# Paying More for Less: Racial Disparities in Rental Housing Quality*

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Latest Draft: September 17, 2026

## Abstract

This paper examines whether minority renters receive less housing quality for the same rent. Using two decades of microdata from the New York City Housing and Vacancy Survey (2002–2023), we construct a Housing Quality Index (HQI) from 14 indicators spanning structural integrity, utilities, environmental quality, and pest exposure, and a rent-adjusted housing quality measure. Nonwhite households score 3.90 points lower on the HQI scale than otherwise similar white tenants, controlling for regulation, household, building, neighborhood, and time characteristics. We further exploit variation in exposure to the 2008 expansion of the 421-a Geographic Exclusion Areas using triple-difference and event-study specifications. The results indicate that racial housing quality gaps narrow relatively more in areas with greater policy exposure. Linked administrative data on code violations and 311 complaints show poorer maintenance conditions associated with nonwhite tenants, particularly in rent-stabilized housing, while greater tenant awareness of rent-stabilization rights is associated with smaller racial gaps. These findings suggest that rent regulation alone may be insufficient to ensure equitable housing quality without effective enforcement and information access.

**Keywords:** Housing Quality, Racial Disparity, Rent Stabilization, Selective Neglect

**JEL Classification:** R31, J15, H42

* Acknowledgements: We thank participants at Baruch Real Estate Seminar for valuable suggestions.
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## 1 Introduction

With respect to rental housing, New York City being one of the most highly regulated markets, the problems of urban equity and access to quality housing continue to be major areas of concern. Despite extensive empirical research on affordability and segregation, the inquiry into whether equal rent yields equal quality has not been rigorously examined within a multidimensional framework.

Fairness in rental housing depends not only on whether tenants can afford a home but also on whether equal rent buys equal housing quality. Yet the fairness of this exchange, the housing quality households receive conditional on rent, has rarely been measured directly. A large literature documents racial differences in access, affordability, and housing stability (Massey, 1990; Freeman and Hamilton, 2002; Bostic and Lee, 2008), but far less is known about how housing quality itself varies conditional on rent. In tightly regulated rental markets, where rent caps limit price variation, quality becomes a central dimension along which outcomes can diverge across groups (Hwang and Sampson, 2014; Desmond and Shollenberger, 2015). In New York City's rent-regulated system, where enforcement and awareness influence how price translates into value, quality per rent dollar provides a direct test of fairness. This framing motivates our central question: Do minority renters receive less housing quality for the same rent outlay?

In this study, we analyze the existence and extent of the racial disparities in housing quality in New York City. We aim to answer the following questions: (1) whether the minority may pay more for less in rental market; (2) why the minority face these racial disparities; (3) do the rent regulation policies such as rent stabilization mitigate the disparity. To answer these questions, we construct a novel housing quality index using the New York City Housing and Vacancy Survey (NYCHVS) from 2002 to 2023. The index captures multiple dimensions of housing quality, including external and indoor conditions.

To study these issues, we link two decades of NYCHVS microdata—covering verified regulatory status, rents, and rich demographic and housing information—to administrative records from the NYC Housing Maintenance Code and 311 service requests. The NYCHVS allows us to measure housing quality at the unit level, while the administrative data provide complementary evidence on maintenance and disrepair. The HQI aggregates fourteen indicators across structural integrity, utilities, indoor environmental quality, and pest exposure. We also construct a rent-adjusted housing quality measure using HQI/log($rent). As shown in Figure 1, housing quality

varies sharply across the city, with higher-quality units concentrated in Manhattan and parts of Queens, and lower-quality units in the Bronx, eastern Brooklyn, and portions of Staten Island. Baseline estimates show that nonwhite renters experience approximately 3.90 points lower HQI than otherwise similar white renters. This disparity is economically meaningful and geographically uneven. Decomposition of the HQI further shows significant racial disparities across multiple dimensions of housing conditions.

Given New York City's reliance on rent stabilization, we next examine how regulation shapes these disparities. Although the aggregate interaction between race and rent-stabilized status is not statistically significant, substantial heterogeneity emerges across the rent distribution. Among low-rent units, rent stabilization is associated with a smaller racial gap in both absolute and rent-adjusted housing quality. Among high-rent units, by contrast, the interaction is negative, indicating a larger racial disparity within stabilized housing. These offsetting patterns help explain why the aggregate interaction masks substantial heterogeneity across market segments.

For identification, we exploit variation in exposure to the 2008 expansion of the 421-a Geographic Exclusion Areas. We construct a neighborhood-level measure of exposure to the reform and estimate triple-difference and event-study specifications comparing racial housing-quality gaps across areas with different levels of policy exposure before and after the expansion. The estimated triple interaction is positive for both HQI and rent-adjusted housing quality, indicating that the nonwhite–white quality gap narrowed relatively more in areas with greater exposure to the reform. The event-study estimates show no evidence of differential pre-trends and suggest that the relative attenuation emerges in later post-reform years.

We then examine potential mechanisms through which racial disparities in housing quality may persist. Using NYCHVS waves that contain both administratively verified and self-reported regulatory status, we find that nonwhite renters are less likely to correctly identify their rent-regulation status. Racial quality gaps are smaller among policy-aware tenants, and periods of heightened public interest in rent stabilization, captured using Google Trends searches for "rent stabilization," are also associated with narrower gaps. On the landlord side, administrative housing-code violations and 311 complaints are relatively more prevalent in rent-stabilized buildings associated with nonwhite tenants, a pattern consistent with selective neglect in maintenance. A within-unit turnover analysis further shows that violations decline when occupancy shifts from a nonwhite to a white household, while no corresponding deterioration is

detected following White-to-Nonwhite turnover. Additional analyses show that owner presence is associated with better housing quality and fewer violations, and that the association between housing quality and self-reported health is stronger among nonwhite households.

We assess the robustness of these findings using several complementary approaches. First, we examine the 2014 mayoral transition and find that racial disparities in rent-adjusted housing quality became relatively smaller within rent-stabilized housing after 2014, with similar results when restricting the sample to the 2002–2017 period. Second, propensity score matching compares observably similar white and nonwhite renters and shows that racial gaps in housing quality remain after balancing observable household and housing characteristics. Additional robustness analyses using alternative HQI constructions and sample definitions are reported in the appendix.

This paper's contribution is threefold. First, by shifting attention from illegal overcharge to inequality within legally compliant rents, we advance a novel fairness metric—quality-adjusted rent—that is both methodologically innovative and highly policy-relevant. Second, the use of a multidimensional and administratively validated HQI brings new rigor to empirical studies of fairness in rental housing. Third, our study's linkage of survey microdata, detailed physical quality indicators, and two independent administrative datasets sets a new evidentiary standard for causal analysis in urban and housing economics. These methods and insights are broadly applicable for policymakers and researchers analyzing regulated or high-cost metro housing systems in the U.S. and abroad.

Our analysis draws on three strands of work: the distributional effects of rent regulation (Glaeser and Luttmer, 2003; Autor et al., 2014; Diamond et al., 2019; Chen et al., 2023), racial inequality in rental markets and local code enforcement(Hwang and Sampson, 2014; Desmond and Shollenberger, 2015), and recent evidence on noncompliance with New York City's rent-stabilization caps (Ambrose et al., 2026). We extend this literature in three ways. First, we shift the focus from illegal overcharges to inequality within legally compliant rents, measured as housing quality per rent dollar. Second, we construct a unit-level HQI from the 2002–2023 NYCHVS and link it to building-level Housing Maintenance Code violations and 311 maintenance requests to capture the maintenance environment. Third, we exploit variation in exposure to the 2008 expansion of the 421-a Geographic Exclusion Areas (GEAs) and implement triple-difference and event-study specifications to examine how the policy affected racial disparities in housing quality.

The remainder of the paper proceeds as follows. Section 2 provides institutional background on NYC's rental market, rent stabilization, and the 421-a reforms. Section 3 describes the NYCHVS, construction of the HQI, and administrative data linkages. Section 4 presents the baseline results on racial disparities in housing quality and examines heterogeneity by rent stabilization and rent levels. Section 5 develops the main identification strategy using variation in exposure to the 2008 expansion of the 421-a Geographic Exclusion Areas. Section 6 presents robustness analyses based on the 2014 mayoral transition and propensity score matching. Section 7 examines potential mechanisms related to tenant policy awareness, landlord maintenance behavior. Section 8 provides additional analyses on landlord presence and the relationship between housing quality and health outcomes. Section 9 concludes with policy implications.

## 2 Institutional Background

### 2.1 New York City Rental Market and the Rent Stabilization Policy

New York City is home to one of the largest and most tightly regulated rental markets in the United States. According to 67.2% of the city's 3.5 million occupied housing units are renter-occupied in 2023, reflecting a longstanding reliance on rental housing across all income groups. The city's rental stock includes more than 2.2 million units, of which approximately one million are covered by some form of rent regulation, including 858,000 rent-stabilized units and 16,400 rent-controlled units. The remaining rental units include both market-rate apartments and various types of subsidized housing. Vacancy rates remain historically low: 1.41% citywide in 2023, far below the 5% threshold that defines a housing emergency under New York State law. Affordability challenges are especially severe for low-income renters: over 54% of renter households are rent-burdened, spending more than 30% of their income on housing (Bian et al., 2025). These structural pressures are compounded by rising property values, uneven neighborhood investment, and persistent racial disparities in housing outcomes.

In response to these conditions, New York City's rent stabilization program serves as a cornerstone of tenant protection and affordability preservation (Glaeser and Luttmer, 2003; Schweitzer et al., 2023). The policy applies to roughly one million rental units, primarily in buildings constructed before 1974 with six or more units, as well as some newer units receiving

tax incentives. Rent stabilization limits annual rent increases, ensures tenants' right to lease renewal, and restricts eviction without cause.[4]

Yet in practice, the effects of rent regulation policies are far from straightforward. Rent ceilings can reduce landlords' incentives to maintain properties or invest in aging buildings and which may lead to long-term deterioration in housing quality (Chen et al., 2023), or cause even more severe consequences, including distortions to labor mobility, housing supply, and neighborhood dynamics (Autor et al., 2014; Jiang et al., 2025). Rent regulation policies generate heterogeneous outcomes across landlords, tenants and even the urban contexts. Increased evidence indicates that tenants do not equally benefit from the rent regulation policies. Rent regulated units tend to be more available to white tenants, with minorities such as Black, Hispanic, and immigrant households frequently having to face both obstacles in accessibility or execution ( Gyourko and Linneman, 1989; Bian et al., 2025). These disparities may result from information asymmetry and landlord selective neglect (Hwang and Sampson, 2014). Ambrose et al. (2026) also reveals that inequality arising when landlords fail to comply with regulation.

All these findings suggest that policy design alone is insufficient to ensure housing quality equity. Against this backdrop, an important next question is whether regulatory protection can meaningfully mitigate these disparities in practice. Our analysis investigates whether rent stabilization narrows racial disparities in housing quality and whether this effect depends on two key mechanisms: tenant awareness of their regulatory protections and landlord responses to tenant characteristics. Specifically, we examine whether minority tenants living in rent stabilized units experience fewer quality shortfalls relative to their counterparts who live in market rental units. We also explore whether these disparities are moderated by policy awareness or selective maintenance neglect. Our study determines whether racial disparity remains in the provision of housing quality based on the complete adherence of regulations, and whether rent stabilization will reduce the racial gap in housing quality.

[4] *Rent control* is a more restrictive form of rent regulation that applies to a smaller subset of older buildings, typically those constructed before 1947. Unlike rent stabilization, rent control sets strict limits on allowable rents and tenant turnover. In New York City, rent-controlled units are gradually disappearing through tenant vacancy or deregulation, and today represent less than 1% of the rental stock. So, our main analysis mainly focuses on rent-stabilized units; results for rent-controlled units are reported in the Appendix.

Our research complements Ambrose et al. (2026) to determine whether the racial disparity remains in the provision of housing quality based on the complete adherence of regulations, and whether rent stabilization will reduce the racial gap in housing quality. While their work reveals inequality arising when landlords fail to comply with regulation, our study offers an additional perspective by investigating whether inequality persists even when regulations are fully observed. Together, the two studies suggest that improving housing equity requires not only stronger enforcement of rent laws but also attention to how quality and maintenance are distributed across tenants once rents are set within legal limits.

### 2.2 NYC's Geographic Exclusion Areas Policy and Related Developer Incentives

New York City's 421-a tax exemption program, launched in 1971, provides developers with substantial property tax abatements to encourage new residential construction. In many cases, especially for rental buildings, receipt of the 421-a benefit requires that the units be rent-stabilized for the duration of the exemption. However, concerns grew over developers receiving tax benefits without providing sufficient affordable housing in high-demand areas, particularly in Manhattan.

To address these concerns, New York City introduced Geographic Exclusion Areas (GEAs), within which developers seeking 421-a tax benefits faced additional affordable-housing requirements. These areas initially covered parts of Manhattan and selected neighborhoods outside Manhattan and were subsequently expanded to encompass a broader set of high-growth neighborhoods. The GEA framework therefore linked access to 421-a tax benefits more closely to the provision of affordable housing in areas experiencing strong development pressure.

In 2008, the city substantially expanded the Geographic Exclusion Areas to additional neighborhoods experiencing rapid residential development and rising land values. This expansion generated meaningful spatial variation in the extent to which neighborhoods were exposed to the strengthened affordable-housing requirements. We exploit this variation in our identification strategy by constructing a continuous measure of GEA exposure based on the share of pre-reform multifamily buildings located within areas affected by the expansion. The empirical analysis compares changes in the nonwhite–white housing-quality gap before and after the expansion across neighborhoods with different levels of exposure. The identification strategy is described in detail in Section 5.

## 3 Sample and Measures

### 3.1 Sample Construction

We use data from the New York City Housing and Vacancy Survey (NYCHVS), a detailed survey administered by the U.S. Census Bureau, the NYC Department of Housing Preservation and Development (HPD). The survey provides a representative sample of housing units across all five boroughs of New York City and includes detailed information on household demographics, housing characteristics, building conditions, neighborhood attributes and rent regulation status. Since its inception in 1965, the NYCHVS has served as a key instrument for tracking rental market conditions and housing affordability in the city.

One of the key advantages of NYCHVS is the accurate information on regulation status of each housing unit, i.e., whether a unit is rent-stabilized, public housing, or unregulated. This information is verified through administrative records to minimize measurement error, which makes the data particularly well suited for evaluating whether rent stabilization program mitigates racial disparities in housing quality. In addition, we use comprehensive information on building and unit level characteristics to construct a novel housing quality proxy variable that captures multiple dimensions of the units.

For our analysis, we use the survey samples from the 2002 through 2023 waves of the NYCHVS. We restrict the sample to rental units. We also exclude owner-occupied and vacant units to focus on racial disparities in housing quality among renters who are most exposed to regulatory policy and to track changes in outcomes over time across different regulatory regimes and demographic groups.

### 3.2 Measure of the Housing Quality Index (HQI)

To evaluate disparities in housing conditions across racial groups, we construct a composite Housing Quality Index (HQI) using detailed microdata from the New York City Housing and Vacancy Survey (NYCHVS). The HQI captures a wide range of physical housing conditions that are directly relevant to tenant well-being, particularly those linked to health risks, structural deterioration, and environmental hazards. Refer to Appendix Table A1 for detailed variable definitions. Each component of housing quality deficiency is coded as an indicator variable, and the HQI is a composite index constructed from the 14 indicators.[5] Each deficiency indicator equals

[5] The classification structure is summarized in Appendix Table A2.

one when a problem is reported and zero otherwise. Because the questionnaire does not field every component in every survey wave, and some respondents have item-level missing values, the HQI denominator is observation-specific rather than fixed at 14. Specifically, let $\phi_i$ denote the set of non-missing housing-quality components observed for unit $i$, and let $n_i = |\phi_i|$.We calculate the index as:

$$HQI_i = 100\left(1 - \frac{\sum_{j\in\phi_i} D_{ij}}{n_i}\right) \quad (1)$$

Here, $D_{ij}$ equals one if unit $i$ reports deficiency $j$, and zero otherwise. Thus, the HQI ranges from 0 to 100, where higher values indicate better housing quality. This observation-specific normalization ensures that units are not mechanically assigned lower quality scores simply because a particular survey wave did not collect all 14 questions. By combining the available indicators into a single multidimensional measure, the HQI enables us to quantify racial differences in housing quality and assess whether housing policies narrow disparities in quality-adjusted rental outcomes.

**[---Insert Figure 1 About Here---]**

Panel A of Figure 1 visualizes the spatial distribution of housing quality across New York City's sub borough areas (PUMAs) from 2002 to 2017, using the constructed Housing Quality Index (HQI) from NYCHVS microdata. Darker shading corresponds to higher housing quality, reflecting fewer maintenance deficiencies, less overcrowding, and lower incidence of rent overcharge. The heatmap reveals pronounced spatial disparities: housing conditions are consistently better in parts of Manhattan, Staten Island and some areas in Queens, while lower-quality housing clusters in the Bronx and segments of eastern Brooklyn. These patterns underscore the importance of geographic context in understanding urban housing inequality and highlight potential areas for targeted regulatory oversight and policy intervention.

We also present additional visual evidence on the components of housing quality in the Internet Appendix. Figure IA1 in the Internet Appendix maps HQI component scores across sub boroughs to highlight spatial disparities, while Figure IA2 provides histograms of component values at the unit level, illustrating the frequency and severity of specific housing problems.

### 3.3 External Measures of Housing Quality

We supplement NYCHVS with two administrative datasets to overcome the limitations of self-reported survey data and establish objective, externally validated measures of building quality. These two datasets provide complementary perspectives: one contains verified legal violations raised by city inspectors, and the other reports complaints raised by tenants. They offer a more complete picture of housing quality than the survey alone.

The first dataset is the Housing Maintenance Code (HMC) Violation Data,[6] obtained from the NYC Department of Housing Preservation and Development (HPD). This dataset contains records of confirmed violations of the NYC Housing Maintenance Code and the New York State Multiple Dwelling Law, including over nine million entries dating back to the 1930s. Violations reflect conditions such as lack of heat or hot water, mold, pest infestations, lead hazards, and structural deterioration. We focus primarily on open violations issued between 2002 and 2021, as these represent unresolved infractions and are most indicative of ongoing disrepair. We also separately analyze those Class C violations, which designate the most hazardous and urgent conditions under the code. These violations are issued following physical inspections by HPD and thus provide an objective, third-party measure of landlord neglect, independent of tenant self-reporting.

The second dataset is the NYC 311 Service Request Data,[7] which contains the complete records of all housing-related complaints filed by tenants through the city's centralized complaint hotline. This dataset includes tenant-reported concerns such as "no heat," "leaks," "rodents," and "unsanitary conditions," regardless of whether the complaint resulted in an official violation. Covering millions of service requests across multiple years, the 311 dataset offers a valuable, tenant-driven complement to the HMC data by reflecting renters' awareness, expectations, and willingness to engage with public enforcement channels. Since the 311 system also collects all kinds of complaints, some of which might be unrelated to housing, such as illegal parking, street noise, and sanitation, we isolate housing-related issues by retaining only service requests handled by the Department of Housing Preservation and Development (HPD) and the Department of Buildings (DOB). These two primary agencies are responsible for residential maintenance and building conditions.

[6] Refer to the Housing Maintenance Code (HMC) Violation Data webpage for detail.
[7] Refer to the NYC 311 Service Request Data webpage for detail.

Using both datasets allows for a side-by-side comparison of two dimensions of housing disrepair. Housing code violations measure the supply side, capturing landlord neglect and regulatory noncompliance, whereas tenant complaints measure the demand side, capturing how residents perceive and report housing problems. Together, they help distinguish between observed building deficiencies and tenants' awareness of those deficiencies. Merging the administrative data with the NYCHVS is nonetheless challenging, because the NYCHVS does not report building-level identifiers such as addresses or Borough-Block-Lot (BBL) codes. The finest geographic resolution available in NYCHVS is the sub borough area,[8] which is insufficient for direct linkage. In contrast, both the HMC violation and 311 complaint data are structured at the building level and contain precise spatial identifiers, such as addresses and BBLs. To overcome this mismatch in geographic resolution and construct a building-level panel dataset, we implement a multi-step merging procedure using the corresponding-year PLUTO database as a bridge.

To merge NYCHVS sample to building-level administrative records, we adopt the property-matching procedure pioneered in Ambrose et al. (2026) to the full rental sample from 2002 to2017. We begin by aggregating the maintenance violation data and 311 complaint counts data at the BBL (Borough-Block-Lot) level and merging them into the PLUTO (Primary Land Use Tax Lot Output) database,[9] which provides structural and geographic attributes for all NYC tax lots. We then construct a "pseudo-building ID" in both NYCHVS and PLUTO using shared characteristics: sub borough location, year built, number of residential units, and number of floors. This approach allows us to probabilistically link each NYCHVS unit to a unique BBL in PLUTO with reasonable accuracy.

After establishing this link, we merge in the administrative records on building violations and complaints using BBL and verify consistency using building type and structure. This process successfully links the majority of NYCHVS rental observations to building-level administrative data, creating a unified property-level dataset that combines survey-based and administrative records.

[8] The 2021 and 2023 waves of the NYCHVS only report geographic identifiers at the borough level, limiting spatial precision for those years.

[9] PLUTO (Primary Land Use Tax Lot Output) is a dataset maintained by the NYC Department of City Planning that provides tax-lot–level data on land use, building characteristics, and geographic identifiers such as BBL for all properties in New York City.

Using the linked dataset, we examine selective neglect in housing maintenance issues from both regulatory and behavioral standpoints. Our empirical analysis employs three key maintenance outcome variables: the total number of unresolved Housing Maintenance Code (HMC) violations, the subset of immediately hazardous (Class C) violations, and the total number of housing-related 311 complaints. These measures allow us to evaluate whether minority tenants are more likely to experience poor maintenance, even after controlling for regulatory category.

### 3.4 Summary Statistics

Table 1 reports summary statistics for the main variables used in the analysis. Panel A summarizes the unit-level NYCHVS sample. The average Housing Quality Index (HQI) is 84.16. Approximately 45.8% of rental units are rent stabilized, while the sample also contains rent-controlled, other regulated, and market-rental units. Nonwhite household heads account for 65.5% of the sample. The table also reports key household, housing, and mechanism variables used in the subsequent analyses.

**[---Insert Table 1 About Here---]**

Panel B presents unconditional differences by racial composition. For household-level variables, Group 0 consists of white renters and Group 1 consists of nonwhite renters, based on the household head's *NonWhite* indicator. For building-level administrative outcomes, Group 0 consists of observations with a nonwhite share at or below the sample median, while Group 1 consists of observations with a nonwhite share above the sample median. The reported difference is calculated as Group 1 minus Group 0.

The descriptive differences are substantial. At the household level, white renters have an average HQI of 89.21, compared with 81.72 among nonwhite renters, corresponding to an unconditional gap of 7.49 points. Average monthly rent is also lower among nonwhite renters, at $1,047 compared with $1,619 among white renters. Nonwhite households are located lower in the income distribution, with an average *IncomeGroup* of 4.39 compared with 5.95 for white households, and are less likely to have a household head with at least a high-school diploma, 68.7% compared with 92.0%. The share living in rent-stabilized units is similar across the two groups, although statistically lower among nonwhite renters, at 45.3% compared with 46.8%.

Building-level administrative measures show corresponding differences in maintenance conditions. Observations in the above-median nonwhite-share group are associated with an

average of 3.83 housing-code violations, compared with 1.86 in the below-median group, and with 0.66 versus 0.30 Class C violations. The same pattern appears in 311 service requests: the above-median nonwhite-share group records an average of 18.80 total complaints and 13.03 housing-related complaints, compared with 12.21 and 6.74, respectively, in the below-median group. Policy awareness also differs markedly across renter groups: 58.1% of nonwhite renters correctly identify their unit's regulatory status, compared with 71.2% of white renters.

These comparisons are descriptive rather than causal, but they reveal systematic differences in housing quality, socioeconomic characteristics, maintenance conditions, and policy awareness that motivate the multivariate analyses that follow.

## 4 Baseline Analysis

### 4.1 The Impact of Racial Disparities on Housing Quality

To estimate the relationship between race and housing quality, we begin with the following linear panel regression model:

$$HQI_{it} = \alpha + \beta NonWhite_{it} + \gamma Controls_{i,t} + \mu_j + \lambda_t + \varepsilon_{i,t} \quad (2)$$

where $HQI_{it}$ represents the housing quality index for household *i* in year *t*, and $NonWhite_{it}$ represents a binary variable equal to 1 when race of the household head is nonwhite and 0 otherwise. The household-level controls are household head's age, household composition, income decile, education, and year or borough fixed effects. The error term captures unobserved determinants of housing quality.

**[---Insert Table 2 About Here---]**

Table 2 presents the baseline estimation results based on Equation (2). Panel A presents the main findings that nonwhite tenants have worse housing quality than white tenants, even after controlling for observed household, unit, and building characteristics. In Column (1), we find that nonwhite tenants score 3.896 points lower on the HQI, while in Column (2) nonwhite tenants have a 0.634-point lower HQI/log($rent). These findings hold regardless of addition of granular features such as composition of households, income, building age, and tenure structure (e.g., condo vs. rental).

As an additional robustness check, Internet Appendix Table IA2 reconstructs the HQI using a common set of housing-condition measures that are consistently available in every NYCHVS wave from 2002 to 2017. Restricting the sample to 2002-2017 not only ensures that the HQI is

based on the same set of components across survey waves, but also allows us to exploit the finer sub borough geography available in these earlier waves. Accordingly, the IA2 specifications include sub borough fixed effects and cluster standard errors at the sub borough level. The results remain consistent with the baseline findings.

To motivate our sample segmentation and examine how racial disparities vary across the rent distribution, Figure 2 plots the share of nonwhite tenants by rent decile, showing that minority renters are disproportionately concentrated in the lower tiers of the rental market. The share of nonwhite household in the lowest three deciles is over 75 percent, while there is only 25 percent in the top decile. This result implies that significant racial stratification in housing access and market exposure.

