

Housing Stability and Tenant Protection Act: An Initial Analysis of Short-Term Trends

Executive Summary

On June 11th, 2019, the New York State Legislature enacted the Housing Stability and Tenant Protection Act (HSTPA). Three days later, Governor Andrew Cuomo signed the act into law, making most of the law's provisions effective immediately on June 14th, 2019. HSTPA made significant changes to the state's rent stabilization system and expanded protections for New York State renters. The primary purpose of the legislation was to limit the size of rent increases and to prevent rent increases from leading to the deregulation of rent stabilized apartments.¹ Rent stabilized apartments make up close to one half of the city's total rental housing inventory and house nearly 1 million New York City households.² While many applauded the reforms as a tool to protect housing affordability and stability for renters, others contended that the law changes would lead to disinvestment in multifamily housing, decrease the tax base for the city, and result in a long-term decline in the quality and safety of housing. In an effort to contribute information about the impact of the rent law changes, this brief describes the changes in a few key housing indicators after HSTPA and, given that most of these predicted effects would likely take years to materialize, identifies future areas for research.

¹ S06458, The New York State Assembly (2019), https://assembly.state.ny.us/leg/?default_fld=&bn=S06458&term=2019&Summary=Y&Actions=Y&Text=Y&Committee%26nbspVotes=Y&Floor%26nbspVotes=Y

² Generally, units are rent-stabilized if they are in buildings built prior to 1974, with six or more units, that have not been subsequently deregulated. About 92 percent of the rent stabilized stock fall under that category, with about 8 percent of the stabilized stock regulated in exchange for tax incentives. See *Fact Brief*, The NYU Furman Center (June, 2014), https://furmancenter.org/files/FurmanCenter_FactBrief_RentStabilization_June2014.pdf

Our analysis is restricted to the period before the beginning of the economic shutdown due to the intervention of the COVID-19 pandemic (March 2020). We compare data on building sales, eviction filings, alteration job filings, and housing quality complaints and violations before and after the passage of HSTPA. Given the wide variation across buildings with one or more rent regulated apartments, our analysis separately examines trends for buildings that are primarily rent stabilized and those with lower shares of rent stabilized units. In this short-term period, we find that HSTPA had a statistically significant differential impact on the change in sales prices.

In summary, our initial analysis of trends in key indicators surrounding the passage of HSTPA finds the following:

Sales Price

The sales price per square foot of all properties fell after the passage of the HSTPA, but our estimates suggest that sales prices fell the most for properties in which 26 to 75 percent of the apartments were rent-stabilized. The volume of unit sales varied by rent stabilized building category, but overall followed a downward trend beginning in 2015.

Alteration Permits

After an initial spike around the time of the passage of HSTPA, the filing rate of alteration jobs for building rehabilitation work for all rental properties settled at a lower rate than before HSTPA's passage. The drop was most dramatic for buildings with between 25 and 75 percent rent stabilized units.

Complaints and Violations

Trends for housing quality-related complaints and violations did not appear to change in the short-term period after the rent law, and were similar across buildings regardless of the share of rent stabilized units.

Eviction Filings

The citywide eviction filing rate dropped around the time of HSTPA's passage before it returned to a level similar to the months prior to its passage. This trend holds across all ZIP Codes, regardless of the share of rent stabilized units.

Key Provisions of HSTPA

Rent-Regulated Unit Provisions

HSTPA contains a number of provisions that limited or eliminated the ability of property owners to raise rents at a higher rate than those approved through the annual rent adjustments authorized by a local Rent Guidelines Board (RGB).

Before HSTPA passed, New York State law provided landlords multiple ways to increase rents at a rate greater than the RGB annual guidelines, and then decontrol units once those units reached certain rent levels.³ This flexibility has resulted in otherwise identical units at different rents, and buildings with a varying mix of rent stabilized and market rate units. After HSTPA, landlords were no longer allowed to deregulate rent stabilized units unless a building was subject to rent stabilization under a type of exemption.⁴

Prior to HSTPA, landlords could also use Individual Apartment Improvements (IAI) and Major Capital Improvements (MCI) to permanently increase rent stabilized apartment rents in exchange for unit- or building-level repairs, respectively.⁵ While both IAIs and MCIs are still allowed, HSTPA restricted their value, allowing increases to last only for the life of the improvement or 30 years, whichever is less.

³ *Strengthening New York State Rent Regulations*, New York State (NYS) Department of Homes and Community Renewal (DHCR), 7-8 (Feb. 19, 2020), <https://hcr.ny.gov/system/files/documents/2020/02/rent-regulation-hstpa-presentation.pdf>

⁴ *Fact Sheet #36: Historical Deregulation Rent and Income Thresholds*, NYS DHCR (2020), <https://hcr.ny.gov/system/files/documents/2020/11/fact-sheet-36-02-2020.pdf>

⁵ *Apartment Improvements*, NYS DHCR (2019), <https://hcr.ny.gov/apartment-improvements>



In addition, HSTPA limited landlords to three IAIs per unit that could total to no more than \$15,000 over a 15-year period.⁶ Similarly, annual rent increases enabled by MCIs were previously limited to six percent; HSTPA capped them at two percent, and no longer allows them for buildings in which 35 percent or less of the units are rent-regulated.⁷

Prior to HSTPA, landlords offering preferential rents (rents set below the amount a landlord could legally collect) were allowed to raise those rents to the legal amount at lease renewal, even if this meant a rent increase in excess of the RGB rent guidelines.⁸ Now, rent increases cannot exceed RGB designated amounts, and preferential rents can only be raised to legal rents upon tenant turnover.⁹

HSTPA also expanded the requirements necessary to convert rent stabilized apartments to cooperatives or condominiums. Previously, 15 percent of tenants were required to purchase their apartments for primary residency in order to enable a conversion. The 2019 law increased the required percentage of total units to 51 percent.¹⁰

Finally, before the passage of HSTPA, owners were allowed to reclaim multiple units for their own or their family's use. Among other provisions, owners may now only reclaim one unit, which must be used as their primary residency.¹¹

6 *Strengthening New York State Rent Regulations*, NYS DHCR, 11 (Feb. 19, 2020), <https://hcr.ny.gov/system/files/documents/2020/02/rent-regulation-hstpa-presentation.pdf>

7 This 2 percent cap will also be applied to all uncollected MCI rent increases approved on or after June 14, 2012. *Fact Sheet #26 Guide to Rent Increases for Rent Stabilized Apartments*, NYS DHCR (2019), https://hcr.ny.gov/system/files/documents/2020/11/fact-sheet-26-09-2020_0.pdf

8 *Fact Sheet #40: Preferential Rent*, NYS DHCR (Sept., 2019), <https://hcr.ny.gov/system/files/documents/2020/11/fact-sheet-40-09-2019.pdf>

9 *Strengthening New York State Rent Regulations*, New York State (NYS) Department of Homes and Community Renewal (DHCR), 9 (Feb. 19, 2020), <https://hcr.ny.gov/system/files/documents/2020/02/rent-regulation-hstpa-presentation.pdf>

10 S06458, Part N, Section 1(a). 2019-2020 Legislative Session, New York State (2019).

11 S06458, Part I, 2019-2020 Legislative Session, New York State (2019).

HSTPA Provisions that Affected All Rental Units

The 2019 rent law also included general protections to help prevent or lessen the impact of evictions. For example, Marshals' notices of eviction must now be given fourteen days in advance of the eviction date instead of three. Additionally, landlords must now give advance notice of rent increases to tenants. HSTPA made the use of eviction court data in determining whether to rent to a tenant a violation of law, and enacted restrictions on security deposits, late fees, application fees, and broker fees.¹²

Our Approach to Evaluating the Impact of HSTPA Provisions

Our research uses a rigorous, data-informed approach to contribute to the debate. We examine trends, both prior to and after the passage of HSTPA, in commonly discussed possible impacts, including: building sales and sales prices; eviction filings; alteration jobs; and New York City Department of Housing Preservation and Development (HPD) complaints and violations. We prioritized these housing indicators for this short-term analysis due to their potential to be immediately impacted by HSTPA. Over the next few years, we will conduct further research to examine the impact of the 2019 rent law in order to develop a deeper understanding of the medium- and long-term impacts of the law change, particularly on the move rates of tenants living in rent regulated housing.

12 S06458, Part M, 2019-2020 Legislative Session, New York State (2019).



Economic and Policy Context

In order to parse out possible HSTPA impacts, it is important to note other significant developments that occurred over the last several years, all before the COVID-19 pandemic. For example, HSTPA was partially intended to lower the eviction rate, but other policies, like New York City's Universal Access to Counsel (UAC) program, have similar goals. Passed in 2017, UAC provides free legal representation in Housing Court for tenant households with an income below 200 percent of the federal poverty level.¹³ The City had phased the program in by ZIP Code,¹⁴ but expanded it across all ZIP Codes during the pandemic.¹⁵

In addition, an improving national and local economy prior to the COVID-19 crisis potentially can obscure the relationship between HSTPA and a number of key housing indicators, including investment in housing stock and eviction filing rates. From 2015 to 2019, the U.S. economy saw an overall improvement, with steadily increasing development and investment in the housing market.¹⁶

¹³ *Expanding Right to Counsel for Tenants in NYC Housing Court*, New York City Bar (Mar. 5, 2020), <https://www.nycbar.org/member-and-career-services/committees/reports-listing/reports/detail/expanding-right-to-counsel-for-tenants-in-new-york-city-housing-court> (last visited July 9, 2020).

