

# 2020 Price Index of Operating Costs

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New York City Rent Guidelines Board

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# ***New York City Rent Guidelines Board***

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# 2020 Price Index of Operating Costs

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## What's New

- ☑ The *2020 Price Index of Operating Costs (PIOC)*, published in April 2020, focuses on data from April 2019 to March 2020. Due to the as-yet-unknown full impact of the COVID-19 virus, it does not reflect the impact of the health crisis on expense data for owners of rent stabilized apartments in New York City and should not be interpreted as such.
- ☑ The PIOC for buildings that contain rent stabilized apartments increased 3.7% this year.
- ☑ Costs in natural-gas heated buildings increased 3.9%, while costs in fuel-oil heated buildings increased 3.7%.
- ☑ The “Core” PIOC, which excludes the changes in fuel oil prices, natural gas and steam costs, rose by 5.1% this year.
- ☑ Fuel costs decreased 12.3%, the only decrease of any PIOC component.
- ☑ Real estate taxes increased 5.9%, primarily due to a rise in assessments for Class Two properties.
- ☑ The Utilities component increased by 1.6%, primarily due to an increase in water and sewer costs.
- ☑ The PIOC for buildings that contain rent stabilized apartments is projected to increase 2.4% next year.

**Apartments**

**Change In Costs for Buildings that Contain Rent Stabilized Apartments, April 2019 to March 2020**

Taxes	5.9%
Labor Costs	3.2%
Fuel	-12.3%
Utilities	1.6%
Maintenance	4.8%
Administrative Costs	3.5%
Insurance Costs	16.5%
<b>All Costs</b>	<b>3.7%</b>

**Terms and Definitions**

**Price Index** - the measure of price change in a market basket of goods and services.

**Component** - categories of goods and services, such as Labor Costs or Taxes, that comprise the market basket of a price index.

**Item** - representative individual goods and services within a component, such as Plumbing, Non-union Wages, Faucet or Roof Repair.

**Price Relative** - the change of current and prior year's prices.

**Expenditure Weight** - the relative importance of the change in costs of different goods and services.

**Specification** - defined pricing units with specific terms of sale, such as cash, volume or trade discounts.

**Introduction**

The 2020 Price Index of Operating Costs (PIOC), published in April 2020, focuses on data from April 2019 to March 2020. Due to the as-yet-unknown full impact of the COVID-19 virus, it does not reflect the impact of the health crisis on expense data for owners of rent stabilized apartments in New York City and should not be interpreted as such.

The (PIOC) measures changes in the cost of purchasing a specified set of goods and services (market basket) used in the operation and maintenance of buildings that contain rent stabilized units in New York City. The PIOC consists of seven cost components: Taxes, Labor Costs, Fuel, Utilities, Maintenance, Administrative Costs and Insurance Costs. The specific goods and

services (items) within each component were originally selected based on a study of 1969 expenditure patterns by owners of rent stabilized apartment buildings. The specific items included in each component have changed over time in order to reflect changes in owner expenditure patterns. The methodology for determining the costs for each component is described in the final section of this report. The measured price changes (price relatives) in each index component are presented in Appendix 2. The relative importance of each index component as a percentage of total operating and maintenance expenditures is shown by its "expenditure weight" (see Appendix 2). The 2019-2020 price changes and expenditure weights are then combined to provide the overall change in the PIOC for 2019-2020.<sup>1</sup>

Changes in the overall PIOC result from changes in the prices of individual goods and services, each weighted by its relative importance as a percentage of total operating and maintenance (O&M) expenditures. Because the market basket is fixed in the sense that the quantities of goods and services of each kind remain constant, the relative importance of the various goods and services will change when their prices increase either more quickly or more slowly than average. Thus, the relative importance, or weight, attached to each good or service changes from year to year to reflect the different rates of price change among the various index items.



## Overview

This year, the PIOC for all rent stabilized apartments increased by 3.7%. Increases occurred in all PIOC components, except Fuel. The largest proportional increase was seen in Insurance (16.5%), followed by Taxes (5.9%), Maintenance (4.8%) and Administrative Costs (3.5%). More moderate increases occurred in the Labor Costs (3.2%) and Utilities (1.6%) components, while Fuel was the only component to decline (12.3%). The growth in the Consumer Price Index (CPI), which measures inflation in a wide range of consumer goods and services, during this same time period was lower than the PIOC, rising 1.8%.<sup>2</sup> See the table on the previous page and Appendix 2 for changes in costs and prices for buildings that contain rent stabilized apartments from 2019-2020.

The “Core” PIOC, which excludes changes in fuel oil, natural gas and steam costs used for heating buildings, is useful for analyzing long-term inflationary trends. The Core PIOC rose by 5.1% this year and was higher than the overall PIOC due to the exclusion of costs in the Fuel component, which fell 12.3%.

## Price Index Components

### Taxes

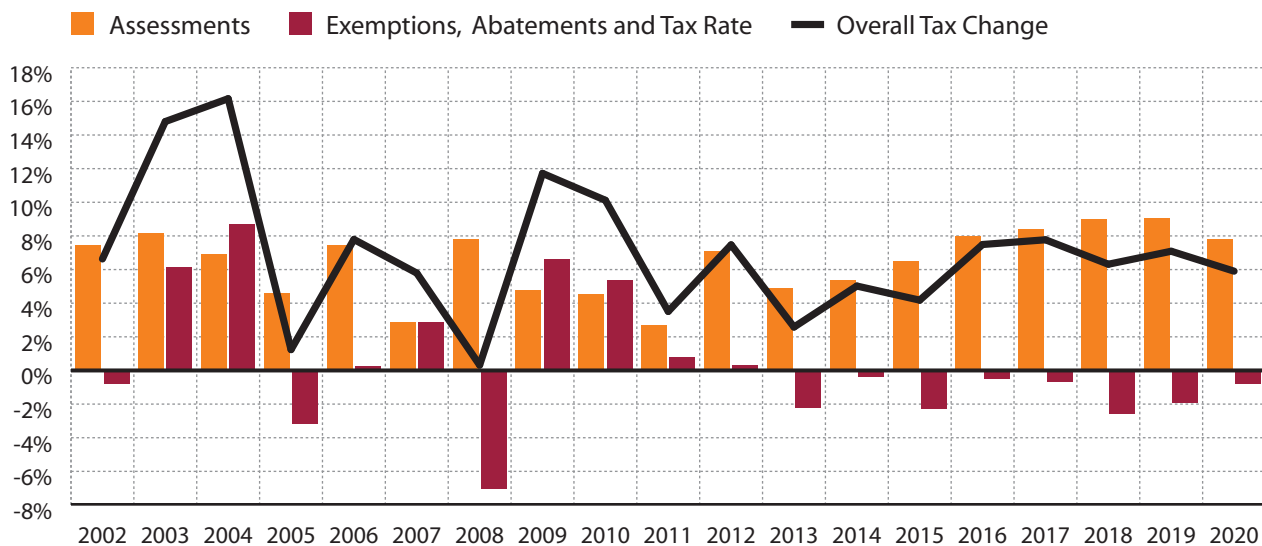


The Taxes component of the PIOC is based entirely on real estate taxes and accounts for nearly 32% of the overall price index. The change in tax cost is estimated by comparing aggregate taxes levied on buildings that contain rent stabilized apartments in Fiscal Year (FY) 2019 and FY 2020. Aggregate real estate taxes rose this year by 5.9%. The growth in taxes was primarily due to a 7.8% rise in assessments. The rise in assessments was offset by a rise in the total value of exemptions, which had the effect of lowering the total rise in taxes by 0.8%. In addition, a decline in the tax rate of 1.1% also helped to offset the rise in assessments. Change in tax abatements had little impact on the change in Taxes for 2020.

**Tax Levy** — The total tax levy for all properties in the City (commercial and residential) increased by 6.9% from FY 2019 to FY 2020. The large majority of rent stabilized apartments are contained in multi-

### Percent Change in Taxes due to Assessments and Exemptions/Abatements/Tax Rate 2002-2020

The Growth in Assessments for Buildings with Rent Stabilized Apartments Declined in 2020



Source: New York City Department of Finance

family buildings that are in Tax Class 2.<sup>3</sup> The total Class 2 property levy rose at a faster pace than that of the City as a whole, at a rate of 7.6%. The distribution of the levy among property classes tends to shift from year to year. From FY 2019 to FY 2020, the levy share for Class 2 properties increased by 0.4 percentage points, from 37.6% to 38.0% of the total tax burden. This is significantly higher than the 26.3% share that was established at the inception of the four-class tax system in 1983.

