

# The Whole Foods Effect

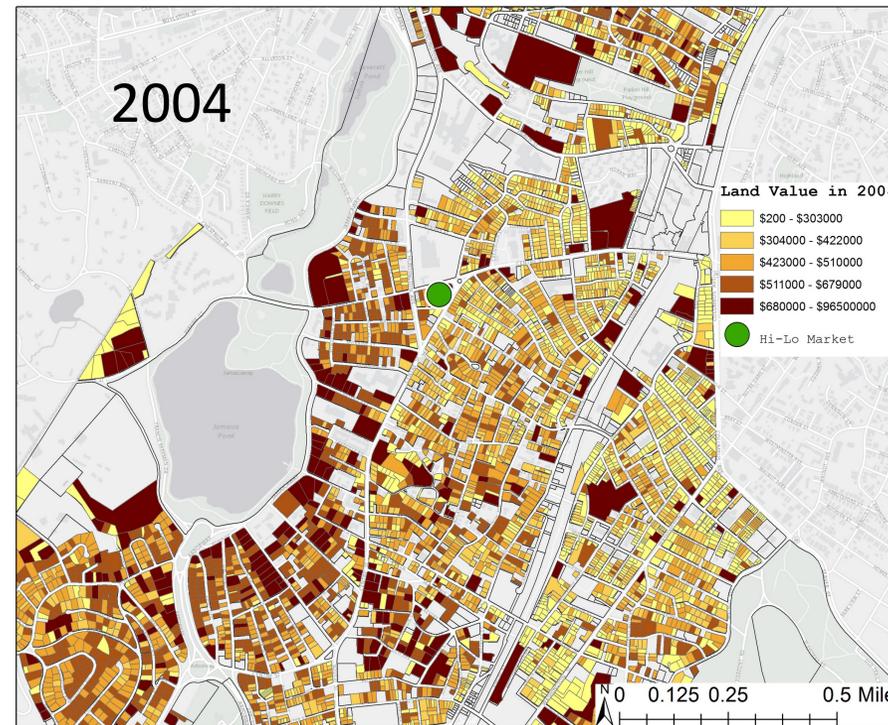
## Has Whole Foods Market Caused Gentrification in Jamaica Plain, MA?

### INTRODUCTION

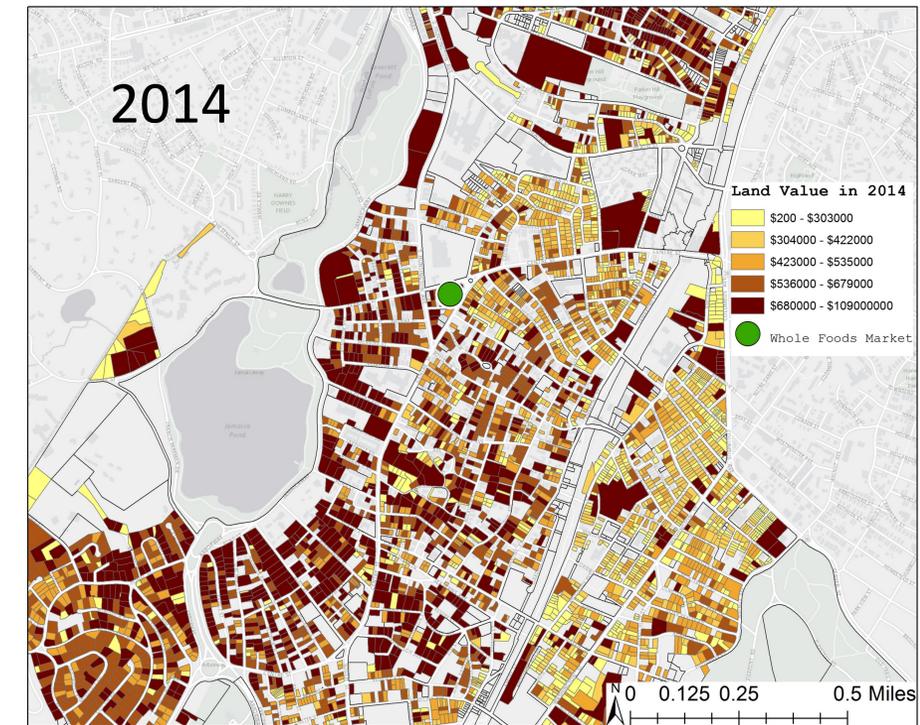
Often, a Whole Foods Market enters an up-and-coming neighborhood and accelerates the rate of gentrification of the area. It increases the nearby property value, making apartments unaffordable for the original tenants. The demographics of a neighborhood dramatically change, as a higher-income and whiter population moves to the area. In Boston, a Whole Foods Market opened in Jamaica Plain in 2011, replacing a local grocer called the "Hi-Lo Market." Community members resisted the change, asserting that it would contribute to gentrification. While the "Whole Food Effect" has been studied in other neighborhoods in the United States, there has not yet been a formal analysis of this phenomenon in Jamaica Plain.



