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Data Science for Political Science

BLM & SQF: Impact of the Black Lives Matter Movement on NYC’s Stop, Question, Frisk Policy; 2011 & 2018

**I. Introduction**

In this project, I analyze whether New York City’s controversial Stop, Question, and Frisk (SQF) policy was racialized (in that it targeted Black people more than other races) and if it was, whether the 2013 Black Lives Matter movement had any impact in terms of demographics flagged by the policy. The main research question my project seeks to answer is causal in nature: did the Black Lives Matter movement in 2013 and the ensuing controversy have any effect on the number of Black people who were subjected to police stops and subsequent actions? Secondarily, I also end up investigating a descriptive/discovery exercise in trying to figure out if NYC’s SQF policy disproportionately affected Black people in 2011.

To answer both questions, I examined SQF data from 2011 and 2018 and conducted a comparative analysis to determine if the policy was racialized and if it continued to be so following BLM. My hypothesis was that the policy was likely racist in 2011, and continued to be in 2018, following BLM, but to a lesser extent. Specifically, I expected that overall, there will be a greater representation of Black people in the sample size, indicating they were more likely to be stopped in the first place, as well as higher chances for them to be arrested, frisked, searched, and/or issued summons. My findings partially followed my hypothesis -- while the policy was indeed flagging Black people more often than any other races in 2011, this was a trend that continued and increased in 2018, after the initial BLM protests in 2013. Only 20.2% of NYC is Black, yet they made up the highest percentage of those stopped by SQF – 52.89% in 2011. Following BLM, change was expected and while the government tried to implement reforms, they were clearly unsuccessful; the percentage of Black people stopped via SQF increased to 57.04% in 2018. The same trend applied to all the other variables analyzed as well. This study contributes to the ongoing research about racial biases in policing, and advocates for systemic change that will ensure policing practices are conducted more equitably, like racial bias training for all officers, to prevent this trend from continuing.

**II. Background**

The primary research question driving this project is whether the Black Lives Matter (BLM) movement, which gained significant support following several incidents of police violence against Black individuals, has influenced the racial dynamics of the SQF policy. To that end, I also investigate what the racial dynamics of the policy were, both in 2011 and 2018. The relevance of this analysis comes from the continuing protests about BLM and the discussions over policing and racial biases that have resulted; Black people are overwhelmingly a target of police violence, and a fear of police is engrained early on in Black youth and communities. (Kramer and Remster) Protesters have likened police violence to “modern-day lynchings” and incidents like the killing of Trayvon Martin show a perpetuated cycle of violence against the Black community. This violence also contributes to enduring cycles of inequality and instability due to systemic racism and discrimination.

The Stop, Question, and Frisk policy of the New York Police Department is highly controversial, generating extensive debate over its effectiveness and fairness since it was first implemented in the nineties. The policy, which allows police officers to stop, question, and frisk (or search) individuals they suspect of criminal activity, has been repeatedly criticized for being racist and disproportionately targeting racial minorities – Black people and Hispanic people represented over 80% of the stops, whilst making up approximately 50% of the NYC population. (Goel, Rao, Shroff) There have been several reasons as to why SQF may be predisposed to being racialized. The most common of these points to the highly correlating factors of minority racial status, poverty, and thereby, exposure to violent crime. (Chohlas-Wood) In high crime areas, which have a larger proportion of Black and Hispanic people, there are lower stop thresholds to more aggressively reduce crime; this can result in a greater number of people of minority descent being stopped simply due to the demographic percentages of such high crime areas. Still, even when Goel, Rao, and Shroff’s study corrected for these highly localized police tactics and other factors, they found that Black people and Hispanics were less likely to possess a weapon when stopped, suggesting racial discrimination in the stop decisions. (Goel, Rao, Shroff)

The crux of my research is driven by a causal question – whether BLM had an impact on SQF – but my secondary question is descriptive/discovery – whether SQF was stopping Black people at higher rates in 2011 and 2018. My initial hypothesis, based on existing literature that has characterized the policy as overwhelmingly targeting minorities, is that the policy was racialized in 2011, targeting a disproportionate and overwhelming number of Black people in comparison to White people. From 2006 to 2012, SQF was at its peak, investigating over a half a million stops every year; this number went down dramatically following a federal ruling in 2013 that found the policy discriminatory. (Kramer and Remster) Still, while the total number of stops went down, my hypothesis maintains that in 2018, Black people continued to be more affected, although perhaps not to the extent they were in 2011; this is due to the continued protests regarding BLM that suggest there is still much racial bias and inequality to be overcome in the American police forces.

**III. Data & Approach**

The dataset I used for this analysis was provided within the project assignment posted to Canvas. It is a cleaned up and combined version of the Excel/CSV public records data available on the New York City Police Department website (on the website, all the years are listed separately, while the dataset on Canvas had data from 2011 and 2018 in the same file; additionally; the website’s data has many other variables that would not have impacted my analysis). This data set has 696,732 rows, each representing one police stop. Of these, 685,724 rows are stops from 2011 and 11,008 are stops from 2018. To analyze the two years separately, I subsected the data set into two – “bloomberg” is referring to the stops conducted in 2011 and “deblasio” refers to stops done in 2018. The data set contains 16 variables of which I used 6 in my analysis. These were "arstmade," "sumissue," "frisked," "searched," “race,” and “mayor.” I also added a variable – “blackstop” – which was a binary that combined “Black” and “Black Latino” classifications under race into one. If the person stopped was either Black or Black Latino, they would get a 1, if else, they would get a 0. The independent variable here is the Black Lives Matter Movement, and to that end, any change in the demographics of the stops would be the dependent variable; to signify before and after BLM, the variable “mayor” was used, while "arstmade," "sumissue," "frisked," "searched," and “blackstop” were used to see how demographics may have changed. Likewise, for the secondary research question, race would have been the independent variable, with the dependent variables remaining the same. The hypothesis was that there is a statistically significant change in the data from 2011 and 2018; the null hypothesis is that there is no statistically significant change.

