

Focus on Gentrification

“Gentrification” has become the accepted term to describe neighborhoods that start off predominantly occupied by households of relatively low socioeconomic status, and then experience an inflow of higher socioeconomic status households. The British sociologist Ruth Glass coined the term in 1964 to describe changes she encountered in formerly working-class London neighborhoods, and sociologists first began applying the term to New York City (and elsewhere) in the 1970s. Since entering the mainstream lexicon, the word “gentrification” is applied broadly and interchangeably to describe a range of neighborhood changes, including rising incomes, changing racial composition, shifting commercial activity, and displacement of original residents.

Given the mounting concern about housing affordability in New York City, for the purpose of this study, we define “gentrification” as rapid rent growth in low-income neighborhoods. Using this definition, we quantify the scale and map the geography of rent increases in New York City’s low-income neighborhoods. We also identify and analyze other shifts that have accompanied these rent increases; most notably, changes in the characteristics of residents. We hope that by better understanding patterns of neighborhood change—and how rapidly-rising rents affect residents—policymakers will be better informed and able to design appropriate policy responses.

Summary of Findings

To more clearly define “gentrification” in the context of New York City’s neighborhoods, we establish a classification system with three categories, which are referenced throughout the chapter. We divide New York City’s 55 sub-borough areas (SBAs) into three types: “gentrifying neighborhoods” consist of SBAs that were low-income in 1990 and experienced rent growth above the median SBA rent growth between 1990 and 2010-2014¹; “non-gentrifying neighborhoods” are those that also started off as low-income in 1990 but experienced more modest growth; and “higher-income neighborhoods” are the city’s remaining SBAs, which had higher incomes in 1990.

We use these three neighborhood classifications to explore and compare the patterns of change in New York City’s neighborhoods. In particular, we compare changes over time in housing costs, population, housing stock, resident characteristics, and rental affordability.

We find that:

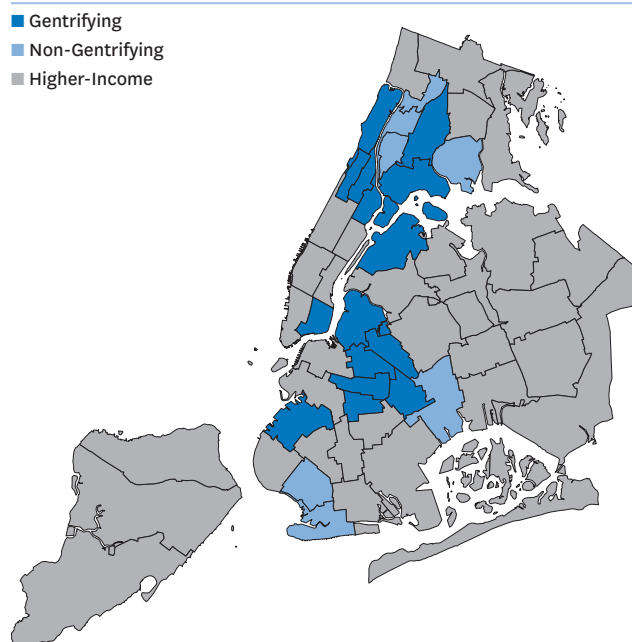
- While rents only increased modestly in the 1990s, they rose everywhere in the 2000s, most rapidly in the low-income neighborhoods surrounding central Manhattan.
- Most neighborhoods in New York City regained the population they lost during the 1970s and 1980s, while the population in the average gentrifying neighborhood in 2010 was still 16 percent below its 1970 level.
- One third of the housing units added in New York City from 2000 to 2010 were added in the city’s 15 gentrifying neighborhoods despite their accounting for only 26 percent of the city’s population.
- Gentrifying neighborhoods experienced the fastest growth citywide in the number of college graduates, young adults, childless families, non-family households, and white residents between 1990 and 2010-2014. They saw increases in average household income while most other neighborhoods did not.
- Rent burden has increased for households citywide since 2000, but particularly for low- and moderate-income households in gentrifying and non-gentrifying neighborhoods.
- The share of recently available rental units affordable to low-income households declined sharply in gentrifying neighborhoods between 2000 and 2010-2014.
- There was considerable variation among the SBAs classified as gentrifying neighborhoods; for example, among the SBAs classified as gentrifying, the change in average household income between 2000 and 2010-2014 ranged from a decrease of 16 percent to an increase of 41 percent.

¹ Throughout this chapter, we use the American Community Survey 2005-2009 and 2010-2014 five-year estimates. These data are period estimates and should be interpreted as a measure of the conditions during the whole range. For more information, see the Methods section.

New York City's Rapidly Rising Rents

Since 1990, housing costs have increased significantly throughout New York City. Indeed, every SBA, or neighborhood, that was low-income in 1990 (in the bottom 40 percent of neighborhoods with respect to average household income) experienced rent growth between 1990 and 2010-2014. In some low-income neighborhoods, however, rent growth was particularly steep. Of the 22 neighborhoods that were low-income in 1990, we classify 15 as “gentrifying,” meaning they experienced rent increases higher than the median SBA. The map below shows that gentrifying neighborhoods are concentrated in or near Manhattan. We call the remaining seven low-income neighborhoods “non-gentrifying” neighborhoods. Neighborhoods in the top 60 percent of the 1990 neighborhood income distribution are classified as “higher-income.”

Figure 1: Classification of Sub-Borough Areas



Source: NYU Furman Center

Table 1: Average Percent Change in Mean Household Rent by Neighborhood Type

	1990 to 2000	2000 to 2010-2014	1990 to 2010-2014
Citywide	1.9%	18.9%	22.1%
Gentrifying	3.0%	30.4%	34.3%
Non-Gentrifying	-2.5%	16.1%	13.2%
Higher-Income	1.8%	15.8%	17.8%

Sources: Neighborhood Change Database (1990, 2000), American Community Survey (2010-2014), NYU Furman Center

Between 1990 and 2000, rent growth was modest in gentrifying and higher-income neighborhoods, and declined in non-gentrifying neighborhoods. It was during the 2000s that rent growth accelerated citywide and particularly in gentrifying neighborhoods. Gentrifying neighborhoods experienced a three percent increase in average rent between 1990 and 2000, but an increase of over 30 percent between 2000 and 2010-2014. Although non-gentrifying neighborhoods, by definition, did not experience rent increases as steep as gentrifying neighborhoods, they still saw a 16.1 percent increase in average rent between 2000 and 2010-2014.

Classification of Sub-Borough Areas

Sub-Borough Area	Percent Change in Average Rent, 1990 to 2010-2014	Average Household Income in 1990 (\$2015)
New York City	22.1%	\$ 78,500
Gentrifying		
Williamsburg/Greenpoint	78.7%	\$ 53,550
Central Harlem	53.2%	\$ 39,650
Lower East Side/Chinatown	50.3%	\$ 54,350
Bushwick	44.0%	\$ 42,500
East Harlem	40.3%	\$ 47,300
Morningside Heights/Hamilton Heights	36.7%	\$ 61,500
Bedford Stuyvesant	36.1%	\$ 46,150
North Crown Heights/Prospect Heights	29.9%	\$ 56,600
Washington Heights/Inwood	29.3%	\$ 55,650
Mott Haven/Hunts Point	28.0%	\$ 32,250
Astoria	27.6%	\$ 64,600
Sunset Park	23.9%	\$ 62,550
Morrisania/Belmont	23.5%	\$ 36,900
Brownsville/Ocean Hill	20.5%	\$ 43,100
South Crown Heights	18.1%	\$ 62,900
Non-Gentrifying		
Highbridge/South Concourse	17.8%	\$ 43,150
Kingsbridge Heights/Moshulu	17.5%	\$ 54,750
University Heights/Fordham	14.2%	\$ 39,600
Soundview/Parkchester	14.0%	\$ 58,900
Bensonhurst	10.3%	\$ 66,750
Coney Island	9.9%	\$ 53,200
East New York/Starrett City	8.2%	\$ 52,750

Sub-Borough Area	Percent Change in Average Rent, 1990 to 2010-2014	Average Household Income in 1990 (\$2015)
Higher-Income		
Greenwich Village/Financial District	61.2%	\$ 132,350
Brooklyn Heights/Fort Greene	53.2%	\$ 86,600
Chelsea/Clinton/Midtown	51.8%	\$ 98,150
Park Slope/Carroll Gardens	47.3%	\$ 95,200
Stuyvesant Town/Turtle Bay	38.3%	\$ 143,100
Upper West Side	37.9%	\$140,000
Sunnyside/Woodside	37.6%	\$ 70,650
Upper East Side	22.8%	\$204,100
Bay Ridge	20.6%	\$ 83,250
Rego Park/Forest Hills	19.8%	\$ 92,600
Borough Park	19.0%	\$ 69,250
Flatbush	18.3%	\$ 74,900
Middle Village/Ridgewood	17.9%	\$ 73,950
Pelham Parkway	16.6%	\$ 68,850
Rockaways	16.5%	\$ 71,000
Riverdale/Kingsbridge	16.3%	\$ 86,700
Hillcrest/Fresh Meadows	13.8%	\$ 92,350
Jackson Heights	12.5%	\$ 73,150
Ozone Park/Woodhaven	12.3%	\$ 80,750
Bayside/Little Neck	11.3%	\$107,300
Sheepshead Bay/Gravesend	11.1%	\$ 80,400
Williamsbridge/Baychester	11.0%	\$ 73,900
Elmhurst/Corona	10.4%	\$ 70,900
Throgs Neck/Co-op City	10.0%	\$ 77,950
Jamaica	6.8%	\$ 76,900
North Shore	5.5%	\$ 86,950
Flatlands/Canarsie	5.4%	\$ 89,200
South Ozone Park/Howard Beach	5.3%	\$ 88,050
East Flatbush	4.1%	\$ 74,300
Flushing/Whitestone	1.5%	\$ 88,100
South Shore	1.2%	\$113,200
Mid-Island	-0.9%	\$105,750
Queens Village	-2.1%	\$101,800

Sources: Neighborhood Change Database (1990),
American Community Survey (2010-2014), NYU Furman Center

Changes In Population Levels and In the Supply of Housing

Between 1970 and 1980, New York City experienced a stark population loss of over 800,000 people—10.4 percent of its population. Since 1980, the city’s population levels have rebounded, and rapid population growth led to the city reaching its all-time population high in 2010. Following the mass exodus of population from New York City in the 1970s, the city’s higher-income and non-gentrifying neighborhoods regained their 1970 population levels by 1990 and 2000, respectively. The population in gentrifying neighborhoods in 2010, however, was still roughly 16 percent below its population in 1970.