**Tax Rate** — The average annual FY 2019 Tax Class 2 rate of 12.612% decreased by 1.1%, resulting in a new annualized rate of 12.473% for FY 2020. This is the sixth time in the past eight years that the Class 2 tax rate decreased. For a historical perspective on changes in the tax rate, abatements, and exemptions, see the graph on the previous page.

**Assessments** — Assessed valuations of properties containing rent stabilized apartments rose by 7.8% Citywide in FY 2020. Assessments rose in all five boroughs, with the Bronx witnessing the highest growth at 11.0%, followed by Brooklyn at 10.9% and Staten Island at 10.2%. Manhattan and Queens witnessed the lowest growth in assessments, both rising 7.1%. Buildings in Manhattan drive much of the change in assessed value Citywide. This was true in FY 2020, with 60% of the total assessed value attributed to this borough. For a historical perspective on changes in tax assessments, see the graph on the previous page.

**Abatements and Exemptions** — This year, the number of buildings that contain rent stabilized apartments receiving tax abatements decreased by 12.7% from the previous fiscal year. However, at the same time the average benefit value of the typical tax abatement increased by 4.0% from FY 2019 to FY 2020. The net impact of the decrease in the number of buildings receiving abatements and the increase in the average abatement value was a negligible increase in the overall change in Taxes of just 0.1%.

In FY 2020, 0.1% fewer buildings benefited from tax exemptions. However, the value of the average

tax exemption increased by 4.4%. This combination of an increase in the average value of tax exemptions and the slight decrease in the number of buildings receiving exemptions resulted in reducing the increase in the overall change in Taxes by 0.8% (see Appendices 5 and 6).

### Labor Costs



The Price Index measure of Labor Costs includes union and non-union salaries and benefits, in addition to Social Security and unemployment insurance. The cost of unionized labor makes up more than two-thirds of the Labor Costs component. The entire Labor Costs component comprises 11.0% of the overall Price Index.

Labor Costs rose 3.2%, 2.8 percentage points lower than last year's rise of 6.0%. The rise in Labor Costs was primarily due to increases in non-union wages, as well as rising costs in healthcare. A decrease in unemployment insurance of 7.9% had minimal impact, since it accounts for less than one-half of one percent of this component's weight.

Wages comprise nearly three-quarters of the Labor Costs component. Non-union pay increased by 4.2%, 1.5 percentage points lower than the increase seen in the 2019 PIOC (5.7%). Unionized wages also rose, rising by 2.2%, the same increase as last year.

Health and welfare benefits, which comprises almost 23% of the Labor Costs component, increased 3.8%. See Appendix 2 for all Labor Costs item weights and price relatives.

### Fuel



The Fuel component comprises 7.9% of this year's Price Index. The change in cost measured in this component considers both the change in weather and the change in prices for heating multifamily buildings by fuel oil, natural gas and steam.<sup>4</sup>

This year the Fuel component decreased 12.3%, following a 13.8% rise in the prior year. Natural gas costs, which account for 49% of the overall costs in

### Fuel Oil Cost Relatives vs. Change in Fuel Prices, 2011-2020

PIOC Year	Fuel Oil Cost Relative*	Change in Fuel Oil Price**
2020	-8.6%	2.5%
2019	14.4%	9.4%
2018	19.9%	16.3%
2017	22.1%	7.3%
2016	-45.5%	-30.9%
2015	-23.4%	-22.5%
2014	7.8%	0.3%
2013	20.0%	2.9%
2012	1.6%	20.8%
2011	23.1%	20.3%

\* The Fuel Oil Cost Relative factors in the effect of weather on total fuel oil consumption. In months that are colder than the same month in the prior year, the weather factor will put upward pressure on the fuel oil relative. In months that are warmer than the same month in the prior year, the weather factor will put downward pressure on the fuel oil relative.

\*\* Weighted change in #2, #4 and #6 fuel oil prices. From 2016 forward, weighted change in #2 and #4 fuel oil prices only.

Source: Price Index of Operating Costs reports (2011-2020)

this component, decreased 15.3%. The cost for heating buildings by fuel oil makes up 44% of this component, and decreased 8.6%. Steam costs fell 15.0%, but these costs account for only 7% of the Fuel component.

Along with measuring price, the PIOC also takes into account the effect of weather on the demand for fuel, especially during the heating season when the large majority of fuel is burned. Since the weather this year was warmer than last year, the increase in fuel prices (2.5%) was offset by the warmer weather, decreasing the consumption of fuel oil and causing a decline in cost of 8.6%. In years where the weather does not vary much from the prior year, the change in the cost of fuel oil is roughly equal to that of the change in price, such as in 2015. See the table on this page for a comparison of the past ten years of fuel oil cost relatives to fuel oil prices. See Appendix 2 for all Fuel item weights and price relatives.

## Utilities



The Utilities component consists of non-heating natural gas and electricity costs, as well as water and sewer charges, and it comprises 10.1% of this year's Price Index. In the case of the gas and electricity items, changes in costs are measured using the PIOC specifications (e.g., the quantity of electricity and gas being purchased) and the changes in rate schedules. Water and sewer costs are based on rate adjustments set by the NYC Water Board and they account for 71% of the Utilities component.

This year Utilities increased 1.6%, compared to a 0.4% increase in the previous year. The increase in this component was driven primarily by the increase in the cost of water and sewer. Electricity costs, which account for 27% of this component, increased by 0.4%, while gas costs, which account for less than two percent of the Utilities component, fell 9.7%. But water and sewer charges, which account for more than 71% of this component, rose by 2.3%, following a 2.4% increase in the prior year. See Appendix 2 for all Utilities item weights and price relatives.

## Maintenance



The Maintenance component accounts for 18.3% of this year's Price Index. The Maintenance component rose 4.8%, more than last year's rise of 3.8%. Of the 29 expense items contained in this component, just four items account for 51% of its expenditure weight: Repainting, Plumbing (faucet), Plumbing (stoppage), and Electrician Services. This year, painters' rates rose 8.1%, more than the 5.7% recorded last year. Combined plumbing rates increased at a higher pace, rising 4.5%, more than last year's rise of 2.6%. Electrician Services rose at a slower pace, 3.4%, less than last year's increase of 4.2%.

Other price increases of note were boiler repairs (7.4%), floor maintenance (0.8%), Roof Repair (5.4%), and Extermination Services (6.5%), which represent a total of seven expense items and account for over

23% of this component. See Appendix 2 for all Maintenance item weights and price relatives.

### Administrative Costs



Fees paid to management companies, accountants and attorneys make up 87% of this component. This year, Administrative Costs rose 3.5%, the same rate as last year. Administrative

Costs comprise 15.6% of the PIOC.

Some of the growth in the Administrative Costs component can be attributed to a rise in management company fees (1.7%) that comprise over half of this component. Management fees are often tied to apartment rental income and are affected by changes in rents and vacancies. This year's growth is less than last year's (2.9%), indicating that management companies' fees and/or rents increased at a slower pace than last year. This slower rise in management fees may also indicate that vacancies and/or collection losses in managed buildings rose as compared to the previous year.

Accounting fees increased in this year's PIOC by 3.3%, less than last year's rise of 4.4%. Attorney fees, which comprise almost a quarter of this component, rose 8.5%, 4.2 percentage points more than last year's growth of 4.3%.

Communications, which accounts for about 5% of the Administrative Costs component, increased 0.5%. See Appendix 2 for all Administrative Costs item weights and price relatives.

### Insurance Costs



For the ninth consecutive year there was an increase in the Insurance Costs component, rising 16.5%, compared to last year's increase of 6.0%. Insurance Costs account for 5.3% of the PIOC.

Changes in insurance costs for owners varied by the amount of the policy. Policies that cost more than \$6,000, which represent half of all verified insurance quotes, saw an increase in cost of 18.9% upon renewal. Buildings with policies that cost

\$6,000 or less saw an increase of 3.7% (see Appendix 2.)