**Figure 1:** The neighborhood "Jamaica Plain" is located on the western side of Boston.



**Figure 2:** In 2004, the area surrounding the Hi-Lo Market was valued lowly (as seen by the yellow parcels). The land value distribution suggests the parcels' distance to the Hi-Lo Market did not affect land value.



**Figure 3:** In 2014, the area surrounding the Whole Foods Market was valued more highly than in 2004 (as seen by the dark orange and red parcels). The land distribution suggests that parcels' distance to the Whole Foods affects land value.

### METHODOLOGY

First, Boston parcel data was obtained for the years 2004 and 2014, which contained the parcels' land value. Then, the Whole Foods' location in Jamaica Plain was geocoded. For the years 2004 and 2014, the "Near" tool was used to find the distance between the parcels and the Whole Foods. Finally, the parcel data was joined with demographic data from the Census and American Community Survey.

Then, in GeoDa, a regression was run for the years 2004 and 2014. The dependent variable was the "total land value" for the parcels. Because the total land value was skewed right, a log of that variable was used for the regression. The covariates were the "distance to the Whole Foods," "population with a Bachelor's degree," "median household income," "Black population," "Hispanic population" and "gross area of parcels." The results of the regression show which variables are significantly correlated with land value in Jamaica Plain.

### RESULTS & DISCUSSION

The results from the regression show that distance to Whole Foods is significantly correlated with land value. The coefficient shows that for every mile closer to Whole Foods, the land value will increase by 18%. Yet, in 2004, the distance to the Hi-Lo Market did not predict land value, as the probability was not significant.

There are many additional factors that are associated with gentrification in Jamaica Plain. As opposed to 2004, in 2014, the median household income was significantly correlated with land value. In 2004, fewer Black residents in the neighborhood could predict higher land value, but by 2014, the opposite was true. The Hispanic population experienced a reverse trend as the Black population between the years. Finally, in both 2004 and 2014, a higher population of residents with a bachelor's degree and larger gross areas of the parcels were significantly correlated with increased land value.

A limitation of this model is that it does not account for fluctuations in the economy or housing market. Additionally, the  $r^2$  value shows that this model may not accurately fit the data. Still, the results are consistent with previous research regarding the Whole Foods Effect, showing the grocer's presence might spur gentrification.

Variables	2004		2014	
	Coeff.	Prob.	Coeff.	Prob.
Constant	12.14	0.000	12.77	0.000
Distance to Grocer (in miles)	-0.040	0.102	-0.180	0.000
Gross Area of Parcels	0.000	0.000	0.000	0.000
Population with Bachelor's Degree	0.001	0.000	0.001	0.000
Black Population	-0.001	0.023	0.002	0.000
Hispanic Population	0.001	0.000	0.000	0.000
Median Household Income	0.000	0.199	0.000	0.000
Observations	7263		6692	
R-squared	0.125		0.151	

**Figure 4:** The distance to Whole Foods can significantly predict land value in 2014, as compared to distance to the Hi-Lo Market in 2004.