As the city experienced population growth in the past few decades, the demand for housing also increased. However, the supply of additional housing units has not kept pace, nor have new units been evenly distributed among the city’s neighborhoods. Since 2000, the majority of housing units added to New York City have been located in gentrifying neighborhoods, even though the population increase in this set of neighborhoods has not been as large as in the rest of the city.

1. Gentrifying neighborhoods have not gained back population lost in the 1970s.

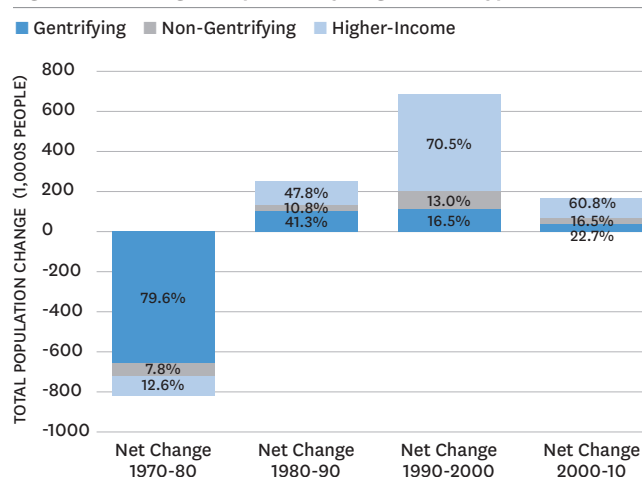
New York lost about 822,000 people (Figure 2), between 1970 and 1980. The loss was heaviest in the low-income neighborhoods that would gentrify by 2014; nearly 80 percent of the population loss came from neighborhoods that would gentrify (Figure 2). By 2010, the population in higher-income neighborhoods was 13.6 percent higher than in 1970; the population in non-gentrifying neighborhoods was just over eight percent higher than in 1970. Despite the population growth in gentrifying neighborhoods, their aggregate population was still 15.8 percent lower in 2010 than it had been in 1970. As shown in Figure 2, 22.7 percent of the net population increase in New York City between 2000 and 2010 was in gentrifying neighborhoods (16.5% in non-gentrifying neighborhoods and 60.8% in higher-income neighborhoods).

Table 2: Percent Change in Population by Decade and Neighborhood Type

	% Change 1970- 1980	% Change 1980- 1990	% Change 1990- 2000	% Change 2000- 2010	% Change 1970- 2010
Citywide	-10.4%	3.6%	9.4%	2.1%	3.6%
Gentrifying	-25.9%	5.6%	5.7%	1.8%	-15.8%
Non-Gentrifying	-6.8%	3.1%	9.8%	2.8%	8.4%
Higher-Income	-2.3%	2.8%	10.9%	2.1%	13.6%

Sources: Neighborhood Change Database (1970, 1980, 1990, 2000, 2010), NYU Furman Center

Figure 2: Net Change in Population by Neighborhood Type and Decade



Sources: Neighborhood Change Database (1970, 1980, 1990, 2000, 2010), NYU Furman Center

2. Between 2000 and 2010, housing units in gentrifying neighborhoods grew at a faster rate than in other neighborhoods.

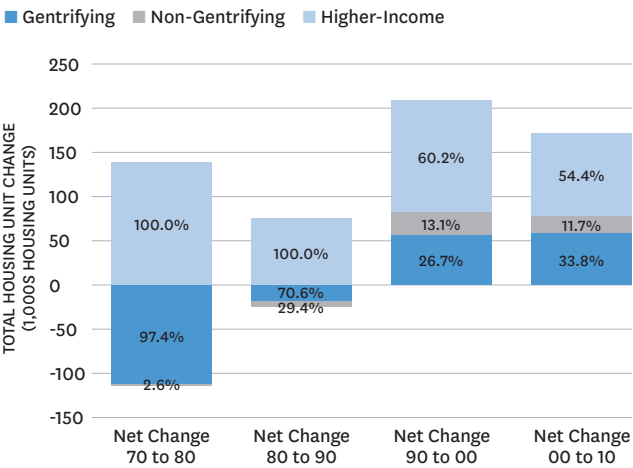
The neighborhoods that would gentrify in the 1990s and 2000s lost over 128,000 units of housing during the 1970s and 1980s. During the 1990s, the housing stock in these neighborhoods started to grow again, and it grew by around seven percent in all three of our neighborhood categories. Between 2000 and 2010, the number of housing units grew by 7.2 percent in gentrifying neighborhoods, as compared to just 4.5 percent in higher-income areas and 5.5 percent in non-gentrifying areas. Gentrifying neighborhoods were home to 57,550 additional units, or 33.8 percent of net new units added citywide in this time period.

Table 3: Percent Change in Housing Unit Counts by Neighborhood Type and Decade

	% Change 1970- 1980	% Change 1980- 1990	% Change 1990- 2000	% Change 2000- 2010	% Change 1970- 2010
Citywide	0.8%	1.7%	7.0%	5.3%	15.5%
Gentrifying	-12.8%	-2.3%	7.5%	7.2%	-1.8%
Non-Gentrifying	-0.9%	-2.1%	8.1%	5.5%	10.6%
Higher-Income	8.1%	4.1%	6.6%	4.5%	25.4%

Sources: Neighborhood Change Database (1970, 1980, 1990, 2000, 2010), NYU Furman Center

Figure 3: Net Change in Housing Unit Count by Neighborhood Type and Decade (in 1,000s)



Sources: Neighborhood Change Database (1970, 1980, 1990, 2000, 2010), NYU Furman Center

Changes In Demographics

New York City’s population has become younger, more educated, and more weighted towards non-family households since 1990. These shifts, however, have been even more dramatic in gentrifying neighborhoods. The increases in educational attainment and income in gentrifying neighborhoods may help to explain why, despite the relatively limited population growth and higher-than-average growth in housing units in gentrifying neighborhoods, rents grew more rapidly there than they did in the other two neighborhood types.

1. Average household income increased only in gentrifying neighborhoods.

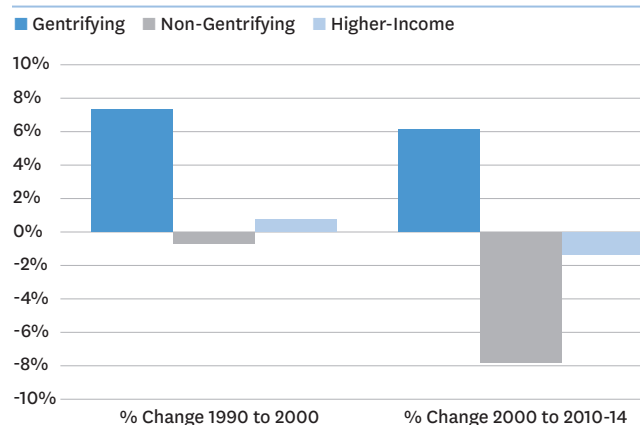
Citywide, average household income grew slightly in the 1990s but declined after 2000, but these changes varied considerably across neighborhood types. In gentrifying neighborhoods, average household income rose in both decades—by 7.3 percent in the 1990s and by 6.1 percent between 2000 and 2010-2014. By contrast, average household incomes in higher-income and non-gentrifying neighborhoods stagnated in the 1990s and declined in the 2000s.

Table 4: Inflation-Adjusted Average Household Income by Neighborhood Type (2015\$)

	1990	2000	2005-09	2010-14
Citywide	\$ 78,500	\$ 80,300	\$ 79,900	\$ 79,950
Gentrifying	\$ 51,400	\$ 55,150	\$ 55,400	\$ 58,550
Non-Gentrifying	\$ 53,500	\$ 53,100	\$ 48,300	\$ 49,000
Higher-Income	\$ 95,700	\$ 96,450	\$ 96,300	\$ 95,200

Sources: Neighborhood Change Database (1990, 2000), American Community Survey (2005-2009, 2010-2014), NYU Furman Center

Figure 4: Percent Change in Average Household Income by Neighborhood Type



Sources: Neighborhood Change Database (1990, 2000), American Community Survey (2005-2009, 2010-2014), NYU Furman Center

2. The share of the population with a college degree increased the most in gentrifying neighborhoods.

The share of New Yorkers with a college degree grew throughout the city between 1990 and 2010-2014, but gentrifying neighborhoods experienced the most dramatic increase, with a nearly 15.6 percentage point gain in the share college-educated over the time period. The increase in the share of residents with a college degree can occur in two ways: the existing population can become more educated, or more college-educated people can move in. In gentrifying neighborhoods, the change was driven by in-movers. About 42 percent of recent movers aged 25 or older who lived in a gentrifying neighborhood between 2010 and 2014² had a college degree, compared to only 19 percent of recent movers who lived in non-gentrifying neighborhoods during the same period, as shown in Figure 6.