¹⁴ *Free Lawyers for Tenants (Universal Access to Legal Services)*, New York State Unified Court System (Jan. 7, 2020), <https://www.nycourts.gov/COURTS/nyc/housing/freeLawyerQualify.shtml> (last visited July 9, 2020); Vicki Been, Deborah Rand, Nicole Summers & Jessica Yager, *Policy Brief*, NYU Furman Center (2018), https://furmancenter.org/files/UAC_Policy_Brief_12_11-18.pdf

¹⁵ *Universal Access to Legal Services: A Report on Year Three of Implementation in New York City*, Office of Civil Justice, New York City Human Resources Administration (Fall 2020), https://www1.nyc.gov/assets/hra/downloads/pdf/services/civiljustice/OCJ_UA_Annual_Report_2020.pdf

¹⁶ *The Role of Housing in the Longest Economic Expansion* (June 2009 – July 2019 and Counting), CoreLogic (2019), <https://www.corelogic.com/intelligence/special-report-the-role-of-housing-in-the-longest-economic-expansion/>

During the same period leading up to HSTPA, the increasing costs of operating an apartment building may have reduced the economic incentive for owning, operating, or properly maintaining rent stabilized buildings in the city, when comparing those returns to other investments. In the city's rent stabilized housing market, operating costs increased by an average of 5.8 percent while rental income rose by an average of 3.7 percent from 2017 to 2018. During this period, the net operating income (NOI)—owner revenue net the cost of operations—declined for rent stabilized buildings by 0.6 percent, the first decline since 2002 to 2003.¹⁷

Finally, the economic impacts of the COVID-19 pandemic have been significant, but the true impact on housing conditions, housing stability, and the multifamily real estate market are entirely unclear. In response to the crisis, Governor Cuomo established a statewide eviction moratorium on March 16th, 2020, followed by an executive order closing non-essential businesses on March 22nd, which expanded to include all non-essential construction on March 28th.¹⁸ These actions impacted our indicators of interest, so we have limited the scope of our analysis to changes in trends following HSTPA and through March 2020. Some effects of HSTPA may not surface in this short time frame; they are likely to take years to become clear. Yet the data we have collected will allow future research to assess the combined effects of HSTPA and the economic disruption of the pandemic on key metrics of the housing market and tenant stability.

¹⁷ *2020 Income and Expense Study*, New York City Rent Guidelines Board (Apr. 15, 2020), <https://rentguidelinesboard.cityofnewyork.us/wp-content/uploads/2020/04/2020-IE.pdf>

¹⁸ *No. 202.13 Continuing Temporary Suspension and Modification of Laws Relating to the Disaster Emergency: Executive Order*, NYS (March 30, 2020), <https://www.governor.ny.gov/news/no-20213-continuing-temporary-suspension-and-modification-laws-relating-disaster-emergency>



Data and Methods

For this analysis, we rely on data from several sources, including data from the New York City Department of Buildings (DOB) on job application filings, which consists of filings for various levels of alteration construction. The New York City Department of Housing Preservation and Development’s (HPD) data cover housing complaints made by residents, as well as housing violations of the New York City Housing Maintenance Code (HMC) or the New York State Multiple Dwelling Law (MDL), as confirmed by HPD inspectors. We also rely on data from the New York City Department of Finance (DOF) on building sales transactions, cleaned of non “arms-length” sales, portfolio sales, and outlying transactions (trimmed to the 1st and 99th percentile of sales in our sample based on price per unit). Finally, we use ZIP Code-level data on eviction filings from the New York State’s Office of Court Administration (OCA).

To compare market rate and rent stabilized buildings, we exclude properties with less than six units, the basic threshold requiring rent stabilization. We also exclude properties that are less comparable to rent stabilized buildings due to additional regulations or restrictions, including any regulated affordable or public housing identified in our Subsidized Housing Database such as New York City Housing Authority (NYCHA) developments, active 421-a or J-51 properties, Low Income Housing Tax Credit Properties (LIHTC), Department of Housing and Urban Development-assisted (HUD-assisted) properties, Mitchell-Lama properties (both active and opted-out), and other smaller affordable housing programs.

In addition, we exclude buildings built after 2017 to ensure that we have accurate data on their rent stabilization status. Our rent stabilization data comes from DOF property tax bills scraped by JustFix.nyc in 2019 and 2018, and John Krauss in 2017; we use rent stabilization data dating back to 2014 in the identification of rent stabilized buildings in order to improve data quality. Finally, we pull building characteristics from the New York City Department of City Planning’s (DCP) PLUTO dataset and the DOF’s property-level tax exemption data.

Throughout this report, our primary unit of analysis is the property, as identified by the borough-block-lot number (BBL). While a property can comprise multiple buildings, they typically contain only one building. We will use the term “buildings” and “properties” interchangeably in this report to refer to properties. In this analysis, we analyze properties by share of units that are rent stabilized to understand whether the law had a differential impact on primarily rent stabilized properties. To do this, and for the purposes of descriptive tables and figures, we categorize properties by the share of units that are rent stabilized, separating them into three groups: primarily (>75%) rent stabilized, moderately (25% and ≤75%) rent stabilized, and minimally (≤25%, including 0%) rent stabilized.¹⁹ For our analysis of eviction filings, we are limited to ZIP Code level data. Therefore we categorize ZIP Codes by the share of private rental units that were rent stabilized in each ZIP Code and compare changes in filing rates. Finally, we build a hedonic regression model to isolate the impact of HSTPA on property sales prices.

¹⁹ In the course of our analysis, we reviewed a variety of different groupings of buildings by share rent stabilized, including breaking out 0 percent and 100 percent rent stabilized buildings. We chose the three categories used in this analysis (primarily, moderately, and minimally rent stabilized) based on conversation with industry experts who confirmed that they behave meaningfully differently from each other in the market. However, our findings are not sensitive to our choice of categories.



This report focuses on reviewing the initial trends in sales price and volume, eviction filings, alteration job application filings, and housing code complaints and violations after the June 2019 rent law changes. To do so, we track those metrics before mid-March of 2020. After that time, the pandemic and ensuing shelter-in-place measures affected all key indicators, which obscured HSTPA's potential impact. In future analyses, we will revisit data beginning in March of 2020 and monitor the combined effect of both the rent regulation changes and COVID-19.

Descriptive Statistics

The properties in our sample fall into three categories depending on the degree to which they are primarily, moderately, or minimally composed of rent stabilized units. Slightly more than 80 percent of the units in our sample are in buildings that are either primarily (>75%) or minimally ($\leq 25\%$) rent stabilized (Table 1). Because we removed buildings currently benefiting from the J-51 and 421-a tax benefit programs from our sample, virtually all (98.5%) units in buildings that are primarily rent stabilized were built prior to 1974. Due to the decline in construction after the late 1970s and the exclusion of buildings currently benefiting from 421-a, 74.8 percent of units in buildings with minimally rent stabilized units were

built before 1974. In our sample, a greater share of units in minimally rent stabilized buildings are in larger buildings (28.9% in minimally rent stabilized buildings, compared to 15.5% in primarily rent stabilized buildings), and are located in Manhattan (58.9% in minimally rent stabilized buildings, compared to 17.1% in primarily rent stabilized buildings). Less than one percent of our overall universe of units are in buildings located in Staten Island, where most residential buildings have fewer than six units.

The differences among the primarily, moderately, and minimally rent stabilized buildings raise the concern that other factors, such as highly localized market trends, could affect properties with a greater or lesser share of rent stabilized units differently. If those confounding factors coincided with the passage of HSTPA, their influence could be mistaken for the impact of the rent law changes.

Later in the report, we use a regression model to control for differences in size, age, location, and other key characteristics of properties. The regression models allow us to examine whether buildings with different shares of rent stabilized units that otherwise have similar characteristics behaved differently after the passage of HSTPA.



