

An Empirical Analysis of Racial Differences in Police Use of Force  
Online Appendix (Not for Publication)

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## Appendix A: Data Description and Coding of Variables

### A. NYPD Stop, Question and Frisk

1. *Civilian Race* - The race variable is taken from the NYPD Stop, Question and Frisk database. We code the race variables such that the five categories – white, black, hispanic, asian, other – alongwith the missing indicator are complete and mutually exclusive. “Black” is coded to include both black and black-hispanic civilians. “Hispanic” civilians includes white-hispanic civilians only. “White” and “Asian” include white civilians and asian civilians respectively. “Other” race categories includes any other races.
2. *Civilian Age* - Age variable is also taken from the NYPD Stop, Question and Frisk database. However, for several observations, ages were incorrectly coded, for example, they were coded as “\*\*”. For these observations, we recalculated ages by subtracting date of birth from the date of stop. After recalculating if we ended up with ages less than 10 or greater than 90, we coded them as missing.
3. *Civilian Gender* - Gender variable is taken from the NYPD Stop, Question and Frisk database. It is a dummy variable that is coded as 1 for “male” and 0 for “female”. Any “unknown” gender is coded as missing.
4. *Whether the stop occurred indoors/outdoors* - This was coded from the question “Was stop inside or outside?” in the NYPD Stop, Question and Frisk database. It is a dummy variable coded as 1 if the stop occurred “inside” and 0 if the stop occurred “outside”.
5. *Whether the stop occurred in a high crime or low crime area* - This was coded from the variable “Area has high crime incidence”. It is a dummy variable that is coded as 1 if the stop occurred in an area of high crime incidence and 0 if the stop occurred in an area of low crime incidence.
6. *Whether the stop occurred in a high crime or low crime time* - This was coded from the variable “Time of Day fits crime incidence”. It is a dummy variable that is coded as 1 if the stop occurred at a time of day that fit crime incidence and 0 if it did not fit crime incidence.
7. *Whether the officer was wearing uniform* - This was coded from the question “Was officer in uniform?”. It is a dummy variable that is coded as 1 if the officer was in uniform and 0 if the officer was not in uniform. Any “unknown” observations were coded as missing.
8. *Kind of ID provided* - This was coded from the variable “Stopped Person’s Identification Type”. A set of four mutually exclusive and exhaustive dummy variables were created based on the response to this variable –
  - Photo ID - Dummy variable coded as 1 if civilian provided Photo ID and coded as 0 if not.
  - Verbal ID - Dummy variable coded as 1 if civilian provided Verbal ID and coded as 0 if not.
  - Refused ID - Dummy variable coded as 1 if civilian refused to provide ID and coded as 0 if civilian did not refuse.
  - Other ID - Dummy variable coded as 1 if civilian provided any other type of ID and coded as 0 if he did not provide other forms of ID.

9. *With others who were stopped* - This was coded from the question “Were other persons stopped, questioned, or frisked?”. It is a dummy variable that is coded as 1 if the civilian was in a stop where other civilians were stopped as well, and 0 if other civilians were not stopped with him.

10. *Civilian behavior* - This is a set of variables coded from responses to “Reason for stop” –

- Carrying suspicious object - Dummy variable coded as 1 if civilian was carrying suspicious object and 0 otherwise.
- Fit relevant description - Dummy variable coded as 1 if civilian fit a relevant description and 0 otherwise.
- Preparing for crime - Dummy variable coded as 1 if officers were casing a victim or location and 0 otherwise.
- Lookout for crime - Dummy variable coded as 1 if suspect was acting as a lookout and 0 otherwise.
- Dressed in criminal attire - Dummy variable coded as 1 if civilian was wearing clothes commonly used in a crime and 0 otherwise.
- Appearance of drug transaction - Dummy variable coded as 1 if civilian was engaged in actions indicative of a drug transaction and 0 otherwise.
- Suspicious movements - Dummy variable coded as 1 if civilian had furtive movements and 0 otherwise.
- Engaging in violent crime - Dummy variable coded as 1 if civilian was engaged in a violent crime and 0 otherwise.
- Concealing suspicious objects - Dummy variable coded as 1 if civilian had a suspicious bulge and 0 otherwise.
- Other suspicious behavior - Dummy variable coded as 1 if there were any other reason that the civilian was stopped. The variable is coded 0 otherwise.

11. *Alternative Outcomes*

- Frisked - This was coded from responses to “Reason for Frisk”. It is a dummy variable that is coded as 1 if the officer stated any reason for the civilian to be frisked, and 0 if the officer did not mention any reason for the civilian to be frisked.
- Searched - This was coded from responses to “Basis of Search”. It is a dummy variable that is coded as 1 if the officer stated any reasons for the civilian to be searched, and 0 if the officer did not mention any reason for the civilian to be searched.
- Arrested - This variable was coded from the question “Was an arrest made?”. It is a dummy variable that is coded as 1 if the officer made an arrest and 0 if the officer did not make any arrests.
- Summonsed - This variable was coded from the question “Was a summons issued?”. It is a dummy variable that is coded as 1 if the officer issued a summons and 0 if the officer did not issue any summons.
- Weapon or Contraband Found - This variable was coded from a set of questions that captured information about whether any contraband or weapon was found on the stopped person. It is a dummy variable that was coded as 1 if contraband, pistol, rifle, assault weapon, knife or cutting instrument, machine gun, or any other type of weapon was found on the civilian. It is coded as 0 if none of the above were found on the civilian.

## B. Police Public Contact Survey

1. *Civilian Race* - The race variable is taken from the Police Public Contact Survey. We code the race variables such that the four categories – white, black, hispanic, other – alongwith the missing indicator are complete and mutually exclusive. “Black” is coded to include both black and black-hispanic civilians. “Hispanic” civilians includes white-hispanic civilians and any other civilians who are coded as hispanic with a combination of another race. “White” includes white civilians. “Other” race categories includes any other races.
2. *Civilian Age* - Civilian’s age variable is taken from the Police Public Contact Survey. It is a discrete variable that gives the civilian’s age in years.
3. *Civilian Gender* - This variable was coded from the Police Public Contact Survey. It is a dummy variable that is coded as 1 if the civilian was male and 2 if the civilian was female.
4. *Civilian Income* - The Police Public Contact Survey gathers information about civilian’s income but only presents it as a categorical variable to protect identity. Hence, this variable is categorical with the following categories – “1” for incomes less than \$20,000, “2” for incomes between \$20,000 and \$50,000, and finally “3” for incomes greater than \$50,000.
5. *Civilian employed or not last week* - This variable was coded from responses to the question “Did you have a job or work at a business last week?”. It is coded as 1 if the civilian had a job or worked at a business in the previous week, and 0 otherwise.
6. *Population size of civilian’s address* - This was coded from the survey variable that gathers information about the population size of the civilian’s address. It is a categorical variable coded as “1” if there was no response or the population size was under 100,000. It is coded as “2” if the population size was between 100,000 and 499,999, “3” if the population size was between 500,000 and 999,999, and finally “4” if the population size was greater than 1 million.
7. *Time of encounter* - This was coded from survey variables that gather information about the interaction. Since this question is asked differently in different years, to maintain consistency, we coded it as “1” if the interaction happened between 6 am and 12 noon, “2” if the interaction happened between 12 noon and 6 pm, “3” if the interaction happened during day time but the time is not specifically stated, “4” if the interaction happened during 6 pm and 12 midnight, “5” if the interaction happened during 12 midnight and 6 am and finally “6” if the interaction happened during night time but the time is not specifically stated.
8. *Officer Race* - Officer race was coded from responses to questions about the race of the police officer or majority of police officers present during the interaction. It is represented by the following set of race dummy variables – black, white, hispanic, other, or unknown. “Black” is coded as 1 if the police officer was black or all/most of the police officers present were black. “White” is coded as 1 if the police officer was white or all/most of the police officers present were white. “Other” is coded as 1 if the police officer was of any other race or all/most of the police officers present were of any other race. For 2011, variables were coded slightly differently. There was a “hispanic” race included that is 1 if one or more of the officers were of hispanic origin. Similarly, for 2011, “black”, “white” or “other” races were coded as 1 if one or more of the officers present were black, white or of any other race and 0 otherwise.
9. *Type of Incident* - This is a categorical variable coded as “1” for a street stop, “2” for a traffic stop and “3” for any other stop.

10. *Civilian Behavior* - This is a dummy variable coded as 1 if any of the following variables were coded as 1 and 0 if all the following variables were coded as 0.

- Disobeyed - Dummy variable coded as 1 if the civilian said “Yes” to “At any time during this contact, did you disobey or interfere with the officer(s)?”. It is coded as 0 if the civilian said “No” to the question.
- Tried to get away - Dummy variable coded as 1 if the civilian said “Yes” to “At any time during this contact, did you try to get away?”. It is coded as 0 if the civilian said “No” to the question.
- Hit officer - Dummy variable coded as 1 if the civilian said “Yes” to “At any time during this contact, did you push, grab or hit the police officer(s)?”. It is coded as 0 if the civilian said “No” to the question.
- Resisted - Dummy variable coded as 1 if the civilian said “Yes” to “At any time during this contact, did you resist being handcuffed arrested, or searched?”. It is coded as 0 if the civilian said “No” to the question.
- Complained - Dummy variable coded as 1 if the civilian said “Yes” to “At any time during this contact, did you complain to the officer(s)?”. It is coded as 0 if the civilian said “No” to the question.
- Argued - Dummy variable coded as 1 if the civilian said “Yes” to “At any time during this contact, did you argue with the officer(s)?”. It is coded as 0 if the civilian said “No” to the question.
- Threatened officer - Dummy variable coded as 1 if the civilian said “Yes” to “At any time during this contact, did you curse at, insult or verbally threaten the police officer(s)?”. It is coded as 0 if the civilian said “No” to the question.
- Used physical force - Dummy variable coded as 1 if the civilian said “Yes” to “At any time during this contact, did you physically do anything else?”. It is coded as 0 if the civilian said “No” to the question.

11. *Alternative Outcomes* -

- Civilian searched - This variable coded from responses to questions about whether the civilian was actually searched, frisked or patted down during the contact. It is coded as 1 if the civilian was searched, frisked or patted down and 0 otherwise.
- Civilian arrested - This variable is coded from responses to questions about whether the civilian was arrested during the contact. It is coded as 1 if the civilian was arrested and 0 otherwise.
- Civilian guilty of carrying drugs, alcohol or weapon - This variable is coded from responses to questions about whether the civilian was guilty of carrying any illegal items like weapons, drugs, or an open container of alcohol. It is coded as 1 if the civilian was guilty and 0 otherwise.

## **Appendix B: Constructing a Database on Officer-Involved Shootings**

Variable Construction - Variables were constructed from police reports and internet articles. In all cases, information from police reports were given precedence over internet articles if there were any discrepancies. For all variables explained below, if a variable was missing information we coded it with a missing indicator .

1. Unique Identification Number - The unique identifier used to number officer reports or shooting incidents.
2. Date - Date of shooting (Format - MM/DD/YY)
3. Time - Time of shooting (Format - HHMM)
4. Location Address - Detailed address of shooting
5. Latitude - Latitude of shooting location. Unless explicitly mentioned in the excel reports, these were obtained by overlapping the detailed address on google maps.
6. Longitude - Longitude of shooting location. Unless explicitly mentioned in the excel reports, these were obtained by overlapping the detailed address on google maps.
7. Premise Category - Location category coded from officer reports and excel workbooks. Possible categories are
  - (a) Residence
  - (b) Street
  - (c) Business
  - (d) Yard/lot
  - (e) Park
  - (f) School
  - (g) Government property (e.g. police station)
  - (h) Other
8. Inside/Outside - Location category coded whether being inside or outside an enclosed space.
9. Precinct/Reporting District - Precinct in which shooting took place. Usually also reported as sector or subsector in officer reports.
10. Suspect Name - Name of suspect involved in shooting
11. Suspect Injury - Coded as
  - (a) Deceased
  - (b) Shoot and Miss
  - (c) Injured
  - (d) Unknown
  - (e) None
12. Suspect Weapon - Weapon used by/found on the subject during the shooting.

