

2021 Price Index of Operating Costs

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New York City Rent Guidelines Board

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2021 Price Index of Operating Costs

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What's New

- ☑ The Price Index of Operating Costs (PIOC) for buildings that contain rent stabilized apartments increased 3.0% this year.
- ☑ Costs in natural-gas heated buildings increased 3.8%, while costs in fuel-oil heated buildings increased 1.6%.
- ☑ The “Core” PIOC, which excludes the changes in fuel oil prices, natural gas and steam costs, rose by 3.5% this year.
- ☑ The Hotel PIOC increased 1.9% this year.
- ☑ Fuel costs decreased 3.3% and Administrative costs fell 0.7%, the only decreases of any PIOC component.
- ☑ Real estate taxes increased 3.9%, primarily due to a rise in assessments for Class Two properties.
- ☑ Insurance Costs rose by the greatest proportion, increasing 18.8%.
- ☑ The Utilities component increased by 2.1%, due to a rise in electricity costs.
- ☑ The Labor Costs component increased by 2.8%, due to increases in both union and non-union labor.
- ☑ The Maintenance component increased by 3.1%.
- ☑ The PIOC for buildings that contain rent stabilized apartments is projected to increase 1.3% next year.

Apartment

Change In Costs for Buildings that Contain Rent Stabilized Apartments, April 2020 to March 2021

Taxes	3.9%
Labor Costs	2.8%
Fuel	-3.3%
Utilities	2.1%
Maintenance	3.1%
Administrative Costs	-0.7%
Insurance Costs	18.8%
All Costs	3.0%

Introduction

The Price Index of Operating Costs (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 buildings

that contain rent stabilized apartments. 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 2020-2021 price changes and expenditure weights are then combined to provide the overall change in the PIOC for 2020-2021.¹

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 3.0%. Increases occurred in all PIOC components, except Fuel and Administrative Costs. The largest proportional increase was seen in Insurance (18.8%), followed by Taxes (3.9%), Maintenance (3.1%), Labor Costs (2.8%), and Utilities (2.1%). Fuel and Administrative Costs both declined over the year, by 3.3% and 0.7%, respectively. The growth in the Consumer Price Index (CPI), which measures inflation

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.

in a wide range of consumer goods and services, during this same time period was lower than the PIOC, rising 1.5%.² See the table on the previous page and Appendix 2 for changes in costs and prices for buildings that contain rent stabilized apartments from 2020-2021.

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 3.5% this year and was higher than the overall PIOC due to the exclusion of costs in the Fuel component, which fell 3.3%. The PIOC for hotels increased by 1.9%, while apartments heated by gas increased by 3.8% and those heated by oil increased by 1.6%.

Price Index Components — Apartments

Taxes

3.9%

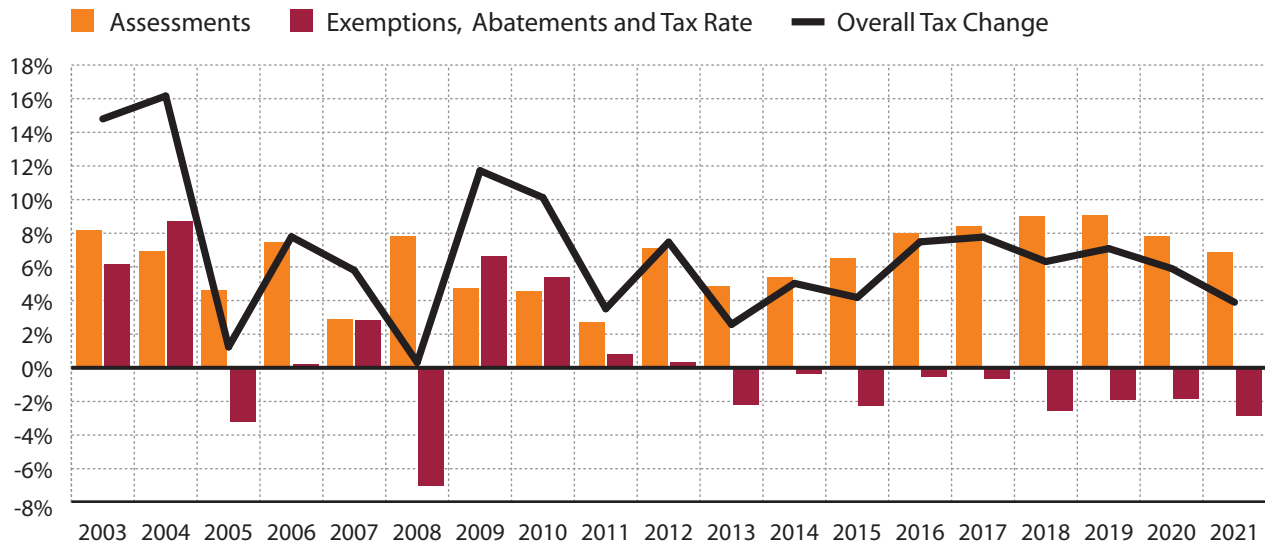
The Taxes component of the PIOC is based entirely on real estate taxes and accounts for nearly a third of the overall price index. The change in tax cost is estimated by comparing

aggregate taxes levied on buildings that contain rent stabilized apartments in Fiscal Year (FY) 2020 and FY 2021. Aggregate real estate taxes rose this year by 3.9%. The growth in taxes was primarily due to a 6.9% 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 1.4%. In addition, a decline in the tax rate of 1.6% also helped to offset the rise in assessments. Change in tax abatements had little impact on the change in Taxes for 2021.

