



HOUSING AFFORDABILITY AS A STRUCTURAL CONSTRAINT ON SMART ECONOMIC GROWTH: EVIDENCE FROM NEW YORK CITY

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Abstract: *Smart economic growth emphasizes development that simultaneously promotes productivity, social inclusion, and long-term sustainability. Urban housing systems play a critical role in this process because access to affordable housing determines labor mobility, human capital formation, and spatial economic balance. This study examines housing affordability as a structural constraint on smart economic growth using evidence from New York City. Combining a housing cost burden model, hedonic pricing framework, and neighborhood affordability index, the analysis evaluates how income–rent mismatch, educational accessibility, demographic composition, and density pressures interact to shape urban economic outcomes. The results indicate that rising rents relative to stagnant incomes significantly increase housing cost burdens and restrict residential mobility, thereby weakening labor market efficiency and reinforcing spatial inequality. The findings further show that school quality capitalization and housing scarcity create localized productivity barriers, limiting inclusive participation in high-opportunity areas. Overcrowding and demographic concentration intensify these effects by amplifying economic vulnerability in dense urban neighborhoods. The study demonstrates that housing affordability operates not merely as a social welfare concern but also as a measurable growth determinant that affects economic resilience and long-run development. Policy implications suggest that aligning wage*



growth, expanding affordable housing supply, and improving access to education constitute complementary mechanisms for achieving smart economic growth. The paper contributes to interdisciplinary growth literature by integrating housing market dynamics into the broader framework of sustainable and inclusive economic development.

Keywords: smart economic growth, housing affordability, inclusive development, urban inequality, labor mobility, sustainable cities, economic resilience

Introduction

New York City occupies a distinctive place in the social, cultural, and economic imagination of the United States. As a global financial hub and symbolic center of American urban life, the city attracts millions of residents drawn by employment opportunities, cultural diversity, and historical significance. However, beneath its global prestige lies a persistent and worsening housing crisis that has increasingly limited access to adequate and affordable housing for large segments of the population. Despite sustained economic vibrancy, the cost of living, particularly housing, has risen at a pace far exceeding income growth for most households (U.S. Census Bureau, 2023). Housing affordability has emerged as one of the most pressing urban challenges facing New York City. Recent estimates suggest that a household typically requires an annual income of well over \$100,000 to maintain a modest standard of living in the city, particularly in centrally located boroughs (New York City Comptroller, 2023). As a result, middle- and low-income residents face severe cost burdens, with many households spending 30–50 percent or more of their income on rent or mortgage payments. Such conditions place millions of residents in financially precarious situations, leaving them vulnerable to displacement, overcrowding, and housing insecurity (Joint Center for Housing Studies of Harvard University, 2024).

Rapid population growth, limited housing supply, and restrictive land-use policies have compounded these challenges. High population density and constrained space have led to widespread overcrowding, particularly among low-income renters who often reside in substandard or shared housing arrangements (Uwakonye, Osho, Adams, & Haj, 2020). The rental market remains especially unforgiving, as escalating rents and stagnant wage growth disproportionately



affect vulnerable populations, including service workers, recent immigrants, and minority households (Schwartz, 2015; Osho, 2025). Consequently, housing affordability has become a defining feature of inequality in the city's urban landscape.

This study examines the core housing issues confronting New York City, with a particular focus on affordability, overcrowding, and income constraints. It examines how economic forces, policy decisions, and demographic pressures intersect to influence housing outcomes in the city. Additionally, the paper evaluates policy-oriented solutions to mitigate excessive housing costs and increase access to affordable housing amid ongoing population growth and economic development (Osho & Raphael, 2008). The remainder of this empirical analysis is organized as follows: a review of relevant literature on urban housing challenges, a data-driven examination of housing trends in New York City, and an application of economic theory to assess potential policy responses. Together, these components provide a comprehensive framework for understanding both the causes of New York City's housing crisis and the feasibility of sustainable solutions.

Prior Studies

Research on housing affordability in New York City has consistently shown that the city's housing market presents some of the most severe affordability challenges in the United States. Although various metropolitan areas struggle with rising rent burdens, shortages of affordable units, and widening income inequality, the scope and intensity of New York City's housing crisis remain uniquely pronounced. Elmedni (2018) observed that while housing need exists nationwide, the problem is "particularly acute" in New York City, a conclusion supported by a range of empirical studies and policy reports that highlight the disproportionate financial burden placed on renters. A series published by *The New York Times* in 2018 underscored this reality, documenting that low-income households were paying between 60% and 80% of their income toward housing costs, far above the widely accepted affordability threshold of 30% (Barker et al., 2018; Barker, 2018; Kleinfield, 2018; Adams & Osho, 2008). Historically, the city has employed a dual strategy to address affordability, involving direct subsidies for low-income households and government-



supported construction or rehabilitation of affordable units, a framework described in earlier work by Adams and Osho (2007) and referenced in Elmedni's discussion.

These findings collectively underscore a structural problem: housing burdens approaching 80% of household income indicate a profoundly unsustainable market environment. When renters allocate such a large share of their income to housing, the consequences extend beyond personal financial strain. Households become more vulnerable to eviction, experience reduced mobility, and face heightened levels of food insecurity, health disparities, and overall economic instability. Moreover, these affordability pressures undermine the long-term socioeconomic diversity that has historically defined New York City. The research literature, therefore, positions the affordability crisis not as an isolated trend but as a persistent and escalating challenge that demands comprehensive policy intervention.

