

GENTRIFICATION AND DISPLACEMENT IN NEW YORK CITY, REVISITED

A Thesis
submitted to the Faculty of the
Graduate School of Arts and Sciences
of Georgetown University
in partial fulfillment of the requirements for the
degree of
Master of Public Policy

By

Daniel Alexander Clark, B.A.

Washington, DC

April 14, 2021

Copyright 2021 by Daniel Alexander Clark
All Rights Reserved

GENTRIFICATION AND DISPLACEMENT IN NEW YORK CITY, REVISITED

Daniel Alexander Clark, B.A.

Advisor: John Hisnanick, Ph.D.

ABSTRACT

Gentrification has become commonplace in major American cities in the early 21st century. Many scholars worry that increased housing market pressures leads to displacement of low-income residents. Displacement is associated with a host of negative outcomes, such as health and education. Despite much discussion of gentrification and displacement, relatively few studies attempt to quantify the relationship. I analyze the relationship between living in a gentrifying neighborhood and the probability of displacement in New York City for low- and middle-income renters. Using census data, I identify gentrifying neighborhoods and a comparable group of non-gentrifying neighborhoods at the sub-borough level. With the New York City Housing and Vacancy Survey, I track where households live and move from at the sub-borough level, along with the reason they gave for moving. I find that living in a gentrifying neighborhood is associated with a higher likelihood of displacement compared to living in a persistently low-income neighborhood. Given this finding, lawmakers should consider both short-term and long-term ways to alleviate displacement pressures from gentrification.

I am very grateful for the advice and assistance of John Hisnanick throughout the writing of this thesis. None of this would have been possible without the support and love of Megan and Molly

Clark. I owe the world to them.

Many thanks,
Danny

TABLE OF CONTENTS

INTRODUCTION	1
LITERATURE REVIEW	4
The Gentrification Debate.....	4
Measuring Displacement and Gentrification	6
Housing Market Interventions and Displacement.....	8
Changing Conditions	9
DATA AND METHODS	12
Data Source	12
Variable Construction.....	13
Sample	14
Regression Model.....	15
EMPIRICAL RESULTS	16
Neighborhood Selection	16
Univariate Analysis	18
Regression Results.....	20
DISCUSSION AND CONCLUSION.....	23
Significance of Findings and Policy Implications.....	23
Limitations	25
Future Research.....	27
Concluding Thoughts	28
BIBLIOGRAPHY	29

INTRODUCTION

The relationship between gentrification and displacement has been at the center of scholarly and public discourse on gentrification for decades.¹ In the early 2000s, several articles found little or no evidence of a relationship between gentrification and increased direct displacement. Newman and Wyly found a small, but significant number of direct displacements in New York City during the 1990s and early 2000s.² Attempts to measure displacement since largely do not attempt to determine whether the displacement is “direct” (e.g. tenant coerced into leaving through force or high rent) or “indirect” (e.g. tenant voluntarily moves out unrelated to expense and the next tenant has higher income).³ Scholars expect these two forms of displacement have meaningfully different outcomes. With direct displacement tenants are forced from their place of living, which is associated with poor health outcomes, loss of neighborhood ties, and poor school performance.⁴ In indirect displacement, the tenant leaves without pressure. There are negative outcomes with this, as indirect displacement can lead to a loss of affordable housing, but the effect on the tenant is not nearly as negative as direct displacement.

¹ See George Wagner, “Gentrification and Displacement in Baltimore,” *Urban Affairs* 17, no. 1 (1995): 81-96, [10.1111/j.1467-9906.1995.tb00523.x](https://doi.org/10.1111/j.1467-9906.1995.tb00523.x); Lance Freeman and Frank Braconi, “Gentrification and Displacement: New York City in the 1990s” *Journal of the American Planning Association* 70, no. 1 (2004): 51, <https://search.proquest.com/docview/58866371?accountid=11091>; Seth Chizek, “Gentrification and Change in the Stock of Low-Cost Rental Housing in Philadelphia, 2000 to 2014,” Federal Reserve Bank of Philadelphia (2017), last accessed December 10, 2019, <https://ideas.repec.org/a/fip/fedpcf/0005.html>.

² Kathe Newman and Elvin Wyly, “The Right to Stay Put, Revisited,” *Urban Studies* 43, no. 1 (2006): 23-57, doi: 10.1080/00420980500388710.

³ See *American Neighborhood Change in the 21st Century*, Minneapolis: Institute on Metropolitan Opportunity, 2019. Last accessed October 26, 2019. https://www.law.umn.edu/sites/law.umn.edu/files/metro-files/american_neighborhood_change_in_the_21st_century_-_full_report_-_4-1-2019.pdf and *Shifting Neighborhoods*, Washington: National Community Reinvestment Coalition (2019), last accessed September 17, 2020. <https://ncrc.org/gentrification/>.

⁴ For more on eviction, Matthew Desmond, “Eviction and the Reproduction of Urban Poverty” *American Journal of Sociology* 118 (2012): 88-133, doi: 10.1086/666082. For description of difference of indirect and direct displacement, Newman & Wyly, 25.

In 2004, Lance Freeman and Frank Braconi found low-income renters were less likely to be displaced in gentrifying neighborhoods than non-gentrifying neighborhoods in New York City during the 1990s. Newman and Wyly critiqued the paper's methods and quantified displacement for all of New York City. They found a relatively small number of displacements in any given year, but argued that profoundly harmful consequences are still important even if infrequent. After in-depth interviews with low-income residents of gentrifying New York City neighborhoods, Newman and Wyly located an explanation for why displacement was infrequent: strong tenant protections and affordable housing programs. Many residents were insulated from increased rent by rent regulations. They cited other reasons, like an informal housing market, community campaigns, and inclusionary zoning, though Newman and Wyly did not believe these were as robust or immune to market pressures as rent-stabilization. They were concerned market pressures and the erosion of tenant protections would lead to a new displacement crisis.⁵

This warning seems to be justified. Since their publication, the housing affordability crisis has only intensified in major cities like New York.⁶ The Bloomberg administration relied on inclusionary zoning that largely failed to produce affordable units, neglected the NYCHA, and did little to prevent thousands of rent-stabilized apartments from becoming market rate.⁷ The de Blasio administration began to reinvest in affordable housing, planning to generate 300,000 new affordable units by 2026. However, those units rarely are deeply affordable, loss of rent-stabilized apartments continued, and NYCHA remains neglected.⁸ Gentrification has accelerated

⁵ Ibid, 48-51.

⁶ Caroline Spivack, "NYC's affordability crisis continues to deepen, report shows," *Curbed New York*, June 20, 2019, <https://ny.curbed.com/2019/6/20/18691426/nyc-affordable-housing-worsen-comptroller-report>.

⁷ Amy Plitt and Caroline Spivack, "Bloomberg's track record on NYC housing policy is only so-so," *Curbed New York*, November 25, 2019, <https://ny.curbed.com/2019/11/25/20981929/michael-bloomberg-2020-campaign-housing-homeless-nyc>.

⁸ Caroline Spivack, "How Bill de Blasio's housing record stacks up to his 'working people' platform," *Curbed New York*, May 16, 2019, <https://ny.curbed.com/2019/5/16/18627601/election-2020-bill-de-blasio-affordable-housing-homeless-record>.

since 2000 in major American cities.⁹ New York City rents are rising faster than incomes.¹⁰ Despite these growing concerns, few have attempted to quantify direct displacement in the 2010s.