**[---Insert Figure 2 About Here---]**

This observed concentration of minority tenants in lower rent segments raises the question of whether racial disparities in housing outcomes are more pronounced at the low-rent segment of the market. To formally test this, Panel B of Table 2 explores whether these racial disparities vary by rental market segment. We divide the sample into low-rent and high-rent units based on the median rent within the NYCHVS. The inequality appears more severe in the bottom half of the rental distribution. In the low-rent segment (Columns 3-4), nonwhite renters face a 5.576-point reduction in *HQI* and a 0.876-point lower *HQI/log($rent)*, compared to white renters. In the high-rent segment (Columns 1-2), disparities remain significant but are smaller in magnitude (-2.951 *HQI* and -0.404 *HQI/log($rent)*), suggesting that market constraints at the lower end exacerbate inequality in housing quality delivery. Furthermore, Internet Appendix Table IA7 examines whether rent stabilization moderates racial disparities in rent levels.

Panel C decomposes the *HQI* into its four underlying components: external quality, utility quality, indoor air quality, and pest damage, allowing us to identify which dimensions drive the racial gap in housing quality. The results show that nonwhite renters experience significantly worse outcomes across all four components. The largest disparity appears in pest damage, followed by external quality, suggesting that racial inequality is especially pronounced in dimensions closely tied to the physical and health-related housing environment.

Panel D replaces the dependent variable with the *HQI/log($rent)* to capture quality-adjusted rent value. The pattern remains virtually unchanged: nonwhite renters have significantly lower rent-adjusted housing quality across all four dimensions, including external quality (-0.445),

utility quality (-0.339), indoor air quality (-0.502), and pest damage (-2.051), all significant at the 1% level. These findings indicate that minority tenants not only live in poorer-quality housing, but also have lower housing quality relative to rent, with the strongest disadvantage concentrated in pest-related conditions and indoor air quality.

These results provide robust evidence of racial disparities in housing quality in New York City's rental market. By decomposing outcomes across segments and quality domains, we show that inequality is both economically meaningful and systematically patterned, reinforcing concerns about disparate treatment in urban housing provision.

### 4.2 Rent Stabilization and Racial Disparities in Housing Quality

We next examine whether rent stabilization and rent control policies mitigate the observed racial disparities in housing quality. Our empirical strategy estimates interaction models that allow the effect of tenant race to vary by rent regulation status. Specifically, we estimate the following regression:

$$HQI_{i,t} = \alpha + \beta_1 NonWhite_{i,t} + \beta_2 RentRegulated_{i,t} + \beta_3 RentRegulated_{i,t} \times NonWhite_{i,t} + \gamma Controls_{i,t} + \mu_j + \lambda_t + \varepsilon_{i,t} \quad (3)$$

Table 3 presents the estimation results based on Equation (3). Panel A uses *HQI* as the dependent variable. Consistent with the baseline results, nonwhite tenants experience significantly lower housing quality than white tenants. Rent stabilized units are also associated with lower HQI on average. The coefficient on the interaction term is negative but statistically insignificant, indicating that, in the full sample, the racial housing-quality gap in rent stabilized units is not statistically distinguishable from that in unregulated units. The results for rent controlled units are similar: the interaction between *NonWhite* and *RentControlled* is also statistically insignificant.

**[---Insert Table 3 About Here---]**

Panel B replaces the dependent variable with *HQI/log($rent)*. The main effect of rent stabilization remains negative, while the interaction is again statistically insignificant. These full sample estimates therefore suggest no statistically significant average difference in the racial disparity between regulated and unregulated units. As shown below, however, this average result masks substantial heterogeneity across the rent distribution.

Panel C introduces building fixed effects and therefore compares tenants living within the same building. The coefficient on *NonWhite* remains negative and statistically significant for both

*HQI* and *HQI/log($rent)*, indicating that racial differences persist even after absorbing time-invariant building characteristics. The interaction term is positive and marginally significant for *HQI/log($rent)*. These within-building estimates suggest that rent stabilization may mitigate racial disparities in rent-adjusted housing quality, although the corresponding interaction is not statistically significant for absolute HQI.

The main conclusions are robust to alternative definitions and samples. Internet Appendix Table IA3 reconstructs the housing-quality measure using the common-item HQI available consistently from 2002 to 2017 and, because sub borough identifiers are available throughout this restricted period, includes sub borough fixed effects and clusters standard errors at the sub borough level. The interactions between race and rent regulation remain statistically insignificant in both the HQI and HQI/log($rent) specifications. Internet Appendix Table IA4 examines public housing, while Table IA5 combines rent-stabilized and rent-controlled units into a single regulated-housing category; neither exercise provides evidence that regulation uniformly eliminates racial disparities in housing quality.

Table 4 examines whether the effect of rent stabilization on racial disparities in housing quality varies across the rent distribution. Panels A and B divide the sample into low-rent and high-rent segments. The results show that, in the low-rent segment, the interaction between *NonWhite* and *RentStabilized* is positive and statistically significant in both the *HQI* and *HQI/log(rent)* specifications, indicating that rent stabilization helps narrow racial disparities in housing quality among lower-rent units. In contrast, in the high-rent segment, the interaction term is negative and significant in both specifications, suggesting that racial disparities are larger in more expensive stabilized units. Panels C and D further divide the sample into narrower rent buckets. The equalizing association of rent stabilization is strongest in the bottom quartile of the rent distribution and remains positive, though weaker, in the bottom half. It reverses in the top half and remains negative in the top quartile. Overall, the results suggest that the equity benefits of rent stabilization are concentrated among the lowest-rent tenants rather than evenly distributed across the rental market[10].

[10] Internet Appendix Table IA6 provides a direct test of this cross-segment heterogeneity by interacting *NonWhite*, *RentStabilized*, and an indicator for above-median rents. Internet Appendix Table IA7 examines racial differences in rent levels directly.

**[---Insert Table 4 About Here---]**

These findings highlight the conditional nature of rent stabilization program's effects. Although rent regulation can be effective in reducing racial disparity in certain segments of the market, particularly among lower-cost units, it does not guarantee equitable outcomes across the board. The presence of persistent disparities in higher-rent stabilized housing suggests that policy enforcement, tenant awareness, or landlord behavior may differ substantially by rent segment. This heterogeneity motivates further analysis of underlying mechanisms, which we take up in the next section.

## 5 Identification

The baseline results establish a persistent racial disparity in housing quality and show that the association between rent stabilization and this disparity varies substantially across the rent distribution. However, these estimates may still reflect residential sorting and other unobserved differences across neighborhoods. Nonwhite households may be disproportionately concentrated in older or lower-quality housing markets, while rent-regulated units are themselves unevenly distributed across space. Even with rich household and building controls, such sorting makes it difficult to separate racial disparities associated with the housing-policy environment from pre-existing differences in neighborhood housing stock.

To strengthen identification, we exploit the post-2008 expansion of New York City's 421-a Geographic Exclusion Areas (GEAs). The 421-a program provided property-tax benefits to qualifying residential developments, while projects located within designated GEAs faced additional affordable-housing requirements in order to receive those benefits. The 2008 expansion substantially broadened the geographic reach of these requirements and therefore generated differential exposure to a common policy change across neighborhoods. Rather than using GEA status as an instrument for tenant race, we treat the expansion itself as the policy intervention and examine whether racial housing-quality disparities evolved differently in areas that were more intensively exposed to the reform. This approach directly addresses the concern that the earlier cross-sectional disparities may partly reflect persistent neighborhood composition rather than changes induced by the policy environment.

We construct a continuous measure of GEA exposure at the sub borough level. Specifically, exposure is defined as the share of pre-reform multifamily buildings located within areas newly affected by the GEA expansion. The measure is rescaled so that one unit corresponds to a 10-percentage-point increase in exposure. Using a continuous treatment rather than a binary treated-area indicator allows us to exploit variation in the intensity of policy exposure across sub boroughs and avoids imposing an arbitrary treated–control classification. Because consistent sub borough identifiers are available through 2017, the identification sample covers the 2002–2017 NYCHVS waves. This restricted period also allows us to absorb time-invariant differences at a much finer geographic level by including sub borough fixed effects and to cluster standard errors at the sub borough level. We estimate the following difference-in-differences-in-differences specification:

$$HQI_{i,t} = \alpha + \beta_1 GEAExposure_p \times Post_t \times NonWhite_{i,t} + \beta_2 GEAExposure_p \times NonWhite_{i,t} + \beta_3 Post_t \times NonWhite_{i,t} + \beta_4 GEAExposure_p \times Post_t + \beta_5 NonWhite_{i,t} + \gamma Controls_{i,t} + \mu_i + \lambda_t + \varepsilon_{i,t} \quad (4)$$

Panel A of Table 5 reports the DDD estimates based on equation (4). The coefficient on $GEAExposure_p \times Post_t \times NonWhite_{i,t}$ is positive and statistically significant for both outcomes. A 10-percentage-point increase in GEA exposure is associated with a 1.136-point relative improvement in *HQI* for nonwhite tenants after the expansion and a 0.158-point relative improvement in *HQI/log($rent)*. These estimates indicate that the post-2008 racial housing-quality gap became relatively smaller in more highly exposed neighborhoods.

**[---Insert Table 5 About Here---]**

The remaining interaction terms also help characterize the underlying pattern. The coefficient on $Post_t \times NonWhite_{i,t}$ is negative and statistically significant, indicating that, absent additional GEA exposure, the housing-quality gap between nonwhite and white tenants widened after 2008. At the same time, the positive coefficient on the triple interaction shows that this widening was substantially attenuated in neighborhoods with greater exposure to the GEA expansion. Thus, the estimated policy effect should be interpreted as a relative offset to the broader post-2008 deterioration in racial housing-quality disparities.

A key identifying assumption of this design is that, in the absence of the GEA expansion, sub boroughs with different levels of exposure would have experienced similar changes in the racial disparity in housing quality. We examine this assumption using an event-study specification that allows the relationship between GEA exposure and the racial gap to vary flexibly across survey

years. The event-study coefficients interact GEA exposure with the *NonWhite* indicator in each wave, with 2008 serving as the omitted reference year. The 2002 and 2005 coefficients provide pre-reform comparisons, while the 2011, 2014, and 2017 coefficients trace the post-expansion dynamics. Figure 3 plots these estimates, and Panel B of Table 5 reports the corresponding coefficients.

**[---Insert Figure 3 About Here---]**

The pre-treatment coefficients are small and statistically insignificant for both outcomes. For *HQI*, the estimated coefficients are -0.906 in 2002 and -0.234 in 2005, while the corresponding estimates for *HQI/log($rent)* are -0.140 and -0.040. Neither differs statistically from zero. Joint tests of the pre-reform coefficients yield p-values of 0.724 for *HQI* and 0.750 for *HQI/log($rent)*, providing no evidence that more- and less-exposed sub boroughs were already experiencing systematically different racial housing-quality trends before the expansion.

The post-treatment dynamics are also informative. In 2011, the coefficients remain close to zero and statistically insignificant, suggesting that the policy did not generate an immediate change in the racial housing-quality gap. By 2014, however, the estimates become positive and statistically significant: 0.905 for *HQI* and 0.121 for *HQI/log($rent)*. The effects strengthen further by 2017, reaching 1.457 and 0.200, respectively.

This gradual pattern is consistent with the institutional nature of the 421-a reform. Changes in development incentives, affordable-housing requirements, and neighborhood housing composition are unlikely to translate immediately into observed differences in unit quality. Instead, the effects would be expected to emerge as new projects are developed, housing stocks adjust, and tenants sort into the resulting mix of regulated and market-rate units. The delayed emergence of the estimated effect therefore fits the timing of a policy operating through the evolution of the local housing stock rather than through an immediate change in tenant behavior.

Taken together, the DDD and event study results provide a coherent identification pattern. First, neighborhoods with different levels of GEA exposure display no detectable differential pre-trends in racial housing-quality disparities. Second, the relative narrowing of the gap emerges only after the expansion and grows over time. Third, the direction of the post-treatment effect is consistent across both HQI and *HQI/log($rent)*. These findings strengthen the interpretation that the post-2008 policy environment associated with the GEA expansion contributed to a relative attenuation of racial housing-quality disparities in more highly exposed neighborhoods.

## 6 Robustness Analysis

### 6.1 Triple-Differences Analysis using Mayor Change

As a complementary robustness analysis, we examine whether the relationship between rent stabilization and racial disparities in housing quality changed around New York City's 2014 mayoral transition. New York City's mayoral office has significant influence over policies on rent regulation enforcement, public housing investment, and tenant protections. Different city leaders could hold different views on the tradeoffs between efficiency and equity. For example, Mayor Michael Bloomberg (2002–2013) insisted on efficiency and favored market-oriented housing development during his term from 2002 to 2013, whereas his successor Mayor Bill de Blasio (2014–2021) emphasized more on equity, aiming to make housing resources evenly distributed among various income and racially diverse populations. The transition from Mayor Bloomberg who supported market-oriented approach to social issues to Mayor de Blasio who supported racial equity, represents a policy regime shift with potential implications for minority tenants （Wolman et al., 1996; Besley & Case, 2000; Ferreira & Gyourko, 2009）.

We implement a DDD design by interacting an indicator equal to one for 2014 and subsequent survey years with the NonWhite and RentStabilized indicators. We estimate the following regression model:

$$
\begin{aligned}
&HQI/\log(\$rent)_{i,t} \\
&\quad = \alpha + \beta_1 MayorChange_{i,t} \times NonWhite_{i,t} \times RentStabilized_{i,t} \\
&\quad + \beta_2 MayorChange_{i,t} \times NonWhite_{i,t} \\
&\quad + \beta_3 MayorChange_{i,t} \times RentStabilized_{i,t} \\
&\quad + \beta_4 NonWhite_{i,t} \times RentStabilized_{i,t} + \beta_5 NonWhite_{i,t} \\
&\quad + \beta_6 RentStabilized_{i,t} + \gamma Controls_{i,t} + \mu_i + \lambda_t + \varepsilon_{i,t} \qquad (5)
\end{aligned}
$$

The specification includes household and building controls, borough fixed effects, and year fixed effects. Because MayorChange varies only by year, its main effect is absorbed by the year fixed effects. The coefficient on the triple interaction, $MayorChange_{i,t} \times NonWhite_{i,t} \times RentStabilized_{i,t}$, is the key DDD estimate. It captures the additional change in the nonwhite–white housing-quality gap among rent-stabilized units around the mayoral change, relative to the corresponding change among non-rent-stabilized rental units.

**[---Insert Table 6 About Here---]**

Table 6 reports the results using *HQI/log($rent)* as the dependent variable based on equation (5). Column (1) uses the full 2002-2023 sample and includes borough and year fixed effects. The triple-interaction coefficient is 0.343 and statistically significant at the 1% level. This positive coefficient indicates that, after 2014, the nonwhite–white disparity in rent-adjusted housing quality narrowed relatively more among rent-stabilized units than among non-rent-stabilized units.

Because the full sample includes subsequent institutional changes and unusual housing-market conditions, Column (2) restricts the sample to 2002-2017. This specification limits the post-transition period to the 2014 and 2017 NYCHVS waves, thereby excluding the 2019 Housing Stability and Tenant Protection Act (HSTPA) and the COVID-19 period. It also exploits the finer sub borough geography available over this period, including sub borough fixed effects and clustering standard errors at the sub borough level. The estimated triple interaction remains positive, at 0.172, and is statistically significant at the 10% level.

The consistency across the two samples provides complementary evidence that the racial disparity in rent-adjusted housing quality became relatively smaller within rent-stabilized housing around the 2014 change in the city's housing-policy environment.

### 6.2 Propensity Score Matching Strategy

As another robustness analysis, we employ a Propensity Score Matching (PSM) approach. This approach enables a more credible comparison between white and nonwhite tenants by constructing a sample in which white and nonwhite tenant households are observationally similar across a wide range of covariates. The objective is to isolate differences in housing outcomes that are more plausibly attributable to differential treatment, rather than to compositional differences between racial groups.

Given that nonwhite renters constitute the majority of our sample, we designate white tenants as the treatment group and nonwhite tenants as the control group. This asymmetric setup improves match quality and the credibility of counterfactual comparisons by ensuring sufficient overlap and matching in the covariate distribution, a design choice supported by common support diagnostics. The PSM framework thus provides a refined estimate of the average treatment effect on the treated (ATT), offering clearer insight into the experience of white tenants relative to a comparable nonwhite counterpart group.

The propensity score is estimated via a logistic regression model of the form:

$$P\left(White_{i,t} \mid Z_{i,\mathrm{t}}\right) = \Phi\left(Z'_{i,t}\delta\right) \quad (6)$$

where $White_{i,t}$ is an indicator for whether the race of the household head *i* in year *t* is white, $Z_{i,\mathrm{t}}$ is a vector of observed covariates related to housing characteristics, building conditions, and neighborhood conditions, and $\Phi(\cdot)$ denotes the standard normal cumulative distribution function. We conduct the estimation using nearest-neighbor matching without replacement, with the sample restricted to matched pairs that lie within the region of common support.

Using the estimated propensity scores, we conduct nearest-neighbor matching without replacement and restrict analysis to matched pairs within the region of common support. Figure 4 presents the propensity scores of the treatment and control samples before and after matching.

**[---Insert Figure 4 About Here---]**

These findings indicate that the quality of the houses of white tenants is significantly better than the one of nonwhite tenants, although the households are similar in other aspects. Specifically, Columns (2) and (3) of Table 7 examine racial differences in housing outcomes in the matched sample. The coefficient on the White indicator is positive and statistically significant for both outcomes. White tenants have an *HQI* that is 1.447 points higher than that of observationally similar nonwhite tenants, and their *HQI/log($rent)* is 0.248 points higher; both estimates are statistically significant at the 1% level.

**[---Insert Table 7 About Here---]**

The balance diagnostics in Table 7 Panel B show substantial differences between the two groups before matching. For example, the standardized biases are 67.7% for log rent, -31.3% for the number of bedrooms, -61.4% for building condition, and -44.9% for the number of children. After matching, these differences are sharply reduced: the absolute standardized biases reported in Panel C range from 0.1% to 2.7% across the matching covariates. Although the difference in building condition remains statistically significant, its standardized bias falls to only 2.7%, indicating substantial improvement in covariate balance.

These findings provide evidence that observed racial disparities in housing quality are not solely driven by differences in income, household size, or housing structure. Instead, they point to the possibility of differential treatment or structural bias in the allocation and maintenance of housing resources.

## 7 Mechanism Analysis

### 7.1 Tenants' Policy Awareness

To examine whether information asymmetries contribute to racial disparities in housing conditions, we focus on tenants' awareness of rent stabilization as a potential mechanism. Tenants who do not know whether their unit is protected may be less able to assert their rights or challenge poor maintenance, so unequal awareness across racial groups may translate into unequal housing quality outcomes. The 2002 and 2005 waves of the NYCHVS provide a unique opportunity to construct a credible proxy for policy awareness: both waves include self-reported and administratively verified rent regulation status for each unit. We define a household as policy-aware if the tenant correctly identifies whether their unit is rent-stabilized. This variable allows us to assess not only whether awareness differs systematically by race, but also whether awareness moderates racial disparities in housing quality.

We begin by testing for racial gaps in policy awareness. Specifically, we estimate the following linear probability model:

$$PolicyAware_{i,t} = \alpha + \beta_1 NonWhite_{i,t} + \gamma Controls_{i,t} + \mu_j + \lambda_t + \varepsilon_{i,t} \quad (7)$$

where *PolicyAware* is an indicator for correct self-identification of rent stabilization status. This specification is estimated separately for rent-stabilized units and for the full sample of rental units.

Next, we test whether awareness mediates racial differences in housing quality by estimating an interaction model where the Housing Quality Index (HQI) is regressed on race, awareness, and their interaction:

$$\begin{aligned} HQI_{i,t} = \alpha + \ & \beta_1 PolicyAware_{i,t} \times NonWhite_{i,t} + \beta_2 PolicyAware_{i,t} \\ & + \beta_3 NonWhite_{i,t} + \gamma Controls_{i,t} + \mu_j + \lambda_t + \varepsilon_{i,t} \end{aligned} \quad (8)$$

Panel A of Table 8 provides evidence of a substantial racial gap in policy awareness described in Equation (7). In the full rental sample (Columns 3-4), nonwhite tenants are approximately 7.6-7.9 percentage points less likely to correctly identify their rent-regulation status. The disparity is considerably larger among tenants living in rent-stabilized units (Columns 1-2), where nonwhite tenants are approximately 16.9-19.5 percentage points less likely to correctly identify their status. These results suggest that minority tenants are less informed about their legal protections, which may reduce their ability to claim the full benefits of rent stabilization.

**[---Insert Table 8 About Here---]**

Next, we examine whether tenants' policy awareness mediates racial disparities in housing outcomes. Panel B of Table 8 shows the estimation result of Equation (8), using *HQI* and *HQI/log($rent)* as dependent variables. The interaction term is positive and statistically significant implies that the housing quality of nonwhite tenants who are policy-aware is significantly higher than that of tenants who are not aware. This means that the awareness of rent stabilization may reduce racial disparities in housing quality. The sign and significance of *NonWhite* remain negative and significant, which implies that awareness partially explains observed disparities but does not explain them completely.

Furthermore, we move from individual-level awareness to broader city-wide patterns of information demand. To proxy for public engagement with rent regulation policy, we turn to an external proxy of housing policy salience—the Google Search Index for "Rent Stabilization" in NYC. We obtain the Google Trends data on the search keywords "*Rent Stabilization*" in New York City from 2005 to 2025.

Figure 5 plots the Google Search Index over time, revealing two distinct patterns. First, we observe a consistent and pronounced spike in June of nearly every year. This seasonal peak aligns closely with the annual Rent Guidelines Board (RGB) meetings, typically held in late spring or early summer, where decisions on allowable rent increases for stabilized units are publicly debated and announced. These meetings generate substantial media coverage and tenant interest, likely prompting renters to seek information about upcoming changes to their lease terms or legal protections. In addition, many residential leases in New York City commence or terminate in the summer months, particularly in June, further heightening tenants' motivation to understand their rights during renewal or relocation.

**[---Insert Figure 5 About Here---]**

Second, beyond the regular seasonal peaks, we identify especially pronounced spikes in June of 2010, 2015, and 2019. These coincide with major legislative renewals of New York State's rent stabilization laws, which were set to expire in those years. The uncertainty and political contention surrounding these sunset provisions triggered heightened public attention. In particular, the 2019 legislative reform[11], i.e., the Housing Stability and Tenant Protection Act, marked a historic turning point by making rent stabilization permanent for the first time, eliminating the need for

[11] Housing Stability and Tenant Protection Act of 2019.

periodic renewals. Hence this legislative shift fundamentally reduced uncertainty around the continuation of rent regulation. Consistent with this institutional change, the absence of a June peak in 2023 suggests that the permanent status of rent stabilization laws has dampened public urgency to seek out information during legislative cycles. With no imminent expiration date, the salience of June as a period of political risk has diminished.

We test the interaction effect of *NonWhite* and *GoogleIndex* using the following model:

$$HQI_{i,t} = \alpha + \beta_1 GoogleIndex_t \times NonWhite_{i,t} + \beta_2 NonWhite_{i,t} + \gamma Controls_{i,t} + \mu_j + \lambda_t + \varepsilon_{i,t} \quad (9)$$

where *GoogleIndex* measures public search interest in rent stabilization, using the Google Search Index for the term "Rent Stabilization" in New York City, aggregated at the city level by quarter. This allows us to test whether increases in the public salience of rent regulation translate into improved housing outcomes for minority tenants, potentially by increasing tenants' leverage or access to information channels.

Table 8 Panel C reports the estimation results for Equation (9). The interaction term of search intensity and race ($GoogleIndex_t \times NonWhite_{i,t}$) is positive and significant, suggesting that periods of heightened public attention to rent regulation correspond to improved housing quality for nonwhite tenants. This provides further support for the role of information frictions in perpetuating inequality and underscores the potential of public awareness campaigns to reduce disparities. The evidence points to a clear information-based mechanism: nonwhite tenants face informational disadvantages that reduce their ability to benefit from rent stabilization protections, contributing to persistent racial disparities in housing outcomes.

### 7.2 Landlords' Selective Neglect

While rent stabilization is designed to protect tenants from excessive rent increases and eviction, it may also distort landlord incentives, particularly when tenant characteristics influence perceived enforcement risk or outside options. A key concern is that landlords may selectively underinvest in maintenance for minority tenants in rent-stabilized units in order to maximize profits. If landlords believe that nonwhite tenants face greater barriers to relocation, have less regulatory knowledge, or are less likely to complain, they may rationally choose to neglect or defer repairs in these units.

To empirically test this strategic behavior, we examine whether minority renters in stabilized units are disproportionately exposed to lower housing conditions. We merge household-level NYCHVS data from 2002 to 2017 with administrative building-level records from the NYC Housing Maintenance Code Violation dataset, which documents violations issued by city inspectors for noncompliance with legal housing standards. We estimate the following model:

$$Outcome_{i,t} = \alpha + \beta_1 NonWhite_{i,t} + \beta_2 RentStabilized_{i,t} + \beta_3 RentStabilized_{i,t} \times NonWhite_{i,t} + \gamma Controls_{i,t} + \mu_j + \lambda_t + \varepsilon_{i,t} \quad (10)$$

The outcomes include the natural logarithm of one plus the total number of housing-code violations and the number of Class C violations, which represent the most hazardous violations under the Housing Maintenance Code. We additionally use NYC 311 Service Request data for 2011-2017 to examine the logarithm of one plus total complaints and housing-related complaints[12]. Housing-related complaints are identified using requests directed to the Department of Buildings (DOB) and the Department of Housing Preservation and Development (HPD). All specifications include year and sub borough fixed effects, with standard errors clustered at the sub borough level.