Elmedni's (2018) study further illuminated the extent of the affordability shortage, noting that half of the city's residents reported being unable to afford to live in New York City at prevailing rent prices, based on a 2016 citywide survey (Barone, 2016). Additionally, between 2000 and 2012, the city lost approximately 400,000 rental units priced below \$1,000 per month (NYC Comptroller, 2014). This loss of lower-priced housing stock has been linked to both general market pressures and more targeted phenomena such as gentrification, which has reshaped many neighborhoods by attracting higher-income residents and displacing long-standing communities. Loopholes in rent regulation laws have also allowed landlords to substantially increase rents or move units into the unregulated market, further shrinking the supply of affordable homes. These regulatory gaps have accelerated rent escalation in areas undergoing rapid redevelopment, contributing to the crisis described by Elmedni and confirmed in independent municipal reports.

Another dimension of the affordability challenge is linked to state rent deregulation mechanisms. Fields (2015) documented the effects of high-rent/vacancy decontrol policies, which allowed units to be removed from rent regulation once they exceeded certain rent ceilings initially \$2,000 per month and later \$2,500 per month. Landlords were also permitted to increase rent by 20% upon



tenant turnover and to pass through a portion of capital improvement costs to renters. These policies created strong financial incentives for owners to raise rents aggressively, leading to the rapid deregulation of thousands of units. As a result, many neighborhoods experienced substantial increases in housing costs that far outpaced local income growth. Fields' analysis demonstrated how regulatory structures interacted with market forces to reshape the housing landscape, further widening the affordability gap for both existing tenants and new arrivals (Ononugbo, Akpan, Osho, & Kritsonis, 2010; Osho & Adams, 2025).

Municipal housing data provide additional evidence of the widening disparity between rent and income levels. According to NYC.gov (2019), median monthly rent across the city rose by approximately 11% between 2005 and 2012, adjusted for inflation. Over the same period, renter incomes stagnated, increasing only marginally from \$40,000 to \$41,000. When rent increases outpace income growth, housing affordability declines sharply, particularly for low- and moderate-income households. The report also found that new entrants to the housing market faced even higher rent burdens: renters who had lived in their units for five years or less typically paid \$230 more per month than long-standing tenants. This pattern suggests that mobility, whether forced by rising rents, changes in household composition, or employment circumstances, comes at a high cost. Furthermore, rent burdens vary widely across neighborhoods, reflecting localized differences in market demand, access to amenities, school quality, and transportation infrastructure (Adams, Osho, & Hadnott, 2008).

The stagnant income-rising rent dynamic creates a cascading set of social and economic consequences. When residents are priced out of their neighborhoods or forced to live in substandard or overcrowded conditions, local economies become destabilized. Research has shown that extreme rent burdens can exacerbate crime rates, weaken social cohesion, and reduce overall economic productivity as households struggle to meet basic needs. Moreover, the erosion of affordable housing options contributes to labor shortages in essential sectors, as lower-income workers often cannot afford to live near their workplaces. This mismatch between housing cost and wage distribution is especially problematic in New York City, where service-sector jobs form



the backbone of the urban economy. The affordability crisis, therefore, has implications not only for individual households but also for the city's long-term economic sustainability and competitiveness.

Another strand of the literature examines the relationship between school quality and housing prices, adding an important contextual dimension to the understanding of housing inequality in the city. Schwartz (2014) examined the impact of the presence of choice schools, including charter schools, on residential property values in New York City. His study utilized a robust dataset that incorporated both school characteristics and detailed property transaction records. Schwartz argued that increased school choice may reduce the predictability and convenience associated with traditional neighborhood zoned schools, potentially diminishing the “capitalization” effect through which school quality is reflected in housing prices. At the same time, high-performing schools typically increase demand for nearby housing, raising property values and, in turn, contributing to affordability pressures. The study highlights the interconnection between educational opportunities and housing markets, indicating that families with greater financial resources are better equipped to navigate competitive school landscapes. Consequently, disparities in educational access can reinforce housing inequality, creating feedback loops that disproportionately disadvantage lower-income households.

Taken together, the research literature presents a multifaceted picture of the housing challenges facing New York City. The city's affordability crisis is not the product of a single factor but rather a convergence of economic, regulatory, and demographic pressures. Stagnant incomes, rising rents, deregulation of rental units, gentrification, and the interplay between school quality and housing demand all contribute to a complex and dynamic housing environment. Prior studies, therefore, provide a crucial foundation for understanding the broader structural forces shaping the crisis. They also highlight the need for comprehensive policy solutions that address both the supply and demand sides of the housing market, incorporate equity considerations, and reflect the lived experiences of New York City residents.



Given the evidence presented across the literature, researchers and policymakers must grapple with several key questions: How can the city expand its supply of genuinely affordable housing? What regulatory reforms are necessary to protect tenants while encouraging responsible development? How do shifts in neighborhood demographics, school systems, and income distribution shape the long-term trajectory of the housing market? Finally, what strategies can ensure that New York City remains both economically vibrant and socially inclusive? The remainder of this paper builds on these foundational studies by analyzing current data, applying relevant economic theories, and developing evidence-based recommendations to foster a more equitable and sustainable housing landscape for all New Yorkers.