Tax Levy — The total tax levy for all properties in the City (commercial and residential) increased by 5.5% from FY 2020 to FY 2021. The large majority of rent stabilized apartments are contained in multi-family buildings that are in Tax Class 2.³ The total Class 2 property levy rose at a slower pace than that of the City as a whole, at a rate of 4.9%. The distribution of the levy among property classes tends to shift from year to year. From FY 2020 to FY 2021, the levy share for Class 2 properties decreased by 0.2 percentage points, from 38.0% to 37.8% of the total tax burden. This is significantly higher than the 26.3% share that

Percent Change in Taxes due to Assessments and Exemptions/Abatements/Tax Rate 2003-2021

The Growth in Assessments for Buildings with Rent Stabilized Apartments Declined in 2021



Source: New York City Department of Finance

was established at the inception of the four-class tax system in 1983.

Tax Rate — The average annual FY 2020 Tax Class 2 rate of 12.473% decreased by 1.7%, resulting in a new annualized rate of 12.267% for FY 2021. This is the seventh time in the past nine 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 6.9% Citywide in FY 2021. Assessments rose in all five boroughs, with Brooklyn witnessing the highest growth at 10.5%, followed by the Bronx at 10.0% and Staten Island at 8.6%. Manhattan and Queens witnessed the lowest growth in assessments, rising by 5.7% and 6.5%, respectively.

Buildings in Manhattan drive much of the change in assessed value Citywide. This was true in FY 2021, with 59% 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 12.4% from the previous fiscal year. At the same time, the average benefit value of the typical tax abatement increased by 1.7% from FY 2020 to FY 2021. 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 2021, 1.1% more buildings benefited from tax exemptions and the value of the average tax exemption increased by 5.0%. This combination of an increase in the average value of tax exemptions and the slight increase in the number of buildings receiving exemptions resulted in reducing the increase in the overall change in Taxes by 1.4% (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 non-unionized labor makes up more than half of the Labor Costs component. The entire Labor Costs component comprises 11.1% of the overall Price Index.

Labor Costs rose 2.8%, 0.4 percentage points lower than last year's rise of 3.2%. The rise in Labor Costs was primarily due to increases in non-union wages, as well as rising costs in healthcare. An increase in unemployment insurance of 6.2% had minimal impact, since it accounts for one percent of this component's weight.

Wages comprise 80% of the Labor Costs component. Non-union pay increased by 2.2%, 2.0 percentage points lower than the increase seen in the 2020 PIOC (4.2%). Unionized wages also rose, rising by 3.9%, 1.7 percentage points greater than last year (2.2%). Health and welfare benefits, which comprises almost 14% of the Labor Costs component, increased 3.8%.

Following a supplement to the Owner Survey in 2020 that asked owners for detailed information on their labor costs, the weights of the Labor Costs component were redistributed in 2021. There was a shift in wages from union to non-union labor, and the weight of health and welfare benefits dropped by more than nine percentage points. See Appendix 2 for all Labor Costs item weights and price relatives.

Fuel



The Fuel component comprises 7.3% 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.⁴

This year the Fuel component decreased 3.3%, following a 12.3% decrease in the prior year. Natural gas costs, which account for 47% of the overall costs in this component, increased 8.5%. The cost for

Fuel Oil Cost Relative vs. Change in Fuel Price, 2012-2021

PIOC Year	Fuel Oil Cost Relative*	Change in Fuel Oil Price**
2021	-16.1%	-19.9%
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%

* 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 (2012-2021)

heating buildings by fuel oil makes up 46% of this component, and decreased 16.1%. Steam costs increased 2.4%, 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 colder than last year, the Fuel Component declined to a lesser degree than would be seen based purely on price. For instance, the decrease in fuel oil prices (19.9%) was offset by the colder weather, increasing the consumption of fuel oil and causing a lesser decline in cost, 16.1%. 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 9.8% 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 72% of the Utilities component.

This year Utilities increased 2.1%, compared to a 1.6% increase in the previous year. The increase in this component was driven primarily by the increase in the cost of electricity, which rose by 7.8% and accounts for 27% of this component. Water and sewer costs were flat this year, which served to lower the overall increase in this component. Gas costs, which account for less than two percent of the Utilities component, fell 1.0%. See Appendix 2 for all Utilities item weights and price relatives.

Maintenance



The Maintenance component accounts for 18.0% of this year's Price Index. The Maintenance component rose 3.1%, less than last year's rise of 4.8%. Of the 29 expense items contained in this component, just four items account for 52% of its expenditure weight: Repainting, Plumbing (faucet), Plumbing (stoppage), and Electrician Services. This year, painters' rates rose 3.7%, less than the 8.1% recorded last year. Combined plumbing rates increased at a lower pace, rising 2.9%, less than last year's rise of 4.5%. Electrician Services rose at a slower pace, 2.3%, less than last year's increase of 3.4%.

Other price relatives of note were boiler repairs (2.5%), floor maintenance (0.0%), Roof Repair (5.3%), and Extermination Services (0.0%), 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 fell 0.7%, following a 3.5% rise in the prior year.

Administrative Costs comprise 15.6% of the PIOC.

Much of the decrease in the Administrative Costs component can be attributed to a fall in management company fees (5.1%) 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 decline compares to an increase of 1.7% last year, indicating that management companies' fees and/or rents decreased as compared to last year. This fall 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 1.0%, less than last year's rise of 3.3%. Attorney fees, which comprise about a quarter of this component, rose 5.3%, 3.2 percentage points less than last year's growth of 8.5%.