**[---Insert Table 9 About Here---]**

Using this merged sample, Table 9 investigates whether nonwhite tenants in rent-stabilized units are more likely to experience higher rates of housing code violations and tenant-initiated complaints. Panel A of Table 9 examines administrative housing-code violations. The interaction between *NonWhite* and *RentStabilized* is positive and statistically significant for both total violations and Class C violations. Thus, the association is not confined to routine maintenance deficiencies but also extends to the most serious housing-code violations. These findings are consistent with nonwhite tenants in rent-stabilized housing being exposed to relatively poorer maintenance conditions.

Panel B turns to tenant-initiated 311 complaints. Columns (1) and (3) show that nonwhite tenants are more likely to reside in buildings with a higher number of general and housing-related complaints. More importantly, the interaction term between race and rent-stabilized status is positive and highly significant, indicating that stabilized buildings with nonwhite tenants generate a disproportionate share of tenant complaints. This finding complements the violation data by

[12] We use 2011–2017 waves because the 311 records in earlier waves lack valid BBL identifiers for building-level linkage.

capturing tenant responses to perceived neglect and reinforces the conclusion that maintenance behavior is racially differentiated, even under a formally neutral regulatory regime.

Panel C further separates 311 requests into specific complaint categories. The coefficient on NonWhite is positive and statistically significant for electrical and plumbing complaints, but is statistically insignificant for elevator and facade complaints. The stronger association for electrical and plumbing problems suggests that the racial pattern is particularly evident for maintenance issues more closely related to conditions experienced within residential units, whereas the evidence is weaker for common building facilities.

Overall, the evidence presented in Table 9 supports the hypothesis that landlords may selectively neglect the maintenance of rent stabilized units occupied by nonwhite tenants. Combined with the results on policy awareness, this implies that the racial differences in housing quality are driven by both demand and supply, reflecting the interplay of tenant knowledge gap and the landlord strategic behavior within the institutional structure of rent regulation.

To provide a more stringent test, we next exploit changes in the racial composition of occupants following tenant turnover. We identify units in which a new household head moves in between adjacent NYCHVS waves and compare maintenance outcomes according to the racial transition of the occupants. Tenant turnover is identified when the current household head moved into the unit after the preceding survey wave. We estimate:

$$\Delta\, log\,(1 + NumViolations_{i,t}) = \alpha + \beta_1 Transition_{i,t} + \gamma Controls_{i,t-1} + \mu_j + \lambda_t + \varepsilon_{i,t} \quad (11)$$

where $Transition_{i,t}$ denotes the relevant racial transition following tenant turnover. For units initially occupied by nonwhite households, we compare Nonwhite-to-White transitions with Nonwhite-to-Nonwhite turnover. For units initially occupied by white households, we compare White-to-Nonwhite transitions with White-to-White turnover. The dependent variable is the change in log violations across adjacent survey waves. The regressions control for changes in rent and household income, prior-period HQI and building characteristics, as well as year and sub borough fixed effects. Columns (3) and (4) further restrict the analysis to units whose regulatory status remains unchanged across waves.

This design allows us to examine whether housing quality responds systematically to changes in the racial composition of occupants following tenant turnover. If violations decrease when a

tenant changes from *NonWhite* to *White* (or increase in the opposite direction), this would suggest that racial disparities in housing quality are not solely driven by economic sorting or structural conditions, but also by race-contingent landlord behavior, differential enforcement, or implicit bias in code inspections （Boustan et al., 2024）.

Table 10 reports the transition results based on equation (11). Column (1) shows that, among units initially occupied by nonwhite households, turnover to a white household is associated with a statistically significant decline in log maintenance violations relative to turnover to another nonwhite household. The coefficient on *NWtoW* is -0.094. By contrast, Column (2) shows that White-to-Nonwhite turnover is not associated with a statistically significant change in violations relative to White-to-White turnover. The same pattern remains when the sample is restricted to units whose regulatory status does not change: the Nonwhite-to-White coefficient remains negative and statistically significant, whereas the White-to-Nonwhite coefficient remains insignificant.

**[---Insert Table 10 About Here---]**

This asymmetric pattern is consistent with maintenance conditions improving when occupancy shifts from a nonwhite to a white household, while we do not detect a corresponding deterioration following White-to-Nonwhite turnover. While these estimates do not by themselves establish landlord discrimination, they are consistent with differential maintenance patterns across tenant racial groups.

## 8 Additional Analysis

This section presents additional analyses that shed light on factors associated with racial disparities in housing quality. We focus on landlord residential presence and the relationship between housing quality and tenant health, providing complementary evidence on the broader consequences and potential mechanisms underlying disparities in rental housing conditions

### 8.1 Landlord Presence: Owner-in-Building

Landlord co-residence may enhance oversight, reduce moral hazard, and increase responsiveness to tenant needs. We first examine whether landlord proximity influences housing quality, using a binary variable *OwnerInBldg*, which equals 1 if the owner resides in the same building as the tenant household, and 0 otherwise. We estimate the following model by using merged data from NYCHVS and NYC Housing Maintenance Code (HMC):

$$HQI_{i,t} = \alpha + \beta_1 NonWhite_{i,t} + \beta_2 OwnerInBldg_{i,t} + \beta_3 OwnerInBldg_{i,t} \times NonWhite_{i,t} + \gamma Controls_{i,t} + \mu_j + \lambda_t + \varepsilon_{i,t} \quad (12)$$

**[---Insert Table 11 About Here---]**

Table 11 Panel A reports the results of Equation (12). It shows that households living in owner-inhabited buildings experience substantially higher housing quality. The *HQI* increases by 4.961 points, and the *HQI/log($rent)* improves by 0.695 points when the landlord lives in the same building. The interaction term between *NonWhite* and *OwnerInBldg* is also significantly positive in both specifications, suggesting that co-residing landlords attenuate the racial disparity in housing quality. These findings are consistent with the idea that landlord accountability via physical proximity and availability can mitigate selective neglect targeted toward minority tenants.

Table 11 Panel B assesses housing maintenance through a separate outcome variable: the logarithm of the number of housing maintenance violations based on Equation (14). *OwnerInBldg* is negatively associated with the number of violations and the interaction term between *NonWhite* and *OwnerInBldg* is also negative and significant, which indicates that minority tenants benefit from owner presence more than white tenants.

A higher owner-occupancy ratio may strengthen incentives for building-level maintenance, reduce managerial moral hazard, and create positive spillovers for tenants, especially in racially diverse or economically vulnerable buildings. Then we estimate the following regression:

$$\log(1 + NumViolations)_{i,t} = \alpha + \beta_1 NonWhite_{i,t} + \beta_2 OwnerOcc_{i,t} + \beta_3 OwnerOcc_{i,t} \times NonWhite_{i,t} + \gamma Controls_{i,t} + \mu_j + \lambda_t + \varepsilon_{i,t} \quad (13)$$

where *OwnerOcc* is the share of units in a building that are owner-occupied. A higher *OwnerOcc* implies a stronger ownership presence in the building community, which may incentivize better upkeep. Table 11 Panel C reports the results based on Equation (13). The interaction between *NonWhite* and *OwnerOcc* is negative and significant, indicating that a higher owner-occupancy ratio is associated with fewer violations for nonwhite tenants relative to white tenants. These results highlight the potential role of building-level ownership structure in shaping maintenance incentives and racial disparities in housing conditions.

### 8.2 Housing Quality and Health Outcomes

Housing quality has direct and measurable implications for residents' physical and mental well-being. Substandard housing conditions can lead to chronic stress and health deterioration.

Prior research in environmental health and urban economics has documented that poor housing quality is associated with higher rates of respiratory illness, depression, and other adverse health outcomes. These effects are likely to be heterogeneous across racial and socioeconomic groups, as minority tenants often reside in lower-quality units and have less capacity to demand adequate maintenance or seek regulatory remedies.

To empirically examine the health consequences of housing quality disparities, we estimate the following model using NYCHVS data from 2005 to 2017:

$$Health_{i,t} = \alpha + \beta_1 NonWhite_{i,t} + \beta_2 HQI_{i,t} + \beta_3 HQI_{i,t} \times NonWhite_{i,t} + \gamma Controls_{i,t} + \mu_j + \lambda_t + \varepsilon_{i,t} \quad (14)$$

The dependent variable $Health_{i,t}$is an ordinal measure ranging from 1 to 6, with higher values indicating better self-reported health status. The key explanatory variable $HQI_{i,t}$represents the Housing Quality Index, constructed from unit-level information on structural integrity, maintenance deficiencies, and environmental conditions in the NYCHVS. As an alternative measure, we use rent-adjusted housing quality (*HQI/log($rent)*) to capture relative quality per dollar spent.

**[---Insert Table 12 About Here---]**

Table 12 presents the estimation results of Equation (14). Across all specifications, housing quality is positively and significantly associated with health status. The interaction term is positive and statistically significant, indicating that the positive association between housing quality and self-reported health is stronger among nonwhite households. This pattern is consistent with housing conditions being related to racial differences in health outcomes. When substituting HQI with *HQI/log($rent)*, the results remain similar, indicating that higher rent-adjusted housing quality is also positively associated with self-reported health.

These findings underscore that housing inequality is not only an economic issue but also a critical public health concern. Substandard housing conditions can amplify existing racial and social inequities in health outcomes. Policies that enhance housing code enforcement, expand access to maintenance subsidies, and improve tenant education could therefore generate substantial health benefits alongside equity gains.

## 9 Conclusion

This paper investigates racial disparities in housing quality in New York City's rental market, with a particular focus on how rent regulation shapes these disparities. Using detailed microdata

from the New York City Housing and Vacancy Survey (NYCHVS) linked to administrative building records, we construct a comprehensive Housing Quality Index (HQI). We find that nonwhite renters experience significantly lower housing quality than their white counterparts, even after accounting for rent levels, income, household characteristics, and unit characteristics. To address concerns about residential sorting and unobserved neighborhood characteristics, we exploit cross-neighborhood variation in exposure to the 2008 expansion of the 421-a Geographic Exclusion Areas and implement triple-difference and event-study specifications. The results indicate that the nonwhite–white housing-quality gap narrowed relatively more in areas with greater exposure to the policy expansion.

We then provide evidence for two underlying channels that may cause this disparity. First, minority tenants in rent-stabilized units face more building maintenance violations and submit more 311 complaints, consistent with selective neglect by landlords. Second, nonwhite tenants who are more aware of the policy may experience smaller quality gaps, which suggests that information frictions exacerbate inequality in housing quality.

Our findings highlight the complex interplay between regulation, landlord incentives, and tenant awareness in perpetuating housing inequality. Complementing prior research which documents racial disparities arising from landlord's noncompliance with rental laws, we demonstrate that significant inequality persists *within the bounds of the law*, driven by differential maintenance behavior, uneven enforcement, and unequal information access.

Policy therefore needs to go beyond price controls to close the racial housing quality gap. We propose a three-pronged approach: First, municipalities need to enhance proactive inspection and enforcement regimes in minority-concentrated neighborhoods and not depend on tenants' complaints only. Second, tenant education campaigns, especially multilingual outreach efforts, can improve awareness of legal rights, rent stabilization protections, and procedures for filing housing code violations. Third, transparency mandates for landlords, including disclosure of unit regulatory status and maintenance history, could empower tenants to make informed decisions and hold property owners accountable. Together, these measures help ensure that housing quality protections are both effective and equitable.

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## Appendix
## Table A1: Variable Definitions
This table presents the definitions of all key variables used in the analysis.

| Variable | Source | Definition |
|---|---|---|
| **Tenant Characteristics** | | |
| *NonWhite* | NYCHVS | Household head's race: A dummy variable that equals 1 if the household head is not white and 0 otherwise. |
| *FemaleHH* | NYCHVS | Household head's gender: A dummy variable that equals 1 if the household head is female and 0 otherwise. |
| *AgeHH* | NYCHVS | Household head's age. |
| *MarriedHH* | NYCHVS | Household head's marital status: A dummy variable that equals 1 if the household head is married and 0 otherwise. |
| *EducationHH* | NYCHVS | A dummy variable that equals 1 if the household head has at least H.S. Diploma and 0 otherwise. |
| *IncomeGroup* | NYCHVS | A categorical variable that ranges from 1 to 10, representing increasing deciles of reported household total Income group. |
| *NumChildren* | NYCHVS | The number of Children under 18 in the household. |
| **Housing Characteristics** | | |
| *Housing Quality Index (HQI)* | NYCHVS | The Housing Quality Index (HQI) is a composite index, calculated as 1 minus the share of 14 reported housing issue types across four domains: external damage, utility damage, indoor air quality, and pests damage. Each problem is coded as a binary indicator. Higher HQI indicates better housing quality. |
| *HQI/log($rent)* | NYCHVS | Housing Quality Index divided by the logarithm of monthly rent, measuring housing quality per unit of rent paid. |
| *BBL* | PLUTO | BBL stands for borough, block, & lot and serves as a unique ID for each building in New York City. |
| *Rent* | NYCHVS | The monthly rent paid by the tenant for the housing unit. |
| *BldgAge* | NYCHVS | This variable categorizes the age of housing based on the year the building was constructed. The categories are as follows:<br>01=1990 or later<br>02=1980 to 1989<br>03=1970 to 1979<br>04=1960 to 1969<br>05=1947 to 1959 |

| | | |
|---|---|---|
| | | 06=1930 to 1946<br>07=1920 to 1929<br>08=1901 to 1919<br>09=1900 and earlier |
| *NumUnits* | NYCHVS | The number of residential units in the building. |
| *NumRooms* | NYCHVS | The number of rooms in the building. |
| *NumBedrooms* | NYCHVS | The number of bedrooms in the building. |
| *NumStories* | NYCHVS | The number of stories in the building. |
| *Elevator* | NYCHVS | Whether there is any elevator available in the building. |
| *NumViolations* | Maintenance Code Violation | The Number of severe violations in the building. |
| *NumClassC* | Maintenance Code Violation | The Number of severe violations in the building. |
| *NumComplaintsAll* | 311 Service Requests | The Number of 311 complaints in the building. |
| *NumComplaintsHsg* | 311 Service Requests | The Number of 311 complaints related to housing quality in the building. |
| *NonwhiteZipRatio* | NYCHVS | The ratio of NonWhite among Zip codes in NYC. |
| *NWToW* | NYCHVS | Whether the race of household head changes from NonWhite to white in the same unit. |
| *WToNW* | NYCHVS | Whether the race of household head changes from white to NonWhite in the same unit. |
| *PolicyAware* | NYCHVS | Whether the Rent Regulation Status as reported by the respondent head is consistent with the Control Status Recode (CSR). |
| *GoogleIndex* | Google Trends | Google search index about ‘Rent Stabilization’ in NYC. |

**Table A2: Construction of the Housing Quality Index**

This table outlines the components and classification criteria of the Housing Quality Index (HQI) used in the analysis. The HQI is a composite index constructed from indicators of physical housing conditions derived from the NYCHVS. It is calculated as one minus the proportion of 14 binary housing deficiency indicators (e.g., mold, leaks, broken windows, pest presence). Specifically, let $\phi_i$ denote the set of non-missing housing-quality components observed for unit i, and let $n_i = |\phi_i|$.We calculate the index as:

$$HQI_i = 100\left(1 - \frac{\sum_{j\in\phi_i} D_{ij}}{n_i}\right)$$

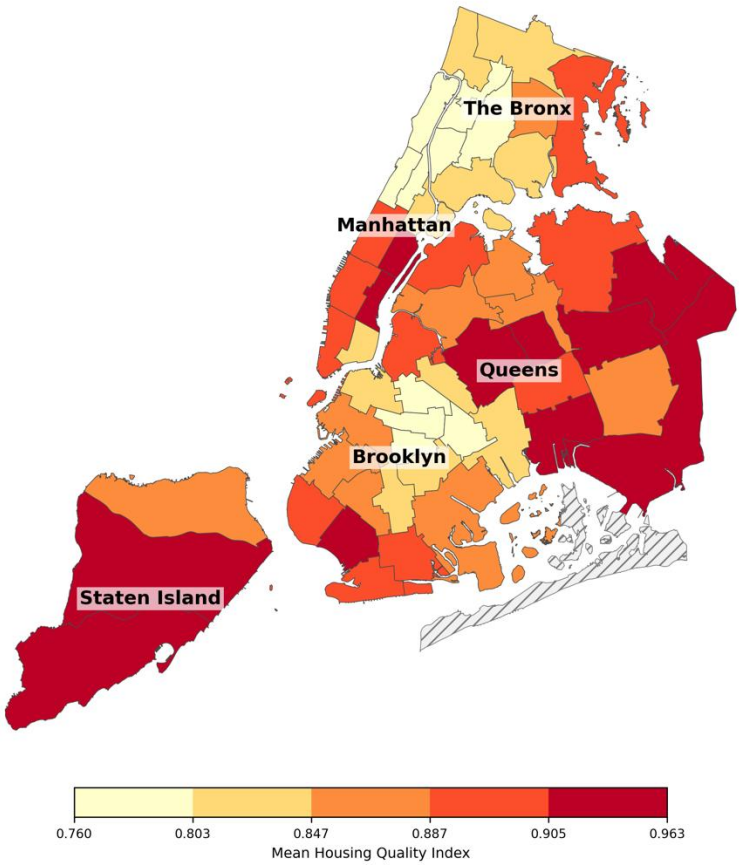
Here, $D_{ij}$ equals one if unit i reports deficiency j, and zero otherwise. These indicators measure indoor environmental quality and potential exposure to household-level hazards, including air pollutants and structural deficiencies. A higher HQI indicates fewer problems and better housing quality.

| Classification | Variables |
|---|---|
| **External Damage** | Cracks or Holes in Interior Walls |
| | Any Buildings with Broken Windows |
| | Holes in Floors |
| | Elevator Breakdown |
| | Broken Plaster or Peeling Paint |
| **Utility Damage** | Kitchen Facilities Functioning |
| | Toilet Breakdowns |
| | Heating Equipment Breakdown |
| **Indoor Air Quality** | Mold |
| | Water Leakage Inside Apartment |
| | Frequency of musty smells |
| | Anyone Smoke in Household |
| **Pest Damage** | Presence of Mice and Rats |
| | Number of Cockroaches |

**Figure 1: Geographic Distribution of Housing Quality and Racial Composition in New York City**

Panel A presents the spatial distribution of housing quality across New York City's sub boroughs (PUMAs) from 2002 to 2017, using data from the NYCHVS. Darker shades indicate better housing quality, while lighter ones represent poorer conditions. Panel B presents the share of nonwhite residents across ZIP codes in New York City, constructed using merged data from the PLUTO dataset and the NYCHVS. Darker color indicates higher ratio of nonwhite.

**Panel A Housing Quality across Sub boroughs**



**Panel B: Nonwhite Ratio across Zip Code in New York City**

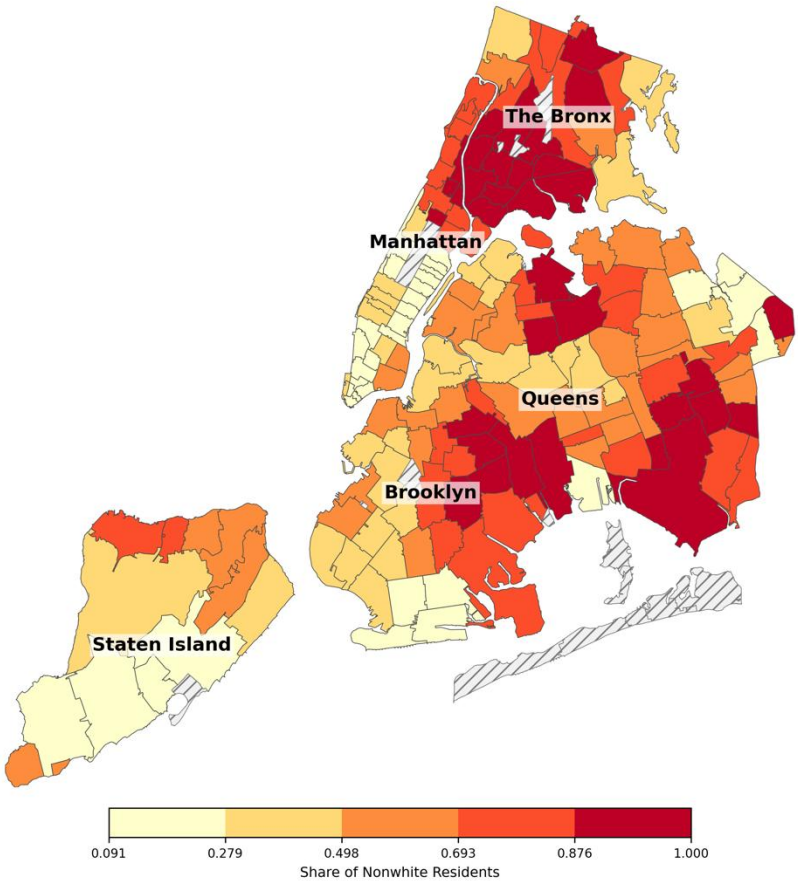


**Figure 2: Share of NonWhite Tenants by Rent Decile**
This figure shows the share of NonWhite tenants by rent decile in New York City, highlighting racial disparities across different rent levels. Data is from the 2002–2023 waves of the NYCHVS.

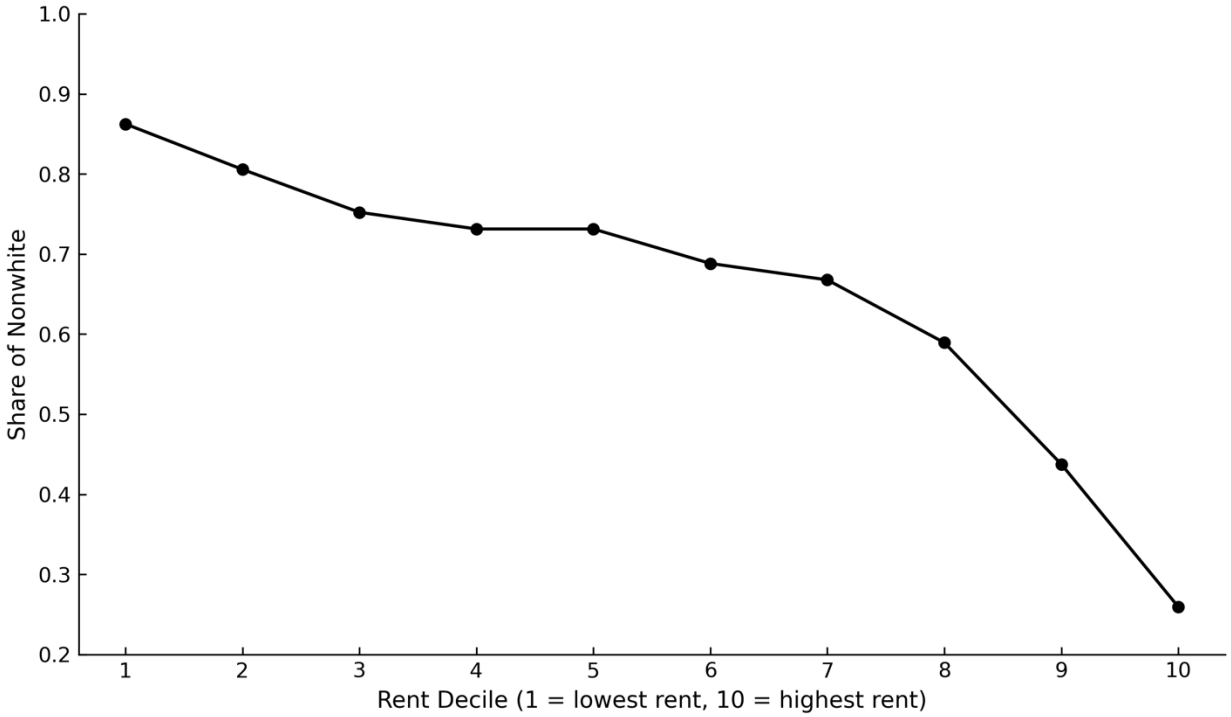
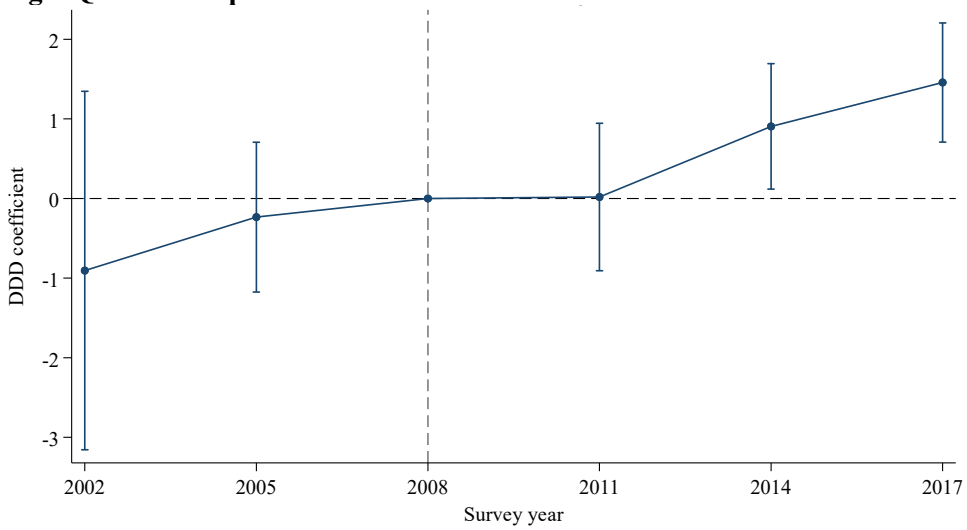


**Figure 3: Event-Study Estimates of the 421-a GEA Expansion and Racial Disparities**
This figure presents event-study estimates of the relationship between exposure to the 421-a Geographic Exclusion Area (GEA) expansion and the nonwhite–white housing-quality gap. Panel A reports estimates using the Housing Quality Index (HQI) as the outcome, and Panel B reports estimates using HQI/log(rent). The coefficients correspond to year-specific interactions between GEA exposure and the NonWhite indicator, with 2008 omitted as the reference year. The 2002 and 2005 coefficients provide evidence on differential pre-trends, while the 2011, 2014, and 2017 coefficients capture post-reform dynamics. GEA exposure is measured at the sub borough level and rescaled so that one unit corresponds to a 10-percentage-point increase in exposure. All specifications include the baseline household and housing controls, sub borough fixed effects, and year fixed effects. Standard errors are clustered at the sub borough level. Vertical bars denote 95% confidence intervals.