### PIOC by Building Type

The 1983 Expenditure Study provided a basis for calculating separate sets of expenditure weights for different types of buildings that contain rent stabilized apartments. In addition to the price index for all buildings that contain rent stabilized apartments, the PIOC includes separate indices for buildings constructed before 1947 (pre-1947) and for buildings constructed in 1947 or later (post-1946), as well as for gas-heated and oil-heated buildings (see Appendices 2 and 3).

This year, total costs in the Pre-1947 Index rose by 3.8%, while costs in the Post-1946 Index rose by a lesser amount, 3.6%. Meanwhile, the Gas-Heated Index (3.9%) rose more than the Oil-Heated Index (3.7%).

### Rent Stabilized Hotels

The Hotel Price Index includes separate indices for each of three categories of hotels that contain rent stabilized units (due to their dissimilar operating cost profiles) and a general index for all rent stabilized Hotels that includes all three. The three categories of hotels are: 1) "Traditional" Hotels — a Class A multiple dwelling that has amenities such as a front desk, maid or linen services; 2) Rooming Houses — a Class B multiple dwelling other than a hotel with thirty or fewer sleeping rooms; and 3) Single Room Occupancy (SROs) hotels — a Class A multiple dwelling which is either used in whole or in part for single room occupancy or as a furnished room house.

The Hotel Price Index for all hotels that contain rent stabilized units increased 2.9% this year, a 2.6 percentage point decline from the 5.5% rise in 2019.

This year there were increases in all of the PIOC Hotel components except Fuel. The Fuel component was the only to decrease, falling 11.2%. The Fuel component accounts for just over 16% of the entire Hotel Index. The remaining six components all rose, with Insurance Costs rising 16.5%, Taxes 6.9%, Maintenance 3.6%, Labor Costs



3.5%, Administrative Costs 2.1% and Utilities 0.7%. See the table on this page for changes in costs and prices for all rent stabilized hotels from 2019-2020.

Among the different categories of Hotels, the index for “Traditional” Hotels increased 5.0%, Rooming Houses by 2.5% and SROs by 1.3% (see Appendices 4 and 7).

### Rent Stabilized Lofts

The increase in the Loft Index this year was 6.2%, equal to the increase in 2019. Increases in costs were seen in all eight components that make up this index, with the exception of Fuel. Fuel was the only component to decrease, falling 8.0%. All other components increased, including Insurance Costs (16.5%), Administrative Costs-Legal (8.5%), Taxes (5.9%), Maintenance (4.8%), Labor Costs (3.6%), Utilities (2.2%) and Administrative Costs-Other (1.9%). Note that historically Administrative Costs in the Loft Index has been split into two components — Administrative Costs-Legal and Administrative Costs-Other. Therefore, the Loft Index has eight components. See the table on this page and Appendix 8 for changes in costs and prices for all rent stabilized lofts from 2019-2020.

### The Core PIOC

The Core PIOC, which measures long-term trends by factoring out shifts in fuel costs for heating buildings that contain rent stabilized apartments in NYC, rose 5.1% in 2020. The rise in the 2020 Core PIOC was 1.4 percentage points higher than this year’s Apartment Index (3.7%), and 0.2 percentage points higher than last year’s Core Index (4.9%). This year’s Core PIOC rose at a faster pace than the overall PIOC because fuel costs, which were not used to calculate the Core, decreased 12.3%.

### PIOC Projections for 2021

Section 26-510 of the Rent Stabilization Law requires the Board to consider prevailing and projected operating and maintenance costs for buildings containing rent stabilized apartments. Projections for components of the PIOC are calculated to provide the RGB with an estimate of how much costs are expected to rise in the year following the current Price Index.

Projecting changes in the PIOC has become more challenging in recent years. Energy prices have become increasingly volatile. Unpredictable geo-political events, recession and changing weather patterns are some of the forces behind large changes in fuel costs that have in turn limited the accuracy of the PIOC projections in

<b>Hotels</b>	
<b><i>Change In Costs for All Hotels that Contain Rent Stabilized Units, April 2019 to March 2020</i></b>	
Taxes	6.9%
Labor Costs	3.5%
Fuel	-11.2%
Utilities	0.7%
Maintenance	3.6%
Administrative Costs	2.1%
Insurance Costs	16.5%
<b>All Costs</b>	<b>2.9%</b>

<b>Lofts</b>	
<b><i>Change In Costs for Rent Stabilized Lofts, April 2019 to March 2020</i></b>	
Taxes	5.9%
Labor Costs	3.6%
Fuel	-8.0%
Utilities	2.2%
Maintenance	4.8%
Admin Costs-Legal	8.5%
Admin Costs-Other	1.9%
Insurance Costs	16.5%
<b>All Costs</b>	<b>6.2%</b>

<b>2021 Projections</b>	
<i>Projected Change In Costs for Buildings that Contain Rent Stabilized Apartments, April 2020 to March 2021</i>	
Taxes	3.9%
Labor Costs	3.4%
Fuel	-11.7%
Utilities	0.4%
Maintenance	4.0%
Administrative Costs	2.9%
Insurance Costs	8.5%
<b>All Projected Costs</b>	<b>2.4%</b>

recent studies. The tax component, which accounts for more than 31% of the entire Price Index, has also become harder to project. This is due to changes in tax policy, such as tax rate adjustments and changes to the City’s tentative assessment roll, after the period covered in this Price Index.

This year, operating costs in buildings that contain rent stabilized apartments increased by 3.7%, versus last year’s projected PIOC increase of 3.2%, a difference of 0.5 percentage points. The component with the largest deviation between actual and projected changes in costs was Insurance Costs. Insurance costs were projected to rise 5.7%, but actually rose 16.5% in 2020, a 10.8 percentage point difference. The only other notable difference was found in the Fuel component. Fuel, which was projected to decrease by 6.9%, fell instead by 12.3%, a 5.4 percentage point difference. The remaining 2020 projected components of the PIOC were all within 1.6 percentage points of the actual measured changes.

Overall, the PIOC is expected to grow by 2.4% from 2020 to 2021. Costs are predicted to rise in each component except Fuel, with the largest growth (8.5%) projected to be in Insurance, with Taxes, the component that carries the most weight in the Index, at 3.9%. Other projected increases include Maintenance (4.0%), Labor Costs (3.4%), Administrative Costs (2.9%), and Utilities (0.4%). Fuel is the only component predicted to decrease,

by 11.7%. The table on this page shows projected changes in PIOC components for 2021. The Core PIOC is projected to rise 3.6%, 1.2 percentage points more than the overall projected Apartment PIOC.

### **Commensurate Rent Adjustments**

Throughout its history, the Rent Guidelines Board has used a formula, known as the commensurate rent adjustment, to help determine annual rent guidelines for rent stabilized apartments. In essence, the “commensurate” combines various data concerning operating costs, revenues and inflation into a single measure to determine how much rents would have to change for net operating income (NOI) for rent stabilized apartments to remain constant.<sup>5</sup> The different types of “commensurate” adjustments described below are primarily meant to provide a foundation for discussion concerning prospective guidelines.

In its simplest form, the commensurate rent adjustment is the amount of rent change needed to maintain owners’ current dollar NOI for their rent stabilized apartments at a constant level. In other words, the commensurate provides a set of one- and two-year renewal rent adjustments, or guidelines, that will compensate owners for the change in prices measured by the PIOC and keep net operating income constant.

The first commensurate method is called the “Net Revenue” approach. While this formula takes into consideration the term of leases actually signed by tenants, it does not adjust owners’ NOI for inflation. The “Net Revenue” formula is presented in two ways: first, by adjusting for the mix of lease terms; and second, by adding an assumption for rent stabilized apartment turnover and the subsequent impact of revenue from vacancy increases. Under the “Net Revenue” formula, a guideline that would preserve NOI in the face of this year’s 3.7% increase in the PIOC is 2.75% for a one-year lease and 5.5% for a two-year lease. Using this formula, and adding assumptions for the impact of vacancy increases on revenues when apartments experience turnover, results in guidelines of 2.5% for one-year leases and 4.25% for two-year leases.