**Table 1: Summary Statistics: Building Age and Location
(Buildings with 6 or more units built before 2018*)**

| | Sub-Group by Share of Rent Stabilized Units | | | |
|--|---|---------|---------|---------|
| | 0%-25% | 26-75% | 76-100% | Overall |
| Total | | | | |
| Number of BBLs | 16,093 | 7,216 | 17,135 | 40,444 |
| Number of Units | 288,474 | 164,752 | 404,866 | 858,092 |
| Share of Units by Borough | | | | |
| Manhattan | 58.9% | 64.6% | 17.1% | 40.3% |
| Bronx | 7.5% | 3.7% | 26.2% | 15.6% |
| Brooklyn | 23.2% | 16.5% | 33.2% | 26.6% |
| Queens | 9.5% | 15.0% | 22.3% | 16.6% |
| Staten Island | 0.9% | 0.2% | 1.2% | 0.9% |
| Share of Units by Building Size | | | | |
| Building Size of 6-10 Units | 26.1% | 15.0% | 14.2% | 18.3% |
| Building Size of 11-20 Units | 16.5% | 17.9% | 11.0% | 14.2% |
| Building Size of 21-50 Units | 18.6% | 28.1% | 30.4% | 26.0% |
| Building Size of 51-99 Units | 10.0% | 18.2% | 28.9% | 20.5% |
| Building Size of 100 or More Units | 28.9% | 20.8% | 15.5% | 21.0% |
| Share of Units by Year Built | | | | |
| Built before 1974 Units | 74.8% | 97.7% | 98.5% | 90.4% |
| Share of Units in Buildings with Commercial Space | | | | |
| Building with Commercial Space | 52.6% | 47.5% | 29.3% | 40.6% |

Sources: NYC Department of Finance, MapPLUTO, DOF Tax Bills (scraped by John Krauss and JustFix.nyc), NYU Furman Center

*Note: For this analysis, we excluded certain types of buildings, including those using the J-51 and 421-a tax benefit programs. See the Data and Methods section for a detailed description of the restrictions on the universe of buildings.

Part I: Assessing the Impact on Sales Prices and Volume of Sales

The passage of HSTPA in June of 2019 raised concern among policymakers and building owners that the law would negatively affect the New York City real estate market, particularly for rent stabilized buildings. Many argued that constraints on building income would affect the value of those buildings, as investors would shift their capital to the non-stabilized housing stock or to investments in other cities. While HSTPA's impact on the real estate market will likely increase in magnitude over a period of years, comparing the sales prices

and volume for primarily, moderately, and minimally rent stabilized buildings (all building types) in the first three quarters after the law change shows immediate market reactions to the Act.

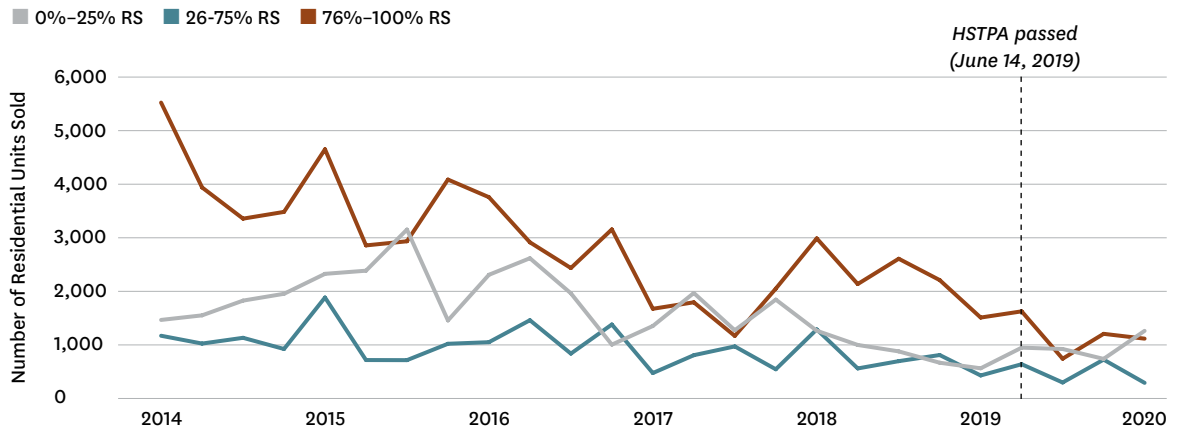
To contextualize broader market trends and any variation immediately following the rent law changes, we begin by reviewing the distribution of buildings that were sold prior to and after HSTPA, beginning in 2014 and continuing to the first quarter of 2020 (Table 2). The distribution of

Table 2: Summary Statistics for Sales
(Real estate transactions between 2014 and Q1 of 2020, by pre and post HSTPA)

| Characteristic | Pre HSTPA, N = 6,311 | Post HSTPA, N = 373 |
|---|----------------------|---------------------|
| Price per Sqft | \$290 | \$361 |
| Borough | | |
| Manhattan | 1,795 (28%) | 112 (30%) |
| Brooklyn | 2,535 (40%) | 162 (43%) |
| Bronx | 1,067 (17%) | 37 (9.9%) |
| Queens | 858 (14%) | 59 (16%) |
| Staten Island | 56 (0.9%) | 3 (0.8%) |
| Sales by Rent Stabilized Units Group | | |
| 0%–25%: Minimally RS | 2,540 (40%) | 169 (45%) |
| 26–75%: Somewhat RS | 904 (14%) | 66 (18%) |
| 76%–100%: Primarily RS | 2,867 (45%) | 138 (37%) |
| Sales by Building Size | | |
| 6–10 Units | 3,566 (57%) | 243 (65%) |
| 11–20 Units | 1,126 (18%) | 62 (17%) |
| 21–50 Units | 1,142 (18%) | 40 (11%) |
| 51–99 Units | 390 (6.2%) | 22 (5.9%) |
| 100 or More Units | 87 (1.4%) | 6 (1.6%) |
| Sales by Building Year Built | | |
| Before 1974 | 6,145 (97%) | 358 (96%) |
| After 1974 | 166 (2.6%) | 15 (4.0%) |
| Sales with Commercial Space | | |
| With Commercial Space | 1,615 (26%) | 93 (25%) |
| Without Commercial Space | 4,696 (74%) | 280 (75%) |

Statistics presented: Median; n (%). Sources: NYC Department of Finance, MapPLUTO, DOF Tax Bills (scraped by John Krauss and JustFix.nyc), NYU Furman Center

Figure 1: Quarterly Number of Residential Units Sold by Building-level Rent Stabilization Weighted by Residential Units



Sources: NYC Department of Finance, MapPLUTO, DOF Tax Bills (scraped by John Krauss and JustFix.nyc), NYU Furman Center

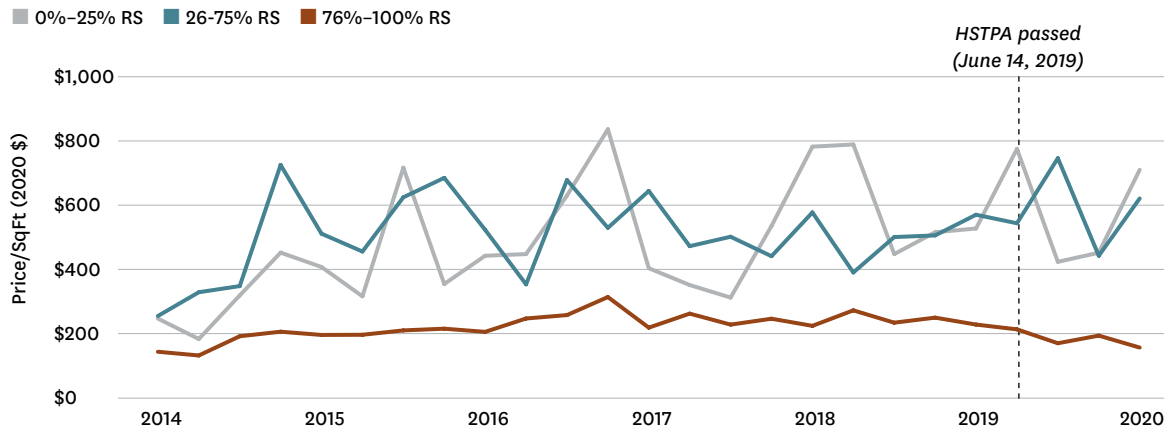
sales across boroughs was fairly similar prior to and after the passage of the Act, with the exception of the Bronx, where the share of sales fell by seven percentage points. The share of buildings sold that are minimally and moderately rent stabilized increased after HSTPA, while the share that are primarily rent stabilized fell by eight percentage points.²⁰ The share of small buildings (6-10 units) increased by eight percentage points, while the share of buildings with between twenty-one and fifty units fell by seven percentage points. Additionally, there were a few changes in both the share of properties built before and after 1974, as well as the share with commercial space. To deal with the fact that the distribution of the type of buildings sold changes somewhat after HSTPA, we use regression analysis to try and estimate the impact of the Act on sales price while controlling for building characteristics.

1. The number of residential units sold declined annually, beginning in 2015. However, the prices for those units increased beginning in 2014, with less of a clear pattern after HSTPA.

The number of units sold in all building types (primarily rent stabilized, moderately rent stabilized, or minimally rent stabilized) has fallen since 2015 (Figure 1). This declining trend held both in most recent years prior to HSPTA and in all building types. The decline is especially apparent for primarily rent stabilized buildings. While buildings comprising nearly 5,000 units sold in Quarter Two of 2015, less than 1,000 units sold in Quarter Four of 2019. As sales volume of residential units decreased, price per square foot of those sales increased. This longer-term trend likely reflects larger market forces, which we did not examine in this report.

²⁰ To review the distribution of building sales by share rent stabilized prior to the passage of HSTPA, see Appendix A. Across all buildings sold during the time period reviewed, the majority of buildings in the primarily rent stabilized group were 100 percent rent stabilized, and the majority of buildings in the minimally rent stabilized group were 0 percent rent stabilized (see Appendix B).