13. Suspect Race - Coded as White, Black, Hispanic or Other
14. Suspect Sex - Coded as Male or Female
15. Suspect Age - Calculated as fractions at the time of the incident. For instance, a suspect who is 24 years and 6 months old at the time of the shooting incident has age equal to 24.5. In case only years were provided and months weren't, we took an expected age based on year, for example, somebody who could be 24 or 25 years old was given 24.5.
16. Number of officers present when shots fired - All officers who were present during the shooting but didn't shoot at the suspect.
17. Number of officers shooting - All officers who shot at the suspect.
18. Officer(s) Name - Names of all officers involved in shooting. Multiple names should be separated by commas to keep observations at the suspect level.
19. Officer(s) Race - Races of all officers involved in shooting. Races are coded as White, Black, Hispanic and Other. Multiple officers should be separated by commas to keep observations at the suspect level.
20. Officer(s) Sex - Sex of all officers involved in shooting. Sex is coded as Male or Female. Multiple officers should be separated by commas to keep observations at the suspect level.
21. Officer(s) Age - Ages of all officers involved in shooting calculated as fractions at the time of the incident. For instance, an officer who is 24 years and 3 months old at the time of the shooting incident has age equal to 24.25. In case only years were provided and months weren't, we took an expected age based on year, for example, somebody who could be 24 or 25 years old was given 24.5. Multiple officers should be separated by commas to keep observations at the suspect level.
22. Officer(s) Rank - Ranks of all officers involved in shooting at the time of the shooting. Multiple officers should be separated by commas to keep observations at the suspect level.
23. Officer(s) Tenure - Tenure of all officers involved at the time of the incident (calculated as fractions at the time of the incident). This includes full-time concurrent and law enforcement tenure of officers across all counties they have ever served. Multiple officers should be separated by commas to keep observations at the suspect level.
24. Officer(s) PD Jurisdiction - Jurisdiction of all officers involved in shooting. This is the handling unit or the jurisdiction that the officer answers to or is a part of. Multiple officers should be separated by commas to keep observations at the suspect level.
25. Officer(s) Injury - Injuries of all officers involved in shooting. These are coded from categories
  - (a) Deceased
  - (b) Shoot and Miss
  - (c) Injured
  - (d) Unknown
  - (e) None

Multiple officers should be separated by commas to keep observations at the suspect level.

26. The next 5 variables are mutually exclusive and exhaustive. This implies that only one of them can be 1 in a given shooting while the rest are 0s. All of them cannot be 0s for a given shooting. Earlier variables take precedence over later variables.
- (a) Suspect Fired or Attacked - Coded as 1 if the suspect fired or attacked the officers. If the suspect fired or attacked a civilian (or shot warning shots in the air) but did it in view of the officers, the variable is still coded as 1. Otherwise it is coded as 0.
  - (b) Suspect Drew or Revealed - Coded as 1 if the suspect drew his weapon or revealed his weapon in front of the officers. If a suspect fired his weapon and hence revealed his weapon, only suspect fired or attacked is coded as 1 and suspect drew or revealed is coded as 0. If the variable is not coded as 1, it should be coded as 0.
  - (c) Suspect Attempted Draw - Coded as 1 if the suspect attempted to draw his weapon. Otherwise, it should be coded as 0. Similar to variable above, if any of the aforementioned variables were 1, then this would be coded as 0.
  - (d) Suspect Appeared to Have - Coded as 1 if the suspect appeared to have a weapon as witnessed by the officers. Otherwise, it is coded as 0. Similar to variable above, if any of the aforementioned variables were 1, then this would be coded as 0.
  - (e) No Weapon or Attack - Coded as 1 if the suspect did not have any weapon or did not attack. Otherwise, it is coded as 0. Similar to variable above, if any of the aforementioned variables were 1, then this would be coded as 0.
27. Officer or Suspect attacked first - Coded as O if officer attacked the suspect first and coded as S if suspect attacked the officer first. If the suspect resisted arrest but didnt explicitly use force against the force, we do not take it as the suspect attacking the officer first. In case the suspect attempts to flee but does so in the direction of the officers, the suspect is considered to be attacking first.
28. Officer verbal warning - Coded as 1 if any officer issued any verbal warnings. Coded as 0 if the officer did not issue any verbal warnings. If the report does not explicitly mention any verbal warnings, code this variable as 0.
29. Officer under-cover - Coded as 1 if the officer(s) was under-cover. Coded as 0 if he was not. If the report does not explicitly mention officers being under-cover, then code this variable as 0.
30. Officer on-duty - Coded as 1 if officer(s) was on-duty. Coded as 0 if officer was off-duty.
31. Officer, involved in previous shootings - Coded as 1 if officer was involved in previous shootings and 0 if he was not. Multiple officers are separated by commas.
32. Officer, number of shootings involved in previously - Coded as the number of shootings every officer (who was involved in the shooting) was involved in previously. Multiple officers are separated by commas.
33. Number of shots: officer - Number of shots fired by the officer at the suspect. Multiple officers separated by commas.
34. Number of shots: suspect - Number of shots fired by the suspect at the officer.
35. Suspect fled - Coded as 1 even if the report suggest that the suspect fled or attempted to flee. Coded as 0 otherwise.

36. Suspect Mental Illness - Coded as 1 if suspect was suffering from a mental illness. Coded as 0 otherwise. Since this is rarely mentioned, variable is coded as 0 unless explicitly mentioned in the reports.
37. Suspect on Drugs/Alcohol - Coded as 1 if suspect was under the influence of drugs or alcohol. Coded as 0 otherwise. Since this is rarely mentioned, variable is coded as 0 unless explicitly mentioned in the reports.
38. Type of Substance - If the answer to the previous question is 1, then mention what substance suspect was under the influence of here. Otherwise code it as missing.
39. Suspect on Parole - Coded as 1 if the suspect was on parole. Coded as 0 otherwise. Since this is rarely mentioned, variable is coded as 0 unless explicitly mentioned in the reports.
40. Suspect on Probation - Coded as 1 if the suspect was on probation. Coded as 0 otherwise. Since this is rarely mentioned, variable is coded as 0 unless explicitly mentioned in the reports. If the suspect was under arrest and was involved in a shooting on his way to prison, then this variable is still 0.
41. Officer, force within policy - This variable is related to consequences the officer faced after the shooting and relates to whether officers use of force was justified or not. It is coded as 1 if the officers use of force was justified to be within policy. It is coded as 0 otherwise.
42. Officer, tactics within policy - This variable is related to consequences the officer faced after the shooting and relates to whether officers use of force was justified or not. It is coded as 1 if the officers tactics was justified to be within policy. It is coded as 0 otherwise.
43. Officer, training - This variable is related to consequences the officer faced after the shooting. It is coded as 1 if the officer was put under training after the shooting. It is coded as 0 otherwise.
44. Officer, discipline - This variable is related to consequences the officer faced after the shooting. It is coded as 1 if the officer was put under disciplinary measures after the shooting. It is coded as 0 otherwise. If the officer was put under probation after the shooting, this variable is coded as 1.
45. Officer Suspended - This variable is related to consequences the officer faced after the shooting. It is coded as 1 if the officer was suspended after the shooting. It is coded as 0 otherwise.
46. Officer Terminated - This variable is related to consequences the officer faced after the shooting. It is coded as 1 if the officers employment was terminated after the shooting. It is coded as 0 otherwise.
47. The next 9 variables are related to why the officers were in the crime scene in the first place. If there are multiple reasons for why a cop was at the crime scene, then several of the variables below can be coded as 1 i.e. they are NOT mutually exclusive and exhaustive. -
  - (a) Respond Robbery - Coded as 1 if the officers were responding to a robbery. Coded as 0 otherwise.
  - (b) Respond Violent - Coded as 1 if the officers were responding to a violent activity (e.g. a fight, a murder, a kidnapping, a hostage situation). Coded as 0 otherwise.

- (c) Respond Auto - Coded as 1 if the officers were responding to a situation that involved an automobile. Coded as 0 otherwise.
  - (d) Respond Drugs - Coded as 1 if the officers were conducting a drug raid. Coded as 0 otherwise.
  - (e) Respond Warrant - Coded as 1 if the officers had a warrant and were at the crime scene to arrest a suspect or conduct search under warrant. Coded as 0 otherwise.
  - (f) Respond Suspicious - Coded as 1 if the officers were responding to a suspect engaging in suspicious activity. Coded as 0 otherwise.
  - (g) Respond as Victim - Coded as 1 if the officer was a victim and was responding to the suspect. For example, if the officers home was being robbed or the officer was under attack while off-duty, this variable is coded as 1. Coded as 0 otherwise.
  - (h) Respond Suicide - Coded as 1 if the officer was responding to a suicide. Coded as 0 otherwise.
  - (i) Respond Other - Coded as 1 if the reason to be at the crime scene does not fall under any of the aforementioned categories. Coded as 0 otherwise.
  - (j) Reason Officer on Scene - If respond other is coded as 1, then the details of the reason should be mentioned here. Otherwise, it is coded as missing.
48. Grand Jury Verdict - Contains links to the grand jury verdict. Coded as True bill, No Bill or Pending from the grand jury verdict for Dallas.
49. Online Source 1 - Link to any online source that was referenced for shooting related information.
50. Online Source 2 - Link to any online source that was referenced for shooting related information.
51. Online Source 3 - Link to any online source that was referenced for shooting related information.
52. EXTRA - Any other information that is relevant but does not fit into any other columns must be entered here.

## Appendix C: A Note on Categorical Discrimination

Individuals sort information with the aid of categories. Fryer and Jackson (2008) provide a model in which the routine sorting of information into a discrete set of categories in a way that maximizes cognitive efficiency can lead to biases in decision making.<sup>1</sup> Consider the following thought experiment. Imagine a population of employers and a population of workers. The population of workers consists of 90 percent W workers and 10 percent B workers. Thus, the B workers are the minority group. Workers come in two human capital levels: high and low. So, overall, workers come in four flavors: B-high, B-low, W-high, and W-low. Black and white workers are both just as likely to be of high human capital levels as low. We can represent a worker's type by a vector in  $(0, 1)^2$ , where  $(0, 0)$  represents B-low,  $(0, 1)$  represents B-high,  $(1, 0)$  represents W-low, and  $(1, 1)$  represents W-high.

Let us suppose that an employer has fewer categories available in her memory than there are types of people in the world, and start by examining the case where the employer has three categories available. Suppose also that the employer has interacted with workers in the past roughly in proportion to their presence in the population. How might the employer sort the past types that s/he has interacted with into the categories? Fryer and Jackson (2008) suppose that this is done in a way so that the objects (experiences with types of past workers in this case) in the categories are as similar as possible. Specifically, objects are sorted to minimize the sum across categories of the total variation about the mean from each category.

Now, consider a case where the employer has previously interacted with 100 workers in proportion to their presence in the population. So the employer has interacted with 5 workers of type  $(0, 0)$ ; 5 of type  $(0, 1)$ ; 45 of type  $(1, 0)$  and 45 of type  $(1, 1)$ . Let us assign these to three categories. The most obvious way, and the unique way to minimize the sum across categories of the total variation about the mean from each category, is to put all of the type  $(1, 1)$ 's in one category, all of the type  $(1, 0)$ 's in another category, and all of  $(0, 0)$ 's in the third category. This means that the white workers end up perfectly sorted, but the black workers end up only sorted by race and not by their human capital level.

And, perhaps more important for our particular application, more experience with a certain race allows one to make finer distinctions among them. This is consistent both with the model and with an impressive literature using lab experiments (see Sporer 2001 for a nice review).

One partial test of the categorization theory of discrimination is to investigate whether black police officers (who presumably make finer distinctions in own race interactions) treat black suspects differently than white officers treat black suspects. Consistent with the example above, if black police officers have had more interactions with blacks than white officers then they will sort them more finely and be able to make more nuanced distinctions between black suspects who pose danger and those who may not. In fact, Goff et al. (2014) argue – using 176 white male police officers from large urban areas – that white officers over estimate the age of young black males and more generally categorize them more coarsely. Thus, under this theory – all else equal – black officers will treat black suspects more fairly than white officers.