The second commensurate method considers the mix of lease terms while adjusting NOI upward to reflect general inflation, keeping both operating and maintenance (O&M) costs and NOI constant. This is commonly called the “CPI-Adjusted NOI” formula. A guideline that would preserve NOI in the face of the 1.8% increase in the Consumer Price Index (see Endnote 2) and the 3.7% increase in the PIOC is 3.5% for a one-year lease and 6.75% for a two-year lease. Guidelines using this formula and adding the estimated impact of vacancy increases are 3.0% for one-year leases and 6.0% for two-year leases.<sup>6</sup>

The third commensurate method, the “traditional” commensurate adjustment, is the formula that has been in use since the inception of the Rent Guidelines Board and is the only method that relies on the PIOC projection. The “traditional” commensurate yields 2.5% for a one-year lease and 3.3% for a two-year lease. This reflects the increase in operating costs of 3.7% found in the 2020 PIOC and the projection of a 2.4% increase next year.

All of these commensurate methods have limitations. The “Net Revenue” formula does not attempt to adjust NOI based on changes in interest rates or the effect of inflation. The “CPI-Adjusted NOI” formula inflates the debt service portion of NOI, even though interest rates have been historically low over recent years. For both of these commensurate methods, including a consideration of the amount of income owners receive on vacancy assumes that turnover rates are constant across the City.

As a means of compensating for cost changes, the “traditional” commensurate rent adjustment has two major flaws. First, although the formula is designed to keep owners’ current dollar income constant, the formula does not consider the mix of one- and two-year lease renewals. Since only about two-thirds of leases are renewed in any given year, with a slight majority of leases being renewed having a one-year duration, the formula does not necessarily accurately estimate the amount of income needed to compensate owners for O&M cost changes.

A second flaw of the “traditional” commensurate formula is that it does not consider the erosion of owners’ income by inflation. By maintaining current dollar NOI at a constant level, adherence to the formula may cause profitability to decline over time. However, such degradation is not an inevitable consequence of using the “traditional” commensurate formula.<sup>7</sup>

Finally, it is important to note that only the “traditional” commensurate formula uses the PIOC projection and that this projection is not used in conjunction with, or as part of, the “Net Revenue” and “CPI-Adjusted NOI” formulas. As stated previously, all three formulas attempt to compensate owners for the adjustment in their operating and maintenance costs measured each year in the

<b>Commensurates</b>	
<i>"Net Revenue" Commensurate Adjustment</i>	
<u>1-Year Lease</u>	<u>2-Year Lease</u>
2.75%	5.5%
<i>"Net Revenue" Commensurate Adjustment with Vacancy Increase</i>	
<u>1-Year Lease</u>	<u>2-Year Lease</u>
2.5%	4.25%
<i>"CPI-Adjusted NOI" Commensurate Adjustment</i>	
<u>1-Year Lease</u>	<u>2-Year Lease</u>
3.5%	6.75%
<i>"CPI-Adjusted NOI" Commensurate Adjustment with Vacancy Increase</i>	
<u>1-Year Lease</u>	<u>2-Year Lease</u>
3.0%	6.0%
<i>"Traditional" Commensurate Adjustment</i>	
<u>1-Year Lease</u>	<u>2-Year Lease</u>
2.5%	3.3%

PIOC. The “Net Revenue” and the “CPI-Adjusted NOI” formulas attempt to compensate owners for the adjustment in O&M costs by using only the known PIOC change in costs (3.7%). The traditional method differs from the other formulas in that it uses both the PIOC’s actual change in costs as well as the projected change in costs (2.4%).

Each of these formulae may be best thought of as a starting point for deliberations. The data presented in other Rent Guidelines Board annual research reports (e.g., the Income and Affordability Study and the Income and Expense Study) along with public testimony can be used in conjunction with these various commensurates to determine appropriate rent adjustments.

### **Methodology**

The Price Index measures changes in the cost of purchasing a specified set of goods and services, which must remain constant both in terms of quantity and quality from one year to the next. The need to exclude the effect of any alterations in the quality of services provided requires that very careful specifications of the goods and services priced must be developed and applied. The pricing specifications must permit the measurement of changes in prices paid for carefully defined pricing units with specific terms of sale, such as cash, volume or trade discounts.

Note that the various components of the PIOC utilize cost/price changes from differing time periods throughout the PIOC year (April through March, the most current time period available for analysis). For instance, the change in Taxes is based on a point-to-point change from one fiscal year to the next, while other components, such as Maintenance, Labor Costs, Administrative Costs and Insurance Costs reply on a point-to-point change from one PIOC year to the next. For those components where owners receive a bill every month, such as Fuel and Utilities, prices are gathered each month and a bill for the entire year (April through March) is calculated and compared to the same period of the previous year.

The Methodology section of this report outlines the methods used to calculate each component of the 2020 PIOC, as well as the PIOC projection for 2021.

### **Owner Survey**

The Owner Survey gathers information on management fees, insurance and non-union labor from building managers and owners. Survey questionnaires, accompanied by a letter describing the purpose of the PIOC, were mailed to the owners or managing agents of buildings that contain rent stabilized units. If a returned questionnaire was not complete, an interviewer contacted the owner/manager and gathered the missing information. Owners could complete the survey online or by mail. All of the price information given by the owner/managing agent was then confirmed by calling the relevant insurance and management companies and non-union employees. The data gathered by the Owner Survey is the only owner-reported data used in the PIOC.

The sample frame for the Owner Survey included approximately 40,000 buildings that contain rent stabilized units registered with New York State Homes and Community Renewal (HCR). RGB staff used a random sampling scheme to choose 7,500 addresses from this pool for the Owner Survey. The number of buildings chosen in each borough was nearly proportional to the share of buildings in that borough. Three successive mailings were sent at timed intervals to the owner or managing agent of each property selected in the survey sample.

Roughly 7.1% of the questionnaires mailed out received a response, a lower rate than last year (8.1%). A total of 503 returned surveys contained usable information, down from 569 the prior year. As a result, RGB staff was able to validate 353 annual insurance premiums, 139 non-union labor wage rates and 109 reported management fees. The number of verified prices in 2019 and 2020 for the Owner Survey is shown in Appendix 1.

## Taxes

The 2020 tax price relative was calculated by providing a list of rent stabilized properties registered with HCR to the NYC Department of Finance. Finance “matched” this list against its records to provide data on assessed value, tax exemptions, and tax abatements for nearly 38,000 buildings in FY 2019 and FY 2020. This data was used to compute a tax bill for each building containing rent stabilized units in each of these fiscal years. The change computed for the PIOC is simply the percentage difference in aggregate tax bills for these buildings from FY 2019 to FY 2020.

## Labor Costs

The Labor Costs component consists of the cost of unionized and non-unionized labor. Rate increases for unionized labor, including wage increases and health benefits, come directly from the contracts of unions that represent workers in buildings and hotels that contain rent stabilized units. The cost of Social Security and unemployment insurance is obtained from the NYS Department of Labor and the Internal Revenue Service (IRS). Wage increases for non-union labor are obtained from the Owner Survey (see methodology on the previous page).

## Fuel

The Fuel component consists of all types of fuel used for heating buildings, including oil, natural gas, electricity and steam.

In order to calculate the change in cost of fuel oil, prices set by fuel oil vendors for a gallon of heating oil are gathered on a monthly basis. A monthly survey makes it possible to keep in touch with fuel oil vendors and to gather the data on a consistent basis (i.e., on the same day of the month for each vendor). Vendors are called each month to minimize the likelihood of misreporting and also to reduce the reporting burden for the companies by eliminating the need to look up a year’s worth of prices. The number of fuel oil quotes gathered this year for #2 and #4 oil is slightly lower than last year and is contained in Appendix 1.

To calculate changes in fuel oil costs, monthly price data is weighted using a degree-day formula to account for changes in the weather. The number of Heating Degree Days (see Endnote 4) is a measure of heating requirements.

The Fuel component includes not only the cost of fuel oil, but also the cost to heat buildings with natural gas, electricity and steam. For these items, RGB staff calculates a hypothetical monthly bill for utilities based in part on supply rates, fuel adjustments, delivery charges, taxes, and other surcharges and fees. Bills are calculated based on typical usage in a multi-family building in New York City, an amount that remains constant from year to year.

Because these items represent prices to heat buildings, monthly price data is adjusted to account for changes in weather. The price relatives for all items in the Fuel component were calculated by comparing the most recent 12-month period from April-March with the prior April-March period.

