

2023 Price Index of Operating Costs

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2023 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 8.1% this year.
- ☑ Real estate taxes rose by 7.7% primarily due to a rise in assessments for Class Two properties.
- ☑ Fuel costs and Insurance costs rose by the greatest proportions, 19.9% and 12.9%, respectively.
- ☑ The Maintenance component increased by 9.4%.
- ☑ The Administrative component increased by 3.3%.
- ☑ The Utilities component increased by 8.8%.
- ☑ The Labor Costs component increased by 2.9%, due to increases in wages for both union and non-union labor.
- ☑ Overall costs in natural-gas heated buildings increased 8.0%, while overall costs in fuel-oil heated buildings increased 9.0%.
- ☑ The "Core" PIOC, which excludes the changes in fuel oil prices, natural gas and steam costs, rose by 7.2% this year.
- ☑ In a methodological change, this price index now examines change in costs in buildings based on whether they were constructed prior to 1974, or on or after January 1, 1974. The PIOC for Pre-1974 and Post-1973 buildings were nearly the same, rising 8.2% and 8.1% respectively.
- ☑ The PIOC for buildings that contain rent stabilized apartments is projected to increase 3.7% next year.

Apartments

Change In Costs for Buildings that Contain Rent Stabilized Apartments, April 2022 to March 2023

Taxes	7.7%
Labor Costs	2.9%
Fuel	19.9%
Utilities	8.8%
Maintenance	9.4%
Administrative Costs	3.3%
Insurance Costs	12.9%

All Costs **8.1%**

Introduction

The Price Index of Operating Costs (PIOC) measures changes in the cost of purchasing a specified set of goods and services (market basket) paid by owners in the operation and maintenance of buildings that contain rent stabilized units in New York City.¹ 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

The Price Index of Operating Costs for Buildings that Contain Rent Stabilized Apartments Rose...



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 2022-2023 price changes and expenditure weights are then combined to provide the overall change in the PIOC for 2022-2023.²

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 change 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 8.1%. Increases occurred in all seven of the PIOC components. Taxes, which carries the highest weight in this year’s Index, increased 7.7%. The largest proportional increase was seen in Fuel (19.9%), followed by Insurance (12.9%), Maintenance (9.4%), and Utilities (8.8%). More moderate increases were seen

Terms and Definitions

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

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

Item - individual good or service 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 unit with specific terms of sale, such as cash, volume or trade discounts.

in Administrative Costs (3.3%) and Labor Costs (2.9%). The growth in the Consumer Price Index (CPI), which measures inflation in a wide range of consumer goods and services was lower than the PIOC, rising 6.2% during this same time period.³ See the table on the previous page and Appendix 2 for changes in costs and prices for buildings that contain rent stabilized apartments from 2022-2023.

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 7.2% this year and was lower than the overall PIOC due to the exclusion of costs in the Fuel component, which rose 19.9%. The PIOC for hotels increased 8.3%, while apartments heated by gas increased by 8.0%, and those heated by oil increased by 9.0%. In a methodological change, the PIOC now examines change in costs by building age based on those constructed prior to 1974, or on or after January 1, 1974, rather than pre-1947 and post-1946. The PIOC for Pre-1974 and Post-1973 buildings were nearly the same rising 8.2% and 8.1% respectively.

