Residential Mobility and Concentrations of Poverty:
Consequences of Gentrification in Atlanta, 2000-2010

Prepared for

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Economics 5900

Fall 2017

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November 19, 2017
Abstract

This study aims to identify the effects of gentrifying neighborhoods on the concentration of poverty of nearby non-gentrifying neighborhoods specifically in Atlanta, Georgia from 2000 to 2010. The paper begins by reviewing current literature on the topic of gentrification – none of which is specific to Atlanta – and identifies two primary theories: the displacement theory, and the staying theory – the latter being more prevalent in current economics literature. This study addresses the question of: if people do move, where do they move and how does this affect the neighborhoods they move into. With the hypothesis that low-income residents who get “gentrified out” of their original neighborhoods move to nearby poorer neighborhoods, I expect to find a positive relationship between concentration of poverty of the “new poor” Census tract and that tract having a nearby gentrified tract. After conducting a linear regression, the results predict that there are 238.56 fewer low-income households per square mile if a tract is near a gentrified tract. However, with each additional nearby gentrified tract after the first, concentrations of low-income residents increase.
Introduction

The gentrification of most if not all major U.S. cities is a seemingly unstoppable phenomenon with no clear solution. Gentrification is most simply defined as occurring when higher-income individuals move into historically low-income neighborhoods. The consequences of this phenomenon are numerous, some positive and some negative: amenities increase (e.g. business opportunities, social hub creation) and crime is often reduced, while for many, a sense of community and history is lost or invaded, and original low-income residents often observe increases in property values and prices around them. The cause of much popular outrage surrounding gentrification is its consequences for low-income people. There are two main schools of academic thought regarding these consequences: (1) the displacement theory, that poor people are forced, due to rising rents and cost-of-living expenses, to move to suburbs or other poor neighborhoods, and (2) the more recent view of much urban economics literature, that generally speaking, low-income people in fact stay, sometimes benefitting from increased amenities while often continuing to struggle through poverty in their same location. Regardless of the consequences for poor and minority residents, it is empirically true that the 1990s, 2000s, and 2010s have seen an influx of mostly educated, young, and affluent White people in gentrifying city neighborhoods across the United States (Hwang et al. 2016).

On February 17, 2017, Becca J.G. Goodwin of the Atlanta Journal Constitution reported that a billboard along Atlanta’s major highway read, in all capital letters, “Black people are being pushed out of Atlanta.” The billboard was put up by a film production company which released a documentary covering systematic “ethnic cleansing” via gentrification in major U.S. cities. The billboard made visible one of the primary popular concerns regarding gentrification – that poor people, who tend to be black and other minority races, are being pushed out of their historically low-cost homes to move to areas where they can more reasonably afford to live. Popular discussion surrounding gentrification continues to affirm this theory through lived experiences and social justice advocates.

In addition to the debate over whether poor people stay or move is the tangential question of the quality life if they stay or the quality of the move. Among others, Ellen and O’Regan (2011) find that low-income people are no more likely to move out of a gentrified neighborhood than low-income people in non-gentrified neighborhoods (Freeman 2005; Freeman and Braconi 2004; McKinnish et al. 2010; Vigdor 2002). Ding et al. go beyond this finding by investigating characteristics of residential moves in Philadelphia (2016). They find that while vulnerable residents in gentrifying neighborhoods are usually no more likely to move away than those in non-gentrifying neighborhoods, when they do, it is to lower-income neighborhoods.

At the same time, several studies have indicated a rise in concentrations of poverty away from city centers – as high-income residents move to city centers for urban amenities
even if they don’t work in the city center (often reverse-commuting), low-income people may suburbanize (Glaeser et al. 2001; Glaeser et al. 2012; Florida, 2016).

I will build on both of these advances by examining changes in concentrations of poverty in neighborhoods nearby (within 2.5 miles of) gentrified neighborhoodsin Atlanta, Georgia from 2000 to 2010. I hypothesize that concentrations of poverty will rise in nearby low-income neighborhoods, and that decreases in concentrations of poverty will correlate with gentrified neighborhoods – illustrating a move of some low-income “displaced” people not far from home but straight into even more poverty-stricken areas.

This study focuses on the mobility consequences of gentrification specifically in Atlanta. To do so, I will use U.S. Census-tract data to identify neighborhoods which have gentrified from 2000 to 2010. Then, I will use regression analysis to observe the effect of gentrification on poverty concentrations in neighborhoods nearby tracts which did and did not gentrify over the ten year period. Although Ding et al. (2016) has analyzed the quality of moves for low-income people affected by gentrification (i.e. changing socioeconomic characteristics of neighborhoods), no literature has identified concentrations of poverty in neighborhoods affected by gentrification, and I intend to do this for Atlanta.