**Panel A: Using HQI as the Dependent Variable**




**Panel B: Using HQI/log($rent) as the Dependent Variable**

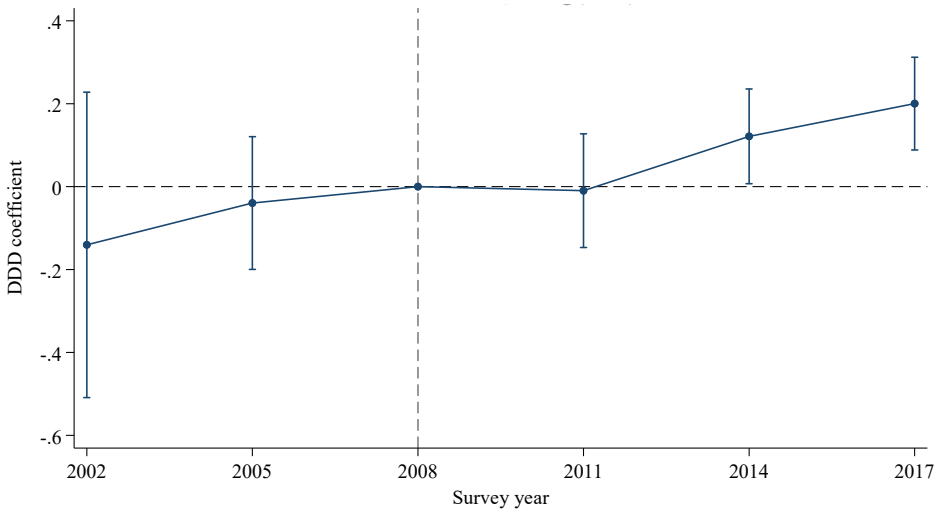
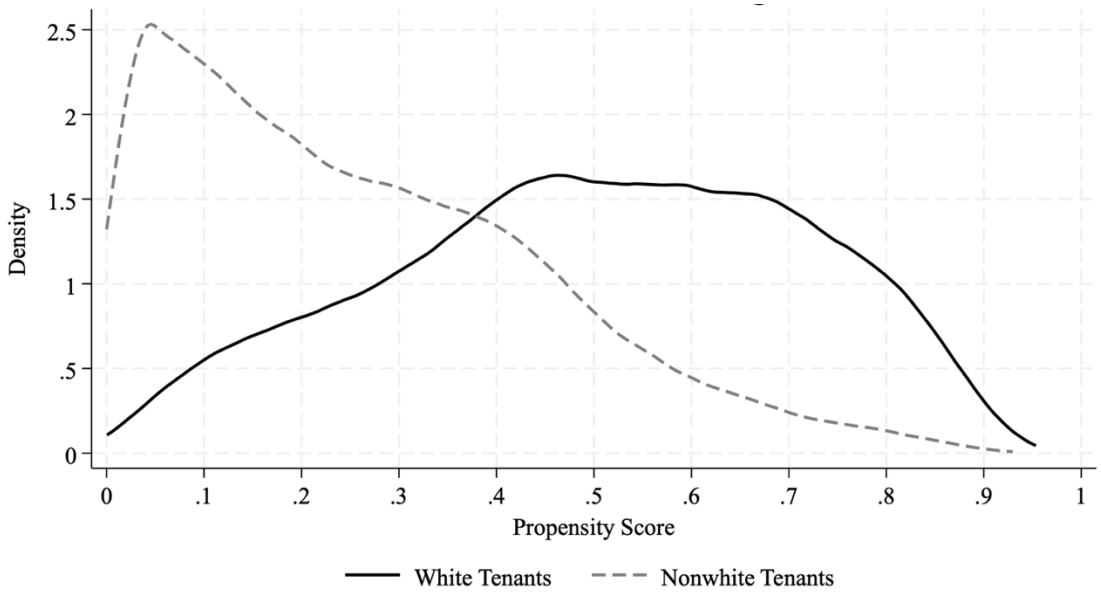


**Figure 4: Propensity Score Matching Results**

This figure plots the distribution of households' propensity scores for being white before and after matching. The treated group refers to white tenants, and the control group refers to nonwhite tenants. Propensity scores are estimated using a Probit model, controlling for a rich set of housing characteristics, household composition, and neighborhood conditions. Matching is performed using nearest-neighbor approach without replacement and restricted to the region of common support. Sample consists of the 2002–2023 waves of the NYCHVS.

**Panel A Propensity Score Distribution before Matching**




**Panel B Propensity Score Distribution after Matching**

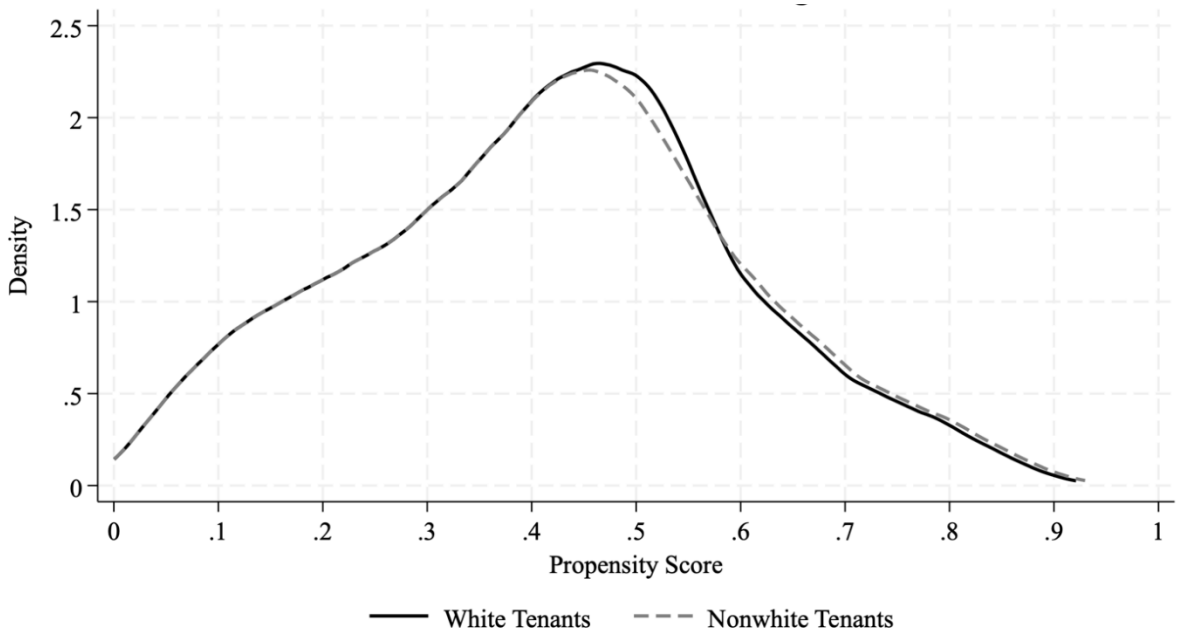
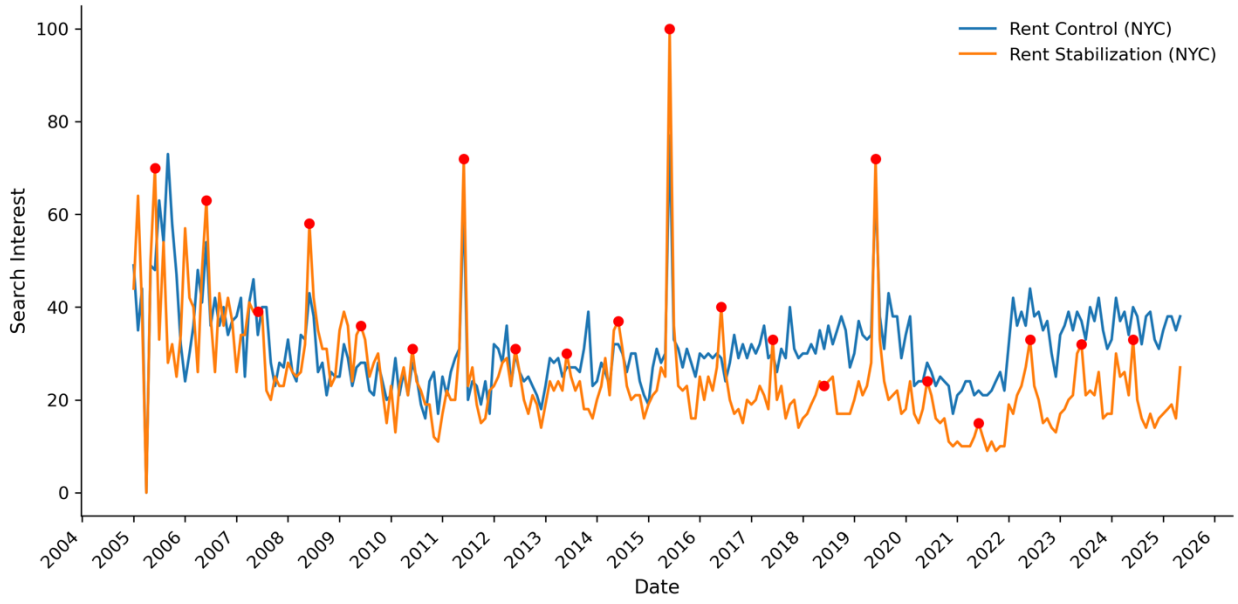


**Figure 5: Google Search Index of 'Rent Control and Rent Stabilization' in NYC (2005-present)**

This figure plots the relative search interest over time for the terms "rent control" and "rent stabilization" in New York City, using data from Google Trends. The Google Search Index is a normalized measure of search volume, where a value of 100 represents the peak popularity of a term in the specified region and time frame. All other values are scaled relative to this peak. The vertical axis indicates relative search intensity, while the horizontal axis shows time from 2005 to the present.



## Table 1: Summary Statistics

This table presents summary statistics for key variables used in our empirical analysis. Panel A reports descriptive statistics for the main variables used in the analysis. The core housing, rental, and household characteristics are drawn from the 2002-2023 NYCHVS sample. Race-transition measures use the 2002-2008 sample, Policy Awareness uses the 2002–2005 sample, Google Index uses the 2005-2023 sample, and Health uses the 2002-2017 sample. Sample sizes vary because variables are drawn from different analysis samples and are subject to variable-specific data availability. Panel B reports two-sample tests of mean differences by race. For household-level variables, Group 0 denotes white renters and Group 1 denotes nonwhite renters. For building-level maintenance and 311 variables, Group 0 denotes observations with a nonwhite share at or below the sample median, while Group 1 denotes observations with a nonwhite share above the sample median. Differences are calculated as Group 1 minus Group 0.

**Panel A: Summary Statistics at the Housing Unit Level**

| | Mean | Median | Std. | Min | 25 | 75 | Max | N |
|---|---|---|---|---|---|---|---|---|
| ***Housing Quality Measures*** | | | | | | | | |
| HQI | 84.158 | 90.000 | 19.881 | 0.000 | 77.778 | 100.000 | 100.000 | 71,700 |
| HQI/log($rent) | 12.284 | 12.848 | 3.079 | 0.000 | 10.873 | 14.276 | 20.544 | 71,700 |
| ***Housing and Rental Characteristics*** | | | | | | | | |
| RentStabilized | 0.458 | 0.000 | 0.498 | 0.000 | 0.000 | 1.000 | 1.000 | 71,700 |
| OtherRegulated | 0.083 | 0.000 | 0.276 | 0.000 | 0.000 | 0.000 | 1.000 | 71,700 |
| RentControlled | 0.018 | 0.000 | 0.133 | 0.000 | 0.000 | 0.000 | 1.000 | 71,700 |
| MarketRental | 0.351 | 0.000 | 0.477 | 0.000 | 0.000 | 1.000 | 1.000 | 71700 |
| RentAmount | 1,246.801 | 1,006.000 | 896.015 | 130.000 | 700.000 | 1,500.000 | 7,000.000 | 71,700 |
| LogRent | 6.901 | 6.914 | 0.697 | 4.868 | 6.551 | 7.313 | 8.854 | 71,700 |
| NumRooms | 3.512 | 3.000 | 1.281 | 1.000 | 3.000 | 4.000 | 8.000 | 52,041 |
| NumBedrooms | 2.627 | 3.000 | 0.930 | 1.000 | 2.000 | 3.000 | 9.000 | 52,041 |
| NumStories | 3.919 | 4.000 | 1.804 | 1.000 | 2.000 | 5.000 | 7.000 | 52,041 |
| Elevator | 1.540 | 2.000 | 0.498 | 1.000 | 1.000 | 2.000 | 2.000 | 52,041 |
| OwnerInBldg | 0.125 | 0.000 | 0.331 | 0.000 | 0.000 | 0.000 | 1.000 | 52,998 |
| Condo | 0.028 | 0.000 | 0.166 | 0.000 | 0.000 | 0.000 | 1.000 | 71,700 |
| ***Household Characteristics*** | | | | | | | | |
| FemaleHH | 0.556 | 1.000 | 0.497 | 0.000 | 0.000 | 1.000 | 1.000 | 71,700 |
| AgeHH | 46.729 | 44.000 | 16.683 | 15.000 | 33.000 | 58.000 | 90.000 | 71,700 |
| NonWhite | 0.655 | 1.000 | 0.475 | 0.000 | 0.000 | 1.000 | 1.000 | 71,700 |
| MarriedHH | 0.301 | 0.000 | 0.459 | 0.000 | 0.000 | 1.000 | 1.000 | 71,700 |
| EducationHH | 0.769 | 1.000 | 0.422 | 0.000 | 1.000 | 1.000 | 1.000 | 71,700 |
| IncomeGroup | 4.924 | 5.000 | 2.766 | 1.000 | 3.000 | 7.000 | 10.000 | 71,700 |
| NumChildren | 1.343 | 1.000 | 1.031 | 0.000 | 1.000 | 2.000 | 6.000 | 71,700 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| ***Neighborhood and Additional Variables*** | | | | | | | | |
| NWToW | 0.067 | 0.000 | 0.251 | 0.000 | 0.000 | 0.000 | 1.000 | 10,925 |
| WToNW | 0.072 | 0.000 | 0.259 | 0.000 | 0.000 | 0.000 | 1.000 | 10,925 |
| PolicyAware | 0.626 | 1.000 | 0.484 | 0.000 | 0.000 | 1.000 | 1.000 | 17,313 |
| GoogleIndex | 0.265 | 0.253 | 0.077 | 0.108 | 0.218 | 0.318 | 0.395 | 61,470 |
| Health | 4.385 | 4.000 | 1.204 | 1.000 | 4.000 | 5.000 | 6.000 | 43,348 |

**Panel B: Mean Differences by NonWhite**

| Variable | Group 0 Mean | Group 1 Mean | Difference | t-statistic | Group 0 N | Group 1 N |
|---|---|---|---|---|---|---|
| HQI | 89.209 | 81.723 | -7.486*** | -49.49 | 25,529 | 48,679 |
| RentAmount | 1619.263 | 1046.652 | -572.611*** | -86.79 | 25,529 | 48,679 |
| RentStabilized | 0.468 | 0.453 | -0.016*** | -4.08 | 25,529 | 48,679 |
| IncomeGroup | 5.946 | 4.386 | -1.559*** | -74.66 | 24,847 | 47,221 |
| EducationHH | 0.920 | 0.687 | -0.233*** | -73.74 | 25,529 | 48,679 |
| NumViolations | 1.858 | 3.827 | 1.970*** | 12.18 | 5,158 | 5,149 |
| NumClassC | 0.296 | 0.663 | 0.367*** | 12.58 | 5,158 | 5,149 |
| NumComplaintsAll | 12.213 | 18.795 | 6.582*** | 8.32 | 2,652 | 2,536 |
| NumComplaintsHsg | 6.737 | 13.025 | 6.288*** | 9.29 | 2,652 | 2,536 |
| PolicyAwareness | 0.712 | 0.581 | -0.132*** | -17.15 | 5,931 | 11,382 |

## Table 2: Baseline Results

This table presents baseline estimates of racial disparities in housing quality using data from 2002 to 2023 waves of the New York City Housing and Vacancy Survey (NYCHVS). Panel A estimates the relationship between race and housing quality based on the following equation:

$$HQI_{it} = \alpha + \beta NonWhite_{it} + \gamma Controls_{i,t} + \mu_j + \lambda_t + \varepsilon_{it}$$

where $NonWhite_{it}$ is an indicator which equals 1 if the race of the household head identifies as non-White, and 0 otherwise. The outcome variable housing quality is measured using two alternative proxies: 1) Housing Quality Index (HQI) level and 2) the logarithm of rent-adjusted quality (HQI/log($rent)), capturing relative housing quality per dollar spent. Panel B examines racial disparities in housing quality across different rent segments. Panel C analyzes racial disparities across individual components of the HQI, while Panel D reports disparities in HQI/log($rent) at the component level. To control for time trends and other unobserved time-invariant geographical characteristics, we include borough fixed effects and year fixed effects in $\mu_j$ and $\lambda_t$, respectively.

**Panel A: Racial Disparity in Housing Quality**

| | (1) | (2) |
|---|---|---|
| VARIABLES | HQI | HQI/log($rent) |
| **NonWhite** | **-3.896*** ** | **-0.634*** ** |
| | **(0.179)** | **(0.027)** |
| LogRent | 3.009*** | -1.552*** |
| | (0.147) | (0.022) |
| FemaleHH | -1.235*** | -0.178*** |
| | (0.159) | (0.024) |
| AgeHH | 0.017*** | 0.003*** |
| | (0.005) | (0.001) |
| MarriedHH | 1.186*** | 0.160*** |
| | (0.181) | (0.027) |
| EducationHH | 0.744*** | 0.077** |
| | (0.205) | (0.031) |
| NumChildren | -1.826*** | -0.275*** |
| | (0.086) | (0.013) |
| IncomeGroup | -0.018 | 0.001 |
| | (0.034) | (0.005) |
| BldgAge | -1.043*** | -0.168*** |
| | (0.035) | (0.005) |
| Condo | 1.482*** | 0.223*** |
| | (0.509) | (0.077) |
| Constant | 76.761*** | 25.094*** |
| | (1.162) | (0.177) |
| Observations | 60,594 | 60,594 |
| R-squared | 0.083 | 0.143 |
| Year FE | YES | YES |
| Borough FE | YES | YES |
| Adjusted R2 | 0.0823 | 0.142 |

**Panel B: Racial Disparity in Housing Quality within Different Rent Segments**

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| | High Rent Segment | | Low Rent Segment | |
| VARIABLES | HQI | HQI/log($rent) | HQI | HQI/log($rent) |
| **NonWhite** | **-2.951*** ** | **-0.404*** ** | **-5.576*** ** | **-0.876*** ** |
| | **(0.209)** | **(0.029)** | **(0.280)** | **(0.044)** |
| LogRent | 4.261*** | -0.987*** | 2.767*** | -1.714*** |
| | (0.320) | (0.044) | (0.236) | (0.037) |
| FemaleHH | -1.327*** | -0.183*** | -1.312*** | -0.203*** |
| | (0.190) | (0.026) | (0.229) | (0.036) |
| AgeHH | 0.017** | 0.003*** | 0.026*** | 0.005*** |
| | (0.007) | (0.001) | (0.007) | (0.001) |
| MarriedHH | 1.126*** | 0.160*** | 1.060*** | 0.167*** |
| | (0.214) | (0.029) | (0.269) | (0.043) |
| EducationHH | 1.291*** | 0.185*** | 0.631** | 0.093** |
| | (0.286) | (0.039) | (0.251) | (0.040) |
| NumChildren | -1.639*** | -0.231*** | -2.215*** | -0.351*** |
| | (0.109) | (0.015) | (0.135) | (0.021) |
| IncomeGroup | 0.052 | 0.007 | -0.040 | -0.007 |
| | (0.040) | (0.005) | (0.052) | (0.008) |
| BldgAge | -0.845*** | -0.114*** | -1.174*** | -0.190*** |
| | (0.039) | (0.005) | (0.055) | (0.009) |
| Condo | 2.122*** | 0.283*** | 3.680*** | 0.539*** |
| | (0.469) | (0.064) | (0.887) | (0.141) |
| Constant | 62.782*** | 20.076*** | 77.057*** | 25.886*** |
| | (2.475) | (0.340) | (1.674) | (0.266) |
| Observations | 35,946 | 35,946 | 35,754 | 35,754 |
| R-squared | 0.082 | 0.108 | 0.089 | 0.162 |
| Year FE | YES | YES | YES | YES |
| Borough FE | YES | YES | YES | YES |
| Adjusted R2 | 0.0812 | 0.107 | 0.0887 | 0.161 |

**Panel C: Racial Disparity in HQI Components**

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| VARIABLES | External Quality | Utility Quality | Indoor Air Quality | Pest Damage |
| **NonWhite** | **-2.639*** ** | **-2.042*** ** | **-3.027*** ** | **-13.868*** ** |
| | **(0.205)** | **(0.194)** | **(0.348)** | **(0.358)** |
| LogRent | 4.371*** | 2.346*** | 3.810*** | 4.632*** |
| | (0.164) | (0.155) | (0.276) | (0.284) |
| FemaleHH | -1.344*** | -0.718*** | -2.116*** | -1.418*** |
| | (0.181) | (0.171) | (0.305) | (0.314) |
| AgeHH | 0.039*** | 0.023*** | 0.037*** | 0.003 |
| | (0.006) | (0.006) | (0.010) | (0.010) |
| MarriedHH | 1.477*** | 0.851*** | 0.930*** | -0.907** |
| | (0.207) | (0.196) | (0.350) | (0.360) |
| EducationHH | -0.125 | 0.187 | 0.408 | 4.372*** |
| | (0.226) | (0.212) | (0.377) | (0.388) |
| NumChildren | -1.790*** | -0.820*** | -1.617*** | -4.195*** |
| | (0.105) | (0.098) | (0.173) | (0.179) |
| IncomeGroup | -0.063 | 0.143*** | -0.408*** | 0.513*** |
| | (0.039) | (0.037) | (0.067) | (0.068) |
| BldgAge | -1.053*** | -0.464*** | -1.269*** | -1.820*** |
| | (0.039) | (0.037) | (0.067) | (0.068) |
| Condo | 1.803*** | 1.882*** | 3.040*** | 5.941*** |
| | (0.529) | (0.497) | (0.902) | (0.906) |
| Constant | 66.058*** | 76.259*** | 65.470*** | 59.594*** |
| | (1.303) | (1.222) | (2.180) | (2.245) |
| Observations | 71,640 | 64,339 | 61,803 | 63,174 |
| R-squared | 0.072 | 0.038 | 0.032 | 0.114 |
| Year FE | YES | YES | YES | YES |
| Borough FE | YES | YES | YES | YES |
| Adjusted R2 | 0.0721 | 0.0381 | 0.0320 | 0.114 |

**Panel D: Racial Disparity in HQI/log($rent) Components**

| VARIABLES | (1) External Quality /log($rent) | (2) Utility Quality /log($rent) | (3) Indoor Air Quality /log($rent) | (4) Pest Damage /log($rent) |
|---|---|---|---|---|
| **NonWhite** | **-0.445*** ** | **-0.339*** ** | **-0.502*** ** | **-2.051*** ** |
| | **(0.031)** | **(0.029)** | **(0.052)** | **(0.054)** |
| LogRent | -1.315*** | -1.674*** | -1.242*** | -0.916*** |
| | (0.025) | (0.023) | (0.041) | (0.043) |
| FemaleHH | -0.191*** | -0.105*** | -0.314*** | -0.211*** |
| | (0.027) | (0.026) | (0.045) | (0.047) |
| AgeHH | 0.006*** | 0.003*** | 0.006*** | 0.001 |
| | (0.001) | (0.001) | (0.001) | (0.002) |
| MarriedHH | 0.203*** | 0.116*** | 0.124** | -0.139** |
| | (0.031) | (0.029) | (0.052) | (0.054) |
| EducationHH | -0.037 | -0.004 | 0.029 | 0.652*** |
| | (0.034) | (0.032) | (0.056) | (0.059) |
| NumChildren | -0.272*** | -0.127*** | -0.247*** | -0.623*** |
| | (0.016) | (0.015) | (0.026) | (0.027) |
| IncomeGroup | -0.006 | 0.024*** | -0.058*** | 0.071*** |
| | (0.006) | (0.006) | (0.010) | (0.010) |
| BldgAge | -0.167*** | -0.080*** | -0.197*** | -0.267*** |
| | (0.006) | (0.006) | (0.010) | (0.010) |
| Condo | 0.283*** | 0.314*** | 0.427*** | 0.801*** |
| | (0.080) | (0.074) | (0.134) | (0.137) |
| Constant | 23.236*** | 25.195*** | 22.064*** | 19.637*** |
| | (0.196) | (0.183) | (0.325) | (0.339) |
| Observations | 71,640 | 64,339 | 61,803 | 63,174 |
| R-squared | 0.121 | 0.143 | 0.044 | 0.084 |
| Year FE | YES | YES | YES | YES |
| Borough FE | YES | YES | YES | YES |
| Adjusted R2 | 0.121 | 0.143 | 0.0435 | 0.0841 |

**Table 3: Rent Stabilization and Racial Disparities in HQI**

This table examines whether rent stabilization and rent control policies moderate racial disparities in housing quality using data from 2002-2023 waves of the New York City Housing and Vacancy Survey (NYCHVS). The analysis is based on the following regression:

$$HQI_{i,t} = \alpha + \beta_1 NonWhite_{i,t} + \beta_2 RentRegulated_{i,t} + \beta_3 RentRegulated_{i,t} \times NonWhite_{i,t} + \gamma Controls_{i,t} + \mu_j + \lambda_t + \varepsilon_{i,t}$$

$NonWhite_{it}$ is an indicator which equals 1 if the race of the household head identifies as non-White, and 0 otherwise. $RentRegulated_{i,t}$ is an indicator which equals to 1 if a unit is subject to specific rent regulation policies, and 0 otherwise. Especially, $RentStabilized_{i,t}$ equals to 1 if the unit is under rent stabilization and 0 otherwise; while $RentControlled_{i,t}$ equals to 1 if the unit is under rent controlled and 0 otherwise. Panel A uses the Housing Quality Index (HQI) as the outcome variable, while Panel B uses HQI/log($rent). Both panels include models with and without interaction terms for NonWhite and rent regulation indicators. Panel C restricts identification to within-building variation by including building fixed effects, so the estimated coefficients compare households living in the same building and absorb all time-invariant building-level characteristics. To control for time trends and other unobserved time-invariant geographical characteristics, we include borough fixed effects and year fixed effects in $\mu_j$ and $\lambda_t$, respectively.