In 2019, New York State strengthened rent control and stabilization laws.¹¹ If displacement is more likely in gentrifying neighborhoods, then New York would be justified in pursuing policy interventions like rent control. The most frequently cited reason for displacement is housing costs, so moderating rent increases would decrease displacement.¹² Since rents tend to rise in gentrifying neighborhoods as compared with persistently low-income neighborhoods, strengthened rent control would disproportionately prevent displacement in gentrifying neighborhoods as compared with persistently low-income neighborhoods. If displacement is more likely in non-gentrifying low-income neighborhoods, then policy solutions less focused on fluctuations in rent may be better to decrease displacement. Further, rent control may reduce housing quality and increase condominium conversion, which reduces the supply of rental apartments.¹³ Given the potential drawbacks of rent control, New York City policymakers may prefer other policies more focused on assisting persistently low-income neighborhoods rather than policies targeted at preventing displacement in gentrifying neighborhoods. To determine which approach is more justified, I plan to replicate the Freeman and Braconi 2004 study using the New York City Housing and Vacancy Surveys from 2011 and 2014.

⁹ Ingrid Ellen and Lei Ding, "Advancing Our Understanding of Gentrification," *Cityscape* 18, no. 3 (2016): 3-8, <http://www.jstor.org/stable/26328270>.

¹⁰ See "Affordability Index" <https://comptroller.nyc.gov/reports/affordability-index/>.

¹¹ Sharon Otterman and Matthew Haag, "Rent Regulation in New York: How They'll Affect Tenants and Landlords," *New York Times*, June 12, 2019, <https://www.nytimes.com/2019/06/12/nyregion/rent-regulation-laws-new-york.html>.

¹² Newman and Wyly, 40.

¹³ Yesim Sayin Taylor, "Rent Control Literature Review," *DC Policy Center*, April 1, 2020, <https://www.dcpolicycenter.org/publications/rent-control-literature-review/>.

LITERATURE REVIEW

The Gentrification Debate

Sociologist Ruth Glass coined the term “gentrification” in 1964, defining it as “Large Victorian houses, downgraded in an earlier or recent period – which were used as lodging houses or were otherwise in multiple occupation – have been upgraded once again...Once this process of ‘gentrification’ starts in a district it goes on rapidly until all or most of the original working-class occupiers are displaced and the social character of the district is changed.”¹⁴ She identified three aspects of gentrification: high-income people moving into a neighborhood, displacement of incumbent residents, and change of the “social character” of the neighborhood. Scholars since have defined gentrification in numerous ways, with additional dimensions of race, educational status, and the income level of the incumbent residents.¹⁵ Many early and some contemporary definitions of gentrification continue to consider displacement an inherent outcome of gentrification.

Gentrification theoretically can have both positive and negative consequences. William Julius Wilson argues in *The Truly Disadvantaged* that the flight of middle-income Black families from segregated neighborhoods in the 1960s and 1970s resulted in neighborhoods with severe concentration of poverty. He argues this led to increases in crime and unemployment as middle-income Black families provided a network of employment opportunities for low-income Black families.¹⁶ By moving into impoverished neighborhoods, high-income families could bring employment opportunities as well. Gentrification has also reversed the decline of city revenues,

¹⁴ Loretta Lees, Tom Slater, and Elvin Wyly, *Gentrification* (New York: Routledge, 2008), 4.

¹⁵ Elizabeth Kirkland, “What’s Race Got to Do With it? Looking for the Racial Dimensions of Gentrification,” *Western Journal of Black Studies* 32, no. 2 (2008): 18-28, <https://search.proquest.com/docview/852898468?accountid=11091>.

¹⁶ William Julius Wilson, *The Truly Disadvantaged: The Inner City, the Underclass, and Public Policy* (University Chicago Press, 1987), 57-58.

expanding government capacity to support low-income residents.¹⁷ Wealthier residents can also attract public amenities, like grocery stores, and demand better administration of public services.¹⁸ Gentrification may bring the benefits class integration, stable city government finances, and more neighborhood amenities.

Despite these possible benefits, many gentrification scholars suggest gentrification primarily has negative consequences, chief among them displacement.¹⁹ These scholars worry that landlords raise rents as demand increases from higher income in-movers. Further, many believe that in response to these market pressures landlords will evict or otherwise displace low-income residents.²⁰ After a certain point, the neighborhood may change from primarily serving low-income residents to cater to wealthier residents. These changes can manifest in types of housing, who businesses serve, and how public spaces are used. The expected rent increases limits availability of affordable housing, leaving less housing options for low-income renters. As a result, low-income residents would be excluded from additional neighborhood amenities.

Direct displacement occurs when a renter feels or is compelled to move for reasons outside of their control. This includes eviction, conversion of a rental unit to a condominium, landlord harassment, and increased housing cost in the form of rent or taxes.²¹ Matthew Desmond succinctly summarizes the scholarly evidence of the negative impact of displacement, “Increased residential mobility is associated with a host of negative outcomes, including higher rates of adolescent violence, poor school performance, health risks, psychological costs, and the

¹⁷ Peter J. Byrne, “Two Cheers for Gentrification,” *Georgetown Law Faculty Publications and Other Works* 46, no. 3 (2003): 930.

¹⁸ Lance Freeman and Frank Braconi, “Gentrification and Displacement: New York City in the 1990s,” *Journal of the American Planning Association* 70, no. 1 (2004): 51, <https://search.proquest.com/docview/58866371?accountid=11091>.

¹⁹ For more on other negative impacts of gentrification, see Derek Hyra, “The Back to the City Movement,” 2015.

²⁰ Newman and Wyly, 23-25.

²¹ *Ibid.* 29.

loss of neighborhood ties.”²² Considering the severe harm caused by displacement, the disproportionate scholarly attention is well warranted.

Measuring Displacement and Gentrification

In the late 1990s and 2000s, several scholars questioned whether displacement was inherent to gentrification. Jacob Vigdor found poor residents in Boston were just as likely to move out of gentrifying neighborhoods as non-gentrifying neighborhoods. However, his study did not include the resident’s motivation for moving, so the study did not provide evidence for the likelihood of displacement.²³ Lance Freeman and Frank Braconi used the New York City Housing and Vacancy Survey (NYCHVS) to analyze movements of poor households. They compared gentrifying neighborhoods to non-gentrifying neighborhoods, finding poor households were less likely to be displaced from gentrifying neighborhoods than in non-gentrifying neighborhoods. They concluded low-income residents largely moved voluntarily and were succeeded by higher-income residents in gentrifying neighborhoods. If this is true, gentrification leads to a process of “replacement” of low-income residents rather than displacement of those residents. The harm to low-income residents would largely be limited to a dwindling supply of low-income housing (indirect displacement), rather than the harms of eviction, landlord harassment, and/or displacement.²⁴ Later, Freeman posited that improved amenities gave low-income residents more reason to struggle to avoid displacement.²⁵ This sparked a series of national headlines extolling the virtues of gentrification. These commentators concluded low-

²² Matthew Desmond, “Eviction and the Reproduction of Urban Poverty,” *American Journal of Sociology* 118, no. 1 (2012): 89. <https://www.jstor.org/stable/10.1086/666082>.

²³ Jacob Vigdor, “Does Gentrification Hurt the Poor?” *Brookings-Wharton Papers on Urban Affairs* (2002): 168-170, <https://www.jstor.org/stable/25067387>.

²⁴ Freeman and Braconi, 45-51.

