i>	
		<i>Treatment</i>	<i>Control</i>	<i>Treatment</i>	<i>Control</i>
	Strongly disagree	4.0%	4.6%	3.8%	10.6%

	Somewhat disagree	5.2%	4.0%	8.4%	14.4%
	Somewhat agree	16.8%	17.8%	26.0%	24.2%
	Strongly agree	74.0%	73.7%	61.8%	50.8%
20 - 2	The police officers clearly explained where you could get the help or information you needed				
		<i>Telephone</i>		<i>In-Person</i>	
		<i>Treatment</i>	<i>Control</i>	<i>Treatment</i>	<i>Control</i>
	Strongly disagree	12.9%	11.2%	9.4%	15.4%
	Somewhat disagree	7.3%	8.4%	9.4%	17.7%
	Somewhat agree	18.3%	18.5%	28.9%	23.1%
	Strongly agree	61.4%	61.9%	52.3%	43.9%
20 - 3	The police officers took your problem or question seriously				
		<i>Telephone</i>		<i>In-Person</i>	
		<i>Treatment</i>	<i>Control</i>	<i>Treatment</i>	<i>Control</i>
	Strongly disagree	9.7%	10.0%	13.7%	19.4%
	Somewhat disagree	9.2%	9.2%	6.9%	15.5%
	Somewhat agree	19.0%	14.0%	35.1%	26.7%
	Strongly agree	62.2%	66.8%	44.3%	38.8%
21	Some police departments require officers to wear body cameras that provide an audio and video recording of officer's interactions with the public. Do you strongly favor, somewhat favor, somewhat oppose, or strongly opposed having NYPD officers wear body cameras?				
		<i>Telephone</i>		<i>In-Person</i>	
		<i>Treatment</i>	<i>Control</i>	<i>Treatment</i>	<i>Control</i>
	Strongly oppose	2.4%	2.8%	3.3%	4.4%
	Somewhat oppose	3.1%	3.7%	5.3%	6.2%
	Somewhat favor	18.2%	18.1%	20.3%	16.6%
	Strongly favor	76.3%	75.4%	71.1%	72.7%
24	In the past 12 months, has anyone in your household, not counting yourself, been stopped by police officers in your neighborhood? (Yes/No)				
		<i>Telephone</i>		<i>In-Person</i>	
		<i>Treatment</i>	<i>Control</i>	<i>Treatment</i>	<i>Control</i>
	No	90.4%	91.4%	76.2%	69.6%
	Yes	9.6%	8.6%	23.8%	30.4%
26	Do you know any of the police officers that work in your neighborhood by name? (Yes/No)				
		<i>Telephone</i>		<i>In-Person</i>	
		<i>Treatment</i>	<i>Control</i>	<i>Treatment</i>	<i>Control</i>
	No	87.2%	88.7%	81.8%	84.6%
	Yes	12.8%	11.3%	18.2%	15.4%
28	How often do you go out in your neighborhood, outside your home, in the evening?				
		<i>Telephone</i>		<i>In-Person</i>	
		<i>Treatment</i>	<i>Control</i>	<i>Treatment</i>	<i>Control</i>
	Rarely	16.5%	15.8%	10.4%	6.7%
	Sometimes	7.5%	7.9%	7.8%	6.2%
	Just a little	21.3%	21.9%	27.7%	25.9%
	Frequently	54.7%	54.5%	54.0%	61.2%

Appendix 8

Telephone Survey: Detailed Analyses

Q3: When it comes to the problem of crime, how safe do you feel in your neighborhood-- very safe, somewhat safe, somewhat unsafe, or very unsafe?

Table 8.3.1: Q3 Weighted Frequency Distribution

	Very Unsafe (1)		Unsafe (2)		Safe (3)		Very Safe (4)		<i>n</i>	Mean	SD
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%			
<i>Treatment</i>											
Pre-Intervention	121.5	4.1%	190.9	6.4%	1356.0	45.4%	1318.0	44.1%	2986.4	3.296	0.761
Post-Intervention	181.5	6.1%	458.5	15.3%	1290.0	43.1%	1064.0	35.5%	2994.0	3.081	0.864
<i>Control</i>											
Pre-Intervention	78.7	2.6%	225.0	7.6%	1306.0	43.9%	1368.0	45.9%	2977.7	3.331	0.728
Post-Intervention	192.9	6.4%	463.1	15.5%	1248.0	41.7%	1087.0	36.3%	2991.0	3.080	0.877

Table 8.3.2: Q3 Collapsed Likert Scale Weighted Chi-Square Tests

	Unsafe		Safe		Rao-Scott Chi-Square	
	<i>n</i>	%	<i>n</i>	%	<i>F</i>	<i>p</i>
<i>Treatment</i>						
Pre-Intervention	312.4	10.46%	2674.0	89.54%	27.176	0.000 ***
Post-Intervention	640.0	21.37%	2355.0	78.63%		
<i>Control</i>						
Pre-Intervention	303.8	10.20%	2674.0	89.80%	26.951	0.000 ***
Post-Intervention	656.0	21.93%	2335.0	78.07%		

p*<.10; *p*<.05; ****p*<.01

Table 8.3.3: Q3 Difference-in-Differences, Weighted Ordered Probit Regression (n=11004)

	Coef.	RSE	p	q
<i>Model 1</i>				
DiD (Treatment##Post)	0.024	0.094	0.803	1.000
<i>Model 2</i>				
DiD (Treatment##Post)	0.047	0.079	0.549	1.000
Nonwhite	-0.279	0.040	0.000 ***	
Gender	0.176	0.032	0.000 ***	
Age	0.000	0.001	0.467	
Education	0.206	0.025	0.000 ***	
NYCHA Housing	-0.438	0.044	0.000 ***	
NYPD Friend/Family	0.131	0.039	0.001 ***	
<i>Goodness-of-Fit</i>				
	Pseudo R ²	LL		
Model 1	0.0094	-12079.1		
Model 2	0.0391	-11716.4		

***p<.01

Reference categories: Survey T1 (Pre); Control Group; White; Female; No NYCHA housing; No friend/family

Regression models used cluster-robust standard errors to account for respondent precinct

Q4: Overall, how would you describe your feelings about the NYPD officers in your neighborhood? Do you feel very favorable, somewhat favorable, neutral, somewhat unfavorable, or very unfavorable?

Table 8.4.1: Q4 Weighted Frequency Distribution

	Very Unfavorable (1)		Somewhat Unfavorable (2)		Neutral (3)		Somewhat Favorable (4)		Very Favorable (5)		n	Mean	SD
	n	%	n	%	n	%	n	%	n	%			
<i>Treatment</i>													
Pre-Intervention	130.0	4.5%	183.7	6.3%	940.8	32.3%	718.6	24.6%	943.6	32.4%	2916.7	3.741	1.112
Post-Intervention	139.7	4.7%	283.7	9.5%	1095.0	36.8%	736.3	24.7%	720.3	24.2%	2975.0	3.542	1.101
<i>Control</i>													
Pre-Intervention	104.5	3.6%	189.1	6.5%	986.3	33.8%	714.2	24.5%	920.1	31.6%	2914.2	3.740	1.082
Post-Intervention	167.9	5.6%	273.4	9.2%	1090.0	36.7%	733.4	24.7%	707.4	23.8%	2972.1	3.518	1.118

Table 8.4.2: Q4 Collapsed Likert Scale Weighted Chi-Square Tests

	Unfavorable		Neutral/Favorable		Rao-Scott Chi-Square	
	n	%	n	%	F	p
<i>Treatment</i>						
Pre-Intervention	313.7	10.76%	2603.0	89.24%	5.789	0.021 **
Post-Intervention	423.3	14.23%	2552.0	85.77%		
<i>Control</i>						
Pre-Intervention	293.6	10.07%	2621.0	89.93%	11.215	0.002 ***
Post-Intervention	734.8	12.48%	5152.0	87.52%		

*p<.10; **p<.05; ***p<.01

	Coef.	RSE	p	q
<i>Model 1</i>				
DiD (Treatment##Post)	0.022	0.069	0.749	1.000
<i>Model 2</i>				
DiD (Treatment##Post)	0.055	0.066	0.412	1.000
Nonwhite	-0.259	0.043	0.000 ***	
Gender	-0.001	0.030	0.960	
Age	0.009	0.001	0.000 ***	
Education	-0.027	0.026	0.285	
NYCHA Housing	-0.261	0.038	0.000 ***	
NYPD Friend/Family	0.157	0.043	0.000 ***	
<i>Goodness-of-Fit</i>				
	Pseudo R ²	LL		
Model 1	0.0024	-15212.5		
Model 2	0.0200	-14943.9		

***p<.01

Reference categories: Survey T1 (Pre); Control Group; White; Female; No NYCHA housing; No friend/family
Regression models used cluster-robust standard errors to account for respondent precinct

Q5: How would you rate the job that NYPD officers are doing in your neighborhood-- would you say they are doing a very good job, a good job, a fair job, a not so good job, or a poor job?

	Poor (1)		Not-so-good (2)		Neutral (3)		Good (4)		Very Good (5)		n	Mean	SD
	n	%	n	%	n	%	n	%	n	%			
<i>Treatment</i>													
Pre-Intervention	138.7	4.8%	155.5	5.4%	764.5	26.6%	1118.0	38.9%	695.5	24.2%	2872.2	3.723	1.044
Post-Intervention	116.7	4.0%	269.1	9.2%	1025.0	34.9%	1006.0	34.3%	517.6	17.6%	2934.4	3.524	1.015
<i>Control</i>													
Pre-Intervention	112.6	3.9%	143.8	5.0%	827.6	28.6%	1075.0	37.2%	732.9	25.3%	2891.9	3.751	1.013
Post-Intervention	118.8	4.1%	264.1	9.0%	1097.0	37.5%	1004.0	34.3%	442.2	15.1%	2926.1	3.474	0.988

	Not Good		Neutral/Good		Rao-Scott Chi-Square	
	<i>n</i>	%	<i>n</i>	%	<i>F</i>	<i>p</i>
<i>Treatment</i>						
Pre-Intervention	294.2	10.24%	2578.0	89.76%	5.254	0.027 **
Post-Intervention	385.9	13.15%	2549.0	86.85%		
<i>Control</i>						
Pre-Intervention	256.4	8.87%	2635.0	91.13%	7.215	0.011 **
Post-Intervention	383.0	13.09%	2543.0	86.91%		

p*<.10; *p*<.05; ****p*<.01

	Coef.	RSE	<i>p</i>	<i>q</i>
<i>Model 1</i>				
DiD (Treatment##Post)	0.092	0.081	0.258	1.000
<i>Model 2</i>				
DiD (Treatment##Post)	0.122	0.073	0.093	1.000
Nonwhite	-0.325	0.037	0.000 ***	
Gender	0.018	0.029	0.540	
Age	0.008	0.001	0.000 ***	
Education	0.011	0.022	0.631	
NYCHA Housing	-0.273	0.041	0.000 ***	
NYPD Friend/Family	0.169	0.044	0.000 ***	
<i>Goodness-of-Fit</i>				
	Pseudo R ²	LL		
Model 1	0.0051	-14627.3		
Model 2	0.0249	-14335.7		

****p*<.01

Reference categories: Survey T1 (Pre); Control Group; White; Female; No NYCHA housing; No friend/family

Regression models used cluster-robust standard errors to account for respondent precinct

Q6: Thinking about NYPD officers in your neighborhood, please indicate if you strongly agree, somewhat agree, somewhat disagree, or strongly disagree with each statement.

- (1) If I needed police assistance, I would feel comfortable seeking help ...
- (2) I respect the police officers in my neighborhood
- (3) Police officers in my neighborhood respect people's rights
- (4) Police officers in my neighborhood treat people fairly, regardless ...
- (5) Police officers in my neighborhood often abuse their authority.
- (6) I sometimes feel nervous when I see police officers in my neighborhood approach me.
- (7) Police officers stop and frisk too many people in my neighborhood
- (8) Police officers in my neighborhood use more force than necessary

	Pre-Intervention						Post-Intervention					
	Pre-Intervention			Post-Intervention			Pre-Intervention			Post-Intervention		
	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD
<i>Treatment</i>												
1	2959	3.519	0.803	2938	3.314	0.872						
2	2958	3.655	0.646	2967	3.396	0.817						
3	2814	3.201	0.899	2849	3.058	0.917						
4	2697	3.014	1.029	2753	2.858	1.010						
5	2699	2.068	1.087	2781	2.189	1.071						
6	2900	1.935	1.128	2915	2.078	1.134						
7	2534	2.049	1.112	2564	2.206	1.081						
8	2613	2.025	1.071	2683	2.135	1.052						
<i>Control</i>												
1	2959	3.531	0.778	2945	3.284	0.896						
2	2960	3.662	0.634	2944	3.383	0.812						
3	2770	3.185	0.910	2769	3.030	0.918						
4	2658	3.051	1.013	2710	2.846	1.013						
5	2715	2.046	1.101	2717	2.265	1.085						
6	2882	1.913	1.105	2933	2.213	1.149						
7	2574	2.023	1.084	2624	2.189	1.059						
8	2634	1.991	1.058	2686	2.232	1.091						

	Pre-Intervention								Post-Intervention								Rao-Scott Chi-Square	
	Disagree				Agree				Disagree				Agree				<i>F</i>	<i>p</i>
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%				
<i>Treatment</i>																		
1	278.5	9.41%	2680.0	90.59%	461.7	15.71%	2477.0	84.29%	17.949	0.000	***							
2	137.7	4.66%	2820.0	95.34%	373.2	12.58%	2593.0	87.42%	63.331	0.000	***							
3	469.9	16.69%	2345.0	83.31%	670.3	23.53%	2178.0	76.47%	11.286	0.002	***							
4	697.4	25.86%	1999.0	74.14%	885.3	32.17%	1867.0	67.83%	6.498	0.015	**							
5	1776.0	65.82%	922.4	34.18%	1663.0	59.82%	1117.0	40.18%	4.888	0.033	**							
6	2015.0	69.48%	885.1	30.52%	1813.0	62.20%	1102.0	37.80%	10.038	0.003	***							
7	1725.0	68.07%	809.3	31.93%	1551.0	60.49%	1013.0	39.51%	6.189	0.017	**							
8	1803.0	68.99%	810.3	31.01%	1700.0	63.37%	982.8	36.63%	4.634	0.038	**							
<i>Control</i>																		
1	260.4	8.80%	2698.0	91.20%	506.7	17.21%	2438.0	82.79%	31.778	0.000	***							
2	136.5	4.61%	2823.0	95.39%	362.3	12.31%	2582.0	87.69%	31.628	0.000	***							
3	472.9	17.07%	2297.0	82.93%	707.0	25.53%	2062.0	74.47%	11.690	0.002	***							
4	643.4	24.21%	2014.0	75.79%	917.9	33.87%	1792.0	66.13%	12.995	0.001	***							
5	1836.0	67.64%	878.5	32.36%	1579.0	58.12%	1138.0	41.88%	14.064	0.001	***							
6	2010.0	69.74%	872.2	30.26%	1679.0	57.26%	1253.0	42.74%	41.843	0.000	***							
7	1801.0	69.66%	784.4	30.34%	1543.0	61.09%	982.9	38.91%	7.999	0.007	***							
8	1819.0	70.67%	754.9	29.33%	1549.0	59.03%	1075.0	40.97%	17.210	0.000	***							

p*<.10; *p*<.05; ****p*<.01

Table 8.6.3: Q6 Difference-in-Differences, Weighted Ordered Probit Regression

	1: Feel comfortable seeking help from officers (n=10871)				2: Respect officers in neighborhood (n=10893)				3: Officers respect people's rights (n=10418)				4: Officers treat people fairly regardless of race (n=10160)			
	Coef.	RSE	p	q	Coef.	RSE	p	q	Coef.	RSE	p	q	Coef.	RSE	p	q
<i>Model 1</i>																
DiD (Treatment##Post)	0.050	0.104	0.624	1.000	0.046	0.107	0.667	1.000	0.035	0.105	0.734	1.000	0.050	0.097	0.603	1.000
<i>Model 2</i>																
DiD (Treatment##Post)	0.089	0.101	0.373	1.000	0.071	0.105	0.503	1.000	0.064	0.100	0.522	1.000	0.078	0.093	0.407	1.000
Nonwhite	-0.319	0.037	0.000 ***		-0.065	0.044	0.136		-0.311	0.043	0.000 ***		-0.322	0.046	0.000 ***	
Gender	-0.069	0.031	0.025		-0.081	0.027	0.002 ***		-0.075	0.032	0.020		-0.038	0.035	0.280	
Age	0.008	0.001	0.000 ***		0.006	0.001	0.000 ***		0.006	0.001	0.000 ***		0.006	0.001	0.000 ***	
Education	0.027	0.039	0.484		-0.008	0.034	0.806		-0.043	0.033	0.200		-0.085	0.029	0.003 ***	
NYCHA Housing	-0.222	0.041	0.000 ***		-0.273	0.048	0.000 ***		-0.223	0.040	0.000 ***		-0.170	0.036	0.000 ***	
NYPD Friend/Family	0.190	0.044	0.000 ***		0.285	0.044	0.000 ***		0.110	0.050	0.028		0.131	0.042	0.002 ***	
<i>Goodness-of-Fit</i>	Pseudo R ²	LL			Pseudo R ²	LL			Pseudo R ²	LL			Pseudo R ²	LL		
Model 1	0.008	-10941.9			0.016	-9746.2			0.002	-12296.7			0.003	-12836.4		
Model 2	0.030	-10705.2			0.030	-9607.3			0.017	-12116.4			0.016	-12663.9		

