**Does the Performance of a City’s Sports Teams Impact the Happiness of the Populace?**

**Introduction**

In 2012 The Barclays Center opened in Brooklyn becoming the new home to the (formally) New Jersey Nets – the first professional sports team in Brooklyn since The Brooklyn Dodgers defected to Los Angeles in 1957. At the time the owner of the Dodgers, Walter O’Malley, wanted to build a new stadium next to the Atlantic Railroad Yards and wanted the city to seize the property for him using eminent domain. Robert Moses refused to give the Dodgers the land, instead offering them land in Flushing, Queens which would eventually become the home of the New York Mets. Unable to get the exact location he wanted, O’Malley moved the Dodgers across the country to Los Angeles. Half a century later the city used eminent domain to seize property for the Atlantic Yards Development which includes the Barclays Center, displacing up to 3000 people from their homes[[1]](#endnote-1).

There seems to be very little economic benefit to a city by having a professional sports team[[2]](#endnote-2)[[3]](#endnote-3) but maybe there is some other benefit that can justify evicting people from their homes to make room, or the huge subsidies cities often give to sports teams. Does having a local sports team make a city’s populace happier? Happiness is of course difficult to quantify, but three different datasets were looked at which may offer some insight into how happy a city is: New York City’s 311 data, Tweets geolocated in New York City, and Crime incident data in Boston.

**Sports Data and Impact**

For this analysis the impact of a sports team is strictly based on how well or poorly a team is doing. It could be argued that merely having a team would make a city happier, but the datasets available don’t go back far enough to evaluate such a claim. How well a team is doing was considered in two ways – first, did the team win or lose the previous day; and what is the magnitude of their streak, the number of wins or losses they’ve had in a row.

Game log data was obtained from [www.baseball-reference.com](http://www.baseball-reference.com) and [www.basketball-reference.com](http://www.basketball-reference.com). It was then cleaned and streaks were calculated.

**311 Analysis**

New York City’s 311 system allows people to report non-urgent problems such as noise complaints or potholes. A dataset is available with each individual incident since 2010 including data reported, the type of incident, and details about it. The data was simply aggregated by date to get a count of how many complaints were made each day.

The logic in looking into 311 data is that people in a good mood may be less likely to go out of their way to report problems than if they were already unhappy. Noise complaints were also looked at separately from the 311 incidents as a whole because an inverse relationship may be expected – that is, people often make more noise when they are happy.

Looking at number of 311 complaints versus day of the week could offer some credence to the above assumptions. Total number of complaints per day is very highly correlated with the day of the week with much fewer complaints being made on weekends and then a slight uptick in complaints early in the work week. These are the results from doing Ordinary Least Squares linear regression against the number of 311 complaints made on a particular day:

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And looking at just noise complaints versus day of the week we see the reverse:

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Of course there are many other ways to explain the correlation, such as people simply not being out as much on weekends so they notice fewer problems which they then see come Monday; and there would be more noise complaints on weekends since there are more parties then. But regardless of the reason for the correlation, this means we need to control for day of the week in the following analysis.

1. http://dddb.net/eminentdomain/papers/appeal/AppellantBrief.pdf [↑](#endnote-ref-1)
2. http://www.marketplace.org/topics/business/are-pro-sports-teams-economic-winners-cities [↑](#endnote-ref-2)
3. http://college.holycross.edu/RePEc/spe/CoatesHumphreys\_LitReview.pdf [↑](#endnote-ref-3)