²⁵ Lance Freeman, *There Goes the ‘hood: Views of Gentrification from the Ground Up* (Temple University Press, 2006), 62-68.

income neighborhoods could gain from having higher-income residents, in the process reducing the concentration of poverty and promoting integration. According to them, regular housing succession would take place without the negative consequences of forcing low-income families to move. These articles also tended to ignore the tentative conclusions of the scholars; the social safety net and regulations on the rental market were critical to prevent displacement. Instead, many promoted these findings to advocate for further deregulation of the rental market.²⁶

In response to these misconceptions, Kathe Newman and Elvin Wyly undertook their own study of the NYCHVS data from the 1990s. They disputed that these studies conclusively determined displacement is not a problem (Freeman and Braconi did not assert this either). First, they claimed the neighborhoods Freeman & Braconi identified as “gentrifying” had already gentrified in the previous decades. The low-income residents of the 1990s would likely be more resilient to displacement pressures compared to the residents 10 or 20 years prior. Further, the control group consisted of some of the poorest parts of New York, meaning the group would be more mobile than elsewhere in the city. Rather than comparing displacement across neighborhoods, they quantified displacement from the entirety of New York City by year during the 1990s. They found a small fraction (6-10%) of local moves in New York were due to displacement, which in absolute terms ranged from 8,341 – 11,651 households per year. They emphasized that something irregular, but with strong negative consequences, is still worth studying and consideration by policymakers. While doing this quantitative work, they conducted 33 interviews with tenant activists and low-income residents in gentrifying neighborhoods. They found residents relied on several tactics to shield themselves from displacement, including affordable housing protections and private strategies. Many tenants said they could no longer

²⁶ Rick Hampson, “Studies: Gentrification a Boost for Everyone,” *USA Today*, April 20, 2005, 13A-14A.

rely on private strategies, like accepting poor-quality housing or informal landlord relationships as market pressures erode those relationships. Rent control, public housing, and other market regulations were critical for thousands of residents rather than just a barrier for further development as others posited.²⁷ Newman, Wyly, Alex Schafran, and Elizabeth Lee used similar methods with NYCHVS data from the 2000s, drawing largely similar conclusions.²⁸

Housing Market Interventions and Displacement

There are mixed quantitative findings about the effect of rent control on displacement and affordability. In San Francisco, researchers used a quasi-experimental approach to estimate the impact of a 1994 rent control law. They found rent control lowered displacement by about 20%, but also found a decline in housing supply, in the form of conversion to condominiums. In the long run this could raise rent of unregulated units due to constrained supply. Further, condominium conversions in effect displace incumbent residents, reducing the benefits of rent control.²⁹ A study of Boston's deregulation of rent control found that new housing permits did not increase, but that housing supply under rent control was constrained by condominiums.³⁰ Other government interventions have less research on displacement. Ellen and Toratts-Espinosa used HUD housing choice voucher data and ACS data to examine rent-burden and displacement for voucher-holders in the US, finding vouchers insulated households from gentrification

²⁷ Newman and Wyly, 44-49.

²⁸ Elvin Wyly et al, "Displacing New York," *Environment and Planning A* 42 (2010): 2602-2623, doi:10.1068/a42519.

²⁹ Rebecca Diamond, Tim McQuade, and Franklin Qian, "The Effects of Rent Control Expansion on Tenants, Landlords, and Inequality: Evidence from San Francisco," *The American Economic Review* 89, no. 1 (2019): 3365-3394, DOI: 10.1257/aer.20181289.

³⁰ David P. Sims, "Out of Control: What Can We Learn from the End of Massachusetts Rent Control," *Journal of Urban Economics* 61, no. 1 (2007): 129-151, <https://doi.org/10.1016/j.jue.2006.06.004>.

pressures.³¹ NYCHA units are disproportionately located in gentrifying neighborhoods, which protects residents from rising rents that might have otherwise displaced them.³²

Changing Conditions

Since Newman and Wyly's two publications, gentrification pressures have accelerated. After decades of decline, cities grew in population, along with gentrification, starting in 2000.³³ Using census data, the University of Minnesota's Institute on Metropolitan Opportunity identified census tracts that were growing, had displacing residents, a greater concentration of poverty, and being abandoned. Largely, they found gentrification was confined to a few major cities, such as Washington DC, New York City, and Los Angeles.³⁴ Ellen and Ding looked at trends in income, educational attainment, and race and found accelerated gentrification in the 2000s compared to the previous two decades.³⁵ Most evidence points to accelerated gentrification in the past two decades compared to the 1990s.

At the same time, the housing affordability crisis has become particularly acute. The percentage of rent-burdened Americans has risen over the past two decades, and severely rent-burdened low-income residents has also increased. Utility costs have soared over 50% since 2000, income has been flat, and federal housing assistance has stalled out.³⁶ New York City in

³¹ Ingrid Ellen and Gerard Torrats-Espinosa, "Do Vouchers Protect Low-Income Households from Rising Rents?" *Eastern Economic Journal* 46, no. 2 (2020): 260-281, <https://doi.org/10.1057/s41302-019-00159-y>.

³² "How NYCHA Preserves Diversity in New York's Changing Neighborhoods," New York City: NYU Furman Center, 2019). Last accessed October 20, 2020. https://furmancenter.org/files/NYCHA_Diversity_Brief_Final_4-30-2019.pdf.

³³ Nathaniel Baum-Snow and Daniel Hartley, "Accounting for Central Neighborhood Change, 1980-2010," *Journal of Urban Economics* 117 (2020): 103228, DOI: 10.1016/j.jue.2019.103228.

³⁴ *American Neighborhood Change in the 21st Century*, Minneapolis: Institute on Metropolitan Opportunity, 2019. Last accessed October 22, 2020. https://www.law.umn.edu/sites/law.umn.edu/files/metro-files/american_neighborhood_change_in_the_21st_century_-_full_report_-_4-1-2019.pdf.

³⁵ Ingrid Ellen and Lei Ding, "Advancing Our Understanding of Gentrification," *Cityscape* 18, no. 3 (2016): 3-8, <http://www.jstor.org/stable/26328270>.

³⁶ Matthew Desmond, "Unaffordable America: Poverty, Housing, and Eviction," *Fast Focus* 22 (2015): 1-2, <https://www.irp.wisc.edu/publications/fastfocus/pdfs/FF22-2015.pdf>.

particular has seen rising rental costs. NYC's Comptroller's Affordability Index found the median rent, along with other expenses, continues to climb in comparison to income.³⁷ The number of public housing units in New York City declined slightly in the past decade, from about 179,000 in 2010 to just under 174,000 in 2019. The number of New Yorkers served by Section 8 declined by about 50,000 residents.³⁸ The city also lost over 150,000 rent-stabilized apartment units since 1994.³⁹ Increasing costs and erosion of tenant protections would increase displacement pressures on low-income families in gentrifying neighborhoods.

There have not been many attempts to quantify direct displacement in the intervening years despite the changed conditions since the 1990s. Several scholars have attempted to quantify changes at the neighborhood level, but rarely look at the mechanism behind this change. The Institute on Metropolitan Opportunity's report only examines demographic shifts in census tracts, which fails to capture whether the reason for the decline in low-income households is due to displacement, succession, or an increase in household income.⁴⁰ While these types of reports are useful for quantifying the changing demographics and affordability of major US cities, they have no bearing on the displacement and replacement debate. There are two new working papers on gentrification and mobility, but neither attempt to measure displacement. Brummet and Reed studied ACS data from 2000-2014 and found gentrification is related to more out-migration, but not worsened outcomes.⁴¹ Dragan et al. used a Medicaid dataset to track children recipients of Medicaid over time, comparing mobility rates between gentrifying and low socioeconomic status

³⁷ See "Affordability Index" <https://comptroller.nyc.gov/reports/affordability-index/>.

³⁸ For 2010 data, see <https://www1.nyc.gov/assets/nycha/downloads/pdf/annual-report-2010.pdf>. For 2019 data, see NYC Fact Sheet https://www1.nyc.gov/assets/nycha/downloads/pdf/NYCHA-Fact-Sheet_2019_08-01.pdf.