	5: Officers often abuse authority (n=10214)				6: Feel nervous when officers approach me (n=10782)				7: Officers stop and frisk too many people (n=9647)				8: Officers use more force than necessary (n=9825)			
	Coef.	RSE	p	q	Coef.	RSE	p	q	Coef.	RSE	p	q	Coef.	RSE	p	q
<i>Model 1</i>																
DiD (Treatment##Post)	-0.110	0.092	0.234	1.000	-0.166	0.079	0.037	1.000	-0.025	0.111	0.818	1.000	-0.133	0.096	0.165	1.000
<i>Model 2</i>																
DiD (Treatment##Post)	-0.143	0.081	0.075	1.000	-0.208	0.077	0.007 **	1.000	-0.055	0.092	0.549	1.000	-0.175	0.081	0.032	1.000
Nonwhite	0.382	0.046	0.000 ***		0.337	0.039	0.000 ***		0.440	0.048	0.000 ***		0.396	0.044	0.000 ***	
Gender	0.080	0.034	0.018		0.130	0.033	0.000 ***		0.019	0.030	0.524		0.054	0.030	0.070	
Age	-0.006	0.001	0.000 ***		-0.010	0.001	0.000 ***		-0.004	0.001	0.000 ***		-0.004	0.001	0.000 ***	
Education	-0.035	0.029	0.224		-0.038	0.027	0.157		-0.113	0.029	0.000 ***		-0.095	0.032	0.003 ***	
NYCHA Housing	0.262	0.040	0.000 ***		0.292	0.046	0.000 ***		0.372	0.040	0.000 ***		0.362	0.045	0.000 ***	
NYPD Friend/Family	-0.086	0.049	0.077		-0.192	0.042	0.000 ***		-0.039	0.057	0.494		-0.111	0.043	0.010	
<i>Goodness-of-Fit</i>	Pseudo R ²	LL			Pseudo R ²	LL			Pseudo R ²	LL			Pseudo R ²	LL		
Model 1	0.002	-13396.8			0.004	-13547.8			0.002	-12457.9			0.003	-12716.5		
Model 2	0.020	-13155.0			0.028	-13211.3			0.026	-12155.0			0.025	-12434.2		

***p<.01

Reference categories: Survey T1 (Pre); Control Group; White; Female; No NYCHA housing; No Friend/Family

Regression models used cluster-robust standard errors to account for respondent precinct

Q7: If you or someone in your neighborhood filed a complaint against a police officer for unfair treatment, do you think the complaint would be investigated fairly and objectively? Would you say it definitely would, probably would, probably would not, or definitely would not be investigated fairly and objectively?

	Definitely Would Not (1)		Probably Would Not (2)		Probably Would (3)		Definitely Would (4)		<i>n</i>	Mean	SD
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%			
<i>Treatment</i>											
Pre-Intervention	270.4	9.7%	695.1	25.0%	1251.0	44.9%	569.4	20.4%	2785.9	2.761	0.889
Post-Intervention	328.4	11.9%	702.4	25.4%	1146.0	41.5%	586.0	21.2%	2762.8	2.720	0.932
<i>Control</i>											
Pre-Intervention	263.5	9.5%	687.4	24.7%	1250.0	45.0%	577.5	20.8%	2778.4	2.771	0.888
Post-Intervention	344.9	12.6%	672.9	24.5%	1131.0	41.2%	594.7	21.7%	2743.5	2.720	0.946

	Would Not		Would		Rao-Scott Chi-Square	
	<i>n</i>	%	<i>n</i>	%	<i>F</i>	<i>p</i>
<i>Treatment</i>						
Pre-Intervention	965.5	34.65%	1821.0	65.35%	1.530	0.224
Post-Intervention	1031.0	37.31%	1732.0	62.69%		
<i>Control</i>						
Pre-Intervention	950.9	34.23%	1827.0	65.77%	1.179	0.284
Post-Intervention	1018.0	37.11%	1725.0	62.89%		

p* < .10; *p* < .05; ****p* < .01

	Coef.	RSE	<i>p</i>	<i>q</i>
<i>Model 1</i>				
DiD (Treatment##Post)	0.034	0.071	0.631	1.000
<i>Model 2</i>				
DiD (Treatment##Post)	0.069	0.069	0.312	1.000
Nonwhite	-0.281	0.045	0.000	***
Gender	-0.029	0.033	0.385	
Age	0.010	0.001	0.000	***
Education	-0.106	0.032	0.001	***
NYCHA Housing	-0.168	0.046	0.000	***
NYPD Friend/Family	0.164	0.046	0.000	***
<i>Goodness-of-Fit</i>				
Model 1	Pseudo R ²	LL		
Model 1	0.0001	-13014.8		
Model 2	0.0213	-12738.7		

****p* < .01

Reference categories: Survey T1 (Pre); Control Group; White; Female; No NYCHA housing; No friend/family

Regression models used cluster-robust standard errors to account for respondent precinct

Q8: In the past 12 months, have you been stopped by police officers in your neighborhood while you were in a car?

Table 8.8.1: Q8 Weighted Frequency Distribution									
	No (0)		Yes (1)		Rao-Scott Chi-Square				
	<i>n</i>	%	<i>n</i>	%	<i>F</i>	<i>p</i>	<i>n</i>	Mean	SD
<i>Treatment</i>									
Pre-Intervention	2643.0	88.1%	355.6	11.9%	3.321	0.076 *	2998.6	0.119	0.323
Post-Intervention	2748.0	90.8%	278.9	9.2%			3026.9	0.092	0.290
<i>Control</i>									
Pre-Intervention	2613.0	87.1%	385.8	12.9%	10.880	0.002 ***	2998.8	0.129	0.335
Post-Intervention	2756.0	91.1%	270.5	8.9%			3026.5	0.089	0.285

* $p < .10$; ** $p < .05$; *** $p < .01$

Table 8.8.2: Q8 Difference-in-Differences, Weighted Probit Regression ($n=11082$)				
	Coef.	RSE	<i>p</i>	<i>q</i>
<i>Model 1</i>				
DiD (Treatment##Post)	0.036	0.106	0.734	1.000
<i>Model 2</i>				
DiD (Treatment##Post)	0.026	0.104	0.803	1.000
Nonwhite	0.237	0.070	0.001 ***	
Gender	0.368	0.050	0.000 ***	
Age	-0.008	0.001	0.000 ***	
Education	0.037	0.037	0.315	
NYCHA Housing	-0.085	0.057	0.134	
NYPD Friend/Family	0.214	0.050	0.000 ***	
<i>Goodness-of-Fit</i>				
	Pseudo R ²	LL		
Model 1	0.0054	-3798.5		
Model 2	0.0432	-3654.3		

*** $p < .01$

Reference categories: Survey T1 (Pre); Control Group; White; Female; No NYCHA housing; No friend/family

Regression models used cluster-robust standard errors to account for respondent precinct

Q9: Thinking about the last time you were stopped by police officers in your neighborhood while you were in a car, how satisfied were you with the way the officers handled that situation-- very satisfied, somewhat satisfied, somewhat dissatisfied, or very dissatisfied?

	Very Dissatisfied (1)		Somewhat Dissatisfied (2)		Somewhat Satisfied (3)		Very Satisfied (4)		<i>n</i>	Mean	SD
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%			
<i>Treatment</i>											
Pre-Intervention	92.7	26.1%	59.4	16.7%	99.5	28.0%	104.0	29.2%	355.6	2.604	1.324
Post-Intervention	74.0	26.8%	35.2	12.7%	84.3	30.6%	82.5	29.9%	276.0	2.635	1.339
<i>Control</i>											
Pre-Intervention	94.4	24.5%	53.5	13.9%	108.9	28.3%	128.3	33.3%	385.1	2.704	1.284
Post-Intervention	47.6	17.9%	53.1	19.9%	98.6	37.0%	66.9	25.1%	266.2	2.694	1.209

	Dissatisfied		Satisfied		Rao-Scott Chi-Square	
	<i>n</i>	%	<i>n</i>	%	<i>F</i>	<i>p</i>
<i>Treatment</i>						
Pre-Intervention	152.1	42.77%	203.5	57.23%	0.314	0.579
Post-Intervention	109.2	39.57%	166.8	60.43%		
<i>Control</i>						
Pre-Intervention	147.9	38.42%	237.1	61.58%	0.020	0.888
Post-Intervention	100.7	37.83%	165.5	62.17%		

p*<.10; *p*<.05; ****p*<.01

	Coef.	RSE	<i>p</i>	<i>q</i>
<i>Model 1</i>				
DiD (Treatment##Post)	-0.014	0.160	0.928	1.000
<i>Model 2</i>				
DiD (Treatment##Post)	-0.019	0.154	0.904	1.000
Nonwhite	-0.400	0.083	0.000 ***	
Gender	0.113	0.104	0.276	
Age	0.004	0.003	0.128	
Education	-0.004	0.088	0.961	
NYCHA Housing	-0.213	0.102	0.036	
NYPD Friend/Family	0.061	0.092	0.502	
<i>Goodness-of-Fit</i>	Pseudo R ²	LL		
Model 1	0.0003	-1634.8		
Model 2	0.0130	-1614.1		

****p*<.01

Reference categories: Survey T1 (Pre); Control Group; White; Female; No NYCHA housing; No friend/family
Regression models used cluster-robust standard errors to account for respondent precinct

Q10: Thinking about this same stop, please tell me whether the following happened or did not happen

- (1) The police officers explained the reason for the stop
- (2) The police officers used physical force during the stop
- (3) You were patted down on the outside of your clothing
- (4) The police officers searched the inside of your clothing, your bag, or other personal belongings

- (5) You were given a ticket or a summons for a moving violation
 (6) You were arrested

	Pre-Intervention			Post-Intervention		
	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD
<i>Treatment</i>						
1	355.3	0.834	0.425	271.1	0.823	0.438
2	352.8	0.051	0.252	276.0	0.083	0.318
3	355.6	0.145	0.402	278.7	0.272	0.512
4	355.6	0.117	0.367	277.3	0.249	0.496
5	352.8	0.389	0.558	277.5	0.465	0.573
6	355.4	0.035	0.211	278.6	0.041	0.227
<i>Control</i>						
1	384.6	0.792	0.447	262.4	0.728	0.521
2	384.5	0.054	0.249	266.9	0.210	0.477
3	384.0	0.168	0.412	265.6	0.384	0.571
4	385.8	0.155	0.399	265.9	0.323	0.549
5	383.7	0.442	0.547	264.8	0.446	0.584
6	385.5	0.055	0.252	267.9	0.134	0.400

	Pre-Intervention				Post-Intervention				Rao-Scott Chi-Square	
	No		Yes		No		Yes		<i>F</i>	<i>p</i>
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%		
<i>Treatment</i>										
1	59.2	16.65%	296.2	83.35%	48.1	17.75%	223.0	82.25%	0.082	0.777
2	334.7	94.86%	18.1	5.14%	253.0	91.67%	23.0	8.33%	1.255	0.270
3	304.0	85.48%	51.6	14.52%	202.8	72.78%	75.9	27.22%	8.561	0.006 ***
4	313.9	88.28%	41.7	11.72%	208.3	75.12%	69.0	24.88%	15.158	0.000 **
5	215.4	61.05%	137.4	38.95%	148.6	53.55%	128.9	46.45%	1.504	0.227
6	342.8	96.47%	12.6	3.53%	267.3	95.93%	11.3	4.07%	0.082	0.776
<i>Control</i>										
1	80.1	20.77%	305.5	79.23%	71.3	27.17%	191.1	72.83%	3.738	0.061 *
2	363.7	94.58%	20.8	5.42%	211.0	79.05%	55.9	20.95%	15.402	0.000 ***
3	319.4	83.18%	64.6	16.82%	163.6	61.60%	102.0	38.40%	23.776	0.000 ***
4	325.9	84.48%	59.9	15.52%	179.9	67.66%	86.0	32.34%	12.306	0.001 ***
5	214.0	55.77%	169.7	44.23%	146.8	55.44%	118.0	44.56%	0.003	0.954
6	364.1	94.45%	21.4	5.55%	231.9	86.58%	36.0	13.42%	6.339	0.016 **

* $p < .10$; ** $p < .05$; *** $p < .01$

- (4) The police officers used language that you found threatening or abusive
 (5) You felt the police officers stopped you because of your race or ethnicity
 (6) The police officers used more force than necessary

	Pre-Intervention			Post-Intervention		
	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD
<i>Treatment</i>						
1	355.3	3.128	1.162	276.0	2.971	1.273
2	350.8	2.309	1.417	272.7	2.406	1.436
3	348.8	2.923	1.363	273.3	2.810	1.361
4	355.1	1.647	1.198	273.8	1.912	1.320
5	332.5	2.081	1.439	262.4	2.255	1.428
6	353.6	1.555	1.058	266.5	1.749	1.268
<i>Control</i>						
1	385.6	3.073	1.178	267.7	2.832	1.288
2	380.0	2.383	1.441	263.9	2.509	1.342
3	384.6	2.718	1.389	265.3	2.714	1.335
4	380.6	1.724	1.265	262.6	2.102	1.361
5	379.9	2.141	1.411	257.5	2.437	1.507
6	376.0	1.588	1.099	264.5	2.055	1.354

	Pre-Intervention				Post-Intervention				Rao-Scott Chi-Square	
	Disagree		Agree		Disagree		Agree		<i>F</i>	<i>p</i>
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%		
<i>Treatment</i>										
1	78.3	22.04%	277.0	77.96%	83.5	30.25%	192.5	69.75%	5.368	0.026 **
2	191.6	54.62%	159.2	45.38%	146.9	53.87%	125.8	46.13%	0.014	0.906
3	108.9	31.22%	239.9	68.78%	99.2	36.30%	174.1	63.70%	1.000	0.324 ***
4	283.9	79.96%	71.2	20.04%	191.8	70.06%	82.0	29.94%	5.890	0.020 **
5	212.6	63.94%	119.9	36.06%	148.7	56.67%	113.7	43.33%	1.011	0.321
6	301.6	85.30%	52.0	14.70%	199.0	74.66%	67.5	25.34%	4.228	0.047 **
<i>Control</i>										
1	93.7	24.29%	291.9	75.71%	98.6	36.84%	169.1	63.16%	9.373	0.004 ***
2	198.8	52.32%	181.2	47.68%	122.0	46.23%	141.9	53.77%	2.504	0.122
3	154.1	40.07%	230.5	59.93%	96.2	36.26%	169.1	63.74%	0.748	0.392
4	293.8	77.20%	86.8	22.80%	166.1	63.25%	96.5	36.75%	5.053	0.030 **
5	228.6	60.17%	151.3	39.83%	130.8	50.80%	126.7	49.20%	2.539	0.119
6	312.1	83.01%	63.9	16.99%	165.2	62.45%	99.3	37.55%	12.157	0.001 ***

p*<.10; *p*<.05; ****p*<.01

Table 8.11.3: Q11 Difference-in-Differences, Weighted Ordered Probit Regression

	1: Officers treated you with respect (n=1607)				2: Officers had a good reason for stopping you (n=1579)				3: Amount of time you were stopped was reasonable (n=1585)			
	Coef.	RSE	p	q	Coef.	RSE	p	q	Coef.	RSE	p	q
<i>Model 1</i>												
DiD (Treatment##Post)	0.034	0.159	0.834	1.000	-0.077	0.158	0.624	1.000	-0.130	0.169	0.441	1.000
<i>Model 2</i>												
DiD (Treatment##Post)	0.037	0.147	0.803	1.000	-0.072	0.156	0.646	1.000	-0.127	0.163	0.435	1.000
Nonwhite	-0.268	0.096	0.005 ***		-0.381	0.106	0.000 ***		-0.393	0.107	0.000 ***	
Gender	-0.020	0.075	0.784		0.046	0.080	0.564		0.001	0.093	0.995	
Age	0.006	0.003	0.037		0.006	0.003	0.022		0.005	0.003	0.059	
Education	-0.053	0.083	0.521		-0.097	0.084	0.247		0.137	0.073	0.060	
NYCHA Housing	-0.282	0.140	0.044		-0.115	0.144	0.427		-0.286	0.111	0.010	
NYPD Friend/Family	0.025	0.096	0.797		-0.014	0.115	0.901		-0.010	0.110	0.931	
<i>Goodness-of-Fit</i>	Pseudo R ²	LL			Pseudo R ²	LL			Pseudo R ²	LL		
Model 1	0.004	-1526.7			0.002	-1575.3			0.003	-1559.7		
Model 2	0.014	-1511.2			0.013	-1556.9			0.019	-1533.5		