Communications, which accounts for about 5% of the Administrative Costs component, increased 2.2%. See Appendix 2 for all Administrative Costs item weights and price relatives.

Insurance Costs



For the tenth consecutive year there was an increase in the Insurance Costs component, rising 18.8%, compared to last year's increase of 16.5%. Insurance Costs account for 5.6% of the PIOC.

Changes in insurance costs for owners varied by the amount of the policy. Policies that cost more than \$6,451, which represent half of all verified insurance quotes, saw an increase in cost of 20.9% upon renewal. Buildings with policies that cost \$6,451 or less saw an increase of 3.5% (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 3.1%, while costs in the Post-1946 Index rose by a lesser amount, 2.7%. In addition, the Gas-Heated Index (3.8%) rose more than the Oil-Heated Index (1.6%).

Hotel PIOC

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 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 1.9% this year, a 1.0 percentage point decline from the 2.9% rise in 2020.

This year there were increases in all of the Hotel PIOC components except Fuel and Administrative Costs. The Fuel component decreased, falling 4.4% and accounts for 14% of the entire Hotel Index. Administrative Costs, which account for 8.7% of the Hotel PIOC, fell by 1.8%. The remaining five components all rose, with Insurance Costs rising 18.8%; Maintenance, 2.7%; Taxes, 2.4%; Labor Costs, 2.2%; and Utilities, 1.9%. See the table on the next page for changes in costs and prices for all hotels that contain rent stabilized units from 2020-2021.

Among the different categories of Hotels, the index for “Traditional” Hotels increased 1.7%, Rooming Houses by 2.0% and SROs by 2.6% (see Appendices 4 and 7).

Loft PIOC

The increase in the Loft PIOC this year was 5.1%, lower than the increase of 6.2% in 2020. Increases in costs were seen in all but two of the eight components that make up this index, with declines in Fuel and Administrative Costs-Other. Fuel declined by 13.3%, while Administrative Costs-Other fell by 4.0%. All other components increased, including Insurance Costs (18.8%), Administrative Costs-Legal (5.3%), Taxes (3.9%), Maintenance (3.6%), Labor Costs (2.6%), and Utilities (0.7%). 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 PIOC has eight components. See the table on this page and Appendix 8 for changes in costs and prices for all rent stabilized lofts from 2020-2021.

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 3.5% in 2021. The rise in the 2021 Core PIOC was 0.5 percentage points higher than this year’s Apartment Index (3.0%), and 1.6 percentage points lower than last year’s Core Index (5.1%). 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 3.3%.

PIOC Projections for 2022

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 recent studies. The tax component, which accounts for almost 33% 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

Hotels

Change In Costs for All Hotels that Contain Rent Stabilized Units, April 2020 to March 2021

Taxes	2.4%
Labor Costs	2.2%
Fuel	-4.4%
Utilities	1.9%
Maintenance	2.7%
Administrative Costs	-1.8%
Insurance Costs	18.8%
All Costs	1.9%

Lofts

Change In Costs for Rent Stabilized Lofts, April 2020 to March 2021

Taxes	3.9%
Labor Costs	2.6%
Fuel	-13.3%
Utilities	0.7%
Maintenance	3.6%
Admin Costs-Legal	5.3%
Admin Costs-Other	-4.0%
Insurance Costs	18.8%
All Costs	5.1%

2022 Projections

Projected Change In Costs for Buildings that Contain Rent Stabilized Apartments, April 2021 to March 2022

Taxes	-5.0%
Labor Costs	3.7%
Fuel	7.8%
Utilities	1.6%
Maintenance	3.9%
Administrative Costs	2.1%
Insurance Costs	13.6%

All Projected Costs 1.3%

changes to the City's tentative assessment roll, after the period covered in this Price Index. In addition, the uncertainty of the post-pandemic economic recovery may also play a significant role in projecting accurate costs for the next PIOC year.

This year, operating costs in buildings that contain rent stabilized apartments increased by 3.0%, versus last year's projected PIOC increase of 2.4%, a difference of 0.6 percentage points. The component with the largest deviation between actual and projected changes in costs was Insurance Costs. Insurance costs were projected to rise 8.5%, but actually rose 18.8% in 2021, a 10.3 percentage point difference. The only other notable differences were found in the Fuel and Administrative Costs components. Fuel, which was projected to decrease by 11.7%, fell instead by 3.3%, an 8.4 percentage point difference. Administrative Costs were projected to increase 2.9%, but instead fell 0.7%, a difference of 3.6 percentage points. The remaining 2021 projected components of the PIOC were all within 1.7 percentage points of the actual measured changes.

Overall, the PIOC is expected to grow by 1.3% from 2021 to 2022. Costs are predicted to rise in each component except Taxes, with the largest growth (13.6%) projected to be in Insurance. Other projected increases include Fuel (7.8%), Maintenance (3.9%), Labor Costs (3.7%), Administrative Costs (2.1%), and Utilities (1.6%).

Taxes, the component that carries the most weight in the Index, is projected to decrease 5.0%. The table on this page shows projected changes in PIOC components for 2022. The Core PIOC is projected to rise 0.8%, 0.5 percentage points less than the overall projected PIOC for rent stabilized apartments.

