

The Whole Foods Effect:

Examining the Role of High-end Grocery Stores in Gentrification in Boston, Cambridge, Somerville and Medford

INTRODUCTION

Recent studies of real estate markets have indicated that the presence of a Whole Foods can increase home values, a trend dubbed the “Whole Foods effect.” A Zillow Analysis of 375 Whole Foods and 451 Trader Joes found that all properties (totaling 2.8 million homes) within a one-mile radius of the respective supermarket cost more and appreciate faster than the median home in the US (Gudell 2018). As these high-end grocery stores proliferate across metropolitan areas, food mirages have formed in former food deserts through supermarket greenlining (Anguelovski 2015). My project aims to explore the role that these organic and pricey grocery stores play in gentrification, looking specifically at Boston, Cambridge, Somerville and Medford. This specific area offers a sample size of 15 Whole Foods, Trader Joe’s and Wegmans. These specific stores have continually targeted Boston, Cambridge, Somerville and Medford, as the first Trader Joe’s opened in 1997 in Cambridge and a Wegman’s recently opened in Medford in 2017. The markers of gentrification for this project relate to who the average customer is presumed to be at these grocery stores. Using spatial analysis, I look to examine whether the Whole Foods Effect not only contributed to home value but to other demographic changes associated with gentrification.

RESEARCH QUESTIONS

- Does the existence of and proximity to a high-end grocery store contribute to demographic changes associated with gentrification?
- What patterns exist between a grocery store’s location and the surrounding neighborhoods?

High End Grocery Stores:



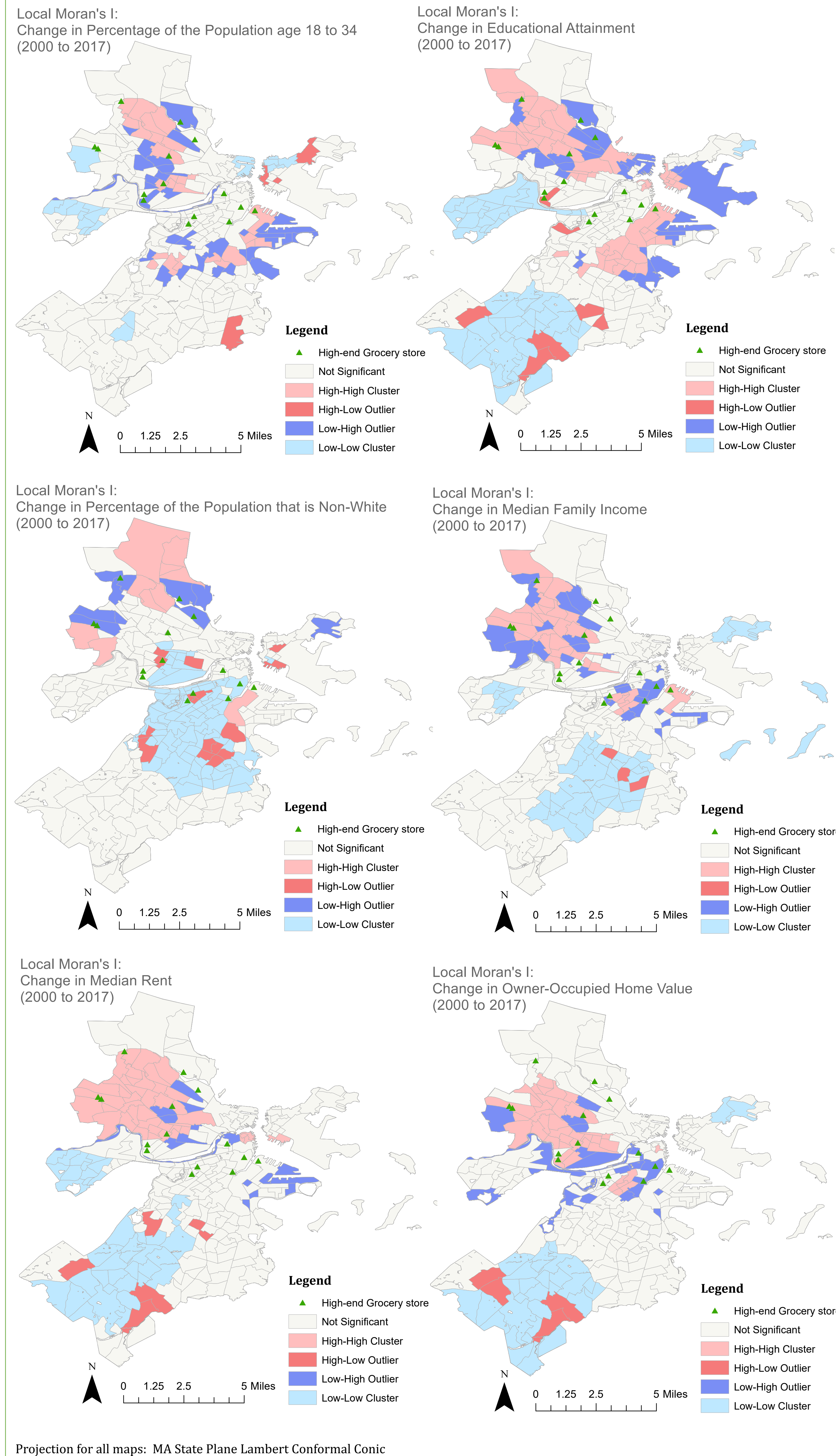
METHODOLOGY

Data Sources: 2000 US Decennial Census, 2017 American Community Survey 5 Year Estimates, Reference USA, US Census, Mass GIS.

Downloaded from Social Explorer; Census tract-level data for all of Massachusetts from 2000 and 2017 was imported into ArcMap and joined into one table. I created new fields in the joined table and then used the Field Calculator to calculate difference attributes for each factor of gentrification and a gentrification score that summed these six difference attributes. Difference attributes subtracted the 2017 value from the 2000 value. For example, Change in Median Rent = $(\text{Change in Median Gross Rent in 2017}) - (\text{Median Gross Rent in 2000})$. This table was joined with census tract vector polygon layer from the US Census. The census tract layer was clipped to include just the tracts within the cities of Boston, Cambridge, Somerville and Medford.

To test for clustering, I used Local Moran’s I for each difference attribute to ascertain the six maps to the right. To obtain the “Gentrification Score” map, I created a dissolved half-mile buffer around each grocery store. I then intersected this buffer with the census tract layer containing the difference attributes and gentrification score.