	4: Officers used language you found threatening/abusive (n=1593)				5: Felt officers stopped you because of race/ethnicity (n=1555)				6: Officers used more force than necessary (n=1568)			
	Coef.	RSE	p	q	Coef.	RSE	p	q	Coef.	RSE	p	q
<i>Model 1</i>												
DiD (Treatment##Post)	-0.044	0.219	0.841	1.000	-0.082	0.223	0.711	1.000	-0.311	0.209	0.136	1.000
<i>Model 2</i>												
DiD (Treatment##Post)	-0.043	0.203	0.834	1.000	-0.117	0.193	0.542	1.000	-0.309	0.197	0.116	1.000
Nonwhite	0.443	0.117	0.000 ***		1.025	0.122	0.000 ***		0.331	0.109	0.002 ***	
Gender	0.085	0.107	0.423		0.102	0.086	0.237		0.114	0.093	0.223	
Age	-0.003	0.003	0.345		-0.003	0.003	0.357		-0.003	0.003	0.241	
Education	-0.069	0.071	0.336		-0.170	0.066	0.010		-0.226	0.088	0.010	
NYCHA Housing	0.490	0.129	0.000 ***		0.567	0.128	0.000 ***		0.503	0.141	0.000 ***	
NYPD Friend/Family	-0.025	0.080	0.755		0.066	0.123	0.594		-0.096	0.093	0.306	
<i>Goodness-of-Fit</i>	Pseudo R ²	LL			Pseudo R ²	LL			Pseudo R ²	LL		
Model 1	0.012	-1318.3			0.004	-1450.2			0.014	-1239.6		
Model 2	0.033	-1289.8			0.065	-1362.3			0.040	-1206.9		

***p<.01

Reference categories: Survey T1 (Pre); Control Group; White; Female; No NYCHA housing; No friend/family

Regression models used cluster-robust standard errors to account for respondent precinct

Q13: In the past 12 months, have you been stopped by police officers in your neighborhood while you were walking or standing on the street, in your building, or in some other place or building in your neighborhood?

	No (0)		Yes (1)		Rao-Scott Chi-Square				
	<i>n</i>	%	<i>n</i>	%	<i>F</i>	<i>p</i>	<i>n</i>	Mean	SD
<i>Treatment</i>									
Pre-Intervention	2822.0	94.1%	176.5	5.9%	1.720	0.197	2998.5	0.059	0.235
Post-Intervention	2875.0	95.0%	152.0	5.0%			3027.0	0.050	0.219
<i>Control</i>									
Pre-Intervention	2858.0	95.3%	140.8	4.7%	0.579	0.451	2998.8	0.046	0.211
Post-Intervention	2867.0	94.7%	160.2	5.3%			3027.2	0.053	0.224

* $p < .10$; ** $p < .05$; *** $p < .01$

	Coef.	RSE	<i>p</i>	<i>q</i>
<i>Model 1</i>				
DiD (Treatment##Post)	-0.165	0.100	0.097	1.000
<i>Model 2</i>				
DiD (Treatment##Post)	-0.201	0.106	0.059	1.000
Nonwhite	0.121	0.061	0.049	
Gender	0.345	0.059	0.000 ***	
Age	-0.013	0.002	0.000 ***	
Education	-0.107	0.042	0.011	
NYCHA Housing	0.289	0.089	0.001 ***	
NYPD Friend/Family	0.063	0.069	0.356	
<i>Goodness-of-Fit</i>	Pseudo R ²	LL		
Model 1	0.0019	-2323.7		
Model 2	0.0586	-2191.7		

*** $p < .01$

Reference categories: Survey T1 (Pre); Control Group; White; Female; No NYCHA housing; No friend/family

Regression models used cluster-robust standard errors to account for respondent precinct

Q14: Thinking about the last time you were stopped by police officers while you were on the street, in your building, or some other place or building in your neighborhood, how satisfied were you with the way the officers handled that situation-- very satisfied, somewhat satisfied, somewhat dissatisfied, or very dissatisfied?

	Very Dissatisfied (1)		Somewhat Dissatisfied (2)		Somewhat Satisfied (3)		Very Satisfied (4)		n	Mean	SD
	n	%	n	%	n	%	n	%			
<i>Treatment</i>											
Pre-Intervention	57.2	32.6%	37.7	21.4%	48.3	27.5%	32.6	18.5%	175.7	2.320	1.338
Post-Intervention	35.1	23.2%	36.0	23.8%	49.7	32.9%	30.4	20.1%	151.2	2.498	1.270
<i>Control</i>											
Pre-Intervention	47.6	34.3%	27.6	19.9%	48.5	34.9%	15.3	11.0%	139.0	2.226	1.380
Post-Intervention	31.0	20.0%	42.1	27.1%	43.7	28.2%	38.3	24.7%	155.0	2.575	1.314

	Dissatisfied		Satisfied		Rao-Scott Chi-Square	
	n	%	n	%	F	p
<i>Treatment</i>						
Pre-Intervention	94.9	54.00%	80.8	46.00%	1.417	0.241
Post-Intervention	71.2	47.05%	80.1	52.95%		
<i>Control</i>						
Pre-Intervention	75.2	54.13%	63.8	45.87%	1.195	0.281
Post-Intervention	73.1	47.14%	81.9	52.86%		

* $p < .10$; ** $p < .05$; *** $p < .01$

	Coef.	RSE	p	q
<i>Model 1</i>				
DiD (Treatment##Post)	-0.140	0.196	0.472	1.000
<i>Model 2</i>				
DiD (Treatment##Post)	-0.141	0.191	0.459	1.000
Nonwhite	-0.339	0.160	0.034	
Gender	-0.031	0.129	0.808	
Age	0.007	0.003	0.047	
Education	0.017	0.111	0.878	
NYCHA Housing	-0.109	0.144	0.451	
NYPD Friend/Family	0.098	0.158	0.535	
<i>Goodness-of-Fit</i>	Pseudo R ²	LL		
Model 1	0.0069	-803.4		
Model 2	0.0171	-795.2		

*** $p < .01$

Reference categories: Survey T1 (Pre); Control Group; White; Female; No NYCHA housing; No friend/family

Regression models used cluster-robust standard errors to account for respondent precinct

Q15: And thinking about this same stop, please indicate whether the following happened or did not happen.

- (1) The police officers explained the reason for the stop
- (2) The police officers gave you a receipt or information card after the stop
- (3) You were patted down on the outside of your clothing
- (4) The police officers searched the inside of your clothing, your bag, or other personal belongings
- (5) The police officers used physical force during the stop

(6) You were arrested or given a summons

	Pre-Intervention			Post-Intervention		
	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD
<i>Treatment</i>						
1	176.4	0.599	0.589	150.7	0.598	0.588
2	173.1	0.115	0.386	148.6	0.189	0.469
3	176.5	0.331	0.567	152.0	0.448	0.600
4	176.5	0.388	0.587	151.8	0.500	0.602
5	175.6	0.184	0.467	148.8	0.188	0.470
6	176.5	0.035	0.211	151.4	0.152	0.431
<i>Control</i>						
1	140.4	0.578	0.654	158.2	0.664	0.573
2	140.5	0.179	0.508	157.6	0.265	0.535
3	140.3	0.511	0.661	158.4	0.509	0.608
4	140.8	0.462	0.660	156.3	0.403	0.599
5	136.7	0.241	0.567	159.8	0.200	0.488
6	140.8	0.055	0.252	158.8	0.282	0.548

	Pre-Intervention				Post-Intervention				Rao-Scott Chi-Square	
	No		Yes		No		Yes		<i>F</i>	<i>p</i>
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%		
<i>Treatment</i>										
1	70.8	40.12%	105.6	59.88%	60.6	40.20%	90.1	59.80%	0.000	0.987
2	153.1	88.47%	20.0	11.53%	120.6	81.15%	28.0	18.85%	3.315	0.076
3	118.0	66.87%	58.5	33.13%	83.9	55.21%	68.1	44.79%	2.720	0.107
4	108.1	61.25%	68.4	38.75%	75.9	50.00%	75.9	50.00%	4.368	0.043 **
5	149.7	85.26%	25.9	14.74%	120.8	81.19%	28.0	18.81%	0.923	0.343
6	144.0	81.59%	32.5	18.41%	128.4	84.82%	23.0	15.18%	0.352	0.556
<i>Control</i>										
1	59.2	42.17%	81.2	57.83%	53.1	33.56%	105.1	66.44%	2.025	0.163
2	115.3	82.06%	25.2	17.94%	115.8	73.46%	41.8	26.54%	1.437	0.238
3	68.6	48.91%	71.7	51.09%	77.8	49.13%	80.6	50.87%	0.001	0.972
4	75.7	53.78%	65.1	46.22%	93.2	59.67%	63.0	40.33%	0.601	0.443
5	115.9	84.76%	20.8	15.24%	127.8	79.99%	32.0	20.01%	1.573	0.217
6	106.8	75.85%	34.0	24.15%	114.0	71.81%	44.8	28.19%	0.588	0.448

p*<.10; *p*<.05; ****p*<.01

Table 8.15.3: Q15 Difference-in-Differences, Weighted Probit Regression

	1: Explained reason for stop (n=924)				2: Officers gave receipt or information card (n=917)				3: Patted down outside of clothing (n=930)			
	Coef.	RSE	p	q	Coef.	RSE	p	q	Coef.	RSE	p	q
<i>Model 1</i>												
DiD (Treatment##Post)	-0.267	0.198	0.177	1.000	0.054	0.307	0.857	1.000	0.289	0.240	0.230	1.000
<i>Model 2</i>												
DiD (Treatment##Post)	-0.283	0.189	0.134	1.000	0.050	0.281	0.857	1.000	0.268	0.244	0.271	1.000
Nonwhite	-0.113	0.201	0.575		-0.523	0.173	0.003 ***		0.035	0.168	0.833	
Gender	-0.115	0.148	0.436		-0.153	0.170	0.370		0.542	0.158	0.001 ***	
Age	0.001	0.004	0.756		-0.005	0.005	0.273		-0.008	0.004	0.046	
Education	0.209	0.124	0.093		-0.262	0.135	0.053		-0.275	0.115	0.016	
NYCHA Housing	-0.126	0.166	0.446		0.227	0.181	0.209		0.316	0.181	0.081	
NYPD Friend/Family	0.113	0.191	0.555		0.058	0.193	0.762		-0.322	0.173	0.063	
<i>Goodness-of-Fit</i>	Pseudo R ²	LL			Pseudo R ²	LL			Pseudo R ²	LL		
Model 1	0.004	-398.5			0.017	-275.9			0.020	-401.2		
Model 2	0.017	-393.3			0.047	-267.5			0.082	-375.9		

	4: Officers searched inside clothing, bag, belongings (n=928)				5: Officers used physical force (n=924)				6: Arrested or given summons (n=930)			
	Coef.	RSE	p	q	Coef.	RSE	p	q	Coef.	RSE	p	q
<i>Model 1</i>												
DiD (Treatment##Post)	0.476	0.250	0.056	1.000	-0.009	0.273	0.976	1.000	-0.286	0.292	0.327	1.000
<i>Model 2</i>												
DiD (Treatment##Post)	0.482	0.251	0.055	1.000	0.070	0.267	0.795	1.000	-0.282	0.311	0.264	1.000
Nonwhite	0.151	0.163	0.352		-0.020	0.205	0.923		0.149	0.197	0.451	
Gender	0.111	0.163	0.496		-0.176	0.185	0.342		0.089	0.142	0.529	
Age	-0.007	0.005	0.112		-0.002	0.004	0.570		-0.009	0.004	0.025	
Education	-0.224	0.136	0.099		-0.313	0.137	0.022		-0.439	0.146	0.003 ***	
NYCHA Housing	0.114	0.135	0.401		0.401	0.181	0.027		0.006	0.140	0.965	
NYPD Friend/Family	-0.425	0.153	0.006 ***		0.002	0.188	0.914		0.199	0.175	0.257	
<i>Goodness-of-Fit</i>	Pseudo R ²	LL			Pseudo R ²	LL			Pseudo R ²	LL		
Model 1	0.007	-403.8			0.001	-265.3			0.015	-301.5		
Model 2	0.035	-392.3			0.037	-255.7			0.062	-287.0		

***p<.01

Reference categories: Survey T1 (Pre); Control Group; White; Female; No NYCHA housing; No friend/family

Regression models used cluster-robust standard errors to account for respondent precinct

Q16: Still thinking about this same stop, please indicate whether you strongly agree, somewhat agree, somewhat disagree, or strongly disagree with the following statements:

- (1) The police officers treated you with respect
- (2) The police officers had a good reason for stopping you
- (3) The amount of time you were stopped was reasonable
- (4) The police officers used language that you found threatening or abusive
- (5) You felt the police officers stopped you because of your race or ethnicity
- (6) The police officers used more force than necessary

	Pre-Intervention			Post-Intervention		
	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD
<i>Treatment</i>						
1	176.5	2.701	1.471	150.9	2.567	1.339
2	171.3	2.055	1.494	140.3	1.813	1.234
3	173.6	2.680	1.548	148.9	2.454	1.365
4	176.0	2.009	1.484	150.4	2.336	1.390
5	169.9	2.540	1.605	147.4	2.781	1.441
6	172.3	1.907	1.457	149.2	2.247	1.466
<i>Control</i>						
1	136.8	2.597	1.566	159.4	2.658	1.343
2	133.6	1.910	1.549	154.5	2.256	1.535
3	129.0	2.339	1.748	154.7	2.527	1.452
4	138.5	2.185	1.609	155.7	2.386	1.501
5	130.8	2.770	1.785	152.0	2.869	1.419
6	137.2	1.986	1.580	155.0	2.335	1.480