Background

Atlanta, like every major U.S. city, has experienced dramatic gentrification since the 1970s. The peak of this phenomenon occurred in Atlanta in the 1990s (Martin 2017). The phenomenon started in the north (e.g. Old Fourth Ward, Candler Park), and today is poised to affect the south and west of the city. Year after year, decade after decade, economic growth of the city continues, there is a new “hot spot” neighborhood for young professionals, and the phenomenon continues – not an unusual story for most U.S. cities.

One part of the problem, according to some Atlanta activists, may have been the utilization of the U.S. Department of Housing and Urban Development (HUD)’s HOPE VI program in the 1990s. The program allowed for the demolition and privatization of public housing in favor of subsidized housing in private apartment complexes (Mariano 2017). As the U.S. recognizes the millennial generation as drivers of gentrification today, more attention has been brought to the issue in Atlanta – despite the fact that its peak seems to have occurred in the 1990s (Martin 2017).

Literature Review

Economists have studied gentrification since the phenomenon was first noticed as a trend in the 1970s. A surge of gentrification due to the housing boom in the 1990s led to the popular belief that gentrification directly results in the displacement of original, low-income residents. Recent economics literature has seen this not to be the case. However, little qualitative research has been done to identify mobility consequences to original low-income residents. Despite this need for more research, much has been accomplished in attempts to identify causes (amenity-based), demographic tipping points, and
quantitative looks at exit rates. I have identified several studies which inform my research from each of these perspectives.

Martin (2017) breaks determinants of gentrification into three categories – supply-side, demand-side, and urban economic explanations. Supply-side reasoning suggests that gentrification occurs after a period of disinvestment in central-city properties – part of a regular cycle. Demand-side explanations suggest that the gentrifiers – rich, White, and college-educated – drive the phenomenon. From an urban economics perspective, Brueckner and Rosenthal (2009) identified housing stock age as a determinant of gentrification. If city-central housing stock is aging, it can be expected that redevelopment will be attractive and gentrification is likely to occur.

A few more notable studies illuminate perhaps the hottest topic in the gentrification debate – analyses of what brings young, educated, middle- to high-income White people to city centers. Glaeser et al. (2001) illustrates the “Consumer City” – a vision of a city offering amenities and attracting workers who may not come to the city for work, but for the social opportunities, cultural events, and even the historic places they do not fit into but want to explore and restore. Glaeser et al. identifies four specific amenities that they hypothesize lead to the creation of such a “consumer city”: (1) the presence of a rich variety of consumer goods and services, (2) aesthetics and physical setting, (3) good public services, and (4) speed (i.e. distance to central business district (CBD)) (2001). Though these factors of attraction are not directly related to my study of the effects of gentrification on pockets of poverty in cities, they do give insight into the change in neighborhood character that economists like Ellen and O’Regan claim increase satisfaction of the low-income original residents that stay.

Additionally, Glaeser et al. (2012) identifies four variables that explain over 70 percent of variation in price growth of houses in cities from 1996 to 2006: (1) initial affordability of houses, (2) climate, (3) density, and (4) citizen education level. The paper presents a model of intraurban differences, looking at neighborhood differences with respect to distance-to-CBD, and other exogenous amenities. In addition to finding that price growth is likely faster in poor urban centers because those are precisely the centers most likely to gentrify, Glaeser et al.’s results indicate that the centralization of poverty is not an accurate proxy indicator of the centralization of employment. Additionally, the conclusion is drawn that centralized poverty may accurately reflect areas with urban assets. These conclusions may lend themselves to an implication of my hypothesis – that even though low-income people are concentrated in a neighborhood, there may not be employment in that area, even if the area is saturated with the urban assets that come with gentrification.

In Philadelphia, Ding et al. (2016) found that vulnerable residents were no more likely to move away from gentrifying neighborhoods than similar residents in non-gentrifying neighborhoods. This seemingly proves the theory of “displacement” false. Notably, in the cases that vulnerable residents do move after gentrification, they typically move to even more low-income neighborhoods. Importantly, Ding et al. studies the quality of mobility of low-income residents affected by gentrification. Looking at where residents
move is an important factor that has been ignored in previous research. Their results suggest that vulnerable residents try not to move, but when they do – an unlikely decision – they move to a more poverty-stricken neighborhood. Though this study focuses on just Philadelphia, these results would likely support my hypothesis that poor neighborhoods adjacent to gentrified neighborhoods see rising concentrations of poverty due to increased low-income residents moving, and staying, there.