The data, however, seem to contradict a key prediction of the categorization theory – there is no evidence that black officers employ different levels of force on black civilians relative to white officers. On non-lethal uses of force, black officers are no less likely to employ higher level uses of force on black suspects – all else equal – than white officers. The black coefficient on racial differences in at least kicking, using a pepper spray spray or baton is -0.001 (0.001). The same coefficient on whether or not a white officer kicks a suspect or uses a pepper spray or baton is

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<sup>1</sup>There is a rich history in psychology investigating how categories effect decision making. See Allport (1954) or Fiske (1998).

0.000 (0.001). And, in officer-involved shootings, the fraction of black suspects that are unarmed, conditional upon an officer discharging their weapon, is 27 percent when the officer is black and 19.1 percent when the officer is white. The p-value on the difference is 0.175.

## **Appendix Tables**

Appendix Table 1  
Data Collection

Dataset	Collection	Year	Variables
NYC's "Stop, Question and Frisk"	Record each encounter where an officer stops a pedestrian, asks them questions, and frisks or searches them	2003-2013	Stop characteristics, civilian demographics, officer characteristics, encounter characteristics, post-encounter characteristics, and use of force
Police Public Contact Survey	Survey interviews a nationally representative sample of residents aged 16 or older on their "contacts with police" during the year	1996-2011 with a gap of 3 years between any 2 surveys.	Civilian demographics, civilian behavior contact characteristics, officer demographics, contact outcome, and use of force
Officer Involved Shootings	Event summaries from all incidents in which officers discharged their firearms at civilians. Data was collected from Austin, Dallas, six large Florida counties, Houston, and Los Angeles	2000-2015 depending on location	Incident location and date, civilian demographics, officer demographics, civilian and officer injuries, civilian weapon, officer duty status, encounter characteristics
Houston Police Arrest Data	Event summaries from a random draw of arrests in which officers may have been justified in using lethal force but did not. Arrest data was taken for the following offenses, from 2000 - 2015: aggravated assault on a peace officer, attempted capital murder of a peace officer, resisting arrest, evading arrest, and interfering in an arrest. Data was collected from the Houston Police Department.	2000 - 2015	Incident location and date, civilian demographics, officer demographics, civilian and officer injuries, civilian weapon, officer duty status, encounter characteristics

**Appendix Table 2A: Summary Statistics for New York City Stop, Question, and Frisk, 2003–2013 (Conditional on an Interaction)**

### *Panel F: Missing Variables*

Missing Race	0.00	0.00	0.00	0.00	.	.
Missing Age	0.01	0.01	0.01	0.01	0.000	0.000
Missing Gender	0.03	0.01	0.01	0.01	0.000	0.000
Missing Indoors	0.01	0.01	0.00	0.01	0.000	0.000
Missing Daytime	0.00	0.00	0.00	0.00	0.083	0.010
Missing High-Crime Area	0.00	0.00	0.00	0.00	.	.
Missing High-Crime Time	0.00	0.00	0.00	0.00	.	.
Missing Police Uniform	0.00	0.00	0.00	0.00	0.132	0.314
Missing ID	0.00	0.00	0.00	0.00	0.196	0.093
Missing Stopped With Others	0.00	0.00	0.00	0.00	0.000	0.000
Missing Contraband or Weapon Found	0.00	0.00	0.00	0.00	0.184	0.010
Missing Relevant Description	0.00	0.00	0.00	0.00	.	.
Missing Preparing Crime	0.00	0.00	0.00	0.00	.	.
Missing Lookout for Crime	0.00	0.00	0.00	0.00	.	.
Missing Criminal Attire	0.00	0.00	0.00	0.00	.	.
Missing Drug Transaction	0.00	0.00	0.00	0.00	.	.
Missing Suspicious Movement	0.00	0.00	0.00	0.00	.	.
Missing Violent Crime	0.00	0.00	0.00	0.00	.	.
Missing Conceal Suspicious Object	0.00	0.00	0.00	0.00	.	.
Missing Other Suspicious Behavior	0.00	0.00	0.00	0.00	.	.
Observations	4,982,925	492,430	2,886,187	1,215,072		

Notes: This table reports summary statistics. The sample consists of all NYC stop and frisks from 2003-2013. The first column includes the entire sample. The second column includes white civilians only. The third column includes black civilians only. The fourth column includes hispanic civilians only. The fifth column reports p-values for a t-test on the equality of means for black civilians and white civilians. The sixth column reports p-values for a t-test on the equality of means for hispanic civilians and white civilians.

Appendix Table 2B: Summary Statistics for Police Public Contact Survey, 1996-2011 (Conditional on an Interaction)

	Full Sample (1)	White (2)	Black (3)	Hispanic (4)	p-value (2)=(3)	p-value (2)=(4)
<b>Panel A: Civilian Demographics</b>						
White	0.77	1.00	0.00	0.00	.	.
Black	0.10	0.00	1.00	0.00	.	.
Other Race	0.04	0.00	0.00	0.00	.	.
Hispanic	0.09	0.00	0.00	1.00	.	.
Male	0.50	0.50	0.45	0.54	0.000	0.000
Female	0.50	0.50	0.55	0.46	0.000	0.000
Age	40.92	42.06	38.98	34.99	0.000	0.000
Employed last week or not	0.72	0.72	0.69	0.74	0.000	0.000
Income	2.09	2.15	1.75	1.89	0.000	0.000
Population size of Civilian's Address	1.41	1.31	1.79	1.77	0.000	0.000
<b>Panel B: Civilian Behavior</b>						
Disobeyed	0.00	0.00	0.01	0.01	0.016	0.013
Tried to get away	0.00	0.00	0.00	0.00	0.081	0.536
Resisted	0.00	0.00	0.00	0.00	0.067	0.000
Complained	0.06	0.05	0.07	0.06	0.099	0.697
Argued	0.02	0.02	0.02	0.02	0.001	0.282
Threatened officer	0.01	0.01	0.02	0.01	0.000	0.833
Used physical force	0.00	0.00	0.00	0.00	0.877	0.832
<b>Panel C: Contact and Officer Characteristics</b>						
Incident type: Street stop	0.00	0.00	0.00	0.01	0.070	0.006
Incident type: Traffic stop	0.55	0.54	0.56	0.57	0.027	0.000
Incident type: Other	0.45	0.45	0.44	0.42	0.015	0.000
Time of contact was day	0.68	0.69	0.62	0.66	0.000	0.005
Time of contact was night	0.32	0.31	0.38	0.34	0.000	0.005
Officers majority Hispanic	0.02	0.02	0.04	0.07	0.000	0.000
Officers majority White	0.88	0.90	0.76	0.84	0.000	0.000
Officers majority Black	0.06	0.05	0.16	0.05	0.000	0.724
Officers majority other race	0.03	0.02	0.03	0.07	0.098	0.000
Officers split race	0.02	0.02	0.04	0.02	0.000	0.319
<b>Panel D: Alternative Outcomes</b>						
Injured	0.00	0.00	0.00	0.00	0.000	0.024
Perceived excessive force	0.01	0.01	0.02	0.02	0.000	0.000
Searched	0.05	0.04	0.11	0.09	0.000	0.000
Arrested	0.03	0.02	0.05	0.04	0.000	0.000
Civilian guilty of carrying illegal drugs/weapon etc.	0.14	0.16	0.10	0.13	0.004	0.265
<b>Panel E: Use of Force</b>						
Any use of force	0.01	0.01	0.02	0.02	0.000	0.000
Grab or push	0.01	0.00	0.01	0.01	0.000	0.000
Hit or kick	0.00	0.00	0.00	0.00	0.001	0.022
Point gun	0.00	0.00	0.01	0.00	0.000	0.000
Handcuffed	0.02	0.02	0.04	0.03	0.000	0.000
Pepper spray/stungun	0.00	0.00	0.00	0.00	0.040	0.035

Panel F: Missing Variables

	0.00	0.00	0.00	0.00	.	.
Missing gender	0.00	0.00	0.00	0.00	.	.
Missing age	0.00	0.00	0.00	0.00	.	.
Missing employed last week or not	0.10	0.10	0.10	0.08	0.263	0.000
Missing income	0.22	0.23	0.21	0.22	0.024	0.096
Missing population size of address	0.22	0.23	0.21	0.22	0.024	0.096
Missing disobeyed	0.58	0.59	0.59	0.55	0.794	0.000
Missing tried to get away	0.58	0.59	0.59	0.55	0.798	0.000
Missing resisted	0.58	0.59	0.59	0.55	0.814	0.000
Missing complained	0.94	0.94	0.93	0.92	0.000	0.000
Missing argued	0.58	0.59	0.59	0.55	0.803	0.000
Missing threatened	0.58	0.59	0.59	0.55	0.807	0.000
Missing physical force	0.58	0.59	0.59	0.55	0.814	0.000
Missing incident type	0.16	0.16	0.17	0.15	0.066	0.003
Missing time of contact	0.66	0.67	0.67	0.62	0.908	0.000
Missing officers majority Hispanic	0.95	0.95	0.94	0.94	0.000	0.005
Missing officers majority White	0.66	0.66	0.64	0.63	0.000	0.000
Missing officers majority Black	0.66	0.66	0.64	0.63	0.000	0.000
Missing officers majority Other	0.66	0.66	0.64	0.63	0.000	0.000
Missing officers split race	0.66	0.66	0.64	0.63	0.000	0.000
Observations	71,247	55,055	6,843	6,519		

Notes: This table reports summary statistics. The sample consists of all survey respondents of the Police Public Contact Survey from 1996 to 2011 who had at least one contact with the police. The first column includes the entire sample. The second column includes white civilians only. The third column includes black civilians only. The fourth column includes hispanic civilians only. The fifth column reports p-values for a t-test on the equality of means for black civilians and white civilians. The sixth column reports p-values for a t-test on the equality of means for hispanic civilians and white civilians.

Appendix Table 2C: Summary Statistics for Officer Involved Shootings (Conditional on an Interaction)

	Full Sample	Houston	Austin +	Florida	Los Angeles		
	OIS	Arrest	Taser	Dallas			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
<i>Panel A: Suspect Demographics</i>							
Black	0.46	0.52	0.58	0.63	0.46	0.48	0.25
Hispanic	0.31	0.33	0.30	0.03	0.30	0.10	0.60
Non-Black, Non-Hisp	0.23	0.14	0.12	0.33	0.23	0.41	0.15
Male	0.96	0.96	0.82	0.94	0.97	0.97	0.98
Age	30.61	28.90	26.84	31.39	32.90	32.80	30.56
<i>Panel B: Suspect Weapon</i>							
Firearm	0.51	0.52	0.03	.	0.52	0.47	0.54
Sharp Object	0.08	0.08	0.01	.	0.07	0.09	0.09
Vehicle	0.15	0.11	0.00	.	0.17	0.24	0.08
None	0.21	0.24	0.95	.	0.18	0.16	0.25
Other Weapon	0.05	0.05	0.01	.	0.06	0.04	0.04
<i>Panel C: Officer Characteristics</i>							
Officer Unit Majority White	0.50	0.32	0.42	0.42	0.53	0.79	0.28
Officer Unit Majority Black	0.10	0.14	0.16	0.15	0.14	0.06	0.03
Officer Unit Majority Hisp	0.27	0.40	0.19	0.22	0.18	0.07	0.52
Officer Unit Majority Asian/Other	0.03	0.05	0.04	0.03	0.04	0.01	0.03
Officer Unit Split Race	0.10	0.09	0.18	0.18	0.11	0.07	0.14
Female Officers in Unit	0.06	0.06	0.10	0.13	0.06	0.05	0.10
Officer On-duty	0.86	0.75	0.87	.	0.90	0.94	0.95
Two+ Officers on Scene	0.29	0.22	0.66	0.37	0.28	0.32	0.41
Avg Officer Tenure	10.12	10.22	7.62	9.05	8.41	9.90	12.70
<i>Panel D: Officer Response Reason</i>							
Robbery	0.20	0.26	0.06	0.07	0.23	0.16	0.08
Violent Disturbance	0.29	0.25	0.21	0.15	0.33	0.29	0.34
Traffic	0.18	0.18	0.16	0.09	0.09	0.23	0.20
Personal Attack	0.04	0.07	0.01	0.00	0.02	0.01	0.04
Warrant	0.05	0.05	0.02	0.00	0.05	0.08	0.03
Suspicious Persons	0.07	0.05	0.25	0.05	0.06	0.06	0.12
Narcotics	0.05	0.05	0.07	0.05	0.07	0.05	0.04
Suicide	0.03	0.02	0.01	0.07	0.03	0.04	0.02
Other Response Reason	0.09	0.08	0.22	0.52	0.11	0.07	0.11
<i>Panel E: Other Encounter Characteristics</i>							
Daytime	0.37	0.35	0.47	0.38	0.38	0.43	0.39
Suspect Attacked or Drew Weapon	0.80	0.79	0.56	.	0.79	0.86	0.75
<i>Panel F: Location</i>							
Austin	0.05	0.00	0.00	0.00	0.25	0.00	0.00
Dallas	0.15	0.00	0.00	0.00	0.75	0.00	0.00
Houston	0.39	1.00	1.00	1.00	0.00	0.00	0.00
Jacksonville	0.03	0.00	0.00	0.00	0.00	0.12	0.00
Palm Beach County	0.06	0.00	0.00	0.00	0.00	0.24	0.00
Lee County	0.03	0.00	0.00	0.00	0.00	0.11	0.00
Brevard County	0.01	0.00	0.00	0.00	0.00	0.05	0.00
Pinellas County	0.03	0.00	0.00	0.00	0.00	0.12	0.00
Orange County	0.10	0.00	0.00	0.00	0.00	0.37	0.00