Price Index Components — Apartments

Taxes

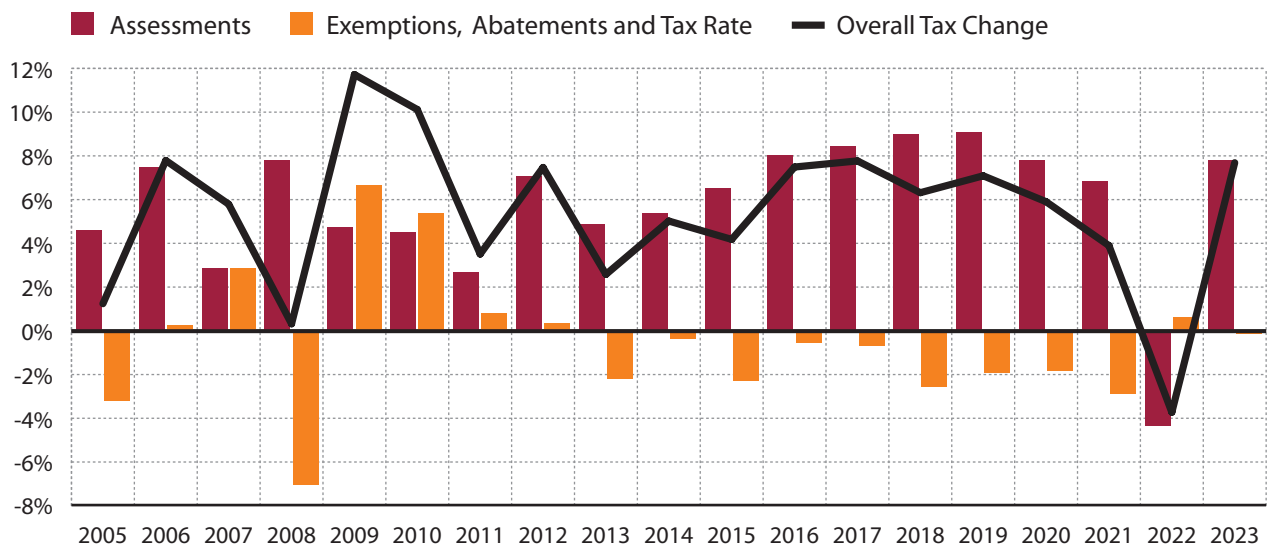


The Taxes component of the PIOC is based entirely on real estate taxes and accounts for 29.6% of the overall price index. The change in tax cost is estimated by comparing aggregate taxes levied on buildings that contain rent stabilized apartments between the current and the previous tax year. Aggregate real estate taxes rose by 7.7%. The growth in taxes was primarily due to a 7.8% rise in assessments. There was also a slight rise in the tax rate of 0.3%. However, the rise in assessments and the tax rate were offset by an increase in the total value of exemptions and abatements, which had the effect of dampening the total rise in the Taxes component by 0.4%.

Tax Levy — The total tax levy for all properties in the City (commercial and residential) increased by 7.0% between the current and the previous tax year. The large majority of rent stabilized apartments are

Percent Change in Taxes due to Assessments and Exemptions/Abatements/Tax Rate 2005-2023

Both Assessments and the Overall Tax Change for Buildings with Rent Stabilized Apartments Increased in 2023



Source: New York City Department of Finance

contained in multi-family buildings that are in Tax Class 2.⁴ The total Class 2 property levy rose at a slower pace than that of the City as a whole, at a rate of 5.6%. The distribution of the levy among property classes tends to shift from year to year. Between the current and the previous tax year, the levy share for Class 2 properties decreased by 0.5 percentage points, from 39.3% to 38.8% 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 — Last year's average annual Tax Class 2 rate of 12.235% increased by 0.032 percentage points, resulting in a new annualized rate of 12.267% for this tax year. This is only the third time in the past 11 years that the Class 2 tax rate increased. For a historical perspective on changes in the tax rate, abatements, and exemptions, see the graph on the previous page.

Assessments — Following a pandemic-driven decrease of 4.3% in the prior year, assessed valuations of properties containing rent stabilized apartments rose by 7.8% Citywide in the current tax year. Assessments rose in all five boroughs, with Brooklyn witnessing the greatest rise, at 11.5%, followed by Staten Island at 10.8%, the Bronx at 10.4%, Queens at 8.7%, and Manhattan at 6.2%. Buildings in Manhattan drive much of the change in assessed value Citywide. This was true in the current tax year, with 57% 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 increased by 0.5% from the previous fiscal year. At the same time, the average benefit value of the typical tax abatement increased by 6.44% between the current and the previous tax year. The net impact of the increase in the number of buildings receiving abatements and the increase in the average abatement value was a negligible decrease in the overall change in Taxes of just 0.3%.

