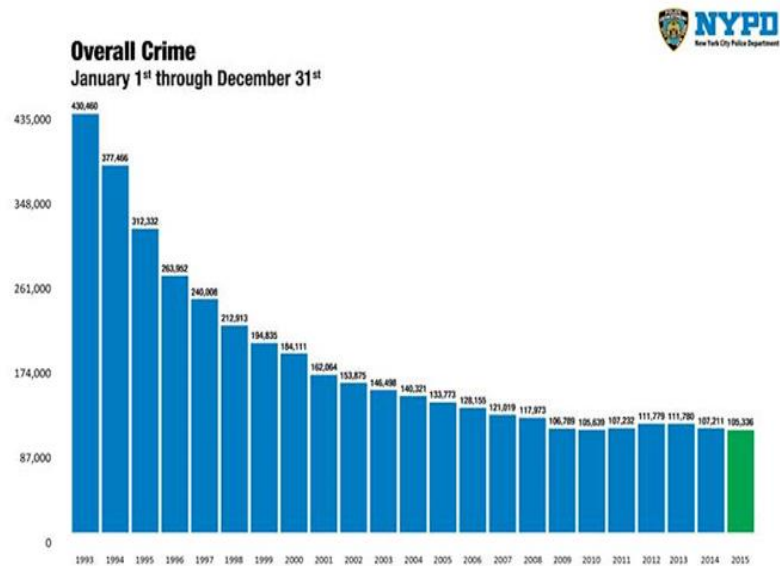# Comparison of Crime categories and Venue categories in NYC
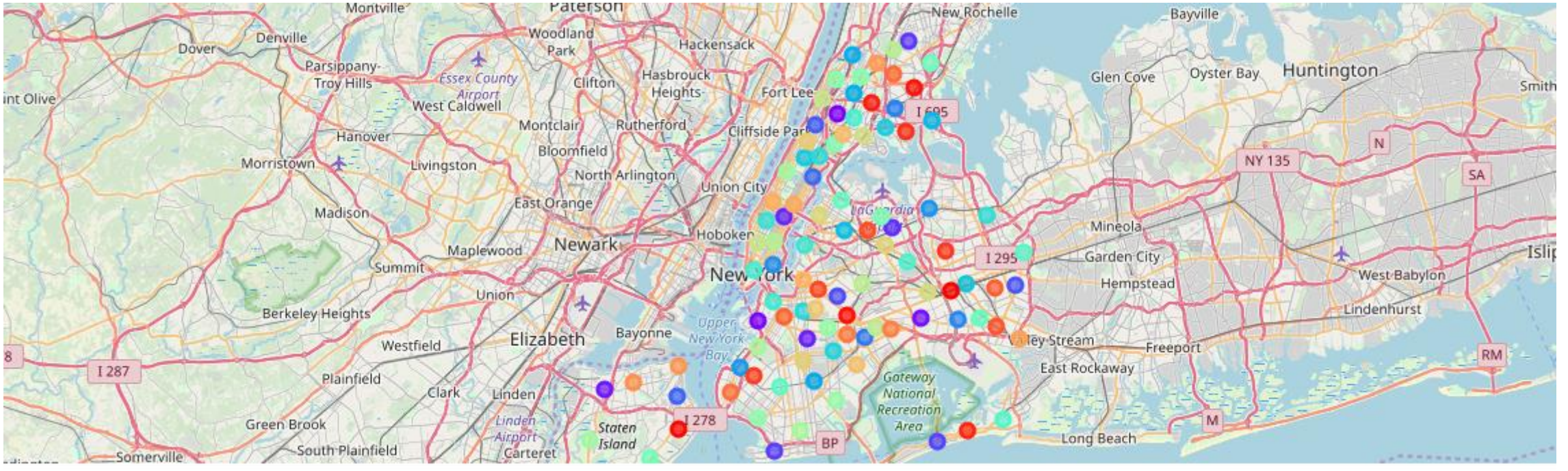
Marc D