LA County	0.15	0.00	0.00	0.00	0.00	0.00	1.00
<i>Panel G: Missing Variables</i>							
Missing Race	0.02	0.04	0.32	0.38	0.00	0.02	0.01
Missing Sex	0.02	0.02	0.31	0.38	0.00	0.01	0.05
Missing Age	0.23	0.08	0.33	0.38	0.75	0.14	0.08
Missing Weapon	0.04	0.03	0.31	1.00	0.00	0.05	0.08
Missing Officer Race	0.16	0.38	0.35	0.00	0.00	0.06	0.00
Missing Officer Sex	0.06	0.12	0.34	0.00	0.00	0.05	0.00
Missing Officer Duty	0.01	0.00	0.30	1.00	0.00	0.02	0.06
Missing Num Officers	0.03	0.06	0.30	0.00	0.00	0.03	0.00
Missing Officer Tenure	0.19	0.37	0.36	0.00	0.01	0.17	0.02
Missing Response Reason	0.01	0.00	0.30	0.00	0.00	0.00	0.07
Missing Time of Day	0.35	0.01	0.36	0.00	0.75	0.74	0.00
Missing Suspect Behavior	0.00	0.00	0.31	1.00	0.00	0.00	0.00

*Potential Selection*

Population Weight	4.487
Part 1+2 Arrest Weight	0.785
Part 1 Arrest Weight	0.725

Observations	1,316	508	1,024	4,504	269	345	194
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Notes: This table reports summary statistics. The sample consists of (1) – all officer involved shootings (OIS) between 2000 and 2015 (though exact time varies by location) from Austin, Dallas, six large Florida counties, Houston, and Los Angeles, (2) Arrests in Houston from 2005 to 2015 during which an officer reported using his or her charged electronic device (taser), and (3) A random draw of arrests in Houston for the following offenses, from 2000-2015: aggravated assault on a police officer, attempted capital murder of a police officer, resisting arrest, evading arrest, and interfering in an arrest. The first column includes the entire OIS sample. The second column includes OIS from Houston only. The third column includes the random draw of arrests from Houston. The fourth column includes arrests from Houston where a taser was discharged. The fifth column includes OIS from Austin and Dallas. The sixth column includes OIS from all Florida counties. The seventh column includes OIS from Los Angeles county. To calculate *potential selection*, we use demographic data from the American Community Survey 2007-2011. Arrest rates for part 1 and part 2 crimes are taken from the Bureau of Justice Statistics for non-Florida locations and from the Florida Department of Law Enforcement for Florida counties. Population weighted selection is calculated using the following steps – For each location, calculate the fraction of OIS that are black and the corresponding fraction for whites; for each location, calculate the fraction of 18-34 aged males in the population that are black and the corresponding fraction for whites; regress the fraction of OIS that are black on the fraction of 18-34 aged males that are black (with no constant) for all locations. The beta coefficient on the dependent variable shows the representation of “at risk” blacks in OIS. Conduct same regression for whites and store that beta coefficient as the representation of “at risk” whites in OIS; finally, divide the beta coefficient for blacks by the beta coefficient for whites. Part 1 + 2 arrest rate weighted selection is calculated using the following steps – for each location and year, calculate the fraction of OIS that are black and the corresponding fraction for whites; for each location and year, calculate the fraction of arrestees in part 1 and part 2 crimes (coded according to Uniform Crime Reports) that are black and the corresponding fraction for whites; regress the fraction of OIS that are black on the fraction of arrestees that are black (controlling for year fixed effects) for all locations. The beta coefficient on the dependent variable shows the representation of “at risk” blacks in OIS. Conduct same regression for whites and store that beta coefficient as the representation of “at risk” whites in OIS; finally, divide the beta coefficient for blacks by the beta coefficient for whites. Part 1 arrest rate weighted selection is calculated the same way as part 1 and part 2 crimes but for part 1 crimes only.

Appendix Table 3A: Racial Differences in Non-Lethal Use of Force (Conditional on an Interaction)  
At Least Hands, NYC Stop and Frisk

	(1)	(2)	(3)	(4)	(5)
Black	0.064*** (0.014)	0.057*** (0.015)	0.074*** (0.014)	0.054*** (0.012)	0.022*** (0.004)
Hispanic	0.069*** (0.015)	0.062*** (0.015)	0.073*** (0.015)	0.059*** (0.013)	0.015*** (0.003)
Asian	0.006 (0.015)	0.000 (0.016)	0.008 (0.017)	0.007 (0.015)	-0.005 (0.004)
Other race	0.048*** (0.013)	0.042*** (0.012)	0.053*** (0.012)	0.044*** (0.010)	0.007* (0.004)
Constant	0.153*** (0.009)				
<i>No Controls</i>	✓				
<i>Baseline Characteristics</i>		✓		✓	✓
<i>Encounter Characteristics</i>			✓	✓	✓
<i>Civilian Behavior</i>				✓	✓
<i>Precinct and Year FE</i>					✓
Observations	4,927,962	4,927,962	4,927,962	4,927,962	4,927,962

Notes: This table reports OLS estimates. The sample consists of all NYC Stop and Frisks from 2003-2013 with non-missing use of force data. The dependent variable is an indicator for whether the police reported using at least hands during a stop and frisk interaction. The omitted race is white, and the omitted ID type is other. The first column includes solely racial group dummies. The second column adds controls for gender and a quadratic in age. The third column adds controls for whether the stop was indoors or outdoors, whether the stop took place during the daytime, whether the stop took place in a high crime area, during a high crime time, or in a high crime area at a high crime time, whether the officer was in uniform, civilian ID type, and whether others were stopped during the interaction. The fourth column adds controls for civilian behavior. The fifth row adds precinct and year fixed effects. Each column includes missings in all variables. Standard errors, clustered at the precinct level, are reported in parentheses.

Appendix Table 3B: Racial Differences in Non-Lethal Use of Force (Conditional on an Interaction)  
At Least Pushing to Wall, NYC Stop and Frisk

	(1)	(2)	(3)	(4)	(5)
Black	0.011** (0.005)	0.009* (0.005)	0.017*** (0.005)	0.012*** (0.004)	0.009*** (0.002)
Hispanic	0.013*** (0.004)	0.011** (0.004)	0.017*** (0.004)	0.014*** (0.004)	0.005*** (0.001)
Asian	-0.006 (0.004)	-0.008 (0.005)	-0.006 (0.005)	-0.005 (0.004)	-0.001 (0.001)
Other race	0.007 (0.004)	0.007 (0.004)	0.011*** (0.004)	0.009*** (0.003)	0.001 (0.002)
Constant	0.052*** (0.003)				
<i>No Controls</i>	✓				
<i>Baseline Characteristics</i>		✓		✓	✓
<i>Encounter Characteristics</i>			✓	✓	✓
<i>Civilian Behavior</i>				✓	✓
<i>Precint and Year FE</i>					✓
Observations	4,152,918	4,152,918	4,152,918	4,152,918	4,152,918

Notes: This table reports OLS estimates. The sample consists of all NYC Stop and Frisks from 2003-2013 with non-missing use of force data. The dependent variable is an indicator for whether the police reported at least pushing a civilian to a wall or a more severe force on a civilian during a stop and frisk interaction. The omitted race is white, and the omitted ID type is other. The first column includes solely racial group dummies. The second column adds controls for gender and a quadratic in age. The third column adds controls for whether the stop was indoors or outdoors, whether the stop took place during the daytime, whether the stop took place in a high crime area, during a high crime time, or in a high crime area at a high crime time, whether the officer was in uniform, civilian ID type, and whether others were stopped during the interaction. The fourth column adds controls for civilian behavior. The fifth row adds precinct and year fixed effects. Each column includes missings in all variables. Standard errors, clustered at the precinct level, are reported in parentheses.

Appendix Table 3C: Racial Differences in Non-Lethal Use of Force (Conditional on an Interaction)  
At Least Using Handcuffs, NYC Stop and Frisk

	(1)	(2)	(3)	(4)	(5)
Black	0.005** (0.002)	0.005** (0.002)	0.008*** (0.002)	0.006*** (0.002)	0.004*** (0.001)
Hispanic	0.003 (0.002)	0.002 (0.002)	0.004** (0.002)	0.003** (0.001)	0.001 (0.001)
Asian	-0.001 (0.002)	-0.002 (0.003)	-0.001 (0.003)	-0.000 (0.002)	0.001 (0.001)
Other race	0.004* (0.002)	0.004** (0.002)	0.005*** (0.002)	0.004*** (0.001)	0.001 (0.001)
Constant	0.026*** (0.002)				
<i>No Controls</i>	✓				
<i>Baseline Characteristics</i>		✓	✓	✓	✓
<i>Encounter Characteristics</i>			✓	✓	✓
<i>Civilian Behavior</i>				✓	✓
<i>Precint and Year FE</i>					✓
Observations	4,017,783	4,017,783	4,017,783	4,017,783	4,017,783

Notes: This table reports OLS estimates. The sample consists of all NYC Stop and Frisks from 2003-2013 with non-missing use of force data. The dependent variable is an indicator for whether the police reported at least using handcuffs or a more severe force on a civilian during a stop and frisk interaction. The omitted race is white, and the omitted ID type is other. The first column includes solely racial group dummies. The second column adds controls for gender and a quadratic in age. The third column adds controls for whether the stop was indoors or outdoors, whether the stop took place during the daytime, whether the stop took place in a high crime area, during a high crime time, or in a high crime area at a high crime time, whether the officer was in uniform, civilian ID type, and whether others were stopped during the interaction. The fourth column adds controls for civilian behavior. The fifth row adds precinct and year fixed effects. Each column includes missings in all variables. Standard errors, clustered at the precinct level, are reported in parentheses.

Appendix Table 3D: Racial Differences in Non-Lethal Use of Force (Conditional on an Interaction)  
At Least Drawing a Weapon (\*100), NYC Stop and Frisk

	(1)	(2)	(3)	(4)	(5)
Black	0.269** (0.121)	0.222* (0.129)	0.477*** (0.118)	0.341*** (0.102)	0.269*** (0.056)
Hispanic	0.165* (0.087)	0.112 (0.095)	0.263** (0.101)	0.206** (0.086)	0.070 (0.046)
Asian	-0.067 (0.128)	-0.111 (0.140)	-0.072 (0.157)	-0.030 (0.130)	0.048 (0.062)
Other race	0.233** (0.112)	0.187* (0.106)	0.294*** (0.102)	0.278*** (0.092)	0.030 (0.076)
Constant	1.278*** (0.086)				
<i>No Controls</i>	✓				
<i>Baseline Characteristics</i>		✓		✓	✓
<i>Encounter Characteristics</i>			✓	✓	✓
<i>Civilian Behavior</i>				✓	✓
<i>Precint and Year FE</i>					✓
Observations	3,957,687	3,957,687	3,957,687	3,957,687	3,957,687

Notes: This table reports OLS estimates. The sample consists of all NYC Stop and Frisks from 2003-2013 with non-missing use of force data. The dependent variable is an indicator for whether the police reported at least drawing a weapon or using a more severe force on a civilian (\*100) during a stop and frisk interaction. The omitted race is white, and the omitted ID type is other. The first column includes solely racial group dummies. The second column adds controls for gender and a quadratic in age. The third column adds controls for whether the stop was indoors or outdoors, whether the stop took place during the daytime, whether the stop took place in a high crime area, during a high crime time, or in a high crime area at a high crime time, whether the officer was in uniform, civilian ID type, and whether others were stopped during the interaction. The fourth column adds controls for civilian behavior. The fifth row adds precinct and year fixed effects. Each column includes missings in all variables. Standard errors, clustered at the precinct level, are reported in parentheses.