**Panel A: Using HQI as the Dependent Variable**

| VARIABLES | (1)<br>HQI | (2)<br>HQI | (3)<br>HQI | (4)<br>HQI |
|---|---|---|---|---|
| **NonWhite** | **-4.359*** ** | **-4.088*** ** | **-4.358*** ** | **-4.352*** ** |
| | **(0.868)** | **(0.820)** | **(0.842)** | **(0.814)** |
| **RentStabilized** | **-2.808* ** | **-2.440** ** | | |
| | **(1.030)** | **(0.657)** | | |
| **NonWhite * RentStabilized** | | **-0.570** | | |
| | | **(0.559)** | | |
| **RentControlled** | | | **-2.089** ** | **-1.977* ** |
| | | | **(0.497)** | **(0.738)** |
| **NonWhite * RentControlled** | | | | **-0.279** |
| | | | | **(1.920)** |
| LogRent | 3.943*** | 3.975*** | 3.745*** | 3.745*** |
| | (0.468) | (0.457) | (0.570) | (0.570) |
| FemaleHH | -1.318*** | -1.321*** | -1.306*** | -1.306*** |
| | (0.212) | (0.213) | (0.212) | (0.211) |
| AgeHH | 0.026** | 0.026** | 0.028*** | 0.028*** |
| | (0.006) | (0.006) | (0.006) | (0.006) |
| MarriedHH | 0.993 | 0.996 | 0.983 | 0.984 |
| | (0.620) | (0.619) | (0.625) | (0.627) |
| EducationHH | 0.962*** | 0.955*** | 0.879** | 0.878** |
| | (0.204) | (0.205) | (0.235) | (0.236) |
| NumChildren | -2.030*** | -2.030*** | -1.950*** | -1.950*** |
| | (0.199) | (0.198) | (0.246) | (0.246) |
| IncomeGroup | -0.004 | -0.003 | 0.018 | 0.018 |
| | (0.054) | (0.054) | (0.055) | (0.054) |
| BldgAge | -0.910*** | -0.907*** | -0.995*** | -0.995*** |
| | (0.150) | (0.153) | (0.157) | (0.158) |
| Condo | 2.591** | 2.604** | 2.688** | 2.688** |
| | (0.893) | (0.899) | (0.824) | (0.825) |
| Constant | 67.983*** | 67.579*** | 68.397*** | 68.396*** |
| | (3.538) | (3.395) | (4.089) | (4.091) |
| Observations | 71,700 | 71,700 | 71,700 | 71,700 |
| R-squared | 0.108 | 0.108 | 0.104 | 0.104 |
| Year FE | YES | YES | YES | YES |
| Borough FE | YES | YES | YES | YES |
| Adjusted R2 | 0.108 | 0.108 | 0.103 | 0.103 |

**Panel B: Using HQI/log($rent) as the Dependent Variable**

| VARIABLES | (1) HQI/log($rent) | (2) HQI/log($rent) | (3) HQI/log($rent) | (4) HQI/log($rent) |
|---|---|---|---|---|
| **NonWhite** | **-0.681*** ** | **-0.667*** ** | **-0.680*** ** | **-0.677*** ** |
| | **(0.133)** | **(0.128)** | **(0.129)** | **(0.124)** |
| **RentStabilized** | **-0.461** ** | **-0.442*** ** | | |
| | **(0.139)** | **(0.083)** | | |
| **NonWhite * RentStabilized** | | **-0.030** | | |
| | | **(0.088)** | | |
| **RentControlled** | | | **-0.298*** ** | **-0.243** * |
| | | | **(0.054)** | **(0.106)** |
| **NonWhite * RentControlled** | | | | **-0.135** |
| | | | | **(0.331)** |
| LogRent | -1.322*** | -1.320*** | -1.354*** | -1.354*** |
| | (0.097) | (0.094) | (0.113) | (0.113) |
| FemaleHH | -0.189*** | -0.190*** | -0.188*** | -0.188*** |
| | (0.031) | (0.031) | (0.031) | (0.031) |
| AgeHH | 0.004** | 0.004** | 0.005** | 0.005** |
| | (0.001) | (0.001) | (0.001) | (0.001) |
| MarriedHH | 0.134 | 0.135 | 0.133 | 0.133 |
| | (0.089) | (0.089) | (0.090) | (0.090) |
| EducationHH | 0.125** | 0.124** | 0.111** | 0.111** |
| | (0.030) | (0.030) | (0.034) | (0.034) |
| NumChildren | -0.306*** | -0.306*** | -0.293*** | -0.293*** |
| | (0.033) | (0.033) | (0.040) | (0.040) |
| IncomeGroup | 0.001 | 0.001 | 0.005 | 0.005 |
| | (0.008) | (0.008) | (0.008) | (0.008) |
| BldgAge | -0.142*** | -0.142*** | -0.156*** | -0.156*** |
| | (0.022) | (0.022) | (0.023) | (0.023) |
| Condo | 0.386** | 0.387** | 0.401** | 0.401** |
| | (0.133) | (0.133) | (0.122) | (0.122) |
| Constant | 23.120*** | 23.098*** | 23.188*** | 23.187*** |
| | (0.673) | (0.642) | (0.755) | (0.756) |
| Observations | 71,700 | 71,700 | 71,700 | 71,700 |
| R-squared | 0.160 | 0.160 | 0.154 | 0.154 |
| Year FE | YES | YES | YES | YES |
| Borough FE | YES | YES | YES | YES |
| Adjusted R2 | 0.159 | 0.159 | 0.154 | 0.154 |

**Panel C: Building Fixed Effects**

| VARIABLES | (1) HQI | (2) HQI/log($rent) | (3) HQI | (4) HQI/log($rent) |
|---|---|---|---|---|
| **NonWhite** | **-1.782*** ** | **-0.287*** ** | **-2.039*** ** | **-0.355*** ** |
| | **(0.247)** | **(0.037)** | **(0.344)** | **(0.052)** |
| **RentStabilized** | | | **-0.520** | **-0.169*** ** |
| | | | **(0.343)** | **(0.052)** |
| **NonWhite * RentStabilized** | | | **0.450** | **0.119*** |
| | | | **(0.420)** | **(0.064)** |
| LogRent | 2.385*** | -1.595*** | 2.368*** | -1.597*** |
| | (0.201) | (0.030) | (0.204) | (0.031) |
| FemaleHH | -1.069*** | -0.157*** | -1.070*** | -0.157*** |
| | (0.189) | (0.029) | (0.189) | (0.029) |
| AgeHH | -0.004 | -0.001 | -0.004 | -0.001 |
| | (0.007) | (0.001) | (0.007) | (0.001) |
| MarriedHH | 0.494** | 0.070** | 0.496** | 0.071** |
| | (0.220) | (0.033) | (0.220) | (0.033) |
| EducationHH | 0.733*** | 0.087** | 0.742*** | 0.090** |
| | (0.249) | (0.038) | (0.249) | (0.038) |
| NumChildren | -2.183*** | -0.326*** | -2.183*** | -0.327*** |
| | (0.109) | (0.017) | (0.109) | (0.017) |
| IncomeGroup | -0.055 | -0.006 | -0.056 | -0.007 |
| | (0.041) | (0.006) | (0.041) | (0.006) |
| Condo | 0.937 | 0.130 | 0.910 | 0.118 |
| | (0.668) | (0.101) | (0.669) | (0.101) |
| Constant | 72.487*** | 24.014*** | 72.884*** | 24.122*** |
| | (1.527) | (0.231) | (1.565) | (0.237) |
| Observations | 45,634 | 45,634 | 45,634 | 45,634 |
| R-squared | 0.203 | 0.231 | 0.203 | 0.231 |
| Year FE | YES | YES | YES | YES |
| Building FE | YES | YES | YES | YES |
| Adjusted R2 | 0.150 | 0.180 | 0.150 | 0.180 |

**Table 4: Heterogeneous Effects of Rent Stabilization on Racial Disparities in Housing Quality across the Rent Distribution**

This table reports heterogeneous effects of rent stabilization on racial disparities in housing quality across the rent distribution using data from 2002-2023 waves of the New York City Housing and Vacancy Survey. Panels A and B split the sample into low-rent and high-rent segments, using HQI and HQI/log(rent) as the dependent variables, respectively. Panels C and D further divide the sample into rent buckets (bottom 25 percent, bottom 50 percent, top 50 percent, and top 25 percent), again using HQI and HQI/log(rent) as dependent variables, respectively. NonWhite is an indicator for nonwhite tenants, and RentStabilized is an indicator for rent-stabilized units. The coefficient on the interaction term NonWhite × RentStabilized captures whether the association between rent stabilization and housing quality differs for nonwhite tenants relative to white tenants. To control for time trends and other unobserved time-invariant geographical characteristics, we include borough fixed effects and year fixed effects in $\mu_i$ and $\lambda_t$, respectively.

**Panel A: Rent Stabilization and Racial Disparities among Rent Segments：Using HQI as Dependent Variable**

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| | High Rent Segment | | Low Rent Segment | |
| VARIABLES | HQI | HQI | HQI | HQI |
| **NonWhite** | **-3.109*** ** | **-2.107*** ** | **-5.715*** ** | **-6.695*** ** |
| | **(0.208)** | **(0.266)** | **(0.280)** | **(0.387)** |
| **RentStabilized** | **-3.282*** ** | **-2.056*** ** | **-2.404*** ** | **-3.856*** ** |
| | **(0.195)** | **(0.282)** | **(0.237)** | **(0.463)** |
| **NonWhite * RentStabilized** | | **-2.232*** ** | | **1.903*** ** |
| | | **(0.370)** | | **(0.521)** |
| LogRent | 2.656*** | 2.860*** | 3.571*** | 3.518*** |
| | (0.333) | (0.334) | (0.249) | (0.249) |
| FemaleHH | -1.326*** | -1.339*** | -1.315*** | -1.306*** |
| | (0.190) | (0.189) | (0.228) | (0.228) |
| AgeHH | 0.016** | 0.014** | 0.027*** | 0.027*** |
| | (0.007) | (0.007) | (0.007) | (0.007) |
| MarriedHH | 1.111*** | 1.125*** | 1.007*** | 0.991*** |
| | (0.213) | (0.213) | (0.269) | (0.269) |
| EducationHH | 1.340*** | 1.300*** | 0.630** | 0.638** |
| | (0.284) | (0.284) | (0.250) | (0.250) |
| NumChildren | -1.725*** | -1.729*** | -2.254*** | -2.259*** |
| | (0.109) | (0.109) | (0.135) | (0.135) |
| IncomeGroup | 0.046 | 0.045 | -0.042 | -0.044 |
| | (0.040) | (0.040) | (0.052) | (0.052) |
| BldgAge | -0.830*** | -0.819*** | -1.070*** | -1.079*** |
| | (0.039) | (0.039) | (0.056) | (0.056) |
| Condo | 2.059*** | 2.086*** | 3.834*** | 3.797*** |
| | (0.467) | (0.467) | (0.886) | (0.885) |
| Constant | 76.244*** | 74.228*** | 72.481*** | 73.648*** |
| | (2.592) | (2.612) | (1.732) | (1.760) |
| Observations | 35,946 | 35,946 | 35,754 | 35,754 |
| R-squared | 0.089 | 0.090 | 0.092 | 0.092 |

| | | | | |
|---|---|---|---|---|
| Year FE | YES | YES | YES | YES |
| Borough FE | YES | YES | YES | YES |
| Adjusted R2 | 0.0883 | 0.0892 | 0.0913 | 0.0916 |

**Panel B: Rent Stabilization and Racial Disparities among Rent Segments：Using HQI/log($rent) as Dependent Variable**

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| | High Rent Segment | | Low Rent Segment | |
| VARIABLES | HQI/log($rent) | HQI/log($rent) | HQI/log($rent) | HQI/log($rent) |
| **NonWhite** | **-0.426*** ** | **-0.286*** ** | **-0.895*** ** | **-1.087*** ** |
| | **(0.029)** | **(0.037)** | **(0.044)** | **(0.062)** |
| **RentStabilized** | **-0.461*** ** | **-0.289*** ** | **-0.325*** ** | **-0.611*** ** |
| | **(0.027)** | **(0.039)** | **(0.038)** | **(0.073)** |
| **NonWhite * RentStabilized** | | **-0.312*** ** | | **0.374*** ** |
| | | **(0.051)** | | **(0.083)** |
| LogRent | -1.212*** | -1.184*** | -1.606*** | -1.616*** |
| | (0.046) | (0.046) | (0.039) | (0.040) |
| FemaleHH | -0.183*** | -0.184*** | -0.204*** | -0.202*** |
| | (0.026) | (0.026) | (0.036) | (0.036) |
| AgeHH | 0.002*** | 0.002** | 0.005*** | 0.005*** |
| | (0.001) | (0.001) | (0.001) | (0.001) |
| MarriedHH | 0.158*** | 0.160*** | 0.160*** | 0.157*** |
| | (0.029) | (0.029) | (0.043) | (0.043) |
| EducationHH | 0.192*** | 0.186*** | 0.093** | 0.095** |
| | (0.039) | (0.039) | (0.040) | (0.040) |
| NumChildren | -0.243*** | -0.243*** | -0.356*** | -0.357*** |
| | (0.015) | (0.015) | (0.021) | (0.021) |
| IncomeGroup | 0.006 | 0.006 | -0.008 | -0.008 |
| | (0.005) | (0.005) | (0.008) | (0.008) |
| BldgAge | -0.112*** | -0.110*** | -0.175*** | -0.177*** |
| | (0.005) | (0.005) | (0.009) | (0.009) |
| Condo | 0.274*** | 0.278*** | 0.559*** | 0.552*** |
| | (0.064) | (0.064) | (0.141) | (0.141) |
| Constant | 21.966*** | 21.684*** | 25.267*** | 25.497*** |
| | (0.356) | (0.359) | (0.275) | (0.280) |
| Observations | 35,946 | 35,946 | 35,754 | 35,754 |
| R-squared | 0.115 | 0.116 | 0.163 | 0.164 |
| Year FE | YES | YES | YES | YES |
| Borough FE | YES | YES | YES | YES |
| Adjusted R2 | 0.114 | 0.115 | 0.163 | 0.163 |

**Panel C: Rent Stabilization and Racial Disparities among Rent Buckets：Using HQI as Dependent Variable**

| VARIABLES | (1)<br>Bottom 25% | (2)<br>Bottom 50% | (3)<br>Top 50% | (4)<br>Top 25% |
|---|---|---|---|---|
| **NonWhite** | **-7.656*** ** | **-6.695*** ** | **-2.107*** ** | **-2.017*** ** |
| | **(0.562)** | **(0.387)** | **(0.266)** | **(0.328)** |
| **RentStabilized** | **-2.998*** ** | **-3.856*** ** | **-2.056*** ** | **-1.456*** ** |
| | **(0.766)** | **(0.463)** | **(0.282)** | **(0.339)** |
| **NonWhite * RentStabilized** | **4.217*** ** | **1.903*** ** | **-2.232*** ** | **-1.021** ** |
| | **(0.845)** | **(0.521)** | **(0.370)** | **(0.516)** |
| LogRent | 2.255*** | 3.518*** | 2.860*** | 2.431*** |
| | (0.377) | (0.249) | (0.334) | (0.468) |
| FemaleHH | -1.398*** | -1.306*** | -1.339*** | -1.191*** |
| | (0.341) | (0.228) | (0.189) | (0.246) |
| AgeHH | 0.051*** | 0.027*** | 0.014** | 0.013 |
| | (0.010) | (0.007) | (0.007) | (0.009) |
| MarriedHH | 1.211*** | 0.991*** | 1.125*** | 1.310*** |
| | (0.421) | (0.269) | (0.213) | (0.286) |
| EducationHH | 0.298 | 0.638** | 1.300*** | 1.382*** |
| | (0.351) | (0.250) | (0.284) | (0.450) |
| NumChildren | -2.382*** | -2.259*** | -1.729*** | -1.380*** |
| | (0.198) | (0.135) | (0.109) | (0.150) |
| IncomeGroup | -0.061 | -0.044 | 0.045 | -0.024 |
| | (0.082) | (0.052) | (0.040) | (0.051) |
| BldgAge | -1.256*** | -1.079*** | -0.819*** | -0.795*** |
| | (0.080) | (0.056) | (0.039) | (0.046) |
| Condo | 2.615* | 3.797*** | 2.086*** | 1.671*** |
| | (1.476) | (0.885) | (0.467) | (0.525) |
| Constant | 81.002*** | 73.648*** | 74.228*** | 76.923*** |
| | (2.496) | (1.760) | (2.612) | (3.722) |
| Observations | 17,850 | 35,754 | 35,946 | 17,985 |
| R-squared | 0.088 | 0.092 | 0.090 | 0.069 |
| Year FE | YES | YES | YES | YES |
| Boro FE | YES | YES | YES | YES |
| Adjusted R2 | 0.0871 | 0.0916 | 0.0892 | 0.0679 |

**Panel D: Rent Stabilization and Racial Disparities among Rent Buckets：Using HQI/log($rent) as Dependent Variable**

| VARIABLES | (1)<br>Bottom 25% | (2)<br>Bottom 50% | (3)<br>Top 50% | (3)<br>Top 25% |
|---|---|---|---|---|
| **NonWhite** | **-1.299*** ** | **-1.087*** ** | **-0.286*** ** | **-0.262*** ** |
| | **(0.094)** | **(0.062)** | **(0.037)** | **(0.043)** |
| **RentStabilized** | **-0.510*** ** | **-0.611*** ** | **-0.289*** ** | **-0.192*** ** |
| | **(0.129)** | **(0.073)** | **(0.039)** | **(0.045)** |
| **NonWhite * RentStabilized** | **0.788*** ** | **0.374*** ** | **-0.312*** ** | **-0.144** ** |
| | **(0.142)** | **(0.083)** | **(0.051)** | **(0.068)** |
| LogRent | -1.952*** | -1.616*** | -1.184*** | -1.180*** |
| | (0.063) | (0.040) | (0.046) | (0.062) |
| FemaleHH | -0.227*** | -0.202*** | -0.184*** | -0.157*** |
| | (0.057) | (0.036) | (0.026) | (0.033) |
| AgeHH | 0.009*** | 0.005*** | 0.002** | 0.002* |
| | (0.002) | (0.001) | (0.001) | (0.001) |
| MarriedHH | 0.195*** | 0.157*** | 0.160*** | 0.180*** |
| | (0.071) | (0.043) | (0.029) | (0.038) |
| EducationHH | 0.056 | 0.095** | 0.186*** | 0.184*** |
| | (0.059) | (0.040) | (0.039) | (0.060) |
| NumChildren | -0.398*** | -0.357*** | -0.243*** | -0.187*** |
| | (0.033) | (0.021) | (0.015) | (0.020) |
| IncomeGroup | -0.010 | -0.008 | 0.006 | -0.004 |
| | (0.014) | (0.008) | (0.005) | (0.007) |
| BldgAge | -0.219*** | -0.177*** | -0.110*** | -0.103*** |
| | (0.013) | (0.009) | (0.005) | (0.006) |
| Condo | 0.412* | 0.552*** | 0.278*** | 0.213*** |
| | (0.248) | (0.141) | (0.064) | (0.069) |
| Constant | 27.565*** | 25.497*** | 21.684*** | 21.532*** |
| | (0.419) | (0.280) | (0.359) | (0.492) |
| Observations | 17,850 | 35,754 | 35,946 | 17,985 |
| R-squared | 0.163 | 0.164 | 0.116 | 0.100 |
| Year FE | YES | YES | YES | YES |
| Boro FE | YES | YES | YES | YES |
| Adjusted R2 | 0.162 | 0.163 | 0.115 | 0.0990 |

**Table 5: DDD Analysis: GEA Exposure, Racial Disparities, and Housing Quality**

This table examines the relationship between exposure to the 421-a Geographic Exclusion Area (GEA) reform and racial disparities in housing quality.

Panel A reports a difference-in-differences-in-differences specification using variation in exposure to the 421-a Geographic Exclusion Area (GEA) expansion. GEA exposure is measured at the PUMA level as the share of buildings exposed to the post-2008 GEA expansion, scaled in ten-percentage-point units. The post indicator equals one for survey years after 2008. The coefficient on the triple interaction captures whether the post-2008 GEA expansion differentially affected housing quality for nonwhite tenants in more highly exposed areas. All specifications control for rent, household demographics, income, children, building age, and condominium status. Year and sub borough fixed effects are included, and standard errors are clustered at the sub borough level. Panel B presents an event-study specification using 2008 as the omitted base year. The reported coefficients are the interactions between year-specific GEA exposure and the nonwhite indicator. The coefficients for 2002 and 2005 provide pre-period comparisons, while the coefficients for 2011, 2014, and 2017 capture post-expansion differences. Both panels use the 2002-2017 NYCHVS sample.

**Panel A: Difference-in-Differences-in-Differences**

| VARIABLES | (1)<br>HQI | (2)<br>HQI/log($rent) |
|---|---|---|
| **GEA * Post * NonWhite** | **1.136*** ** | **0.158** ** |
| | **(0.354)** | **(0.060)** |
| GEA * NonWhite | -0.454** | -0.068* |
| | (0.213) | (0.037) |
| Post * NonWhite | -1.351*** | -0.242*** |
| | (0.493) | (0.078) |
| GEA * Post | -1.000*** | -0.141*** |
| | (0.156) | (0.027) |
| NonWhite | -1.523*** | -0.234*** |
| | (0.396) | (0.063) |
| LogRent | 2.810*** | -1.558*** |
| | (0.236) | (0.044) |
| FemaleHH | -1.085*** | -0.156*** |
| | (0.181) | (0.027) |
| AgeHH | 0.015** | 0.003** |
| | (0.007) | (0.001) |
| MarriedHH | 0.838*** | 0.115*** |
| | (0.256) | (0.039) |
| EducationHH | 1.000*** | 0.123*** |
| | (0.297) | (0.045) |
| NumChildren | -1.889*** | -0.282*** |
| | (0.134) | (0.021) |
| IncomeGroup | -0.027 | -0.002 |
| | (0.041) | (0.006) |
| BldgAge | -0.927*** | -0.148*** |
| | (0.072) | (0.011) |

| | | |
|---|---|---|
| Condo | 1.172** | 0.168** |
| | (0.543) | (0.080) |
| Constant | 75.126*** | 24.637*** |
| | (1.814) | (0.313) |
| Observations | 59,911 | 59,911 |
| R-squared | 0.112 | 0.158 |
| Subborough FE | YES | YES |
| Year FE | YES | YES |
| Clustered SE | SubBorough | SubBorough |
| Adjusted R2 | 0.111 | 0.157 |

**Panel B: Event Study**

| | (1) | (2) |
|---|---|---|
| VARIABLES | HQI | HQI/log(rent) |
| Year 2002 | -0.906 | -0.140 |
| | (1.149) | (0.188) |
| Year 2005 | -0.234 | -0.040 |
| | (0.480) | (0.082) |
| Year 2011 | 0.018 | -0.010 |
| | (0.473) | (0.070) |
| Year 2014 | 0.905** | 0.121** |
| | (0.402) | (0.058) |
| Year 2017 | 1.457*** | 0.200*** |
| | (0.382) | (0.057) |
| Constant | 75.051*** | 24.624*** |
| | (1.817) | (0.314) |
| Observations | 59,911 | 59,911 |
| R-squared | 0.113 | 0.158 |
| Base Year | 2008 | 2008 |
| SubBorough FE | YES | YES |
| Year FE | YES | YES |
| Clustered SE | SubBorough | SubBorough |
| Adjusted R2 | 0.111 | 0.157 |
| Pre-trend P-value | 0.724 | 0.750 |

**Table 6: Robustness Analysis: Change of Mayor**

This table presents triple-difference estimates of changes in racial disparities in housing quality following the 2014 mayoral transition. We examine whether the post-2014 change in the housing-quality gap between nonwhite and white households differed between rent-stabilized and non-rent-stabilized rental units. We estimate:

$$
\begin{aligned}
HQI/\log(\$Rent)_{i,t} &= \alpha + \beta_1 MayorChange_{i,t} \times NonWhite_{i,t} \times RentStabilized_{i,t} \\
&+ \beta_2 MayorChange_{i,t} \times NonWhite_{i,t} \\
&+ \beta_3 MayorChange_{i,t} \times RentStabilized_{i,t} \\
&+ \beta_4 NonWhite_{i,t} \times RentStabilized_{i,t} + \beta_5 NonWhite_{i,t} \\
&+ \beta_6 RentStabilized_{i,t} + \gamma Controls_{i,t} + \mu_j + \lambda_t + \varepsilon_{i,t}
\end{aligned}
$$

$\text{MayorChange}_{i,t}$ is an indicator equal to 1 for years 2014 and onward, marking the transition from Mayor Michael Bloomberg (2002–2013) to Mayor Bill de Blasio (2014–2021), who prioritized affordable housing, tenant protections, and racial equity; it equals 0 otherwise. The coefficient on the triple interaction, $\beta_1$ is the key DDD estimate: it captures the additional post-2014 change in the nonwhite–white housing-quality gap among rent-stabilized units, relative to the corresponding change among non-rent-stabilized units. Columns (1) and (2) use HQI divided by log rent as the outcome variable. Column (1) reports estimates using the full 2002–2023 sample. Column (2) provides a robustness specification restricted to the 2002–2017 sample, so that the post-reform period is limited to the 2014–2017 waves and excludes the 2019 Housing Stability and Tenant Protection Act (HSTPA) as well as the COVID-19 period.

| VARIABLES | (1)<br>2002-2023<br>HQI/log($rent) | (2)<br>2002-2017<br>HQI/log($rent) |
|---|---|---|
| **MayorChange * NonWhite * RentStabilized** | 0.343*** | 0.172* |
| | (0.091) | (0.097) |
| MayorChange * NonWhite | -0.350*** | -0.215** |
| | (0.061) | (0.096) |
| MayorChange * RentStabilized | -0.030 | 0.081 |
| | (0.074) | (0.081) |
| NonWhite * RentStabilized | -0.178*** | -0.039 |
| | (0.058) | (0.094) |
| NonWhite | -0.519*** | -0.306*** |
| | (0.042) | (0.065) |
| RentStabilized | -0.427*** | -0.457*** |
| | (0.047) | (0.066) |
| LogRent | -1.322*** | -1.541*** |
| | (0.020) | (0.045) |
| FemaleHH | -0.189*** | -0.155*** |
| | (0.022) | (0.027) |
| AgeHH | 0.004*** | 0.003** |
| | (0.001) | (0.001) |
| MarriedHH | 0.135*** | 0.112*** |
| | (0.025) | (0.037) |
| EducationHH | 0.125*** | 0.135*** |
| | (0.028) | (0.044) |
| NumChildren | -0.309*** | -0.288*** |
| | (0.013) | (0.021) |
| IncomeGroup | 0.002 | -0.005 |
| | (0.005) | (0.006) |
| BldgAge | -0.142*** | -0.134*** |
| | (0.005) | (0.011) |
| Condo | 0.382*** | 0.155* |
| | (0.065) | (0.085) |
| Constant | 23.115*** | 24.641*** |
| | (0.163) | (0.302) |
| Observations | 71,700 | 60,594 |
| R-squared | 0.160 | 0.163 |
| Year FE | YES | YES |
| Geographic FE | Borough | SubBorough |
| Clustered SE | NO | SubBorough |
| Adjusted R2 | 0.160 | 0.162 |

**Table 7: Propensity Score Matching Results**

This table reports results from a matched sample constructed using propensity score matching (PSM) to assess racial disparities in housing outcomes. White tenants are designated as the treatment group and are matched one-to-one to observationally similar nonwhite tenants using nearest-neighbor matching without replacement, a caliper of 0.01, and common-support restrictions. Column (1) reports the propensity-score model, estimated using a Probit specification in which the dependent variable equals one if the household head is white. Columns (2) and (3) report racial differences in housing outcomes in the matched sample, using *HQI* and *HQI/log($rent)* as dependent variables, respectively. Panels B and C report covariate balance before and after matching.