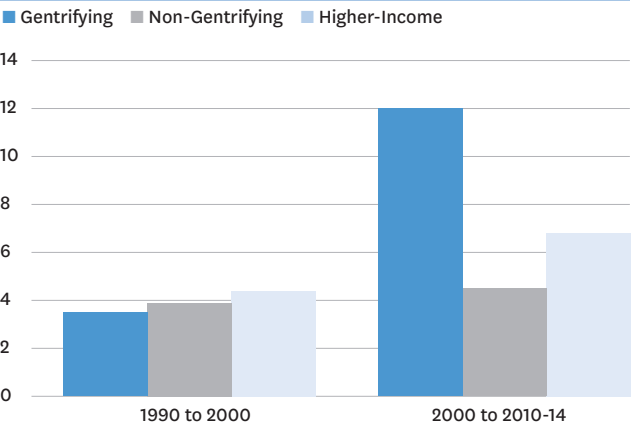
Table 5: Share of Population 25+ with a College Degree by Neighborhood Type

	1990	2000	2005-09	2010-14
Citywide	21.5%	25.7%	31.6%	33.6%
Gentrifying	12.9%	16.4%	24.7%	28.5%
Non-Gentrifying	9.8%	13.7%	16.6%	18.2%
Higher-Income	27.6%	32.0%	37.4%	38.8%

Sources: Neighborhood Change Database (1990, 2000), American Community Survey (2005-2009, 2010-2014), NYU Furman Center

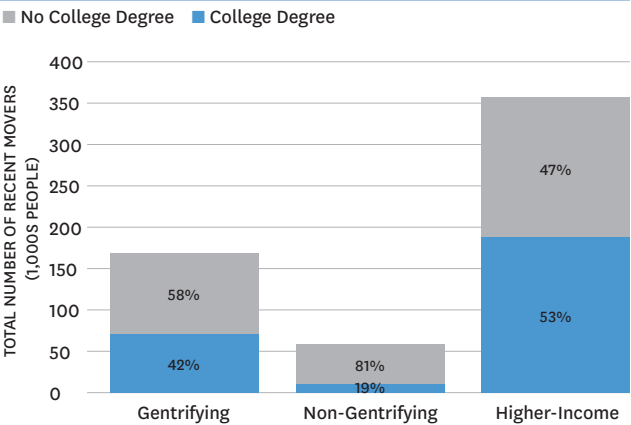
² For the ACS, respondents are interviewed throughout the year (and, for five-year samples, throughout the five-year span), we define a recent mover as one who moved into their unit within the 12 months prior to their interview. Thus, recent movers in the 2010-2014 five-year ACS sample include households interviewed in 2014 who had moved into their unit in 2013, as well as households interviewed in 2010 who had moved into their unit in 2009, but not, for example, households interviewed in 2011 who had moved into their unit in 2009.

Figure 5: Percentage Point Change in Share of Population 25+ with a College Degree by Neighborhood Type



Sources: Neighborhood Change Database (1990, 2000), American Community Survey (2010-2014), NYU Furman Center

Figure 6: Educational Attainment Among Recent Movers Aged 25+ by Neighborhood Type, 2010-2014



Sources: American Community Survey (2010-2014), NYU Furman Center

3. Since 2000, young adults have made up a growing share of the population in gentrifying neighborhoods.

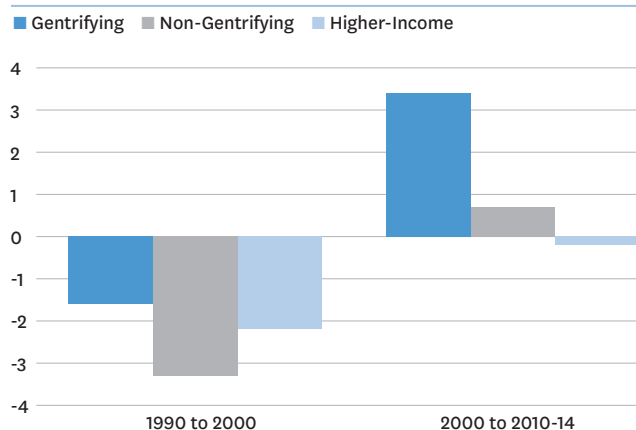
In 1990 and 2000, young adults aged 20 to 34 made up about a quarter of New York City’s population, and this share was similar across the city’s different types of neighborhoods. Between

2000 and **2010**—2014, the age mix across neighborhood types shifted, most notably in gentrifying neighborhoods. The young adult share fell in higher-income neighborhoods during this period, while it increased slightly in non-gentrifying neighborhoods and rose fairly significantly in gentrifying areas (from 25.4 percent to 28.8 percent), driven by the large numbers of young-adult recent movers. As shown in Figure 8, 60.8 percent of the adults who had moved into gentrifying neighborhoods in 2000 to 2010-2014 were young adults between the ages of 20 and 34, compared to 47.9 percent in non-gentrifying neighborhoods and 54.7 percent in higher-income neighborhoods.

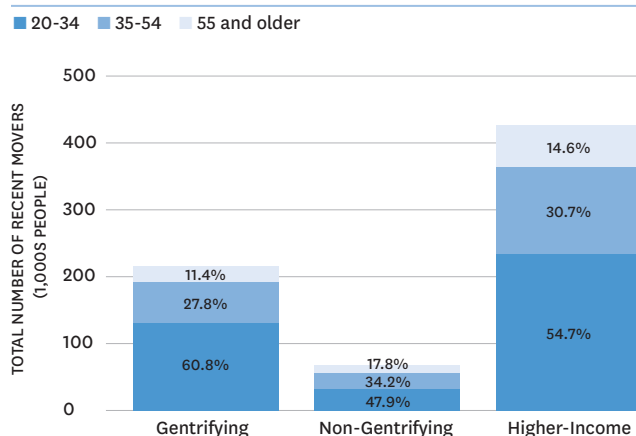
Table 6: Share of Population Aged 20 to 34 by Neighborhood Type

	1990	2000	2005-09	2010-14
Citywide	26.4%	24.2%	23.6%	25.1%
Gentrifying	27.1%	25.4%	26.8%	28.8%
Non-Gentrifying	25.5%	22.3%	21.5%	23.0%
Higher-Income	26.2%	24.0%	22.7%	23.9%

Sources: Neighborhood Change Database (1990, 2000), American Community Survey (2005-2009, 2010-2014), NYU Furman Center

Figure 7: Percentage Point Change in Share of Population Aged 20 to 34 by Neighborhood Type

Sources: Neighborhood Change Database (1990, 2000),
American Community Survey (2010-2014), NYU Furman Center

Figure 8: Age Composition of Recent Movers by Neighborhood Type, 2010-2014

Sources: American Community Survey (2010-2014), NYU Furman Center

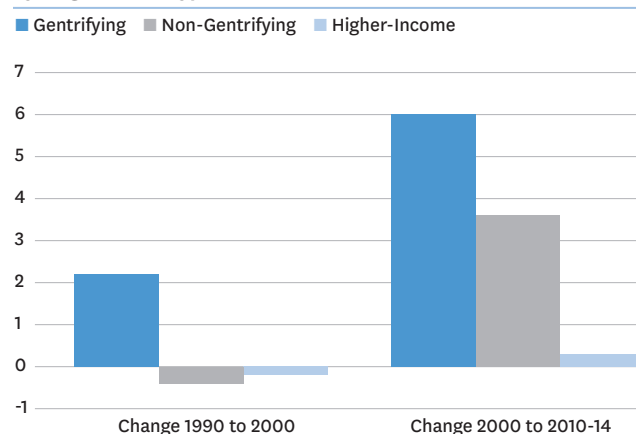
4. The non-family household share increased in gentrifying neighborhoods faster than in the city as a whole.

Since 1990, the share of households in New York City that are non-family households has increased steadily; these changes in household composition were most pronounced in gentrifying neighborhoods. While the share of households that were “non-family households”³ (shown in Figure 9) increased by 2.7 percentage points citywide, the share went up nearly three times as much—by 8.2 percentage points—in gentrifying areas between 1990 and 2010–2014 (by 2.2 percentage points between 1990 and 2000 and another 6 percentage points between 2000 and 2010–2014).

Table 7: Share Non-Family Households by Neighborhood Type

	1990	2000	2005-09	2010-14
Citywide	35.3%	35.7%	37.8%	38.0%
Gentrifying	34.3%	36.5%	41.5%	42.5%
Non-Gentrifying	29.6%	29.1%	32.2%	32.8%
Higher-Income	36.9%	36.7%	37.3%	37.0%

Sources: Neighborhood Change Database (1990, 2000),
American Community Survey (2005-2009, 2010-2014), NYU Furman Center

Figure 9: Percentage Point Change in Non-Family Household Share, by Neighborhood Type

Sources: Neighborhood Change Database (1990, 2000),
American Community Survey (2010-2014), NYU Furman Center

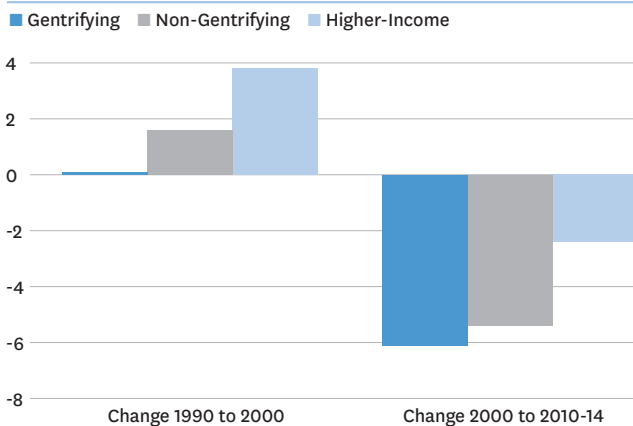
³ These were individuals who lived alone or who lived with an unrelated person. Domestic partners are counted as related.