³⁹ <https://rentguidelinesboard.cityofnewyork.us/wp-content/uploads/2019/08/2017-Changes.pdf>

⁴⁰ *American Neighborhood Change in the 21st Century*, 2019.

⁴¹ Quentin Brummet and Davin Reed, "Gentrification and the Location and Well-Being of Original Neighborhood Residents," Philadelphia Fed working paper 19-30, <https://www.philadelphiafed.org/-/media/frbp/assets/working-papers/2019/wp19-30.pdf?la=en>.

neighborhoods. Interestingly, this paper is able to follow families wherever they move. The authors found no difference in mobility between renters in subsidized and non-subsidized housing and gentrification and non-gentrification. The former is especially interesting as one would expect more stability with households receiving a place-based subsidy. However, mobility can include moving for reasons other than displacement. Further, the authors did not consider rent-stabilized units separately from market rate units when comparing subsidized and non-subsidized housing, which could mask the effect of stabilized units.⁴² There have been few attempts to quantify displacement compared to its outsized role in discourse and potential impact.

This paper will attempt to reengage with and update Freeman and Braconi's findings on displacement. While there have been a few attempts to compare mobility in gentrifying and non-gentrifying neighborhoods since the 1990s, there are almost no actual attempts to quantify displacement since. With rapidly rising housing costs, gentrification and displacement pressures continue to rise. Without estimates for actual displacement, we do not know if the potential benefits of gentrification, such as integration and better amenities, are outweighed by displacement.

⁴² Kacie Dragan, Ingrid Ellen, and Sherry Glied, "Does Gentrification Displace Poor Children? New Evidence from New York City Medicaid Data," NBER working paper 25809, <https://www.nber.org/papers/w25809>.

DATA AND METHODS

Data Source

The NYCHVS is conducted by the Census Bureau every three years. It is sponsored by the New York City Department of Housing Preservation and Development to measure the city's vacancy rate. If the vacancy rate is less than 5%, then rent control laws can continue to be in effect.⁴³ About 19,000 households are surveyed on a variety of questions, including demographic characteristics, housing conditions, and household mobility. Each unit represents about 170 similar units in New York City.⁴⁴ I use NYCHVS data from 2011 and 2014. Both are weighted using 2010 Census data and have few differences in survey questions or design. Some buildings are added or subtracted from the sample as they enter and exit the housing market.

The NYCHVS has the sub-borough each household resides. While many studies of gentrification focus on census tracts for granular level of analysis, this data is not available in the NYCHVS and surveys at the tract level do not contain as detailed information on displacement as the NYCHVS. Despite this drawback, the sub-borough neighborhoods map very closely to New York City's Community Districts. Because of New York City's density, these districts can be identified as discrete neighborhoods, like Chelsea and Williamsburg. The 2011 and 2019 American Community Surveys (ACS) contain important demographic information at this geographic level. I will use those surveys to identify gentrifying neighborhoods. The ACS has limited data on neighborhood characteristics related to housing prices, age of buildings, and quality, all important parts of gentrification. However, there is no alternative data source with such detailed information publicly available, and the ACS has high-quality demographic

⁴³ Elvin Wyly et al, "Displacing New York," *Environment and Planning A* 42 (2010): 2607, doi:10.1068/a42519.

⁴⁴ "Overview of the New York City Housing and Vacancy Survey," *NYC Department of Housing Preservation and Development*, rentguidelinesboard.cityofnewyork.us/wp-content/uploads/2019/08/2017_hvs_overview.pdf.

information at the sub-borough level, which should be enough to verify if a neighborhood is gentrifying.

Variable Construction

I generate the displacement variable from a survey question asking for the primary reason why a respondent moved. Freeman and Braconi along with Newman and Wyly classified the following responses for displacement: displaced by private action (such as condominium conversion or a landlord taking over a unit for their own living space), landlord harassment, and renter wanted a less expensive residence or had difficulty paying rent. They did not include eviction in this measure, though eviction may be an indicator of rising rent or a landlord's desire to "flip" the unit to charge more rent. This variable may both overstate and understate the amount of displacement. For example, some households may move voluntarily to find cheaper living arrangements, thus overestimating the amount of displacement due to economic concerns. At the same time, the sampling frame does not include homeless residents, people who moved out of New York City, or individuals who "doubled up" by moving in with a friend or relative.⁴⁵

My key independent variable is residence or moved from a gentrified neighborhood. A household who remained in a gentrifying neighborhood the previous three years is classified as living in a gentrifying neighborhood. If a household moved from a gentrifying sub-borough to anywhere else in the city, that household will also be classified as living in a gentrifying neighborhood. I chose to take into account where households moved from because any displacement pressures would originate at that residence.

⁴⁵ Newman and Wyly, 23-57.

There are numerous definitions of gentrification. I follow guidance from Easton et al. and construct gentrification using multiple criteria.⁴⁶ First, the neighborhood must begin the decade with a median income at or less than the 80% of the median income of New York City at-large. Second, the neighborhood's median income must increase over the course of the decade. Third, the neighborhood must have an increase in college graduates equal to or greater than the increase in New York City at-large. I will compare the gentrified neighborhoods with the control group of non-gentrifying, low-income neighborhoods, defined as meeting the first criteria (less than 80% of NYC median income), but not the latter two criteria. To test if neighborhood identification influences my analysis, I also use alternative measures of gentrification, as identification tends to be sensitive to these criteria. I vary levels of the median income in 2011, median income increase, and increase in college graduates.

Sample

I limited my analysis to renter households who earned less than New York City's median income in the previous year and live in or moved from gentrifying or non-gentrifying neighborhoods. This excludes residents of well-off neighborhoods from the analysis, as well as financially well-off households. While some displacement may take place in well-off neighborhoods, this study focuses on whether the process of gentrification displaces more relative to similar neighborhoods not gentrifying. I exclude well-off residents and homeowners as I am most concerned with the displacement of low- and middle-income renters, who are likely to be the most vulnerable to housing market pressures.

⁴⁶ For more on their recommendations, see Easton, Lees, Hubbard, and Tate, "Measuring and Mapping Displacement: The Problem of Quantification in the Battle against Gentrification," *Urban Studies* 57, no. 2 (2020): 286–306. <https://doi.org/10.1177/0042098019851953>.

Regression Model

I estimate a linear probability model for the likelihood of displacement with living in a gentrifying neighborhood as the key independent variable. While LPMs have some weaknesses, primarily producing probabilities greater than 1 or less than 0, its results are easily interpretable. I also ran logit and probit regressions to ensure results do not vary across methods. Since many demographic characteristics may be correlated with both gentrification and displacement, I control for race, age, marital status, parental status, and educational attainment. I also control for household income, monthly rent, rent-regulated units, number of repairs needed, and neighborhood rating. I also control for the year of the survey. Below is a representation of the model.

$$P(\text{Displacement}) = \beta_0 + \beta_1 * \text{gentrified} + \beta_2 * i.\text{race} + \beta_3 * \text{married} + \beta_4 * \text{parent} + \beta_5 * i.\text{education} + \beta_6 * \text{income} + \beta_7 * \text{rent} + \beta_8 * i.\text{regulated} + \beta_9 * i.\text{neighborhoodrating} + \beta_{10} * i.\text{overcrowded} + \beta_{11} * \text{male} + \beta_{12} * \text{repairs} + \beta_{13} * 2014$$

While this includes numerous control variables, unobserved household characteristics may still bias this estimate. Residents in gentrifying and non-gentrifying neighborhoods may be systematically different in their determination to remain in their neighborhood or neighborhood organizing against displacement. But even some of this, if not all, may be captured in the above model; a positive rating of the neighborhood indicates a willingness to stay and a resident who has lived in a neighborhood for many years is more likely to have ties to neighborhood organizations than relatively new residents. Given the variety of control variables, at least some of the bias from unobserved characteristics will be mitigated, even if not eliminated.