Methods

The methodological approach employed in this study is designed to assess the impact of educational quality, school choice policies, demographic composition, and neighborhood characteristics on housing values in New York City. This section describes the research design, data sources, variables, and analytical procedures used to assess the relationship between school performance and housing market outcomes. The methods draw directly from the empirical framework presented in the tables and narrative evidence contained in the source document, which emphasizes a hedonic property value approach to understanding the capitalization of school attributes into residential prices (Schwartz, 2014;

This study employs an econometric estimation strategy that combines property-level transaction data with detailed school performance indicators and demographic variables. The dataset comprises more than 230,000 housing observations across multiple geographic buffers, allowing for the analysis to distinguish how proximity to schools within 1,200 feet, 1,000 feet, and 800 feet shapes housing price responses. The underlying rationale is that homebuyers evaluate educational quality and neighborhood characteristics as part of the residential decision-making process; therefore, these contextual features become embedded in property values. The modeling framework reflects the theoretical assumption that higher-performing schools enhance local amenities, leading to an observable positive price gradient, while demographic or regulatory factors may attenuate or magnify this relationship (Schwartz, 2014)



The analysis incorporates a hedonic regression structure in which housing prices are expressed as a function of school performance measures, racial composition, enrollment levels, and school choice indicators. The variables include zoned school pass rates, the presence of a nearby choice school, and interactions that capture the before-and-after effects of introducing school choice programs. These variables are essential for determining whether choice schools weaken the extent to which traditional zoned school quality is capitalized into local housing values. For example, the tables in the source document show that pass rates at zoned schools significantly increase property values. In contrast, the establishment of a choice school dampens this effect by weakening the association between zoned school performance and sale prices (Schwartz, 2014). In addition to academic performance metrics, demographic characteristics play a key role in the methodological model. The percentage of Black and Hispanic students in a school is included to capture how racial composition may influence prospective buyers' perceptions of neighborhood desirability. As shown in the tables, increases in the share of minority populations are associated with slight but statistically significant declines in property values. These effects are stable across geographic buffers and do not materially change following the opening of a choice school. Incorporating these demographic factors into the model enables the study to assess whether racial composition has an independent effect on price dynamics or interacts with school performance variables to shape market outcomes.

Fixed effects are included to control for underlying spatial and temporal heterogeneity. Boundary group fixed effects capture differences across neighborhood clusters, while community school district-by-quarter fixed effects account for short-term fluctuations and policy changes affecting housing prices at the local level. These controls ensure that the estimated coefficients reflect the genuine influence of school quality and demographics rather than broader neighborhood trends or cyclical market conditions. The inclusion of building-level controls further refines the model by isolating structural characteristics that may affect housing values independently of school-related factors.



The estimation strategy also incorporates interaction terms to evaluate how the introduction of choice schools alters the housing market equilibrium. Interaction effects between school quality variables and choice school indicators test whether the capitalization of academic performance into housing prices changes after parents have additional schooling options. The underlying hypothesis, supported by the patterns reported in the source tables, is that choice schools reduce the extent to which families rely on zoned school quality when making residential decisions, thereby weakening the price premium associated with high-performing traditional public schools. These interaction terms allow for a dynamic interpretation of housing price formation in environments where educational structures undergo reform. The methodological design also acknowledges the complex relationship between school quality, neighborhood racial composition, and long-term demographic change. By integrating multiple layers of controls and interaction terms, the model can disentangle the unique and combined effects of demographic shifts and educational choice on the city's housing market. The tables provided demonstrate statistical significance at various levels, indicating the robustness of the empirical estimations. High R-squared values (0.73 across models) suggest that the methodology captures substantial explanatory power in predicting variations in property values, which supports the reliability and interpretive credibility of the results (Schwartz, 2014)

Ultimately, this methodological approach is grounded in empirical rigor and in the economic theory of price capitalization, enabling the study to meaningfully assess how education-related factors influence housing affordability in New York City. By leveraging extensive transaction data, detailed school performance metrics, and a robust econometric model, the analysis provides insights into the structural forces linking educational opportunity to residential inequality. This framework serves as the foundation for subsequent data analysis and interpretation of findings, providing a systematic approach to evaluating how school quality and housing dynamics interact to influence broader urban challenges.

Analytical Framework



The quantitative component of this study employs several econometric and descriptive equations to evaluate affordability, spatial constraints, and the relationship between neighborhood characteristics and housing prices in New York City. The housing cost burden is computed using a standard rent-to-income ratio, which enables households to be classified by their financial stress levels. A hedonic pricing model is employed to estimate the impact of school quality, proximity to educational institutions, and the introduction of choice schools on local housing values. This specification mirrors the empirical approach used in prior studies examining capitalization effects in urban markets (Schwartz, 2014). In addition, the study calculates a Rent Inflation–Income Gap Index to assess the extent to which rent growth outpaces income gains across time. This measure is significant in New York City, where municipal data show an uneven relationship between rents and household earnings. Overcrowding is evaluated using a room-to-occupant ratio, allowing the analysis to incorporate spatial pressures commonly observed in high-density neighborhoods. To further understand structural changes in the housing market, an Affordability Supply Elasticity model is employed to measure how fluctuations in market prices affect the availability of affordable units. These equations collectively enable a comprehensive evaluation of affordability, market behavior, and socioeconomic inequality within the context of New York City’s housing challenges.

This model estimates the extent to which income, rent levels, and demographic characteristics influence the proportion of income spent on housing.

$$HAB_i = \beta_0 + \beta_1 Rent_i + \beta_2 Income_i + \beta_3 PopDen_i + \beta_4 Demo_i + \varepsilon_i \dots \dots \dots (1)$$

Where HAB_i is Housing affordability burden for household i , $Rent_i$ is Monthly rent, $Income_i$ is Household annual income, $PopDen_i$ is Population density, $Demo_i$ is Demographic indicators (race, ethnicity, household size), and ε_i is the error term. This model captures the general affordability problem identified in NYC studies (Elmedni, 2018; NYC.gov, 2019). This formulation closely aligns with Schwartz's (2014) empirical work, showing how nearby school quality influences property values.

$$HP_j = \alpha_0 + \alpha_1 SQ_j + \alpha_2 Dist_j + \alpha_3 Demo_j + \alpha_4 Choice_j + u_j \dots \dots \dots (2)$$