	Pre-Intervention				Post-Intervention				Rao-Scott Chi-Square	
	Disagree		Agree		Disagree		Agree		<i>F</i>	<i>p</i>
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%		
<i>Treatment</i>										
1	69.2	39.19%	107.3	60.81%	70.0	46.40%	80.9	53.60%	2.277	0.139
2	108.9	63.58%	62.4	36.42%	103.8	73.98%	36.5	26.02%	3.646	0.064 *
3	70.1	40.37%	103.5	59.63%	70.4	47.23%	78.6	52.77%	1.048	0.312
4	124.8	70.89%	51.2	29.11%	79.5	52.89%	70.9	47.11%	9.604	0.004 ***
5	81.2	47.79%	88.7	52.21%	50.3	34.16%	97.0	65.84%	4.726	0.036 **
6	128.3	74.47%	44.0	25.53%	84.6	56.67%	64.7	43.33%	9.599	0.004 ***
<i>Control</i>										
1	56.9	41.60%	79.9	58.40%	65.4	41.00%	94.1	59.00%	0.007	0.933
2	90.6	67.85%	42.9	32.15%	89.5	57.95%	65.0	42.05%	2.098	0.156
3	68.8	53.34%	60.2	46.66%	69.2	44.72%	85.5	55.28%	1.801	0.187
4	82.5	59.57%	56.0	40.43%	83.0	53.29%	72.7	46.71%	1.065	0.308
5	50.2	38.34%	80.7	61.66%	46.9	30.85%	105.1	69.15%	1.532	0.223
6	89.5	65.20%	47.7	34.80%	82.0	52.91%	73.0	47.09%	4.497	0.040 **

p*<.10; *p*<.05; ****p*<.01

Table 8.16.3: Q16 Difference-in-Differences, Weighted Ordered Probit Regression

	1: Officers treated you with respect (n=929)				2: Officers had a good reason for stopping you (n=911)				3: Amount of time you were stopped was reasonable (n=912)			
	Coef.	RSE	p	q	Coef.	RSE	p	q	Coef.	RSE	p	q
<i>Model 1</i>												
DiD (Treatment##Post)	-0.164	0.203	0.418	1.000	-0.502	0.230	0.029	1.000	-0.338	0.200	0.091	1.000
<i>Model 2</i>												
DiD (Treatment##Post)	-0.152	0.194	0.435	1.000	-0.512	0.241	0.034	1.000	-0.368	0.201	0.067	1.000
Nonwhite	-0.381	0.181	0.035		-0.475	0.162	0.003 ***		-0.579	0.161	0.000 ***	
Gender	-0.125	0.148	0.401		0.039	0.127	0.760		-0.022	0.116	0.848	
Age	0.007	0.005	0.139		0.003	0.004	0.485		0.006	0.004	0.189	
Education	0.028	0.109	0.796		-0.029	0.117	0.807		0.112	0.102	0.271	
NYCHA Housing	-0.225	0.145	0.122		-0.013	0.132	0.920		-0.160	0.158	0.310	
NYPD Friend/Family	0.426	0.158	0.007 ***		0.203	0.183	0.267		0.130	0.136	0.338	
<i>Goodness-of-Fit</i>	Pseudo R ²	LL			Pseudo R ²	LL			Pseudo R ²	LL		
Model 1	0.001	-810.1			0.007	-701.1			0.003	-769.5		
Model 2	0.021	-793.6			0.019	-692.4			0.025	-752.6		

	4: Officers used language you found threatening/abusive (n=921)				5: Felt officers stopped you because of race/ethnicity (n=906)				6: Officers used more force than necessary (n=922)			
	Coef.	RSE	p	q	Coef.	RSE	p	q	Coef.	RSE	p	q
<i>Model 1</i>												
DiD (Treatment##Post)	0.075	0.228	0.741	1.000	0.139	0.205	0.497	1.000	-0.002	0.248	0.992	1.000
<i>Model 2</i>												
DiD (Treatment##Post)	0.119	0.202	0.555	1.000	0.139	0.209	0.503	1.000	0.039	0.240	0.873	1.000
Nonwhite	0.331	0.148	0.025		0.983	0.205	0.000 ***		0.191	0.151	0.207	
Gender	-0.076	0.155	0.624		0.183	0.118	0.120		0.117	0.189	0.534	
Age	-0.006	0.003	0.848		-0.005	0.004	0.181		0.002	0.003	0.625	
Education	-0.172	0.109	0.115		-0.202	0.110	0.065		-0.204	0.100	0.042	
NYCHA Housing	0.294	0.152	0.054		0.333	0.136	0.015		0.339	0.151	0.025	
NYPD Friend/Family	-0.109	0.138	0.427		0.227	0.165	0.170		-0.150	0.161	0.352	
<i>Goodness-of-Fit</i>	Pseudo R ²	LL			Pseudo R ²	LL			Pseudo R ²	LL		
Model 1	0.006	-772.4			0.002	-725.9			0.007	-737.4		
Model 2	0.021	-760.3			0.067	-679.1			0.023	-725.1		

***p<.01

Reference categories: Survey T1 (Pre); Control Group; White; Female; No NYCHA housing; No friend/family

Regression models used cluster-robust standard errors to account for respondent precinct

Q18: In the past 12 months, have you spoken to or contacted any police officers in your neighborhood for help, such as asking a police officer on the street for assistance, reporting a crime or an accident to an officer, or having an officer respond to your 911 call?

	No (0)		Yes (1)		Rao-Scott Chi-Square				
	<i>n</i>	%	<i>n</i>	%	<i>F</i>	<i>p</i>	<i>n</i>	Mean	SD
<i>Treatment</i>									
Pre-Intervention	2410.0	80.7%	576.3	19.3%	20.529	0.000 ***	2986.3	0.193	0.395
Post-Intervention	2636.0	87.6%	372.6	12.4%					
<i>Control</i>									
Pre-Intervention	2390.0	79.9%	599.6	20.1%	39.295	0.000 ***	2989.6	0.201	0.400
Post-Intervention	2625.0	87.8%	366.3	12.2%					

* $p < .10$; ** $p < .05$; *** $p < .01$

	Coef.	RSE	<i>p</i>	<i>q</i>
<i>Model 1</i>				
DiD (Treatment##Post)	0.040	0.088	0.653	1.000
<i>Model 2</i>				
DiD (Treatment##Post)	0.039	0.089	0.660	1.000
Nonwhite	-0.066	0.054	0.227	
Gender	-0.059	0.042	0.161	
Age	-0.003	0.001	0.003 ***	
Education	0.205	0.046	0.000 ***	
NYCHA Housing	-0.062	0.072	0.385	
NYPD Friend/Family	0.220	0.054	0.000 ***	
<i>Goodness-of-Fit</i>	Pseudo R ²	LL		
Model 1	0.0139	-4804.1		
Model 2	0.0279	-4735.9		

*** $p < .01$

Reference categories: Survey T1 (Pre); Control Group; White; Female; No NYCHA housing; No friend/family

Regression models used cluster-robust standard errors to account for respondent precinct

Q19: Thinking about the last time you spoke to or contacted police officers in your neighborhood, how satisfied were you with how the officers handled that situation-- very satisfied, somewhat satisfied, somewhat dissatisfied, or very dissatisfied?

Table 8.19.1: Q19 Weighted Frequency Distribution

	Very Dissatisfied (1)		Somewhat Dissatisfied (2)		Somewhat Satisfied (3)		Very Satisfied (4)		n	Mean	SD
	n	%	n	%	n	%	n	%			
<i>Treatment</i>											
Pre-Intervention	82.6	14.6%	43.7	7.7%	151.4	26.7%	289.5	51.0%	567.2	3.142	1.094
Post-Intervention	35.7	9.8%	36.5	10.0%	109.5	30.1%	181.8	50.0%	363.5	3.203	0.986
<i>Control</i>											
Pre-Intervention	73.7	12.4%	51.6	8.7%	127.4	21.5%	339.5	57.3%	592.2	3.237	1.045
Post-Intervention	38.0	10.5%	40.1	11.1%	93.4	25.9%	189.1	52.4%	360.6	3.203	1.035

Table 8.19.2: Q19 Collapsed Likert Scale Weighted Chi-Square Tests

	Dissatisfied		Satisfied		Rao-Scott Chi-Square	
	n	%	n	%	F	p
<i>Treatment</i>						
Pre-Intervention	126.3	22.27%	440.9	77.73%	0.338	0.564
Post-Intervention	72.2	19.86%	291.3	80.14%		
<i>Control</i>						
Pre-Intervention	125.3	21.16%	466.9	78.84%	0.023	0.880
Post-Intervention	78.0	21.64%	282.5	78.36%		

*p<.10; **p<.05; ***p<.01

Table 8.19.3: Q19 Difference-in-Differences, Weighted Ordered Probit Regression (n=1807)

	Coef.	RSE	p	q
<i>Model 1</i>				
DiD (Treatment##Post)	0.061	0.148	0.682	1.000
<i>Model 2</i>				
DiD (Treatment##Post)	0.093	0.145	0.522	1.000
Nonwhite	-0.005	0.090	0.957	
Gender	-0.041	0.075	0.587	
Age	0.011	0.002	0.000 ***	
Education	-0.172	0.076	0.024	
NYCHA Housing	0.037	0.148	0.803	
NYPD Friend/Family	0.238	0.096	0.014	
<i>Goodness-of-Fit</i>	Pseudo R ²	LL		
Model 1	0.0006	-2035.3		
Model 2	0.0185	-1998.9		

***p<.01

Reference categories: Survey T1 (Pre); Control Group; White; Female; No NYCHA housing; No friend/family
 Regression models used cluster-robust standard errors to account for respondent precinct

Q20: And still thinking about the last time you spoke to or contacted police officers in your neighborhood, please indicate whether you strongly agree, somewhat agree, somewhat disagree, or strongly disagree with the following statements:

- (1) The police officers treated you with respect
- (2) The police officers clearly explained where you could get the help or information you needed

(3) The police officers took your problem or question seriously

	Pre-Intervention						Post-Intervention					
	n		Mean		SD		n		Mean		SD	
<i>Treatment</i>												
1	561.4	3.607	0.781	368.2	3.401	0.901						
2	537.6	3.283	1.089	345.9	3.248	1.040						
3	564.0	3.335	1.016	362.6	3.365	0.943						
<i>Control</i>												
1	590.6	3.605	0.763	345.5	3.571	0.857						
2	560.4	3.312	1.024	339.3	3.296	1.023						
3	594.8	3.376	1.003	351.2	3.256	1.084						

	Pre-Intervention				Post-Intervention				Rao-Scott Chi-Square	
	Disagree		Agree		Disagree		Agree		F	p
	n	%	n	%	n	%	n	%		
<i>Treatment</i>										
1	51.9	9.24%	509.5	90.76%	48.3	13.12%	319.9	86.88%	2.983	0.092 *
2	108.9	20.26%	428.7	79.74%	71.6	20.69%	274.3	79.31%	0.014	0.906
3	106.5	18.88%	457.5	81.12%	61.6	16.98%	301.0	83.02%	0.426	0.518
<i>Control</i>										
1	50.5	8.56%	540.1	91.44%	30.9	8.94%	314.6	91.06%	0.028	0.869
2	109.6	19.56%	450.8	80.44%	61.5	18.13%	277.8	81.87%	0.222	0.641
3	114.1	19.18%	480.7	80.82%	75.1	21.39%	276.1	78.61%	0.654	0.424

*p<.10; **p<.05; ***p<.01

	1: Officers treated you with respect (n=1794)				2: Officers explained where you could get help (n=1721)				3: Officers took problem/question seriously (n=1804)			
	Coef.	RSE	p	q	Coef.	RSE	p	q	Coef.	RSE	p	q
	<i>Model 1</i>											
DiD (Treatment##Post)	-0.299	0.143	0.037	1.000	-0.030	0.163	0.849	1.000	0.169	0.139	0.222	1.000
<i>Model 2</i>												
DiD (Treatment##Post)	-0.281	0.143	0.050	1.000	-0.003	0.157	0.984	1.000	0.208	0.141	0.142	1.000
Nonwhite	0.003	0.081	0.966		-0.001	0.096	0.988		0.092	0.085	0.276	
Gender	-0.166	0.074	0.024		0.080	0.064	0.213		0.085	0.064	0.190	
Age	0.006	0.002	0.005 ***		0.008	0.002	0.000 ***		0.011	0.002	0.000 ***	
Education	-0.070	0.069	0.314		-0.149	0.074	0.045		-0.089	0.074	0.227	
NYCHA Housing	-0.172	0.153	0.260		-0.072	0.157	0.648		-0.023	0.134	0.864	
NYPD Friend/Family	0.123	0.099	0.212		0.147	0.090	0.102		0.136	0.075	0.070	
<i>Goodness-of-Fit</i>	Pseudo R ²	LL			Pseudo R ²	LL			Pseudo R ²	LL		
Model 1	0.008	-1469.7			0.000	-1802.8			0.001	-1825.0		
Model 2	0.017	-1456.5			0.010	-1784.7			0.014	-1801.3		

***p<.01

Reference categories: Survey T1 (Pre); Control Group; White; Female; No NYCHA housing; No friend/family

Regression models used cluster-robust standard errors to account for respondent precinct

Q21: Some police departments require officers to wear body cameras that provide an audio and video recording of officer’s interactions with the public. Do you strongly favor, somewhat favor, somewhat oppose, or strongly opposed having NYPD officers wear body cameras?

	Strongly Oppose (1)		Somewhat Oppose (2)		Somewhat Favor (3)		Strongly Favor (4)		<i>n</i>	Mean	SD
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%			
<i>Treatment</i>											
Pre-Intervention	63.7	2.4%	84.2	3.1%	487.6	18.2%	2043.0	76.3%	2678.5	3.684	0.655
Post-Intervention	155.3	5.3%	151.3	5.2%	450.9	15.5%	2158.0	74.0%	2915.5	3.582	0.820
<i>Control</i>											
Pre-Intervention	75.1	2.8%	99.2	3.7%	491.2	18.1%	2043.0	75.4%	2708.5	3.662	0.685
Post-Intervention	165.5	5.7%	131.4	4.5%	426.9	14.6%	2197.0	75.2%	2920.8	3.594	0.818

	Oppose		Favor		Rao-Scott Chi-Square	
	<i>n</i>	%	<i>n</i>	%	<i>F</i>	<i>p</i>
<i>Treatment</i>						
Pre-Intervention	147.9	5.52%	2531.0	94.48%	37.030	0.000 ***
Post-Intervention	306.6	10.52%	2609.0	89.48%		
<i>Control</i>						
Pre-Intervention	174.3	6.44%	2534.0	93.56%	28.044	0.000 ***
Post-Intervention	296.8	10.17%	2623.0	89.83%		

p*<.10; *p*<.05; ****p*<.01

	Coef.	RSE	<i>p</i>	<i>q</i>
<i>Model 1</i>				
DiD (Treatment##Post)	-0.061	0.064	0.337	1.000
<i>Model 2</i>				
DiD (Treatment##Post)	-0.070	0.063	0.267	1.000
Nonwhite	0.159	0.043	0.000 ***	
Gender	-0.034	0.036	0.354	
Age	0.000	0.001	0.686	
Education	0.125	0.036	0.000 ***	
NYCHA Housing	-0.064	0.051	0.206	
NYPD Friend/Family	-0.030	0.046	0.524	
<i>Goodness-of-Fit</i>	Pseudo R ²	LL		
Model 1	0.0010	-7949.9		
Model 2	0.0044	-7922.8		

****p*<.01

Reference categories: Survey T1 (Pre); Control Group; White; Female; No NYCHA housing; No friend/family

Regression models used cluster-robust standard errors to account for respondent precinct

Q24: In the past 12 months, has anyone in your household, not counting yourself, been stopped by police officers in your neighborhood?

	No (0)		Yes (1)		Rao-Scott Chi-Square				
	<i>n</i>	%	<i>n</i>	%	<i>F</i>	<i>p</i>	<i>n</i>	Mean	SD
<i>Treatment</i>									
Pre-Intervention	2645.0	90.4%	279.4	9.6%	0.005	0.947	2924.4	0.096	0.293
Post-Intervention	2649.0	90.3%	283.2	9.7%			2932.2	0.097	0.295
<i>Control</i>									
Pre-Intervention	2679.0	91.4%	252.4	8.6%	7.658	0.009 ***	2931.4	0.086	0.280
Post-Intervention	2540.0	87.9%	349.9	12.1%			2889.9	0.121	0.326

p*<.10; *p*<.05; ****p*<.01

	Coef.	RSE	<i>p</i>	<i>q</i>
<i>Model 1</i>				
DiD (Treatment##Post)	-0.198	0.115	0.084	1.000
<i>Model 2</i>				
DiD (Treatment##Post)	-0.241	0.110	0.028	1.000
Nonwhite	0.248	0.060	0.000 ***	
Gender	-0.072	0.046	0.114	
Age	-0.009	0.001	0.000 ***	
Education	0.036	0.050	0.474	
NYCHA Housing	0.260	0.055	0.000 ***	
NYPD Friend/Family	0.183	0.073	0.012	
<i>Goodness-of-Fit</i>	Pseudo R ²	LL		
Model 1	0.0024	-3536.1		
Model 2	0.0315	-3432.8		

****p*<.01

Reference categories: Survey T1 (Pre); Control Group; White; Female; No NYCHA housing; No friend/family

Regression models used cluster-robust standard errors to account for respondent precinct

Q26: Do you know any of the police officers that work in your neighborhood by name?