Ellen and O’Regan (2011) find “no evidence of heightened displacement” in low income neighborhoods that had economic gains from an influx of high-income people. They observe an expected income gain in the neighborhood from high-income in migration, but also from the “selective out-migration” of low-income residents. Out-migration continued to happen at a relatively normal rate, but when it did happen, it was the poorest residents who left. Ellen and O’Regan use exit rates as a proxy for displacement. Since their study is on a national scale – using the Census’s American Housing Survey, it makes sense that they needed this proxy for displacement. However, it is not unreasonable that this leaves much room for endogeneity given all the reasons for moving that “exit rates” could contain. Also important to note is that Ellen and O’Regan do not attempt to study where to, or even why, residents exit. Their focus is on economic gain, staying-resident satisfaction, and, partly, on shifts in demographic makeups.

Data and Methodology

I will use census-tract data to identify all neighborhoods that could gentrify (essentially, all low-income central-city tracts), and find which of those gentrified and which did not. This will require that I define what is considered “gentrified.” To do so, I will draw on current research from Martin (2017), which uses one income variable to identify gentrifying neighborhoods which experience high rates of income growth compared to the average for the greater metropolitan area. I will also draw on data collected by Martin. He has organized census-tract data, including income and population rates, for major cities across the U.S. I will home in on Atlanta from 2000 to 2010 and will compare the change in poverty rates of tracts for tracts that are or are not nearby gentrified tracts.

This study uses data from the Neighborhood Change Database (NCDB), courtesy of Richard Martin. I use census-tract-level data which are geographically consistent across years. Census tracts proxy for neighborhoods particularly well in a large city by dividing it into land areas that are generally capped at similar population sizes within natural boundaries like roads. The sample includes 945 tracts in the Metro Atlanta area, defined by the NCDB as the “Atlanta-Sandy Springs-Roswell Core-Based Statistical Area.” Median household incomes for 2000 and 2010 are included in the data, as well as population in poverty and socioeconomic and demographic characteristics.

Before tracts can be identified as gentrified, gentrifiable tracts must be identified. In order to be gentrifiable, a tract must be (1) city-central and (2) relatively low-income for the metro area. Thus, I identify 129 tracts which are coded as 4000 for the Place variable which indicated that they are located in City of Atlanta proper. Then I identify which of
those have a median income of less than 80 percent of the median metropolitan income. Note that I compare median incomes for Atlanta-proper tracts to Metro Atlanta median incomes. This distinction is intentional because the issue of gentrification necessarily involves greater metropolitan residents. This yielded a total of 86 gentrifiable tracts, mostly concentrated on the south side of the city.

Of these, a tract may then be gentrified if its income changes by the median change in income for the metropolitan area ($5149) from 2010 to 2000. Dollar-amount change is used instead of percentage change because within a city, income growth is already relatively homogenous. Using dollar-amount changes, as opposed to percentage change income growth, provides a more accurate picture of the disparities that occur. A total of 467 tracts had gained less than $5149 in median income over the ten-year period. Of these, a total of 41 were also gentrifiable. These 41 tracts make up the gentrified tracts for this study.

For the purposes of this study, “concentration of poverty” is defined as the number of poor households per square mile. This definition is density-based. Rather than using poverty rate (percentage of the population which is poor) or total poverty (number of poor households), this definition truly illustrates concentration, which provides a more helpful understanding of the concentration of poverty in a dense urban population.

With this data, I run a multivariable regression with the 84 tracts which were not found to be gentrifying from 2000 to 2010. This is because of the focus of the study: to assess effects of moves on nearby neighborhoods, rather than the gentrified tracts themselves. Recall that the goal is to highlight the effects of moves. The regression (Equation 1) uses PoorPerSqMile2010, or poverty concentration, as the dependent variable, and Close, a dummy variable identifying the tract as being 2.5 miles or less from a gentrified neighborhood, as the independent.

\[
\text{PoorPerSqMile2010} = \beta_0 + \beta_1 \text{Close} + \beta_2 \text{CodingForCloses} + \beta_3 \text{ShrBlk}0 + \beta_4 \text{ShrFor0} + \beta_5 \text{EducPercent} + \beta_6 \text{UnempRt}0 + \beta_7 \text{Percent39} + \beta_8 \text{UMdGRent}0 + u
\]

The variables are defined below in Table 1.