In the current tax year, 2.3% fewer buildings benefited from tax exemptions, but the value of the average tax exemption increased by 2.8%. This combination of a decrease in the number of buildings receiving exemptions and an increase in the average value of tax exemptions resulted in decreasing the overall change in Taxes by just 0.1% (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 57% of the Labor Costs component. The entire Labor Costs component comprises 12.8% of the overall Price Index.

Labor Costs rose 2.9%, 1.2 percentage points lower than last year's rise of 4.1%. Wages comprise nearly 80% of the Labor Costs component. Non-union pay increased by 3.3%, 0.3 percentage points lower than the increase seen in the 2022 PIOC (3.6%). Unionized wages also rose, rising by 2.4%, 0.6 percentage points lower than last year (3.2%).

Health and welfare benefits, which comprises 13.7% of the Labor Costs component, increased 3.9%. A decrease in unemployment insurance of 18.6% had minimal impact, since it accounts for only 1.4% of this component's weight. See Appendix 2 for all Labor Costs item weights and price relatives.

Fuel



The Fuel component comprises 7.0% 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.⁵

This year the Fuel component increased 19.9%, following a similar increase of 19.6% in the prior year. Natural gas costs, which account for 70.4% of the overall costs in this component, increased

Fuel Oil Cost Relative vs. Change in Fuel Price, 2014-2023

PIOC Year	Fuel Oil Cost Relative*	Change in Fuel Oil Price**
2023	23.3%	30.3%
2022	16.8%	20.1%
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%

* 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 in 2014 and 2015. From 2016 forward, weighted change in #2 and #4 fuel oil prices only.

Source: Price Index of Operating Costs reports (2014-2023)

18.6%. The cost for heating buildings by fuel oil makes up 29.1% of this component, and increased 23.3%. Steam costs increased 3.9%, but these costs account for only 0.5% of the Fuel component. For a discussion of the overall PIOC change for buildings heated by either gas or fuel oil, see the PIOC by Building Type section on Page 8.

Along with measuring price, the PIOC also considers 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 in the period of April 2022-March 2023 was warmer than the prior 12-month period, the Fuel Component increased by a lesser degree than would be seen based purely on price. For instance, the increase in fuel oil prices (30.3%) was offset by the warmer weather, decreasing the consumption of fuel oil and causing a lesser increase in the total cost of fuel oil, 23.3%. 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 costs paid by owners for non-heating natural gas and electricity costs, as well as water and sewer charges, and it comprises 10.8% 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 66.9% of the Utilities component.

This year Utilities increased 8.8%, compared to a 5.8% increase in the previous year. The increase in this component was driven primarily by the increase in the cost of electricity, which rose by 16.2% and accounts for 31.4% of this component. Water and sewer costs rose 4.9% this year, which served to lower the overall increase in this component. Non-heating gas costs, which account for less than two percent of the Utilities component, rose 25.4%. See Appendix 2 for all Utilities item weights and price relatives.

Maintenance



The Maintenance component accounts for 18.4% of this year's Price Index. The Maintenance component rose 9.4%, 0.2 percentage points higher than last year's rise of 9.2%. Of the 29 expense items contained in this component, just four items account for half of its expenditure weight: Repainting, Plumbing (faucet), Plumbing (stoppage), and Electrician Services. This year, painters' rates rose 12.8%, more than the 4.4% recorded last year. Combined plumbing rates increased at a slower pace, rising 8.3%, more than last year's rise of 7.3%. Electrician Services rose 5.2%, half as high as the increase seen last year of 10.3%.

Other price relatives of note were boiler repairs (13.9%), floor maintenance (15.6%), and Roof Repair (8.9%), which represent a total of six expense items and account for 20.3% of this component. See Appendix 2 for all Maintenance item weights and price relatives.

Administrative Costs



Fees paid to accountants, attorneys, and management companies make up 87% of this component. This year, Administrative Costs rose 3.3%, following a 6.7% increase in the prior year. Administrative Costs comprise 14.4% of the PIOC.