EMPIRICAL RESULTS

Below is my univariate and regression analysis on whether living in a gentrifying neighborhood is associated with increased probability of displacement of low- and middle-income renters. Individual households' demographic and housing characteristics are from the NYCHVS from 2011 and 2014 and the neighborhood characteristics are from the American Community Surveys in 2011 and 2019. The NYCHVS includes questions on whether a person has moved, where they moved from, and why they moved, along with other demographic information. The ACS has data on demographic trends at the neighborhood level, allowing for the delineation of gentrifying and non-gentrifying neighborhoods. With these responses and neighborhood data, I created a linear probability model for whether gentrification impacts the probability of displacement.

Neighborhood Selection

Using ACS data, I selected gentrifying neighborhoods and a comparison group of neighborhoods that did not experience gentrification (non-gentrifying neighborhoods). Figure 1 displays the change in median income in gentrifying and non-gentrifying neighborhoods. Their income levels begin at relatively similar levels. Figure 2 displays a similar process for college attainment. Both groups of neighborhoods start in similar places for college attainment, though the initial difference is more pronounced. The differences in rates of change are consistent with what I would expect gentrifying neighborhoods would undergo, whereas the control group has little indication of gentrification. I feel confident that the neighborhoods in the "control" group began the decade relatively similar to the neighborhoods I classify as gentrifying.

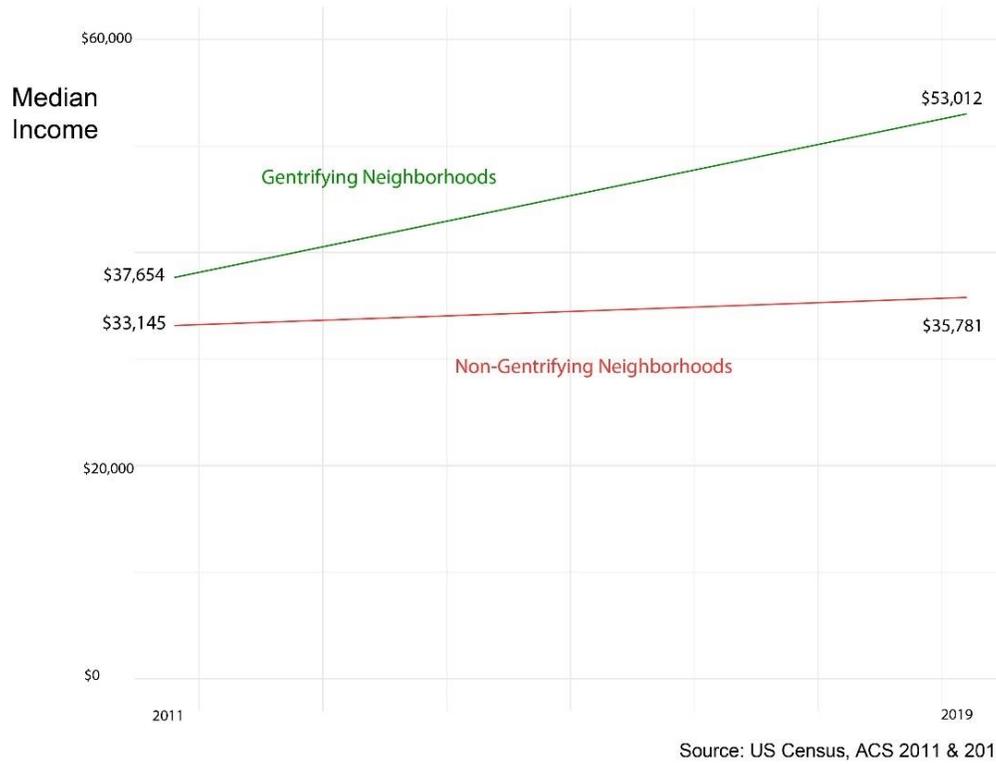


Figure 1. Change in income in gentrifying and non-gentrifying neighborhoods, 2011-2019

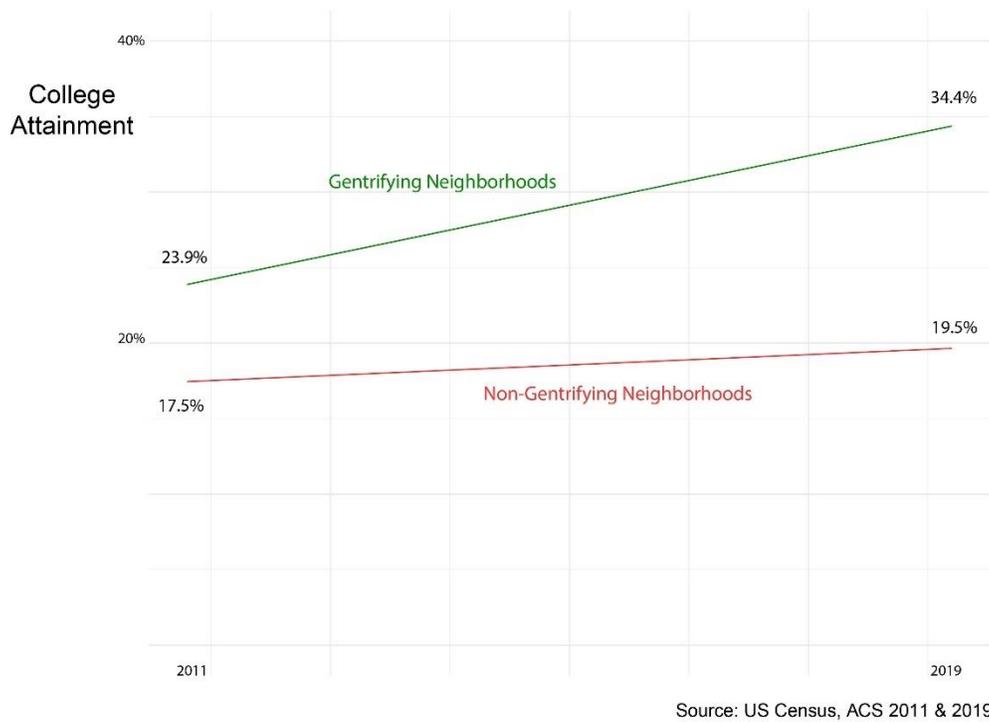


Figure 2. Change in college attainment in gentrifying and non-gentrifying neighborhoods, 2011-2019

Univariate Analysis

Few households experienced displacement in the previous three years. The sample is majority Black or Hispanic. About 10% live in overcrowded units and three quarters live in a unit with some form of rent regulation. The average and median rent is just under \$900, likely lowered by the rent regulation and public housing units. The income is also low because the sample is restricted to households making less than \$50,000 a year. A third of households are male and a third of households are parents.