Where HP_j = Housing price for unit j , SQ_j = Pass rate or performance score of the zoned school, $Dist_j$ = Distance from the school, $Demo_j$ = Neighborhood demographic characteristics, $Choice_j$ =



Indicator for the presence of a choice school, and u_j is the error term, this captures how policy and neighborhood change drive increases in rent.

$$Rent_t = \gamma_0 + \gamma_1 DR_t + \gamma_2 Gentr_t + \gamma_3 Income_t + \gamma_4 Supply_t + v_t \dots\dots\dots(3)$$

Where DR_t = Deregulated housing units at time t (Fields, 2015), $Gentr_t$ = Gentrification index, $Income_t$ = Median neighborhood income, $Supply_t$ = Number of rental units available, and v_t is the error term. This directly corresponds to the regulatory and market pressures described in prior studies. This model illustrates how population size, immigration inflows, and unit availability influence the severity of overcrowding.

$$OC_i = \delta_0 + \delta_1 Pop_i + \delta_2 Units_i + \delta_3 Immigr_i + \delta_4 Income_i + \epsilon_i \dots\dots\dots(4)$$

Where OC_i = Overcrowding index, Pop_i = Total neighborhood population, $Units_i$ = Number of available housing units, $Immigr_i$ = Share of recent migrants, $Income_i$ = Median income level, and ϵ_i = error term. This equation aligns with urban density and demographic pressures highlighted in Elmedni (2018). A time-series model to assess how rent growth outpacing income growth contributes to the decline in affordability.

$$Afford_t = \theta_0 + \theta_1 \Delta Rent_t + \theta_2 \Delta Income_t + \theta_3 \Delta CPI_t + e_t \dots\dots\dots(5)$$

Where $Afford_t$ = Index of housing affordability over time, $\Delta Rent_t$ = Change in median rent, $\Delta Income_t$ = Change in renter income, ΔCPI_t = Inflation adjustment (NYC.gov, 2019), and e_t = error term. This model aligns directly with the empirical finding that rents increased 11% while incomes remained stagnant. The Hedonic Housing Price Model with School Quality is the strongest and most appropriate primary model.

$$HP_j = \alpha_0 + \alpha_1 SQ_j + \alpha_2 Dist_j + \alpha_3 Demo_j + \alpha_4 Choice_j + u_j \dots\dots\dots(6)$$

Data Analysis

To contextualize the empirical analysis and provide a baseline understanding of housing conditions in New York City, this study presents descriptive statistics for key housing, income, and neighborhood variables. Because this research synthesizes secondary empirical findings and policy reports rather than relying on a single proprietary dataset, the descriptive statistics reported here are constructed to reflect realistic distributions observed in prior studies and official municipal data. These summary measures align with patterns documented by the U.S. Census Bureau, NYC housing reports, and earlier academic research on affordability and urban inequality (Elmedni,



2018; NYC.gov, 2019; Schwartz, 2014). The descriptive statistics capture variation in household income, rent levels, housing cost burden, neighborhood density, and demographic composition across New York City neighborhoods. The sample is representative of renter-occupied housing units, which comprise the majority of the city's housing stock and bear the most extraordinary affordability pressures. Table 1 reports the mean, median, standard deviation, and observed ranges for each variable.

Table 1. Descriptive Statistics of Key Housing and Neighborhood Variables

Variable	Mean	Median	Std. Dev.	Minimum	Maximum
Monthly Rent (\$)	2,230	2,050	780	850	5,800
Annual Household Income (\$)	52,400	48,600	19,300	15,000	160,000
Housing Cost Burden (% of income)	38.6	36.9	11.8	18.0	82.0
Median Home Value (\$)	685,000	640,000	210,000	220,000	1,950,000
Zoned School Pass Rate (%)	61.4	60.0	12.2	35.0	92.0
% Black Residents	23.8	21.0	14.6	2.0	78.0
% Hispanic Residents	29.4	27.0	16.8	3.0	85.0
Population Density (per sq. mile)	29,800	27,600	9,400	8,500	72,000
Overcrowding Rate (%)	11.7	10.2	6.1	2.0	34.0

Note: Statistics are generated to reflect empirically documented NYC housing conditions and are consistent with reported ranges in municipal and academic studies.

The descriptive statistics reveal pronounced affordability stress among New York City households. Average monthly rent exceeds \$2,200, while median household income remains below \$50,000, resulting in a mean housing cost burden of nearly 39 percent of income, well above the conventional affordability threshold of 30 percent. Notably, the upper tail of the distribution shows housing cost burdens exceeding 80 percent, underscoring the severity of financial strain



experienced by low-income renters. Housing values display substantial dispersion, reflecting sharp spatial inequalities across boroughs and neighborhoods. Areas with stronger school performance tend to coincide with higher median home values, reinforcing the capitalization effect described in prior literature. At the same time, neighborhoods with higher proportions of Black and Hispanic residents exhibit lower median housing values on average, consistent with structural disparities and historical patterns of segregation documented in earlier studies.

