Does stop-question-frisk affect arrest rates?

A natural experiment from NYC

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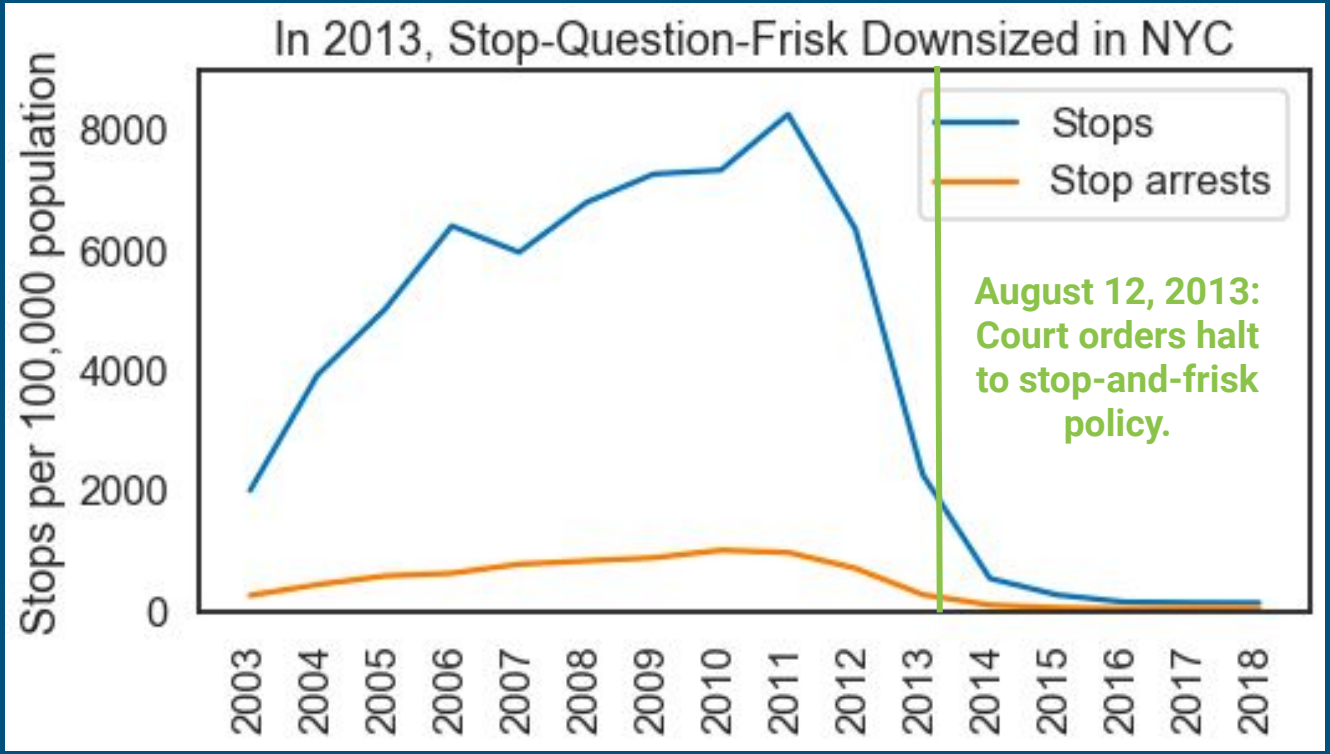
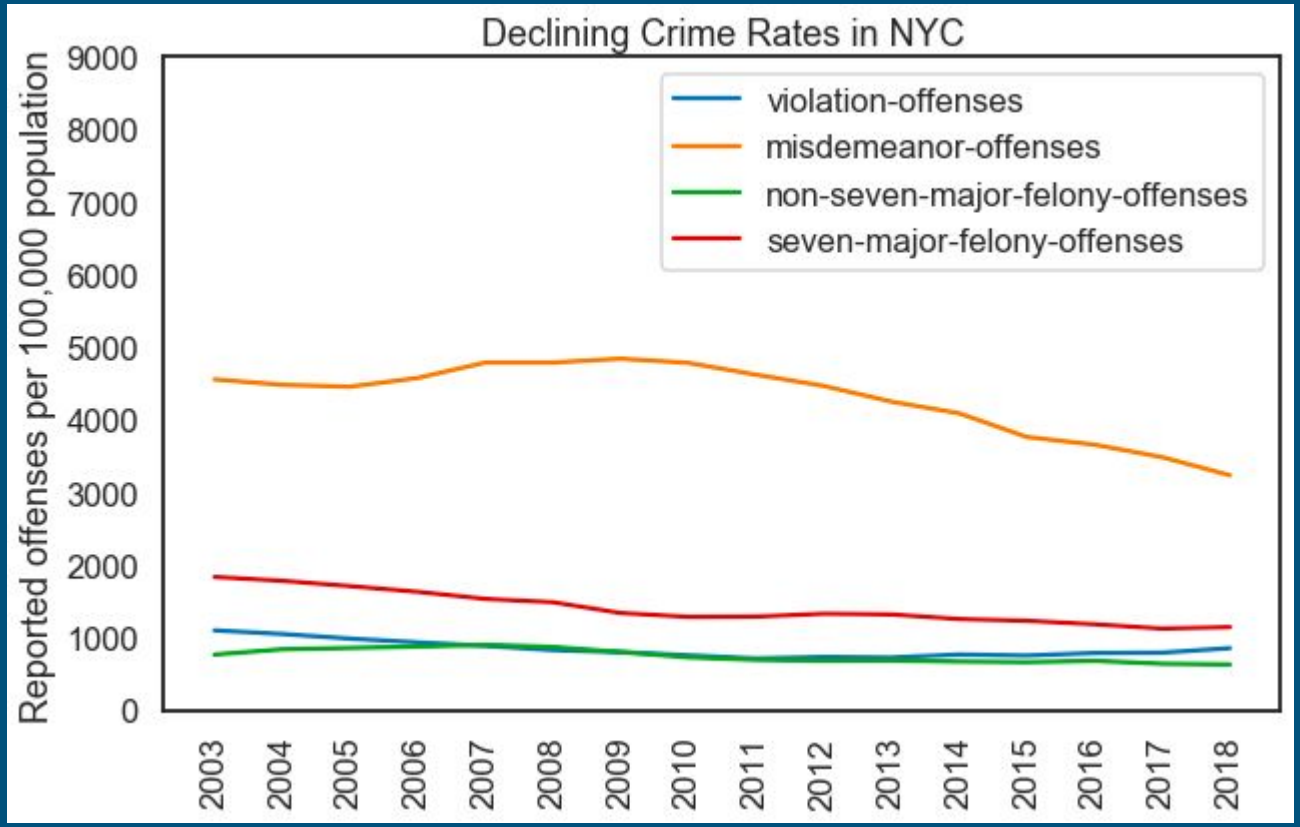
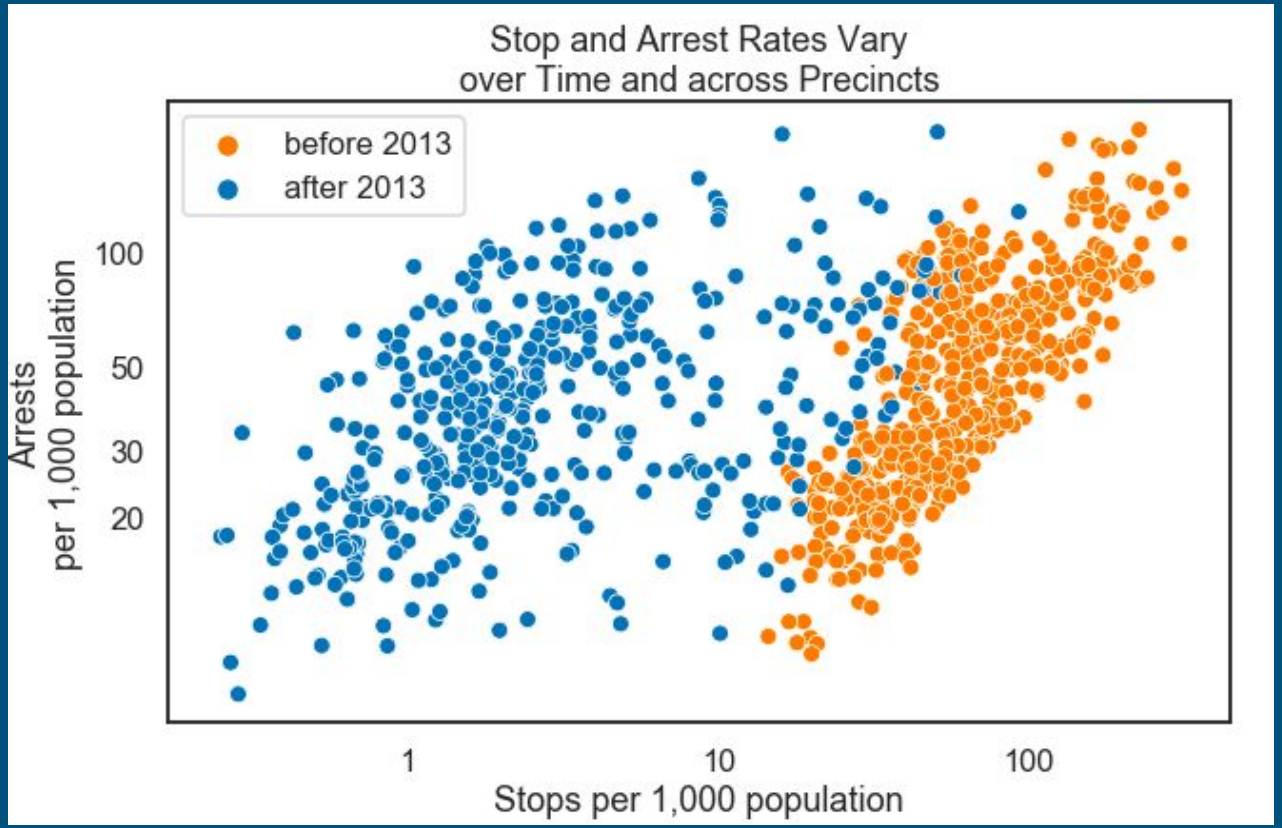
The policy experiment