Figure 2: Quarterly Median Sales Price/SqFt by Building-level Rent Stabilization Weighted by Residential Units



Sources: NYC Department of Finance, MapPLUTO, DOF Tax Bills (scraped by John Krauss and JustFix.nyc), NYU Furman Center

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2. There was a long-term positive trend in sales price per square foot for all building types between 2014 and the passage of HSTPA, with a less clear pattern afterwards.

All three building types saw increases in price per square foot between 2014 and 2019 (Figure 2). While there was some price volatility in the quarters following the passage of HSTPA, the average price per square foot for each of the three building types declined either beginning a quarter before the Act (primarily rent stabilized buildings) or after the Act’s passage. Prices rebounded a bit in early 2020 for minimally and moderately rent stabilized buildings.

3. Regression analysis indicates that in the quarters following HSTPA’s passage, the sales price dropped for all buildings, but we find weak evidence that the decline was greater for buildings in which between 26 and 75 percent of units were rent stabilized.

Because our sample includes a variety of building types sold, we use a regression analysis to understand the relationship between the passage of HSTPA and changes in sales price, while controlling for differences across buildings. Our model²¹ allows us to consider whether changes in sales prices after the passage of HSTPA were different for buildings with larger shares of rent-stabilized units (see Table 3 for abbreviated output and Appendix C for all controls). We find that after the passage of HSTPA, the sales price declined for all buildings, and buildings with between 26 and 75 percent rent stabilized units saw a marginally significant incremental decline in sales price.

²¹ We use a comparative interrupted time series regression model to estimate the change in price per square foot for each building stabilization group after the HSTPA, compared to prior trends.



In the model below, we control for key factors that affect property value, including building, retail, lot, and garage area, the number of buildings on a property, building class, lot type, and the two most recent years the building was renovated (see “Year Altered” controls). In addition to year built, we control for the squared value of building age (significant at the $p < 0.001$ level), because the relationship between property age and price is typically non-linear, or the price does not decrease by a constant amount with increased age. We also use fixed effects controls for the census tract and the quarter within the year of the sale, in order to capture differences in price driven by building location or seasonality in the time of the sale.

We run a regression model that controls for three groups of properties according to the share of rent stabilized units as well as the yearly time trend. We also include interaction terms between the rent stabilization group and the time trend control to capture any variation in the trends in price per square foot over time for each group. An interaction term between the rent stabilization group terms and a dummy control captures whether the

sale occurred after the passage of HSTPA. These interaction terms are the coefficients of interest for our analysis. They allow us to consider the difference in price per square foot between buildings with different shares of rent stabilized units, compared to trends before the passage of HSTPA.

After controlling for key factors, our model finds weak evidence that buildings with between 26 and 75 percent rent-stabilized units saw the greatest loss of value after the passage of HSTPA, compared to buildings that were more or less rent-stabilized. The estimated incremental decline for 26 to 75 percent rent stabilized buildings was approximately \$50 more (with 90 percent confidence that the actual decline differs from \$0), over and above the approximately \$90 estimated decline for all property types. The model also shows that sales values fell generally after HSTPA. One theory for our results is that prior to the passage of the law, the market particularly valued the potential to convert partially rent stabilized buildings to less rent stabilized buildings. The proscription of deregulation under HSTPA may have been related to a greater loss in value for those buildings.

Table 3: Regression of Sales Price per Square Foot on Property Characteristics
(Trimmed to 1st and 99th percentile of sales and restricted to 100 percent transfer sales)
(Abbreviated, see Appendix C for all controls)

| | Grouped Rent Stabilized (units weighted N=126,336) |
|--|---|
| Post HSTPA | -93.9*** (21.5) |
| Post HSTPA * 26-75% Rent Stabilized Units | -58.2+ (34.1) |
| Post HSTPA * 76% to Fully Rent Stabilized Units | -3.9 (28.7) |
| 26-75% Rent Stabilized Units | -55.8*** (13.6) |
| Time Trend (Year of Sale) * 26-75% Rent Stabilized Units | 4.9 (5.4) |
| 76% to Fully Rent Stabilized Units | -55.4*** (10.5) |
| Time Trend (Year of Sale) * 76% to Fully Rent Stabilized Units | 1.6 (4.2) |
| Time Trend (Year of Sale) | 18.6*** (3.5) |
| Census Tract Fixed Effects | Yes |
| Quarter Fixed Effects | Yes |
| N | 6,684 |
| R ² | 0.8 |
| Adjusted R ² | 0.7 |
| Residual Std. Error | 766.0 (df = 5,437) |
| F Statistic | 14.1*** (df = 1,246; 5,437) |

Note: p<0.1 +; p<0.05 *; p<0.01 **; p<0.001 ***

Part II: Assessing Trends in Investment in Upgrades and Maintenance

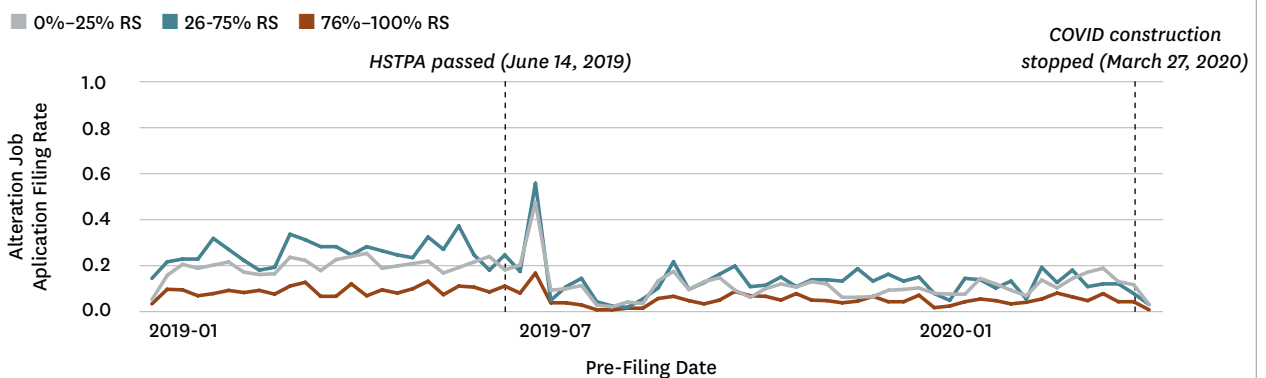
In this section we look for any changes in trends of building rehabilitation work at the time of HSTPA, given the Act’s restrictions on MCI and IAI rent increases. At the time of HSTPA’s passage, building owner groups contended that rent increases were necessary in order to make needed repairs and renovations on individual units, as well as building-wide work, such as replacing a roof or water heater. Building owners raised concerns that without the flexibility to raise rents, they would be reluctant to invest in rent stabilized buildings under their ownership, and buildings would gradually fall into disrepair. While any impact on building quality may only show up over time, we tracked alteration permit trends to understand what happened to rehabilitation work after the passage of HSTPA.

1. After initial volatility around the passage of HSTPA, alteration job filings settled at lower levels than before the passage of HSTPA.

The number of alteration job application filings per 1,000 residential units increased sharply in the month after the passage of HSTPA for one week, more than doubling for all three building types, not

just those with the most regulated units (Figure 3). However, after this sharp increase, the job application filings settled at lower levels for 9 months prior to the stoppage of most construction work in March 2020 due to COVID-19. Importantly, this pattern occurred across all rent stabilized types of buildings. The unique timing of the increase and drop in application filings implies that the passage of the rent reform had an effect on building owner behavior. For this analysis, we use the earliest possible date associated with an alteration filing (the pre-filing date), but it is possible that there is a delay in reporting that date. It is unclear why the increase in filings occurs after the passage of the law, rather than immediately before. This spike could also be due to a delayed reaction by owners or even an expectation that the state legislature might “grandfather in” alteration jobs in later, more minor amendments to the bill. The subsequent drop and continued lower levels of alteration job filings could be related to the law changes, but it remains unclear why the restrictions would affect all building types, rather than more acutely affecting the buildings with the most rent stabilized units. In discussions with developers and owners, we heard that this could have resulted from a general concern among owners

Figure 3: Weekly Alteration Job Application per 1,000 Residential Units by Building-level Rent Stabilization



Sources: NYC Department of Buildings, MapPLUTO, DOF Tax Bills (scraped by John Krauss and JustFix.nyc), NYU Furman Center



Table 4: Monthly Alteration Job Filing Rate Changes by Building-level Rent Stabilization

| Rent Stabilization Level | Pre HSTPA ¹ | Post HSTPA ¹ | Diff in Points ¹ |
|--------------------------|------------------------|-------------------------|-----------------------------|
| 0%–25%: Minimally RS | 0.08 | 0.04 | -0.04 |
| 26–75%: Somewhat RS | 0.14 | 0.07 | -0.07 |
| 76%–100%: Primarily RS | 0.05 | 0.03 | -0.02 |

¹ Statistics presented: Mean. Sources: NYC Department of Buildings, MapPLUTO, DOF Tax Bills (scraped by John Krauss and JustFix.nyc), NYU Furman Center

that additional legislation may further shift the policy landscape for all residential properties in the future, or it could reflect a portfolio-level change in behavior, and that owners may have simply extended their change in behavior to buildings with few or no rent stabilized units.