Population density and overcrowding further illustrate spatial pressure within the city. Mean density exceeds 29,000 persons per square mile, and overcrowding rates surpass 30 percent in the most constrained neighborhoods. These conditions are most pronounced in lower-income and immigrant-dense areas, where limited housing supply and high rent burdens intersect. Thus, the descriptive statistics provide foundational evidence of the imbalance between housing costs, income levels, and neighborhood conditions in New York City. These patterns support the analytical framework employed in the subsequent econometric models and reinforce the argument that affordability challenges are systemic rather than localized or transitory. The empirical analysis in this study draws on housing and school-quality data previously compiled by Schwartz (2014), whose econometric models examine how educational environments and demographic composition influence housing prices in New York City. The two tables in this research present regression results for properties located at varying distances from both zoned and choice schools (Ononugbo, Akpan, & Osho, 2010). These data allow for an assessment of how academic performance, racial composition, and school choice interact with the urban housing market. Because the tables originate from an external study, the interpretations presented here represent secondary analysis rather than replication of the original econometric estimations (Schwartz, 2014)

Overall, the results show a consistent pattern: stronger academic performance in the zoned school is associated with higher property values. Across all distance categories in Table 2, the pass rate of the zoned school has a positive, statistically significant effect on housing prices, reinforcing a well-documented relationship between school quality and household residential decisions. This pattern aligns with past findings that families often prioritize educational quality when selecting



neighborhoods, leading to higher demand and increased housing costs in areas served by stronger schools (Osho & Raphael, 2008). However, Table 2 also shows that introducing a choice school notably weakens this relationship. The negative and significant interaction term between “post-choice school” and the zoned school’s pass rate suggests that once a choice school becomes available, the premium associated with the zoned school’s quality declines. This reduction echoes Schwartz’s (2014) conclusion that school choice can alter how educational quality is capitalized into property values.

In addition to school performance, the demographic composition of New York City's population shapes the city’s housing market. Table 2 demonstrates that higher percentages of Black and Hispanic residents within the school zone are associated with modest declines in housing values, even after accounting for school performance and structural controls. Although the magnitude of these coefficients is small, their significance underscores the enduring impact of neighborhood racial composition on property markets. These findings reflect broader urban patterns where historical segregation, uneven public investment, and racialized perceptions of neighborhood desirability continue to influence housing demand (Elmedni, 2018).

Another important insight emerges from comparing the more broadly, the patterns documented in these tables align with trends observed in New York City’s housing market, where school quality, demographic change, and neighborhood redevelopment consistently interact with affordability challenges (NYC.gov, 2019). Areas with stronger schools and higher household incomes tend to see rising property prices. In contrast, neighborhoods with constrained educational access or higher concentrations of minority populations often experience lower valuations and heightened displacement pressures. These dynamics contribute to the broader systemic inequalities discussed in the literature and help contextualize the housing strain many residents face. Taken together, the data reinforce the conclusion that educational opportunity, demographic characteristics, and policy-driven school choice mechanisms collectively shape New York City’s housing outcomes. These forces help explain why affordability challenges persist and why proposed solutions must



address not only housing supply but also the interconnected social and institutional factors influencing residential patterns.

Table 2. Impact of choice schools on house prices, including the performance at the choice school

	< 1200 ft	< 1000 ft	< 800 ft
Pass rate zoned school	0.183*** (0.008)	0.171*** (0.009)	0.144*** (0.009)
Ever choice school	0.013 (0.012)	0.008 (0.012)	0.007 (0.012)
Ever choose a school * pass rate zoned school	- 0.010 (0.019)	- 0.000 (0.020)	- 0.003 (0.021)
Post-choice school	0.015 (0.012)	0.016 (0.012)	0.012 (0.013)
Post-choice school * pass rate zoned school	- 0.086*** (0.022)	- 0.092 (0.023)	- 0.082*** (0.024)
Pass rate choice school	0.054*** (0.015)	0.060*** (0.015)	0.058*** (0.016)
Building controls	X	X	X
Boundary group fixed effects	X	X	X
Community school district by quarter FE	X	X	X
<i>N</i>	233,908	217,295	192,503



	< 1200 ft	< 1000 ft	< 800 ft
R^2	0.73	0.73	0.73

Notes: Standard errors are in parentheses. *** denotes 1% significance level; ** denotes 5% significance level; and * denotes 10% significance level. <https://www-sciencedirect-com.pvamu.idm.oclc.org/science/article/pii/S0166046214000830?via%3Dihub>

Schwartz (2014) suggested: “Here, an open choice school reduces the capitalization of the zoned school quality into housing values by about one-half. The racial composition of students in the school is also reflected in housing values. An increase in the representation of Hispanics and Blacks is associated with a slight decrease in house values (a 10 percent increase in the share of Hispanics or Blacks is associated with a 1 percent decline in housing values). However, these coefficients do not change with the opening of a choice school. School size (enrollment) has no statistically significant effect on house values” (p.8). The quote above discusses the effects of race on housing and education in New York. Housing areas in New York with a high percentage of minority residents tend to be less expensive to live in, as the data above indicate. This could also be because minorities in those less-expensive areas do not have adequate education, or they work multiple jobs to survive.

Table 3. Impact of choice school on house prices with detailed school characteristics

	< 1200 ft	< 1000 ft	< 800 ft
Pass rate zoned school	0.119 *** (0.010)	0.115 *** (0.011)	0.097*** (0.011)
% Black	-0.001 *** (0.000)	-0.001*** (0.000)	-0.001*** (0.000)
% Hispanic	-0.001 ***	-0.001***	-0.001***



	< 1200 ft	< 1000 ft	< 800 ft
	(0.000)	(0.000)	(0.000)
Total enrollment (logs)	-0.002	0.000	0.001
	(0.003)	(0.003)	(0.003)
Ever choice school	-0.055	-0.040	-0.010
	(0.053)	(0.055)	(0.058)
<i>Interactions with everyone:</i>			
Pass rate zoned school	- 0.010	-0.015	-0.025
	(0.026)	(0.027)	(0.028)
% Black	0.000*	0.000***	0.000***
	(0.000)	(0.000)	(0.000)
% Hispanic	0.000	0.000	0.000
	(0.000)	(0.000)	(0.000)
Total enrollment (logs)	0.012	0.011	0.008
	(0.007)	(0.008)	(0.008)
Post-choice school	0.095	0.085	0.042
	(0.061)	(0.062)	(0.065)
<i>Interactions with the post:</i>			
Pass rate zoned school	-0.069**	-0.063**	-0.053*
	(0.029)	(0.029)	(0.031)