Table 8: Share of Families with Children by Neighborhood Type

	1990	2000	2005-09	2010-14
Citywide	48.3%	50.7%	48.2%	47.0%
Gentrifying	55.6%	55.7%	51.7%	49.6%
Non-Gentrifying	55.5%	57.2%	53.9%	51.8%
Higher-Income	43.5%	47.3%	45.6%	44.9%

Sources: Neighborhood Change Database (1990, 2000), American Community Survey (2005-2009, 2010-2014), NYU Furman Center

Figure 10: Percentage Point Change in Share of Families with Children, by Neighborhood Type



Sources: Neighborhood Change Database (1990, 2000), American Community Survey (2010-2014), NYU Furman Center

5. Racial and ethnic changes in gentrifying neighborhoods differed from citywide changes.

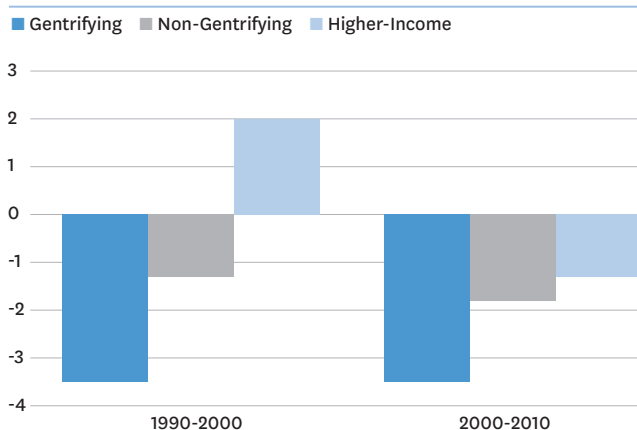
Since the 1990s, the share of the population identifying as black or white has declined in the city as a whole, while the share identifying as Asian or Hispanic has increased.⁴ The share of the population that identified as black also declined in gentrifying neighborhoods between 1990 and 2010 (37.9 percent to 30.9 percent), but the share of population that identified as white increased (18.8 percent to 20.6 percent). The Asian and Hispanic shares also grew in gentrifying neighborhoods, but more slowly than they did in the city as a whole.

Table 9: Racial Composition by Neighborhood Type

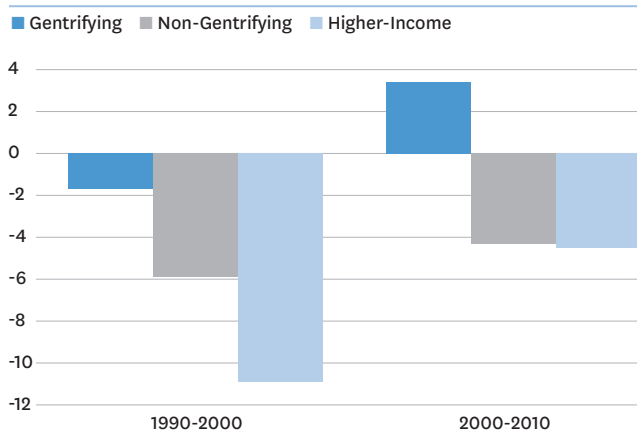
	1990	2000	2010
Citywide			
Share Asian	6.8%	10.6%	13.4%
Share Black	25.6%	25.6%	23.6%
Share Hispanic	23.7%	27.0%	28.6%
Share White	43.4%	35.8%	33.4%
Gentrifying			
Share Asian	5.3%	7.5%	8.7%
Share Black	37.9%	34.4%	30.9%
Share Hispanic	37.3%	40.1%	39.2%
Share White	18.8%	17.1%	20.6%
Non-Gentrifying			
Share Asian	5.0%	8.1%	11.1%
Share Black	28.0%	26.7%	24.9%
Share Hispanic	38.4%	42.0%	45.2%
Share White	28.0%	22.1%	17.8%
Higher-Income			
Share Asian	7.8%	12.5%	15.9%
Share Black	19.6%	21.6%	20.3%
Share Hispanic	14.7%	18.4%	20.7%
Share White	57.5%	46.6%	42.0%

Sources: Neighborhood Change Database (1990, 2000, 2010), NYU Furman Center

⁴ Citywide, the non-Hispanic black share of the population declined from 25.6 percent in 1990 and 23.6 percent in 2010. The non-Hispanic white share has declined from 43.4 percent to 33.4 percent. The Hispanic share increased from 23.7 percent to 28.6 percent; and the Asian share about doubled, from 6.8 percent to 13.4 percent.

Figure 11: Percentage Point Change in Black Share of the Population, by Neighborhood Type

Sources: Neighborhood Change Database (1990, 2000, 2010), NYU Furman Center

Figure 12: Percentage Point Change in White Share of the Population, by Neighborhood Type

Sources: Neighborhood Change Database (1990, 2000, 2010), NYU Furman Center

Managing Rising Costs In Gentrifying Neighborhoods

As demand increases and neighborhoods change, residents may benefit from the addition of new neighborhood amenities, reduced crime rates, and increased housing values. However, as rents rise, long-time residents, especially those with low and moderate incomes, may struggle with higher rent burdens and run the risk of being priced out of their neighborhoods. In this section, we examine some possible consequences of rising rents, including changes in poverty levels, rent burden, rental affordability, crowding, and the volume of housing court cases. While there is no one way to measure the effects of rising rents, and each of these indicators has shortcomings, they provide some suggestive insights.

1. Many poor people still live in gentrifying neighborhoods, but their numbers have fallen slightly since 2000.

The number of people below the poverty line in gentrifying neighborhoods increased between 1990 and 2000, and then declined between 2000 and 2010-2014. In higher-income neighborhoods, both the poverty share and the absolute level increased between 1990 and 2010-2014. Table 10 shows the total number of persons living below the poverty line by neighborhood type and the share of the neighborhood's total population below the poverty line.

We cannot directly observe if low-income residents are moving out of increasingly high-cost neighborhoods. The net loss in the number of persons living below the poverty line between 2000 and 2010-2014 may suggest that low-income residents have become less able to move into or remain in gentrifying neighborhoods, or it could be that poor residents are more able to lift themselves out of poverty in gentrifying neighborhoods (or a combination of both).

Table 10: Number and Share of Persons below the Poverty Line by Neighborhood Type

	1990		2000		2010-14	
	Number	Share	Number	Share	Number	Share
Citywide	1,384,996	19.4%	1,668,938	21.3%	1,696,394	20.7%
Gentrifying	630,582	32.9%	666,354	32.9%	633,931	29.7%
Non-Gentrifying	257,904	28.8%	307,030	31.3%	306,171	30.4%
Higher-Income	496,510	11.4%	695,554	14.4%	756,292	14.9%

Sources: Neighborhood Change Database (1990, 2000), American Community Survey (2010-2014), NYU Furman Center

2. Rent burden increased for households citywide and remained highest in non-gentrifying neighborhoods.

The share of households who were rent burdened (paying 30 percent or more of their pre-tax income on gross rent) rose significantly citywide—from 40.7 percent in 2000 to 51.7 percent in 2010-2014.

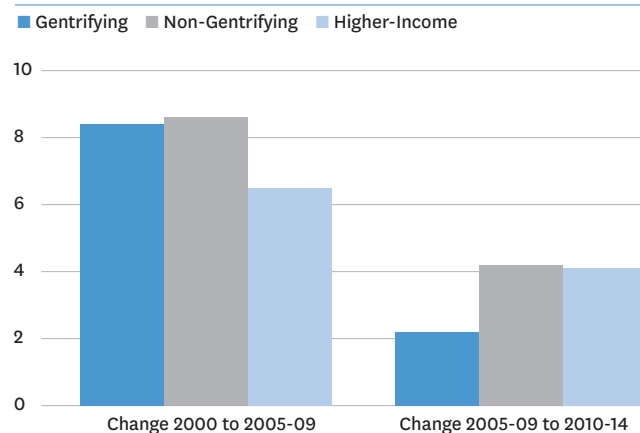
Burdens rose in all types of neighborhoods during this period, with the sharpest rises in non-gentrifying neighborhoods, as seen in Table 12. By 2010-2014, 58.5 percent of households in the city's non-gentrifying neighborhoods, 52.9 percent in the city's gentrifying neighborhoods and 49.3 percent in higher-income neighborhoods were rent burdened.