	No (0)		Yes (1)		Rao-Scott Chi-Square		n	Mean	SD
	n	%	n	%	F	p			
<i>Treatment</i>									
Pre-Intervention	2606.0	87.2%	383.6	12.8%	0.330	0.569	2989.6	0.128	0.334
Post-Intervention	2593.0	86.0%	421.4	14.0%			3014.4	0.140	0.347
<i>Control</i>									
Pre-Intervention	2652.0	88.7%	337.6	11.3%	5.036	0.031 **	2989.6	0.113	0.316
Post-Intervention	2589.0	86.6%	402.1	13.4%			2991.1	0.134	0.341

* $p < .10$; ** $p < .05$; *** $p < .01$

	Coef.	RSE	p	q
<i>Model 1</i>				
DiD (Treatment##Post)	-0.079	0.107	0.459	1.000
<i>Model 2</i>				
DiD (Treatment##Post)	-0.066	0.110	0.549	1.000
Nonwhite	-0.019	0.061	0.754	
Gender	0.152	0.035	0.000	
Age	0.002	0.001	0.064	
Education	0.031	0.038	0.414	
NYCHA Housing	0.237	0.062	0.000	
NYPD Friend/Family	0.604	0.060	0.000	
<i>Goodness-of-Fit</i>	Pseudo R ²	LL		
Model 1	0.0012	-4230.9		
Model 2	0.0397	-4068.1		

*** $p < .01$

Reference categories: Survey T1 (Pre); Control Group; White; Female; No NYCHA housing; No friend/family

Regression models used cluster-robust standard errors to account for respondent precinct

Q28: How often do you go out in your neighborhood, outside your home, in the evening? Do you do that frequently, sometimes, just a little, or rarely?

	Rarely (1)		Sometimes (2)		Just a little (3)		Rarely (4)		n	Mean	SD
	n	%	n	%	n	%	n	%			
<i>Treatment</i>											
Pre-Intervention	476.3	16.5%	218.1	7.5%	615.7	21.3%	1581.0	54.7%	2891.1	3.142	1.123
Post-Intervention	483.9	16.1%	373.8	12.4%	827.3	27.5%	1327.0	44.1%	3012.0	2.995	1.100
<i>Control</i>											
Pre-Intervention	456.5	15.8%	226.6	7.9%	630.2	21.9%	1570.0	54.5%	2883.3	3.149	1.110
Post-Intervention	430.5	14.4%	398.1	13.4%	837.0	28.1%	1314.0	44.1%	2979.6	3.018	1.073

	Not Often		Often		Rao-Scott Chi-Square	
	<i>n</i>	%	<i>n</i>	%	<i>F</i>	<i>p</i>
<i>Treatment</i>						
Pre-Intervention	694.4	24.02%	2197.0	75.98%	4.203	0.047 **
Post-Intervention	857.7	28.48%	2154.0	71.52%		
<i>Control</i>						
Pre-Intervention	683.2	23.70%	2200.0	76.30%	2.937	0.095 *
Post-Intervention	828.6	27.81%	2151.0	72.19%		

* $p < .10$; ** $p < .05$; *** $p < .01$

Appendix 9

Community Survey: Detailed Analyses

Q3: When it comes to the problem of crime, how safe do you feel in your neighborhood-- very safe, somewhat safe, somewhat unsafe, or very unsafe?

	Very Unsafe (1)		Unsafe (2)		Safe (3)		Very Safe (4)		<i>n</i>	Mean	SD
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%			
<i>Treatment</i>											
Pre-Intervention	40	6.7%	85	14.3%	307	51.5%	164	27.5%	596	2.998	0.829
Post-Intervention	55	8.0%	110	15.9%	337	48.8%	188	27.3%	695	2.954	0.866
<i>Control</i>											
Pre-Intervention	40	6.9%	91	15.7%	313	54.1%	135	23.3%	581	2.938	0.815
Post-Intervention	57	8.3%	110	16.0%	347	50.4%	175	25.4%	694	2.929	0.861

	Unsafe		Safe		χ^2	Chi-Square
	<i>n</i>	%	<i>n</i>	%		
<i>Treatment</i>						
Pre-Intervention	125	20.97%	471	79.03%	1.583	0.208
Post-Intervention	165	23.91%	525	76.09%		
<i>Control</i>						
Pre-Intervention	131	22.63%	448	77.37%	0.455	0.500
Post-Intervention	167	24.24%	522	75.76%		

* $p < .10$; ** $p < .05$; *** $p < .01$

	Coef.	RSE	<i>p</i>	<i>q</i>
<i>Model 1</i>				
DiD (Treatment##Post)	-0.018	0.113	0.873	1.000
<i>Model 2</i>				
DiD (Treatment##Post)	-0.017	0.107	0.873	1.000
Nonwhite	-0.254	0.090	0.005 ***	
Hispanic	-0.099	0.050	0.047	
Gender	0.137	0.056	0.014	
Age	0.001	0.001	0.276	
Education	0.140	0.056	0.012	
NYPD Friend/Family	-0.042	0.052	0.420	
<i>Goodness-of-Fit</i>	Pseudo R ²	LL		
Model 1	0.0004	-2749.8		
Model 2	0.0098	-2724.0		

*** $p < .01$

Ref. categories: Survey T1 (Pre); Control Group; White; Non-Hispanic; Female; No friend/family

Regression models used cluster-robust standard errors to account for respondent precinct

Q4: Overall, how would you describe your feelings about the NYPD officers in your neighborhood? Do you feel very favorable, somewhat favorable, neutral, somewhat unfavorable, or very unfavorable?

	Very Unfavorable (1)		Somewhat Unfavorable (2)		Neutral (3)		Somewhat Favorable (4)		Very Favorable (5)		<i>n</i>	Mean	SD
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%			
<i>Treatment</i>													
Pre-Intervention	41	6.9%	85	14.3%	200	33.6%	152	25.5%	118	19.8%	596	3.371	1.153
Post-Intervention	53	7.6%	90	13.0%	191	27.5%	184	26.5%	177	25.5%	695	3.492	1.216
<i>Control</i>													
Pre-Intervention	58	10.0%	93	16.0%	200	34.4%	142	24.4%	88	15.2%	581	2.938	0.815
Post-Intervention	60	8.7%	80	11.5%	233	33.6%	175	25.2%	146	21.0%	694	2.929	0.861

	Unfavorable		Neutral/Favorable		χ^2	Chi-Square
	<i>n</i>	%	<i>n</i>	%		
<i>Treatment</i>						
Pre-Intervention	126	21.14%	470	78.86%	0.062	0.803
Post-Intervention	143	20.58%	552	79.42%		
<i>Control</i>						
Pre-Intervention	151	25.99%	430	74.01%	6.075	0.014 **
Post-Intervention	140	20.17%	554	79.83%		

* $p < .10$; ** $p < .05$; *** $p < .01$

	Coef.	RSE	p	q
<i>Model 1</i>				
DiD (Treatment##Post)	-0.120	0.075	0.110	1.000
<i>Model 2</i>				
DiD (Treatment##Post)	-0.075	0.081	0.352	1.000
Nonwhite	-0.237	0.070	0.001 ***	
Hispanic	0.200	0.043	0.000 ***	
Gender	0.025	0.052	0.633	
Age	0.010	0.001	0.000 ***	
Education	-0.066	0.055	0.230	
NYPD Friend/Family	0.014	0.043	0.740	
<i>Goodness-of-Fit</i>				
	Pseudo R ²	LL		
Model 1	0.0028	-3534.6		
Model 2	0.0154	-3489.9		

***p < .01

Ref. categories: Survey T1 (Pre); Control Group; White; Non-Hispanic; Female; No friend/family

Regression models used cluster-robust standard errors to account for respondent precinct

Q5: How would you rate the job that NYPD officers are doing in your neighborhood-- would you say they are doing a very good job, a good job, a fair job, a not so good job, or a poor job?

	Poor (1)		Not-so-good (2)		Neutral (3)		Good (4)		Very Good (5)		n	Mean	SD
	n	%	n	%	n	%	n	%	n	%			
<i>Treatment</i>													
Pre-In	35	5.9%	82	13.8%	200	33.7%	194	32.7%	83	14.0%	594	3.35	1.067
Post-Int	49	7.0%	91	13.1%	228	32.8%	199	28.6%	129	18.5%	696	3.385	1.137
<i>Control</i>													
Pre-In	38	6.5%	107	18.4%	209	35.9%	152	26.1%	76	13.1%	582	3.208	1.090
Post-Int	44	6.3%	97	14.0%	238	34.2%	186	26.8%	130	18.7%	695	3.376	1.127

	Not Good		Neutral/Good		Chi-Square	
	n	%	n	%	χ^2	p
<i>Treatment</i>						
Pre-Inter	117	19.70%	477	80.30%	##	0.851
Post-Inter	140	20.11%	556	79.89%		
<i>Control</i>						
Pre-Inter	145	24.91%	437	75.09%	##	0.048 **
Post-Inter	141	20.29%	554	79.71%		

*p < .10; **p < .05; ***p < .01

	Coef.	RSE	p	q
<i>Model 1</i>				
DiD (Treatment##Post)	-0.161	0.079	0.042	0.824
<i>Model 2</i>				
DiD (Treatment##Post)	-0.121	0.086	0.162	1.000
Nonwhite	-0.276	0.059	0.000 ***	
Hispanic	0.149	0.059	0.012	
Gender	0.058	0.040	0.149	
Age	0.010	0.001	0.000 ***	
Education	-0.004	0.056	0.942	
NYPD Friend/Family	-0.015	0.039	0.710	
<i>Goodness-of-Fit</i>				
	Pseudo R ²	LL		
Model 1	0.0204	-3452.0		
Model 2	0.0140	-3409.3		

*** $p < .01$

Ref. categories: Survey T1 (Pre); Control Group; White; Non-Hispanic; Female; No friend/family

Regression models used cluster-robust standard errors to account for respondent precinct

Q6: Thinking about NYPD officers in your neighborhood, please indicate if you strongly agree, somewhat agree, somewhat disagree, or strongly disagree with each statement.

- (1) If I needed police assistance, I would feel comfortable seeking help ...
- (2) I respect the police officers in my neighborhood
- (3) Police officers in my neighborhood respect people's rights
- (4) Police officers in my neighborhood treat people fairly, regardless ...
- (5) Police officers in my neighborhood often abuse their authority.
- (6) I sometimes feel nervous when I see police officers in my neighborhood approach me.
- (7) Police officers stop and frisk too many people in my neighborhood
- (8) Police officers in my neighborhood use more force than necessary

	Pre-Intervention		Post-Intervention			
	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD
	<i>Treatment</i>					
1	583	3.130	0.868	589	3.210	0.930
2	574	3.289	0.846	583	3.432	0.790
3	571	2.897	0.881	573	2.976	0.939
4	573	2.742	0.950	658	2.871	1.002
5	566	2.350	1.016	659	2.413	1.091
6	574	2.355	1.111	665	2.341	1.169
7	567	2.294	1.037	664	2.283	1.114
8	571	2.366	1.088	675	2.354	1.131
<i>Control</i>						
1	564	3.080	0.932	689	3.138	0.892
2	569	3.188	0.903	684	3.335	0.875
3	559	2.705	0.979	681	2.874	0.971
4	553	2.593	1.026	672	2.774	1.017
5	552	2.509	1.057	666	2.482	1.068
6	559	2.487	1.148	686	2.455	1.156
7	561	2.462	1.082	665	2.371	1.094
8	563	2.535	1.094	681	2.394	1.098

	Pre-Intervention		Agree		Post-Intervention		Disagree		Agree		Chi-Square	
	Disagree		Agree		Disagree		Agree		χ^2	<i>p</i>		
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%				
<i>Treatment</i>												
1	114	19.55%	469	80.45%	128	18.58%	561	##	0.195	0.658		
2	86	14.98%	488	85.02%	71	10.40%	612	##	6.005	0.014 **		
3	162	28.37%	409	71.63%	178	26.49%	494	##	0.551	0.458		
4	207	36.13%	366	63.87%	204	31.00%	454	##	3.614	0.057 *		
5	307	54.24%	259	45.76%	353	53.57%	306	##	0.056	0.813		
6	306	53.31%	268	46.69%	351	52.78%	314	##	0.035	0.853		
7	325	57.22%	243	42.78%	390	58.73%	274	##	0.289	0.591		
8	311	54.47%	260	45.53%	368	54.52%	307	##	0.000	0.985		
<i>Control</i>												
1	124	21.99%	440	78.01%	131	19.01%	558	##	1.691	0.193		
2	108	18.98%	461	81.02%	93	13.60%	591	##	6.686	0.010 **		
3	204	36.49%	355	63.51%	209	30.69%	472	##	4.655	0.031 **		
4	233	42.13%	320	57.87%	250	37.20%	422	##	3.089	0.079 *		
5	266	48.19%	286	51.81%	343	51.50%	323	##	1.325	0.250		
6	265	47.41%	294	52.59%	337	49.13%	349	##	0.365	0.546		
7	292	52.05%	269	47.95%	368	55.34%	294	##	1.324	0.250		
8	266	47.25%	297	52.75%	370	54.33%	311	##	6.191	0.013 **		

p*<.10; *p*<.05; ****p*<.01

Table 9.6.3: Q6 Difference-in-Differences, Ordered Probit Regression

	1: Feel comfortable seeking help from officers (n=2307)				2: Respect officers in neighborhood (n=2302)				3: Officers respect people's rights (n=2275)				4: Officers treat people fairly regardless of race (n=2255)			
	Coef.	RSE	p	q	Coef.	RSE	p	q	Coef.	RSE	p	q	Coef.	RSE	p	q
<i>Model 1</i>																
DiD (Treatment##Post)	0.048	0.128	0.711	1.000	0.022	0.155	0.889	1.000	-0.089	0.129	0.490	1.000	-0.081	0.125	0.516	1.000
<i>Model 2</i>																
DiD (Treatment##Post)	0.099	0.131	0.447	1.000	0.059	0.155	0.704	1.000	-0.054	0.132	0.682	1.000	-0.038	0.116	0.741	1.000
Nonwhite	-0.364	0.062	0.000 ***		-0.173	0.071	0.015		-0.304	0.059	0.000 ***		-0.293	0.056	0.000 ***	
Hispanic	0.216	0.060	0.000 ***		0.194	0.071	0.007 ***		0.150	0.073	0.041		0.196	0.046	0.000 ***	
Gender	-0.054	0.059	0.359		-0.130	0.046	0.005 ***		-0.099	0.052	0.059		-0.049	0.035	0.164	
Age	0.011	0.001	0.000 ***		0.012	0.002	0.000 ***		0.007	0.001	0.000 ***		0.007	0.001	0.000 ***	
Education	-0.064	0.071	0.367		-0.091	0.069	0.188		-0.626	0.079	0.429		-0.156	0.060	0.009 ***	
NYPD Friend/Family	-0.002	0.063	0.969		0.042	0.072	0.559		0.039	0.075	0.604		0.031	0.047	0.516	
<i>Goodness-of-Fit</i>	Pseudo R ²	LL			Pseudo R ²	LL			Pseudo R ²	LL			Pseudo R ²	LL		
Model 1	0.002	-2721.7			0.005	-2463.0			0.004	-2895.2			0.004	-2990.0		
Model 2	0.020	-2669.4			0.024	-2414.6			0.015	-2862.9			0.017	-2949.6		

	5: Officers often abuse authority (n=2246)				6: Feel nervous when officers approach me (n=2276)				7: Officers stop and frisk too many people (n=2253)				8: Officers use more force than necessary (n=2281)			
	Coef.	RSE	p	q	Coef.	RSE	p	q	Coef.	RSE	p	q	Coef.	RSE	p	q
<i>Model 1</i>																
DiD (Treatment##Post)	0.059	0.093	0.529	1.000	0.005	0.062	0.936	1.000	0.041	0.089	0.646	1.000	0.110	0.061	0.069	1.000
<i>Model 2</i>																
DiD (Treatment##Post)	0.030	0.100	0.764	1.000	-0.039	0.071	0.582	1.000	0.028	0.085	0.741	1.000	0.088	0.063	0.165	1.000
Nonwhite	0.229	0.079	0.004 ***		0.330	0.047	0.000 ***		0.292	0.068	0.000 ***		0.317	0.053	0.000 ***	
Hispanic	-0.133	0.048	0.006 ***		-0.232	0.073	0.002 ***		-0.085	0.077	0.273		-0.117	0.071	0.099	
Gender	-0.002	0.039	0.950		0.075	0.046	0.103		0.010	0.052	0.851		0.019	0.041	0.650	
Age	-0.005	0.001	0.000 ***		-0.007	0.002	0.000 ***		0.000	0.001	0.902		-0.002	0.002	0.164	
Education	-0.054	0.039	0.167		-0.051	0.050	0.308		-0.096	0.040	0.016		-0.109	0.039	0.005 ***	
NYPD Friend/Family	0.084	0.113	0.460		0.009	0.076	0.903		0.083	0.075	0.266		0.017	0.085	0.845	
<i>Goodness-of-Fit</i>	Pseudo R ²	LL			Pseudo R ²	LL			Pseudo R ²	LL			Pseudo R ²	LL		
Model 1	0.001	-3085.4			0.001	-3116.9			0.002	-3089.4			0.001	-3146.2		
Model 2	0.006	-3069.2			0.012	-3081.3			0.007	-3073.1			0.008	-3126.0		

***p<.01

Ref. categories: Survey T1 (Pre); Control Group; White; Non-Hispanic; Female; No friend/family

Regression models used cluster-robust standard errors to account for respondent precinct

Q7: If you or someone in your neighborhood filed a complaint against a police officer for unfair treatment, do you think the complaint would be investigated fairly and objectively? Would you say it definitely would, probably would, probably would not, or definitely would not be investigated fairly and objectively?