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1 There is no specific reasoning behind this choice, other than that 2.5 miles was relatively small given the range of distances (0.17, 16.44). Additional research to follow up this study should test for the most impactful distance between tracts. Because of resource limitations, mapping was an impossibility given this data. If mapping is possible in further research, it would be valuable to conduct this test for adjacent neighborhoods.
Table 1

<table>
<thead>
<tr>
<th>PoorPerSqMile2010</th>
<th>Poor persons per square mile of the tract, in 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Close</td>
<td>Dummy variable: 0 = tract is not within 2.5 miles of one of the 46 gentrifying tracts; 1 = tract is 2.5 miles of less away from at least on gentrifying tract</td>
</tr>
<tr>
<td>CodingForCloses</td>
<td>Number of additional gentrified neighborhoods the given tract close to, after the first one. 0 or 1 neighborhoods = 0, but 2 = 1, 3 = 2, etc. The highest number here is 23.</td>
</tr>
<tr>
<td>Shrblk0</td>
<td>Share of people in tract that are black, 2000</td>
</tr>
<tr>
<td>Shrfor0</td>
<td>Share of people in tract that are foreign-born, 2000</td>
</tr>
<tr>
<td>EducPercent</td>
<td>Percent of people in tract that have college degrees, 2000</td>
</tr>
<tr>
<td>Unemprt0</td>
<td>Unemployment rate, 2000</td>
</tr>
<tr>
<td>Percent39</td>
<td>Percent of houses that were built in or before 1939</td>
</tr>
<tr>
<td>Mdgrent0</td>
<td>Median gross rent in 2000</td>
</tr>
</tbody>
</table>

This multivariable linear regression yields a coefficient which predicts the effect that being close to a gentrified neighborhood has on poverty concentration.

Results and Discussion

The results of the regression, below in Table 2, did not support my hypothesis: If a tract is within 2.5 miles of a gentrified neighborhood, it can be expected that the tract has 238.56 less households in poverty per square mile. This negates my hypothesis that being close to a gentrified tract will increase the likelihood of poor people per square mile. At the same time, however, for every additional gentrified tract that a tract is close to, it is expected that 65.1 additional households per square mile will be poverty-stricken. Being close to a gentrified neighborhood doesn’t necessarily indicate higher concentration of poverty (in fact the opposite), but being surrounded by many does.
Every variable aside from the number of additional (>1) gentrifying properties near the tract (CodingForCloses) had a negative correlation with poverty concentration. A higher year-2000 share of black or foreign-born residents results in decreases in the concentrations of poverty, as does a higher percentage of college-educated residents in 2000, interestingly. For every unit increase in unemployment rate in 2000, it’s expected that 1399.74 less people per square mile experienced poverty in 2010. A higher unemployment rate to start out with predicts a lower concentration of poverty in the future. This supports Glaeser et al. (2012)’s conclusion that centralized employment is not a proxy for centralized poverty.

For a unit increase in the percent of houses built before 1939 in a tract, the expected 2010 concentration of poverty in the tract will decrease by 2273 persons. This appears to support the theory of Bruckner and Rosenthal (2009) that house age encourages development. (This theory assumed a cyclical nature of disinvestment and reinvestment, which is not necessarily evident here.) Lastly, for a unit increase in the median gross rent in 2000, a tract could expect no increase – and a minor decrease – in poverty concentration. This is unexpected, because theories of gentrification typically expect that higher rents to begin with will lead to decreased likelihood of gentrification.

The R² for this regression was 0.52 – moderately strong given the variables, and the standard errors were generally large across the board. Several things could have been improved to make this a more accurate prediction. The CodingForCloses variable, which identified how many gentrifying neighborhoods were close to a tract for those tracts close to more than one, could be improved by creating quartiles for more smooth data. Also, some endogeneity likely exist in these variables, as it is known that variables such as share of black and foreign-born people, education levels, and unemployment rates

<table>
<thead>
<tr>
<th>poorper~2010</th>
<th>Coef.</th>
<th>Std. Err.</th>
</tr>
</thead>
<tbody>
<tr>
<td>close</td>
<td>-238.5617</td>
<td>205.1393</td>
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<tr>
<td>codingforc~s</td>
<td>65.17288</td>
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<td>percent39</td>
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</tr>
<tr>
<td>mdgrent0</td>
<td>-1.741291</td>
<td>6223843</td>
</tr>
<tr>
<td>_cons</td>
<td>4443.246</td>
<td>1001.417</td>
</tr>
</tbody>
</table>

Table 2
have cross effects. Likewise, it is unlikely that percent of houses built before 1939 can be separated from median gross rent.