Table 11: Share of Households Rent Burdened by Neighborhood Type and Household Income

	2000	2005-09	2010-14
Citywide	40.7%	48.2%	51.7%
Gentrifying	42.3%	50.7%	52.9%
Non-Gentrifying	45.7%	54.3%	58.5%
Higher-Income	38.7%	45.2%	49.3%

Sources: US Census (2000), American Community Survey (2005-2009, 2010-2014), NYU Furman Center (ACS PUMS)

Figure 13: Percentage Point Change in Share of Households Rent Burdened by Neighborhood Type



Sources: US Census (2000), American Community Survey (2005-2009, 2010-2014), NYU Furman Center (ACS PUMS)

3. Low- and moderate-income households saw the greatest increase in rent burden.

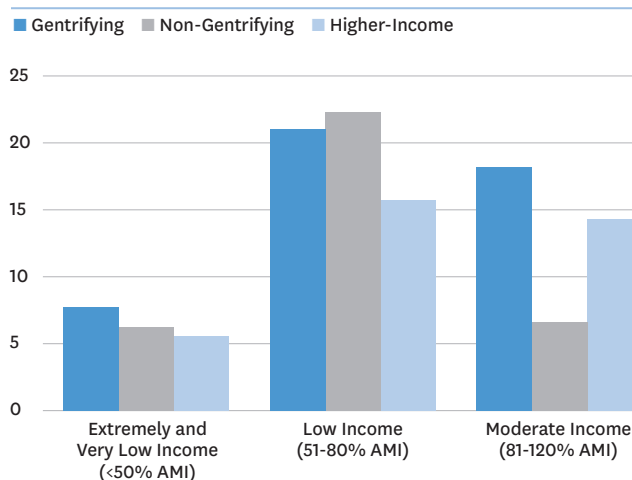
While extremely low-income households face the highest rent burdens, low- and moderate-income households have seen the greatest increases since 2000.⁵ The share of low-income households (those earning between 50 and 80 percent of the area median income, or AMI) that were rent burdened in gentrifying neighborhoods increased by 21 percentage points between 2000 and 2010-2014; the share of moderate-income households that were rent burdened in gentrifying neighborhoods increased by over 18 percentage points between 2000 and 2010-2014 (Figure 14).

Table 12: Share of Households Rent Burdened by Neighborhood Type and Household Income

	2000	2005-09	2010-14
Gentrifying			
Extremely and Very Low-Income (<50% AMI)	67.8%	75.9%	75.4%
Low-Income (51-80% AMI)	28.8%	40.8%	49.8%
Moderate-Income (81-120% AMI)	8.5%	18.7%	26.8%
Non-Gentrifying			
Extremely and Very Low- Income (<50% AMI)	73.8%	80.0%	80.1%
Low- Income (51-80% AMI)	29.4%	40.4%	51.7%
Moderate- Income (81-120% AMI)	3.0%	6.8%	9.6%
Higher-Income			
Extremely and Very Low Income (<50% AMI)	75.9%	81.3%	81.6%
Low- Income (51-80% AMI)	49.1%	58.0%	64.8%
Moderate- Income (81-120% AMI)	18.5%	27.5%	32.9%

Sources: US Census (2000), American Community Survey (2005-2009, 2010-2014), NYU Furman Center (ACS PUMS)

Figure 14: Percentage Point Change in Share of Households Rent Burdened by Household Income and Neighborhood Type, 2000 to 2010-2014



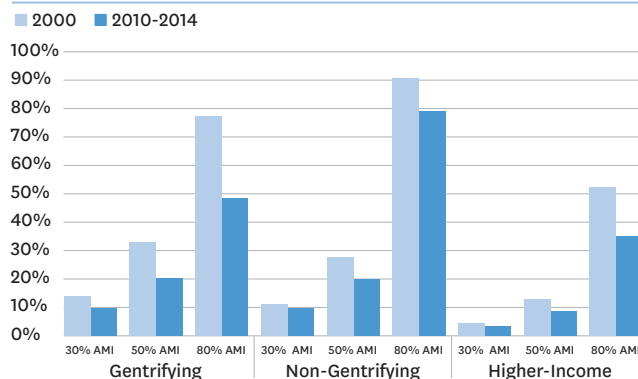
Sources: US Census (2000), American Community Survey (2005-2009, 2010-2014), NYU Furman Center (ACS PUMS)

⁵ We present statistics for renters at different income bands, expressed as a percentage of the Area Median Income (AMI) as defined by the US Department of Housing and Urban Development (HUD). See "US Department of Housing and Urban Development Income and Rent Limits" in the Methods section for more information on the AMI figures. We define households below 50 percent of AMI as extremely and very low-income; low-income households as earning between 51 and 80 percent of AMI; moderate-income households earn between 81 and 120 percent of AMI.

4. Recently available rental units became less affordable to low-income households in all neighborhoods, but particularly in gentrifying neighborhoods.

In 2000, citywide, the median renter household could afford 20.2 percent of recently-available units⁶; by 2010-2014, that share had fallen to just 13.3 percent.⁷ The largest decreases in affordability were for households earning 80 percent of AMI, especially in gentrifying neighborhoods.⁸ In 2000, 77.2 percent of recently-available rental units in gentrifying neighborhoods were affordable to households earning 80 percent of AMI. In 2010-2014, that share fell to less than half. Households at 80 percent of AMI saw smaller but still significant declines in affordability in other neighborhoods too. The share of recently available units affordable to households earning 80 percent of AMI fell by 17.2 percentage points between 2000 and 2010-2014 in higher-income neighborhoods and by 11.7 percentage points in non-gentrifying neighborhoods.

Figure 15: Recently Available Rental Units Affordable to Appropriately-Sized Households by Neighborhood Type



Source: US Census (2000), American Community Survey (2010-2014), NYU Furman Center

6 The definition of recently available is slightly different for the 2000 census and the 2010-2014 American Community Survey (ACS). For the 2000 census, all respondents were interviewed in April of 2000, and we define a recently available unit as one whose current occupant moved into the unit in 1999 or later (that is, within about 15 months prior to their interview). For the ACS, respondents are interviewed throughout the year (and, for five-year samples, throughout the five-year span), and we define a recently available unit as one whose current occupant moved into their unit within the 12 months prior to their interview. Thus, recent movers in the 2010-2014 five-year ACS sample include households interviewed in 2014 who had moved into their unit in 2013, as well as households interviewed in 2010 who had moved into their unit in 2009, but not, for example, households interviewed in 2011 who had moved into their unit in 2009. Since there is no rent data in the ACS for vacant units, such units are generally excluded from the set of “recently available units.”

7 We might expect in a simplified, frictionless housing market that 50 percent of recently available housing units would be affordable to households at the 50th percentile of the income distribution.

8 A household of four with an annual income of \$67,100 was, in 2014, considered to be 80 percent of AMI. See the *Methods* section for more information.

5. Crowding in renter households increased the most in non-gentrifying neighborhoods.

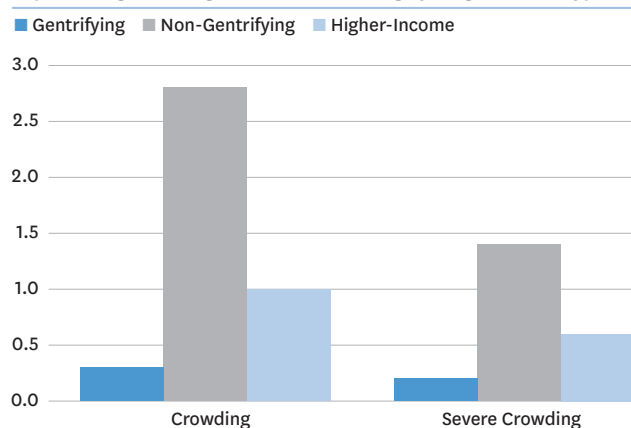
One way to respond to increasing rent is to live with more people who can contribute to rent payments. A household is considered “crowded” when a household includes, on average, more than one person per room. A household is considered “severely crowded” when there are, on average, more than 1.5 persons per room. The share of households considered crowded and severely crowded increased in all types of neighborhoods between 2005-2009 and 2010-2014, as shown in Table 13. According to Figure 16, non-gentrifying areas saw the starkest increases in crowding and severe crowding, while the increases in gentrifying neighborhoods were relatively modest.

Table 13: Share of Renter Households Experiencing Crowding and Severe Crowding by Neighborhood Type

	2005-09		2010-14	
	Crowding	Severe Crowding	Crowding	Severe Crowding
Citywide	10.0%	3.6%	11.0%	4.2%
Gentrifying	10.8%	3.9%	11.1%	4.1%
Non-Gentrifying	12.5%	4.1%	15.2%	5.5%
Higher-Income	8.8%	3.3%	9.8%	3.9%

Sources: American Community Survey (2005-2009, 2010-2014), NYU Furman Center

Figure 16: Percentage Point Change in Share of Renter Households Experiencing Crowding and Severe Crowding by Neighborhood Type



Sources: American Community Survey (2005-2009, 2010-2014), NYU Furman Center

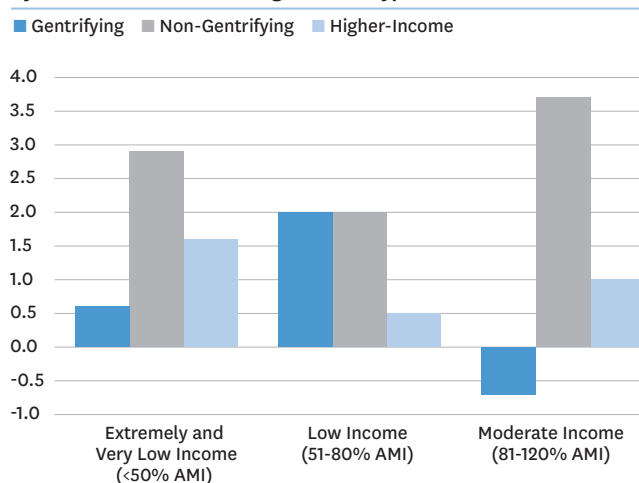
Figure 17 shows that the share of households that were crowded increased among extremely, very, and low-income households, across all neighborhood types, but particularly in non-gentrifying neighborhoods. Crowding among moderate-income households in non-gentrifying neighborhoods increased by nearly four percentage points between 2005-2009 and 2010-2014, indicating increased rent pressure.