## Utilities

The Utilities component consists of costs for non-heating electricity and natural gas, as well as water and sewer charges. RGB staff calculates a hypothetical monthly bill for electricity and natural gas based in part on supply rates, fuel adjustments, delivery charges, taxes and other surcharges and fees. Bills are calculated based on typical usage in a multi-family building in New York City, an amount that remains constant from year to year. The price relatives for electricity and natural gas items in the Utilities component were calculated by comparing the most recent 12-month period from April-March with the prior April-March period.

Water and sewer price changes are based on annual rate adjustments set by the NYC Water Board.

In 2019, as part of the Owner Survey sent to owners and management companies, respondents were asked for detailed information on their buildings’ utilities costs. Respondents noted how much they spent in 2018 for non-heating electricity and gas costs as well as water and sewer costs. Based on the results of this survey, individual items within the Utilities component were reweighted.

### Maintenance

All prices for items in this component are obtained using a Vendor Survey. This Survey is used to gather price quotes for items such as painting and other services performed by contractors; hardware and cleaning items; and appliances that need periodic replacement. Each year the vendor database is updated by adding new vendors and by deleting those who no longer carry the products or perform the services outlined in the Vendor Survey item specifications. Vendor quotes were obtained over the telephone, and for non-service based items by telephone and from websites that carry items in the PIOC's market basket of goods. A total of 535 recorded price quotes were gathered. For a description of the items priced and the number of price quotations obtained for each item, refer to Appendix 1.

### Administrative Costs

Management fees are obtained directly from building owners and managers, using the Owner Survey (see "Owner Survey" section on page 12). Other expense items, such as accountant and attorney fees, are obtained using the Vendor Survey (see "Maintenance" section above). For communications costs, because there are so many variations in types of plans for internet and phone service, staff relied on the national Consumer Price Index to obtain price changes for these items. Monthly price changes were obtained from the U.S. Bureau of Labor Statistics website and were calculated by comparing the most recent 12-month period from March-February with the prior March-February period. For a list of all the expense items contained in the Administrative Costs component, see Appendix 1.

### Insurance Costs

The Owner Survey asks owners to provide information about their current and prior year's insurance policies. Temporary workers call the relevant insurance agents/brokers to verify this information. Only verified insurance costs are included in the PIOC.

### Price Index Projections

The PIOC Projections are estimated by using data from federal, state and local agencies; estimates from industry experts; and trend forecasting using three-year or long-term averages. The projections in this report are based on the time period from April 2020 to March 2021.

Taxes were projected by using data from the Department of Finance's tentative assessment roll for FY 2021 adjusted by estimates of how the final PIOC tax index has compared to the change in the tentative assessment roll over the last decade. These estimates produce a projected tax cost for owners of rental properties. Labor costs are projected by calculating the average wage and benefit increases of the most recent labor contracts for apartment workers union Local 32-BJ, and a ten-year geometric average (which compounds annual growth rate) of all other Labor Costs items. Fuel oil and natural gas costs for the Fuel component are projected by using data and information from the U.S. Energy Information Administration's (EIA) current "Short-Term Energy Outlook" report, which includes assumptions about changes in usage according to a projected return to the average temperature over the last five years. Utility costs are projected by taking the average of the last four New York City Water Board water and sewer rate adjustments as well as EIA projections for residential gas and electricity costs.<sup>8</sup>

The other components — Administrative Costs, Insurance Costs and Maintenance — are projected by using three-year geometric averages of the component price relatives.

### Acknowledgments

The Rent Guidelines Board would like to acknowledge the following individuals for their assistance in preparing the Price Index of Operating Costs this year: Dr. James F. Hudson for technical assistance, expense component reweighting, methodology and report review; and Michael Taylor and Siddiq Ahmad for collecting owner and vendor data. □

## Endnotes

1. Prior to 2015, the relative importance of the various goods and services in the market basket was based on a 1983 study of expenditure patterns of owners of buildings that contain rent stabilized units. In 2015, the Price Index of Operating Costs (PIOC) component expenditure weights for buildings that contain rent stabilized apartments were changed to the expenditure patterns found in the Rent Guidelines Board's annual Income and Expense (I&E) Study, which allows for the annual updating of expenditure patterns based on what owners report to the New York City Department of Finance as their actual costs on Real Property Income and Expense (RPIE) statements required by Local Law 63 (enacted in 1986). Note that only the Apartment PIOC is weighted with data from RPIE reports. The Hotel and Loft PIOC's continue to use the 1983 study. For a full description of the methodological changes to the expenditure weights used in the current PIOC, please refer to the RGB 2015 Price Index of Operating Costs report at <https://rentguidelinesboard.cityofnewyork.us/research/>.
2. The average CPI for All Urban Consumers, New York-Northeastern New Jersey for the year from March 2019 to February 2020 (279.3) compared to the average for the year from March 2018 to February 2019 (274.3) rose by 1.8%. This is the latest available CPI data and is roughly analogous to the 'PIOC year'.
3. New York City has four property tax classes. Most buildings that contain rent stabilized units are in Tax Class 2, which consists of rental buildings of four units or more and cooperative and condominium buildings of two units or more. A small building that contains rent stabilized units only because of a tax abatement or exemption program (such as 421-a or J-51) would more likely be in Tax Class 1, which consists of most residential property of up to three units (family homes and small stores or offices with one or two apartments attached), and most condominiums that are not more than three stories. In the tax file used by the RGB to compute the Taxes component, almost 97% of the more than 38,000 buildings analyzed were Tax Class 2.
4. The cost-weight relatives are calculated on an April to March time period. The April 2019 to March 2020 time period was 10.7% warmer than the previous April to March period. "Normal" weather, which is the standard set by National Oceanic and Atmospheric Administration (NOAA), refers to the typical number of Heating Degree Days measured at Central Park, New York City, over the 30-year period from 1981-2010. NOAA recalculates this 30-year average and issues a new "normal" every ten years. A Heating Degree Day is defined as, for one day, the number of degrees that the average temperature for that day falls below 65 degrees Fahrenheit.
5. The commensurate rent adjustments are designed to keep NOI constant in rent stabilized apartments only. They are not designed to keep NOI constant in deregulated units that are subject to changes in the real estate rental market. Therefore these formulas will not necessarily keep NOI constant for buildings that contain both rent stabilized and deregulated units.
6. The following assumptions were used in the computation of the commensurates: (1) the required change in owner revenue is 65.9% of the 2020 PIOC increase of 3.7%, or 2.5%. The 65.9% figure is the most recent ratio of average operating costs to average income in buildings that contain rent stabilized units; (2) for the "CPI-Adjusted NOI" commensurate, the increase in revenue due to the impact of inflation on NOI is 34.1% times the latest 12-month increase in the CPI ending February 2020 (1.8%), or 0.62%; (3) these lease terms are only illustrative—other combinations of one- and two-year guidelines could produce the adjustment in revenue; (4) assumptions regarding lease renewals and turnover were derived from the 2017 Housing and Vacancy Survey; (5) for the commensurate formulae, including a vacancy assumption, a 3.97% increase in vacancy leases was applied to the estimated 10.1% of rent stabilized units that turn over each year (as based on 2017 NYC Housing and Vacancy Survey data). This increase was derived from 2019 New York State Homes and Community Renewal registration data for vacant units, with adjustments to account for the presumed effect of the Housing Stability & Tenant Protection Act of 2019 on vacancy leases. The estimated increase in vacancy leases is based on the increase that rent stabilized units without preferential rents were able to take under RGB Apartment Order #51, and the increase that vacant units with preferential rents took between 2018 and 2019; and (6) the collectability of these commensurate adjustments are assumed.
7. Whether profits will actually decline depends on the level of inflation, the composition of NOI (i.e., how much is debt service and how much is profit), and changes in tax law and interest rates.
8. Source: "Short-Term Energy Outlook," March 2020. U.S. Energy Information Administration, Department of Energy. <https://www.eia.gov/outlooks/steo/report/>.