Table 1. Descriptive statistics from NYCHVS, dummy variables

Variable	Description	Mean	Stand. Error
Displacement	If the household was displaced in the previous 3 years	.023	.002
Black	If the householder is Black	.340	.006
Hispanic	If the householder is Hispanic	.467	.007
Asian	If the householder is Asian	.052	.003
American Indian	If the householder is American Indian	.003	.0007
Other	If the householder is two races or more	.007	.001
Overcrowded	Between 1.25 and 1.5 residents per room	.047	.003
Very Overcrowded	More than 1.5 residents per room	.062	.003
Married	Householder is married	.210	.005
Parent	Householder is a parent	.356	.006
Male	Householder is male	.356	.006
High School	Householder is a high school graduate	.299	.006
College	Householder is a college graduate	.159	.005
Some College	Householder attended some college, but not graduated	.206	.005
stabilizepost47	Apartment was stabilized post-1947	.065	.003
stabilizepre47	Apartment was stabilized pre-1947	.404	.007
publichousing	Apartment is public housing	.213	.006
inrem	Apartment is in rem	.097	.004
otherregulated	Apartment is another form of regulation	.046	.003
ehood	Respondent rated neighborhood 'excellent'	.082	.004
ghood	Respondent rated neighborhood 'good'	.467	.007
fhood	Respondent rated neighborhood 'fair'	.350	.007
2014	If observation was in 2014	.508	.007

The reference group for the race variables is White
 The reference group for the overcrowded variables is not overcrowded
 The reference group for the education variables is no high school degree
 The reference group for housing type is no government regulation
 The reference group for the neighborhood rating variables is respondent rated neighborhood poor

Table 2. Descriptive statistics from NYCHVS, continuous variables

Variable	Description	Mean	Median	Stand. Error	Min	Max
Age	Age	51.1	50	.232	17	95
Rec53	Number of repairs needed	1.74	1	.024	0	7
Rent	Monthly rent	\$890	\$875	7.32	42	7999
Income	Household income	\$22,635	\$20,120	183.14	\$0	\$50,000

As seen in Table 3, there are several statistically significant differences between gentrifying and non-gentrifying neighborhood. The race dummy variables are all statistically significant at the .1 level, several at the .01 level. Non-gentrifying neighborhoods have a higher proportion of Hispanic households and a lower proportion of Black households in comparison to gentrifying neighborhoods. Similarly, the education variables are also all statistically significant. However, the practical difference, around two to three percentage points, is small. Many of the housing type variables are not statistically significant. Households living in public housing, however, are far more prevalent in non-gentrifying neighborhoods. Notably, the percent of households displaced in gentrifying neighborhoods is not different statistically from non-gentrifying neighborhoods, without controlling for any other variables. Overall, the households in the gentrifying and non-gentrifying neighborhoods have some differences, but few that will likely be significant in practice.

Table 3. Descriptive statistics for gentrifying and non-gentrifying sub-boroughs

Variable	Variable Description	Gentrifying Neighborhood	Non-Gentrifying Neighborhood
Displacement	Household displaced in the past 3 years	.025	.021
Black	If the householder is Black	.368***	.308
Hispanic	If the householder is Hispanic	.408***	.533
Asian	If the householder is Asian	.040***	.065
American Indian	If the householder is American Indian	.004*	.002
Other	If the householder is two races or more	.004*	.009
Overcrowded	Between 1.25 & 1.5 residents per room	.046	.048
Very Overcrowded	More than 1.5 residents per room	.062	.062
Married	Householder is married	.229***	.189
Parent	Householder is a parent	.336***	.379
Male	Householder is male	.364	.346
High School	Householder is a high school graduate	.312**	.286
College	Householder is a college graduate	.175***	.141
Some College	Householder attended some college, but not graduated	.197*	.216
stabilizepost47	Apartment was stabilized post-1947	.063	.068
stabilizepre47	Apartment was stabilized pre-1947	.397	.414
publichousing	Apartment is public housing	.158***	.275
inrem	Apartment is in rem	.147***	.040
otherregulated	Apartment has other form of regulation	.044	.049
ehood	Rated neighborhood 'excellent'	.089*	.075
ghood	Rated neighborhood 'good'	.492***	.440
fhood	Rated neighborhood 'fair'	.334**	.366
Age	Age	52.2***	50.0
Rec53	Number of repairs needed	1.70	1.78
Rent	Monthly rent	\$880	\$901
Income	Household income	\$23,331**	\$22,424
2014	If observation was in 2014	.517	.498

* $p < .10$ ** $p < .05$ *** $p < .01$

Regression Results

Table 4 contains the results of the multivariate regression model. After controlling for household characteristics, the gentrification variable is statistically significant at the .1 level.

Households living in gentrifying neighborhoods are .93 percentage points more likely to

experience displacement as opposed to those living in non-gentrifying neighborhoods. The probability of displacement is statistically influenced by living in a neighborhood classified as “gentrifying.”

Almost none of the control variables are statistically significant. The variables that were statistically significant were not always the most intuitive. For example, households classified as ‘very overcrowded’ were statistically significantly less likely to be displaced (as compared to non-overcrowded units). The dummy variable for whether the household respondent is American Indian is statistically significant and the dummy variable for Asian is just below, but no other race dummy variable is statistically significant. Similarly, one might expect households with some college education would be less likely to be displaced compared with households who did not graduate high school, but the opposite is true.

Table 4. Displacement results

Variable	Coefficient	Standard Error	P-Value
Gentrification	.00955	.00498	.055*
Age	-.00228	.001	.023**
Age Squared	.0000151	.000009	.083*
Male	.00512	.00509	.314
Black	-.00614	.00857	.473
Hispanic	-.00163	.00853	.849
Asian	.0441	.0184	.017**
American Indian	-.0331	.00936	.001***
Two Races or More	.00145	.0360	.968
Overcrowded	.00880	.0131	.502
Very Overcrowded	-.0230	.00758	.002***
Married	-.00088	.00629	.89
Parent	-.00547	.0061	.37
High School	-.00126	.00545	.634
Some College	-.000154	.00656	.981
College	.00784	.00812	.334
Rent	-.000007	.000009	.41
Stabilized Pre-1947	.00421	.00736	.567
Stabilized Post-1947	-.00200	.0105	.829
Public Housing	.0118	.00892	.19
In Rem	-.0971	.00797	.189

Table 4. (Cont.)

Other Regulated	.00348	.0122	.739
Excellent Neighborhood	-.00199	.0124	.739
Good Neighborhood	-.00784	.00800	.439
Fair Neighborhood	-.00765	.00872	.437
Number Repairs	-.00163	.00133	.316
Income (in thousands)	-.000168	.000186	.449
2014	.0103	.004562	.025**
Constant	.0906	.0319	.005***

R-Squared = .0175

Prob > F = .0000

N = 4,766

Logit or probit models produced nearly identical results for the gentrification variable as the LPM model, a positive coefficient statistically significant at the .1 level. There were almost no differences among the control variables (the American Indian dummy variable was no longer statistically significant). Other models that incorporated alternative measures of gentrification found more statistical significance of the gentrification variable (at the .05 and .01 levels), but the control variables largely remained statistically insignificant. Logit and probit results for these models were consistent with these findings.

Given the small number of households experiencing displacement, any demographic differences may need to be sizeable to be statistically significant. If more households were included in the sample, more of the control variables may have been statistically significant. Even considering this, some of the results are perplexing. My results indicate households living in public housing are more likely to experience displacement compared to households in market rental units (though not statistically significant). The idiosyncrasies of the individual's experience with housing may take an outsized role in explaining displacement as compared to identifiable demographic and household characteristics due to the infrequent nature of displacement. The gentrification variable captures some of these dynamics that otherwise would be undetected in the model.

DISCUSSION AND CONCLUSION

Gentrification and displacement are positively correlated, when controlling for demographic and housing characteristics. Living in a gentrified neighborhood causes a one percentage point increase in the likelihood of a renter making less than the median income being displaced in the previous three years. The displacement rate measured in this survey is rather low, less than 5% of low-income and middle-income households.

Significance of Findings and Policy Implications

Since there are few studies that find displacement has a positive association with gentrification,⁴⁷ this study's results depart from the larger body of literature. While authors like Freeman, Newman, and Wyly devoted at least some of their analysis to dispelling misinterpretations of their findings, the idea that gentrification was exclusively beneficial for low-income incumbent residents,⁴⁸ this study demonstrates the harms of gentrification without qualification. "Gentrification without displacement" may be possible, and may be desirable, but the current form of gentrification that is taking in New York City displaces residents at a higher rate than they are displaced from low-income neighborhoods without gentrification. Researchers and policymakers must reckon with displacement and attempt to mitigate it.