August 2019

Introduction

The crime rate in NYC has consistently decreased in the last several decades as shown in the figure below provided by NYPD.
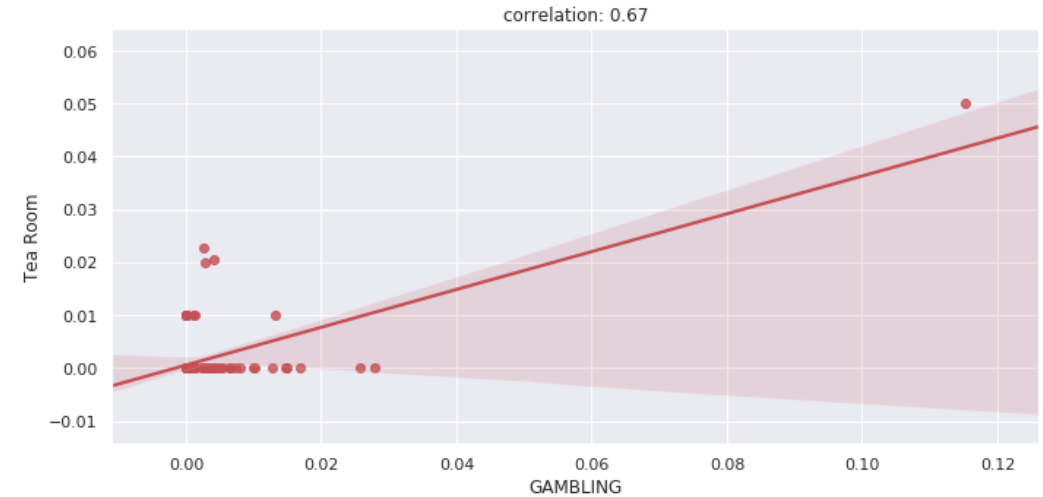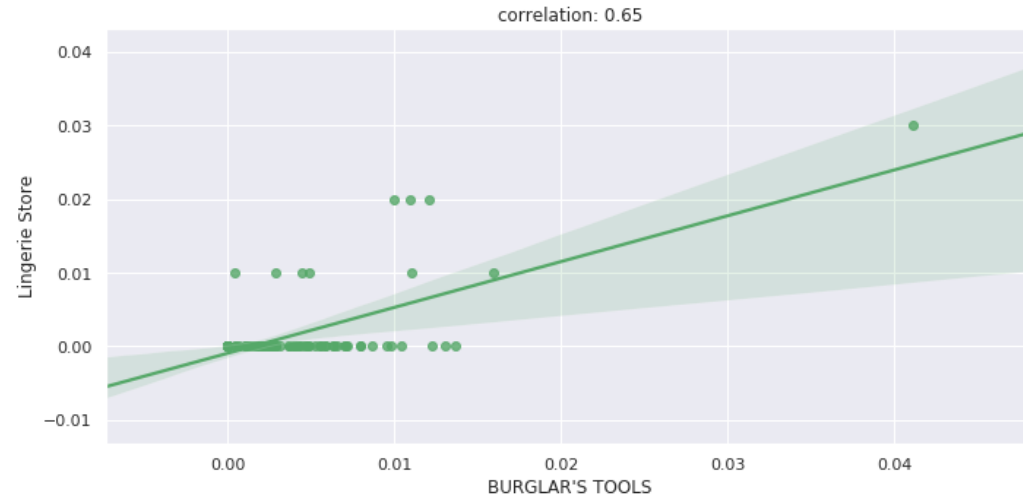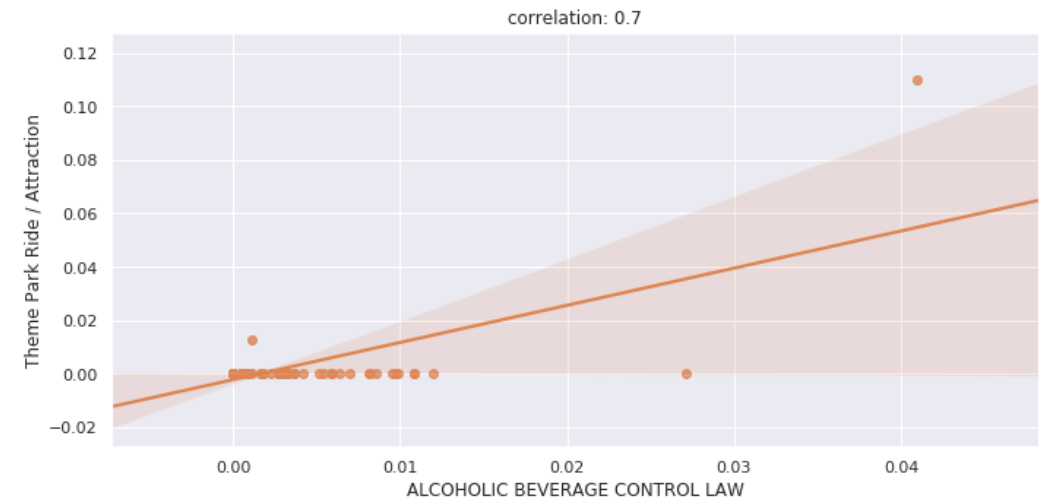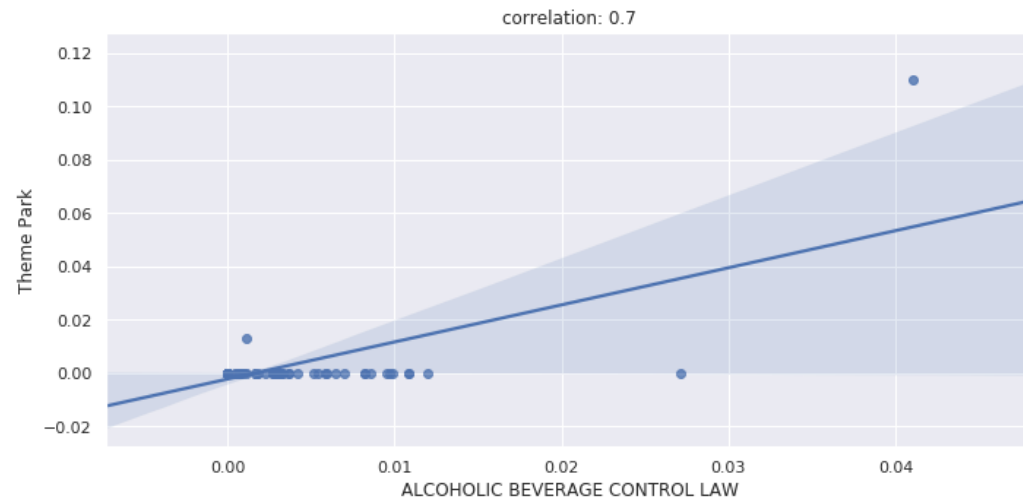

But there are still, as shown above over 100,000 crimes committed every year and the decrease seems to have leveled off in the last few years

This study will compare crime rate and type with venue types in the city to see if there is a link

Arrest locations - geographic clusters

Correlations discovered are weak

Models

- Linear and Polynomial models were build to try to establish a relation between the number of arrests and number and type of venues in NYC.

- The score obtained for the models were very low.

	Training	Testing
Linear	0.39	0.13
Polynomial	0.81	0.21

Conclusion

- A weak correlation between arrests and venue types were found on a couple of variables but it is most likely due to chance.

- A deeper study could be conducted with multiyear arrests records. As mentioned in the introduction, we were not able to use a bigger data set because of system power limitations (the kernel kept crashing with a bigger data set).

- However the results obtained so far show that it is very unlikely a clear relation between types of crime and venue types would be found