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.⁵ 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 on revenue from vacancy leases. Under the "Net Revenue" formula, a guideline that would preserve NOI in the face of this year's 3.0% increase in the PIOC is 2.25% for a one-year lease and 4.5% for a two-year lease. Using this formula, and adding assumptions for the impact of vacancy leases on revenues when apartments experience

turnover, results in guidelines of 2.0% for one-year leases and 3.25% 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 1.5% increase in the Consumer Price Index (see Endnote 2) and the 3.0% increase in the PIOC is 2.75% for a one-year lease and 5.75% for a two-year lease. Guidelines using this formula and adding the estimated impact of vacancy leases are 2.5% for one-year leases and 4.5% for two-year leases.⁶

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 2.0% for a one-year lease and 2.4% for a two-year lease. This reflects the increase in operating costs of 3.0% found in the 2021 PIOC and the projection of a 1.3% increase next year.

All of these commensurate methods have limitations. The “Net Revenue” formula does not attempt to adjust NOI by the effect of inflation. The “CPI-Adjusted NOI” formula inflates the debt service portion of NOI. 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.⁷

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

Commensurates	
<i>"Net Revenue" Commensurate Adjustment</i>	
<u>1-Year Lease</u>	<u>2-Year Lease</u>
2.25%	4.5%
<i>"Net Revenue" Commensurate Adjustment with Vacancy Leases</i>	
<u>1-Year Lease</u>	<u>2-Year Lease</u>
2.0%	3.25%
<i>"CPI-Adjusted NOI" Commensurate Adjustment</i>	
<u>1-Year Lease</u>	<u>2-Year Lease</u>
2.75%	5.75%
<i>"CPI-Adjusted NOI" Commensurate Adjustment with Vacancy Leases</i>	
<u>1-Year Lease</u>	<u>2-Year Lease</u>
2.5%	4.5%
<i>"Traditional" Commensurate Adjustment</i>	
<u>1-Year Lease</u>	<u>2-Year Lease</u>
2.0%	2.4%

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 (3.0%). 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 (1.3%).

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 rely 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 2021 PIOC, as well as the PIOC projection for 2022.

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 tried to gather the missing information. Owners could complete the survey online or by mail. 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 more than 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 15,000 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. Two successive mailings were sent at timed intervals to the owner or managing agent of each property selected in the survey sample.

To increase the number of responses, minor changes were made in the methodology for the Owner Survey. In 2021, twice as many surveys (15,000, versus 7,500 in prior years) were sent to building owners and managers, reaching approximately one-third of all buildings that contain rent stabilized units. In addition, an analysis of surveys from previous PIOC years showed that submitted insurance and labor costs were largely accurate when verified with brokers and non-union employees. Therefore, not every response obtained through the Owner Survey was independently verified in this year’s PIOC. For example, staff verified insurance policies that accounted for 69% of the cost of current year insurance policies.

However, because the number of buildings surveyed was doubled, a greater number of

responses were received. The increase in responses allowed more insurance policies, wage rates, and management fees to be used in the calculation of the components of the PIOC that rely on the owner survey, thus increasing accuracy.

Roughly 4.7% of the questionnaires mailed out received a response. This was a lower response rate than last year (7.1%), but a total of 27% more returned surveys (due to the doubling of the sample size). A total of 640 returned surveys contained usable information, up from 503 the prior year. As a result, RGB staff was able to use 640 annual insurance premiums, 204 non-union labor wage rates and 119 reported management fees. The number of prices in 2020 and 2021 for the Owner Survey is shown in Appendix 1.

Taxes

The 2021 tax price relative was calculated by providing a list of 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 over 37,000 buildings in FY 2020 and FY 2021. 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 2020 to FY 2021.

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 “Owner Survey” section on the previous page regarding non-union labor wage methodology).

Following a supplement to the Owner Survey in 2020 that asked owners for detailed information on their labor costs, the weights of the Labor Costs component were redistributed in 2021. Notably, there was a shift in wages from union to non-union labor, with non-union wages now comprising 58% of the labor component (up from 31% in the prior year). In addition, the weight of health and welfare benefits dropped by more than nine percentage points (from 22.9% to 13.6%).

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 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.

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 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 526 recorded price quotes were gathered (for both Maintenance and Administrative Costs). 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 much of this information. As noted in the Owner Survey methodology, in a change from prior years (when only verified insurance costs were included in the PIOC), because of an increased response rate, not every insurance policy was verified. Staff verified insurance policies that accounted for 69% of the cost of current year insurance policies.

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 2021 to March 2022.

Taxes were projected by using data from the Department of Finance's tentative assessment roll for FY 2022 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.⁸

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

Acknowledgments

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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 2020 to February 2021 (283.5) compared to the average for the year from March 2019 to February 2020 (279.3) rose by 1.5%. 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 all of the more than nearly 38,000 buildings analyzed were Tax Class 2.
4. The cost-weight relatives are calculated on an April to March time period. The April 2020 to March 2021 time period was 6.1% colder 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 where annual adjustments in rents 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 65.8% of the 2021 PIOC increase of 3.0%, or 2.0%. The 65.8% 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 34.2% times the latest 12-month increase in the CPI ending February 2020 (1.5%), or 0.52%; (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 the impact on revenue from vacancy leases, 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 (the most recent data available to the RGB), with adjustments to account for the presumed effect of the Housing Stability & Tenant Protection Act of 2019 on vacancy leases. The increase in vacancy leases is based on the increase that rent stabilized units without preferential rents were able to take under RGB Apartment Order #52 (0%), and the approximated 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 2021. 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, 2020 vs. 2021