To examine the relative change in filing rates between rent stabilized types, we looked at the difference between average monthly filing rates for the six month period before and after the passage of HSTPA (Table 4).²² According to our data, all groupings of buildings saw a decline in the rate of job alteration filings after HSTPA went into effect. Buildings with minimally rent stabilized units dropped by 0.04 points (40 filings per 1,000 units), while buildings with greater than 75 percent rent stabilized units dropped by half that amount. Buildings with between 26 and 75 percent rent stabilized units dropped by the greatest amount, 0.07 points. These buildings also had the highest rate of alteration filings before HSTPA (and still had the highest afterwards), possibly reflecting that the owners of these types of buildings benefitted the most from work that led to decontrolled units and higher rents.

2. After HSTPA, the most common type of alteration filing (Alteration Type 2 or Alt 2 filings), spiked in the short-term, and then declined, while other types of filings were more volatile.

The New York City Department of Buildings (DOB) categorizes job alteration filings into four categories: Alteration 1, 2, 3 and Limited Alteration Application (LAA) filings. Alteration 2 (Alt 2) filings are for work types that do not affect use, egress, or occupancy. Types of work requiring an Alt 2 include electric/plumbing work, adding an additional bathroom, or moving a load-bearing wall. Alt 2 jobs represent the type of work most likely to have used an IAI or an MCI. In contrast, Alteration 1 (Alt 1) filings are dramatic alterations that affect use, egress, or occupancy, and Alteration 3 (Alt 3) filings typically do not require plans (curb cuts, construction fences, etc.). While we were able to examine changes in Alt 1, 2, and 3 filings over time, we are currently requesting data on LAA filings from DOB, which typically cover plumbing, fire suppression, and oil burner installation, amongst other things.

²² Because job filing rates do not appear to be seasonal, we do not expect limiting our review to such a restricted time frame will have a confounding effect.

Alt 2 job filings represent the largest share of job filings, making up 84.3 percent of all filings in 2019 (Alt 1, 2, and 3 filings). Given the high share, it is unsurprising that Alt 2 filings follow the same trend for filings overall (Figure 4). The fact that the overall decline in filings after the passage of HSTPA is most clear for Alt 2 jobs points to a connection between the rent law’s restrictions on MCIs and IAIs and a decline in alteration jobs.

However, interviews with industry members indicate that building owners are increasingly relying on LAA filings for their renovation work, either because they have a reputation for moving through the approval process more quickly, or because they were undertaking less extensive alterations. These additional LAA filings data may shed more light on the impact of HSTPA on overall alteration applications.

Figure 4: Weekly Alteration of Job Application Filings per 1,000 Residential Units by Building-level Rent Stabilization and Job Type

■ 0%–25% RS ■ 26–75% RS ■ 76%–100% RS



Sources: NYC Department of Buildings, MapPLUTO, DOF Tax Bills (scraped by John Krauss and JustFix.nyc), NYU Furman Center

Part III: Assessing Trends in Building and Unit Quality

Some critics of the legislation warned that HSTPA restrictions on IAIs, MCIs, and rent increases for rent stabilized units would result in less investment in repairs and maintenance of buildings with rent regulated units over time, which in turn would lead to lower quality housing. While alteration job filings are a reasonable indicator for repair and renovation activity, housing complaints lodged with New York City’s Department of Housing Preservation and Development (HPD), and the violations issued by HPD’s housing inspectors upon inspection of units both offer insight into the minimally acceptable quality of the city’s rent regulated housing, although they would not capture smaller changes in the quality of housing stock. If HSTPA resulted in an immediate lowering of the quality of rent stabilized units, those units might be the source of an increased number of complaints and violations in the years after the law changes, as units fall into disrepair. If the impact on quality is a longer term phenomenon, though, a notable increase in complaints and violations directly after the passage of the law may not happen in the period of a few months. Relatedly, if tenants in rent stabilized units felt more protected against retaliatory action in the form of rent increases or eviction filings after the passage of HSTPA, they would be more emboldened to report complaints.

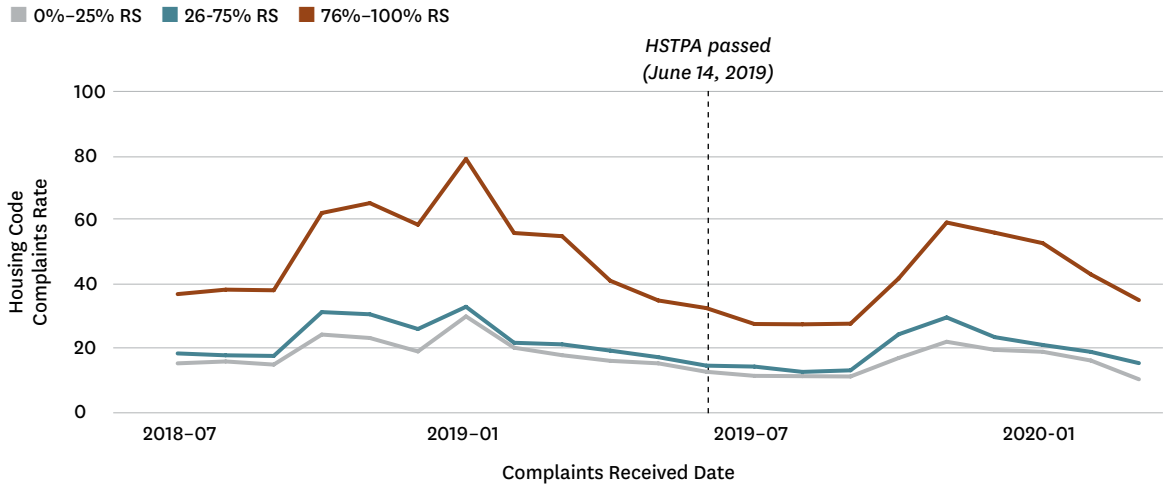
Analysis of Housing Vacancy Survey data conducted by HPD has documented a difference in quality between rent stabilized and non-regulated units. For example, in 2017, 4.2 percent of rent stabilized units had five or more deficiencies out of seven maintenance deficiencies, compared to 1.4 percent of non-regulated units.²³ For more current data, we reviewed HPD’s data on complaints and violations as indicators of the relationship between the passage of HSTPA and changes in the housing quality and of the perceived security of tenants in rent stabilized units.

1. Trends for HPD complaints are similar for buildings regardless of their rent stabilization status, and changes over time appear to be driven by seasonal factors rather than by the rent law changes.

Reviewing HPD complaint rates over time highlights their seasonal trends, as rates of complaints related to heat and hot water increase in the winter months (Figure 5). Apart from the continuation of a seasonal decline in complaint rates (also observed in June of the previous year), there is no clear increase in complaints directly after the passage of HSTPA. Rather, all rent stabilized types of buildings continue to follow the seasonal trend observed in the prior year. Breaking out HPD complaints by the reason for the complaint also fails to surface a clear change in trend at the time of HSTPA rent law change. The data do seem to imply that tenants in rent stabilized units did not change their behavior and call in more complaints immediately following the rent law changes.

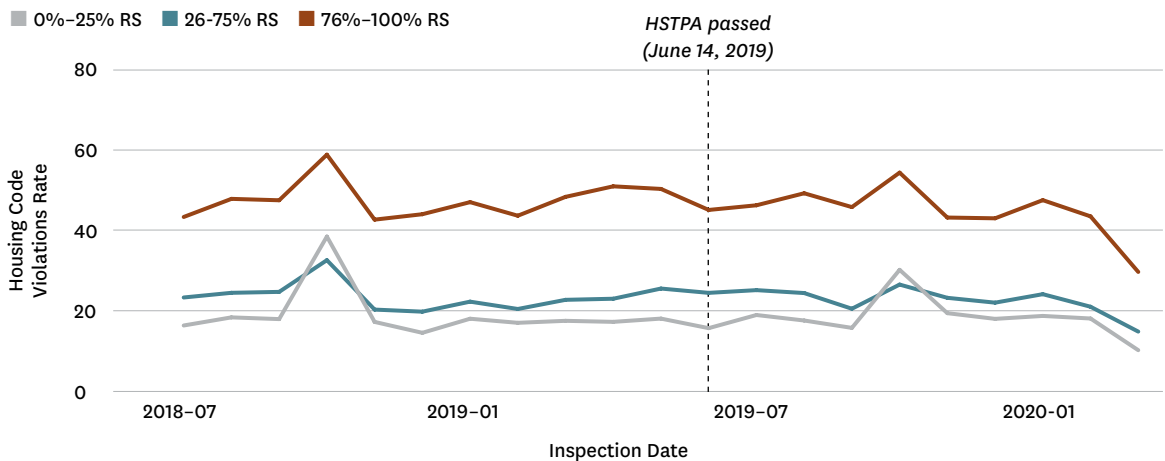
²³ Waickman, C. R., Jerome, J. B. R., Place, R. *Quality and Accessibility of Rent Stabilized Units*. New York City Department of Housing Preservation and Development, (2018). <https://www1.nyc.gov/assets/hpd/downloads/pdfs/services/rent-regulation-memo-3.pdf>