Table 14: Crowding Rate by Household Income and Neighborhood Type

	Extremely and Very Low Income (<50% AMI)	Low Income (51-80% AMI)	Moderate Income (81-120% AMI)
2005-09			
Citywide	11.4%	12.5%	9.7%
Gentrifying	11.3%	12.4%	11.0%
Non-Gentrifying	12.0%	15.7%	12.4%
Higher-Income	11.2%	11.6%	8.5%
2010-14			
Citywide	12.9%	13.7%	10.5%
Gentrifying	11.9%	14.3%	10.2%
Non-Gentrifying	14.9%	17.7%	16.1%
Higher-Income	12.8%	12.2%	9.5%

Sources: American Community Survey (2005-2009, 2010-2014), NYU Furman Center

Figure 17: Percentage Point Change in Crowding Rate by Household Income and Neighborhood Type

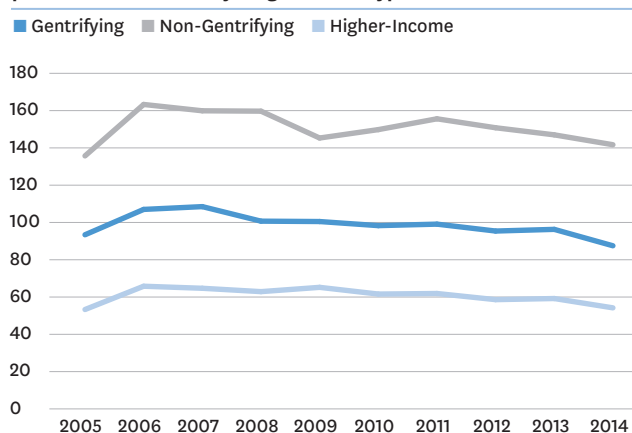


Sources: American Community Survey (2005-2009, 2010-2014), NYU Furman Center

6. The number of cases filed in housing court for non-payment of rent remained fairly constant over time, but non-gentrifying neighborhoods consistently saw the most cases.

In addition to concern about rent and crowding pressures, rapidly rising rents may lead to concern about elevated eviction rates. One proxy for such eviction activity is the volume of housing court activity. According to data from the New York housing courts from 2005 to 2014, the rate of non-payment court cases filed per rental unit remained roughly constant in gentrifying neighborhoods, with the exception of an increase around the financial crisis. Non-gentrifying areas consistently saw higher rates of non-payment court filings than gentrifying areas over this time period. Rates of non-payment court filings in higher-income SBAs were consistently lower.

Figure 18: Number of Housing Court Cases for Non-Payment of Rent per 1,000 Rental Units by Neighborhood Type



Sources: New York State Office of Court Administration (2003-2014), American Community Survey (2005-2009, 2010-2014), NYU Furman Center

Conclusion

In the past decade and a half, rent growth has been especially high in the gentrifying neighborhoods immediately surrounding central Manhattan, particularly in northern Brooklyn. Many of these neighborhoods still had both low rents and high rates of poverty in 2000. By 2014, however, these areas experienced rising rents and incomes relative to the rest of the city. These changes were accompanied by demographic changes as well: residents of gentrifying neighborhoods in 2014 were more likely to have college degrees, and to live in a non-family household compared to the residents of the same neighborhoods in 1990. While many of these trends occurred citywide, they were more dramatic in gentrifying neighborhoods.

A closer look at affordability indicators provides insight into how households at different income levels experienced the pressures of rapidly rising rents. The number of people who lived in poverty in gentrifying neighborhoods decreased slightly over the last decade, though poverty rates remained high. Both rent burden and crowding rates increased in gentrifying areas, but did not increase as rapidly as they did in non-gentrifying neighborhoods. However, the share of recently available rental units that were affordable to low-income households declined the most in gentrifying areas. Housing courts did not see an increase in non-payment cases as rent pressures increased, and filings for non-payment were highest in non-gentrifying neighborhoods.

In short, households across New York City are experiencing significant rent pressures and shifts in household composition. Rent is going up everywhere in New York City, and at a rate faster than incomes. New Yorkers overall have become younger, more educated, and more likely to live in non-family households since 1990. These changes, however, are magnified in the city's gentrifying neighborhoods.

From a policy perspective, the unintended effects of gentrification on existing residents may be cause for attention and policy solutions. As this chapter illustrates, however, households throughout the city are feeling increased housing affordability pressure. Therefore, discussions around mitigating the effects of rapidly rising rents should arguably not be confined to specific neighborhoods, but applied more broadly to the city.

Crime and Gentrification

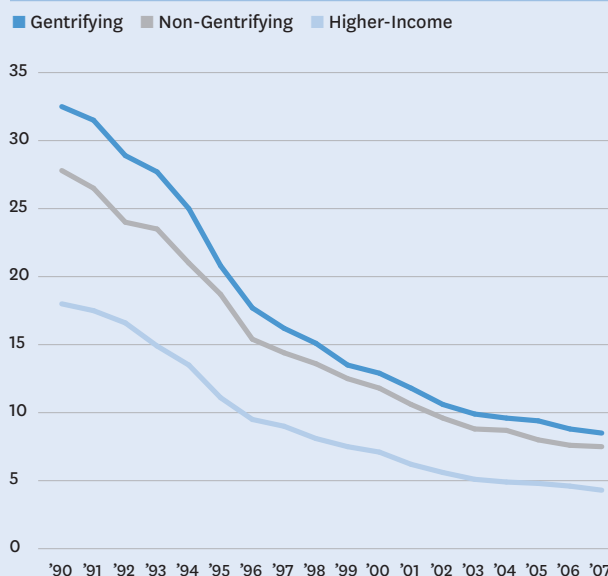
No single factor can be pointed to as the cause of rapidly rising rents in the neighborhoods we classify as “gentrifying.” Rather, it is likely that a number of shifts in neighborhood conditions and preferences contributed to these neighborhood changes.

One such factor may have been reductions in crime. Crime rates dropped rapidly before the onset of rapidly rising rents New York City. In the 1990s, violent crime rates dropped by 13.9 per 1000 residents, and property crime rates dropped by 45.2 per 1000 residents citywide.⁹ Both rates more than halved. Gentrifying neighborhoods in that time period experienced a drop in violent crime rates by 19.6 per 1000 people, while the reductions in non-gentrifying and higher income neighborhoods were 16.1 and 10.8 per 1000 people respectively. In 1990, gentrifying areas had 14.5 more violent crimes per 1,000 people as higher-income neighborhoods, but by 2000 they had only 5.8 more.

Crime continued to drop in all neighborhoods in the 2000s, although the decrease in both violent and property crime slowed after 2000. Violent crime remained highest in gentrifying neighborhoods, but by a shrinking margin over time. Property crime rates also dropped more slowly, but the difference between neighborhood types is noteworthy. Gentrifying neighborhoods’ property crime rates reduced at the slowest pace of all neighborhood types, converging with the rates in higher-income neighborhoods by 2007. Because violent crime rates remained highest in gentrifying neighborhoods, these areas had the highest combined (property and violent) crime rate in 2007.

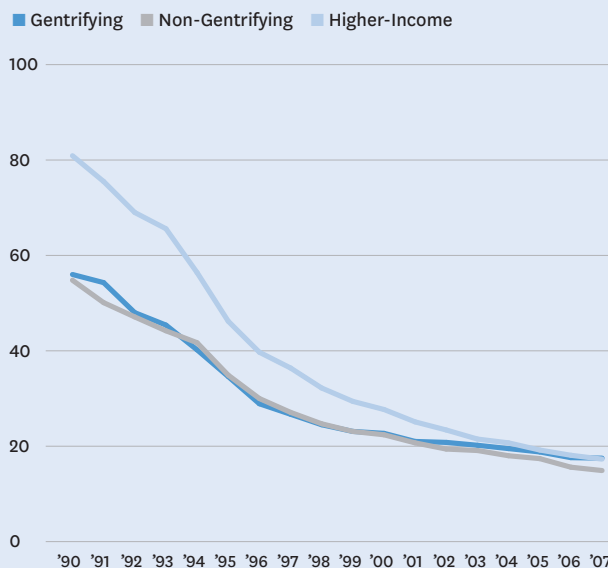
⁹ The New York City Police Department collects data on criminal activity, which the department is required to report to the Federal Bureau of Investigation (FBI) under the Uniform Crime Reporting (UCR) program. A crime is considered serious if it is classified as a UCR Type I crime. This category contains most types of assault, burglary, larceny, motor vehicle theft, murder, rape, and robbery. While most UCR Type I crimes are felonies, some are not. Further, some felonies, notably drug offenses, are not considered UCR Type I crimes. Rates are calculated as the number of crimes committed in a given geography.