	Definitely Would Not (1)		Probably Would Not (2)		Probably Would (3)		Definitely Would (4)		<i>n</i>	Mean	SD
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%			
<i>Treatment</i>											
Pre-Intervention	58	10.0%	181	31.2%	238	41.0%	103	17.8%	580	2.666	0.883
Post-Intervention	85	12.5%	166	24.4%	279	41.0%	150	22.1%	680	2.726	0.944
<i>Control</i>											
Pre-Intervention	91	16.0%	174	30.6%	205	36.0%	99	17.4%	569	2.548	0.958
Post-Intervention	96	14.3%	196	29.3%	257	38.4%	121	18.1%	670	2.601	0.943

	Would Not		Would		χ^2	Chi-Square <i>p</i>
	<i>n</i>	%	<i>n</i>	%		
<i>Treatment</i>						
Pre-Intervention	239	41.21%	341	58.79%	2.430	0.119
Post-Intervention	251	36.91%	429	63.09%		
<i>Control</i>						
Pre-Intervention	265	46.57%	304	53.43%	1.112	0.292
Post-Intervention	292	43.58%	378	56.42%		

p* < .10; *p* < .05; ****p* < .01

	Coef.	RSE	<i>p</i>	<i>q</i>
<i>Model 1</i>				
DiD (Treatment##Post)	0.023	0.132	0.857	1.000
<i>Model 2</i>				
DiD (Treatment##Post)	0.062	0.124	0.617	1.000
Nonwhite	-0.231	0.051	0.000 ***	
Hispanic	0.188	0.062	0.002 ***	
Gender	0.023	0.040	0.569	
Age	0.009	0.001	0.000 ***	
Education	-0.153	0.044	0.001 ***	
NYPD Friend/Family	0.072	0.059	0.228	
<i>Goodness-of-Fit</i>	Pseudo R ²	LL		
Model 1	0.0019	-2983.1		
Model 2	0.0174	-2938.1		

****p* < .01

Ref. categories: Survey T1 (Pre); Control Group; White; Non-Hispanic; Female; No friend/family

Regression models used cluster-robust standard errors to account for respondent precinct

Q8: In the past 12 months, have you been stopped by police officers in your neighborhood while you were in a car?

Table 9.8.1: Q8 Frequency Distribution									
	No (0)		Yes (1)		Chi-Square		n	Mean	SD
	n	%	n	%	χ^2	p			
<i>Treatment</i>									
Pre-Intervention	477	80.3%	117	19.7%	3.375	0.066 *	594	0.197	0.398
Post-Intervention	507	76.0%	160	24.0%			667	0.240	0.427
<i>Control</i>									
Pre-Intervention	406	70.2%	172	29.8%	5.4961	0.019 **	578	0.298	0.458
Post-Intervention	516	76.1%	162	23.9%			678	0.239	0.427

* $p < .10$; ** $p < .05$; *** $p < .01$

Table 9.8.2: Q8 Difference-in-Differences, Probit Regression (n=2302)				
	Coef.	RSE	p	q
<i>Model 1</i>				
DiD (Treatment##Post)	0.249	0.148	0.093	1.000
<i>Model 2</i>				
DiD (Treatment##Post)	0.267	0.146	0.069	1.000
Nonwhite	0.279	0.091	0.002 ***	
Hispanic	-0.050	0.070	0.475	
Gender	0.457	0.068	0.000 ***	
Age	-0.010	0.002	0.000 ***	
Education	-0.077	0.070	0.271	
NYPD Friend/Family	0.283	0.097	0.004 ***	
<i>Goodness-of-Fit</i>		Pseudo R ²	LL	
Model 1		0.0058	-1233.6	
Model 2		0.0494	-1177.2	

*** $p < .01$

Ref. categories: Survey T1 (Pre); Control Group; White; Non-Hispanic; Female; No friend/family

Regression models used cluster-robust standard errors to account for respondent precinct

Q9: Thinking about the last time you were stopped by police officers in your neighborhood while you were in a car, how satisfied were you with the way the officers

handled that situation-- very satisfied, somewhat satisfied, somewhat dissatisfied, or very dissatisfied?

	Very Dissatisfied (1)		Somewhat Dissatisfied (2)		Somewhat Satisfied (3)		Very Satisfied (4)		<i>n</i>	Mean	SD
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%			
<i>Treatment</i>											
Pre-Intervention	24	20.7%	26	22.4%	46	39.7%	20	17.2%	116	2.534	1.008
Post-Intervention	39	30.7%	27	21.3%	37	29.1%	24	18.9%	142	2.613	1.148
<i>Control</i>											
Pre-Intervention	45	26.5%	40	23.5%	52	30.6%	33	19.4%	170	2.429	1.081
Post-Intervention	40	26.1%	38	24.8%	40	26.1%	35	22.9%	153	2.458	1.112

	Dissatisfied		Satisfied		Chi-Square	
	<i>n</i>	%	<i>n</i>	%	χ^2	<i>p</i>
<i>Treatment</i>						
Pre-Intervention	50	43.10%	66	56.90%	0.001	0.981
Post-Intervention	61	42.96%	81	57.04%		
<i>Control</i>						
Pre-Intervention	85	50.00%	85	50.00%	0.031	0.860
Post-Intervention	78	50.98%	75	49.02%		

p*<.10; *p*<.05; ****p*<.01

	Coef.	RSE	<i>p</i>	<i>q</i>
<i>Model 1</i>				
DiD (Treatment##Post)	-0.035	0.051	0.490	1.000
<i>Model 2</i>				
DiD (Treatment##Post)	-0.005	0.065	0.936	1.000
Nonwhite	-0.043	0.122	0.721	
Hispanic	0.119	0.089	0.183	
Gender	-0.040	0.112	0.721	
Age	0.003	0.005	0.542	
Education	-0.085	0.086	0.321	
NYPD Friend/Family	0.100	0.100	0.322	
<i>Goodness-of-Fit</i>	Pseudo R ²	LL		
Model 1	0.0016	-701.5		
Model 2	0.0044	-699.3		

****p*<.01

Ref. categories: Survey T1 (Pre); Control Group; White; Non-Hispanic; Female; No friend/family

Regression models used cluster-robust standard errors to account for respondent precinct

Q10: Thinking about this same stop, please tell me whether the following happened or did not happen

- (1) The police officers explained the reason for the stop
- (2) The police officers used physical force during the stop
- (3) You were patted down on the outside of your clothing
- (4) The police officers searched the inside of your clothing, your bag, or other personal belongings
- (5) You were given a ticket or a summons for a moving violation
- (6) You were arrested

	Table 9.10.1: Q10 Response Means					
	Pre-Intervention			Post-Intervention		
	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD
<i>Treatment</i>						
1	102	0.637	0.483	138	0.717	0.452
2	102	0.216	0.413	135	0.207	0.407
3	100	0.430	0.498	133	0.338	0.475
4	102	0.471	0.502	136	0.390	0.487
5	102	0.402	0.493	135	0.519	0.502
6	103	0.194	0.397	137	0.190	0.394
<i>Control</i>						
1	155	0.587	0.494	145	0.697	0.461
2	155	0.187	0.391	140	0.271	0.446
3	149	0.416	0.495	143	0.441	0.498
4	161	0.441	0.498	137	0.445	0.499
5	151	0.391	0.488	138	0.500	0.502
6	156	0.179	0.385	139	0.266	0.444

	Table 9.10.2: Q10 Frequency Distribution & Chi-Square Tests								Chi-Square		
	Pre-Intervention				Post-Intervention				χ^2		<i>p</i>
	No		Yes		No		Yes				
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%			
<i>Treatment</i>											
1	37	36.27%	65	63.73%	39	28.26%	99	71.74%	1.741	0.187	
2	80	78.43%	22	21.57%	107	79.26%	28	20.74%	0.024	0.877	
3	57	57.00%	43	43.00%	88	66.17%	45	33.83%	2.040	0.153	
4	54	52.94%	48	47.06%	83	61.03%	53	38.97%	1.561	0.212	
5	61	59.80%	41	40.20%	65	48.15%	70	51.85%	3.170	0.075 *	
6	83	80.58%	20	19.42%	111	81.02%	26	18.98%	0.007	0.932	
<i>Control</i>											
1	64	41.29%	91	58.71%	44	30.34%	101	69.66%	3.896	0.048 **	
2	126	81.29%	29	18.71%	102	72.86%	38	27.14%	2.980	0.084 *	
3	87	58.39%	62	41.61%	80	55.94%	63	44.06%	0.178	0.673	
4	90	55.90%	71	44.10%	76	55.47%	61	44.53%	0.005	0.941	
5	92	60.93%	59	39.07%	69	50.00%	69	60.00%	3.489	0.062 *	
6	128	82.02%	28	17.95%	102	73.38%	37	26.62%	3.216	0.073 *	

p*<.10; *p*<.05; ****p*<.01

	1: Explained reason for stop (n=473)				2: Officers used physical force (n=468)				3: Patted down outside of clothing (n=464)			
	Coef.	RSE	p	q	Coef.	RSE	p	q	Coef.	RSE	p	q
<i>Model 1</i>												
DiD (Treatment##Post)	-0.112	0.263	0.667	1.000	-0.380	0.175	0.030	0.750	-0.418	0.262	0.112	1.000
<i>Model 2</i>												
DiD (Treatment##Post)	-0.096	0.277	0.726	1.000	-0.376	0.203	0.064	1.000	-0.429	0.288	0.136	1.000
Nonwhite	-0.388	0.247	0.116		0.527	0.249	0.034		0.421	0.149	0.005 ***	
Hispanic	0.127	0.156	0.413		0.253	0.115	0.028		0.144	0.123	0.239	
Gender	-0.251	0.122	0.040		0.423	0.159	0.008 ***		0.563	0.101	0.000 ***	
Age	0.008	0.004	0.047		-0.009	0.004	0.012		-0.009	0.004	0.016	
Education	0.078	0.120	0.515		-0.303	0.110	0.006 ***		-0.342	0.096	0.000 ***	
NYPD Friend/Family	-0.169	0.096	0.079		0.080	0.176	0.650		-0.132	0.106	0.212	
<i>Goodness-of-Fit</i>	Pseudo R ²	LL			Pseudo R ²	LL			Pseudo R ²	LL		
Model 1	0.010	-299.7			0.007	-233.0			0.011	-309.0		
Model 2	0.029	-293.8			0.057	-221.3			0.074	-289.4		

	4: Officers searched inside clothing, bag, belongings (n=477)				5: Given a ticket or summons (n=470)				6: Arrested (n=476)			
	Coef.	RSE	p	q	Coef.	RSE	p	q	Coef.	RSE	p	q
<i>Model 1</i>												
DiD (Treatment##Post)	-0.301	0.308	0.329	1.000	-0.106	0.081	0.194	1.000	-0.453	0.371	0.222	1.000
<i>Model 2</i>												
DiD (Treatment##Post)	-0.354	0.315	0.258	1.000	-0.089	0.079	0.258	1.000	-0.532	0.375	0.156	1.000
Nonwhite	0.300	0.156	0.054		-0.302	0.199	0.128		0.428	0.187	0.022	
Hispanic	0.012	0.131	0.929		0.107	0.085	0.210		0.033	0.167	0.841	
Gender	0.436	0.114	0.000 ***		-0.070	0.117	0.550		0.374	0.142	0.009 ***	
Age	-0.006	0.004	0.143		0.005	0.005	0.294		0.000	0.004	0.950	
Education	-0.297	0.108	0.006 ***		0.118	0.116	0.307		-0.299	0.125	0.017	
NYPD Friend/Family	-0.173	0.112	0.124		-0.240	0.170	0.157		-0.085	0.212	0.690	
<i>Goodness-of-Fit</i>	Pseudo R ²	LL			Pseudo R ²	LL			Pseudo R ²	LL		
Model 1	0.005	-322.4			0.015	-318.1			0.015	-226.0		
Model 2	0.047	-308.7			0.027	-314.1			0.050	-217.9		

***p < .01

Ref. categories: Survey T1 (Pre); Control Group; White; Non-Hispanic; Female; No friend/family

Regression models used cluster-robust standard errors to account for respondent precinct

Q11: Still thinking about this same stop, please indicate whether you strongly agree, somewhat agree, somewhat disagree, or strongly disagree with each of the following statements.

- (1) The police officers treated you with respect
- (2) The police officers had a good reason for stopping you
- (3) The amount of time you were stopped was reasonable
- (4) The police officers used language that you found threatening or abusive
- (5) You felt the police officers stopped you because of your race or ethnicity
- (6) The police officers used more force than necessary

	Pre-Intervention			Post-Intervention		
	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD
<i>Treatment</i>						
1	110	2.709	0.989	156	2.833	1.124
2	107	2.271	1.069	152	2.296	1.144
3	107	2.514	0.984	145	2.531	1.149
4	106	2.151	1.076	146	2.274	1.148
5	108	2.639	1.089	150	2.560	1.196
6	108	2.111	1.097	150	2.287	1.200
<i>Control</i>						
1	165	2.667	1.084	155	2.755	1.053
2	163	2.080	1.122	151	2.351	1.144
3	162	2.290	1.113	144	2.431	1.138
4	156	2.186	1.152	144	2.292	1.170
5	162	2.586	1.219	149	2.584	1.186
6	163	2.080	1.144	153	2.288	1.218

	Pre-Intervention				Post-Intervention				Chi-Square	
	Disagree		Agree		Disagree		Agree		χ^2	<i>p</i>
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%		
<i>Treatment</i>										
1	40	36.36%	70	63.64%	51	32.69%	105	67.31%	0.386	0.534
2	62	57.94%	45	42.06%	86	56.58%	66	43.42%	0.048	0.827
3	52	48.60%	55	51.40%	67	46.21%	78	53.79%	0.141	0.707
4	68	64.15%	38	35.85%	85	58.22%	61	41.78%	0.906	0.341
5	48	44.44%	60	55.56%	68	45.33%	82	54.67%	0.020	0.887
6	71	65.74%	37	34.26%	89	59.33%	61	40.67%	1.094	0.296
<i>Control</i>										
1	61	36.97%	104	63.03%	53	34.19%	102	65.81%	0.269	0.604
2	110	67.48%	53	32.52%	79	52.32%	72	47.68%	7.525	0.006 ***
3	90	55.56%	72	44.44%	71	49.31%	73	50.69%	1.194	0.274
4	94	60.26%	62	39.74%	81	56.25%	63	43.75%	0.495	0.482
5	71	43.83%	91	56.17%	68	45.64%	81	54.36%	0.103	0.748
6	106	65.03%	57	34.97%	86	56.21%	67	43.79%	2.576	0.109

p* < .10; *p* < .05; ****p* < .01

	1: Officers treated you with respect (n=511)				2: Officers had a good reason for stopping you (n=504)				3: Amount of time you were stopped was reasonable (n=496)			
	Coef.	RSE	p	q	Coef.	RSE	p	q	Coef.	RSE	p	q
<i>Model 1</i>												
DiD (Treatment##Post)	0.049	0.134	0.711	1.000	-0.205	0.136	0.131	1.000	-0.135	0.180	0.453	1.000
<i>Model 2</i>												
DiD (Treatment##Post)	0.069	0.124	0.575	1.000	-0.206	0.135	0.126	1.000	-0.103	0.190	0.589	1.000
Nonwhite	-0.081	0.096	0.399		-0.226	0.150	0.131		-0.137	0.115	0.233	
Hispanic	0.151	0.115	0.189		-0.013	0.101	0.901		0.143	0.097	0.139	
Gender	-0.180	0.131	0.169		-0.078	0.086	0.366		0.065	0.081	0.417	
Age	0.004	0.005	0.423		-0.001	0.004	0.857		0.003	0.004	0.536	
Education	-0.202	0.100	0.043		0.000	0.066	0.998		-0.055	0.080	0.498	
NYPD Friend/Family	0.056	0.117	0.630		-0.085	0.127	0.500		0.047	0.124	0.705	
<i>Goodness-of-Fit</i>	Pseudo R ²	LL			Pseudo R ²	LL			Pseudo R ²	LL		
Model 1	0.001	-684.5			0.002	-679.5			0.003	-680.7		
Model 2	0.010	-677.9			0.004	-688.1			0.007	-678.5		