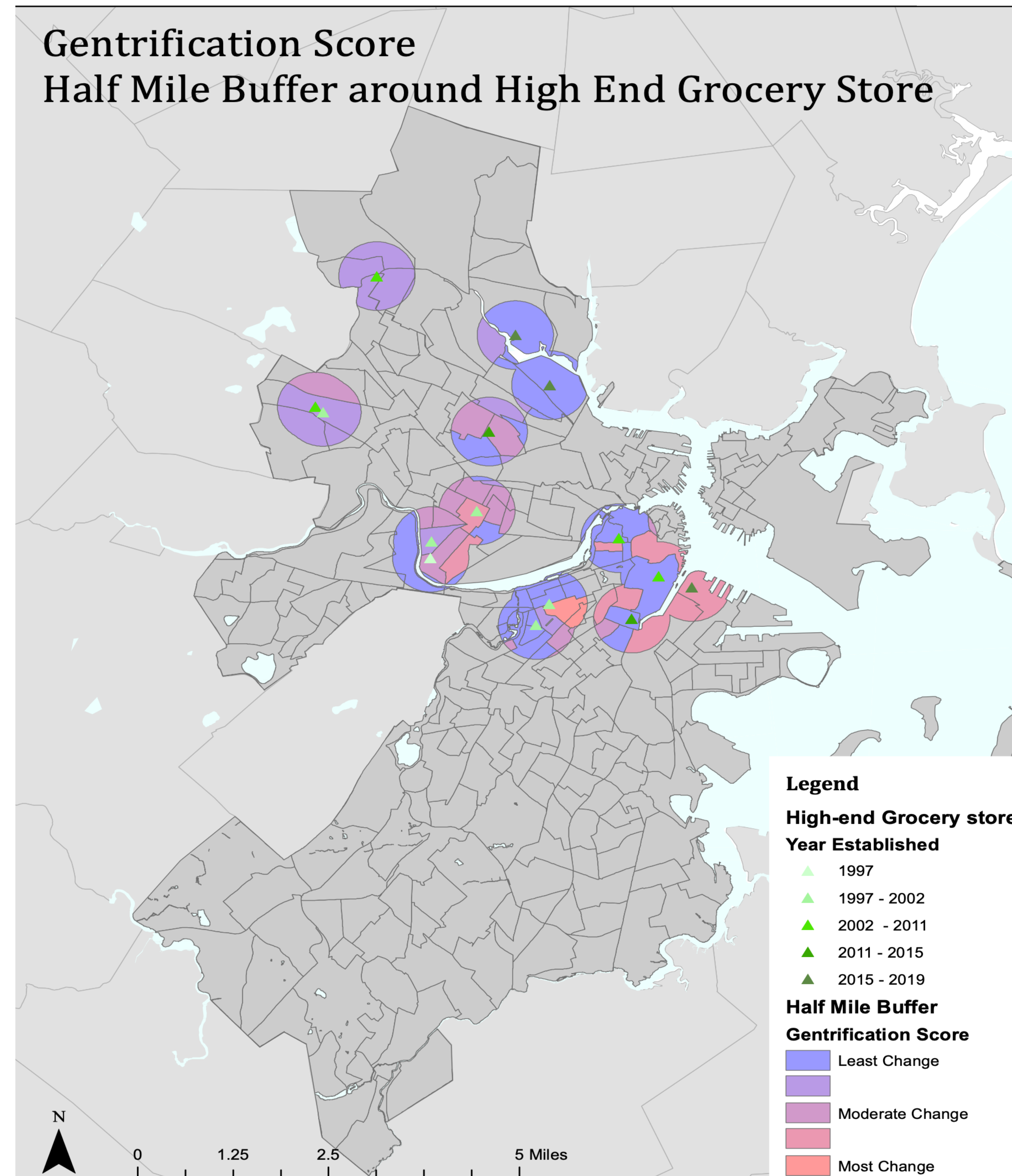
MARKERS OF GENTRIFICATION



RESULTS & CONCLUSION

To more firmly understand the relationship between high-end grocery stores and gentrification, more spatial analysis must be conducted. The Local Moran’s I maps indicate that some attributes, such as change in percentage of the population that is non-white, in median family income and owner-occupied home value, are clustered in a significant way surrounding high-end grocery stores. In the map below, the gentrification score represents the net change experienced by the half-mile area around each grocery store. Given previous research on the “Whole Foods Effect,” I would have expected the intersection to show only areas of high gentrification scores. However, the Gentrification Score map shows that the amount of change is not uniform across all half-mile buffer zones. This inconsistency demonstrates that my gentrification score is not all encompassing and should be improved to include more markers of gentrification to better capture the change experienced in these neighborhoods. Although my project may not result in any concrete statistical results, it illuminates the importance of looking at the mechanisms of gentrification through a spatial lens.

Gentrification Score Half Mile Buffer around High End Grocery Store



References:
 Anguelovski, J. (2015). Healthy Food Stores, Greenlining and Food Gentrification: Contesting New Forms of Privilege, Displacement and Locally Unwanted Land Uses in Racially Mixed Neighborhoods. 39(6), 1209-1230.
 Gudell, S. (2018, October 10). Living Near Whole Foods Can Boost Your Home's Value. Retrieved from <https://www.forbes.com/sites/zillow/2017/06/19/living-near-whole-foods-can-boost-your-homes-value/#4798b5512a64>