Figure 5: Monthly Housing Code Complaints per 1,000 Residential Units by Building-level Rent Stabilization



Sources: NYC Department of Housing Preservation and Development, MapPLUTO, DOF Tax Bills (scraped by John Krauss and JustFix.nyc), NYU Furman Center

Figure 6: Monthly Housing Code Violations per 1,000 Residential Units



Sources: NYC Department of Housing Preservation and Development, MapPLUTO, DOF Tax Bills (scraped by John Krauss and JustFix.nyc), NYU Furman Center

2. The trend in HPD violations did not appear to change after the passage of the rent reform law.

Building violation rates remained relatively steady across all building types after HSTPA (Figure 6). Violation rates for primarily subsidized buildings dropped slightly after the law changes, as did the rate of violations for minimally stabilized buildings. Reviewing violations by class (A, B, or C), or the reason for the violations, also failed to surface

any notable change in trends at the time of the law changes. Similar to complaints, a dramatic change in building violations was not necessarily expected in the few months after the law's passage. Rather, we would expect to see any impact of restrictions on MCIs and IAIs on housing quality over a longer period of time. The COVID-19 crisis could be a confounding factor in parsing the impact of the rent law changes on unit quality over a longer time period.

Part IV: Assessing Eviction Filing Trends

HSTPA included many provisions that were intended to lower eviction filing rates across the city. The rent law changes expanded tenant protections for all tenants in the state, including increasing and extending the advance period of Marshals’ notices and allowing rent payment any time prior to the execution of the warrant. The law also provided additional layers of protection for tenants in rent stabilized units, including limitations on rent increases due to renovations and new restrictions on rent increases due to vacancy, tenant longevity, and high income or rent. Below, we review trends in eviction filing rates over time to consider whether any changes occurred around the passage of the new protections.

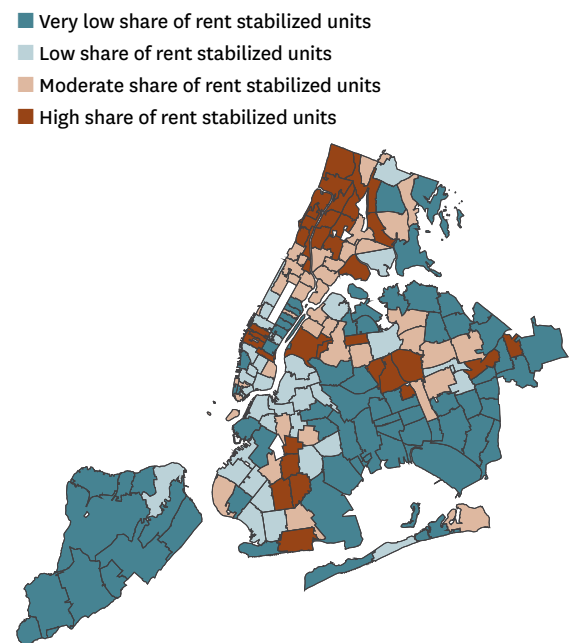
In our analysis, we define the filing rate as the number of eviction cases filed in Housing Court by private (non-NYCHA) landlords, excluding condo and cooperative units, divided by the number of private rental units in that year. We use ZIP Code level²⁴ data to examine the relationship between the rent law changes and the eviction rate by ranking ZIP Codes according to the share of private rental units that are rent stabilized within each ZIP Code, and then categorizing them into four groups with a similar number of private rental units in each quartile. We categorize the top 25 of ZIP Codes with the highest share of rent stabilized units as “High share of rent stabilized units”, and so on. Because eviction data is only available at the ZIP Code level, we were not able to restrict the universe of buildings. As such, this analysis includes buildings of all sizes as well as buildings using the 421-a and J-51 tax programs.

²⁴ At the time of this report, the NYU Furman Center only had access to ZIP Code-level data on eviction filings, not building or unit-level data. As such, our analysis is restricted to that geographic level.

1. ZIP Codes with a higher share of rent stabilized units were primarily located in the northwest Bronx and northern Manhattan, as well as in parts of Queens and Brooklyn.

The differences between the quartiles are considerable; while only 19.8 percent of units in very low rent stabilization ZIP Codes are rent stabilized, 72.0 percent of units in the high rent stabilized ZIP Codes are covered by rent stabilization. The ZIP Codes with the highest share of rent stabilized units are clearly grouped in the north and northeast Bronx, as well as northern Manhattan (Figure 7). Areas of Brooklyn and Queens are also home to highly rent stabilized ZIP Codes. Conversely, Staten Island, the Far Rockaways, and eastern Queens and Brooklyn have comparatively low shares of rent stabilized units.

Figure 7: Groups of ZIP Codes by Share of Rent Stabilized Units, 2019



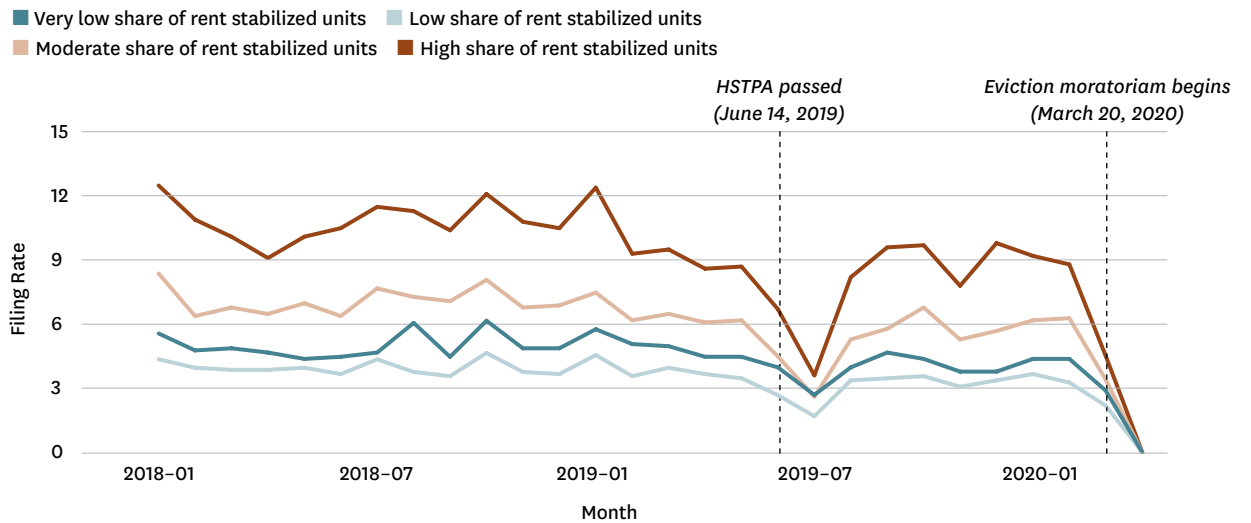
Sources: NYC Department of Finance, MapPLUTO, DOF Tax Bills (scraped by John Krauss and JustFix.nyc), NYU Furman Center

2. Eviction filing rates dropped around the time of HSTPA’s passage, before returning to pre-HSTPA levels. This trend holds across all ZIP Codes, regardless of the proportion of rent stabilized units.

We compared the eviction filing rate around the time of the law changes between our ZIP Code categories (re-estimating the filing rate across all private units within each ZIP Code category), including those with a high or low share of rent stabilized units. In tracking eviction filing rates

over time, we find that private eviction filings dropped dramatically around the time of the passage of HSTPA (Figure 8). One reason for this may have been that landlords’ attorneys adjusted to the updated regulations and longer predicate notice periods went into effect (requiring landlords to wait longer between giving notice of an eviction and commencing a case). The eviction rate increased again in the following months, returning to the same level as in the months preceding HSTPA; this holds true for all four groups of ZIP Codes.