# Appendices

## 1. PIOC Sample, Number of Price Quotes per Item, 2019 vs. 2020

Spec #	Description	2019	2020	Spec #	Description	2019	2020
211	Apartment Value	96	93	817	Large Trash Bags	16	15
212	Non-Union Super	80	71	818	Smoke Detectors	13	13
216	Non-Union Janitor/Porter	33	68	902	Refrigerator #2	12	11
	LABOR COSTS	<b>209</b>	<b>232</b>	903	Air Conditioner #1	10	8
301	Fuel Oil #2	32	30	906	Dishwasher	12	11
302	Fuel Oil #4	9	8	908	Range #2	12	11
	FUEL OIL	<b>41</b>	<b>38</b>	909	Carpet	10	8
501	Repainting	100	67	910	Dresser	5	6
502	Plumbing, Faucet	32	30	911	Mattress & Box Spring	9	9
503	Plumbing, Stoppage	31	27		MAINTENANCE	<b>458</b>	<b>425</b>
504	Elevator #1, 6 fl., 1 e.	6	6	601	Management Fees	68	109
505	Elevator #2, 13 fl., 2 e.	5	5	602	Accountant Fees	27	25
506	Elevator #3, 19 fl., 3 e.	5	5	603	Attorney Fees	21	18
507	Burner Repair	9	11	604	Newspaper Ads	33	33
508	Boiler Repair, Tube	8	7	607	Bill Envelopes	12	12
509	Boiler Repair, Weld	6	6	608	P.O. Box	10	10
510	Refrigerator Repair	5	5	609	Copy Paper	12	12
511	Range Repair	5	5		ADMINISTRATIVE COSTS	<b>183</b>	<b>219</b>
512	Roof Repair	15	15		INSURANCE COSTS	<b>428</b>	<b>353</b>
514	Floor Maint. #1, Studio	7	8	701			
515	Floor Maint. #2, 1 Br.	7	8		ALL ITEMS	<b>1,319</b>	<b>1,267</b>
516	Floor Maint. #3, 2 Br.	7	8				
517	Extermination Services	10	10				
518	Linen/Laundry Service	6	5				
519	Electrician Services	10	10				
805	Paint	11	12				
808	Bucket	14	16				
810	Linens	10	10				
811	Pine Disinfectant	13	15				
813	Switch Plate	11	13				
815	Toilet Seat	14	16				
816	Deck Faucet	12	13				

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## 2. Expenditure Weight, Price Relatives, Percent Changes and Standard Errors, All Apartments, 2020

Spec #	Item Description	Expenditure Weight	Price Relative	% Change	Standard Error	Spec #	Item Description	Expenditure Weight	Price Relative	% Change	Standard Error
101	TAXES	<b>0.3188</b>	<b>1.0590</b>	<b>5.90%</b>	<b>0.0323</b>	805	Paint	0.0279	1.0335	3.35%	1.4965
201	Payroll, Bronx, All (Union)	0.0895	1.0155	1.55%	0.0000	808	Bucket	0.0051	1.0529	5.29%	3.1342
202	Payroll, Other, Union, Supts.	0.0935	1.0229	2.29%	0.0000	811	Pine Disinfectant	0.0071	0.9896	-1.04%	4.5471
203	Payroll, Other, Union, Other	0.2351	1.0236	2.36%	0.0000	813	Switch Plate	0.0053	0.9609	-3.91%	12.3316
204	Payroll, Other, Non-Union, All	0.3077	1.0418	4.18%	0.5290	815	Toilet Seat	0.0125	0.9736	-2.64%	3.3245
205	Social Security Insurance	0.0416	1.0302	3.02%	0.0000	816	Deck Faucet	0.0158	1.0594	5.94%	3.1630
206	Unemployment Insurance	0.0036	0.9207	-7.93%	0.0000	817	Large Trash Bags	0.0112	0.9952	-0.48%	2.3629
207	Private Health & Welfare	0.2290	1.0376	3.76%	0.0000	818	Smoke Detectors	0.0109	1.0030	0.30%	1.5181
	LABOR COSTS	<b>0.1099</b>	<b>1.0315</b>	<b>3.15%</b>	<b>0.1627</b>	902	Refrigerator #2	0.0380	0.9973	-0.27%	2.6075
301	Fuel Oil #2	0.2834	0.8915	-10.85%	0.4259	903	Air Conditioner #1	0.0014	1.0302	3.02%	2.9956
302	Fuel Oil #4	0.1601	0.9552	-4.48%	1.1740	906	Dishwasher	0.0041	1.0322	3.22%	3.3458
405	Gas #2, 650 therms	0.0927	0.8506	-14.94%	0.0000	908	Range #2	0.0178	1.0287	2.87%	2.5767
406	Gas #3, 2,140 therms	0.3945	0.8457	-15.43%	0.0000		MAINTENANCE	<b>0.1833</b>	<b>1.0484</b>	<b>4.84%</b>	<b>0.6700</b>
407	Steam #1, 1,150 Mlbs	0.0524	0.8517	-14.83%	0.0000	601	Management Fees	0.5214	1.0168	1.68%	0.6194
408	Steam #2, 2,600 Mlbs	0.0168	0.8447	-15.53%	0.0000	602	Accountant Fees	0.1273	1.0326	3.26%	0.9412
	FUEL	<b>0.0786</b>	<b>0.8770</b>	<b>-12.30%</b>	<b>0.2234</b>	603	Attorney Fees	0.2240	1.0847	8.47%	4.5641
401	Electricity #1, 2,500 KWH	0.1357	0.9929	-0.71%	0.0000	604	Newspaper Ads	0.0103	1.0000	0.00%	0.0000
402	Electricity #2, 15,000 KWH	0.1351	1.0148	1.48%	0.0000	607	Bill Envelopes	0.0236	1.0045	0.45%	2.7510
404	Gas #1, 120 therms	0.0171	0.9029	-9.71%	0.0000	608	P.O. Box	0.0224	1.0401	4.01%	1.1891
410	Water & Sewer	0.7121	1.0231	2.31%	0.0000	609	Copy Paper	0.0228	1.0939	9.39%	2.1923
	UTILITIES	<b>0.1008</b>	<b>1.0158</b>	<b>1.58%</b>	<b>0.0000</b>	409	Communications	0.0482	1.0054	0.54%	0.0000
501	Repainting	0.2365	1.0805	8.05%	2.0858		ADMINISTRATIVE COSTS	<b>0.1561</b>	<b>1.0353</b>	<b>3.53%</b>	<b>1.0822</b>
502	Plumbing, Faucet	0.1056	1.0259	2.59%	0.8289	701	INSURANCE COSTS	<b>0.0526</b>	<b>1.1653</b>	<b>16.53%</b>	<b>1.9065</b>
503	Plumbing, Stoppage	0.0970	1.0661	6.61%	2.6336		ALL ITEMS	<b>1.0000</b>	<b>1.03729</b>	<b>3.73%</b>	<b>0.2332</b>
504	Elevator #1, 6 fl., 1 e.	0.0209	1.0190	1.90%	1.2961						
505	Elevator #2, 13 fl., 2 e.	0.0132	1.0261	2.61%	1.8242						
506	Elevator #3, 19 fl., 3 e.	0.0075	1.0260	2.60%	2.0228						
507	Burner Repair	0.0321	1.0567	5.67%	2.0555						
508	Boiler Repair, Tube	0.0419	1.0451	4.51%	2.7003						
509	Boiler Repair, Weld	0.0343	1.1097	10.97%	3.3544						
510	Refrigerator Repair	0.0131	1.0465	4.65%	1.4781						
511	Range Repair	0.0123	1.0468	4.68%	1.5055						
512	Roof Repair	0.0502	1.0544	5.44%	2.2051						
514	Floor Maint. #1, Studio	0.0035	1.0067	0.67%	0.6724						
515	Floor Maint. #2, 1 Br.	0.0059	1.0077	0.77%	0.7534						
516	Floor Maint. #3, 2 Br.	0.0531	1.0078	0.78%	0.7651						
517	Extermination Services	0.0455	1.0645	6.45%	3.9355						
519	Electrician Services	0.0705	1.0344	3.44%	2.4319						

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### 3. Price Relative by Building Type, Apartments, 2020