Figure 1: Violent crime per 1,000 Residents by Neighborhood Type



Sources: Federal Bureau of Investigation Uniform Crime Reporting Program, American Community Survey (2005-2009, 2010-2014), NYU Furman Center

Figure 2: Property Crime per 1,000 Residents by Neighborhood Type



Sources: Federal Bureau of Investigation Uniform Crime Reporting Program, American Community Survey (2005-2009, 2010-2014), NYU Furman Center

Examining Variation Among and Within Gentrifying Neighborhoods

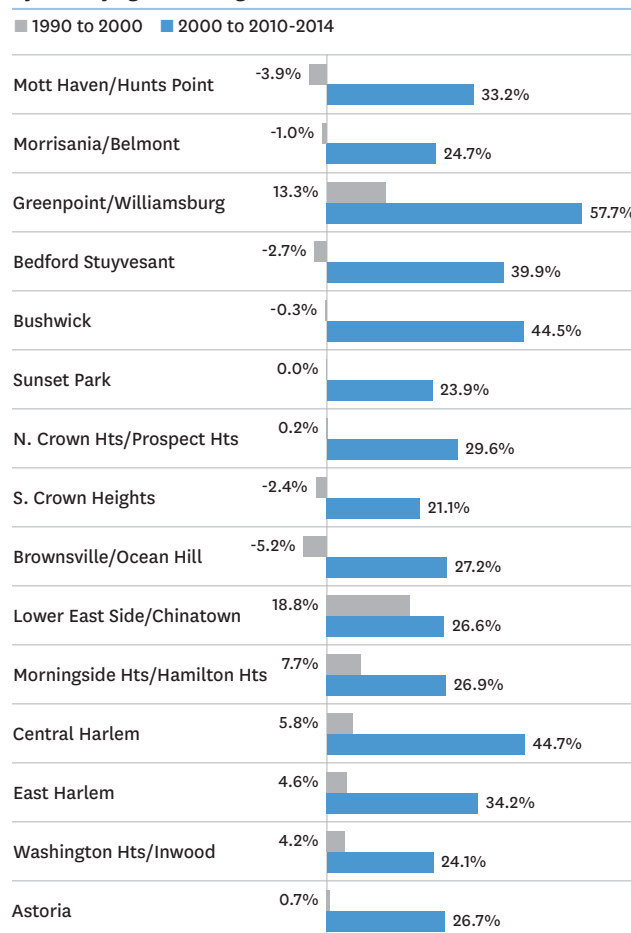
Throughout this chapter, we have reported changes for the full group of “gentrifying” neighborhoods, which clearly conceals considerable variation among those neighborhoods. Further “neighborhoods” refer to sub-borough areas (SBAs). Since SBAs are relatively large areas—each contains at least 100,000 people—analysis at this broad geographic level may lose some nuance. Neighborhood change can vary from block to block within SBAs. This section first compares the variation among the SBAs classified as gentrifying, and then zooms in to compare neighborhoods within two gentrifying SBAs: Bedford Stuyvesant (BK 03) and Williamsburg/Greenpoint (BK 01).

Variation among gentrifying SBAs

Rent

Rent growth has accelerated in all gentrifying SBAs since 2000. Between 1990 and 2000, a third of the gentrifying SBAs actually experienced a decrease in average rent. Between 2000 and 2010-2014, average rent growth ranged from 21.1 percent in South Crown Heights to over 40 percent in Williamsburg/Greenpoint, Central Harlem, and Bushwick.

Figure 1: Percent Change in Average Rent by Gentrifying Sub-Borough Area



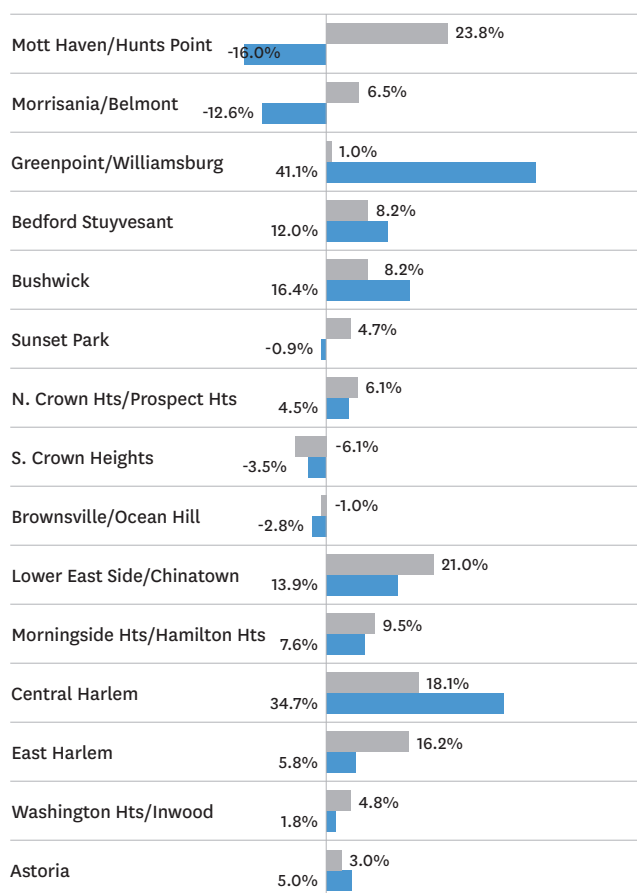
Source: *Neighborhood Change Database (1990, 2000)*, *American Community Survey (2010-2014)*, NYU Furman Center

Income

Average household income growth varied greatly among the gentrifying SBAs. The two gentrifying SBAs in the Bronx, Mott Haven/Hunts Point and Morrisania/Belmont, experienced a decrease in average income between 2000 and 2010-2014 of more than 10 percent. The gentrifying SBAs with the largest increases in income were Williamsburg/Greenpoint and Central Harlem, each with growth exceeding 30 percent.

Figure 2: Percent Change in Average Income by Gentrifying Sub-Borough Area

■ 1990 to 2000 ■ 2000 to 2010-2014



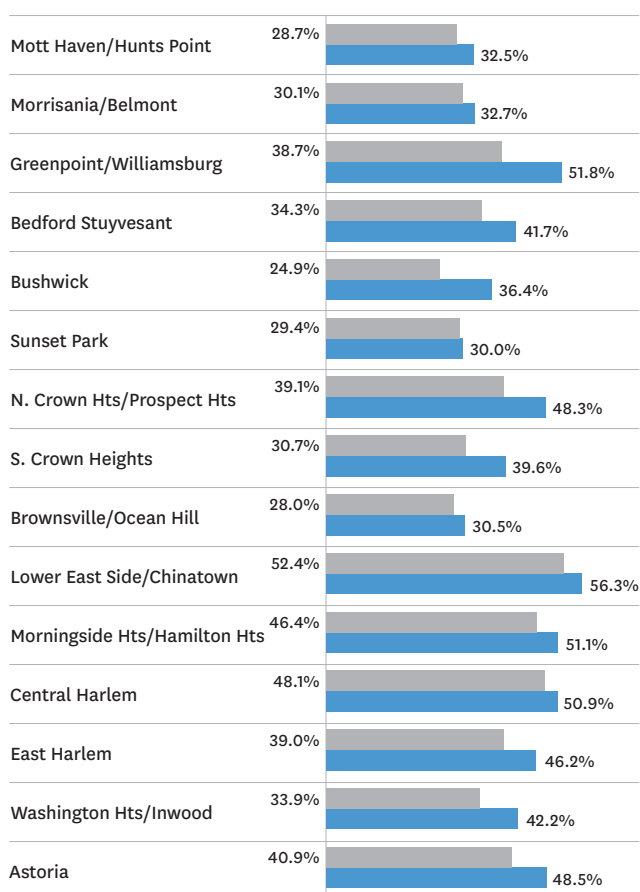
Source: Neighborhood Change Database (1990, 2000), American Community Survey (2010-2014), NYU Furman Center

Non-Family Households

The share of households classified as “non-family” increased in all gentrifying SBAs between 2000 and 2010-2014, but to varying degrees. Williamsburg/Greenpoint saw a 13.1 percentage point increase in the non-family household share, followed by Bushwick with an 11.5 percentage point increase. The non-family household share only increased slightly in Sunset Park and Morrisania/Belmont between 2000 and 2010-2014, up 0.6 percentage points and 2.6 percentage points, respectively.

Figure 3: Share Non-Family Households by Gentrifying Sub-Borough Area

■ 1990 to 2000 ■ 2000 to 2010-2014

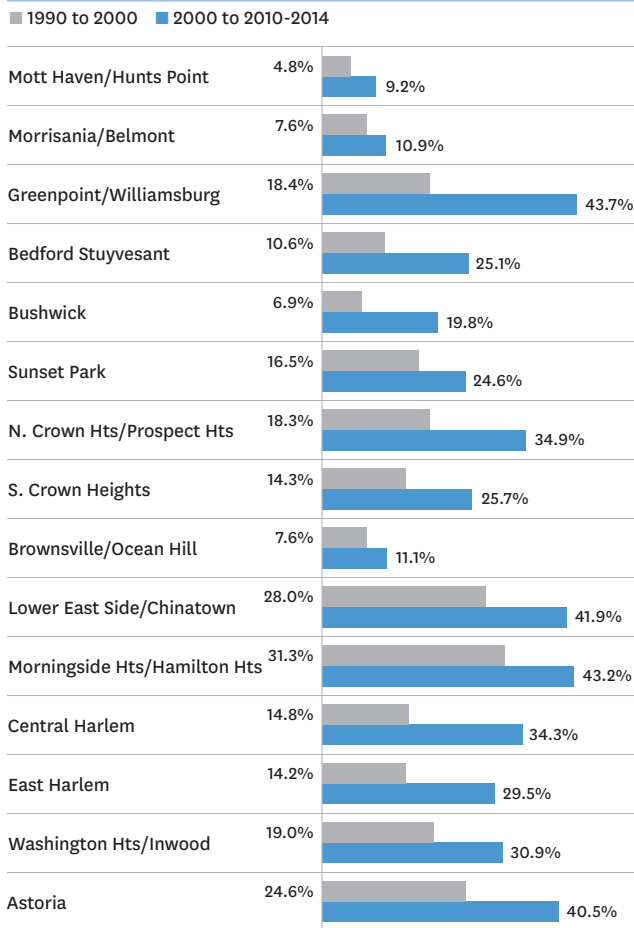


Source: Neighborhood Change Database (1990, 2000), American Community Survey (2010-2014), NYU Furman Center

Educational Attainment

Perhaps the most dramatic change across the city in the past two decades, and even more so in gentrifying neighborhoods, was the increase in the share of the adult population with a college degree. All of the gentrifying SBAs experienced an increase in the share of the adult population with a college degree between 2000 and 2010-2014, but those increases ranged from just over three percentage points in Brownsville/Ocean Hill to over 25 percentage points in Williamsburg/Greenpoint.