Appendix Table 3E: Racial Differences in Non-Lethal Use of Force (Conditional on an Interaction)  
At Least Pushing to Ground (\*100), NYC Stop Question and Frisk

	(1)	(2)	(3)	(4)	(5)
Black	0.246** (0.109)	0.202* (0.117)	0.422*** (0.109)	0.297*** (0.095)	0.228*** (0.049)
Hispanic	0.162** (0.081)	0.113 (0.089)	0.247** (0.094)	0.193** (0.080)	0.059 (0.040)
Asian	-0.055 (0.117)	-0.096 (0.128)	-0.050 (0.143)	-0.015 (0.119)	0.036 (0.052)
Other race	0.180* (0.102)	0.165 (0.101)	0.269*** (0.097)	0.255*** (0.089)	0.030 (0.072)
Constant	1.110*** (0.079)				
<i>No Controls</i>	✓				
<i>Baseline Characteristics</i>		✓		✓	✓
<i>Encounter Characteristics</i>			✓	✓	✓
<i>Civilian Behavior</i>				✓	✓
<i>Precint and Year FE</i>					✓
Observations	3,950,324	3,950,324	3,950,324	3,950,324	3,950,324

Notes: This table reports OLS estimates. The sample consists of all NYC Stop and Frisks from 2003-2013 with non-missing use of force data. The dependent variable is an indicator for whether the police reported at least pushing a civilian to the ground or using a more severe force on a civilian (\*100) during a stop and frisk interaction. The omitted race is white, and the omitted ID type is other. The first column includes solely racial group dummies. The second column adds controls for gender and a quadratic in age. The third column adds controls for whether the stop was indoors or outdoors, whether the stop took place during the daytime, whether the stop took place in a high crime area, during a high crime time, or in a high crime area at a high crime time, whether the officer was in uniform, civilian ID type, and whether others were stopped during the interaction. The fourth column adds controls for civilian behavior. The fifth row adds precinct and year fixed effects. Each column includes missings in all variables. Standard errors, clustered at the precinct level, are reported in parentheses.

Appendix Table 3F: Racial Differences in Non-Lethal Use of Force (Conditional on an Interaction)  
At Least Pointing a Weapon (\*100), NYC Stop Question and Frisk

	(1)	(2)	(3)	(4)	(5)
Black	0.096** (0.045)	0.085* (0.046)	0.183*** (0.042)	0.139*** (0.036)	0.106*** (0.023)
Hispanic	0.006 (0.034)	-0.010 (0.036)	0.046 (0.035)	0.028 (0.030)	-0.001 (0.022)
Asian	-0.045 (0.048)	-0.056 (0.050)	-0.053 (0.057)	-0.040 (0.048)	-0.028 (0.033)
Other race	0.093** (0.043)	0.079* (0.043)	0.108** (0.044)	0.106** (0.041)	0.025 (0.037)
Constant	0.439*** (0.035)				
<i>No Controls</i>	✓				
<i>Baseline Characteristics</i>		✓	✓	✓	✓
<i>Encounter Characteristics</i>			✓	✓	✓
<i>Civilian Behavior</i>				✓	✓
<i>Precint and Year FE</i>					✓
Observations	3,918,741	3,918,741	3,918,741	3,918,741	3,918,741

Notes: This table reports OLS estimates. The sample consists of all NYC Stop and Frisks from 2003-2013 with non-missing use of force data. The dependent variable is an indicator for whether the police reported at least pointing a weapon or using a more severe force on a civilian (\*100) during a stop and frisk interaction. The omitted race is white, and the omitted ID type is other. The first column includes solely racial group dummies. The second column adds controls for gender and a quadratic in age. The third column adds controls for whether the stop was indoors or outdoors, whether the stop took place during the daytime, whether the stop took place in a high crime area, during a high crime time, or in a high crime area at a high crime time, whether the officer was in uniform, civilian ID type, and whether others were stopped during the interaction. The fourth column adds controls for civilian behavior. The fifth row adds precinct and year fixed effects. Each column includes missings in all variables. Standard errors, clustered at the precinct level, are reported in parentheses.

Appendix Table 3G: Racial Differences in Non-Lethal Use of Force (Conditional on an Interaction)  
At Least Using Pepper Spray or Baton (\*100), NYC Stop Question and Frisk

	(1)	(2)	(3)	(4)	(5)
Black	0.014** (0.005)	0.013** (0.005)	0.013*** (0.005)	0.009* (0.005)	0.011** (0.004)
Hispanic	-0.000 (0.004)	-0.001 (0.004)	-0.001 (0.004)	-0.003 (0.004)	-0.003 (0.004)
Asian	-0.016** (0.007)	-0.016** (0.007)	-0.015** (0.007)	-0.015** (0.007)	-0.008 (0.006)
Other race	0.008 (0.007)	0.003 (0.006)	0.001 (0.006)	0.001 (0.006)	-0.004 (0.006)
Constant	0.037*** (0.005)				
<i>No Controls</i>	✓				
<i>Baseline Characteristics</i>		✓		✓	✓
<i>Encounter Characteristics</i>			✓	✓	✓
<i>Civilian Behavior</i>				✓	✓
<i>Precinct and Year FE</i>					✓
Observations	3,900,977	3,900,977	3,900,977	3,900,977	3,900,977

Notes: This table reports OLS estimates. The sample consists of all NYC Stop and Frisks from 2003-2013 with non-missing use of force data. The dependent variable is an indicator for whether the police reported at least using pepper spray or a baton or using a more severe force on a civilian (\*100) during a stop and frisk interaction. The omitted race is white, and the omitted ID type is other. The first column includes solely racial group dummies. The second column adds controls for gender and a quadratic in age. The third column adds controls for whether the stop was indoors or outdoors, whether the stop took place during the daytime, whether the stop took place in a high crime area, during a high crime time, or in a high crime area at a high crime time, whether the officer was in uniform, civilian ID type, and whether others were stopped during the interaction. The fourth column adds controls for civilian behavior. The fifth row adds precinct and year fixed effects. Each column includes missings in all variables. Standard errors, clustered at the precinct level, are reported in parentheses.

Appendix Table 4: Racial Differences in Non-Lethal Use of Force (Conditional on an Interaction)  
*Other Force, NYC Stop Question and Frisk*

	(1)	(2)	(3)	(4)	(5)
Black	-0.002*	-0.002*	-0.002*	-0.001	-0.000
	(0.001)	(0.001)	(0.001)	(0.001)	(0.000)
Hispanic	-0.001	-0.001	-0.001	-0.001	-0.001
	(0.001)	(0.001)	(0.001)	(0.001)	(0.000)
Asian	-0.001	-0.001	-0.001	-0.001	-0.001
	(0.002)	(0.002)	(0.002)	(0.002)	(0.001)
Other race	0.009***	0.005***	0.004***	0.004***	0.001
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Constant	0.013***				
	(0.001)				
<i>No Controls</i>	✓				
<i>Baseline Characteristics</i>		✓	✓	✓	✓
<i>Encounter Characteristics</i>			✓	✓	✓
<i>Civilian Behavior</i>				✓	✓
<i>Precint and Year FE</i>					✓
<i>Observations</i>	4,982,925	4,982,925	4,982,925	4,982,925	4,982,925

Notes: This table reports OLS estimates. The sample consists of all NYC Stop and Frisks from 2003-2013 with non-missing use of force data. The dependent variable is an indicator for whether the police used other force during a stop and frisk interaction. The omitted race is white, and the omitted ID type is other. The first column includes solely racial group dummies. The second column adds controls for gender and a quadratic in age. The third column adds controls for whether the stop was indoors or outdoors, whether the stop took place during the daytime, whether the stop took place in a high crime area, during a high crime time, or in a high crime area at a high crime time, whether the officer was in uniform, civilian ID type, and whether others were stopped during the interaction. The fourth column adds controls for civilian behavior. The fifth row adds precinct and year fixed effects. Each column includes missings in all variables. Standard errors, clustered at the precinct level, are reported in parentheses.

Appendix Table 5A: Racial Differences in Non-Lethal Use of Force (Conditional on an Interaction)  
At Least Grab, PPCS

	(1)	(2)	(3)	(4)	(5)
Black	0.017*** (0.002)	0.014*** (0.002)	0.014*** (0.002)	0.013*** (0.002)	0.013*** (0.002)
Hispanic	0.011*** (0.002)	0.007*** (0.002)	0.007*** (0.002)	0.007*** (0.002)	0.007*** (0.002)
Other race	0.001 (0.002)	-0.002 (0.002)	-0.002 (0.002)	-0.002 (0.002)	-0.002 (0.002)
Constant	0.007*** (0.000)				
<i>No Controls</i>	✓				
<i>Baseline Characteristics</i>		✓	✓	✓	✓
<i>Encounter Characteristics</i>			✓	✓	✓
<i>Civilian Behavior</i>				✓	✓
<i>Year</i>					✓
Observations	59,668	59,668	59,668	59,668	59,668

Notes: This table reports OLS estimates. The sample consists of all Police Public Contact Survey respondents from 1996-2011 with non-missing use of force data. The dependent variable is an indicator for whether the survey respondent reported an officer grabbing him/her or using a more severe force in a contact with the police. The omitted race is white. The first column includes solely racial group dummies. The second column adds controls for civilian gender, work, income, population size of civilian's address and a quadratic in age. The third column adds controls for contact time, contact type and officer race. The fourth column adds a civilian behavior dummy. The fifth row adds a control for year. Each column includes missings in all variables. Standard errors, robust to heteroskedasticity, are reported in parentheses.

Appendix Table 5B: Racial Differences in Non-Lethal Use of Force (Conditional on an Interaction)  
At Least Use Handcuffs, PPCS

	(1)	(2)	(3)	(4)	(5)
Black	0.013*** (0.002)	0.012*** (0.002)	0.011*** (0.002)	0.011*** (0.002)	0.011*** (0.002)
Hispanic	0.009*** (0.002)	0.006*** (0.002)	0.006*** (0.002)	0.005*** (0.001)	0.006*** (0.001)
Other race	-0.000 (0.001)	-0.002* (0.001)	-0.002* (0.001)	-0.003* (0.001)	-0.003* (0.001)
Constant	0.004*** (0.000)				
<i>No Controls</i>	✓				
<i>Baseline Characteristics</i>		✓	✓	✓	✓
<i>Encounter Characteristics</i>			✓	✓	✓
<i>Civilian Behavior</i>				✓	✓
<i>Year</i>					✓
Observations	59,466	59,466	59,466	59,466	59,466

Notes: This table reports OLS estimates. The sample consists of all Police Public Contact Survey respondents from 1996-2011 with non-missing use of force data. The dependent variable is an indicator for whether the survey respondent reported an officer handcuffing him/her or using a more severe force in a contact with the police. The omitted race is white. The first column includes solely racial group dummies. The second column adds controls for civilian gender, work, income, population size of civilian's address and a quadratic in age. The third column adds controls for contact time, contact type and officer race. The fourth column adds a civilian behavior dummy. The fifth row adds a control for year. Each column includes missings in all variables. Standard errors, robust to heteroskedasticity, are reported in parentheses.