Spec #	Description	2020	2021	Spec #	Description	2020	2021
211	Apartment Value	93	157	817	Large Trash Bags	15	16
212	Non-Union Super	71	127	818	Smoke Detectors	13	13
216	Non-Union Janitor/Porter	68	77	902	Refrigerator #2	11	11
	LABOR COSTS	232	361	903	Air Conditioner #1	8	8
				906	Dishwasher	11	10
301	Fuel Oil #2	30	23	908	Range #2	11	11
302	Fuel Oil #4	8	7	909	Carpet	8	10
	FUEL OIL	38	30	910	Dresser	6	5
				911	Mattress & Box Spring	9	8
					MAINTENANCE	425	421
501	Repainting	67	63				
502	Plumbing, Faucet	30	27	601	Management Fees	109	119
503	Plumbing, Stoppage	27	24	602	Accountant Fees	25	23
504	Elevator #1, 6 fl., 1 e.	6	6	603	Attorney Fees	18	24
505	Elevator #2, 13 fl., 2 e.	5	5	604	Newspaper Ads	33	25
506	Elevator #3, 19 fl., 3 e.	5	5	607	Bill Envelopes	12	12
507	Burner Repair	11	10	608	P.O. Box	10	10
508	Boiler Repair, Tube	7	10	609	Copy Paper	12	11
509	Boiler Repair, Weld	6	6				
510	Refrigerator Repair	5	12				
511	Range Repair	5	12		ADMINISTRATIVE COSTS	219	224
512	Roof Repair	15	13				
514	Floor Maint. #1, Studio	8	7				
515	Floor Maint. #2, 1 Br.	8	7	701	INSURANCE COSTS	353	640
516	Floor Maint. #3, 2 Br.	8	7				
517	Extermination Services	10	10				
518	Linen/Laundry Service	5	4				
519	Electrician Services	10	9		ALL ITEMS	1,267	1,676
805	Paint	12	12				
808	Bucket	16	16				
810	Linens	10	10				
811	Pine Disinfectant	15	14				
813	Switch Plate	13	11				
815	Toilet Seat	16	15				
816	Deck Faucet	13	14				

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2. Expenditure Weights, Price Relatives, Percent Changes and Standard Errors, All Apartments, 2021

Spec #	Item Description	Expenditure Weight	Price Relative	% Change	Standard Error	Spec #	Item Description	Expenditure Weight	Price Relative	% Change	Standard Error
101	TAXES	0.3262	1.0390	3.90%	0.0639	805	Paint	0.0275	1.0143	1.43%	1.6954
201	Payroll, Bronx, All (Union)	0.0475	1.0217	2.17%	0.0000	808	Bucket	0.0051	1.0276	2.76%	1.5749
202	Payroll, Other, Union, Supts.	0.0496	1.0284	2.84%	0.0000	811	Pine Disinfectant	0.0067	1.0151	1.51%	2.7832
203	Payroll, Other, Union, Other	0.1248	1.0505	5.05%	0.0000	813	Switch Plate	0.0049	1.0262	2.62%	2.2190
204	Payroll, Other, Non-Union, All	0.5777	1.0216	2.16%	1.3888	815	Toilet Seat	0.0116	1.0443	4.43%	2.2442
205	Social Security Insurance	0.0550	1.0266	2.66%	0.0000	816	Deck Faucet	0.0159	0.9777	-2.23%	3.1887
206	Unemployment Insurance	0.0095	1.0620	6.20%	0.0000	817	Large Trash Bags	0.0106	1.0711	7.11%	3.3128
207	Private Health & Welfare	0.1359	1.0376	3.76%	0.0000	818	Smoke Detectors	0.0104	0.9986	-0.14%	1.8932
	LABOR COSTS	0.1108	1.0284	2.84%	0.8023	902	Refrigerator #2	0.0362	1.0958	9.58%	2.8776
301	Fuel Oil #2	0.2881	0.8466	-15.34%	1.4765	903	Air Conditioner #1	0.0013	1.0112	1.12%	2.8379
302	Fuel Oil #4	0.1744	0.8255	-17.45%	5.8656	906	Dishwasher	0.0040	1.0776	7.76%	2.7254
405	Gas #2, 650 therms	0.0899	1.0852	8.52%	0.0000	908	Range #2	0.0174	1.0908	9.08%	3.2666
406	Gas #3, 2,140 therms	0.3804	1.0853	8.53%	0.0000		MAINTENANCE	0.1800	1.0308	3.08%	0.4676
407	Steam #1, 1,150 Mlbs	0.0509	1.0194	1.94%	0.0000	601	Management Fees	0.5121	0.9491	-5.09%	1.5272
408	Steam #2, 2,600 Mlbs	0.0162	1.0388	3.88%	0.0000	602	Accountant Fees	0.1270	1.0098	0.98%	0.5872
	FUEL	0.0728	0.9671	-3.29%	1.1079	603	Attorney Fees	0.2347	1.0535	5.35%	2.1492
401	Electricity #1, 2,500 KWH	0.1335	1.0834	8.34%	0.0000	604	Newspaper Ads	0.0100	1.0000	0.00%	0.0000
402	Electricity #2, 15,000 KWH	0.1359	1.0734	7.34%	0.0000	607	Bill Envelopes	0.0229	1.0249	2.49%	1.8769
404	Gas #1, 120 therms	0.0153	0.9899	-1.01%	0.0000	608	P.O. Box	0.0225	1.1783	17.83%	0.7210
410	Water & Sewer	0.7153	1.0000	0.00%	0.0000	609	Copy Paper	0.0241	0.9663	-3.37%	2.5072
	UTILITIES	0.0981	1.0210	2.10%	0.0000	409	Communications	0.0468	1.0224	2.24%	0.0000
501	Repainting	0.2437	1.0373	3.73%	1.1469		ADMINISTRATIVE COSTS	0.1560	0.9926	-0.74%	0.9367
502	Plumbing, Faucet	0.1033	1.0365	3.65%	1.4456	701	INSURANCE COSTS	0.0561	1.1877	18.77%	1.7075
503	Plumbing, Stoppage	0.0986	1.0202	2.02%	1.2193		ALL ITEMS	1.0000	1.0304	3.04%	0.2291
504	Elevator #1, 6 fl., 1 e.	0.0203	1.0273	2.73%	1.1561						
505	Elevator #2, 13 fl., 2 e.	0.0129	1.0135	1.35%	0.6796						
506	Elevator #3, 19 fl., 3 e.	0.0073	1.0079	0.79%	0.4027						
507	Burner Repair	0.0324	1.0566	5.66%	4.6426						
508	Boiler Repair, Tube	0.0418	1.0393	3.93%	2.9355						
509	Boiler Repair, Weld	0.0363	1.0092	0.92%	1.0435						
510	Refrigerator Repair	0.0130	1.0000	0.00%	0.0000						
511	Range Repair	0.0122	1.0000	0.00%	0.0000						
512	Roof Repair	0.0505	1.0530	5.30%	1.8628						
514	Floor Maint. #1, Studio	0.0034	1.0000	0.00%	0.0000						
515	Floor Maint. #2, 1 Br.	0.0057	1.0000	0.00%	0.0000						
516	Floor Maint. #3, 2 Br.	0.0510	1.0000	0.00%	0.0000						
517	Extermination Services	0.0462	1.0000	0.00%	0.0000						
519	Electrician Services	0.0695	1.0231	2.31%	2.6290						