Lastly, recall that unlike Ding et al. (2016), I did not first determine the amount of moving (or lack there of) that was seen as a result of gentrification. An ideal study would go further by combining Ding et al.’s approach to Philadelphia – identification of frequency of moves – with my follow-up of the effects of moves on poverty concentrations. Without both of these pieces of analysis, the picture is incomplete. With these results, we see that concentration of poverty is expected to decrease relative to the existence of a gentrified tract nearby, but we are unable to see if this relationship has to do with moves. With this lack of information, it could very well be the case that concentrations of poverty are likely to decrease because poor residents move out of poor tracts, perhaps even into gentrifying neighborhoods.

Conclusion

It is clear that gentrification is an inevitable phenomenon that drastically affects the livelihoods of residents in low-income neighborhoods in nearly every major U.S. city, and Atlanta is a prime example of this. Its causes are powerful but elusive. The consequences, unfortunate as they may be, are still unclear in the literature, including this study. How can a phenomenon of economic growth be supposedly so detrimental to so many neighborhoods, yet not show up – or be unclear – in the data? Much research must still be done to determine whether and to what extent people are displaced as a direct result of gentrification. Furthermore, if displacement is seen, we must ensure that quality of moves is understood as well. The debate continues as to whether the “suburbanization of poverty” is the future (and if that is a bad thing), or if poor people’s lives will ultimately benefit from the positive spillover effects of gentrification (these have yet to be studied in a quantitative way).

This study identified 46 critical tracts in Atlanta undergoing gentrification in the 21st century and found that when lots of nearby neighborhoods gentrify, poorer neighborhoods feel the effects. I hypothesized that when impoverished residents are displaced, even though this occurs rarely (assuming Ding et al.’s conclusion), poorer neighborhoods nearby become even poorer. After the linear regression performed with the available neighborhood data, the results failed to support my hypothesis and were surprising for most variables. If a non-gentrifying tract is within 2.5 miles of a gentrifying tract, it can expect to have less concentrated poverty. On the other hand, for every additional gentrifying tract within 2.5 miles, a tract’s poverty concentration is expected to gentrify. It is unclear what is driving this difference in effects. Being surrounded by numerous gentrifying tracts (the max being 23 tracts) predicts higher numbers of poor people per square mile. Just being near one or none probably indicates that the neighborhood is not struggling with poverty and is perhaps even benefiting from one nearby gentrifying district.

What remains to be seen are further implications of these effects. For example, this presumed movement of poverty from one neighborhood to another nearby could lead to
the so-called “suburbanization of poverty” – the gradual process of movement of impoverished people to the suburbs of cities, who then commute in to work. Another possibility is the opposite: that over time, concentrations of poverty get denser and denser, until there are pockets or zones of poverty next door to rich neighborhoods. This is a far cry from planned “mixed income” developments that some activists push for as a solution to gentrification today. Policies to stop or mitigate the negative effects of gentrification may continue to be uninformed or misguided if more research does not soon come to agreement on the causes, and arguably more importantly, the consequences of gentrification.

In the case of Atlanta, there may be a need for ease of mobility if poor residents are not moving. Given the results of this study, concentrations of poverty only rise when more and more gentrifying neighborhoods crop up near a non-gentrifying ones. Whether the causes of this are supply-side (low rents and other attractions bringing in developers) or demand-side (young rich people redefining the neighborhoods themselves), these results illustrate a picture of non-gentrifying tracts quickly becoming surrounded by those up-and-coming neighborhoods they once avoided for years or decades. Perhaps if gentrification continues to be as unstoppable as it has been since the 1970s, mobility could be a good thing for people living in poverty. Alternatively, since this study did not study spillover effects of nearby gentrifying neighborhoods, staying might be the better option for impoverished persons in Atlanta. If this is true, then mixed-income mandates proposed in Atlanta could be beneficial. Cities today face a difficult conflict: Of course it makes sense to encourage investment and revitalization of struggling neighborhoods, but it is also unjust to put original homeowners and long-term renters in the difficult position of struggling to keep up with the rapid change, however beneficial it may be. Further efforts to understand the consequences that impoverished people are forced to deal with as the result of gentrification – whether it be mobility or positive or negative spillover effects – will help Atlanta to deal with this change.
References