Appendix Table 5C: Racial Differences in Non-Lethal Use of Force (Conditional on an Interaction)  
At Least Point Gun, PPCS

	(1)	(2)	(3)	(4)	(5)
Black	0.008*** (0.001)	0.007*** (0.001)	0.007*** (0.001)	0.007*** (0.001)	0.007*** (0.001)
Hispanic	0.004*** (0.001)	0.002** (0.001)	0.002** (0.001)	0.002** (0.001)	0.002** (0.001)
Other race	-0.000 (0.001)	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)
Constant	0.002*** (0.000)				
<i>No Controls</i>	✓				
<i>Baseline Characteristics</i>		✓	✓	✓	✓
<i>Encounter Characteristics</i>			✓	✓	✓
<i>Civilian Behavior</i>				✓	✓
<i>Year</i>					✓
Observations	59,095	59,095	59,095	59,095	59,095

Notes: This table reports OLS estimates. The sample consists of all Police Public Contact Survey respondents from 1996-2011 with non-missing use of force data. The dependent variable is an indicator for whether the survey respondent reported an officer pointing a gun or using a more severe force in a contact with the police. The omitted race is white. The first column includes solely racial group dummies. The second column adds controls for civilian gender, work, income, population size of civilian's address and a quadratic in age. The third column adds controls for contact time, contact type and officer race. The fourth column adds a civilian behavior dummy. The fifth row adds a control for year. Each column includes missings in all variables. Standard errors, robust to heteroskedasticity, are reported in parentheses.

Appendix Table 5D: Racial Differences in Non-Lethal Use of Force (Conditional on an Interaction)  
At Least Kick, Use Stun Gun, or Pepper Spray, PPCS

	(1)	(2)	(3)	(4)	(5)
Black	0.002** (0.001)	0.002** (0.001)	0.002** (0.001)	0.001* (0.001)	0.001* (0.001)
Hispanic	0.001* (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)
Other race	-0.001*** (0.000)	-0.002*** (0.000)	-0.001*** (0.000)	-0.002*** (0.000)	-0.002*** (0.000)
Constant	0.001*** (0.000)				
<i>No Controls</i>	✓				
<i>Baseline Characteristics</i>		✓	✓	✓	✓
<i>Encounter Characteristics</i>			✓	✓	✓
<i>Civilian Behavior</i>				✓	✓
<i>Year</i>					✓
Observations	59,000	59,000	59,000	59,000	59,000

Notes: This table reports OLS estimates. The sample consists of all Police Public Contact Survey respondents from 1996-2011 with non-missing use of force data. The dependent variable is an indicator for whether the survey respondent reported an officer kicking or using a stun gun or pepper spray or using a more severe force in a contact with the police. The omitted race is white. The first column includes solely racial group dummies. The second column adds controls for civilian gender, work, income, population size of civilian's address and a quadratic in age. The third column adds controls for contact time, contact type and officer race. The fourth column adds a civilian behavior dummy. The fifth row adds a control for year. Each column includes missings in all variables. Standard errors, robust to heteroskedasticity, are reported in parentheses.

Appendix Table 6: Analysis of Subsamples (Conditional on an Interaction), Extensive Margin, Officer Involved Shootings

	Coefficient on Black	Coefficient on Hisp.	Observations
<i>Full Sample</i>	−0.019	0.014	1,532
<i>Panel A: Majority Officer Unit</i>			
White/Asian/Other	−0.058 (0.038)	0.004 (0.041)	424
Black/Hispanic	−0.017 (0.057)	0.049 (0.059)	404
<i>p-value</i>	<i>0.529</i>	<i>0.504</i>	
<i>Panel B: Number of Officers</i>			
2+ Officers	0.003 (0.024)	0.045* (0.026)	579
1 Officer	−0.027 (0.041)	0.016 (0.044)	619
<i>p-value</i>	<i>0.506</i>	<i>0.549</i>	
<i>Panel C: Civilian Attack</i>			
Civilian Attacked/Drew	−0.028 (0.025)	−0.020 (0.027)	791
Appeared to Draw/No Attack	0.038 (0.067)	0.068 (0.070)	421
<i>p-value</i>	<i>0.328</i>	<i>0.214</i>	
<i>Panel D: Officer Duty</i>			
On-Duty Officer	−0.004 (0.030)	0.018 (0.031)	1,007
Off-Duty Officer	−0.125* (0.068)	−0.058 (0.070)	220
<i>p-value</i>	<i>0.067</i>	<i>0.270</i>	

Notes: This table reports OLS estimates. The sample consists of all officer involved shootings in Houston from 2000 - 2015, plus a random draw of all arrests for the following offenses, from 2000 - 2015: aggravated assault on a peace officer, attempted capital murder of a peace officer, resisting arrest, evading arrest, and interfering in an arrest. The dependent variable is whether the officer fired his gun during the encounter, with each panel presenting results from the indicated subgroups. We control for civilian gender, a quadratic in age, officer demographics, encounter characteristics, weapon that the civilian was carrying and missings in all variables (i.e. all variables included in the final row of Table 5). Year fixed effects are included in all regressions. Robust standard errors are reported in parentheses.

Appendix Table 7: Analysis of Risk Sets (Conditional on an Interaction), Houston Police Arrest Data

	Coefficient on Black	Coefficient on Hisp.	Observations
<i>Full Sample</i>	-0.019	0.014	1,532
Resist/Interfere Arrest	-0.038 (0.030)	-0.029 (0.031)	749
Evade Arrest	-0.004 (0.035)	0.048 (0.037)	991
Assault	-0.015 (0.027)	-0.037 (0.030)	589
Aggravated Assault/Attempted Murder	-0.008 (0.039)	0.017 (0.043)	591
<i>p-value</i>	<i>0.763</i>	<i>0.097</i>	

Notes: This table reports OLS estimates. The sample consists of all officer involved shootings in Houston from 2000 - 2015, plus a random draw of all arrests for the following offenses, from 2000 - 2015: aggravated assault on a peace officer, attempted capital murder of a peace officer, resisting arrest, evading arrest, and interfering in an arrest. The dependent variable is whether the officer fired his gun during the encounter, with each panel presenting results from the indicated subgroups. We control for civilian gender, a quadratic in age, officer demographics, encounter characteristics, weapon that the civilian was carrying and missings in all variables (i.e. all variables included in the final row of Table 5). Year fixed effects are included in all regressions. Robust standard errors are reported in parentheses.

Appendix Table 8: Analysis of Subsamples (Conditional on an Interaction), Intensive Margin, Officer Involved Shootings

	Black	Hispanic	Observations
<i>Full Sample</i>	-0.096*** (0.044)	-0.093** (0.057)	1,316
<i>Panel A: Majority Officer Unit</i>			
White/Asian/Other	-0.096* (0.044)	-0.116* (0.057)	588
Black/Hispanic	-0.116 (0.071)	-0.041 (0.069)	406
<i>p-value</i>	0.827	0.290	
<i>Panel B: Number of Officers</i>			
2+ Officers	-0.156*** (0.044)	-0.132** (0.048)	366
1 Officer	-0.078** (0.025)	-0.076* (0.036)	909
<i>p-value</i>	0.145	0.124	
<i>Panel C: Civilian Attack</i>			
Civilian Attacked/Drew	-0.102*** (0.023)	-0.096* (0.045)	1,055
Appeared to Draw/No Attack	-0.036 (0.032)	-0.022 (0.020)	261
<i>p-value</i>	0.145	0.112	
<i>Panel D: Officer Duty</i>			
On-Duty Officer	-0.088*** (0.021)	-0.080* (0.042)	1,115
Off-Duty Officer	-0.132** (0.051)	-0.087 (0.087)	182
<i>p-value</i>	0.422	0.942	
<i>Panel E: Call Type</i>			
Violent Crime	-0.129** (0.047)	-0.139 (0.065)	378
Robbery	-0.015 (0.099)	-0.072 (0.100)	263
Auto Crime	-0.001 (0.052)	-0.009 (0.075)	231
Routine Call	-0.285** (0.110)	-0.184** (0.063)	154
<i>p-value</i>	0.001	0.093	
<i>Panel F: City</i>			
Los Angeles	-0.019 (0.096)	0.006 (0.087)	194
Florida	-0.107* (0.054)	-0.059 (0.086)	345
Houston	-0.127* (0.065)	-0.147** (0.070)	508
Dallas/Austin	-0.102 (0.072)	-0.144** (0.072)	269
<i>p-value</i>	0.777	0.383	

Notes: This table reports OLS estimates. The sample consists of officer involved shootings from Dallas, Austin, six Florida counties, Houston and Los Angeles between 2000 to 2015 where reported subgroup variables were non-missing. The dependent variable is based on who attacked first. It is coded as 1 if the officer attacked the civilian first and 0 if the civilian attacked the officer first. We control for civilian gender, a quadratic in age, officer demographics, encounter characteristics, weapon that the civilian was carrying and missings in all variables. City and year fixed effects are included in all regressions. Standard errors are clustered at the police department level and reported in parentheses.

Appendix Table 9A: Racial Differences in Non-Lethal Use of Force (Conditional on an Interaction), NYC Stop Question and Frisk

	White Mean (1)	Black (2)	Hispanic (3)	Asian (4)	Other Race (5)
At Most Hands	0.134 (0.004)	0.022*** (0.004)	0.015*** (0.003)	-0.004 (0.004)	0.007* (0.004)
N				4,821,392	
At Most Pushing to Wall	0.144 (0.004)	0.022*** (0.003)	0.015*** (0.003)	-0.005 (0.004)	0.007* (0.004)
N				4,876,361	
At Most Using Handcuffs	0.149 (0.004)	0.022*** (0.003)	0.015*** (0.003)	-0.005 (0.004)	0.007* (0.004)
N				4,909,748	
At Most Drawing a Weapon	0.150 (0.004)	0.022*** (0.003)	0.015*** (0.003)	-0.005 (0.004)	0.007* (0.004)
N				4,913,947	
At Most Pushing to Ground	0.152 (0.004)	0.022*** (0.003)	0.015*** (0.003)	-0.005 (0.004)	0.007* (0.004)
N				4,923,732	
At Most Pointing a Weapon	0.153 (0.004)	0.022*** (0.003)	0.015*** (0.003)	-0.005 (0.004)	0.007* (0.004)
N				4,927,552	
At Most Using Pepper Spray/Baton	0.153 (0.004)	0.022*** (0.003)	0.015*** (0.003)	-0.005 (0.004)	0.007* (0.004)
N				4,927,962	

Notes: This table reports OLS estimates. The sample consists of all NYC Stop and Frisks from 2003-2013 with non-missing use of force data. The dependent variable is an indicator for whether the police reported using *at most* a specific intensity of force during a stop and frisk interaction. The omitted race is white, and the omitted ID type is other. Column (1) displays the fraction of white civilians who had at most a specific use of force used against them. Column (2) displays coefficients for black civilians versus white civilians. Columns (3)-(5) similarly display coefficients for Hispanic, Asian, or other race civilians versus white civilians. We control for gender, a quadratic in age, civilian behavior, whether the stop was indoors or outdoors, whether the stop took place during the daytime, whether the stop took place in a high crime area, during a high crime time, or in a high crime area at a high crime time, whether the officer was in uniform, civilian ID type, and whether others were stopped during the interaction, as well as missings in all variables. Precinct and year fixed effects were included in all regressions. Standard errors, clustered at the precinct level, are reported in parentheses.

Appendix Table 9B: Racial Differences in Non-Lethal Use of Force (Conditional on an Interaction), NYC Stop Question and Frisk

	White Mean (1)	Black (2)	Hispanic (3)	Asian (4)	Other Race (5)
Min. Hands	0.134	0.022*** (0.004)	0.015*** (0.003)	-0.004 (0.004)	0.007* (0.004)
N				4,821,392	
Min. Pushing to Wall	0.013	0.001*** (0.000)	0.001** (0.000)	-0.001** (0.000)	-0.000 (0.001)
N				3,954,201	
Min. Using Handcuffs	0.008	0.001** (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)
N				3,932,619	
Min. Drawing a Weapon	0.001	0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)
N				3,903,431	
Min. Pushing to Ground	0.002	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)
N				3,909,017	
Min. Pointing a Weapon	0.001	0.000 (0.000)	-0.000 (0.000)	-0.000** (0.000)	0.000 (0.000)
N				3,903,052	
Min. Using Pepper Spray/Baton	0.000	0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)
N				3,899,642	

Notes: This table reports OLS estimates. The sample consists of all NYC Stop and Frisks from 2003-2013 with non-missing use of force data. The dependent variable is an indicator for the *minimum* intensity of force used during a stop and frisk interaction. The omitted race is white, and the omitted ID type is other. Column (1) displays the fraction of white civilians who had at most a specific use of force used against them. Column (2) displays coefficients for black civilians versus white civilians. Columns (3)-(5) similarly display coefficients for Hispanic, Asian, or other race civilians versus white civilians. We control for gender, a quadratic in age, civilian behavior, whether the stop was indoors or outdoors, whether the stop took place during the daytime, whether the stop took place in a high crime area, during a high crime time, or in a high crime area at a high crime time, whether the officer was in uniform, civilian ID type, and whether others were stopped during the interaction, as well as missings in all variables. Precinct and year fixed effects were included in all regressions. Standard errors, clustered at the precinct level, are reported in parentheses.