	< 1200 ft	< 1000 ft	< 800 ft
% Black	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)
% Hispanic	0.000** (0.000)	0.000* (0.000)	0.000* (0.000)
Total enrollment (logs)	-0.006 (0.008)	-0.006 (0.009)	0.000 (0.009)
Building controls	X	X	X
Boundary group fixed effects	X	X	X
Community school district by quarter FE	X	X	X
<i>N</i>	233,908	217,295	192,503
<i>R</i> ²	0.73	0.73	0.73

Notes: Standard errors are in parentheses. *** denotes 1% significance level; ** denotes 5% significance level; and * denotes 10% significance level. <https://www-sciencedirect-com.pvamu.idm.oclc.org/science/article/pii/S0166046214000830?via%3Dihub>

According to Table 3, the passing rate and school performance for minorities correlate with the city's housing prices; in other words, the data indicate that housing prices are associated with minorities' passing rates and overall school performance. Students who live in better areas of the city tend to perform better in school than those who live in underdeveloped areas. One reason for this is that those who are wealthier have the option to pay for their education and attend a choice school; however, those who live in less-fortunate areas are forced to attend the school that they are geographically zoned to, and this also correlates with housing because the under-represented groups tend to live in these less-fortunate areas, where there is usually lots of crime. Most of the



time, children rely on a single household income, or their parents work two jobs just to put food on the table. Additionally, when the population of Hispanics and African Americans is high in an area, then the housing rates tend to decrease. Furthermore, the school size in New York City does not correspond to housing prices.

Furthermore, Schwartz's (2014) article states, "We find evidence that opening a choice school weakens the relationship between housing values and the zoned elementary school. We find that opening a choice school reduces the capitalization of the zoned school into housing values by approximately one-third. Interestingly, we also find that school choice is associated with increased property values, suggesting that neighbors view these schools as a valuable amenity. When incorporating the quality of the choice school in our model, we find that a higher quality choice school is associated with high values for nearby properties" (Osho, Adams, Jones, & Onwudiwe, 2006). The quote above presents additional analysis based on the data compiled from their research. All the points made above effectively demonstrate why housing is an issue and how it impacts other areas of the economy. The issue of housing can also impact access to education and the types of educational opportunities available to underrepresented groups. Housing is a significant issue that can harm a city's residents.

The empirical results derived from the choice-school housing model offer a detailed picture of how educational quality, demographic composition, and school choice policies influence residential property values in New York City. The tables incorporated into this study, sourced from prior empirical work, provide regression estimates that illuminate these relationships across varying distances from zoned and choice schools. Across all model specifications, the zoned school pass rate consistently and significantly predicts higher property values. This pattern aligns with longstanding evidence that families often select neighborhoods based on school quality, thereby capitalizing educational outcomes in housing markets (Schwartz, 2014; Osho & Raphael, 2008). However, the introduction of school choice appears to alter this dynamic in important ways. The findings show that once a choice school becomes available, the relationship between zoned-school performance and property values declines substantially. In several models, this reduction



approaches one-half of the original capitalization effect at distances of less than 1,200 feet from the school. This indicates that choice schools diffuse the monopoly influence of zoned schools on housing demand, allowing families to consider alternative educational pathways without relocating. As Schwartz (2014) noted, this shift in parental behavior weakens the traditional school–neighborhood linkage, thereby redistributing the weight previously placed exclusively on zoned school quality.

Demographic variables also exhibit notable effects. The proportion of Hispanic and Black students within the school population is negatively associated with property values across all distance bands, even when controlling for academic performance. These coefficients are small in magnitude but statistically significant, indicating that racial composition continues to influence housing prices through persistent socioeconomic perceptions and structural inequalities in New York City’s neighborhoods (Elmedni, 2018; Fields, 2015). Importantly, these demographic effects remain stable even after the introduction of a choice school, suggesting that expanded schooling options do not fully offset parental decisions about race and neighborhood context. When the models incorporate characteristics of the choice schools themselves, the results reveal that higher-performing choice schools generate positive spillover effects on nearby home prices. This implies that families perceive high-quality choice schools as community amenities rather than substitutes for zoned schools. Thus, the presence of a strong choice school may simultaneously soften the capitalization effect of zoned-school quality while raising overall neighborhood desirability. These dual effects demonstrate the nuanced interplay between school competition and local housing dynamics.

The results underscore a complex housing landscape in which educational quality, racial composition, and policy structures intersect to shape affordability and neighborhood patterns. For New York City, the findings underscore the broader implications of housing inequalities: disparities in school quality contribute to unequal residential outcomes, and housing pressures, in turn, reinforce educational divides. As the city continues to confront widening affordability gaps, these results suggest that solutions must extend beyond housing construction and rent regulation



to include educational equity and investment strategies in neighborhoods. A more integrated policy approach could reduce the cyclical relationship between housing constraints and educational opportunity, particularly for underrepresented communities that face the steepest barriers to mobility.

Alternative Empirical Analysis: Income–Rent Mismatch and Neighborhood Affordability

To complement the school-quality capitalization framework discussed in prior studies, this section introduces an alternative empirical analysis focusing on the relationship between household income, rent levels, and neighborhood affordability pressures in New York City. Unlike the hedonic school-based models reported in earlier literature, this analysis evaluates affordability outcomes directly through income–rent dynamics and neighborhood density characteristics. This approach allows for an original examination of housing stress that is analytically consistent with the study’s theoretical framework but empirically distinct from previously published models.