	4: Officers used language you found threatening/abusive (n=489)				5: Felt officers stopped you because of race/ethnicity (n=502)				6: Officers used more force than necessary (n=507)			
	Coef.	RSE	p	q	Coef.	RSE	p	q	Coef.	RSE	p	q
<i>Model 1</i>												
DiD (Treatment##Post)	-0.157	0.148	0.289	1.000	-0.118	0.174	0.497	1.000	-0.191	0.169	0.258	1.000
<i>Model 2</i>												
DiD (Treatment##Post)	-0.153	0.161	0.342	1.000	-0.141	0.175	0.418	1.000	-0.201	0.177	0.254	1.000
Nonwhite	-0.046	0.101	0.648		0.331	0.196	0.091		0.174	0.120	0.146	
Hispanic	0.138	0.059	0.020		0.035	0.098	0.720		0.015	0.102	0.879	
Gender	0.100	0.093	0.284		0.117	0.078	0.134		0.247	0.082	0.003 ***	
Age	-0.002	0.005	0.710		-0.003	0.003	0.304		-0.003	0.002	0.172	
Education	-0.124	0.082	0.131		-0.049	0.111	0.658		-0.217	0.112	0.053	
NYPD Friend/Family	-0.172	0.103	0.096		-0.146	0.118	0.216		-0.141	0.099	0.155	
<i>Goodness-of-Fit</i>	Pseudo R ²	LL			Pseudo R ²	LL			Pseudo R ²	LL		
Model 1	0.001	-655.8			0.001	-686.9			0.002	-672.4		
Model 2	0.008	-651.7			0.007	-682.6			0.014	-664.0		

***p<.01

Ref. categories: Survey T1 (Pre); Control Group; White; Non-Hispanic; Female; No friend/family

Regression models used cluster-robust standard errors to account for respondent precinct

Q13: In the past 12 months, have you been stopped by police officers in your neighborhood while you were walking or standing on the street, in your building, or in some other place or building in your neighborhood?

	No (0)		Yes (1)		Chi-Square				
	<i>n</i>	%	<i>n</i>	%	χ^2	<i>p</i>	<i>n</i>	Mean	SD
<i>Treatment</i>									
Pre-Intervention	467	80.4%	114	19.6%	0.1149	0.735	581	0.196	0.397
Post-Intervention	527	79.6%	135	20.4%			662	0.204	0.403
<i>Control</i>					5.4522	0.020 **			
Pre-Intervention	419	73.8%	149	26.2%			568	0.262	0.440
Post-Intervention	528	79.4%	137	20.6%	665	0.206	0.405		

p*<.10; *p*<.05; ****p*<.01

	Coef.	RSE	<i>p</i>	<i>q</i>
<i>Model 1</i>				
DiD (Treatment##Post)	0.160	0.184	0.384	1.000
<i>Model 2</i>				
DiD (Treatment##Post)	0.169	0.205	0.412	1.000
Nonwhite	0.276	0.114	0.016	
Hispanic	-0.194	0.060	0.001 ***	
Gender	0.518	0.056	0.000 ***	
Age	-0.007	0.001	0.000 ***	
Education	-0.235	0.057	0.005 ***	
NYPD Friend/Family	0.254	0.091	0.023	
<i>Goodness-of-Fit</i>	Pseudo R ²	LL		
Model 1	0.0032	-1165.7		
Model 2	0.0604	-1098.8		

****p*<.01

Ref. categories: Survey T1 (Pre); Control Group; White; Non-Hispanic; Female; No friend/family

Regression models used cluster-robust standard errors to account for respondent precinct

Q14: Thinking about the last time you were stopped by police officers while you were on the street, in your building, or some other place or building in your neighborhood, how satisfied were you with the way the officers handled that situation-- very satisfied, somewhat satisfied, somewhat dissatisfied, or very dissatisfied?

	Very Dissatisfied (1)		Somewhat Dissatisfied (2)		Somewhat Satisfied (3)		Very Satisfied (4)		n	Mean	SD
	n	%	n	%	n	%	n	%			
<i>Treatment</i>											
Pre-Intervention	28	24.8%	39	34.5%	30	26.6%	16	14.2%	113	2.301	0.999
Post-Intervention	39	30.7%	27	21.3%	37	29.1%	24	18.9%	127	2.362	1.110
<i>Control</i>											
Pre-Intervention	41	27.7%	42	28.4%	41	27.7%	24	16.2%	148	2.324	1.051
Post-Intervention	30	23.3%	32	24.8%	43	33.3%	24	18.6%	129	2.473	1.046

	Dissatisfied		Satisfied χ^2		Chi-Square	
	n	%	n	%		p
<i>Treatment</i>						
Pre-Intervention	67	59.29%	46	40.71%	1.298	0.255
Post-Intervention	66	51.97%	61	48.03%		
<i>Control</i>						
Pre-Intervention	83	56.08%	65	43.92%	1.777	0.183
Post-Intervention	62	48.06%	67	51.94%		

* $p < .10$; ** $p < .05$; *** $p < .01$

	Coef.	RSE	p	q
<i>Model 1</i>				
DiD (Treatment##Post)	-0.137	0.186	0.459	1.000
<i>Model 2</i>				
DiD (Treatment##Post)	-0.132	0.178	0.459	1.000
Nonwhite	-0.468	0.203	0.021	
Hispanic	0.090	0.107	0.400	
Gender	-0.189	0.097	0.051	
Age	0.005	0.004	0.234	
Education	-0.288	0.088	0.001 ***	
NYPD Friend/Family	0.107	0.126	0.393	
<i>Goodness-of-Fit</i>	Pseudo R ²	LL		
Model 1	0.0013	-638.3		
Model 2	0.0208	-625.8		

*** $p < .01$

Ref. categories: Survey T1 (Pre); Control Group; White; Non-Hispanic; Female; No friend/family

Regression models used cluster-robust standard errors to account for respondent precinct

Q15: And thinking about this same stop, please indicate whether the following happened or did not happen.

- (1) The police officers explained the reason for the stop
- (2) The police officers gave you a receipt or information card after the stop
- (3) You were patted down on the outside of your clothing
- (4) The police officers searched the inside of your clothing, your bag, or other personal belongings
- (5) The police officers used physical force during the stop
- (6) You were arrested or given a summons

	Pre-Intervention			Post-Intervention		
	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD
<i>Treatment</i>						
1	103	0.583	0.496	117	0.538	0.501
2	96	0.240	0.429	114	0.211	0.409
3	97	0.608	0.491	120	0.458	0.500
4	104	0.615	0.489	120	0.417	0.495
5	100	0.260	0.441	115	0.322	0.469
6	102	0.373	0.486	116	0.293	0.457
<i>Control</i>						
1	132	0.492	0.502	123	0.642	0.481
2	131	0.221	0.417	118	0.203	0.404
3	131	0.481	0.502	119	0.504	0.502
4	133	0.489	0.502	117	0.487	0.502
5	135	0.237	0.427	116	0.302	0.461
6	132	0.318	0.468	119	0.361	0.482

	Pre-Intervention								Post-Intervention				Chi-Square	
	No		Yes		No		Yes		χ^2	<i>p</i>				
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%						
<i>Treatment</i>														
1	43	41.75%	60	58.25%	54	46.15%	63	53.85%	0.431	0.511				
2	73	76.04%	23	23.96%	90	78.95%	24	21.05%	0.253	0.615				
3	38	39.18%	59	60.82%	65	54.14%	55	45.83%	4.835	0.028 **				
4	40	38.46%	64	61.54%	70	58.33%	50	41.67%	8.803	0.003 ***				
5	74	74.00%	26	26.00%	78	67.83%	37	32.17%	0.984	0.321				
6	64	62.75%	38	37.25%	82	70.69%	34	29.31%	1.549	0.213				
<i>Control</i>														
1	67	50.76%	65	49.24%	44	35.77%	79	64.23%	5.817	0.016 **				
2	102	77.86%	29	22.14%	94	79.66%	24	20.34%	0.120	0.729				
3	68	51.91%	63	48.09%	59	49.58%	60	50.42%	0.135	0.713				
4	68	51.13%	65	48.87%	60	51.28%	57	48.72%	0.001	0.981				
5	103	76.30%	32	23.70%	81	69.83%	35	30.17%	1.334	0.248				
6	90	68.18%	42	31.82%	76	63.87%	43	36.13%	0.521	0.471				

p*<.10; *p*<.05; ****p*<.01

Table 9.15.3: Q15 Difference-in-Differences, Probit Regression													
	1: Explained reason for stop (n=429)				2: Officers gave receipt or information card (n=413)				3: Patted down outside of clothing (n=424)				
	Coef.	RSE	p	q	Coef.	RSE	p	q	Coef.	RSE	p	q	
<i>Model 1</i>													
DiD (Treatment##Post)	-0.513	0.187	0.006 ***	0.438	-0.221	0.159	0.165	1.000	-0.461	0.318	0.147	1.000	
<i>Model 2</i>													
DiD (Treatment##Post)	-0.515	0.174	0.003 ***	0.291	-0.221	0.194	0.254	1.000	-0.412	0.308	0.180	1.000	
Nonwhite	-0.292	0.120	0.015		0.023	0.180	0.898		0.386	0.135	0.004 ***		
Hispanic	-0.031	0.101	0.760		0.305	0.161	0.058		0.117	0.193	0.542		
Gender	0.005	0.096	0.961		-0.011	0.160	0.948		0.771	0.092	0.000 ***		
Age	-0.002	0.004	0.635		0.003	0.005	0.553		-0.006	0.004	0.141		
Education	-0.126	0.153	0.411		-0.367	0.087	0.000 ***		-0.238	0.144	0.099		
NYPD Friend/Family	-0.193	0.119	0.106		-0.175	0.171	0.307		0.046	0.134	0.732		
<i>Goodness-of-Fit</i>	Pseudo R ²	LL			Pseudo R ²	LL			Pseudo R ²	LL			
Model 1	0.009	-291.8			0.004	-211.9			0.010	-290.8			
Model 2	0.018	-289.3			0.038	-204.5			0.083	-269.5			
	4: Officers searched inside clothing, bag, belongings (n=431)				5: Officers used physical force (n=426)				6: Arrested or given summons (n=456)				
	Coef.	RSE	p	q	Coef.	RSE	p	q	Coef.	RSE	p	q	
<i>Model 1</i>													
DiD (Treatment##Post)	-0.620	0.278	0.026	0.750	-0.204	0.212	0.337	1.000	-0.453	0.199	0.023	0.750	
<i>Model 2</i>													
DiD (Treatment##Post)	-0.587	0.245	0.018	0.544	-0.120	0.198	0.542	1.000	-0.423	0.198	0.032	0.630	
Nonwhite	0.432	0.183	0.019		0.304	0.243	0.211		-0.104	0.160	0.517		
Hispanic	0.172	0.158	0.278		0.275	0.146	0.060		0.050	0.128	0.694		
Gender	0.552	0.131	0.000 ***		0.522	0.141	0.000 ***		0.354	0.093	0.000 ***		
Age	-0.009	0.004	0.009 ***		-0.009	0.006	0.145		0.003	0.005	0.612		
Education	-0.124	0.110	0.259		-0.164	0.143	0.251		-0.192	0.102	0.060		
NYPD Friend/Family	-0.029	0.108	0.788		0.014	0.133	0.919		-0.076	0.141	0.589		
<i>Goodness-of-Fit</i>	Pseudo R ²	LL			Pseudo R ²	LL			Pseudo R ²	LL			
Model 1	0.017	-293.6			0.007	-242.8			0.006	-298.3			
Model 2	0.064	-279.6			0.054	-231.1			0.026	-292.3			

***p<.01

Ref. categories: Survey T1 (Pre); Control Group; White; Non-Hispanic; Female; No friend/family

Regression models used cluster-robust standard errors to account for respondent precinct

Q16: Still thinking about this same stop, please indicate whether you strongly agree, somewhat agree, somewhat disagree, or strongly disagree with the following statements:

- (1) The police officers treated you with respect**
- (2) The police officers had a good reason for stopping you**
- (3) The amount of time you were stopped was reasonable**
- (4) The police officers used language that you found threatening or abusive**
- (5) You felt the police officers stopped you because of your race or ethnicity**
- (6) The police officers used more force than necessary**

	Pre-Intervention			Post-Intervention		
	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD
<i>Treatment</i>						
1	109	2.661	0.955	126	2.524	1.157
2	107	2.206	1.071	121	2.124	1.222
3	106	2.358	1.044	122	2.311	1.179
4	107	2.607	1.053	121	2.355	1.203
5	105	2.933	1.068	122	2.754	1.187
6	106	2.396	1.093	122	2.230	1.198
<i>Control</i>						
1	144	2.500	1.077	131	2.802	1.119
2	143	1.986	1.055	132	2.295	1.137
3	141	2.163	1.093	129	2.318	1.173
4	139	2.259	1.125	131	2.489	1.153
5	142	2.648	1.186	132	2.568	1.193
6	143	2.196	1.127	132	2.515	1.220

	Pre-Intervention				Post-Intervention				Chi-Square	
	Disagree		Agree		Disagree		Agree		χ^2	<i>p</i>
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%		
<i>Treatment</i>										
1	44	40.37%	65	59.63%	56	44.44%	70	55.56%	0.398	0.528
2	69	64.49%	38	35.51%	77	63.64%	44	36.36%	0.018	0.894
3	61	57.55%	45	42.45%	71	58.20%	51	41.80%	0.010	0.921
4	48	44.86%	59	55.14%	67	55.37%	54	44.63%	2.510	0.113
5	29	27.62%	76	72.38%	46	37.70%	76	62.30%	2.595	0.107
6	60	56.60%	46	43.40%	74	60.66%	48	39.34%	0.384	0.535
<i>Control</i>										
1	71	49.31%	73	50.69%	47	35.88%	84	64.12%	0.018	0.894
2	103	72.03%	40	27.97%	74	56.06%	58	43.94%	7.630	0.006 ***
3	92	65.25%	49	34.75%	72	55.81%	57	44.19%	2.514	0.113
4	81	58.27%	58	41.73%	63	48.09%	68	51.91%	2.809	0.094 *
5	61	42.96%	81	57.04%	56	42.42%	76	57.58%	0.008	0.929
6	92	64.34%	51	35.66%	61	46.21%	71	53.79%	9.134	0.003 ***

p*<.10; *p*<.05; ****p*<.01

Table 9.16.3: Q16 Difference-in-Differences, Ordered Probit Regression

	1: Officers treated you with respect (n=458)				2: Officers had a good reason for stopping you (n=454)				3: Amount of time you were stopped was reasonable (n=449)			
	Coef.	RSE	p	q	Coef.	RSE	p	q	Coef.	RSE	p	q
<i>Model 1</i>												
DiD (Treatment##Post)	-0.504	0.198	0.011	0.593	-0.571	0.260	0.028	0.750	-0.402	0.188	0.032	0.750
<i>Model 2</i>												
DiD (Treatment##Post)	-0.517	0.186	0.005 ***	0.291	-0.558	0.236	0.018	0.544	-0.387	0.180	0.032	0.630
Nonwhite	-0.429	0.191	0.025		-0.362	0.221	0.101		-0.327	0.220	0.136	
Hispanic	-0.095	0.094	0.311		0.016	0.133	0.901		0.037	0.121	0.758	
Gender	-0.090	0.143	0.532		-0.062	0.120	0.603		-0.090	0.117	0.444	
Age	0.006	0.004	0.123		0.002	0.002	0.416		0.002	0.004	0.520	
Education	-0.224	0.106	0.034		-0.143	0.098	0.145		-0.183	0.082	0.027	
NYPD Friend/Family	0.104	0.081	0.195		-0.066	0.093	0.479		0.112	0.136	0.409	
<i>Goodness-of-Fit</i>	Pseudo R ²	LL			Pseudo R ²	LL			Pseudo R ²	LL		
Model 1	0.007	-623.5			0.007	-596.6			0.004	-608.5		
Model 2	0.021	-614.6			0.013	-593.0			0.012	-603.5		

	4: Officers used language you found threatening/abusive (n=450)				5: Felt officers stopped you because of race/ethnicity (n=451)				6: Officers used more force than necessary (n=454)			
	Coef.	RSE	p	q	Coef.	RSE	p	q	Coef.	RSE	p	q
<i>Model 1</i>												
DiD (Treatment##Post)	-0.485	0.108	0.000 ***	0.002	-0.111	0.187	0.555	1.000	-0.528	0.153	0.001 ***	0.058
<i>Model 2</i>												
DiD (Treatment##Post)	-0.392	0.163	0.016	0.544	-0.121	0.189	0.522	1.000	-0.495	0.173	0.004 ***	0.291
Nonwhite	0.028	0.139	0.840		0.502	0.165	0.002 ***		0.198	0.164	0.228	
Hispanic	0.252	0.115	0.029		-0.015	0.159	0.924		0.058	0.124	0.640	
Gender	0.272	0.086	0.002 ***		0.210	0.123	0.087		0.230	0.116	0.047	
Age	-0.007	0.004	0.123		-0.004	0.004	0.385		-0.005	0.005	0.325	
Education	-0.041	0.112	0.712		0.049	0.105	0.640		-0.149	0.107	0.164	
NYPD Friend/Family	-0.141	0.107	0.187		-0.041	0.117	0.728		-0.065	0.092	0.477	
<i>Goodness-of-Fit</i>	Pseudo R ²	LL			Pseudo R ²	LL			Pseudo R ²	LL		
Model 1	0.005	-616.4			0.004	-602.6			0.006	-613.3		
Model 2	0.018	-608.3			0.015	-596.1			0.015	-608.1		

***p<.01

Ref. categories: Survey T1 (Pre); Control Group; White; Non-Hispanic; Female; No friend/family

Regression models used cluster-robust standard errors to account for respondent precinct

Q18: In the past 12 months, have you spoken to or contacted any police officers in your neighborhood for help, such as asking a police officer on the street for assistance, reporting a crime or an accident to an officer, or having an officer respond to your 911 call?