While the measured displacement is a relatively small proportion of total households, displacement is an extremely disruptive force with immense consequences for the displaced. As Newman and Wyly argue in "The Right to Stay Put Revisited," infrequent but consequential phenomenon such as homelessness, racial profiling, and employment discrimination should not be dismissed simply because they are not experienced by a statistical majority of low- and

⁴⁷ See Vigdor, 2002; Brummet and Reed, 2019; Dragan et al., 2019.

⁴⁸ See Freeman, 2004; Newman and Wyly, 2006.

middle-income households.⁴⁹ Displacement can lead to a loss of community, a loss of stability, and in the worst circumstances homelessness. Policymakers still should consider ways to minimize displacement because of the dramatic impacts on the lives of the displaced.

Housing market regulations, such as rent control and public housing, may help incumbent residents remain in their current housing. While my regression results find no statistically significant effect of rent regulations on displacement, other studies suggest otherwise.⁵⁰ Additionally, the logic of these programs reinforce those findings. Public housing eliminates nearly all fluctuations in rent for its occupants. Rent control and stabilization largely prevent dramatic rent increases, mitigating market pressures. While some landlords attempt to circumvent those regulations, recent rent control legislation implemented by New York State should largely narrow or close those loopholes.⁵¹ Given the high costs of displacement, legislation that protects incumbent residents from market forces are likely worth any housing market distortion resulting from those regulations. These policies are likely to be the most narrowly targeted displacement prevention measures.

Since much of displacement is attributed to housing costs, New York City lawmakers should also consider different ways to reduce housing costs and rent-burden both in the broader housing market and specifically low-income neighborhoods. Expansion of the housing voucher program can decrease the rent-burden of renters living in non-regulated and regulated units. Inclusionary zoning, offering incentives for new development in exchange for guaranteeing a portion of affordable housing, can create more affordable housing financed by market rate units.

⁴⁹ Newman and Wyly, 2006.

⁵⁰ Diamond et al, 2019.

⁵¹ Sharon Otterman and Matthew Haag, "Rent Regulation in New York: How They'll Affect Tenants and Landlords," *New York Times*, June 12, 2019, <https://www.nytimes.com/2019/06/12/nyregion/rent-regulation-laws-new-york.html>.

However, this has yet to produce large numbers of affordable units.⁵² Increasing the supply of housing in well-off neighborhoods, such as Soho or the Upper East Side, may attract more potential gentrify-ers to those neighborhoods rather than gentrifying neighborhoods. This could lower demand and rent in gentrifying neighborhoods, while potentially decreasing housing costs in well-off neighborhoods. Many other policies, such as social housing and reducing regulations for parking and lot size, may also address rising housing costs. Some of these policies, like vouchers, would provide short-term relief, but most of these policies are long-term solutions to the housing crisis and would not address displacement pressures tenants face today.

Limitations

While the NYCHVS dataset contains many relevant variables, some factors likely correlated with gentrification and displacement are not included. Neighborhoods with white-collar professional jobs may attract more educated and higher-paid households to the neighborhood, which I would expect to be positively associated with both gentrification and displacement. This would bias my estimated coefficient to be greater than the true value. Similarly, neighborhood amenities, such as grocery stores and transit centers, also may be both positively correlated with gentrification and displacement, further inflating the measured coefficient. A household's determination to remain in the neighborhood is difficult to measure. As is suggested in some studies, lower mobility among low-income tenants in gentrifying neighborhoods can be interpreted as desire or determination to remain in a neighborhood that is increasingly mixed income.⁵³ Since tenants in gentrifying neighborhoods would have more determination to stay and be less likely to be displaced, the omission likely exerts a downward

⁵² Amy Plitt and Caroline Spivack, "Bloomberg's track record on NYC housing policy is only so-so," *Curbed New York*, November 25, 2019, <https://ny.curbed.com/2019/11/25/20981929/michael-bloomberg-2020-campaign-housing-homeless-nyc>.

⁵³ Freeman and Braconi, 2004.

bias, lowering the gentrification variable's coefficient. With a mix of downward and upward biases, it is unclear whether the true gentrification coefficient would be greater or less than the measured coefficient.

As discussed earlier, gentrification has numerous definitions and methods for measurement. For example, some scholars consider race as an important factor in gentrification, with white in-movers and Black, Hispanic, and other racial minorities as the incumbent, displaced residents. Other scholars do not place limits on initial income levels for defining which neighborhoods are gentrifying.⁵⁴ Taking any of these approaches could change the neighborhoods identified as gentrifying and not gentrifying, potentially changing the results. However, the consistency of my finding across different models using income and education suggests that my findings may be robust to these different measures.

Though its definition is less disputed, displacement is also complex process. Newman and Wyly noted that motivation for moving is not easily contained in a single reason.⁵⁵ The process of displacement may be embedded in other more mundane reasoning. A couple initially living with their families may choose to move in together, but if the gentrifying neighborhood they live in is unaffordable, they may move to a lower cost neighborhood. On the NYCHVS, they may respond 'wanted to establish a separate household,' when they moved because of displacement pressures. Additionally, households who voluntarily move to pay less in rent may be misclassified as displaced. Other renters may double up with friends or family and disappear from the sample. It is unclear whether these errors would lead to any bias in my estimated coefficients. These difficulties in quantifying displacement necessitate qualitative studies of

⁵⁴ Elizabeth Kirkland, "What's Race Got to Do With it? Looking for the Racial Dimensions of Gentrification," *Western Journal for Black Studies* 32, no. 2 (2008): 21.
<https://search.proquest.com/docview/852898468?accountid=11091>.

⁵⁵ Newman and Wyly, 2006.

households experiencing these pressures so scholars and policymakers can better understand the process of displacement.

I was unable to use the NYCHVS data from 2017. The questions about which sub-borough a household most recently lived in was removed from the survey. This precluded observing where a New York City resident moved or was displaced from for this dataset. With additional observations, I could have provided greater precision and more fully encapsulate the displacement that took place over the course of the decade. Since gentrification is not necessarily a linear process, more or fewer displacements could have occurred in different neighborhoods over the latter part of the decade.

Finally, these results are not necessarily generalizable to other major American cities, let alone small cities and towns. New York City has a unique set of housing regulations and safety nets. Rent regulation and stabilization both provide significant protections of tenants from dramatic rent increases. New York's extensive, though much maligned, public housing anchors tenants in place through any kind of neighborhood change, gentrification, concentration of poverty, or abandonment. These, along with other government programs and non-profits, are a unique set of tools for low-income residents to stay in place in the face of pressures on housing. Even cities facing similar gentrification pressures, like Washington DC or San Francisco, have unique sets of housing laws and local resources for tenants.

Future Research

More ethnographic studies of low-income households navigating gentrification of their neighborhoods could shed light on their attitudes toward neighborhood change. While there is some evidence of the benefits of remaining in place, there is an increasing body of literature on "cultural displacement" that indicates a loss of place for incumbent residents who remain in

gentrifying neighborhoods.⁵⁶ Additionally, more research on the strategies tenants use to remain in their neighborhoods could be beneficial. With more knowledge about those struggles, researchers could identify the areas in which policy could support displacement prevention.

Researchers should also continue to generate research on the effectiveness of different policies that aim to reduce displacement and rent-burdened households. While some policies are better studied than others, all could benefit from further analysis. Fixing the housing market's current failures, such as the inability to supply low-income housing and artificially constrained supply, may alleviate pressures on low-income households. While these policies may work from a theoretical standpoint, more studies on their effectiveness at reducing housing costs and displacement would help lawmakers evaluate the most useful policies to implement.