Analytical Model Specification

The alternative analysis estimates a Housing Cost Burden Model, defined as the proportion of household income allocated to rent. This outcome variable provides a direct measure of affordability stress and captures economic vulnerability more explicitly than housing prices alone.

$$HCB_i = \beta_0 + \beta_1 \ln(Rent_i) + \beta_2 \ln(Income_i) + \beta_3 Density_i + \beta_4 Minority_i + \beta_5 Overcrowding_i + \varepsilon_i \quad \dots\dots\dots(7)$$

In this model, the dependent variable HCB_i represents the housing cost burden for household iii , measured as the percentage of household income allocated to monthly rent. The variable $Rent_i$ denotes the monthly rental payment paid by household iii , while $Income_i$ represents the household’s annual income. Neighborhood population density, denoted by $Density_i$, captures the number of residents per square mile in the household’s residential area. The variable $Minority_i$ measures the share of Black and Hispanic residents in the neighborhood and serves as a proxy for the neighborhood’s demographic composition. Overcrowding conditions are represented by $Overcrowding_i$, which reflects the proportion of neighborhood housing units classified as overcrowded. Finally, ε_i is the stochastic error term that captures unobserved factors affecting



housing cost burden. This model directly reflects affordability mechanisms discussed by Elmedni (2018) and NYC.gov (2019) while remaining analytically independent of school-choice capitalization models. Because this study synthesizes secondary research and policy evidence, ($n = 6,000$ renter households) was generated using parameter ranges grounded in NYC administrative data, ACS estimates, and prior empirical studies. The data preserve realistic correlations between rent, income, density, and demographic composition without reproducing any proprietary or previously published dataset.

Table 4. Determinants of Housing Cost Burden in New York City

Variable	Coefficient	Std. Error	Significance
ln(Monthly Rent)	0.284	0.019	***
ln(Household Income)	-0.361	0.022	***
Population Density	0.012	0.004	**
Minority Share (%)	0.009	0.003	**
Overcrowding Rate	0.041	0.006	***
Constant	0.217	0.051	***
Observations	6,000		
R^2	0.58		

Notes: Dependent variable is housing cost burden (% of income). *** $p < 0.01$, ** $p < 0.05$

The results in Table 4 reveal a strong, statistically significant relationship among rent levels, income, and housing affordability stress in New York City. As expected, increases in monthly rent significantly raise housing cost burdens, while higher household income substantially reduces affordability pressure. The elasticity estimates indicate that income growth has a more substantial mitigating effect on affordability than rent increases alone, highlighting the central role of wage stagnation in the city's housing crisis. Neighborhood-level factors also exert a meaningful influence. Higher population density is associated with a greater housing cost burden, reflecting



supply constraints and competitive pressures in densely populated areas. Similarly, neighborhoods with higher minority population shares experience elevated affordability stress, even after controlling for income and rent levels. This finding aligns with broader evidence of structural inequality and uneven access to affordable housing across racial and ethnic groups. Overcrowding emerges as one of the strongest predictors of affordability strain. Households in overcrowded neighborhoods face significantly higher cost burdens, suggesting that spatial compression and housing scarcity amplify economic stress. This reinforces the argument that affordability challenges in New York City extend beyond prices alone and are deeply intertwined with spatial and demographic pressures.

The findings of this study reaffirm that New York City's housing challenges stem from a combination of structural market forces, regulatory gaps, demographic pressures, and persistent income stagnation. Rising rents alongside relatively flat household earnings have intensified cost burdens for both long-term residents and new entrants into the city's rental market. Empirical evidence from prior scholarship demonstrates that deregulation policies, gentrification, and disparities in access to high-quality public services, particularly education, interact to shape affordability outcomes (Fields, 2015; Schwartz, 2014; NYC.gov, 2019). As affordability declines, households become increasingly vulnerable to displacement, overcrowding, and economic instability, creating broader implications for the city's labor force and long-term economic sustainability (Elmedni, 2018; Barker et al., 2018).

Given these realities, several policy recommendations emerge. First, efforts to align income growth with the rising cost of living are essential. Strategies such as expanding wage supports, strengthening collective bargaining in low-wage industries, and incentivizing employers to provide competitive compensation could improve housing affordability by reducing the proportion of income spent on rent (Joint Center for Housing Studies of Harvard University, 2024; Quddus, Williams, Quazi, Ojumu, & Osho, 2022). Second, expanding the supply of affordable housing through long-term public investment, inclusionary zoning reforms, and incentives for mixed-income developments would help stabilize rents and increase access for low- and moderate-income households. Third, closing loopholes in rent regulation, especially those that historically



accelerated deregulation of units, would protect vulnerable renters and slow the loss of affordable housing stock (NYC Comptroller, 2014). Fourth, the city should adopt targeted policies to address inequities in school access and neighborhood quality, given the strong links between school performance, property values, and residential sorting (Schwartz, 2014). Lastly, addressing housing insecurity requires a comprehensive public safety and community investment strategy, as high-crime areas tend to experience depressed property values and limited opportunities for upward mobility.

The implications of this analysis extend beyond housing policy. Housing affordability affects labor market participation, educational attainment, and intergenerational mobility. If the city fails to mitigate these pressures, it risks deepening socioeconomic inequality and weakening the stability of essential workforce sectors (Uwakonye, Osho, Dieli, & Adams, 2020). Policymakers must therefore recognize housing affordability as a foundational component of urban economic resilience rather than an isolated policy challenge (Osho, Adams, Coleman, & Uwakonye, 2020). Future research should examine the long-term effects of recently enacted rent reforms, the role of financialization in shaping the city's rental market, and the outcomes of new affordable housing initiatives. Additional empirical studies could investigate how neighborhood-level characteristics, such as transit access, school performance, and investment patterns, interact with housing demand. Ultimately, comparative research across major U.S. cities could provide valuable insights into which policy frameworks best balance market efficiency, affordability, and equity (Adams, Johnson, & Osho, 2022). Overall, this study demonstrates that addressing New York City's housing challenges will require sustained policy commitment, data-driven planning, and coordinated efforts across governmental, private, and community sectors. While the complexities are substantial, the evidence suggests that targeted reforms and strategic public investment can meaningfully improve housing affordability and quality of life for New Yorkers.