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| Key Variables | Description |
| “mayor” | Either Bloomberg or DeBlasio; was essentially a proxy for year. |
| "arstmade," "sumissue," "frisked," "searched," | All were used in analysis; all described outcome of stop with a “Y” for yes and “N” for no. |
| “race” | Categorized each stop by race --  “AMERICAN INDIAN/ALASKAN NATIVE,” “ASIAN / PACIFIC ISLANDER,” “BLACK,” “BLACK HISPANIC,” “WHITE HISPANIC,” and “WHITE”. |
| “blackstop” | Combined “Black” and “Black Hispanic” categories under race into new variable toclassify whether person stopped was Black or not; if Black, given a 1 and if not, given a 0. |

I employed a comparative analysis approach to analyze the impact of BLM on SQF policy, subsecting the data into two sets – 2011 and 2018 – and comparing the percentages of people stopped, searched, frisked, issued summons, or arrested for each race in both years and in the two combined. I also compared the means of the variable “blackstop” for each of these variables, years, and in total. A mean closer to 1 indicates that more Black people had police action against them than white people. I then used a difference of means test and the T-test function to see if my findings were statistically significant. All these measurements were then visualized into bar plots, which effectively showcased data trends in a visual manner. This approach to the data analysis was effective because it allowed me to follow a before-and-after model that clearly highlighted any changes in police behavior towards Black individuals after BLM began.

**IV. Results**

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Description automatically generatedUltimately, my analysis found that Black people were overwhelmingly targeted by the SQF policy in both 2011 and 2018. This result was the same when comparing by percentage or by mean. Additionally, using a T-Test, I found that the difference in means was statistically significant across all the variables compared; this means that while BLM may have had an impact, it is unfortunately in the opposite direction. A greater proportion of Black people were stopped, frisked, searched, arrested, and issued summons in 2018 than 2011. Of course, much fewer stops were conducted in 2018 than 2011 so while the differences in means are statistically significant, it may be a case of correlation not equaling causation.

Figure 1. Comparison of Percentages for Black People Summoned, Arrested, Frisked, Searched, and Stopped in 2011 & 2018, Combined

Figure 2. Comparison of Percentages for Black People Summoned, Arrested, Frisked, Searched, and Stopped in 2018

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Figure 3. Comparison of Percentages for Black People Summoned, Arrested, Frisked, Searched, and Stopped in 2011

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Figure 4. Comparison of Percentages for Black People Summoned, Arrested, Frisked, Searched, and Stopped in 2011, 2018, and Total

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Description automatically generatedFigure 4, above, shows all these percentages for each of the variables in 2011, 2018, and combined, by raceAs one can see, Black people (not even including Black Hispanics) make up significantly larger percentages of those who have police action done against them because of SQF. The graph also shows how the bar in 2018 is always higher than the bar in 2011, giving a preliminary suggestion that BLM may not have changed racialized SQF policies significantly, apart from lowering the number of stops.

Figure 5. Comparison of Means for Black People Summoned, Arrested, Frisked, Searched, and Stopped in 2011, 2018, and Total

Figure 5 definitively proves that SQF disproportionately targeted Black individuals and that BLM had little impact on this, in fact showing an increase in the proportion of Black people targeted in 2018. This graph is based off of the independent variable “blackstop”, which was a binary variable I coded to combine the categories of Black and Black Hispanic. If the person stopped by the policy was Black, they would get a 1 in the column, if they were not, they would get a 0. The means for both 2011 and 2018 were greater than 0.5 indicating that a majority of those stopped were identified as Black. The same trend applies across all the bars for 2018, for all the other variables; this increase contradicts the perceived effects of the BLM movement and associated reforms that aimed to reduce racial biases in policing.

Following the bar plots, I also calculated the difference in means and T-tests for all the variables, which confirmed that the increases from 2011 to 2018 were statistically significant. Specifically, the tests for all variables showed p-values far below the 0.05 threshold, indicating strong evidence against the null hypothesis that there was no difference between the years.

**V. Conclusion**

The primary research question investigated in this study was to determine whether the Black Lives Matter movement, which began in 2013, had an impact on the racial dynamics of New York City’s Stop, Question, and Frisk policy. Additionally, I sought to establish the extent of racial disparities in the application of SQF in 2011 and 2018 through my analysis. Despite my hypothesis that the aftereffects of BLM would lead to a decrease in disparities between 2011 and 2018, the results showed that the proportion of Black individuals targeted by SQF policies increased from 2011 to 2018. This finding suggests that despite the advocacy, significant changes in the application of SQF have not yet occurred; more systemic reforms are necessary to reduce this disparity.

Potential limitations of this analysis include the assumption that BLM’s influence on policing practices would be directly observable in raw SQF data; indeed, there may have been other vectors of change, such as a reduction in police violence, that are not reflected in this data specifically. The impact of the movement might also take longer to be visible, especially since it is still ongoing and this analysis was done on data prior to the major BLM protests of 2020, which focused even more so on police brutality and unequal practices within police forces. External factors, such as political leadership (Bloomberg vs DeBlasio), law enforcement leadership changes, and other variables not included in this data set can also influence the trends observed and were not controlled for in this analysis. Further research can benefit from a broader approach, examining the years between 2011 and 2018, as well as controlling for some of the possible variables mentioned above.

Works Cited

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