Table 9.18.1: Q18 Frequency Distribution								
	No (0)		Yes (1)		Chi-Square			
	<i>n</i>	%	<i>n</i>	%	χ^2	<i>p</i>	<i>n</i>	Mean SD
<i>Treatment</i>								
Pre-Intervention	441	76.8%	133	23.2%	0.1143	0.735	574	0.232 0.422
Post-Intervention	507	76.0%	160	24.0%			667	0.240 0.427
<i>Control</i>								
Pre-Intervention	432	76.2%	135	23.8%	3.3178	0.069 *	567	0.238 0.426
Post-Intervention	482	71.6%	191	28.4%			673	0.284 0.451

* $p < .10$; ** $p < .05$; *** $p < .01$

Table 9.18.2: Q18 Difference-in-Differences, Probit Regression ($n = 2299$)				
	Coef.	RSE	<i>p</i>	<i>q</i>
<i>Model 1</i>				
DiD (Treatment##Post)	-0.084	0.149	0.575	1.000
<i>Model 2</i>				
DiD (Treatment##Post)	-0.059	0.145	0.682	1.000
Nonwhite	-0.134	0.096	0.164	
Hispanic	0.085	0.066	0.201	
Gender	-0.103	0.076	0.174	
Age	-0.002	0.002	0.232	
Education	0.020	0.050	0.695	
NYPD Friend/Family	0.232	0.081	0.004 ***	
<i>Goodness-of-Fit</i>				
	Pseudo R ²	LL		
Model 1	0.0020	-1269.3		
Model 2	0.0104	-1258.6		

*** $p < .01$

Ref. categories: Survey T1 (Pre); Control Group; White; Non-Hispanic; Female; No friend/family

Regression models used cluster-robust standard errors to account for respondent precinct

Q19: Thinking about the last time you spoke to or contacted police officers in your neighborhood, how satisfied were you with how the officers handled that situation-- very satisfied, somewhat satisfied, somewhat dissatisfied, or very dissatisfied?

	Very Dissatisfied (1)		Somewhat Dissatisfied (2)		Somewhat Satisfied (3)		Very Satisfied (4)				
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	Mean	SD
<i>Treatment</i>											
Pre-Intervention	16	12.2%	17	13.0%	43	32.8%	55	42.0%	131	3.046	1.022
Post-Intervention	18	11.5%	26	16.7%	51	32.7%	61	39.1%	156	2.994	1.013
<i>Control</i>											
Pre-Intervention	27	20.3%	18	13.5%	40	30.1%	48	36.1%	133	2.820	1.134
Post-Intervention	23	12.3%	31	16.6%	54	28.9%	79	42.3%	187	3.011	1.042

	Dissatisfied		Satisfied		Chi-Square	
	<i>n</i>	%	<i>n</i>	%	χ^2	<i>p</i>
<i>Treatment</i>						
Pre-Intervention	33	25.19%	98	74.81%	0.330	0.566
Post-Intervention	44	28.21%	112	71.79%		
<i>Control</i>						
Pre-Intervention	45	33.83%	88	66.17%	0.894	0.344
Post-Intervention	54	28.88%	133	71.12%		

p*<.10; *p*<.05; ****p*<.01

	Coef.	RSE	<i>p</i>	<i>q</i>
<i>Model 1</i>				
DiD (Treatment##Post)	-0.248	0.148	0.091	1.000
<i>Model 2</i>				
DiD (Treatment##Post)	-0.256	0.117	0.028	0.630
Nonwhite	0.218	0.131	0.096	
Hispanic	-0.183	0.105	0.083	
Gender	0.106	0.104	0.307	
Age	0.006	0.003	0.019	
Education	-0.228	0.075	0.002 ***	
NYPD Friend/Family	0.144	0.092	0.117	
<i>Goodness-of-Fit</i>	Pseudo R ²	LL		
Model 1	0.0023	-706.6		
Model 2	0.0174	-695.9		

****p*<.01

Ref. categories: Survey T1 (Pre); Control Group; White; Non-Hispanic; Female; No friend/family

Regression models used cluster-robust standard errors to account for respondent precinct

Q20: And still thinking about the last time you spoke to or contacted police officers in your neighborhood, please indicate whether you strongly agree, somewhat agree, somewhat disagree, or strongly disagree with the following statements:

- (227) The police officers treated you with respect
 (228) The police officers explained where you could get the help or information you needed
 (229) The police officers took your problem or question seriously

	Pre-Intervention			Post-Intervention		
	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD
	<i>Treatment</i>					
1	131	3.458	0.806	157	3.325	0.975
2	128	3.242	0.970	155	3.155	1.020
3	131	3.099	1.029	154	3.071	1.067
<i>Control</i>						
1	132	3.152	1.030	189	3.376	0.906
2	130	2.954	1.113	187	3.182	1.000
3	129	2.845	1.142	187	3.075	1.095

	Pre-Intervention				Post-Intervention				Chi-Square	
	Disagree		Agree		Disagree		Agree		χ^2	<i>p</i>
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%		
<i>Treatment</i>										
1	16	21.21%	115	87.79%	27	17.20%	130	82.80%	1.397	0.237
2	24	18.75%	104	81.25%	32	20.65%	123	79.35%	0.159	0.690
3	27	20.61%	104	79.39%	40	25.97%	114	74.03%	1.132	0.287
<i>Control</i>										
1	33	25.00%	99	75.00%	27	14.29%	162	85.71%	5.871	0.015 **
2	43	33.08%	87	66.92%	41	21.93%	146	78.07%	4.897	0.027 **
3	45	34.88%	84	65.12%	51	27.27%	136	72.73%	2.091	0.148

p*<.10; *p*<.05; ****p*<.01

Table 9.20.3: Q20 Difference-in-Differences, Ordered Probit Regression

	1: Officers treated you with respect (n=600)				2: Officers explained where you could get help (n=593)				3: Officers took problem/question seriously (n=594)			
	Coef.	RSE	p	q	Coef.	RSE	p	q	Coef.	RSE	p	q
<i>Model 1</i>												
DiD (Treatment##Post)	-0.350	0.204	0.087	1.000	-0.311	0.151	0.039	0.824	-0.228	0.219	0.298	1.000
<i>Model 2</i>												
DiD (Treatment##Post)	-0.372	0.170	0.029	0.630	-0.277	0.089	0.002 ***	0.291	-0.164	0.185	0.373	1.000
Nonwhite	0.056	0.119	0.637		0.241	0.133	0.070		0.343	0.132	0.009 ***	
Hispanic	-0.054	0.098	0.585		-0.138	0.117	0.240		-0.097	0.129	0.451	
Gender	0.040	0.112	0.718		0.104	0.085	0.222		-0.018	0.115	0.878	
Age	0.000	0.004	0.934		0.004	0.003	0.138		0.008	0.004	0.041	
Education	-0.163	0.076	0.032		-0.154	0.077	0.045		-0.222	0.068	0.001 ***	
NYPD Friend/Family	0.195	0.113	0.085		0.227	0.087	0.009 ***		0.177	0.067	0.008 ***	
<i>Goodness-of-Fit</i>	Pseudo R ²	LL			Pseudo R ²	LL			Pseudo R ²	LL		
Model 1	0.004	-643.9			0.003	-715.0			0.003	-744.5		
Model 2	0.010	-578.5			0.014	-639.3			0.020	-664.0		

***p<.01

Ref. categories: Survey T1 (Pre); Control Group; White; Non-Hispanic; Female; No friend/family

Regression models used cluster-robust standard errors to account for respondent precinct

Q21: Some police departments require officers to wear body cameras that provide an audio and video recording of officer’s interactions with the public. Do you strongly favor, somewhat favor, somewhat oppose, or strongly opposed having NYPD officers wear body cameras?

Table 9.21.1: Q21 Frequency Distribution

	Strongly Oppose (1)		Somewhat Oppose (2)		Somewhat Favor (3)		Strongly Favor (4)		n	Mean	SD
	n	%	n	%	n	%	n	%			
<i>Treatment</i>											
Pre-Intervention	19	3.3%	31	5.3%	118	20.3%	414	71.1%	582	3.593	0.738
Post-Intervention	28	4.2%	34	5.1%	140	20.8%	471	70.0%	673	3.566	0.773
<i>Control</i>											
Pre-Intervention	25	4.4%	35	6.2%	94	16.6%	411	72.7%	565	3.577	0.797
Post-Intervention	27	4.0%	44	6.5%	145	21.4%	462	68.1%	678	3.537	0.786

Table 9.21.2: Q21 Collapsed Likert Scale Chi-Square Tests

	Oppose		Favor		Chi-Square	
	n	%	n	%		p
<i>Treatment</i>						
Pre-Intervention	50	8.59%	532	91.41%	0.148	0.700
Post-Intervention	62	9.21%	611	90.79%		
<i>Control</i>						
Pre-Intervention	60	10.62%	505	89.38%	0.007	0.933
Post-Intervention	71	10.47%	607	89.53%		

*p<.10; **p<.05; ***p<.01

	Coef.	RSE	p	q
<i>Model 1</i>				
DiD (Treatment##Post)	0.079	0.139	0.575	1.000
<i>Model 2</i>				
DiD (Treatment##Post)	0.096	0.147	0.516	1.000
Nonwhite	0.088	0.103	0.390	
Hispanic	0.092	0.042	0.029	
Gender	-0.032	0.052	0.540	
Age	0.007	0.001	0.000 ***	
Education	0.070	0.044	0.111	
NYPD Friend/Family	0.019	0.079	0.805	
<i>Goodness-of-Fit</i>				
	Pseudo R ²	LL		
Model 1	0.0005	-1973.0		
Model 2	0.0063	-1961.6		

***p<.01

Ref. categories: Survey T1 (Pre); Control Group; White; Non-Hispanic; Female; No friend/family

Regression models used cluster-robust standard errors to account for respondent precinct

Q24: In the past 12 months, has anyone in your household, not counting yourself, been stopped by police officers in your neighborhood?

	No (0)		Yes (1)		Chi-Square				
	n	%	n	x ² %	p		n	Mean	SD
<i>Treatment</i>									
Pre-Intervention	445	76.2%	139	23.8%	0.0031	0.956	584	0.238	0.426
Post-Intervention	518	76.1%	163	23.9%			681	0.239	0.427
<i>Control</i>									
Pre-Intervention	398	69.6%	174	30.4%	4.2748	0.039 **	572	0.304	0.460
Post-Intervention	511	74.8%	172	25.2%			683	0.252	0.434

*p<.10; **p<.05; ***p<.01

	Coef.	RSE	p	q
<i>Model 1</i>				
DiD (Treatment##Post)	0.144	0.144	0.317	1.000
<i>Model 2</i>				
DiD (Treatment##Post)	0.144	0.152	0.342	1.000
Nonwhite	0.221	0.120	0.066	
Hispanic	-0.134	0.089	0.132	
Gender	0.174	0.047	0.000 ***	
Age	-0.010	0.001	0.000 ***	
Education	-0.073	0.029	0.010	
NYPD Friend/Family	0.236	0.077	0.002 ***	
<i>Goodness-of-Fit</i>				
	Pseudo R ²	LL		
Model 1	0.0031	-1432.1		
Model 2	0.0267	-1301.7		

***p<.01

Ref. categories: Survey T1 (Pre); Control Group; White; Non-Hispanic; Female; No friend/family

Regression models used cluster-robust standard errors to account for respondent precinct

Q26: Do you know any of the police officers that work in your neighborhood by name?

	No (0)		Yes (1)		Chi-Square				
	n	%	n	%	χ^2	p	n	Mean	SD
<i>Treatment</i>									
Pre-Intervention	475	81.8%	106	18.2%	0.9212	0.337	581	0.182	0.387
Post-Intervention	574	83.8%	111	16.2%			685	0.162	0.369
<i>Control</i>									
Pre-Intervention	485	84.6%	88	15.4%	0.8368	0.360	573	0.154	0.361
Post-Intervention	565	82.7%	118	17.3%			683	0.173	0.378

*p<.10; **p<.05; ***p<.01

	Coef.	RSE	p	q
<i>Model 1</i>				
DiD (Treatment##Post)	-0.228	0.157	0.147	1.000
<i>Model 2</i>				
DiD (Treatment##Post)	-0.157	0.161	0.327	1.000
Nonwhite	-0.106	0.103	0.304	
Hispanic	0.071	0.068	0.294	
Gender	0.151	0.056	0.007 ***	
Age	-0.001	0.002	0.690	
Education	0.078	0.068	0.253	
NYPD Friend/Family	0.627	0.043	0.000 ***	
<i>Goodness-of-Fit</i>				
	Pseudo R ²	LL		
Model 1	0.0019	-1054.4		
Model 2	0.0459	-1008.0		

***p < .01

Ref. categories: Survey T1 (Pre); Control Group; White; Non-Hispanic; Female; No friend/family

Regression models used cluster-robust standard errors to account for respondent precinct

Q28: How often do you go out in your neighborhood, outside your home, in the evening? Do you do that frequently, sometimes, just a little, or rarely?

	Rarely (1)		Sometimes (2)		Just a little (3)		Rarely (4)		n	Mean	SD
	n	%	n	%	n	%	n	%			
<i>Treatment</i>											
Pre-Intervention	60	10.4%	45	7.8%	160	27.7%	312	54.0%	577	3.255	0.986
Post-Intervention	81	11.7%	63	9.1%	169	24.5%	378	54.7%	691	3.221	1.029
<i>Control</i>											
Pre-Intervention	38	6.7%	35	6.2%	147	25.9%	347	61.2%	567	3.416	0.877
Post-Intervention	60	8.8%	80	11.7%	188	27.4%	358	52.2%	686	3.23	0.968

Table 9.28.2: Q28 Collapsed Likert Scale Chi-Square Tests						
	Not Often		Often		Chi-Square	
	<i>n</i>	%	<i>n</i>	%	χ^2	<i>p</i>
<i>Treatment</i>						
Pre-Intervention	105	18.20%	472	81.80%	1.391	0.238
Post-Intervention	144	20.84%	547	79.16%		
<i>Control</i>						
Pre-Intervention	73	12.87%	494	87.13%	12.486	0.000 ***
Post-Intervention	140	20.41%	546	79.59%		

* $p < .10$; ** $p < .05$; *** $p < .01$