Much of the increase in the Administrative Costs component can be attributed to a rise in Attorney Fees, which comprise a 29% of this component and rose 5.4%, considerably less than the increase of 24.2% last year. However, in the wake of the pandemic, management fees fell for the third consecutive year, by 0.9%. These fees comprise 45.4% 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 a decrease of 1.0% last year, indicating that management companies' fees and/or rents continued to fall, at nearly the same rate as 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 4.4%, more than last year's rise of 2.7%. Communications, which accounts for about 5% of the Administrative Costs component, increased 1.1%. See Appendix 2 for all Administrative Costs item weights and price relatives.

Insurance Costs



For the twelfth consecutive year, there was an increase in the Insurance Costs component, rising 12.9%, compared to last year's increase of 10.9%. Insurance Costs account for 7.0% of the PIOC.

Changes in insurance costs for owners varied by the amount of the policy. Policies that cost more than \$8,274, which represent half of all insurance quotes, saw an increase in cost of 13.2% upon renewal. Buildings with policies that cost \$8,274 or less saw an increase of 10.6%.

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 gas-heated and oil-heated buildings. This year, the Gas-Heated Index (8.0%) rose less than the Oil-Heated Index (9.0%). (See Appendix 2.)

In addition to producing indices based on the type of heat used in a building, indices based on building age are also calculated based on whether a building was built before 1974 (pre-1974) and for buildings constructed in 1974 or later (post-1973). Previous versions of the PIOC examined data based on whether a building was built pre- or post-war (i.e., before 1947 or after 1946). For an explanation regarding this methodological change see PIOC by Building Age in the Methodology section of this report. This year the Pre-1974 Index rose 8.2%, similar to the rise in the Post-1973 Index of 8.1%. (See Appendix 2.)

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 — Class A multiple dwellings that have amenities such as a front desk, maid or linen services; 2) Rooming Houses — Class B multiple dwellings other than a hotel with thirty or fewer sleeping rooms; and 3) Single Room Occupancy (SROs) hotels — Class A multiple dwellings which are 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 8.3% this year, compared to a decline of 1.3% in 2022. There were increases in all of the Hotel PIOC components. The Fuel component witnessed the highest proportional increase, rising 21.0%, and accounts for 15.2% of the index. Insurance Costs rose by the second greatest proportion, 12.9%, and account for 6.9% of the index. The remaining five components all rose by lesser proportions, including Utilities, which rose 9.9%; Maintenance, 9.3%; Taxes, 5.1%; Labor Costs, 3.0%; and Administrative Costs, 2.8%. See the table on this page for changes in costs and prices for all hotels that contain rent stabilized units from 2022-2023.

Among the different categories of Hotels, the index for “Traditional” Hotels increased 7.3%, Rooming Houses by 9.9%, and SROs by 8.9% (see Appendices 4 and 7).

Loft PIOC

The increase in the Loft PIOC this year was 9.0%, higher than the increase of 5.3% in 2022. Increases in costs were seen in all eight components that make up this index. Fuel saw the highest proportional increase rising 20.0%, followed by Insurance, which rose 12.9%. The remaining six components all rose by lesser proportions, including Maintenance, which rose 9.3%; Taxes, 7.7%; Utilities, 6.3%; Administrative Costs-Legal, 5.4%; Labor Costs, 3.1%; and Administrative Costs-Other, 0.6%. 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 2022-2023.

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 7.2% in 2023. The rise in the 2023 Core PIOC was 0.9 percentage points lower than this year’s Apartment Index (8.1%), and 4.2 percentage points higher than last year’s Core Index (3.0%). This year’s Core PIOC rose at a slower pace than the overall PIOC because fuel costs, which were not used to calculate the Core, increased 19.9%.

