Residential Redevelopment patterns in Boston
What can redevelopment locations tell us about displacement patterns?

Census Data Analysis

The map on income shows market forces are pushing high rates of redevelopment near and immediately around the commercial core regardless of income. The next ring of neighborhoods around the core includes a many low-income neighborhoods (below 60% average income for a household is fairly low for this region), yet most of them still saw medium to high rates of residential redevelopment. Overall it appears the core is more influential than income, but not uniformly.

The map on race shows that it is at least one factor that seems to influence the rate of redevelopment with some visible trends and patterns. Both near the core and further there appears to be some correlation between the percentage of non-white residents and the number of redeveloped sites per neighborhood. Outside of the central core, nearly all neighborhoods with over 60% of white residents had low rates of redevelopment while most of the neighborhoods with over 60% of non-white residents saw medium to high rates of redevelopment.

Case Studies

Some of the neighborhoods like Telegraph Hill, City Point and West Broadway (broadly known as South Boston) and Jeffers Point near the airport are examples of areas that are predominantly white but also working-class and lower-income. These areas have seen medium to high rates of redevelopment. Consequently, while historically working-class Italian and Irish descendents neighborhoods these areas have been changing as they experience high rates of displacement and working-class residents are replaced with wealthy professionals seeking an easy commute to the commercial core.

As we move further south from the core to more residential areas such as Roxbury and Uphams Corner we see neighborhoods like Highland Park, Washington Park, Sav-Mor, Dudley Square and Uphams Corner showing a combination of high minority populations, low income and moderate rates of redevelopment, despite being relatively far from the core. As areas near the core redevelopment rapidly and may exhaust capacity, there should be concerns areas like these experience high rates of redevelopment numbers given their particular vulnerability to displacement.

Methodology

In this analysis building permits were narrowed down to residential and mixed-use (usually first floor commercial with residential above) sites, excluding all commercial redevelopment. They were further restricted to building permits classified as either a building being erect after major structural reconstruction, or brand new construction after a full demolition or on a previously vacant lot. That level of construction is one of the least common building permits. So from the 400,000 building permits issued in Boston between 2009 and 2013 only 3,600 were used in geocoding for this project. This analysis used redevelopment sites as a unit. However, since one unit properties are not common in Boston we can assume each redeveloped site reflects multiple housing units.

Cluster Analysis

Using a measure of local Moran's I, redevelopment sites were analyzed for high, low-low, and a high, low-high outliers at the census block level. High-high clusters are dominant around the City of Boston's commercial core and the waterfront areas. This is likely due to the high value of those areas given the ocean views, and proximity of high paid jobs and office buildings. The areas immediately around the commercial core have a number of high low clusters showing that there are some census blocks with limited redevelopment despite their high-value location. This indicates proximity to the core is not the only factor influencing redevelopment rates.

The more residential areas of Boston towards Jamaica Plains and Charlestown have redevelopment but it is more scattered with a number of high-low clusters. This seems to indicate that in those areas other factors are driving the rate of redevelopment beyond location and proximity to the commercial core.

Conclusion and Limitations

Tracking displacement and redevelopment is challenging yet important. This analysis indicates that residential redevelopment is influenced by multiple factors including land value, the rate of incarcerees, their income, and the location of the area in relation to jobs and commercial centers. Further analysis could be carried out to spatially analyze each market factors independently in order to better isolate demographic influences.

There were many limitations to this analysis. Redevelopment is not easily defined and the criteria used here was to count a property as having a high amount of required flipping building permits for just renovations as well as, we are just as likely to count ledgers. They were not included because they were not classified separately from standard renovation in the available data. This data analysis displacement was only stipulated as an outcome from low income and residential redevelopment combined. That’s not a precise measurement, so some hard data on displacement figures would have been helpful, if hard to find.

This analysis would also be stronger if the exact number of residential units was included in the analysis. That was not available in the permit data, only building classifications. Another factor that would have strengthened the analysis would have been to look at redeveloped site by census tract. Data broken down by each minority group to see if there are patterns and differences depending on what racial minorities are most present in the neighborhood.

References

Building permit data: https://data.boston.gov/dataset/approved-building-permits
“Boston is Booming, but for Who?”, www.bostonindicators.org
Tufts University GIS Database

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