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3. Price Relative by Building Type, Apartments, 2021

Component Description	Pre-1947	Post-1946	Gas Heated	Oil Heated
TAXES	4.3%	3.3%	3.9%	3.9%
LABOR COSTS	2.5%	3.4%	2.8%	2.8%
FUEL	-3.4%	-3.0%	8.5%	-16.1%
UTILITIES	1.5%	2.2%	1.8%	1.8%
MAINTENANCE	3.1%	3.0%	3.0%	3.1%
ADMINISTRATIVE COSTS	-0.5%	-1.6%	-0.7%	-0.7%
INSURANCE COSTS	18.8%	18.8%	18.8%	18.8%
ALL ITEMS	3.1%	2.7%	3.8%	1.6%

4. Price Relative by Hotel Type, 2021

Component Description	"Traditional" Hotel	Rooming House	SRO
TAXES	1.6%	3.9%	3.0%
LABOR COSTS	2.6%	0.8%	1.7%
FUEL	-3.2%	-15.3%	-0.1%
UTILITIES	1.3%	2.4%	2.4%
MAINTENANCE	2.6%	3.1%	2.7%
ADMINISTRATIVE COSTS	-1.9%	-1.3%	-1.7%
INSURANCE COSTS	18.8%	18.8%	18.8%
ALL ITEMS	1.7%	2.0%	2.6%

5. Percentage Change in Real Estate Tax by Borough and Source of Change, Apartments and Hotels, 2021

	% Change Due to Assessments	% Change Due to Exemptions	% Change Due to Tax Rates	% Change Due to Abatements	% Change Due to Interactions*	Total % Change
APARTMENTS						
Manhattan	5.7%	-0.5%	-1.6%	0.1%	-0.1%	3.6%
Bronx	10.0%	-4.4%	-1.7%	0.4%	-0.1%	4.2%
Brooklyn	10.5%	-3.6%	-1.7%	0.2%	-0.1%	5.3%
Queens	6.5%	-1.0%	-1.7%	0.1%	-0.1%	3.8%
Staten Island	8.6%	-2.0%	-1.7%	0.1%	-0.1%	4.9%
All Apartments	6.9%	-1.4%	-1.6%	0.1%	-0.1%	3.9%
HOTELS						
"Traditional" Hotel	0.4%	0.6%	0.7%	0.0%	0.0%	1.6%
Rooming House	5.6%	0.0%	-1.6%	0.0%	-0.1%	3.9%
SRO	2.5%	0.6%	-0.1%	0.0%	-0.1%	3.0%
All Hotels	1.8%	0.5%	0.2%	0.0%	0.0%	2.4%

* 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 up due to rounding.