**Panel A: Propensity Score Matching Results**

| | (1) | (2) | (3) |
|---|---|---|---|
| | First Stage | Second Stage | |
| VARIABLES | Probit: P(White) | HQI | HQI/log($rent) |
| **White** | | **1.447*** ** | **0.248*** ** |
| | | **(0.197)** | **(0.031)** |
| LogRent | 0.655*** | | |
| | (0.011) | | |
| NumRooms | 0.089*** | | |
| | (0.010) | | |
| NumBedrooms | -0.266*** | | |
| | (0.015) | | |
| BldgCond | -0.329*** | | |
| | (0.009) | | |
| NbrhoodCond | 0.325*** | | |
| | (0.027) | | |
| NumChildren | -0.249*** | | |
| | (0.008) | | |
| MarriedHH | 0.080*** | | |
| | (0.015) | | |
| Constant | -4.503*** | 86.109*** | 12.463*** |
| | (0.095) | (0.139) | (0.022) |
| Observations | 52,041 | 25,592 | 25,592 |
| R-squared | | 0.024 | 0.045 |
| Year FE | YES | YES | YES |
| Borough FE | YES | YES | YES |

**Panel B: Balance Test Result (Before Matching)**

| | Mean (Treat Group) | Mean (Control Group) | %Bias | t-stat | p-value |
|---|---|---|---|---|---|
| LogRent | 7.120 | 6.678 | 67.7 | 73.40 | 0.000 |
| NumRooms | 3.313 | 3.615 | -23.4 | -25.72 | 0.000 |
| NumBedrooms | 2.438 | 2.724 | -31.3 | -33.67 | 0.000 |
| BldgCond | 1.887 | 2.330 | -61.4 | -65.23 | 0.000 |
| NbrhoodCond | 1.957 | 1.912 | 18.2 | 18.70 | 0.000 |
| NumChildren | 1.297 | 1.720 | -44.9 | -46.47 | 0.000 |
| MarriedHH | 0.300 | 0.300 | 0.1 | 0.10 | 0.920 |

**Panel C: Balance Test Result (After matching)**

| | Mean (Treat Group) | Mean (Control Group) | %Bias | t-stat | p-value |
|---|---|---|---|---|---|
| LogRent | 6.943 | 6.944 | -0.1 | -0.13 | 0.897 |
| NumRooms | 3.420 | 3.407 | 1.1 | 0.84 | 0.401 |
| NumBedrooms | 2.525 | 2.513 | 1.3 | 1.08 | 0.280 |
| BldgCond | 2.035 | 2.016 | 2.7 | 2.29 | 0.022 |
| NbrhoodCond | 1.946 | 1.950 | -1.6 | -1.44 | 0.151 |
| NumChildren | 1.372 | 1.374 | -0.2 | -0.17 | 0.867 |
| MarriedHH | 0.317 | 0.308 | 1.9 | 1.52 | 0.127 |

**Table 8: Tenants' Policy Awareness**

This table explores whether differences in awareness of rent stabilization policies contribute to racial disparities in housing outcomes. Panel A examines racial gaps in policy awareness, defined as correctly identifying one's rent regulation status. We estimate the following linear probability model:

$$PolicyAware_{i,t} = \alpha + \beta_1 NonWhite_{i,t} + \gamma Controls_{i,t} + \mu_j + \lambda_t + \varepsilon_{i,t}$$

where $PolicyAware_{i,t}$ is an indicator for correct self-identification of rent stabilization status, based on a comparison between self-reported and administratively verified rent regulation status available in the 2002 and 2005 waves of the NYCHVS. This specification is estimated separately for rent-stabilized units (Columns 1-2) and for the full sample of rental units, including both regulated and unregulated units (Columns 3-4). Panel B tests whether policy awareness moderates the relationship between race and housing quality (HQI). Panel C uses the Google Search Index for "Rent Stabilization" as a proxy for tenant engagement, and tests whether informational intensity mitigates racial disparities in housing quality. Sample consists of 2005-2023 waves of the NYCHVS as Google Search Index data—used in the analysis—are only available from 2004 onward. We estimate the following model:

$$HQI_{i,t} = \alpha + \beta_1 GoogleIndex_t \times NonWhite_{i,t} + \beta_2 NonWhite_{i,t} + \gamma Controls_{i,t} + \varepsilon_{i,t}$$

where *GoogleIndex* measures public search interest in rent stabilization All regressions include demographic and housing controls, as well as year and geographic fixed effects.

**Panel A: Racial Disparities in Policy Awareness among Renters**

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| VARIABLES | PolicyAware | PolicyAware | PolicyAware | PolicyAware |
| **NonWhite** | **-19.523*** ** | **-16.856*** ** | **-7.559*** ** | **-7.922*** ** |
| | **(2.140)** | **(2.067)** | **(1.912)** | **(1.917)** |
| LogRent | | -3.236 | | -4.818*** |
| | | (2.180) | | (1.447) |
| FemaleHH | | 2.478** | | 0.542 |
| | | (0.985) | | (0.923) |
| AgeHH | | 0.278*** | | 0.182*** |
| | | (0.048) | | (0.032) |
| MarriedHH | | -1.579 | | 0.068 |
| | | (1.178) | | (0.849) |
| EducationHH | | 5.482*** | | 0.263 |
| | | (1.504) | | (1.094) |
| NumChildren | | -1.189* | | 1.063** |
| | | (0.621) | | (0.463) |
| IncomeGroup | | 1.592*** | | 1.258*** |
| | | (0.218) | | (0.191) |
| BldgAge | | 0.776* | | -1.554*** |
| | | (0.445) | | (0.564) |
| Condo | | -2.072 | | -3.730 |
| | | (3.251) | | (5.621) |
| Constant | 45.921*** | 37.049** | 67.656*** | 92.021*** |
| | (1.364) | (15.322) | (1.257) | (11.143) |

| | | | | |
|---|---|---|---|---|
| Observations | 8,154 | 8,154 | 16,766 | 16,766 |
| R-squared | 0.167 | 0.183 | 0.095 | 0.106 |
| Year FE | YES | YES | YES | YES |
| SubBorough FE | YES | YES | YES | YES |
| Adjusted R2 | 0.161 | 0.176 | 0.0916 | 0.102 |

**Panel B: Racial Disparities in Policy Awareness and Housing Quality Index**

| | (1) | (2) |
|---|---|---|
| VARIABLES | HQI | HQI/log($rent) |
| **NonWhite *PolicyAware** | **1.595*** | **0.260**** |
| | **(0.807)** | **(0.128)** |
| PolicyAware | 0.535 | 0.095 |
| | (0.618) | (0.096) |
| NonWhite | -2.591*** | -0.443*** |
| | (0.611) | (0.094) |
| LogRent | 2.483*** | -1.723*** |
| | (0.381) | (0.071) |
| FemaleHH | -0.672** | -0.104** |
| | (0.312) | (0.048) |
| AgeHH | 0.049*** | 0.007*** |
| | (0.011) | (0.002) |
| MarriedHH | 0.708 | 0.087 |
| | (0.433) | (0.068) |
| EducationHH | 1.178*** | 0.138** |
| | (0.409) | (0.067) |
| NumChildren | -1.594*** | -0.245*** |
| | (0.201) | (0.031) |
| IncomeGroup | -0.133* | -0.020* |
| | (0.073) | (0.011) |
| BldgAge | -1.141*** | -0.193*** |
| | (0.147) | (0.024) |
| Condo | 0.946 | 0.128 |
| | (0.871) | (0.131) |
| Constant | 74.896*** | 25.456*** |
| | (2.334) | (0.421) |
| Observations | 16,766 | 16,766 |
| R-squared | 0.135 | 0.203 |
| Year FE | YES | YES |
| Borough FE | YES | YES |
| Adjusted R2 | 0.131 | 0.200 |

**Panel C: Google Search Index and Housing Quality**

| VARIABLES | (1)<br>HQI | (2)<br>HQI/log(rent) |
|---|---|---|
| **NonWhite** | **-8.239*** ** | **-0.778*** ** |
| | **(0.784)** | **(0.125)** |
| **GoogleIndex* NonWhite** | **10.937** ** | **1.919*** ** |
| | **(3.309)** | **(0.459)** |
| FemaleHH | -1.513*** | -0.164*** |
| | (0.213) | (0.028) |
| AgeHH | -0.012 | 0.016*** |
| | (0.007) | (0.002) |
| MarriedHH | 1.107*** | 0.052 |
| | (0.295) | (0.039) |
| EducationHH | 1.128** | -0.028 |
| | (0.343) | (0.046) |
| NumChildren | -1.907*** | -0.313*** |
| | (0.121) | (0.014) |
| IncomeGroup | 0.325*** | -0.096*** |
| | (0.074) | (0.012) |
| BldgAge | -1.025*** | -0.129*** |
| | (0.081) | (0.016) |
| Condo | 3.563*** | 0.108 |
| | (0.799) | (0.110) |
| Constant | 95.141*** | 13.400*** |
| | (0.899) | (0.121) |
| Observations | 61,470 | 61,470 |
| R-squared | 0.095 | 0.098 |
| Controls | YES | YES |
| Year FE | YES | YES |
| Borough FE | YES | YES |
| GoogleIndex main effect | Absorbed | Absorbed |
| Clustered SE | Survey year | Survey year |
| Adjusted R2 | 0.0950 | 0.0974 |

**Table 9: Landlords' Selective Neglect**

This table examines racial disparities in property maintenance outcomes across rental buildings in New York City. The analysis tests whether nonwhite tenants, especially those in rent-stabilized units, are more likely to experience neglect, as proxied by administrative indicators of disrepair, based on the following equation:

$$Outcome_{i,t} = \alpha + \beta_1 NonWhite_{i,t} + \beta_2 RentStabilized_{i,t} + \beta_3 RentStabilized_{i,t} \times NonWhite_{i,t} + \gamma Controls_{i,t} + \mu_j + \lambda_t + \varepsilon_{i,t}$$

Panel A reports regression results using building-level violations from the 2002-2017 NYC Housing Maintenance Code (HMC) dataset. The outcome variables are the natural logarithm of total violations (Columns 1-2) and hazardous Class C violations (Columns 3-4), which capture severe maintenance issues affecting tenant safety and habitability. Panel B investigates disparities in tenant-initiated service complaints across racial groups, based on data from the 2011-2017 NYC 311 Service Request dataset, as the records in earlier waves lack valid BBL required for building-level matching. The outcome variables are the natural logarithm of total complaints (Columns 1-2) and housing-specific complaints (Columns 3-4). Housing complaints are classified using the responsible agency field, focusing on those directed to the Department of Buildings (DOB) and the Department of Housing Preservation and Development (HPD). The unit of observation in all regressions is the building-year. To control for time trends and other unobserved time-invariant geographical characteristics, we include sub borough fixed effects and year fixed effects in $\mu_j$ and $\lambda_t$, respectively. Panel C splits all the 311 complaints by complaint types to examine selective neglect across both building-level facilities (e.g., elevators, facades) and unit-level facilities (e.g., electrical wiring, plumbing). Columns (1)-(4) show the natural logarithm of the number of complaints related to elevators, facades, electrical and plumbing, respectively.

**Panel A: Selective Neglect of Violations**

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| VARIABLES | Log (1+NumViolations) | | Log (1+NumClassC) | |
| **NonWhite* RentStabilized** | | **0.140*** ** | | **0.094*** ** |
| | | **(0.047)** | | **(0.026)** |
| RentStabilized | | 0.087** | | 0.018 |
| | | (0.037) | | (0.017) |
| NonWhite | 0.058** | -0.003 | 0.024* | -0.019 |
| | (0.026) | (0.032) | (0.014) | (0.017) |
| HQI | -0.001* | -0.001 | -0.000 | -0.000 |
| | (0.001) | (0.001) | (0.000) | (0.000) |
| LogRent | 0.038 | 0.011 | 0.021** | 0.007 |
| | (0.023) | (0.019) | (0.009) | (0.008) |
| NumUnits | 0.133*** | 0.109*** | 0.053*** | 0.042*** |
| | (0.008) | (0.008) | (0.005) | (0.004) |
| NumStories | 0.038** | 0.041** | 0.014* | 0.015** |
| | (0.016) | (0.016) | (0.007) | (0.007) |
| Elevator | 0.143*** | 0.088** | 0.093*** | 0.067*** |
| | (0.039) | (0.040) | (0.020) | (0.020) |
| BldgAge | 0.074*** | 0.068*** | 0.032*** | 0.029*** |
| | (0.005) | (0.005) | (0.003) | (0.003) |
| Condo | -0.134** | -0.106* | -0.028 | -0.017 |
| | (0.055) | (0.054) | (0.023) | (0.022) |
| Constant | -1.542*** | -1.097*** | -0.788*** | -0.561*** |
| | (0.257) | (0.227) | (0.135) | (0.114) |

| | | | | |
|---|---|---|---|---|
| Observations | 10,307 | 10,307 | 10,307 | 10,307 |
| R-squared | 0.485 | 0.490 | 0.388 | 0.394 |
| Year FE | YES | YES | YES | YES |
| SubBorough FE | YES | YES | YES | YES |
| Clustered SE | SubBorough | SubBorough | SubBorough | SubBorough |
| Adjusted R2 | 0.481 | 0.487 | 0.384 | 0.389 |

**Panel B: Selective Neglect of 311 Complaints**

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| VARIABLES | Log (1+NumComplaintsAll) | | Log (1+NumComplaintsHsg) | |
| **NonWhite* RentStabilized** | | **0.209*** ** | | **0.239*** ** |
| | | **(0.058)** | | **(0.076)** |
| Rent Stabilized | | -0.021 | | 0.163*** |
| | | (0.040) | | (0.052) |
| NonWhite | 0.098*** | 0.004 | 0.132*** | 0.030 |
| | (0.036) | (0.042) | (0.041) | (0.046) |
| HQI | -0.001 | -0.001 | -0.002* | -0.002* |
| | (0.001) | (0.001) | (0.001) | (0.001) |
| LogRent | 0.048 | 0.025 | 0.070 | 0.024 |
| | (0.041) | (0.040) | (0.052) | (0.047) |
| NumUnits | 0.267*** | 0.253*** | 0.274*** | 0.235*** |
| | (0.010) | (0.009) | (0.012) | (0.013) |
| NumStories | 0.147*** | 0.148*** | 0.110*** | 0.117*** |
| | (0.023) | (0.023) | (0.032) | (0.031) |
| Elevator | 0.012 | -0.024 | 0.135** | 0.046 |
| | (0.049) | (0.050) | (0.067) | (0.067) |
| BldgAge | 0.065*** | 0.061*** | 0.098*** | 0.088*** |
| | (0.006) | (0.006) | (0.007) | (0.007) |
| Condo | -0.104 | -0.094 | -0.144 | -0.109 |
| | (0.078) | (0.077) | (0.097) | (0.094) |
| IncomeGroup | 0.004 | 0.005 | -0.002 | -0.001 |
| | (0.007) | (0.006) | (0.008) | (0.008) |
| Constant | -1.726*** | -1.349*** | -2.711*** | -1.948*** |
| | (0.328) | (0.316) | (0.460) | (0.419) |
| Observations | 5,138 | 5,138 | 5,138 | 5,138 |
| R-squared | 0.715 | 0.717 | 0.611 | 0.621 |
| Year FE | YES | YES | YES | YES |
| SubBorough FE | YES | YES | YES | YES |
| Clustered SE | SubBorough | SubBorough | SubBorough | SubBorough |
| Adjusted R2 | 0.711 | 0.713 | 0.606 | 0.616 |

**Panel C: Selective Neglect of Different Complaint Types**

| VARIABLES | (1) Log (1+NumElevator) | (2) Log (1+NumFacades) | (3) Log (1+NumElectrical) | (4) Log (1+NumPlumbing) |
|---|---|---|---|---|
| **NonWhite** | **0.013** | **0.002** | **0.029*** | **0.064***** |
| | **(0.013)** | **(0.002)** | **(0.015)** | **(0.021)** |
| HQI | -0.000 | 0.000*** | -0.001* | -0.001** |
| | (0.000) | (0.000) | (0.000) | (0.001) |
| LogRent | 0.022* | -0.003 | 0.023 | 0.047* |
| | (0.011) | (0.002) | (0.019) | (0.025) |
| NumUnits | 0.015*** | 0.000 | 0.062*** | 0.109*** |
| | (0.003) | (0.000) | (0.006) | (0.007) |
| NumStories | 0.085*** | 0.004*** | 0.011 | 0.057*** |
| | (0.010) | (0.001) | (0.009) | (0.015) |
| BldgAge | 0.003 | 0.000 | 0.027*** | 0.039*** |
| | (0.003) | (0.000) | (0.003) | (0.004) |
| Condo | -0.067** | 0.004 | 0.015 | 0.029 |
| | (0.032) | (0.004) | (0.042) | (0.051) |
| IncomeGroup | -0.005** | 0.000 | -0.001 | 0.002 |
| | (0.002) | (0.000) | (0.003) | (0.004) |
| Constant | -0.442*** | -0.001 | -0.649*** | -1.223*** |
| | (0.104) | (0.014) | (0.153) | (0.181) |
| Observations | 5,138 | 5,138 | 5,138 | 5,138 |
| R-squared | 0.274 | 0.040 | 0.375 | 0.468 |
| Year FE | YES | YES | YES | YES |
| SubBorough FE | YES | YES | YES | YES |
| Clustered SE | SubBorough | SubBorough | SubBorough | SubBorough |
| Adjusted R2 | 0.264 | 0.0277 | 0.368 | 0.462 |

**Table 10: Race Change and Maintenance Violation**

This table examines whether changes in the race of the household head following tenant turnover are associated with changes in maintenance violations. Tenant turnover is identified when the current household head moved into the unit after the preceding NYCHVS survey wave. The dependent variable is the change in log violations. Columns (1) and (2) compare race transitions among units experiencing turnover. Column (1) compares Nonwhite-to-White transitions with Nonwhite-to-Nonwhite turnover units, while Column (2) compares White-to-Nonwhite transitions with White-to-White turnover units. Columns (3) and (4) repeat these comparisons among units whose regulatory status remains unchanged across waves. All specifications control for changes in rent and household income. Columns (1) and (2) additionally control for regulatory-status transitions, while all specifications include prior-period HQI and building characteristics. Year and subborough fixed effects are included, and standard errors are clustered by subborough.

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| | NW-origin turnover | W-origin turnover | NW-origin same regulation | W-origin same regulation |
| VARIABLES | | $\Delta$Log (1 + NumViolations) | | |
| **NWtoW** | **-0.094**** | | **-0.096**** | |
| | **(0.037)** | | **(0.042)** | |
| **WtoNW** | | **0.007** | | **0.014** |
| | | **(0.026)** | | **(0.032)** |
| LogRent | 0.005 | 0.018 | -0.013 | 0.049* |
| | (0.026) | (0.024) | (0.034) | (0.027) |
| IncomeGroup | -0.001 | 0.001 | -0.003** | 0.001 |
| | (0.001) | (0.001) | (0.001) | (0.001) |
| HQI | -0.002** | -0.002*** | -0.001* | -0.002*** |
| | (0.001) | (0.001) | (0.001) | (0.001) |
| NumUnits | -0.023 | 0.011 | 0.029* | 0.030** |
| | (0.018) | (0.010) | (0.016) | (0.011) |
| NumStories | 0.053* | -0.001 | 0.027 | -0.010 |
| | (0.027) | (0.015) | (0.030) | (0.017) |
| Elevator | -0.059 | -0.072** | 0.006 | -0.068 |
| | (0.045) | (0.032) | (0.049) | (0.048) |
| BldgAge | 0.032*** | 0.018*** | 0.034*** | 0.026*** |
| | (0.011) | (0.006) | (0.010) | (0.008) |
| Condo | -0.097 | 0.071 | -0.418** | 0.017 |
| | (0.152) | (0.063) | (0.146) | (0.067) |
| Constant | 0.395* | 0.274** | -0.205 | 0.036 |
| | (0.193) | (0.115) | (0.162) | (0.150) |
| Observations | 1,457 | 1,248 | 1,269 | 961 |
| R-squared | 0.175 | 0.155 | 0.150 | 0.142 |
| Control group | NW-to-NW | W-to-W | NW-to-NW | W-to-W |
| Year FE | YES | YES | YES | YES |
| SubBorough FE | YES | YES | YES | YES |
| Clustered SE | SubBorough | SubBorough | SubBorough | SubBorough |
| Adjusted R2 | 0.152 | 0.126 | 0.132 | 0.118 |

**Table 11: Owner in Building**

This table investigates whether the presence of owners in the same building, either through direct co-residence or a higher share of owner-occupied units, is associated with improved housing quality and maintenance, and whether this relationship varies by tenant race. We estimate the following mode by using merged data from the 2002-2017 waves of NYCHVS and NYC Housing Maintenance Code (HMC):

$$Outcome_{i,t} = \alpha + \beta_1 NonWhite_{i,t} + \beta_2 OwnerInBldg_{i,t} + \beta_3 OwnerInBldg_{i,t} \times NonWhite_{i,t} + \gamma Controls_{i,t} + \mu_j + \lambda_t + \varepsilon_{i,t}$$

Where *OwnerInBldg* is a dummy variable which equals 1 if the owner resides in the same building as the tenant household, and 0 otherwise. Panel A examines whether owner occupancy within the building is associated with better housing outcomes, using the Housing Quality Index (HQI) and HQI per dollar of rent as dependent variables. Panel B uses administrative violation data to assess whether co-residence with owners reduces the number of open housing code violations, with results shown in log form. Panel C analyzes the association between the building-wide owner-occupancy rate and the number of housing code violations at the building level, for the full sample.