Figure 8: Housing Court Monthly Private Filing Rate per 1,000 Private Rental Units ZIP Codes Grouped by Share of Rent Stabilized Units



Sources: NYC Department of Finance, MapPLUTO, DOF Tax Bills (scraped by John Krauss and JustFix.nyc), NYS Office of Court Administration via Housing Data Coalition, NYU Furman Center

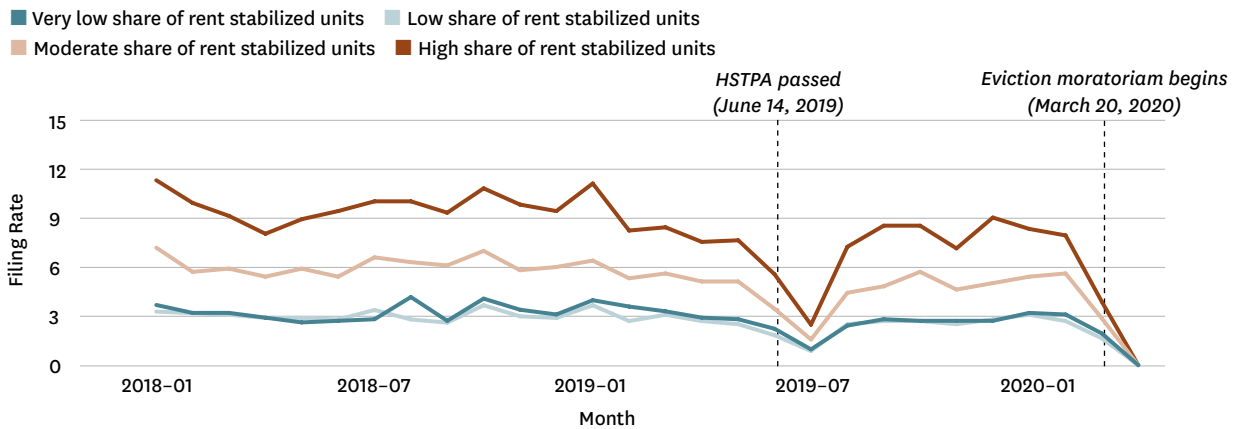
3. Trends in non-payment filings drove the short-term decline in filing rates.

Eviction cases in New York City Housing Courts fall into two categories: nonpayment cases, brought for nonpayment of rent, and holdover cases, a catchall category for cases that do not involve missed payments, such as the violation of a lease provision or acting as a nuisance to other tenants.²⁵ Nonpayment

²⁵ *Starting a Case*, New York City Housing Court (2020), <https://nycourts.gov/courts/nyc/housing/startingholdover.shtml#:~:text=A%20holdover%20case%20is%20brought,than%20simple%20nonpayment%20of%20rent.&text=A%20roommate%20who%20is%20named,the%20lease%20from%20the%20apartment> (last visited July 9, 2020).

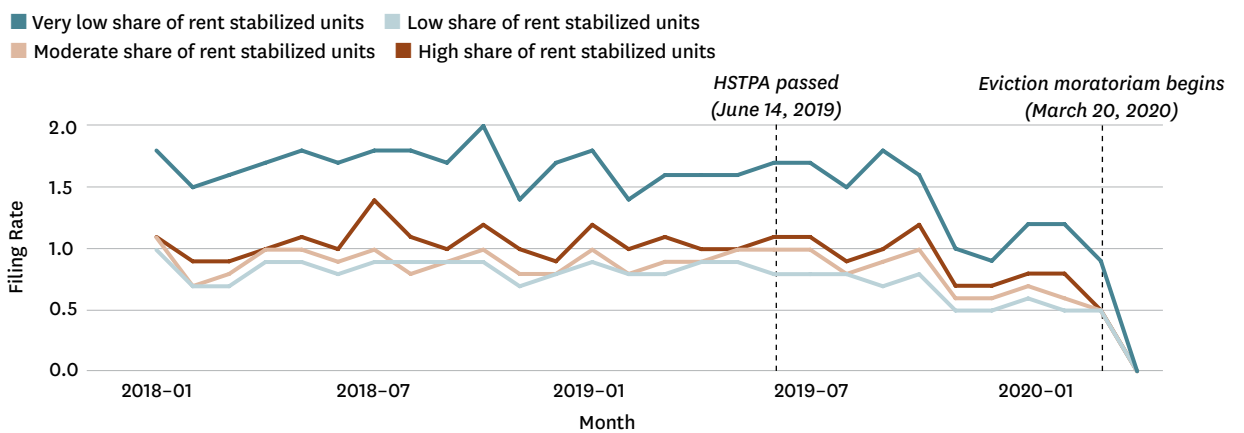
cases made up the majority (82.1%) of eviction filings in New York City in 2019. Reviewing eviction filings by case type, nonpayment filings follow an identical trend to that seen for all filings (Figure 9). On the other hand, holdover filings were relatively unchanged after the passage of HSTPA, remaining steady around the time of the law changes in June, before dropping off in November of 2019 (Figure 10). The reason for the decline in November is unclear. The divergence in trends by eviction filing type implies that the dramatic decline in nonpayment filings around the time of HSTPA drives the trend observed in the overall filing rate.

Figure 9: Housing Court Monthly Private Filing Rate for Non-Payment Cases (per 1,000 Private Rental Units) ZIP Codes Grouped by Share of Rent Stabilized Units



Sources: NYC Department of Finance, MapPLUTO, DOF Tax Bills (scraped by John Krauss and JustFix.nyc), NYS Office of Court Administration via Housing Data Coalition, NYU Furman Center

Figure 10: Housing Court Monthly Private Filing Rate for Holdover Cases (per 1,000 Private Rental Units) ZIP Codes Grouped by Share of Rent Stabilized Units



Sources: NYC Department of Finance, MapPLUTO, DOF Tax Bills (scraped by John Krauss and JustFix.nyc), NYS Office of Court Administration via Housing Data Coalition, NYU Furman Center



It is difficult to parse the separate impacts of a strong economy (prior to the COVID-19 crisis), and policy changes such as Universal Access to Counsel, and HSTPA itself. As such, the impact of rent regulation on eviction filings warrants further investigation. In our future research, we will continue to

review eviction filing data when we receive unit-level data for 2017 onwards from the OCA, which manages eviction data for Courts in New York State. However, it will be challenging to separate the impact of HSTPA from the impact of the COVID-19 crisis for the period beginning in March 2020.

Conclusion

This report offers an initial, short-term analysis of how recent reforms to the State’s rent laws affected buildings with varying levels of rent regulated units. We studied the period between the passage of HSTPA and the institution of stay-at-home orders in New York City, when the global pandemic shut down nearly all economic and governmental activities described in this analysis. We find evidence that HSTPA disproportionately lowered the sale price of properties with around 50 percent rent stabilized units. We also find that after HSTPA, alteration job filings, an indicator of rehabilitation work, stabilized at a lower rate for all building types; this occurred regardless of the share of rent regulated units. The effect on all buildings, rather than only those where units were in the process of being deregulated, may reflect the market’s anticipation of future legislation that would affect building rehabilitation work. We note that eviction filings appear to be lower for ZIP Codes with a high share of rent stabilized units, but only

when compared to filing rates in the preceding year, not when compared to the few months leading up to HSTPA’s passage. We observe no noticeable changes in trends for HPD complaints or violations, which indicate building quality.

An extended examination and monitoring of the rent law changes is necessary given that most of HSTPA’s impact on housing affordability, building activity, and the measures we described in this report will not be understood for a number of years. Given the dramatic impact COVID-19 is expected to have on these same indicators, it will be challenging to parse the role of HSTPA on housing costs, quality, and stability after March of 2020. As such, in future research we plan to examine the combined effects of HSTPA and COVID-19 on rental properties and the experience of tenants in New York City in order to gain a more robust understanding of the state of multifamily rental housing, and to help inform the city’s economic recovery.

Acknowledgements

The analysis for this report was led by Ingrid Gould Ellen, Mark A. Willis, and Matthew Murphy, and conducted by Hayley Raetz, Maxwell Austensen, Jiaqi Dong, and Max Brueckner-Humphreys. We thank Annmarie Rodriguez, Abe Nelson, and Sean Martin for their excellent research assistance. We are also grateful to the numerous experts that provided comments and feedback on this research, including representatives from City agencies, advocacy organizations, and property owners.

Appendix A

Summary Statistics for Sales Real Estate Transactions Pre-HSTPA, by Rent Stabilization Level, Weighted by Units

| Characteristic | Overall, N = 126,258 | 0-25% RS, N = 38,420 | 26-75% RS, N = 22,058 | 76%-100% RS, N = 65,780 |
|------------------------------------|-------------------------|-------------------------|--------------------------|----------------------------|
| Borough | | | | |
| Bronx | 30,363 (24%) | 4,837 (13%) | 676 (3.1 %) | 24,850 (38%) |
| Brooklyn | 35,001 (28%) | 11,073 (29%) | 5,043 (23%) | 18,885 (29%) |
| Manhattan | 44,703 (35%) | 18,414 (48%) | 14,367 (65%) | 11,922 (18%) |
| Queens | 15,356 (12%) | 3,606 (9.4%) | 1,972 (8.9%) | 9,778 (15%) |
| Staten Island | 835 (0.7%) | 490 (1.3%) | 0 (0%) | 345 (0.5%) |
| Year Built | | | | |
| Before 1974 | 119,964 (95%) | 32,401 (84%) | 22,011 (100%) | 65,552 (100%) |
| After 1974 | 6,294 (5.0%) | 6,019 (16%) | 47 (0.2%) | 228 (0.3%) |
| Building Size | | | | |
| 6-10 Units | 26,757 (21%) | 13,587 (35%) | 3,071 (14%) | 10,099 (15%) |
| 11-20 Units | 18,893 (15%) | 7,317 (19%) | 3,819 (17%) | 7,757 (12%) |
| 21-50 Units | 38,313 (30%) | 6,994 (18%) | 7,749 (35%) | 23,570 (36%) |
| 51-99 Units | 27,002 (21%) | 3,523 (9.2%) | 4,187 (19%) | 19,292 (29%) |
| 100 or More Units | 15,293 (12%) | 6,999 (18%) | 3,232 (15%) | 5,062 (7.7%) |
| Sales with Commercial Space | | | | |
| With Commercial Space | 43,965 (35%) | 15,843 (41%) | 10,086 (46%) | 18,036 (27%) |
| Without Commercial Space | 82,293 (65%) | 22,577 (59%) | 11,972 (54%) | 47,744 (73%) |