6. Tax Change by Borough and Community Board, Apartments, 2021

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		12,039	3.55%								
	1	89	5.21%		7	943	5.32%		17	593	1.05%
	2	1,054	4.05%		8	350	3.72%		18	74	6.20%
	3	1,528	5.49%		9	324	4.49%	Queens		6,740	3.82%
	4	934	3.48%		10	217	3.05%		1	1,968	1.81%
	5	247	1.93%		11	300	4.12%		2	875	4.30%
	6	764	2.66%		12	433	0.71%		3	520	4.34%
	7	1,697	4.07%	Brooklyn		12,771	5.27%		4	495	4.89%
	8	1,791	2.72%		1	1,738	15.54%		5	1,150	-1.52%
	9	720	5.86%		2	608	5.24%		6	309	4.38%
	10	1,068	4.51%		3	1,059	5.60%		7	434	4.88%
	11	710	7.23%		4	1,337	-13.40%		8	219	3.77%
	12	1,406	4.30%		5	384	6.03%		9	224	2.50%
Lower		7,657	3.34%		6	846	7.01%		10	43	6.14%
					7	886	5.25%		11	115	5.81%
Upper		4,382	4.82%		8	998	1.82%		12	185	4.03%
					9	561	5.80%		13	47	3.12%
Bronx		5,733	4.19%		10	746	5.55%		14	101	5.43%
	1	453	9.22%		11	660	5.86%	Staten Island		176	4.87%
	2	269	-0.11%		12	558	5.99%		1	130	4.49%
	3	402	3.54%		13	180	5.96%		2	27	3.93%
	4	755	5.66%		14	857	4.27%		3	19	6.50%
	5	704	5.02%		15	340	5.19%				
	6	566	-0.26%		16	338	10.21%	ALL		37,459	3.90%

Note: No Community Board (CB) could be assigned to the following number of buildings for each borough: Manhattan (3), Bronx (17), Brooklyn (7), Queens (55). 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, 2021

Spec #	Item Description	Expenditure Weight	Price Relative	% Change	Standard Error	Spec #	Item Description	Expenditure Weight	Price Relative	% Change	Standard Error
101	TAXES	0.4141	1.0241	2.41%	2.7346	518	Linen/Laundry Service	0.1203	1.0169	1.69%	1.8463
205	Social Security Insurance	0.0479	1.0266	2.66%	0.0000	519	Electrician Services	0.0224	1.0231	2.31%	2.6290
206	Unemployment Insurance	0.0066	1.0620	6.20%	0.0000	805	Paint	0.0493	1.0143	1.43%	1.6954
208	Hotel Private Health/Welfare	0.0595	1.0437	4.37%	0.0000	808	Bucket	0.0202	1.0276	2.76%	1.5749
209	Hotel Union Labor	0.3100	1.0298	2.98%	0.0000	810	Linens	0.0617	1.0277	2.77%	6.8804
210	SRO Union Labor	0.0121	1.0298	2.98%	0.0000	811	Pine Disinfectant	0.0088	1.0151	1.51%	2.7832
211	Apartment Value	0.1112	0.9856	-1.44%	0.5458	813	Switch Plate	0.0131	1.0262	2.62%	2.2190
212	Non-Union Superintendent	0.3222	1.0234	2.34%	0.7306	815	Toilet Seat	0.0189	1.0443	4.43%	2.2442
216	Non-Union Janitor/Porter	0.1305	1.0182	1.82%	3.8478	816	Deck Faucet	0.0260	0.9777	-2.23%	3.1887
	LABOR COSTS	0.1497	1.0222	2.22%	0.5578	817	Large Trash Bags	0.0260	1.0711	7.11%	3.3128
301	Fuel Oil #2	0.6379	0.8466	-15.34%	1.4765	818	Smoke Detectors	0.0255	0.9986	-0.14%	1.8932
302	Fuel Oil #4	0.0164	0.8255	-17.45%	5.8656	902	Refrigerator #2	0.0131	1.0958	9.58%	2.8776
403	Electricity #3, 82,000 KWH	0.1891	1.2105	21.05%	0.0000	903	Air Conditioner #1	0.0082	1.0112	1.12%	2.8379
405	Gas #2, 650 therms	0.0294	1.1201	12.01%	0.0000	908	Range #2	0.0057	1.0908	9.08%	3.2666
406	Gas #3, 2,140 therms	0.1269	1.1080	10.80%	0.0000	909	Carpet	0.0403	1.0434	4.34%	2.9295
407	Steam #1, 1,150 Mlbs	0.0003	1.0194	1.94%	0.0000	910	Dresser	0.0224	1.0374	3.74%	2.4945
	FUEL	0.1401	0.9563	-4.37%	0.9468	911	Mattress & Box Spring	0.0177	1.1158	11.58%	2.7984
401	Electricity #1, 2,500 KWH	0.1263	1.0834	8.34%	0.0000		MAINTENANCE	0.1132	1.0270	2.70%	0.1477
402	Electricity #2, 15,000 KWH	0.1278	1.0734	7.34%	0.0000	601	Management Fees	0.5651	0.9491	-5.09%	1.5272
404	Gas #1, 120 therms	0.0807	0.9899	-1.01%	0.0000	602	Accountant Fees	0.0645	1.0098	0.98%	0.5872
410	Water & Sewer	0.6652	1.0000	0.00%	0.0000	603	Attorney Fees	0.0990	1.0535	5.35%	2.1492
	UTILITIES	0.0432	1.0191	1.91%	0.0000	604	Newspaper Ads	0.0831	1.0000	0.00%	0.0000
501	Repainting	0.1487	1.0373	3.73%	1.1469	607	Envelopes	0.0062	1.0249	2.49%	1.8769
502	Plumbing, Faucet	0.0496	1.0365	3.65%	1.4456	608	P.O. Box	0.0061	1.1783	17.83%	0.7210
503	Plumbing, Stoppage	0.0501	1.0202	2.02%	1.2193	609	Copy Paper	0.0065	0.9663	-3.37%	2.5072
504	Elevator #1, 6 fl., 1 e.	0.0217	1.0273	2.73%	1.1561	409	Communications	0.1696	1.0224	2.24%	0.0000
505	Elevator #2, 13 fl., 2 e.	0.0190	1.0135	1.35%	0.6796		ADMINISTRATIVE COSTS	0.0870	0.9820	-1.80%	0.8899
506	Elevator #3, 19 fl., 3 e.	0.0176	1.0079	0.79%	0.4027	701	INSURANCE COSTS	0.0527	1.1877	18.77%	1.7075
507	Burner Repair	0.0165	1.0566	5.66%	4.6426		ALL ITEMS	1.0000	1.0194	1.94%	1.1513
508	Boiler Repair, Tube	0.0193	1.0393	3.93%	2.9355						
509	Boiler Repair, Weld	0.0198	1.0092	0.92%	0.0000						
511	Range Repair	0.0840	1.0000	0.00%	0.0000						
512	Roof Repair	0.0220	1.0530	5.30%	1.8628						
514	Floor Maint. #1, Studio	0.0004	1.0000	0.00%	0.0000						
515	Floor Maint. #2, 1 Br.	0.0009	1.0000	0.00%	0.0000						
516	Floor Maint. #3, 2 Br.	0.0079	1.0000	0.00%	0.0000						
517	Extermination Services	0.0231	1.0000	0.00%	0.0000						