**Panel A: Owner in Building and Racial Disparities in HQI**

| | (1) | (2) |
|---|---|---|
| VARIABLES | HQI | HQI/log($rent) |
| **NonWhite** | **-4.368*** ** | **-0.702*** ** |
| | **(0.400)** | **(0.061)** |
| **OwnerInBldg** | **4.961*** ** | **0.695*** ** |
| | **(0.419)** | **(0.061)** |
| **NonWhite * OwnerInBldg** | **1.984*** ** | **0.314*** ** |
| | **(0.586)** | **(0.085)** |
| LogRent | 3.161*** | -1.489*** |
| | (0.360) | (0.066) |
| FemaleHH | -0.982*** | -0.140*** |
| | (0.165) | (0.025) |
| AgeHH | 0.027*** | 0.004*** |
| | (0.008) | (0.001) |
| MarriedHH | 1.091*** | 0.146*** |
| | (0.308) | (0.046) |
| EducationHH | 1.044*** | 0.122*** |
| | (0.282) | (0.043) |
| NumChildren | -1.857*** | -0.279*** |
| | (0.146) | (0.023) |
| IncomeGroup | -0.044 | -0.004 |
| | (0.044) | (0.006) |
| BldgAge | -1.090*** | -0.173*** |
| | (0.076) | (0.012) |
| Condo | 2.528*** | 0.371*** |
| | (0.780) | (0.113) |
| Constant | 73.046*** | 24.250*** |
| | (2.513) | (0.443) |
| Observations | 52,998 | 52,998 |
| R-squared | 0.108 | 0.156 |
| Year FE | YES | YES |

| | | |
|---|---|---|
| SubBorough FE | YES | YES |
| Clustered SE | SubBorough | SubBorough |
| Adjusted R2 | 0.108 | 0.156 |

**Panel B: Owner in Building and Violations**

| | (1) | (2) |
|---|---|---|
| VARIABLES | Log (1+NumViolations) | Log (1+NumViolations) |
| **NonWhite** | **0.099**** | **0.089**** |
| | **(0.044)** | **(0.039)** |
| **OwnerInBldg** | **-0.300***** | **-0.324***** |
| | **(0.070)** | **(0.065)** |
| **NonWhite * OwnerInBldg** | **-0.258***** | **-0.220***** |
| | **(0.077)** | **(0.073)** |
| FemaleHH | | 0.037 |
| | | (0.024) |
| AgeHH | | 0.003*** |
| | | (0.001) |
| MarriedHH | | -0.021 |
| | | (0.031) |
| EducationHH | | 0.037 |
| | | (0.036) |
| NumChildren | | -0.033** |
| | | (0.013) |
| IncomeGroup | | -0.014** |
| | | (0.006) |
| BldgAge | | 0.055*** |
| | | (0.006) |
| Condo | | 0.066 |
| | | (0.068) |
| Constant | 0.727*** | 0.310*** |
| | (0.029) | (0.087) |
| Observations | 9,644 | 9,644 |
| R-squared | 0.364 | 0.387 |
| Year FE | YES | YES |
| SubBorough FE | YES | YES |
| Clustered SE | SubBorough | SubBorough |
| Adjusted R2 | 0.360 | 0.383 |

**Panel C: Owner Occupied Ratio and Violations: Full Sample**

| VARIABLES | (1)<br>Log (1+NumViolations) | (2)<br>Log (1+NumViolations) |
|---|---|---|
| **OwnerOcc** | **-0.008** | **0.054** |
| | **(0.073)** | **(0.081)** |
| **NonWhite** | **0.080*** | **0.070*** |
| | **(0.044)** | **(0.040)** |
| **NonWhite * OwnerOcc** | **-0.230*** | **-0.238*** |
| | **(0.134)** | **(0.131)** |
| FemaleHH | | 0.037 |
| | | (0.026) |
| AgeHH | | 0.004*** |
| | | (0.001) |
| MarriedHH | | -0.031 |
| | | (0.030) |
| EducationHH | | 0.028 |
| | | (0.034) |
| NumChildren | | -0.034** |
| | | (0.014) |
| IncomeGroup | | -0.018*** |
| | | (0.005) |
| BldgAge | | 0.051*** |
| | | (0.006) |
| Condo | | 0.064 |
| | | (0.067) |
| Constant | 0.678*** | 0.289*** |
| | (0.028) | (0.087) |
| Observations | 10,176 | 10,176 |
| R-squared | 0.342 | 0.365 |
| Year FE | YES | YES |
| SubBorough FE | YES | YES |
| Clustered SE | SubBorough | SubBorough |
| Adjusted R2 | 0.338 | 0.360 |

**Table 12: Housing Quality and Health Outcomes**

This table examines the relationship between housing quality and individual health outcomes using data from the New York City Housing and Vacancy Survey (NYCHVS), 2005-2017, by estimating the following equation:

$$Health_{i,t} = \alpha + \beta_1 HQI_{i,t} \times NonWhite_{i,t} + \beta_2 HQI_{i,t} + \beta_3 NonWhite_{i,t} + \gamma Controls_{i,t} + \mu_j + \lambda_t + \varepsilon_{i,t}$$

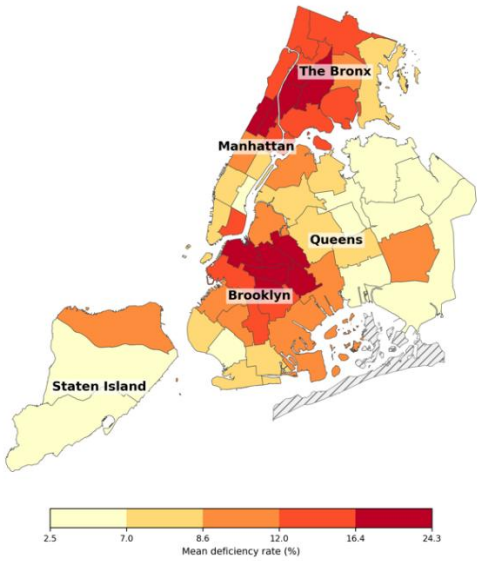
The dependent variable $Health_{i,t}$ is an ordinal measure ranging from 1 to 6, with higher values indicating better self-reported health status. The outcome variable is housing quality, measured using two proxies: the Housing Quality Index (HQI) and the logarithm of rent-adjusted quality (HQI/log($rent)). To control for time trends and other unobserved time-invariant geographical characteristics, we include sub borough fixed effects and year fixed effects in $\mu_j$ and $\lambda_t$, respectively.

| VARIABLES | (1) Health | (2) Health | (1) Health | (2) Health |
|---|---|---|---|---|
| **NonWhite * HQI** | | **0.002**** | | |
| | | **(0.001)** | | |
| **HQI** | **0.006***** | **0.004***** | | |
| | **(0.000)** | **(0.001)** | | |
| **NonWhite * HQI/log($rent)** | | | | **0.018***** |
| | | | | **(0.006)** |
| **HQI/log($rent)** | | | **0.037***** | **0.023***** |
| | | | **(0.003)** | **(0.005)** |
| NonWhite | 0.105*** | 0.105*** | 0.177*** | 0.174*** |
| | (0.016) | (0.016) | (0.016) | (0.016) |
| FemaleHH | -0.033** | -0.034** | -0.034** | -0.034** |
| | (0.016) | (0.016) | (0.016) | (0.016) |
| AgeHH | -0.021*** | -0.021*** | -0.021*** | -0.021*** |
| | (0.001) | (0.001) | (0.001) | (0.001) |
| MarriedHH | -0.046*** | -0.047*** | -0.046*** | -0.047*** |
| | (0.013) | (0.013) | (0.013) | (0.013) |
| EducationHH | 0.237*** | 0.236*** | 0.238*** | 0.240*** |
| | (0.019) | (0.019) | (0.019) | (0.019) |
| NumChildren | 0.025*** | 0.026*** | 0.025*** | 0.026*** |
| | (0.008) | (0.008) | (0.008) | (0.008) |
| IncomeGroup | 0.076*** | 0.077*** | 0.076*** | 0.076*** |
| | (0.003) | (0.003) | (0.003) | (0.003) |
| BldgAge | 0.000 | 0.000 | 0.000 | 0.001 |
| | (0.003) | (0.003) | (0.003) | (0.003) |
| Condo | 0.049 | 0.051 | 0.050 | 0.051 |
| | (0.042) | (0.042) | (0.042) | (0.042) |
| Constant | 3.669*** | 3.830*** | 3.188*** | 3.377*** |
| | (0.133) | (0.127) | (0.137) | (0.142) |
| Observations | 43,348 | 43,348 | 43,348 | 43,348 |
| R-squared | 0.257 | 0.257 | 0.257 | 0.257 |
| Year FE | YES | YES | YES | YES |
| SubBorough FE | YES | YES | YES | YES |
| Clustered SE | SubBorough | SubBorough | SubBorough | SubBorough |
| Adjusted R2 | 0.256 | 0.256 | 0.256 | 0.256 |

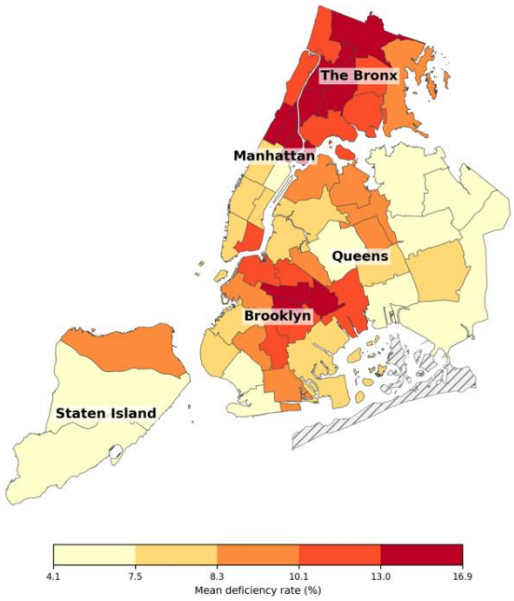
**Internet Appendix for**
**"Paying More for Less: Racial Disparities in Rental Housing Quality"**

**Figure IA1: HQI Components across Sub boroughs in New York City**
This figure presents heatmaps for the four components of the Housing Quality Index (HQI) at the sub borough level: (a) external maintenance, (b) utility access, (c) indoor air quality, and (d) pest exposure. Darker shades represent worse conditions for each component. Sample consists of the 2002–2017 waves of the NYCHVS.

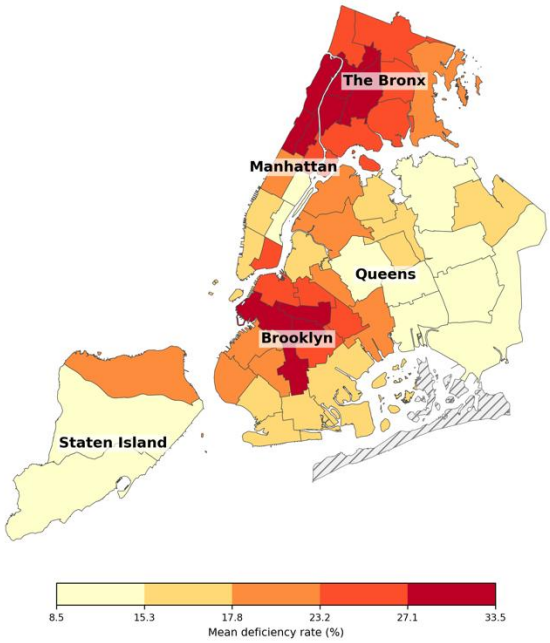
**Panel A: External Damage**




**Panel B: Utility Damage**



**Panel C: Indoor Air Quality**




**Panel D: Pest Damage**

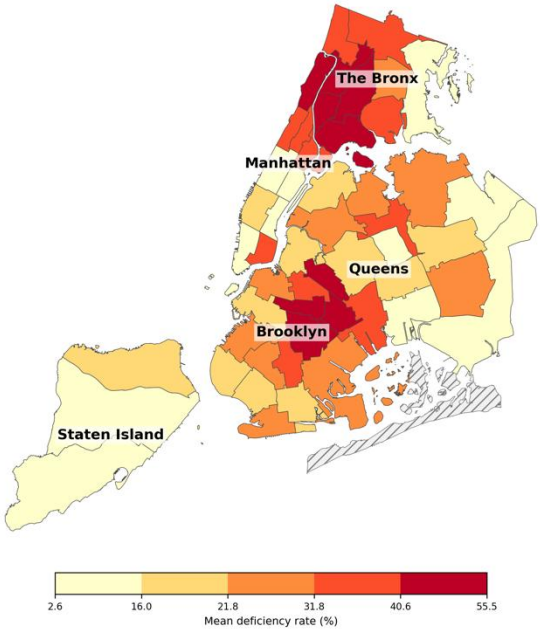
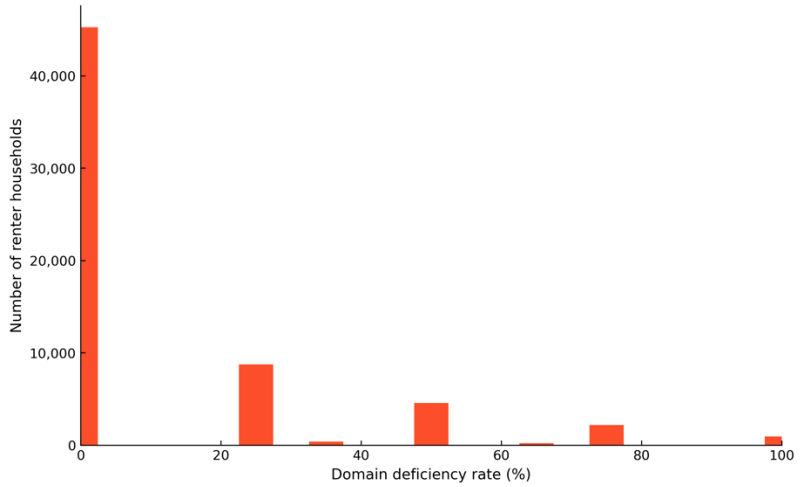


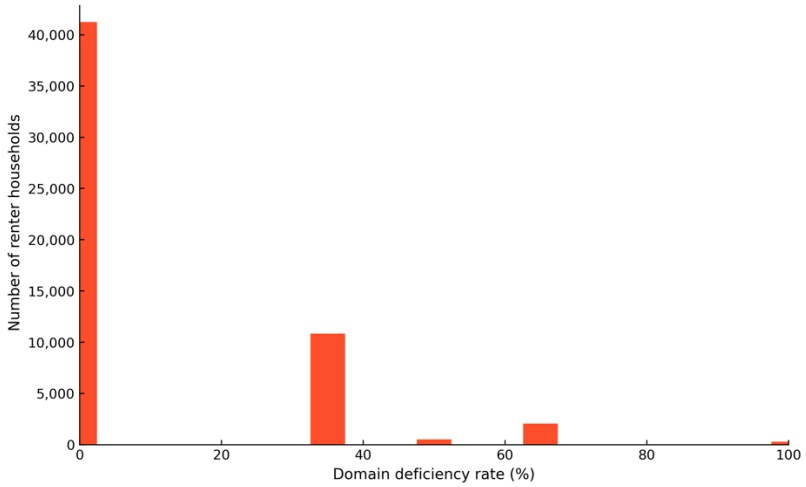
**Figure IA2: Distribution of HQI Component Value**

This figure presents histograms of HQI component scores across housing units. Each score represents the number of specific problems identified in a given domain (ranging from 0 to 4). The x-axis indicates the number of reported issues, while the y-axis shows the frequency of units with each corresponding score. Sample consists of the 2002–2017 waves of the NYCHVS.

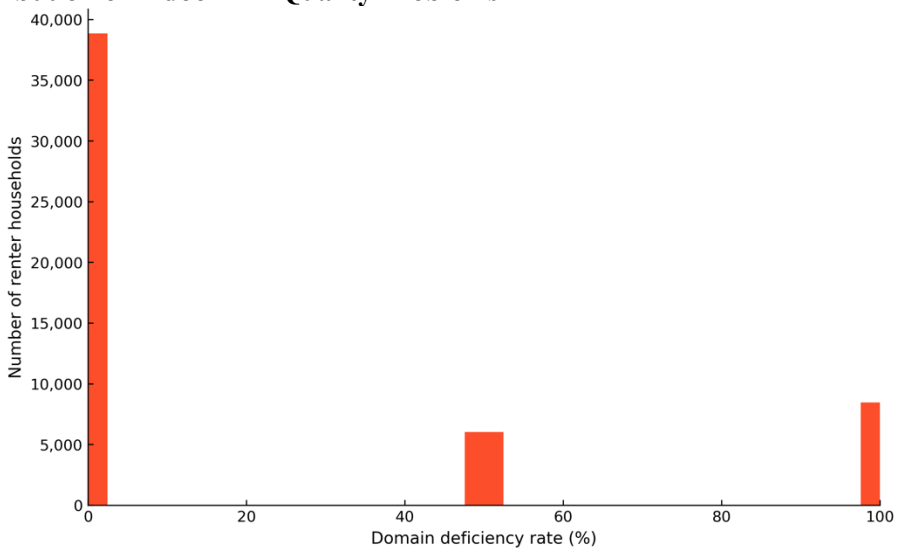
**Panel A: Distribution of External damage**




**Panel B: Distribution of Utility Damage**



**Panel C: Distribution of Indoor Air Quality Problems**




**Panel D: Distribution of Pest Damage**

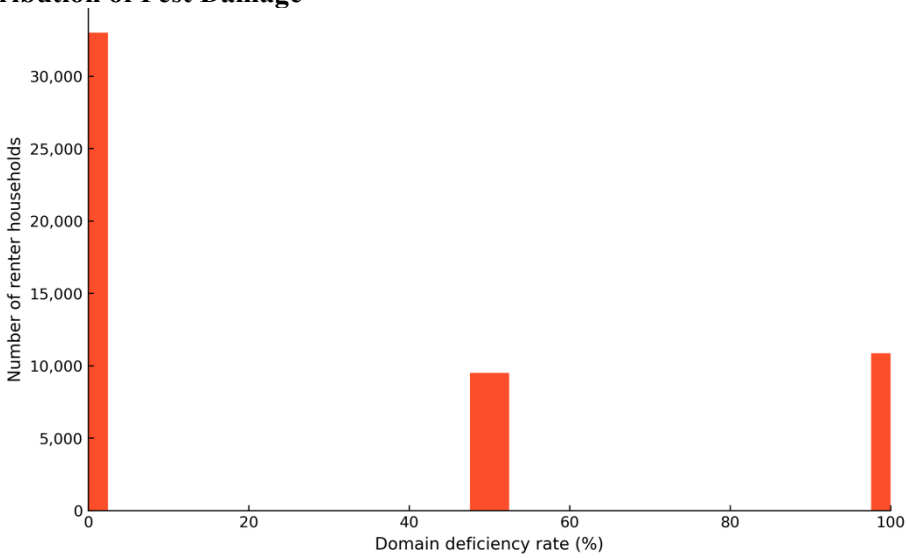
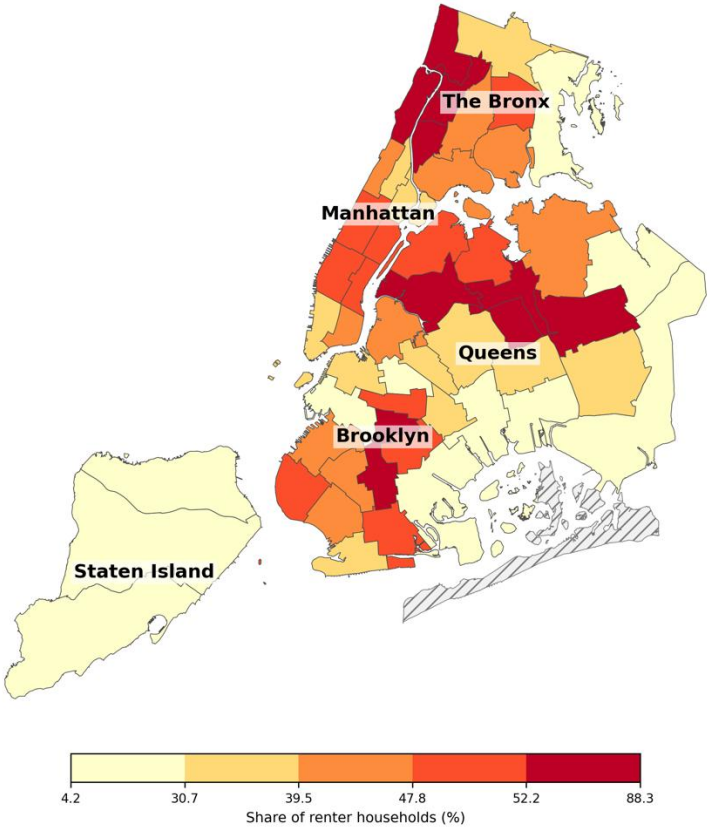


**Figure IA3: Spatial Distribution of Rent Regulated Housing**
This heatmap displays the average share of different housing regulation statuses across New York City's sub borough areas (PUMAs), using data from the 2002-2017 waves of NYCHVS. The Panel A reflects the share of rent stabilized units while panel B illustrates the share of rent controlled units. Darker color indicates higher ratio of units under each regulatory category.

**Panel A: Share of Rent Stabilization Units**



**Panel B: Share of Rent Controlled Units**

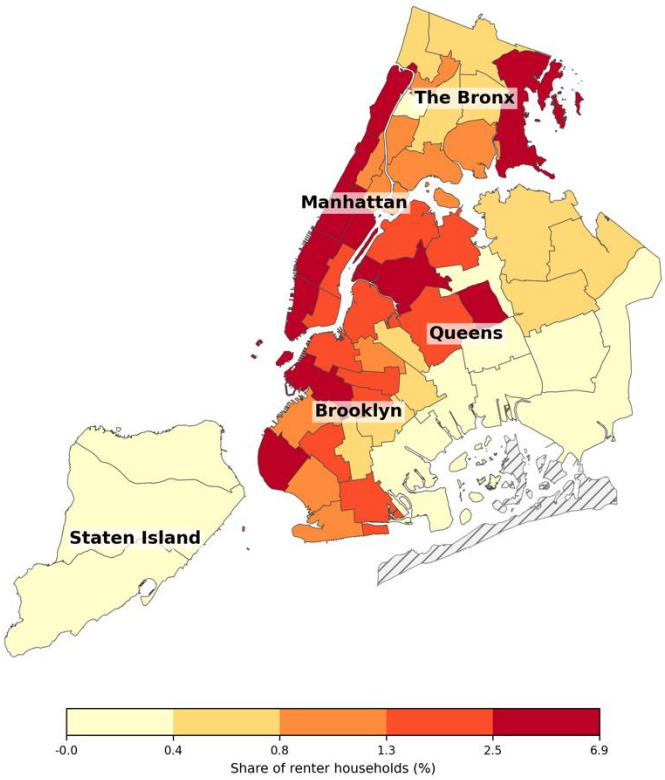


**Figure IA4: 421-A Geographic Exclusion Areas in New York City**

This figure maps the 421-a Geographic Exclusion Areas (GEAs) that were designated to regulate eligibility for property tax exemptions under New York City's 421-a program. The yellow areas indicate the original GEAs established under the 2006 reform, while the orange areas represent the expanded boundaries implemented in 2008. In these zones, developers were required to include affordable housing units in order to qualify for 421-a benefits. The delineation of GEAs reflects the city's efforts to ensure that tax incentives for new development translated into actual contributions to affordable housing in high-demand areas.