Component Description	Pre-1947	Post-1946	Gas Heated	Oil Heated
TAXES	6.2%	5.3%	5.9%	5.9%
LABOR COSTS	3.3%	3.0%	3.3%	3.1%
FUEL	-12.2%	-12.6%	-15.3%	-8.6%
UTILITIES	1.8%	1.6%	1.7%	1.7%
MAINTENANCE	4.9%	4.5%	4.9%	4.8%
ADMINISTRATIVE COSTS	3.6%	3.2%	3.5%	3.5%
INSURANCE COSTS	16.5%	16.5%	16.5%	16.5%
<b>ALL ITEMS</b>	<b>3.8%</b>	<b>3.6%</b>	<b>3.9%</b>	<b>3.7%</b>

### 4. Price Relative by Hotel Type, 2020

Component Description	"Traditional" Hotel	Rooming House	SRO
TAXES	8.6%	5.3%	5.3%
LABOR COSTS	3.9%	2.9%	3.3%
FUEL	-11.2%	-10.9%	-11.1%
UTILITIES	2.0%	-1.6%	1.6%
MAINTENANCE	3.4%	4.0%	4.1%
ADMINISTRATIVE COSTS	1.8%	2.9%	2.7%
INSURANCE COSTS	16.5%	16.5%	16.5%
<b>ALL ITEMS</b>	<b>5.0%</b>	<b>2.5%</b>	<b>1.3%</b>

### 5. Percentage Change in Real Estate Tax by Borough and Source of Change, Apartments and Hotels, 2020

	% Change Due to Assessments	% Change Due to Exemptions	% Change Due to Tax Rates	% Change Due to Abatements	% Change Due to Interactions*	Total % Change
<b>APARTMENTS</b>						
Manhattan	7.1%	-0.3%	-1.1%	0.0%	-0.1%	5.6%
Bronx	11.0%	-2.9%	-1.3%	-0.3%	-0.1%	6.4%
Brooklyn	10.9%	-2.9%	-1.1%	0.2%	-0.1%	6.9%
Queens	7.1%	0.0%	-1.1%	0.0%	-0.1%	5.9%
Staten Island	10.2%	-5.0%	-1.1%	0.8%	-0.1%	4.9%
<b>All Apartments</b>	<b>7.8%</b>	<b>-0.8%</b>	<b>-1.1%</b>	<b>0.1%</b>	<b>-0.1%</b>	<b>5.9%</b>
<b>HOTELS</b>						
"Traditional" Hotel	8.2%	0.5%	-0.1%	0.0%	0.0%	8.6%
Rooming House	6.5%	0.0%	-1.1%	0.0%	-0.1%	5.3%
SRO	6.4%	-0.4%	-0.7%	0.0%	0.0%	5.3%
<b>All Hotels</b>	<b>7.3%</b>	<b>0.1%</b>	<b>-0.5%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>6.9%</b>

\* Real estate tax interactions are the cumulative effects of changes in tax rates, assessments, exemptions and abatements in the same year, after subtracting out the individual effects of each of these changes. Interactions have minimal impact on the overall change in real estate taxes.

Note: Totals may not add due to rounding.

### 6. Tax Change by Borough and Community Board, Apartments, 2020

Borough	Community Board	Number of Buildings	Tax Relative	Borough	Community Board	Number of Buildings	Tax Relative	Borough	Community Board	Number of Buildings	Tax Relative
Manhattan		<b>12,195</b>	<b>5.61%</b>	Brooklyn		<b>12,903</b>	<b>6.94%</b>	Queens		<b>6,773</b>	<b>5.92%</b>
	1	86	9.02%		7	950	6.84%		17	591	6.74%
	2	1,086	6.18%		8	353	6.27%		18	77	8.67%
	3	1,553	6.12%		9	324	4.36%		1	1,980	7.10%
	4	934	5.88%		10	219	4.16%		2	876	5.36%
	5	242	6.44%		11	303	6.59%		3	513	5.40%
	6	793	5.07%		12	425	8.93%		4	508	5.97%
	7	1,739	5.55%		1	1,693	7.58%		5	1,154	6.10%
	8	1,833	4.24%		2	622	7.19%		6	326	6.60%
	9	729	7.15%		3	1,038	4.52%		7	439	6.42%
	10	1,043	8.25%		4	1,352	8.63%		8	211	5.75%
	11	693	7.20%		5	387	9.88%		9	222	6.10%
12	1,433	7.16%	6	870	-0.61%	10	39		8.74%		
Lower	<b>7,802</b>	<b>5.33%</b>	7	875	7.41%	11	118		6.69%		
Upper	<b>4,393</b>	<b>7.21%</b>	8	1,001	8.88%	12	186	5.91%			
Bronx		<b>5,670</b>	<b>6.38%</b>	9	578	6.71%	13	52	-2.74%		
	1	420	8.64%	10	774	6.99%	14	96	6.38%		
	2	268	7.69%	11	674	7.77%	1	128	6.06%		
	3	394	6.47%	12	593	8.33%	2	24	-12.82%		
	4	737	6.04%	13	175	8.39%	3	21	10.86%		
	5	688	5.34%	14	895	7.08%					
6	572	7.27%	15	359	7.27%	<b>Staten Island</b>	<b>173</b>	<b>4.91%</b>			
			16	342	2.62%	<b>ALL</b>	<b>37,714</b>	<b>5.90%</b>			

Note: No Community Board (CB) could be assigned to the following number of buildings for each borough: Manhattan (3), Bronx (17), Brooklyn (7), Queens (53). The number of buildings in the category "ALL" for each borough includes the buildings that could not be assigned a Community Board. In addition, 28 buildings in Manhattan are a part of Community Board 8 in the Bronx. These buildings are not included in the total for CB 8 in the Bronx, but are represented in the Manhattan total and the total for "ALL" buildings. Core and Upper Manhattan building totals are defined by block count and cannot be calculated by using Community Board numbers alone.