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8. Expenditure Weight and Price Relatives, Lofts, 2021

Spec #	Item Description	Expenditure Weight	Price Relative	% Change	Spec #	Item Description	Expenditure Weight	Price Relative	% Change
101	TAXES	0.3251	1.0390	3.90%	805	Paint	0.0474	1.0143	1.43%
202	Payroll, Other, Union, Supts.	0.2172	1.0284	2.84%	808	Bucket	0.0087	1.0276	2.76%
204	Payroll, Other, Non-Union, All	0.5543	1.0216	2.16%	811	Pine Disinfectant	0.0120	1.0151	1.51%
205	Social Security Insurance	0.0385	1.0266	2.66%	813	Switch Plate	0.0057	1.0262	2.62%
206	Unemployment Insurance	0.0034	1.0620	6.20%	815	Toilet Seat	0.0200	1.0443	4.43%
207	Private Health & Welfare	0.1866	1.0376	3.76%	816	Deck Faucet	0.0275	0.9777	-2.23%
	LABOR COSTS	0.0847	1.0264	2.64%	817	Large Trash Bags	0.0154	1.0711	7.11%
301	Fuel Oil #2	0.2893	0.8466	-15.34%	818	Smoke Detectors	0.0151	0.9986	-0.14%
302	Fuel Oil #4	0.5718	0.8255	-17.45%	902	Refrigerator #2	0.0720	1.0958	9.58%
405	Gas #2, 650 therms	0.0331	1.0852	8.52%	903	Air Conditioner #1	0.0027	1.0112	1.12%
406	Gas #3, 2,140 therms	0.0882	1.0853	8.53%	906	Dishwasher	0.0080	1.0776	7.76%
407	Steam #1, 1,150 Mlbs	0.0134	1.0194	1.94%	908	Range #2	0.0347	1.0908	9.08%
408	Steam #2, 2,600 Mlbs	0.0041	1.0388	3.88%		MAINTENANCE	0.0878	1.0364	3.64%
	FUEL	0.0749	0.8666	-13.3%		ADMINISTRATIVE COSTS-LEGAL	0.0607	1.0535	5.35%
401	Electricity #1, 2,500 KWH	0.0075	1.0834	8.34%	601	Management Fees	0.8292	0.9491	-5.09%
402	Electricity #2, 15,000 KWH	0.0908	1.0734	7.34%	602	Accountant Fees	0.1358	1.0098	0.98%
404	Gas #1, 120 therms	0.0031	0.9899	-1.01%	604	Newspaper Ads	0.0090	1.0000	0.00%
410	Water & Sewer - Frontage	0.8985	1.0000	0.00%	607	Envelopes	0.0067	1.0249	2.49%
	UTILITIES	0.0582	1.0073	0.73%	608	PO Box	0.0066	1.1783	17.83%
501	Repainting	0.2979	1.0373	3.73%	609	Copy Paper	0.0071	0.9663	-3.37%
502	Plumbing, Faucet	0.0828	1.0365	3.65%	409	Communications	0.0055	1.0224	2.24%
503	Plumbing, Stoppage	0.0790	1.0202	2.02%		ADMINISTRATIVE COSTS-OTHER	0.0823	0.9604	-3.96%
504	Elevator #1, 6 fl., 1 e.	0.0334	1.0273	2.73%	701	INSURANCE COSTS	0.2263	1.1877	18.77%
505	Elevator #2, 13 fl., 2 e.	0.0213	1.0135	1.35%		ALL ITEMS	1.0000	1.0510	5.10%
506	Elevator #3, 19 fl., 3 e.	0.0120	1.0079	0.79%					
507	Burner Repair	0.0239	1.0566	5.66%					
508	Boiler Repair, Tube	0.0308	1.0393	3.93%					
509	Boiler Repair, Weld	0.0268	1.0092	0.92%					
510	Refrigerator Repair	0.0080	1.0000	0.00%					
511	Range Repair	0.0075	1.0000	0.00%					
512	Roof Repair	0.0514	1.0530	5.30%					
514	Floor Maint. #1, Studio	0.0001	1.0000	0.00%					
515	Floor Maint. #2, 1 Br.	0.0003	1.0000	0.00%					
516	Floor Maint. #3, 2 Br.	0.0022	1.0000	0.00%					
517	Extermination	0.0270	1.0000	0.00%					
519	Electrician	0.0261	1.0231	2.31%					

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