Appendix Table 9C: Racial Differences in Non-Lethal Use of Force (Conditional on an Interaction), NYC Stop Question and Frisk

	White Mean (1)	Black (2)	Hispanic (3)	Asian (4)	Other Race (5)
Max. Hands	0.112	0.018*** (0.004)	0.013*** (0.003)	-0.004 (0.003)	0.006* (0.003)
N				4,674,276	
Max. Pushing to Wall	0.027	0.006*** (0.001)	0.004*** (0.001)	-0.002** (0.001)	0.000 (0.001)
N				4,034,367	
Max. Using Handcuffs	0.013	0.002*** (0.000)	0.000 (0.000)	0.000 (0.001)	0.001 (0.001)
N				3,959,328	
Max. Drawing a Weapon	0.002	0.000*** (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)
N				3,906,595	
Max. Pushing to Ground	0.007	0.001*** (0.000)	0.001* (0.000)	0.001 (0.000)	0.000 (0.001)
N				3,930,815	
Max. Pointing a Weapon	0.004	0.001*** (0.000)	0.000 (0.000)	-0.000 (0.000)	0.000 (0.000)
N				3,916,996	
Max. Using Pepper Spray/Baton	0.000	0.000** (0.000)	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)
N				3,900,977	

Notes: This table reports OLS estimates. The sample consists of all NYC Stop and Frisks from 2003-2013 with non-missing use of force data. The dependent variable is an indicator for the *maximum* intensity of force used during a stop and frisk interaction. The omitted race is white, and the omitted ID type is other. Column (1) displays the fraction of white civilians who had at most a specific use of force used against them. Column (2) displays coefficients for black civilians versus white civilians. Columns (3)-(5) similarly display coefficients for Hispanic, Asian, or other race civilians versus white civilians. We control for gender, a quadratic in age, civilian behavior, whether the stop was indoors or outdoors, whether the stop took place during the daytime, whether the stop took place in a high crime area, during a high crime time, or in a high crime area at a high crime time, whether the officer was in uniform, civilian ID type, and whether others were stopped during the interaction, as well as missings in all variables. Precinct and year fixed effects were included in all regressions. Standard errors, clustered at the precinct level, are reported in parentheses.

Appendix Table 10: Racial Differences in Use of Any Non Lethal Force (Conditional on an Interaction)  
 Clustering Standard Errors at Different Levels, NYC Stop Question and Frisk

	White Mean (1)	Black (2)	Hispanic (3)	Asian (4)	Other Race (5)	Observations (6)
Precinct	0.153	1.178*** (0.034)	1.122*** (0.026)	0.953 (0.033)	1.060** (0.028)	4,927,962
Precinct*Time of Day	0.153	1.178*** (0.030)	1.122*** (0.023)	0.953* (0.027)	1.060** (0.025)	4,925,348
Census Block	0.150	1.155*** (0.010)	1.111*** (0.010)	0.959*** (0.014)	1.048*** (0.012)	3,973,551
Block*Time of Day	0.150	1.155*** (0.010)	1.111*** (0.009)	0.959*** (0.011)	1.049*** (0.014)	3,971,279

Notes: This table reports odds ratios from logistic regressions. The sample consists of all NYC Stop and Frisks from 2003-2013 with non-missing use of force data. Rows represent different levels at which standard errors were clustered. The dependent variable is an indicator for whether the police reported using any force during a stop and frisk interaction. The omitted race is white, and the omitted ID type is other. Column (1) displays the fraction of white civilians who have any force used against them. Column (2) displays odds ratios for black civilians versus white civilians. Columns (3)-(5) similarly display odds ratios for Hispanic, Asian, or other race civilians versus white civilians. We control for gender, a quadratic in age, civilian behavior, whether the stop was indoors or outdoors, whether the stop took place during the daytime, whether the stop took place in a high crime area, during a high crime time, or in a high crime area at a high crime time, whether the officer was in uniform, civilian ID type, whether others were stopped during the interaction, and missings in all variables. Precint and year fixed effects were included in all regressions. Standard errors, clustered at various levels, are reported in parentheses.

Appendix Table 11: Analysis of Subsamples by Precinct Means  
Any Use of Force (Conditional on an Interaction), NYC Stop Question and Frisk

		Education		Income		Unemployment	
		Mean	Coeff.	Mean	Coeff.	Mean	Coeff.
		(1)	(2)	(3)	(4)	(5)	(6)
Tercile 1	White	0.665	0.024***	42997.525	0.025***	0.083	0.015*
	Black	0.774	(0.004)	52384.976	(0.005)	0.152	(0.008)
Tercile 2	White	0.797	0.023**	44461.769	0.014*	0.100	0.023***
	Black	0.797	(0.008)	42731.885	(0.008)	0.129	(0.004)
Tercile 3	White	0.900	0.022***	71898.529	0.032***	0.126	0.031***
	Black	0.792	(0.004)	48182.210	(0.006)	0.117	(0.006)
<i>p-value:</i>		0.957		0.174		0.316	

Notes: This table reports OLS estimates, subsampled for precinct demographics. Precinct demographics are calculated by collapsing data across census tracts received from the American Community Survey 2007-2011. For each column, we take the tract's white population demographic minus the black population demographic and collapse the means of the differences over precinct, weighted by each tract's population. We then take terciles in differences and calculate racial differences in use of force for each tercile. Columns (1), (3) and (5) show the mean population demographic for whites and blacks for each tercile in education, income and unemployment. Columns (2), (4) and (6) show OLS estimates across terciles. Education is measured as the fraction of high school graduates in every census tract. Income is measured as the median household income. Unemployment is calculated as the total number of unemployed people divided by the total number of people in the labor force. The sample consists of all NYC stop and frisks from 2003-2013 in which use of force and reported subgroup variables were non-missing. The dependent variable is whether any force was used during a stop and frisk interaction, with each panel presenting results from the indicated subgroups. We control for gender, a quadratic in age, civilian behavior, whether the stop took place during the daytime, whether the stop took place in a high crime area or outdoors, whether the officer was in uniform, civilian ID type, whether others were stopped during the interaction, and missings in all variables. Precinct and year fixed effects were included in all regressions. Standard errors clustered at the precinct level are reported in parentheses.

Appendix Table 12A: Analysis of Subsamples, Based on Fraction High School Graduates Terciles  
Any Use of Force (Conditional on an Interaction), NYC Stop Question and Frisk

	Standard Deviation			
	Tercile 1 (1)	Tercile 2 (2)	Tercile 3 (3)	<i>p-value</i> (4)
Mean Tercile 1	0.027*** (0.007)	0.024** (0.008)	0.018* (0.008)	<i>0.647</i>
<i>N</i>	739,394	769,458	678,252	
Mean Tercile 2	0.012 (0.012)	0.037*** (0.009)	0.015 (0.011)	<i>0.172</i>
<i>N</i>	658,682	618,708	423,305	
Mean Tercile 3	0.020** (0.006)	0.024*** (0.004)	0.021** (0.005)	<i>0.812</i>
<i>N</i>	349,035	363,404	320,039	

Notes: This table reports OLS estimates of subsamples based on the fraction of high school graduates in precincts. Precinct fractions are calculated by collapsing data across census tracts received from the American Community Survey 2007-2011. We take the tract's white population demographic minus the black population demographic and collapse the means of the differences over precinct, weighted by each tract's population. We then take terciles in differences. For the rows, we keep the mean tercile constant and make terciles of differences in standard deviations of the precinct demographic. The sample consists of all NYC stop and frisks from 2003-2013 in which use of force and reported subgroup variables were non-missing. The dependent variable is whether any force was used during a stop and frisk interaction, with each panel presenting results from the indicated subgroups. We control for gender, a quadratic in age, civilian behavior, whether the stop was indoors or outdoors, whether the stop took place during the daytime, whether the stop took place in a high crime area or during a high crime time, whether the officer was in uniform, civilian ID type, whether others were stopped during the interaction, and missings in all variables. Precinct and year fixed effects were included in all regressions. Standard errors clustered at the precinct level are reported in parentheses.

Appendix Table 12B: Analysis of Subsamples, Based on Median Income Terciles  
Any Use of Force Conditional on an Interaction, NYC Stop Question and Frisk

	Standard Deviation			
	Tercile 1 (1)	Tercile 2 (2)	Tercile 3 (3)	p-value (4)
Mean Tercile 1	0.025*** (0.005)	0.018 (0.012)	0.030** (0.008)	0.675
N	643,111	615,714	619,138	
Mean Tercile 2	0.008 (0.012)	0.028*** (0.005)	0.015** (0.005)	0.122
N	657,746	585,013	572,030	
Mean Tercile 3	0.033*** (0.006)	0.020*** (0.004)	0.045* (0.020)	0.105
N	421,161	454,495	351,869	

Notes: This table reports OLS estimates of subsamples based on median household income in precincts. Precinct fractions are calculated by collapsing data across census tracts received from the American Community Survey 2007-2011. We take the tract's white population demographic minus the black population demographic and collapse the means of the differences over precinct, weighted by each tract's population. We then take terciles in differences. For the rows, we keep the mean tercile constant and make terciles of differences in standard deviations of the precinct demographic. The sample consists of all NYC stop and frisks from 2003-2013 in which use of force and reported subgroup variables were non-missing. The dependent variable is whether any force was used during a stop and frisk interaction, with each panel presenting results from the indicated subgroups. We control for gender, a quadratic in age, civilian behavior, whether the stop was indoors or outdoors, whether the stop took place during the daytime, whether the stop took place in a high crime area or during a high crime time, whether the officer was in uniform, civilian ID type, whether others were stopped during the interaction, and missings in all variables. Precinct and year fixed effects were included in all regressions. Standard errors clustered at the precinct level are reported in parentheses.

Appendix Table 12C: Analysis of Subsamples, Based on Fraction Unemployed Terciles  
Any Use of Force Conditional on an Interaction, NYC Stop Question and Frisk

	Standard Deviation			
	Tercile 1 (1)	Tercile 2 (2)	Tercile 3 (3)	p-value (4)
Mean Tercile 1	0.002 (0.013)	0.030*** (0.008)	0.015** (0.004)	0.110
N	532,263	563,698	405,113	
Mean Tercile 2	0.019*** (0.005)	0.031*** (0.006)	0.028 (0.015)	0.315
N	660,366	680,417	560,001	
Mean Tercile 3	0.027*** (0.005)	0.043* (0.018)	0.017 (0.008)	0.286
N	535,838	504,393	478,188	

Notes: This table reports OLS estimates of subsamples based on the fraction of unemployed in precincts. Precinct fractions are calculated by collapsing data across census tracts received from the American Community Survey 2007-2011. We take the tract's white population demographic minus the black population demographic and collapse the means of the differences over precinct, weighted by each tract's population. We then take terciles in differences. For the rows, we keep the mean tercile constant and make terciles of differences in standard deviations of the precinct demographic. The sample consists of all NYC stop and frisks from 2003-2013 in which use of force and reported subgroup variables were non-missing. The dependent variable is whether any force was used during a stop and frisk interaction, with each panel presenting results from the indicated subgroups. We control for gender, a quadratic in age, civilian behavior, whether the stop was indoors or outdoors, whether the stop took place during the daytime, whether the stop took place in a high crime area or during a high crime time, whether the officer was in uniform, civilian ID type, whether others were stopped during the interaction, and missings in all variables. Precinct and year fixed effects were included in all regressions. Standard errors clustered at the precinct level are reported in parentheses.