Figure 4: Share of Adult Population with College Degree by Gentrifying Sub-Borough Area



Source: Neighborhood Change Database (1990, 2000), American Community Survey (2010-2014), NYU Furman Center

Variation within Bedford-Stuyvesant and Williamsburg/Greenpoint

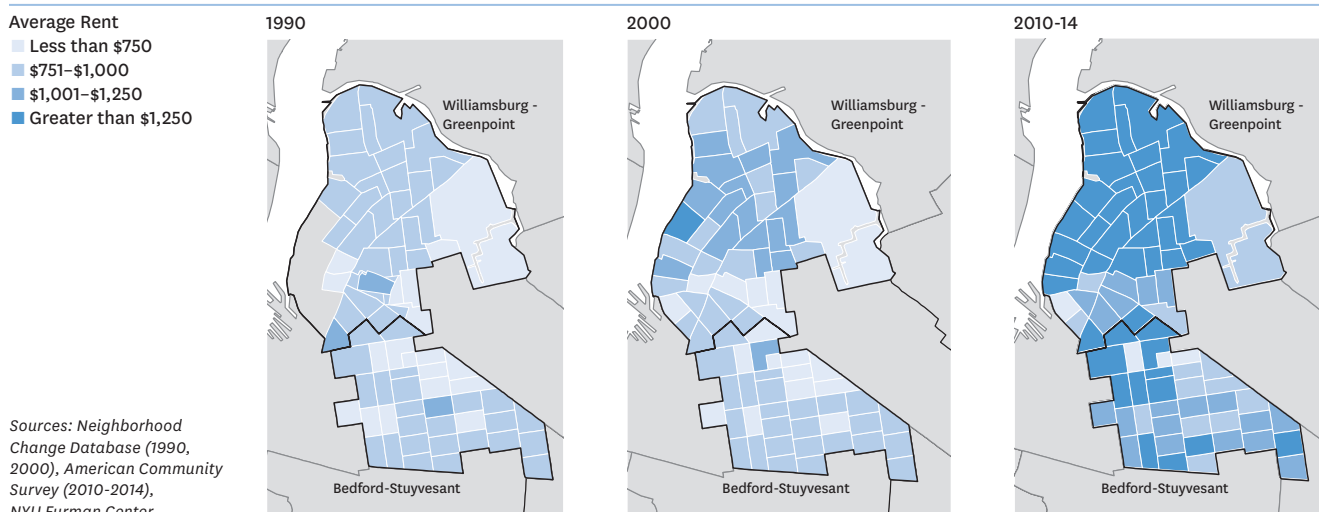
Sub-borough areas are large and can mask considerable variation in local changes in neighborhood characteristics. In this section, we zoom into two contiguous gentrifying neighborhoods, Bedford Stuyvesant (BK 03) and Williamsburg/Greenpoint (BK 01) and examine changes in rent, income, educational attainment, and racial and ethnic composition at the census tract level.

Rent

In 1990, most census tracts in Bedford-Stuyvesant and Williamsburg/Greenpoint had average rents between \$751 and \$1,000. By 2000, rents had started rising in some census tracts in Williamsburg/Greenpoint, but only few in Bedford-Stuyvesant.

In 2010-2014, the average rent in virtually all tracts in Williamsburg/Greenpoint was greater than \$1,250. In Bedford-Stuyvesant, rents rose, but many tracts still had average rents of less than \$1,000.

Figure 5: Average Rent by Census Tract in Bedford-Stuyvesant and Williamsburg/Greenpoint

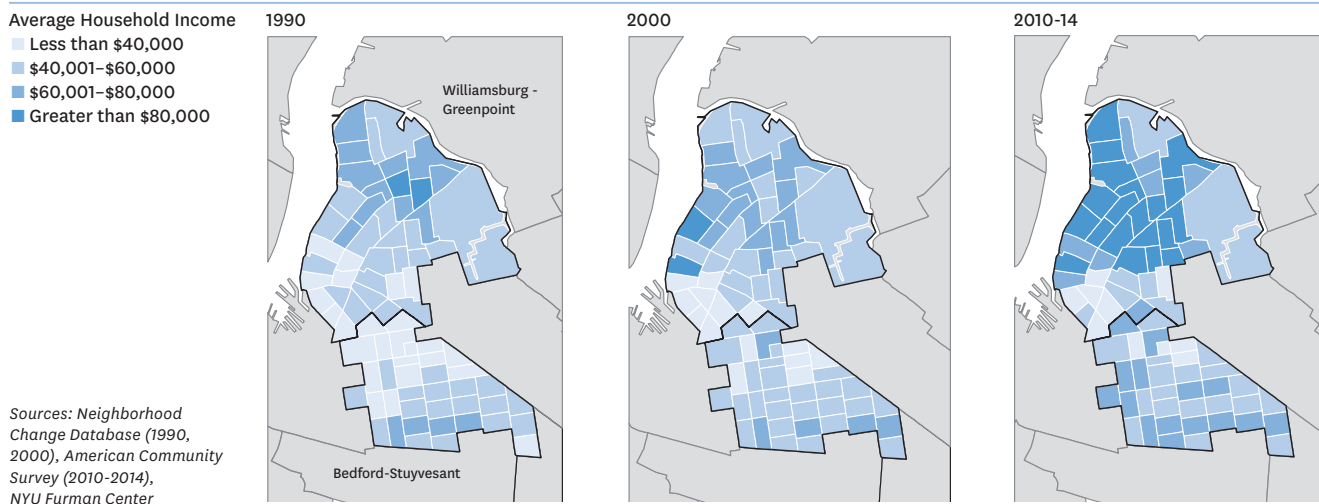


Income

Average household income has steadily increased for most census tracts in Bedford-Stuyvesant and Williamsburg/Greenpoint in the past two decades. The census tracts in Williamsburg/Greenpoint generally have had consistently

higher incomes than those in Bedford-Stuyvesant. The lowest income census tracts in 2010–2014 in Williamsburg/Greenpoint were those along the Bedford-Stuyvesant border.

Figure 6: Average Household Income by Census Tract in Bedford-Stuyvesant and Williamsburg/Greenpoint

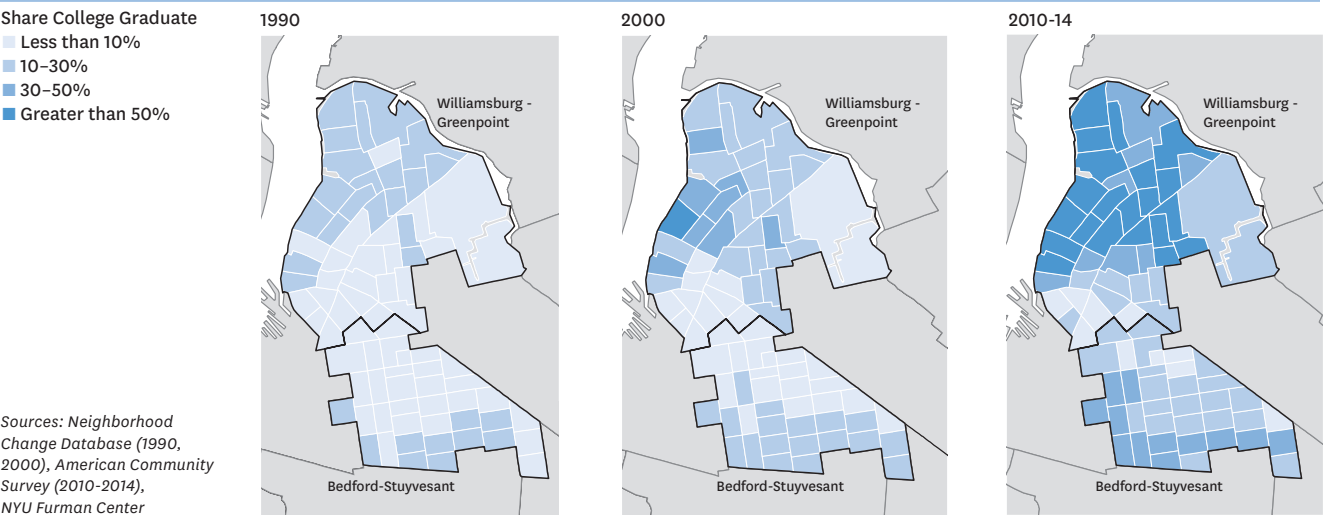


Educational Attainment

In 1990, in all census tracts in Williamsburg/Greenpoint and Bedford-Stuyvesant the share of the population that were college graduates was less than 30 percent. By 2010-2014, the college educated share in most census tracts in

Williamsburg/Greenpoint was greater than 50 percent. In Bedford- Stuyvesant, most census tracts experienced an increase in the share college educated between 2000 and 2010-2014.

Figure 7: Share College Graduate by Census Tract in Bedford-Stuyvesant and Williamsburg/Greenpoint



Racial and Ethnic Composition

The racial and ethnic composition of Bedford-Stuyvesant and Williamsburg/Greenpoint has changed considerably over time. Figure 8 shows the distribution of the black, Hispanic, and white population by census tract in 1990,

2000, and 2010. Bedford-Stuyvesant experienced a decrease in density of the black population; Williamsburg/Greenpoint experienced a decrease in the Hispanic population between decades.

Figure 8: Racial and Ethnic Composition by Census Tract in Bedford-Stuyvesant and Williamsburg/Greenpoint

