Gentrification On Food (Proposal)
Correlation Between Food Prices And Gentrification

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**Abstract:**

We propose to study the effects of gentrification on food prices in Harlem. By collecting various data and using the Cronbach’s alpha method to combine X variables, we aim to analyze the relationship between food prices and the level of gentrification. We propose the idea of a “food price circle”, which means that there is a feedback loop between food price and gentrification. This proposal will use various data to evaluate the nature of this feedback loop.

**Background and significance:**

The *Encyclopedia of Housing* (Smith 1998: 198) describes gentrification as “the process by which central urban neighborhoods that have undergone disinvestments and economic decline experience a reversal, reinvestment, and the immigration of a relatively well-off, middle- and upper middle-class population.” In other words, it refers to the buying and renovating of deteriorated urban neighborhoods by wealthier individuals, which could cause the direct displacement of low-income families and small business.

(Fig.1: Total population in Harlem)

(Fig.2: Total black population in Harlem)

The term “displacement” meaning “when any household is forced to from its residence by conditions which affect the dwelling or its immediate surroundings, and: (1) Are beyond the household’s reasonable ability to control or prevent; (2) Occur despite the household’s having met all previously imposed conditions of occupancy;
and (3) Make continued occupancy by that household impossible, hazardous, or unaffordable” (Grier: 1978). Displacement is usually affected by both subjective and objective factors (such as financial crisis, new polices).

Harlem is a neighborhood located in upper Manhattan. Since the 1920s, it has been a major African-American residential, cultural and business center. However, in the past few decades, gentrification has led to decreases in the black population relative to total population. The above chart from Center For Urban Research shows the population change of black people in Harlem. As we can see, there’s a 4.8% increase of the total population in Harlem over the last decade, which indicates there’s more people moving into Harlem. However there’s a 8.5% decrease of the total black population, from which we can infer more and more black people are moving out of Harlem.

(Fig.3: Demographic showing the gentrification process in Harlem)
Gentrification is singular term to describe the conflux of complex processes that lead to changes in the composition of urban populations. It is impossible to fully capture all of the mechanisms causing gentrification to lead to population change. Therefore, we focus on a single mechanism, food prices. The economy of the United State is a mixed system (meaning although the government have some control on the economy, the general supply and pricing are based on private sectors/customers) this indicates that customer can influence the pricing of goods (service and items). Food is a basic need for human beings, which suggests business owners must set prices that are affordable to at least a portion of their potential consumer base. If the business owner sets a price higher than what people can afford, they will no longer generate any profit. Thus, local residents at least partially determine the prices of the area they live in. Harlem used to be a neighborhood for lower class resident (in which the local business sold cheap low-end goods), however through gentrification, more and more middle/upper class residents have moved in, resulting in higher prices of goods. Increases in prices then push lower earners out.

We narrow focus on food prices. Before gentrification, Harlem had the largest African-American residential community in Manhattan, and soul food (soul food is a variety of cuisine popular in African-American culture) was a popular cuisine. However, due to gentrification and the demographic effects it brought, soul food is slowly fading out of the neighborhood. Leslie Loftis has argued about food gentrification in her article *Food Gentrification: One Way We Wage War On The Poor*. She indicates that through the process of gentrification, the cheap soul food are gradually being replaced by high priced food, bring out the argument “What are the poor supposed to eat?” Food gentrification has a massive effect on the lifestyle of the formal residents, Leslie argues that “Food is never just about food.” Food is
communal. When others are replacing the communities, the food is no longer communal, and so the food also gets replaced.

Data and methods:

(Fig.4: Food Price Circle)

For the purposes of this paper, we developed the concept of “Food Price Circle”. We believe that gentrification could result to higher food price, but food price could also boost up the speed of gentrification. As illustrated in the figure above, gentrification results in a higher operating cost for business owners (mainly due to higher rent price). A higher operating cost suggests that the restaurant need to set higher food prices in order to sustain profit. When the food price increases, the local resident then have to reallocate their annual budget for living; if they (local residents) find out that the
expenditures are too high to afford, they might decide to move out. When poorer residents move out, those who can afford the level of lifestyle will move in and this speeds up the process of gentrification.