Statistics presented: n (%)

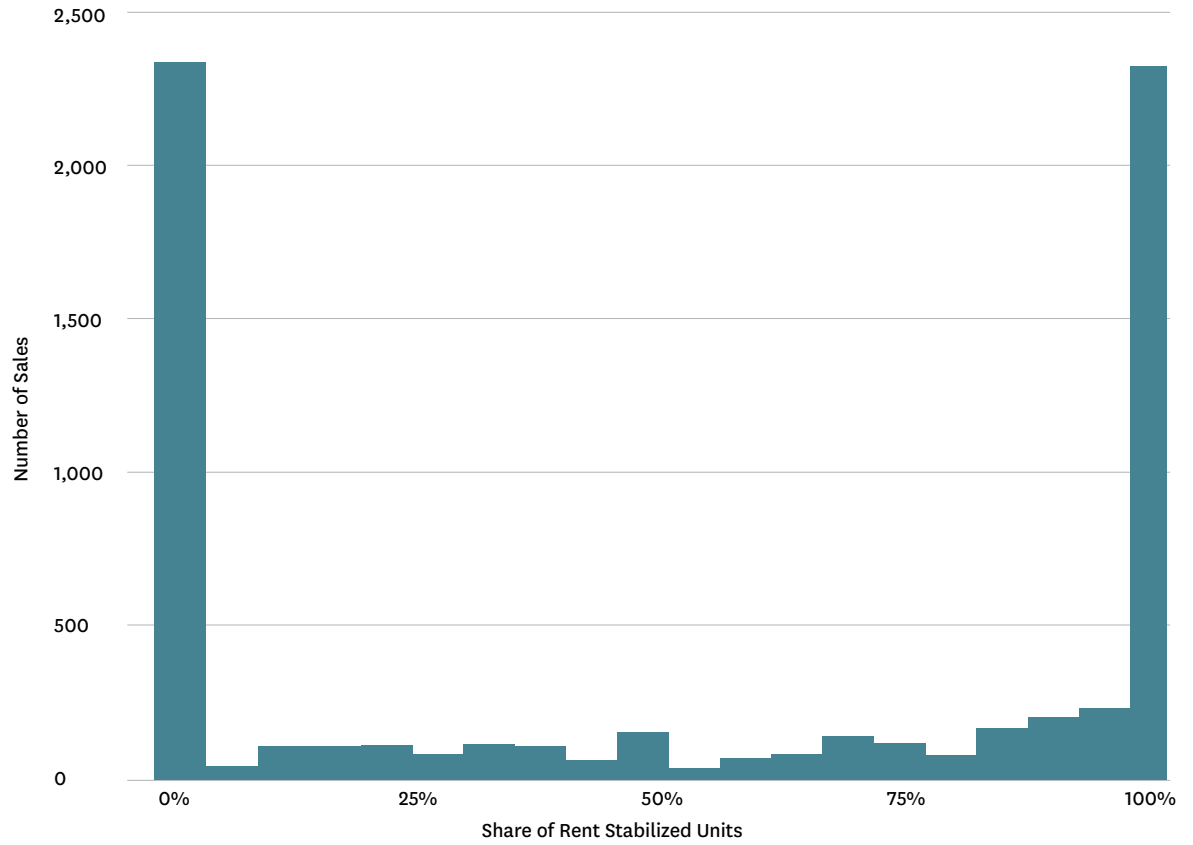
Note: For this analysis, we excluded certain types of buildings, including those using the J-51 and 421-a tax benefit programs. See the Data and Methods section for a detailed description of the restrictions on the universe of buildings.

Sources: NYC Department of Finance, MapPLUTO, DOF Tax Bills (scraped by John Krauss and JustFix.nyc), NYU Furman Center



Appendix B

Distribution of Building Sales by Share of Rent Stabilized Units



Sources: NYC Department of Finance, MapPLUTO, DOF Tax Bills (scraped by John Krauss and JustFix.nyc), NYU Furman Center



Appendix C

Regression of Sales Price per Square Foot on Property Characteristics (Trimmed to 1st and 99th percentile of sales and restricted to 100 percent transfer sales)

| | Grouped Rent Stabilized (units weighted N=126,336) |
|--|---|
| Post HSTPA | -93.9*** (21.5) |
| Post HSTPA * 26-75% Rent Stabilized Units | -58.2+ (34.1) |
| Post HSTPA * 76% to Fully Rent Stabilized Units | -3.9 (28.7) |
| 26-75% Rent Stabilized Units | -55.8*** (13.6) |
| Time Trend (Year of Sale) * 26-75% Rent Stabilized Units | 4.9 (5.4) |
| 76% to Fully Rent Stabilized Units | -55.4*** (10.5) |
| Time Trend (Year of Sale) * 76% to Fully Rent Stabilized Units | 1.6 (4.2) |
| Time Trend (Year of Sale) | 18.6*** (3.5) |
| Retail Area (Sqft) | -0.01*** (0.002) |
| Lot Area (Sqft) | -0.003*** (0.001) |
| Building Area (Sqft) | -0.002*** (0) |
| Garage Area (Sqft) | -0.002 (0.002) |
| Number of Buildings | 5.9* (2.8) |
| Building Age | -3.2*** (0.7) |
| Building Age Squared | 0.02*** (0.004) |
| Year Altered (Most Recent) | 0.03*** (0.01) |
| Year Altered (Second Most Recent) | 0.01+ (0.004) |

Note: p<0.1 +; p<0.05 *; p<0.01 **; p<0.001 ***



Appendix C (continued)

Regression of Sales Price per Square Foot on Property Characteristics (Trimmed to 1st and 99th percentile of sales and restricted to 100 percent transfer sales)

| | Grouped Rent Stabilized (units weighted N=126,336) |
|--|---|
| Building Class: Converted Dwellings Or Rooming House | 80.1*** (15.6) |
| Building Class: Elevator Apt; Artists In Residence | -141.4+ (76.2) |
| Building Class: Elevator Apt; Converted | -23 (33.8) |
| Building Class: Elevator Apt; Fireproof With Stores | -126.7*** (23.3) |
| Building Class: Elevator Apt; Fireproof Without Stores | -17.5 (23.3) |
| Building Class: Elevator Apt; Luxury Type | -367.7*** (77.9) |
| Building Class: Elevator Apt; Miscellaneous | -50.5* (23.2) |
| Building Class: Elevator Apt; Semi-Fireproof With Stores | 81.6*** (14.2) |
| Building Class: Elevator Apt; Semi-Fireproof Without Stores | 7.7 (10.1) |
| Building Class: Five To Six Families | 24.0+ (12.6) |
| Building Class: Garden Apartments | -50.6 (70.4) |
| Building Class: Miscellaneous Store Building | -375.3 (318.7) |
| Building Class: Old Law Tenement | -4.7 (15.4) |
| Building Class: Primarily 5-6 Family With 1 Store Or Office | 64.7* (29.6) |
| Building Class: Single Or Multiple Dwelling With Stores Or Offices | 116.6*** (31.9) |
| Building Class: Walk-Up Apt. Over Six Families With Stores | 56.6*** (10.1) |

Note: p<0.1 +; p<0.05 *; p<0.01 **; p<0.001 ***
Building class reference category is
'Over Six Families Without Stores'.
Lot type reference category is 'Inside'



Appendix C (continued)

Regression of Sales Price per Square Foot on Property Characteristics (Trimmed to 1st and 99th percentile of sales and restricted to 100 percent transfer sales)

| | Grouped Rent Stabilized (units weighted N=126,336) |
|------------------------------|---|
| Lot Type: Block assemblage | 39.9 (52.4) |
| Lot Type: Corner | 16.2* (7.4) |
| Lot Type: Interior lot | -194.9 (298.6) |
| Lot Type: Island lot | 337.4*** (78.9) |
| Lot Type: Submerged land lot | -36.3 (126) |
| Lot Type: Through | 79.0* (35.4) |
| Lot Type: Unknown | 196.5 (318.4) |
| Lot Type: Waterfront | 293.8+ (152.7) |
| Census Tract Fixed Effects | Yes |
| Quarter Fixed Effects | Yes |
| N | 6,684 |
| R ² | 0.8 |
| Adjusted R ² | 0.7 |
| Residual Std. Error | 766.0 (df = 5,437) |
| F Statistic | 14.1*** (df = 1246; 5,437) |

Note: p<0.1 +; p<0.05 *; p<0.01 **; p<0.001 ***
Lot type reference category is 'Inside'