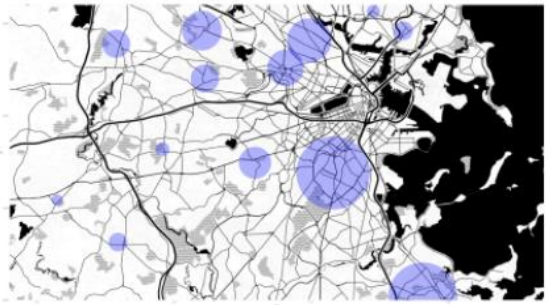
Team Thunderstats – DataFest 2018

Map: Boston

High School



Higher Education

-> Ran a z test for difference in proportion of searches local for higher education vs high school
-> 99.5% CI of 3.07% to 4.21% higher proportion local searches for highschool
-> (\hat p 3.46% p value 1.67*10^-72)

Jobs that require only a high school education tend to attract applicants from within 25 miles, while jobs that require higher education attract more applicants from outside of the area. This has quite a few potential stories behind it: while we don't have individual-level data, we might imagine that people who are looking for jobs that require a high school level education would be more attracted to searching for jobs within 25 miles. People who are looking for jobs that require higher education might be slightly more willing or able to relocate.

-> Next, we restricted to sample by only located High School (City-Suburb)
-> 99.5% 16.26% to 17.91%

-> restricted by higher Ed (City-Suburb)
-> 99.5% 12.33% to 13.85%

We are telling a story of mobility. Jobs that are posted in cities are more likely to attract a local audience than jobs that are posted in suburban areas. Note: the effect of more people is lessened by of the 25 mile radius.

This means that jobs posted in the suburbs attract a spatially broader audience than do those in the cities. Though we have no casual evidence, would propose that this is a feature of our country's emphasis on highways and car transport. Suburbs are easily accessible to automobile owners with less congestion and more parking, while cities are more easily accessible to individuals who rely on public transportation.

We also performed a regression of the proportion of local clicks on city/suburb posting, level of education required, population density of posting location, and included fixed effects for each MSA area for a subset of five MSAs: New York City tristate area, DC, Chicago, Los Angeles, Dallas. Controlling for city-level density and for MSA characteristics, we found that the practical significance of our results didn't change. The coefficients' signage and effect stay the same, as well as the statistical significance. We had a low adjusted R^2, though, so we are not claiming to explain most of the variation in the proportion of local clicks, only that there exists these relationships between local clicks and education level and location of job posting.