The Stop, Question, and Frisk Program

Maggie Barnes(mbb92) | **Derek Cutting**(dmc388) | **Frank Sibo Li**(fsl7) | **Maciej Szelazek**(ms3266)

Intro

Over the past few years the "stop-and-frisk" program in NYC has come under significant scrutiny for unlawfully targeting minorities. The city is currently reforming the program. We are interested in determining what the data can tell us about where and how the program can be improved.

Ask

How has the program been scaled back since Mayor de Blasio's reform policies? How effective is the Stop, Question, and Frisk policy in finding contraband in NYC neighborhoods? For a person of a given race stopped by the police, how likely/unlikely are they to have contraband compared to the average person? Have the reforms affected the disparity between the racial demographics of NYC and the racial demographics of the people stopped? Which NYC precincts have the most stops per capita, find the most contraband, and have the greatest racial disparity?

Measure

To measure the disparity between the racial demographics of NYC and the people stopped, we developed a Racial Disparity Index. The RDI measures when races and ethnicities are more regularly targeted for Stops, Questions, and Frisks than would be warranted by the demographic makeup of a community at the city level and precinct level.

We used logistic regression to determine the factors that contributed to a person being searched or frisked. Our model was unable to sufficiently describe the variation of our dependent variable based on our independent variables.

Learn

Based on our findings, we learned:
- Program effectiveness increased, while stops decreased.
- White, and Hispanic people stopped by the police are the most likely racial groups to carry contraband.
- Black, Other, Asian, and American Indian people are the least likely.
- While overall the RDI has slightly decreased over time, certain precincts remain hotspots of racial disparity.

The public outrage over the program is not unfounded. Given the low rates of contraband found throughout the city, even after the reforms, it is unclear if discovering contraband is truly the intention of the program, or if there are alternative motives. The city should continue to monitor RDI and improve policing tactics in precincts with a high RDI.

Data

The 2010 to 2014 official Stop, Question and Frisk data is publically provided by the NYPD. We decided to use this source as it provides detailed information of stops made by NYC police officers. This data will help us determine how effective the reform has been and what ways we can improve the policy year over year. In 2014 alone, the data includes 112 features, and over 45,000 records. We combined this data with demographic US census data to develop the RDI.

Link to public data:
1. http://www.nyc.gov/html/nypd/html/analysis_and_planning/stop_question_and_frisk_report.shtml
2. http://quickfacts.census.gov/qfd/states/36/3651000.html

Techniques

We used logistic regression in Python to determine the factors predicting frisks and searches. Additionally, we used Excel to perform analysis to explore our ask.
Excel Document and Python Code: https://github.com/derekered/stop-and-frisk

Presentation

Link to web presentation:
http://silvermoongames.com/dataproducts/