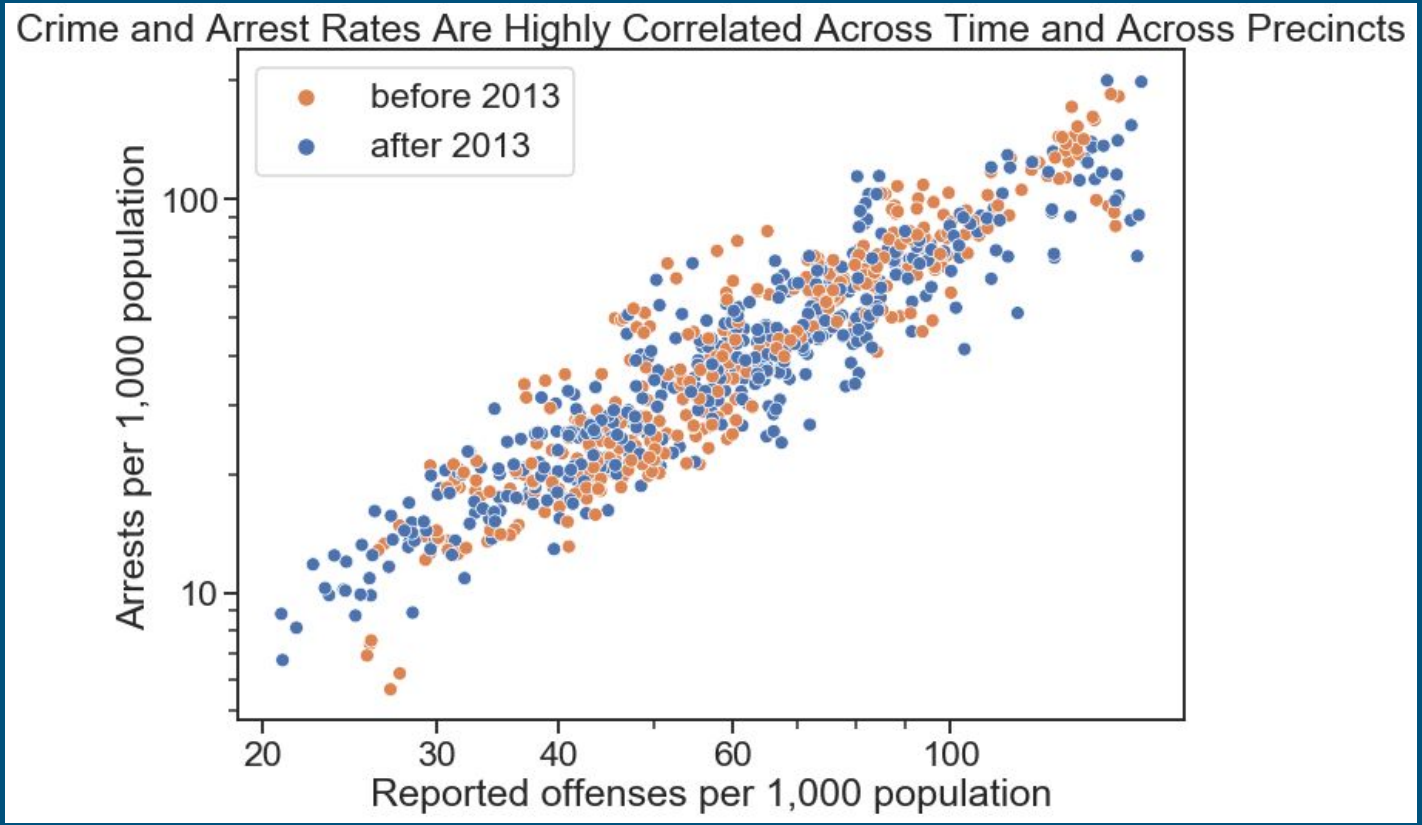
NYC Crime Rates Going Down



Relationship between arrests and stop rates



Other factors driving arrest rates



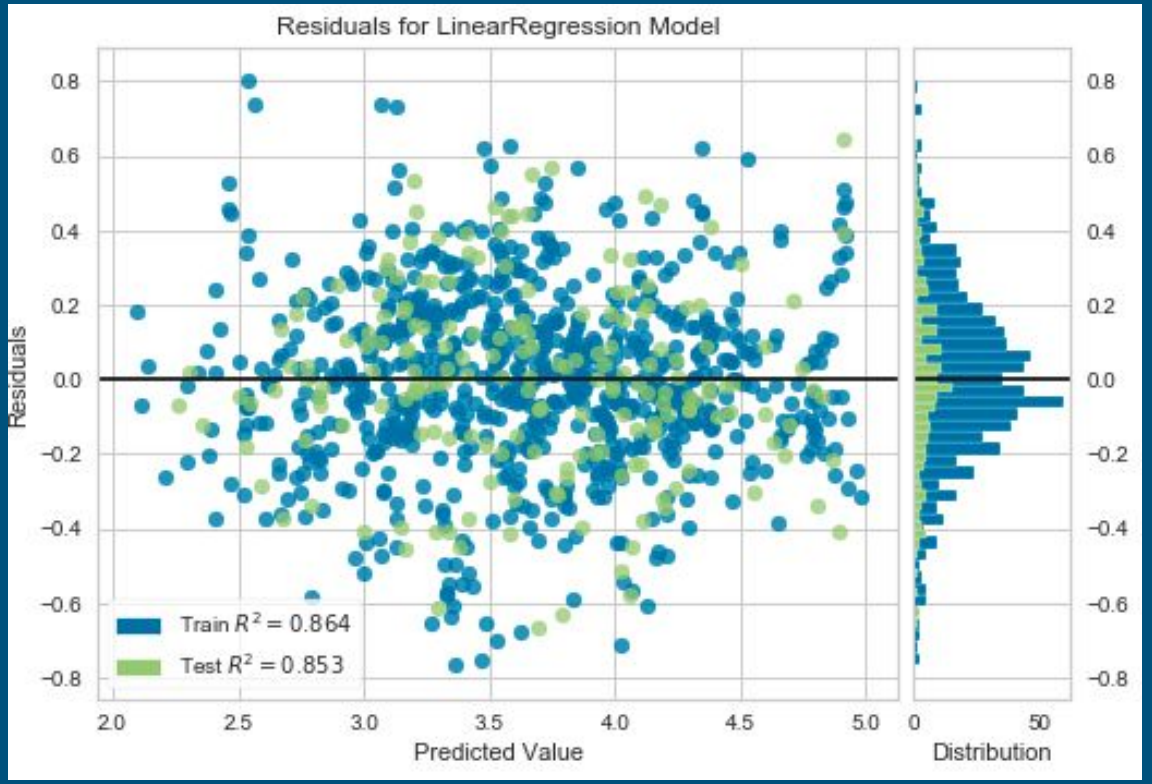
OLS results

OLS Regression Results

Dep. Variable:	y	**R-squared:**	0.864
Model:	OLS	**Adj. R-squared:**	0.864
Method:	Least Squares	**F-statistic:**	2437.
Date:	Mon, 09 Dec 2019	**Prob (F-statistic):**	0.00
Time:	12:58:11	**Log-Likelihood:**	4.1601
No. Observations:	769	**AIC:**	-2.320
Df Residuals:	766	**BIC:**	11.62
Df Model:	2		
Covariance Type:	nonrobust		

	coef	std err	t	P>|t|	[0.025	0.975]
const	-2.1145	0.086	-24.559	0.000	-2.283	-1.945
x1	0.0222	0.005	4.397	0.000	0.012	0.032
x2	1.3912	0.022	64.039	0.000	1.349	1.434

Omnibus:	7.255	**Durbin-Watson:**	2.060
Prob(Omnibus):	0.027	**Jarque-Bera (JB):**	9.764
Skew:	0.065	**Prob(JB):**	0.00758
Kurtosis:	3.537	**Cond. No.**	52.5



Conclusion

- Based on crime rate, arrest rate, stop rate (stop arrest rate), and policy change data for 77 precincts and 8 years, we see a positive but marginal relationship between stops and non-stop-related arrests in NYC.
- Considering also the personal costs of stops, we believe scaling down the policy may be the right decision.

Questions for further research

Leap to crime rates---

- How to include other factors underlying the crime rate
- How to address the chicken-and-egg problem between crime and arrests
  - What would be a better model?
  - What would be a better dataset?
- What can we uncover from individual-level data?