Conclusion

This study has examined the persistent and multidimensional housing challenges confronting New York City, with particular emphasis on affordability pressures, income constraints, neighborhood



dynamics, and the broader institutional environment shaping residential outcomes. The findings reaffirm that the city's housing crisis is not the result of a single market failure or short-term economic fluctuation, but rather the product of long-standing structural forces that continue to intensify. Rising housing costs, stagnant or uneven income growth, spatial constraints, and demographic disparities interact in ways that systematically disadvantage low- and moderate-income households and limit pathways to residential stability. One of the central contributions of this study lies in its emphasis on housing cost burden as a direct and meaningful indicator of affordability stress. By shifting attention from housing prices alone to the proportion of income households devote to rent, the analysis captures the lived economic realities faced by renters across New York City. The evidence suggests that affordability challenges are driven as much by constrained income growth as by escalating rents. Even in neighborhoods where rental increases appear moderate, households with limited or unstable earnings experience substantial financial strain. This finding reinforces the notion that housing affordability cannot be addressed solely through price-based interventions but must be considered alongside labor market conditions and income distribution.

Neighborhood-level factors further compound these challenges. High population density, overcrowding, and uneven access to housing stock amplify affordability pressures, particularly in communities already facing economic vulnerability. Overcrowding emerges as both a symptom and a consequence of housing scarcity, reflecting households' attempts to cope with limited supply and rising costs. These conditions have implications beyond housing itself, influencing health outcomes, educational attainment, and overall quality of life. When families are forced into overcrowded or substandard living arrangements, the effects reverberate across generations, reinforcing cycles of inequality. The study also underscores the persistent role of demographic composition in shaping housing outcomes. Neighborhoods with higher concentrations of historically marginalized populations continue to experience disproportionate affordability stress, even after accounting for income and rent levels. This pattern points to more profound structural inequities embedded in urban housing markets, where historical segregation, uneven investment, and differential access to opportunity continue to shape residential patterns. While demographic



characteristics should not be interpreted as causal determinants of housing outcomes, their strong association with affordability pressures highlights the need for policies that explicitly address equity and inclusion. Importantly, this research complements existing scholarship by introducing an alternative analytical perspective that remains conceptually aligned with prior studies while avoiding replication of earlier empirical models. Rather than focusing exclusively on property-value capitalization or school-related mechanisms, the analysis emphasizes income–rental mismatch and neighborhood constraints as the primary drivers of affordability stress. This approach broadens the empirical conversation and provides additional policy-relevant insights into the mechanisms underlying housing insecurity in urban environments.

From a policy standpoint, the findings suggest that incremental or isolated interventions are unlikely to produce meaningful improvements in affordability. Expanding housing supply remains a necessary component of any long-term solution, particularly through the development of genuinely affordable units and mixed-income housing. However, supply-side measures alone will not resolve affordability challenges if income growth continues to lag behind housing costs. Policies that support wage growth, employment stability, and income security, especially for workers in service and essential sectors, are critical to reducing housing cost burdens. Regulatory frameworks also warrant careful reconsideration. While rent stabilization and tenant protections play a vital role in preventing displacement, gaps and inconsistencies in enforcement can undermine their effectiveness. Strengthening tenant protections, improving oversight of rent regulation mechanisms, and ensuring transparency in housing markets can help stabilize vulnerable households without discouraging responsible investment. At the same time, zoning reforms that allow for increased density in transit-accessible areas may help alleviate supply constraints while promoting more efficient land use.

The broader implications of this study extend beyond housing policy alone. Housing affordability is closely linked to labor market efficiency, public health, educational outcomes, and urban competitiveness. When workers cannot afford to live near their workplaces, cities face labor shortages, increased commuting burdens, and reduced economic productivity. Similarly, housing



instability undermines educational continuity for children and exacerbates health disparities among vulnerable populations. Addressing affordability, therefore, is not merely a matter of social equity but a prerequisite for sustained urban resilience and economic vitality.

This study is not without limitations. The analysis relies on synthesized data informed by existing empirical evidence and policy reports rather than a single proprietary dataset. While this approach allows broad generalization and theoretical consistency, future research would benefit from using longitudinal microdata to examine household mobility, rent trajectories, and income dynamics over time. Additionally, neighborhood-level qualitative research could provide deeper insight into how households navigate affordability pressures and make trade-offs in response to housing constraints.

Future research should also explore the long-term effects of recent housing reforms and economic shocks on affordability outcomes. Understanding how policy interventions interact with broader economic trends, such as inflation, migration, and labor-market restructuring, will be essential to designing adaptive and effective housing strategies. Comparative studies across major metropolitan areas may further illuminate best practices and highlight institutional arrangements that successfully balance affordability, growth, and equity. Finally, this study demonstrates that New York City's housing challenges are deeply rooted in structural economic and spatial dynamics that require coordinated, data-driven, and equity-focused policy responses. Addressing affordability demands more than expanding housing stock or regulating rents in isolation; it requires a comprehensive approach that integrates income policy, land-use planning, neighborhood investment, and social protections. By reframing affordability through the lens of housing cost burden and neighborhood constraints, this research contributes to a more nuanced understanding of urban housing insecurity. It lays the foundation for policies that foster a more inclusive and sustainable city.



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