Variables:

(Fig.5: Statistics from the ACS on the physical characteristic of housing in New York)

There are two main variables in our proposal. The X variable is a combination of different variables to measure gentrification, and the Y variable will be the temporary food price over a certain period of time (2004-2014). The following table shows the variables we used for measuring gentrification.

<table>
<thead>
<tr>
<th>X Variables</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average square foot per person</td>
<td>ft²</td>
</tr>
<tr>
<td>Average income</td>
<td>$</td>
</tr>
<tr>
<td>Average rent of neighborhood</td>
<td>$</td>
</tr>
</tbody>
</table>

(Fig.6: X variables table)

This investigation will be a comparison of food prices in different city blocks over the last decade, so that our unit of analysis is the city block. For each city block, we gather information on average price of restaurant meals (our Y variable) and data on the characteristics of the housing and residents in the block for each year from
2004-2013. This is due to the availability of Yelp data, which we use to measure food prices over time.

To analyze the feedback affect, we must be careful about temporal direction, so we need to first analyze the effect of gentrification on time-lagged food prices. There’s no such concept of the universal indicator for gentrification, so our group decided to combine three variables to serve as the indicator for gentrification. The average square foot per person measures the population density of the neighborhood; the average income captures a part of the income distribution in the neighborhood; and the average rent of neighborhood could be one of the direct indicator for cost of living. In order to combine the variables, we have to use the Cronbach’s alpha method. According to From Health Measurement Scales A Practical Guide To Their Development And Use (Norman 1981: 64-65) the Cronbach’s alpha is a statistic that is generally used as a measurement of internal consistency or reliability of a psychometric instrument. In other words, it measures how well a set of variables measures a single, one-dimensional latent aspect of individuals.

There are several sources we use for finding data. We use data from the New York Times rent listings to collect data on rent price and square foot per person. Trulia.com has similar data that could be used. Income and demographic characteristics can be taken from the Census. Finally, we are using a dataset offered on Yelp for food prices. Internet data might not be accurate, but it can give us an approximate estimate value that could be used for study.
Example analysis:

To demonstrate that our project is possible, we locate two different city blocks in Harlem (see fig.3), one is more gentrified and one is less gentrified. After collecting the data for each variable we analyze it using time series analysis to demonstrate the correlation between food price and gentrification.

This is the estimated trend line for average expenditure per meal for two different blocks in Harlem. We believe that both of the block (less gentrified and more gentrified) shows an increase in the food price, however the more gentrified area will show a more massive increase rather than a gradual increase. We can control for last years food prices to find this difference.

Conclusion

As we stated above, we propose to study the block-level process of gentrification and food prices. Some limitations of this proposal are the duration of time for which we have data. Based on the common sense, gentrification is a
continuous process; in short, we are going to study the relationship of constantly changing variables, and the relationship between these variables can be different in different decades. This would make predicting the future difficult.

Moreover, the subjects of our study are not stable, like several restaurants could run business for over a decade and we might select on more stable businesses when using internet data. Even if we try our best to avoid the limits, we cannot control these aspects. For instance, the article *In Changing Harlem, Soul Food Struggles* reported: “Soul food is dying in Harlem and elsewhere in the city, and not being able to fill 18 seats is as good an indication as any. The reasons can be chalked up to the vagaries of contemporary city life: Changing tastes; health consciousness; the fast-food culture; and an influx of wealthier young adults — including African-Americans, long a customer base for soul food restaurants — who are more comfortable eating Indian or Thai dishes.”

Furthermore, statistics have shown the Central Harlem (South and North) grew in population (an increase of 9%, from 109,095 people in 2000 to 118,665 in 2010) (*New York City demographic shifts, 2000 to 2010, Center For Urban Change*). This evidence shows that the population grows and will continue to grow rapidly in Harlem. The more pluralistic the population is, the more differentiated are tastes. Obviously, population increasing is caused by gentrification, but it could create more uncertainty for our study.
References