**7. Expenditure Weight, Price Relatives, Percent Changes and Standard Errors, All Hotels, 2020**

Spec #	Item Description	Expenditure Weight	Price Relative	% Change	Standard Error	Spec #	Item Description	Expenditure Weight	Price Relative	% Change	Standard Error
101	<b>TAXES</b>	<b>0.3982</b>	<b>1.0694</b>	<b>6.94%</b>	<b>1.7244</b>	518	Linen/Laundry Service	0.1228	1.0148	1.48%	1.5885
205	Social Security Insurance	0.0482	1.0302	3.02%	0.0000	519	Electrician Services	0.0224	1.0344	3.44%	2.4319
206	Unemployment Insurance	0.0074	0.9207	-7.93%	0.0000	805	Paint	0.0494	1.0335	3.35%	1.4965
208	Hotel Private Health/Welfare	0.0565	1.0896	8.96%	0.0000	808	Bucket	0.0199	1.0529	5.29%	3.1342
209	Hotel Union Labor	0.3114	1.0307	3.07%	0.0000	810	Linens	0.0625	1.0230	2.30%	1.9299
210	SRO Union Labor	0.0122	1.0307	3.07%	0.0000	811	Pine Disinfectant	0.0092	0.9896	-1.04%	4.5471
211	Apartment Value	0.1128	1.0202	2.02%	0.3517	813	Switch Plate	0.0141	0.9609	-3.91%	12.3316
212	Non-Union Superintendent	0.3227	1.0339	3.39%	0.7453	815	Toilet Seat	0.0201	0.9736	-2.64%	3.3245
216	Non-Union Janitor/Porter	0.1288	1.0493	4.93%	0.7496	816	Deck Faucet	0.0254	1.0594	5.94%	3.1630
	<b>LABOR COSTS</b>	<b>0.1487</b>	<b>1.0354</b>	<b>3.54%</b>	<b>0.2622</b>	817	Large Trash Bags	0.0270	0.9952	-0.48%	2.3629
301	Fuel Oil #2	0.6338	0.8915	-10.85%	0.4259	818	Smoke Detectors	0.0263	1.0030	0.30%	1.5181
302	Fuel Oil #4	0.0152	0.9552	-4.48%	1.1740	902	Refrigerator #2	0.0136	0.9973	-0.27%	2.6075
403	Electricity #3, 82,000 KWH	0.1872	0.8951	-10.49%	0.0000	903	Air Conditioner #1	0.0082	1.0302	3.02%	2.9956
405	Gas #2, 650 therms	0.0306	0.8700	-13.00%	0.0000	908	Range #2	0.0058	1.0287	2.87%	2.5767
406	Gas #3, 2,140 therms	0.1330	0.8600	-14.00%	0.0000	909	Carpet	0.0415	1.0057	0.57%	1.2628
407	Steam #1, 1,150 Mlbs	0.0003	0.8517	-14.83%	0.0000	910	Dresser	0.0221	1.0485	4.85%	3.4128
	<b>FUEL</b>	<b>0.1627</b>	<b>0.8883</b>	<b>-11.17%</b>	<b>0.2705</b>	911	Mattress & Box Spring	0.0184	0.9959	-0.41%	3.4753
401	Electricity #1, 2,500 KWH	0.1281	0.9929	-0.71%	0.0000		<b>MAINTENANCE</b>	<b>0.1123</b>	<b>1.0364</b>	<b>3.64%</b>	<b>0.1209</b>
402	Electricity #2, 15,000 KWH	0.1269	1.0148	1.48%	0.0000	601	Management Fees	0.5676	1.0168	1.68%	0.6194
404	Gas #1, 120 therms	0.0901	0.9029	-9.71%	0.0000	602	Accountant Fees	0.0638	1.0326	3.26%	0.9412
410	Water & Sewer	0.6549	1.0231	2.31%	0.0000	603	Attorney Fees	0.0932	1.0847	8.47%	4.5641
	<b>UTILITIES</b>	<b>0.0441</b>	<b>1.0073</b>	<b>0.73%</b>	<b>0.0000</b>	604	Newspaper Ads	0.0848	1.0000	0.00%	0.0000
501	Repainting	0.1426	1.0805	8.05%	2.0858	607	Envelopes	0.0063	1.0045	0.45%	2.7510
502	Plumbing, Faucet	0.0501	1.0259	2.59%	0.8289	608	P.O. Box	0.0060	1.0401	4.01%	1.1891
503	Plumbing, Stoppage	0.0487	1.0661	6.61%	2.6336	609	Copy Paper	0.0061	1.0939	9.39%	2.1923
504	Elevator #1, 6 fl., 1 e.	0.0221	1.0190	1.90%	1.2961	409	Communications	0.1723	1.0054	0.54%	0.0000
505	Elevator #2, 13 fl., 2 e.	0.0192	1.0261	2.61%	1.8242		<b>ADMINISTRATIVE COSTS</b>	<b>0.0876</b>	<b>1.0213</b>	<b>2.13%</b>	<b>0.5557</b>
506	Elevator #3, 19 fl., 3 e.	0.0178	1.0260	2.60%	2.0228	701	<b>INSURANCE COSTS</b>	<b>0.0465</b>	<b>1.1653</b>	<b>16.53%</b>	<b>1.9065</b>
507	Burner Repair	0.0162	1.0567	5.67%	2.0555		<b>ALL ITEMS</b>	<b>1.0000</b>	<b>1.0287</b>	<b>2.87%</b>	<b>0.6990</b>
508	Boiler Repair, Tube	0.0191	1.0451	4.51%	2.7003						
509	Boiler Repair, Weld	0.0185	1.1097	10.97%	1.4781						
511	Range Repair	0.0831	1.0468	4.68%	1.5055						
512	Roof Repair	0.0216	1.0544	5.44%	2.2051						
514	Floor Maint. #1, Studio	0.0004	1.0067	0.67%	0.6724						
515	Floor Maint. #2, 1 Br.	0.0009	1.0077	0.77%	0.7534						
516	Floor Maint. #3, 2 Br.	0.0081	1.0078	0.78%	0.7651						
517	Extermination Services	0.0225	1.0645	6.45%	3.9355						

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**8. Expenditure Weight and Price Relatives, Lofts, 2020**

Spec #	Item Description	Expenditure Weight	Price Relative	% Change	Spec #	Item Description	Expenditure Weight	Price Relative	% Change
101	TAXES	<b>0.3259</b>	<b>1.0590</b>	<b>5.90%</b>	805	Paint	0.0481	1.0335	3.35%
202	Payroll, Other, Union, Supts.	0.2200	1.0229	2.29%	808	Bucket	0.0087	1.0529	5.29%
204	Payroll, Other, Non-Union, All	0.5512	1.0418	4.18%	811	Pine Disinfectant	0.0127	0.9896	-1.04%
205	Social Security Insurance	0.0387	1.0302	3.02%	813	Switch Plate	0.0063	0.9609	-3.91%
206	Unemployment Insurance	0.0038	0.9207	-7.93%	815	Toilet Seat	0.0215	0.9736	-2.64%
207	Private Health & Welfare	0.1863	1.0376	3.76%	816	Deck Faucet	0.0272	1.0594	5.94%
	LABOR COSTS	<b>0.0868</b>	<b>1.0359</b>	<b>3.59%</b>	817	Large Trash Bags	0.0162	0.9952	-0.48%
301	Fuel Oil #2	0.2986	0.8915	-10.85%	818	Smoke Detectors	0.0158	1.0030	0.30%
302	Fuel Oil #4	0.5507	0.9552	-4.48%	902	Refrigerator #2	0.0757	0.9973	-0.27%
405	Gas #2, 650 therms	0.0358	0.8506	-14.94%	903	Air Conditioner #1	0.0027	1.0302	3.02%
406	Gas #3, 2,140 therms	0.0959	0.8457	-15.43%	906	Dishwasher	0.0081	1.0322	3.22%
407	Steam #1, 1,150 Mlbs	0.0145	0.8517	-14.83%	908	Range #2	0.0354	1.0287	2.87%
408	Steam #2, 2,600 Mlbs	0.0044	0.8447	-15.53%		MAINTENANCE	<b>0.0890</b>	<b>1.0476</b>	<b>4.76%</b>
	FUEL	<b>0.0865</b>	<b>0.9199</b>	<b>-8.0%</b>		ADMINISTRATIVE COSTS-LEGAL	<b>0.0594</b>	<b>1.0847</b>	<b>8.47%</b>
401	Electricity #1, 2,500 KWH	0.0078	0.9929	-0.71%	601	Management Fees	0.8312	1.0168	1.68%
402	Electricity #2, 15,000 KWH	0.0914	1.0148	1.48%	602	Accountant Fees	0.1340	1.0326	3.26%
404	Gas #1, 120 therms	0.0035	0.9029	-9.71%	604	Newspaper Ads	0.0092	1.0000	0.00%
410	Water & Sewer - Frontage	0.8973	1.0231	2.31%	607	Envelopes	0.0068	1.0045	0.45%
	UTILITIES	<b>0.0605</b>	<b>1.0217</b>	<b>2.17%</b>	608	PO Box	0.0065	1.0401	4.01%
501	Repainting	0.2889	1.0805	8.05%	609	Copy Paper	0.0066	1.0939	9.39%
502	Plumbing, Faucet	0.0845	1.0259	2.59%	409	Communications	0.0056	1.0054	0.54%
503	Plumbing, Stoppage	0.0776	1.0661	6.61%		ADMINISTRATIVE COSTS-OTHER	<b>0.0857</b>	<b>1.0192</b>	<b>1.92%</b>
504	Elevator #1, 6 fl., 1 e.	0.0344	1.0190	1.90%	701	INSURANCE COSTS	<b>0.2062</b>	<b>1.1653</b>	<b>16.53%</b>
505	Elevator #2, 13 fl., 2 e.	0.0218	1.0261	2.61%		ALL ITEMS	<b>1.0000</b>	<b>1.0618</b>	<b>6.18%</b>
506	Elevator #3, 19 fl., 3 e.	0.0123	1.0260	2.60%					
507	Burner Repair	0.0237	1.0567	5.67%					
508	Boiler Repair, Tube	0.0309	1.0451	4.51%					
509	Boiler Repair, Weld	0.0253	1.1097	10.97%					
510	Refrigerator Repair	0.0080	1.0465	4.65%					
511	Range Repair	0.0075	1.0468	4.68%					
512	Roof Repair	0.0511	1.0544	5.44%					
514	Floor Maint. #1, Studio	0.0001	1.0067	0.67%					
515	Floor Maint. #2, 1 Br.	0.0003	1.0077	0.77%					
516	Floor Maint. #3, 2 Br.	0.0023	1.0078	0.78%					
517	Extermination	0.0265	1.0645	6.45%					
519	Electrician	0.0264	1.0344	3.44%					

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