Appendix Table 13: Weapon Found, Conditional on Force Used in an Interaction

	White Mean	Coef. on Black	Coef. on Hispanic	Observations
	(1)	(2)	(3)	(4)
At Least Hands	0.036	-0.010*** (0.001)	-0.006*** (0.001)	1,028,730
At Least Pushing To Wall	0.036	0.001 (0.001)	0.001 (0.002)	253,686
At Least Using Handcuffs	0.040	0.003 (0.002)	0.002 (0.002)	118,551
A Least Drawing a Weapon	0.053	0.008** (0.004)	0.003 (0.004)	58,455
At Least Pushing to Ground	0.054	0.010** (0.004)	0.004 (0.004)	51,092
At Least Pointing a Weapon	0.083	0.000 (0.008)	-0.003 (0.008)	19,509
At Least Using Spray/Baton	0.092	-0.012 (0.025)	0.003 (0.027)	1,745

Notes: This table reports OLS estimates. The sample consists of all NYC stop and frisks from 2003-2013 in which use of force and the outcome variable were non-missing. The dependent variable is a binary variable that is coded as 1 whenever a weapon was found on the civilian and 0 if a weapon was not found. Each row looks at the fraction of white civilians carrying weapons and racial differences in carrying weapons for black civilians versus white civilians and hispanic civilians versus white civilians, conditional on at least a level of force being used. We control for gender, a quadratic in age, civilian behavior, whether the stop was indoors or outdoors, whether the stop took place during the daytime, whether the stop took place in a high crime area, at a high crime time, or at a high crime time in a high crime area, whether the officer was in uniform, civilian ID type, whether others were stopped during the interaction, and missings in all variables. Precinct and year fixed effects were included in all regressions. Standard errors, clustered at the precinct level, are reported in parentheses.

Appendix Table 14: Analysis of Subsamples By Use of Force and Officer Race  
 (Conditional on an Interaction), Police Public Contact Survey

	White Mean	Coef. on Black	Coef. on Hispanic	Observations
	(1)	(2)	(3)	(4)
<i>Panel A: At Least Grab</i>				
Black/Hispanic Officer	0.005	0.004 (0.005)	0.027*** (0.010)	2,301
White Officer	0.008	0.012*** (0.003)	0.006** (0.003)	21,456
<i>p-value:</i>		0.238	0.046	
<i>Panel B: At Least Use Handcuffs</i>				
Black/Hispanic Officer	0.003	0.003 (0.004)	0.016** (0.008)	2,291
White Officer	0.005	0.010*** (0.003)	0.005** (0.002)	21,363
<i>p-value:</i>		0.171	0.151	
<i>Panel C: At Least Point Weapon</i>				
Black/Hispanic Officer	0.001	0.001 (0.003)	0.003 (0.004)	2,274
White Officer	0.002	0.004* (0.002)	0.000 (0.001)	21,203
<i>p-value:</i>		0.439	0.392	
<i>Panel D: At Least Kick/Spray/Baton</i>				
Black/Hispanic Officer	0.001	-0.001 (0.001)	-0.001 (0.001)	2,269
White Officer	0.001	-0.000 (0.001)	-0.000 (0.001)	21,177
<i>p-value:</i>		0.395	0.719	

Notes: This table reports OLS estimates. The sample consists of all Police Public Contact Survey respondents between 1996-2011 in which use of force and reported subgroup variables were non-missing. The dependent variable is displayed in panel, titles with each panel's rows presenting results from indicated subgroups. We control for civilian gender, a quadratic in age, work, income, population size of a civilian's address, civilian behavior, contact time, contact type, officer race, year of survey, and missings in all variables. Standard errors, robust to heteroskedasticity, are reported in parentheses.

Appendix Table 15: Racial Differences in Lethal Use of Force (Conditional on an Interaction)  
 Intensive Margin, Officer Involved Shootings, Alternatively Coded Data

	Non-Black/ Non-Hispanic Mean	Black	Hispanic
	(1)	(2)	(3)
(a) No Controls	0.565 (0.168)	0.979 (0.141)	0.882
(b) + Suspect Demographics		0.893 (0.121)	0.788 (0.160)
(c) + Officer Demographics		0.833 (0.111)	0.743 (0.142)
(d) + Encounter Characteristics		0.824 (0.123)	0.742 (0.158)
(e) + Suspect Weapon		0.835 (0.120)	0.716* (0.138)
(f) + Fixed Effects		0.817 (0.117)	0.692* (0.137)
<i>Observations</i>	1,215		

Notes: This table reports odds ratios from logistic regressions. The sample consists of officer involved shootings from Dallas, Austin, six Florida counties, Houston and Los Angeles between 2000 to 2015. The dependent variable is based on who attacked first. It is coded as 1 if the officer attacked the suspect first and 0 if the suspect attacked the officer first. The omitted race is non-blacks and non-hispanics. The first column gives the unconditional average of contacts that resulted in an officer firing his gun. The second column reports logistic estimates for black civilians. Each row corresponds to a different empirical specification. The first row includes solely racial dummies. The second row adds civilian gender and a quadratic in age. The third row adds controls for the split of races of officers present at the scene, whether any female officers were present, whether whether multiple officers were present and the average tenure of officers at the scene. The fourth row adds controls for the reason the officers were responding at the scene, whether the encounter happened during day time, and whether the civilian attacked or drew a weapon. The fifth row adds controls for the type of weapon the civilian was carrying. The sixth row adds city and year fixed effects. Each row includes missing in all variables. Standard errors are clustered at the police department level and are reported in parentheses.

Appendix Table 16: Racial Differences in Lethal Use of Force (Conditional on an Interaction)  
 Extensive Margin, Officer Involved Shootings, Alternatively Coded Data

	Approx OIS With Narratives			Taser W/O Narratives		Full Sample W/O Narratives	
	Non-Black/ Non-Hispanic Mean			Non-Black Mean	Black	Non-Black Mean	Black
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
(a) No Controls	0.432	0.745	0.851	0.165	0.650*** (0.068)	0.134	0.688*** (0.071)
(b) + Suspect Demographics		0.775 (0.150)	0.909 (0.168)		0.664*** (0.070)		0.700*** (0.072)
(c) + Officer Demographics		0.769 (0.189)	0.939 (0.243)		0.836 (0.111)		0.788** (0.091)
(d) + Encounter Characteristics		0.667 (0.209)	0.709 (0.240)		0.773 (0.124)		0.772* (0.114)
(e) + Suspect Weapon		0.687 (0.308)	0.922 (0.418)		— (-)		— (-)
(f) + Year		0.717 (0.371)	1.024 (0.529)		0.760* (0.122)		0.764* (0.113)
<i>Observations</i>		1,487		4,967		5,949	

Notes: This table reports odds ratios from logistic regressions. The sample for each regression is displayed in the top row. For columns (1)-(3), the sample consists of all officer involved shootings in Houston from 2000 - 2015, plus a random draw of all arrests for the following offenses, from 2000 - 2015: aggravated assault on a peace officer, attempted capital murder of a peace officer, resisting arrest, evading arrest, and interfering in an arrest. These arrests contain narratives from police reports. For columns (4)-(5), the sample consists of all officer involved shootings in Houston from 2000 - 2015, plus a sample of arrests where tasers were used?. These arrests do not contain narratives from police reports. For columns (6)-(7), the sample combines all officer involved shootings in Houston from 2000 - 2015, plus a random draw of all arrests for the following offenses, from 2000 - 2015: aggravated assault on a peace officer, attempted capital murder of a peace officer, resisting arrest, evading arrest, and interfering in an arrest, plus arrests where tasers were used. These arrests do not contain narratives from police reports. Data without narratives have no information on officer duty, civilian's attack on officer and civilian weapon. The dependent variable is whether the officer fired his gun during the encounter. The omitted race is non-blacks (with the exception of the sample with narratives where the omitted race is non-black/non-Hispanic). The first column for each sample gives the unconditional average of contacts that resulted in an officer firing his gun. The second column for each sample reports logistic estimates for black civilians. Each row corresponds to a different empirical specification. The first row includes solely racial dummies. The second row adds civilian gender and a quadratic in age. The third row adds controls for the split of races of officers present at the scene, whether any female officers were present, whether multiple officers were present and the average tenure of officers at the scene. The fourth row adds controls for the reason the officers were responding at the scene, whether the encounter happened during day time, and whether the civilian attacked or drew a weapon. The fifth row adds controls for the type of weapon the civilian was carrying. The sixth row adds year fixed effects for columns (1)-(2). It adds year as a categorical variable for columns (3)-(8). Each row includes missing in all variables. For arrest data without narratives missing indicators for officer gender, officer tenure, and number of officers on the scene were removed to minimize loss of observations in logistic regressions. For all regression, missing indicator for response reason and for whether the civilian attacked or drew a weapon was removed for the same reason. Standard errors are robust and are reported in parentheses.

Appendix Table 17A: Summary Statistics for Officer Involved Shootings Locations

	National Average	Houston	Austin	Dallas	Los Angeles County
	(1)	(2)	(3)	(4)	(5)
Median Age of Males	36.11	31.60	31.20	32.20	33.40
Median Age of Females	38.56	33.50	32.00	34.20	35.70
Median Household Income	52282.85	53799.00	56756.00	53468.00	56266.00
Fraction Black	0.11	0.19	0.08	0.17	0.09
Fraction White	0.77	0.61	0.71	0.64	0.52
Fraction High School Graduates (White)	0.88	0.80	0.91	0.84	0.79
Fraction High School Graduates (Black)	0.83	0.86	0.88	0.87	0.87
Fraction Unemployed (White)	0.07	0.06	0.06	0.06	0.09
Fraction Unemployed (Black)	0.14	0.12	0.13	0.13	0.15
Violent Crime Rate	3.68	9.63	3.63	6.64	0.53
Murder and Non-negligent Manslaughter Rate	0.05	0.10	0.03	0.11	0.01
Robbery Rate	1.09	4.54	0.89	3.35	0.14
Aggravated Assault Rate	2.29	4.71	2.46	2.74	0.37
Motor Vehicle Theft Rate	2.21	6.23	2.52	5.88	0.35

Notes: This table reports summary statistics. The first column displays the national average of statistics. The second column displays statistics from Houston, Texas. The third column displays statistics from Austin, Texas. The fourth column displays statistics from Dallas/Fort Worth/Arlington, Texas for demographics. It displays statistics from Dallas, Texas only for crime variables. The fifth column displays statistics from Los Angeles County, California. Crime Rates are calculated per 1000 inhabitants.

Appendix Table 17B: Summary Statistics for Officer Involved Shootings Locations

	Florida Counties					
	Brevard (1)	Duval (2)	Lee (3)	Orange (4)	Palm Beach (5)	Pinellas (6)
Median Age of Males	43.80	34.10	43.40	32.50	41.60	44.50
Median Age of Females	46.20	36.70	46.40	34.60	45.00	47.30
Median Household Income	50068.00	49964.00	49444.00	49731.00	52951.00	45891.00
Fraction Black	0.10	0.29	0.08	0.20	0.17	0.10
Fraction White	0.84	0.62	0.84	0.65	0.76	0.84
Fraction High School Graduates (White)	0.92	0.90	0.89	0.90	0.90	0.90
Fraction High School Graduates (Black)	0.79	0.83	0.73	0.81	0.75	0.77
Fraction Unemployed (White)	0.10	0.08	0.11	0.09	0.09	0.08
Fraction Unemployed (Black)	0.14	0.15	0.20	0.14	0.17	0.13
Violent Crime Rate	1.62	6.20	1.85	4.28	1.47	1.09
Murder and Non-negligent Manslaughter Rate	0.01	0.11	0.02	0.04	0.02	0.01
Robbery Rate	0.22	1.68	0.53	1.16	0.36	0.15
Aggravated Assault Rate	1.19	3.87	1.16	2.72	0.94	0.80
Motor Vehicle Theft Rate	0.36	1.86	0.74	1.63	0.79	0.29

Notes: This table reports summary statistics. The first column displays statistics from Brevard County, Florida. The second column displays statistics from Duval County, Florida for demographics. It displays statistics from Jacksonville, Florida for crime variables. The third column displays statistics from Lee County, Florida. The fourth column displays statistics from Orange County, Florida. The fifth column displays statistics from Palm Beach County, Florida. The sixth column displays statistics from Pinellas County, Florida. Crime rates are calculated per 1000 inhabitants.