Concluding Thoughts

The housing crisis in the US is at its peak. Costs have increased dramatically over the past two decades while income has flatlined. Barriers to new housing in wealthy neighborhoods, such as exclusionary zoning, anti-housing homeowners, and barrages of lawsuits, make those areas unattainable for many renters and homebuyers. Instead, developers, homebuyers, and renters look to lower-cost, impoverished neighborhoods for housing opportunities. Capitalizing on land that was artificially devalued due to segregation, red-lining, and disinvestment, these new residents change the character of the neighborhoods and profit from its transformation. Incumbent residents are either forced out, move out, or fight to stay in the neighborhood and accept the changes with mixed feelings. Municipal and other levels of government ought to assist low-income renters to not only prevent the worst outcomes, but to deliver resources and the amenities low-income residents have long fought to bring to their neighborhoods.

⁵⁶ See Hyra's "Back to the City Movement" for more on this.

BIBLIOGRAPHY

American Neighborhood Change in the 21st Century. Minneapolis: Institute on Metropolitan Opportunity, 2019. Last accessed October 26, 2019.

https://www.law.umn.edu/sites/law.umn.edu/files/metro-files/american_neighborhood_change_in_the_21st_century_-_full_report_-_4-1-2019.pdf.

Baum-Snow, Nathaniel and Hartley, Daniel. "Accounting for Central Neighborhood Change, 1980-2010." *Journal of Urban Economics* 117 (2020): 103228. DOI: 10.1016/j.jue.2019.103228.

Brummet, Quentin and Reed, Davin. "Gentrification and the Location and Well-Being of Original Neighborhood Residents." Philadelphia Fed working paper 19-30. <https://www.philadelphiafed.org/-/media/frbp/assets/working-papers/2019/wp19-30.pdf?la=en>.

Byrne, Peter J. "Two Cheers for Gentrification." *Georgetown Law Faculty Publications and Other Works* 46, no. 3 (2003): 405-432. <https://core.ac.uk/download/pdf/70374691.pdf>.

Chizek, Seth. "Gentrification and Change in the Stock of Low-Cost Rental Housing in Philadelphia, 2000 to 2014." Federal Reserve Bank of Philadelphia (2017). Last accessed December 10, 2019. <https://ideas.repec.org/a/fip/fedpcf/0005.html>.

Desmond, Matthew. "Eviction and the Reproduction of Urban Poverty." *American Journal of Sociology* 118, no. 1 (2012): 88-133. <https://www.jstor.org/stable/10.1086/666082>.

Desmond, Matthew. "Unaffordable America: Poverty, Housing, and Eviction." *Fast Focus* 22 (2015): 1-6. <https://www.irp.wisc.edu/publications/fastfocus/pdfs/FF22-2015.pdf>.

Diamond, Rebecca; McQuade, Tim; and Qian, Franklin. "The Effects of Rent Control Expansion on Tenants, Landlords, and Inequality: Evidence from San Francisco." *The American*

Economic Review 89, no. 1 (2019): 3365-3394.

<https://www.aeaweb.org/articles?id=10.1257/aer.20181289>.

Dragan, Kacie; Ellen, Ingrid; and Glied, Sherry. "Does Gentrification Displace Poor Children? New Evidence from New York City Medicaid Data." NBER working paper 25809.

<https://www.nber.org/papers/w25809>.

Easton, Sue; Lees, Loretta; Hubbard, Phil; and Tate, Nicholas. "Measuring and Mapping Displacement: The Problem of Quantification in the Battle against Gentrification." *Urban Studies* 57 no. 2 (2020): 286–306. <https://doi.org/10.1177/0042098019851953>.

Ellen, Ingrid and Ding, Lei. "Advancing Our Understanding of Gentrification." *Cityscape* 18, no. 3 (2016): 3-8. <http://www.jstor.org/stable/26328270>.

Ellen, Ingrid and Torrats-Espinosa, Gerard. "Do Vouchers Protect Low-Income Households from Rising Rents?" *Eastern Economic Journal* 46, no. 2 (2020): 260-281. <https://doi.org/10.1057/s41302-019-00159-y>.

"How NYCHA Preserves Diversity in New York's Changing Neighborhoods." (New York City: NYU Furman Center, 2019). Last accessed October 20, 2020. https://furmancenter.org/files/NYCHA_Diversity_Brief_Final_4-30-2019.pdf.

Freeman, Lance. *There Goes the 'hood: Views of Gentrification from the Ground Up*. Temple University Press, 2006.

Freeman, Lance and Braconi, Frank. "Gentrification and Displacement: New York City in the 1990s." *Journal of the American Planning Association* 70, no. 1 (2004): 39-52. <https://search.proquest.com/docview/58866371?accountid=11091>.

Hyra, Derek. "The Back-to-the-City Movement; Neighbourhood Redevelopment and Process of Political and Cultural Displacement." *Urban Studies* 52, no. 10 (2015): 1753-1773. www.jstor.org/stable/10.2307/26146094.

Kirkland, Elizabeth. "What's Race Got to Do With it? Looking for the Racial Dimensions of Gentrification." *Western Journal of Black Studies* 32, no. 2 (2008): 18-28. <https://search.proquest.com/docview/852898468?accountid=11091>.

Lees, Loretta; Slater, Tom; and Wyly, Elvin. *Gentrification*. New York: Routledge, 2008.

Newman, Kathe and Wyly, Elvin. "The Right to Stay Put, Revisited: Gentrification and Resistance to Displacement in New York City." *Urban Studies* 43, no. 1 (2006): 23-57. <https://www-jstor-org/stable/4319737>.

"Overview of the New York City Housing and Vacancy Survey." *NYC Department of Housing Preservation and Development*. rentguidelinesboard.cityofnewyork.us/wp-content/uploads/2019/08/2017_hvs_overview.pdf.

Plitt, Amy; and Spivack, Caroline. "Bloomberg's track record on NYC housing policy is only so-so." *Curbed New York*, November 25, 2019. <https://ny.curbed.com/2019/11/25/20981929/michael-bloomberg-2020-campaign-housing-homeless-nyc>.

Sims, David P. "Out of Control: What Can We Learn from the End of Massachusetts Rent Control." *Journal of Urban Economics* 61, no. 1 (2007): 129-151. <https://doi.org/10.1016/j.jue.2006.06.004>.

Spivack, Caroline. "How Bill de Blasio's housing record stacks up to his 'working people' platform." *Curbed New York*, May 16, 2019.

<https://ny.curbed.com/2019/5/16/18627601/election-2020-bill-de-blasio-affordable-housing-homeless-record>.

Spivack, Caroline. "NYC's affordability crisis continues to deepen, report shows." *Curbed New York*, June 20, 2019. <https://ny.curbed.com/2019/6/20/18691426/nyc-affordable-housing-worsen-comptroller-report>.

Taylor, Yesim Sayin. "Rent Control Literature Review." *DC Policy Center*, April 1, 2020. <https://www.dcpolicycenter.org/publications/rent-control-literature-review/>.

Wagner, George. "Gentrification and Displacement in Baltimore." *Urban Affairs* 17, no. 1 (1995): 81-96. 10.1111/j.1467-9906.1995.tb00523.x.

Wilson, William Julius. *The Truly Disadvantaged: The Inner City, the Underclass, and Public Policy*. University Chicago Press, 1987.

Wyly, Elvin; Newman, Kathe, Schafran, Alex, and Lee, Elizabeth. "Displacing New York." *Environment and Planning A* 42 (2010): 2602-2623. doi:10.1068/a42519.