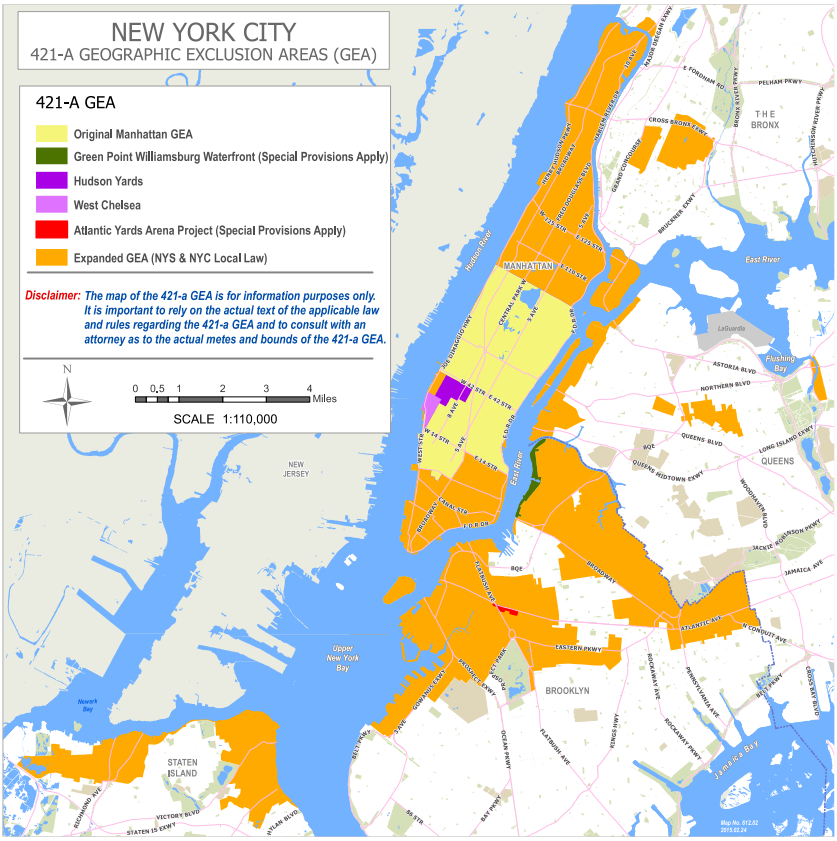


**Table IA1: Summary Statistics at the Building Level**

This table reports summary statistics of the key variables at the building level, using the merged data from the PLUTO dataset and the NYCHVS from 2002 to2017 waves.

| | Mean | Median | Std. | Min | 25 | 75 | Max | N |
|---|---|---|---|---|---|---|---|---|
| ***Housing Quality Measures*** | | | | | | | | |
| HQIAvg | 84.924 | 89.722 | 15.456 | 0.000 | 78.560 | 96.667 | 100.000 | 10,176 |
| HQI/log($rent)Avg | 12.350 | 12.621 | 2.345 | 0.000 | 11.297 | 13.804 | 20.417 | 10,176 |
| ***Rental Market and Household Characteristics*** | | | | | | | | |
| RentStabilizedAvg | 0.489 | 0.500 | 0.449 | 0.000 | 0.000 | 1.000 | 1.000 | 10,176 |
| OtherRegulatedAvg | 0.069 | 0.000 | 0.225 | 0.000 | 0.000 | 0.000 | 1.000 | 10,176 |
| RentControlledAvg | 0.020 | 0.000 | 0.101 | 0.000 | 0.000 | 0.000 | 1.000 | 10,176 |
| MarketRentalAvg | 0.377 | 0.000 | 0.447 | 0.000 | 0.000 | 1.000 | 1.000 | 10,176 |
| FemaleAvg | 0.523 | 0.500 | 0.364 | 0.000 | 0.250 | 0.872 | 1.000 | 10,176 |
| AgeAvg | 45.336 | 44.250 | 12.513 | 18.000 | 36.250 | 52.274 | 85.000 | 10,176 |
| NonWhiteAvg | 0.618 | 0.778 | 0.413 | 0.000 | 0.200 | 1.000 | 1.000 | 10,176 |
| MarriedAvg | 0.302 | 0.211 | 0.343 | 0.000 | 0.000 | 0.500 | 1.000 | 10,176 |
| EducationAvg | 0.813 | 1.000 | 0.293 | 0.000 | 0.667 | 1.000 | 1.000 | 10,176 |
| IncomeGroupAvg | 5.065 | 5.000 | 2.205 | 1.000 | 3.500 | 6.500 | 10.000 | 10,176 |
| NumChildrenAvg | 1.503 | 1.200 | 0.725 | 1.000 | 1.000 | 1.800 | 6.000 | 10,176 |
| ***Building Characteristics*** | | | | | | | | |
| BldgAge | 6.467 | 7.000 | 2.403 | 1.000 | 5.000 | 8.000 | 10.000 | 10,176 |
| NumUnits | 9.316 | 10.000 | 2.763 | 5.000 | 7.000 | 12.000 | 13.000 | 10,176 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NumRooms | 3.365 | 3.333 | 1.051 | 1.000 | 3.000 | 4.000 | 8.000 | 10,176 |
| NumBedrooms | 2.530 | 2.500 | 0.756 | 1.000 | 2.000 | 3.000 | 7.000 | 10,176 |
| NumStories | 3.644 | 4.000 | 1.602 | 1.000 | 2.000 | 5.000 | 7.000 | 10,176 |
| Elevator | 1.617 | 2.000 | 0.468 | 1.000 | 1.000 | 2.000 | 2.000 | 10,176 |
| ***Building Maintenance and Neighborhood Characteristics*** | | | | | | | | |
| NumViolations | 2.858 | 0.407 | 8.301 | 0.000 | 0.000 | 2.000 | 256.000 | 10,176 |
| Log (1+NumViolations) | 0.715 | 0.342 | 0.907 | 0.000 | 0.000 | 1.099 | 5.549 | 10,176 |
| NumClassC | 0.483 | 0.015 | 1.498 | 0.000 | 0.000 | 0.273 | 36.000 | 10,176 |
| Log (1+NumClassC) | 0.233 | 0.015 | 0.450 | 0.000 | 0.000 | 0.242 | 3.611 | 10,176 |
| NumComplaintsAll | 15.484 | 6.520 | 28.762 | 0.000 | 2.048 | 18.857 | 1151.000 | 5,138 |
| Log (1+NumComplaintsAll) | 2.112 | 2.018 | 1.147 | 0.000 | 1.115 | 2.989 | 7.049 | 5,138 |
| NumComplaintsHsg | 9.845 | 2.667 | 24.655 | 0.000 | 0.579 | 10.480 | 1139.000 | 5,138 |
| Log (1+NumComplaintsHsg) | 1.530 | 1.299 | 1.222 | 0.000 | 0.457 | 2.441 | 7.039 | 5,138 |
| NonwhiteZipRatio | 0.633 | 0.675 | 0.265 | 0.000 | 0.386 | 0.875 | 1.000 | 8,703 |
| OwnerOcc | 0.100 | 0.000 | 0.193 | 0.000 | 0.000 | 0.111 | 0.931 | 10,176 |

**Table IA2: Racial Disparity in Housing Quality: Evidence from the Common-Item HQI**

This table examines the robustness of the baseline results using a harmonized Housing Quality Index constructed from housing-condition measures that are available consistently in every NYCHVS wave from 2002 to 2017. Restricting the analysis to this period allows the index to be based on the same set of components across survey waves[1].

Panel A reports the baseline estimates. Panel B estimates the same specifications separately for the high- and low-rent segments, defined as units above and at or below the median rent, respectively. Year and subborough fixed effects are included throughout, and standard errors are clustered at the sub borough level.

**Panel A: Racial Disparity in Housing Quality**

| VARIABLES | (1) Common-item HQI | (2) Common-item HQI/log($rent) |
|---|---|---|
| **NonWhite** | **-1.801*** ** | **-0.303*** ** |
| | **(0.306)** | **(0.047)** |
| LogRent | 2.385*** | -1.660*** |
| | (0.240) | (0.046) |
| FemaleHH | -1.200*** | -0.172*** |
| | (0.175) | (0.027) |
| AgeHH | 0.009 | 0.001 |
| | (0.006) | (0.001) |
| MarriedHH | 0.819*** | 0.112*** |
| | (0.252) | (0.038) |
| EducationHH | 0.653** | 0.067 |
| | (0.280) | (0.042) |
| NumChildren | -1.769*** | -0.264*** |
| | (0.137) | (0.021) |
| IncomeGroup | -0.040 | -0.004 |
| | (0.041) | (0.006) |
| BldgAge | -0.915*** | -0.148*** |
| | (0.073) | (0.011) |
| Condo | 0.963* | 0.140* |
| | (0.567) | (0.083) |
| Constant | 79.469*** | 25.577*** |
| | (1.717) | (0.309) |
| Observations | 60,594 | 60,594 |
| R-squared | 0.106 | 0.165 |
| Year FE | YES | YES |
| Subborough FE | YES | YES |
| Clustered SE | Subborough | Subborough |
| Adjusted R2 | 0.105 | 0.164 |

[1] The common-item HQI is constructed from nine harmonized indicators: cracks or holes in interior walls, broken windows, holes in floors, broken plaster or peeling paint, nonfunctioning kitchen facilities, toilet breakdowns, heating-equipment breakdowns, water leakage, and the presence of mice.

**Panel B: Racial Disparity in Housing Quality within Different Rent Segments**

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| | High Rent Segment | | Low Rent Segment | |
| VARIABLES | HQI | HQI/log($rent) | HQI | HQI/log($rent) |
| **NonWhite** | **-1.129*** ** | **-0.160*** ** | **-2.558*** ** | **-0.403*** ** |
| | **(0.361)** | **(0.051)** | **(0.430)** | **(0.067)** |
| LogRent | 2.814*** | -1.221*** | 1.819*** | -1.998*** |
| | (0.507) | (0.070) | (0.347) | (0.068) |
| FemaleHH | -1.185*** | -0.165*** | -1.210*** | -0.187*** |
| | (0.183) | (0.026) | (0.227) | (0.036) |
| AgeHH | 0.007 | 0.001 | 0.007 | 0.001 |
| | (0.008) | (0.001) | (0.009) | (0.002) |
| MarriedHH | 0.938*** | 0.133*** | 0.724** | 0.115** |
| | (0.279) | (0.040) | (0.348) | (0.055) |
| EducationHH | 0.892** | 0.132** | 0.566 | 0.077 |
| | (0.434) | (0.062) | (0.362) | (0.058) |
| NumChildren | -1.489*** | -0.212*** | -2.061*** | -0.326*** |
| | (0.167) | (0.024) | (0.184) | (0.029) |
| IncomeGroup | -0.018 | -0.003 | -0.081 | -0.014 |
| | (0.049) | (0.007) | (0.060) | (0.009) |
| BldgAge | -0.730*** | -0.100*** | -1.138*** | -0.187*** |
| | (0.073) | (0.010) | (0.106) | (0.018) |
| Condo | 1.083** | 0.147** | 0.723 | 0.073 |
| | (0.450) | (0.062) | (1.651) | (0.260) |
| Constant | 75.096*** | 22.038*** | 84.862*** | 28.002*** |
| | (3.748) | (0.515) | (2.666) | (0.466) |
| Observations | 30,384 | 30,384 | 30,210 | 30,210 |
| R-squared | 0.088 | 0.106 | 0.098 | 0.165 |
| Year FE | YES | YES | YES | YES |
| SubBorough FE | YES | YES | YES | YES |
| Clustered SE | Subborough | Subborough | Subborough | Subborough |
| Adjusted R2 | 0.0862 | 0.104 | 0.0959 | 0.163 |

**Table IA3: Rent Regulation and Racial Disparities in Housing Quality: Evidence from the Common-Item HQI**

This table examines whether racial disparities in housing quality vary by rent-regulation status using the harmonized common-item HQI constructed from housing-condition measures available consistently in every NYCHVS wave from 2002 to 2017. Panel A uses the common-item HQI as the dependent variable, and Panel B uses common-item HQI divided by log rent. All specifications include the baseline household and housing controls, year fixed effects, and sub borough fixed effects. Standard errors, reported in parentheses, are clustered at the subborough level.

**Panel A: Using HQI as the Dependent Variable**

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| VARIABLES | HQI | HQI | HQI | HQI |
| **NonWhite** | **-1.859*** ** | **-1.667*** ** | **-1.826*** ** | **-1.841*** ** |
| | **(0.292)** | **(0.371)** | **(0.304)** | **(0.308)** |
| **RentStabilized** | **-2.442*** ** | **-2.189*** ** | | |
| | **(0.438)** | **(0.422)** | | |
| **NonWhite * RentStabilized** | | **-0.405** | | |
| | | **(0.581)** | | |
| **RentControlled** | | | **-1.483*** | **-1.767*** |
| | | | **(0.813)** | **(0.939)** |
| **NonWhite * RentControlled** | | | | **0.724** |
| | | | | **(1.429)** |
| LogRent | 2.533*** | 2.557*** | 2.362*** | 2.362*** |
| | (0.267) | (0.260) | (0.241) | (0.241) |
| FemaleHH | -1.203*** | -1.205*** | -1.198*** | -1.198*** |
| | (0.173) | (0.173) | (0.175) | (0.174) |
| AgeHH | 0.009 | 0.009 | 0.011 | 0.011 |
| | (0.006) | (0.006) | (0.006) | (0.006) |
| MarriedHH | 0.791*** | 0.794*** | 0.814*** | 0.813*** |
| | (0.242) | (0.242) | (0.252) | (0.252) |
| EducationHH | 0.736** | 0.731** | 0.660** | 0.662** |
| | (0.280) | (0.280) | (0.282) | (0.282) |
| NumChildren | -1.829*** | -1.829*** | -1.767*** | -1.766*** |
| | (0.134) | (0.134) | (0.137) | (0.136) |
| IncomeGroup | -0.057 | -0.056 | -0.040 | -0.040 |
| | (0.041) | (0.041) | (0.041) | (0.041) |
| BldgAge | -0.833*** | -0.831*** | -0.908*** | -0.908*** |
| | (0.073) | (0.074) | (0.072) | (0.072) |
| Condo | 0.858 | 0.867 | 0.985* | 0.982* |
| | (0.607) | (0.610) | (0.568) | (0.568) |
| Constant | 79.208*** | 78.917*** | 79.519*** | 79.527*** |
| | (1.855) | (1.768) | (1.717) | (1.720) |
| Observations | 60,594 | 60,594 | 60,594 | 60,594 |
| R-squared | 0.109 | 0.109 | 0.106 | 0.106 |
| Year FE | YES | YES | YES | YES |
| SubBorough FE | YES | YES | YES | YES |
| Clustered SE | Subborough | Subborough | Subborough | Subborough |
| Adjusted R2 | 0.108 | 0.108 | 0.105 | 0.105 |

**Panel B: Using HQI/log($rent) as the Dependent Variable**

| VARIABLES | (1) HQI/log($rent) | (2) HQI/log($rent) | (3) HQI/log($rent) | (4) HQI/log($rent) |
|---|---|---|---|---|
| **NonWhite** | **-0.313*** ** | **-0.312*** ** | **-0.307*** ** | **-0.308*** ** |
| | **(0.045)** | **(0.057)** | **(0.047)** | **(0.048)** |
| **RentStabilized** | **-0.424*** ** | **-0.422*** ** | | |
| | **(0.066)** | **(0.058)** | | |
| **NonWhite * RentStabilized** | | **-0.003** | | |
| | | **(0.087)** | | |
| **RentControlled** | | | **-0.232*** | **-0.250*** |
| | | | **(0.129)** | **(0.149)** |
| **NonWhite * RentControlled** | | | | **0.045** |
| | | | | **(0.231)** |
| LogRent | -1.635*** | -1.634*** | -1.664*** | -1.664*** |
| | (0.049) | (0.048) | (0.046) | (0.046) |
| FemaleHH | -0.173*** | -0.173*** | -0.172*** | -0.172*** |
| | (0.026) | (0.026) | (0.027) | (0.027) |
| AgeHH | 0.002 | 0.002 | 0.002* | 0.002* |
| | (0.001) | (0.001) | (0.001) | (0.001) |
| MarriedHH | 0.107*** | 0.107*** | 0.111*** | 0.111*** |
| | (0.036) | (0.036) | (0.038) | (0.038) |
| EducationHH | 0.081* | 0.081* | 0.068 | 0.068 |
| | (0.042) | (0.042) | (0.042) | (0.042) |
| NumChildren | -0.274*** | -0.274*** | -0.264*** | -0.264*** |
| | (0.021) | (0.021) | (0.021) | (0.021) |
| IncomeGroup | -0.006 | -0.006 | -0.004 | -0.004 |
| | (0.006) | (0.006) | (0.006) | (0.006) |
| BldgAge | -0.134*** | -0.134*** | -0.147*** | -0.147*** |
| | (0.011) | (0.011) | (0.011) | (0.011) |
| Condo | 0.121 | 0.121 | 0.143* | 0.143* |
| | (0.089) | (0.089) | (0.083) | (0.083) |
| Constant | 25.531*** | 25.529*** | 25.584*** | 25.585*** |
| | (0.320) | (0.308) | (0.308) | (0.309) |
| Observations | 60,594 | 60,594 | 60,594 | 60,594 |
| R-squared | 0.169 | 0.169 | 0.165 | 0.165 |
| Year FE | YES | YES | YES | YES |
| SubBorough FE | YES | YES | YES | YES |
| Clustered SE | Subborough | Subborough | Subborough | Subborough |
| Adjusted R2 | 0.168 | 0.168 | 0.164 | 0.164 |

**Table IA4: Racial Disparity in Housing Quality in Public Housing**

This table examines racial disparities in housing quality among tenants residing in public housing units in New York City.

$$HQI_{i,t} = \alpha + \beta_1 NonWhite_{i,t} + \beta_2 PublicHousing_{i,t} + \beta_3 PublicHousing_{i,t} \times NonWhite_{i,t} + \gamma Controls_{i,t} + \mu_j + \lambda_t + \varepsilon_{i,t}$$

$PublicHousing_{i,t}$ is an indicator which equals to 1 if the unit is under the type of public housing and 0 otherwise. The outcome variable is housing quality, measured using two proxies: The Housing Quality Index (HQI) and the logarithm of rent-adjusted quality (HQI/log($rent)), capturing relative housing quality per dollar spent. The unit of observation is the unit-year. To control for time trends and other unobserved time-invariant geographical characteristics, we include borough fixed effects and year fixed effects in $\mu_j$ and $\lambda_t$, respectively. Sample consists of the 2002 to 2023 waves of the New York City Housing and Vacancy Survey (NYCHVS).

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| VARIABLES | HQI | HQI | HQI/log($rent) | HQI/log($rent) |
| **NonWhite** | **-4.205*** ** | **-4.180*** ** | **-0.658*** ** | **-0.651*** ** |
| | **(0.168)** | **(0.170)** | **(0.025)** | **(0.026)** |
| **PublicHousing** | **-4.968*** ** | **-4.034*** ** | **-0.715*** ** | **-0.440*** ** |
| | **(0.280)** | **(0.978)** | **(0.042)** | **(0.147)** |
| **NonWhite * PublicHousing** | | **-0.997** | | **-0.293*** |
| | | **(1.000)** | | **(0.151)** |
| LogRent | 2.891*** | 2.895*** | -1.477*** | -1.476*** |
| | (0.144) | (0.144) | (0.022) | (0.022) |
| FemaleHH | -1.181*** | -1.181*** | -0.170*** | -0.170*** |
| | (0.148) | (0.148) | (0.022) | (0.022) |
| AgeHH | 0.021*** | 0.021*** | 0.004*** | 0.004*** |
| | (0.005) | (0.005) | (0.001) | (0.001) |
| MarriedHH | 0.904*** | 0.902*** | 0.122*** | 0.121*** |
| | (0.170) | (0.170) | (0.026) | (0.026) |
| EducationHH | 0.743*** | 0.741*** | 0.091*** | 0.091*** |
| | (0.185) | (0.185) | (0.028) | (0.028) |
| NumChildren | -1.889*** | -1.889*** | -0.284*** | -0.284*** |
| | (0.086) | (0.086) | (0.013) | (0.013) |
| BldgAge | 0.019 | 0.020 | 0.005 | 0.005 |
| | (0.032) | (0.032) | (0.005) | (0.005) |
| IncomeGroup | -1.145*** | -1.145*** | -0.178*** | -0.178*** |
| | (0.032) | (0.032) | (0.005) | (0.005) |
| Constant | 75.906*** | 75.862*** | 24.267*** | 24.254*** |
| | (1.150) | (1.151) | (0.173) | (0.173) |
| Observations | 71,703 | 71,703 | 71,703 | 71,703 |
| R-squared | 0.107 | 0.107 | 0.157 | 0.157 |
| Year FE | YES | YES | YES | YES |
| Borough FE | YES | YES | YES | YES |
| Adjusted R2 | 0.107 | 0.107 | 0.157 | 0.157 |

**Table IA5: Merged Sample Including Both Rent-Stabilized and Rent-Controlled Units**
This table reports a combined sample of rent-stabilized and rent-controlled units from the 2002-2023 waves of NYCHVS. The analysis is based on the following regression:

$$HQI_{i,t} = \alpha + \beta_1 NonWhite_{i,t} + \beta_2 RentRegulated_{i,t} + \beta_3 RentRegulated_{i,t} \times NonWhite_{i,t} + \gamma Controls_{i,t} + \mu_j + \lambda_t + \varepsilon_{i,t}$$

$RentRegulated_{i,t}$ is an indicator which equals to 1 if a unit is under either rent stabilization or rent controlled policies, and 0 otherwise. The outcome variable is housing quality, measured using two proxies: The Housing Quality Index (HQI) and the logarithm of rent-adjusted quality (HQI/log($rent)), capturing relative housing quality per dollar spent. The unit of observation is the unit-year. To control for time trends and other unobserved time-invariant geographical characteristics, we include borough fixed effects and year fixed effects in $\mu_j$ and $\lambda_t$, respectively.

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| VARIABLES | HQI | HQI | HQI/log($rent) | HQI/log($rent) |
| **NonWhite** | **-4.425*** ** | **-4.233*** ** | **-0.692*** ** | **-0.687*** ** |
| | **(0.168)** | **(0.226)** | **(0.025)** | **(0.034)** |
| **RentRegulated** | **-2.976*** ** | **-2.727*** ** | **-0.486*** ** | **-0.479*** ** |
| | **(0.145)** | **(0.244)** | **(0.022)** | **(0.037)** |
| **NonWhite * RentRegulated** | | **-0.383** | | **-0.010** |
| | | **(0.301)** | | **(0.045)** |
| LogRent | 3.923*** | 3.945*** | -1.326*** | -1.325*** |
| | (0.134) | (0.135) | (0.020) | (0.020) |
| FemaleHH | -1.316*** | -1.318*** | -0.189*** | -0.189*** |
| | (0.148) | (0.148) | (0.022) | (0.022) |
| AgeHH | 0.030*** | 0.030*** | 0.005*** | 0.005*** |
| | (0.005) | (0.005) | (0.001) | (0.001) |
| MarriedHH | 0.982*** | 0.985*** | 0.133*** | 0.133*** |
| | (0.169) | (0.169) | (0.025) | (0.025) |
| EducationHH | 0.982*** | 0.976*** | 0.128*** | 0.128*** |
| | (0.185) | (0.185) | (0.028) | (0.028) |
| NumChildren | -2.030*** | -2.030*** | -0.306*** | -0.306*** |
| | (0.085) | (0.085) | (0.013) | (0.013) |
| IncomeGroup | -0.002 | -0.002 | 0.002 | 0.002 |
| | (0.032) | (0.032) | (0.005) | (0.005) |
| BldgAge | -0.888*** | -0.886*** | -0.138*** | -0.138*** |
| | (0.032) | (0.033) | (0.005) | (0.005) |
| Condo | 2.630*** | 2.639*** | 0.392*** | 0.393*** |
| | (0.432) | (0.432) | (0.065) | (0.065) |
| Constant | 67.951*** | 67.679*** | 23.115*** | 23.108*** |
| | (1.065) | (1.086) | (0.160) | (0.163) |
| Observations | 71,700 | 71,700 | 71,700 | 71,700 |
| R-squared | 0.109 | 0.109 | 0.160 | 0.160 |
| Year FE | YES | YES | YES | YES |
| Borough FE | YES | YES | YES | YES |
| Adjusted R2 | 0.108 | 0.108 | 0.160 | 0.160 |

**Table IA6: Racial Disparities in HQI across Rent Segments**

This table presents regression results examining whether racial disparities in housing quality vary by rent segment and regulatory status. We interact the nonwhite indicator (*NonWhite*) with an indicator for high-rent units (*HighRentSegment,* defined as units with rents above the sample median) and a binary indicator for rent-stabilized units. The key interaction term (*NonWhite* × *HighRentSegment* × *RentStabilized*) captures whether racial disparities in housing quality are more pronounced among rent-stabilized units in the upper segment of the rental market. Sample includes the 2002 to 2023 waves of the New York City Housing and Vacancy Survey (NYCHVS).

| | (1) | (2) |
|---|---|---|
| VARIABLES | HQI | HQI/log($rent) |
| **NonWhite** | **-7.641*** ** | **-0.813*** ** |
| | **(0.353)** | **(0.054)** |
| **RentStabilized** | **-3.326*** ** | **-0.979*** ** |
| | **(0.426)** | **(0.065)** |
| **HighRentSegment** | **1.305*** ** | **-1.678*** ** |
| | **(0.380)** | **(0.058)** |
| **NonWhite * RentStabilized** | **2.611*** ** | **0.113** |
| | **(0.483)** | **(0.074)** |
| **NonWhite * HighRentSegment** | **4.566*** ** | **0.704*** ** |
| | **(0.444)** | **(0.068)** |
| **RentStabilized* HighRentSegment** | **0.580** | **0.917*** ** |
| | **(0.517)** | **(0.079)** |
| **NonWhite *RentStabilized* HighRentSegment** | **-4.450*** ** | **-0.527*** ** |
| | **(0.627)** | **(0.096)** |
| FemaleHH | -1.370*** | -0.166*** |
| | (0.148) | (0.023) |
| AgeHH | 0.008* | 0.009*** |
| | (0.005) | (0.001) |
| MarriedHH | 1.079*** | 0.095*** |
| | (0.170) | (0.026) |
| EducationHH | 1.087*** | 0.032 |
| | (0.186) | (0.028) |
| NumChildren | -2.071*** | -0.307*** |
| | (0.086) | (0.013) |
| BldgAge | 0.156*** | -0.053*** |
| | (0.031) | (0.005) |
| IncomeGroup | -0.995*** | -0.128*** |
| | (0.032) | (0.005) |
| Constant | 95.953*** | 14.828*** |
| | (0.560) | (0.085) |
| Observations | 71,703 | 71,703 |
| R-squared | 0.104 | 0.130 |
| Year FE | YES | YES |
| Borough FE | YES | YES |
| Adjusted R2 | 0.104 | 0.130 |

**Table IA7: Racial Disparities in Rent Levels**

This table examines whether rent stabilization moderates racial disparities in rent levels using the following regression model:

$$Rent_{i,t} = \alpha + \beta_1 NonWhite_{i,t} + \beta_2 RentStabilized_{i,t} + \beta_3 RentStabilized_{i,t} \times Nonwhite_{i,t} + \gamma Controls_{i,t} + \mu_j + \lambda_t + \varepsilon_{i,t}$$

The dependent variable $Rent_{i,t}$ is the logarithm of monthly rent of unit *i* in survey year *t*. $Rent\ Stabilized_{i,t}$ is an indicator which equals to 1 if the unit is under rent stabilization and 0 otherwise. $NonWhite_{it}$ is an indicator which equals 1 if the race of the household head identifies as non-White, and 0 otherwise. To control for time trends and other unobserved time-invariant geographical characteristics. Sample consists of the 2002–2023 waves of the NYCHVS.

| | (1) | (2) |
|---|---|---|
| VARIABLES | LogRent | LogRent |
| **NonWhite** | **-0.279*** ** | **-0.402*** ** |
| | **(0.005)** | **(0.006)** |
| **RentStabilized** | | **-0.098*** ** |
| | | **(0.007)** |
| **NonWhite * RentStabilized** | | **0.275*** ** |
| | | **(0.008)** |
| HQI | 0.003*** | 0.003*** |
| | (0.000) | (0.000) |
| FemaleHH | -0.023*** | -0.020*** |
| | (0.004) | (0.004) |
| AgeHH | -0.009*** | -0.009*** |
| | (0.000) | (0.000) |
| MarriedHH | 0.052*** | 0.049*** |
| | (0.005) | (0.005) |
| EducationHH | 0.090*** | 0.089*** |
| | (0.005) | (0.005) |
| NumChildren | 0.018*** | 0.020*** |
| | (0.002) | (0.002) |
| BldgAge | 0.077*** | 0.076*** |
| | (0.001) | (0.001) |
| IncomeGroup | -0.014*** | -0.018*** |
| | (0.001) | (0.001) |
| Constant | 6.868*** | 6.919*** |
| | (0.016) | (0.016) |
| Observations | 71,703 | 71,703 |
| R-squared | 0.441 | 0.452 |
| Year FE | YES | YES |
| Borough FE | YES | YES |
| Adjusted R2 | 0.440 | 0.452 |