PIOC Projections for 2024

Section 26-510 of the Rent Stabilization Law requires the Board to consider prevailing and projected operating and maintenance

Hotels	
<i>Change In Costs for All Hotels that Contain Rent Stabilized Units, April 2022 to March 2023</i>	
Taxes	5.1%
Labor Costs	3.0%
Fuel	21.0%
Utilities	9.9%
Maintenance	9.3%
Administrative Costs	2.8%
Insurance Costs	12.9%
All Costs	8.3%

Lofts	
<i>Change In Costs for Rent Stabilized Lofts, April 2022 to March 2023</i>	
Taxes	7.7%
Labor Costs	3.1%
Fuel	20.0%
Utilities	6.3%
Maintenance	9.3%
Admin Costs-Legal	5.4%
Admin Costs-Other	0.6%
Insurance Costs	12.9%
All Costs	9.0%

2024 Projections

Projected Change In Costs for Buildings that Contain Rent Stabilized Apartments, April 2023 to March 2024

Taxes	2.9%
Labor Costs	3.9%
Fuel	-8.1%
Utilities	1.1%
Maintenance	7.2%
Administrative Costs	3.0%
Insurance Costs	14.2%
All Projected Costs	3.7%

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. (See the Methodology section on Page 15 for a more detailed discussion on how the projections are calculated.)

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 30% 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. In addition, the uncertainty of the post-pandemic economic recovery may also play a significant role in the accuracy of projected costs for the next PIOC year.

This year, operating costs in buildings that contain rent stabilized apartments increased by 8.1%, versus last year’s projected PIOC increase of 4.7%, a difference of 3.4 percentage points. The component with the largest deviation between

actual and projected changes in costs was Fuel. Fuel was projected to decline 1.7%, but actually rose 19.9% in the 2023 PIOC, a 21.5 percentage point difference. Utilities, which were projected to increase 2.4%, instead rose 8.8%, a 6.4 percentage point difference, while Maintenance costs rose 9.4%, 3.7 percentage points higher than the projected increase of 5.7%. Taxes, which carries the most weight in the price index, was projected to rise 5.1%, but instead rose 7.7%, a 2.6 percentage point difference. Insurance Costs rose at a slower rate than expected, rising 12.9%, 2.4 percentage points less than the 15.4% projection. The Labor Costs and Administrative Costs components were the closest to the projections, with Labor Costs rising 2.9%, a 1.0 percentage point difference from the projection of 3.9%, and Administrative Costs, which rose 3.3%, slightly higher than the projection of 3.1%.

Overall, the PIOC is expected to grow by 3.7% from 2023 to 2024. Costs are predicted to rise in each component except Fuel, with the largest growth (14.2%) projected to be in Insurance Costs. Other projected increases include Maintenance (7.2%), Labor Costs (3.9%), Administrative Costs (3.0%), and Utilities (1.1%). Taxes, the component that carries the most weight in the Index, is projected to increase 2.9%, while Fuel is projected to decrease 8.1%. The table on this page shows projected changes in PIOC components for 2024. The Core PIOC is projected to rise 4.6%, 0.9 percentage points higher than the overall projected PIOC for rent stabilized apartments.

Commensurate Rent Adjustments

Commensurate rent adjustments are a series of formulas which combine various data concerning operating costs, revenues, and inflation into a single measure that determines how much rents would have to change for the net operating income (NOI, or the amount of income remaining after operating and maintenance expenses are paid) of rent stabilized apartments to remain constant.⁶ The commensurate formulas provide a set of illustrative one- and two-year renewal rent adjustments that would hypothetically compensate owners for the

change in prices measured by the PIOC (in addition to other relevant metrics), while keeping NOI constant.

Note that the commensurate adjustments described below do not constitute staff or Board recommendations for guideline adjustments. The various data points presented in this, and other, Rent Guidelines Board annual research reports (e.g., the Income and Affordability Study and the Income and Expense Study), supplementary data sources, in addition to public testimony, can all be considered to determine appropriate rent adjustments.

The first commensurate method is called the “Net Revenue” approach, designed to consider the change in the PIOC, and revenue received by owners based on an estimate of tenants who sign either one- or two-year lease renewals. 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.⁷ Under the “Net Revenue” formula, a guideline that would preserve NOI in the face of this year’s 8.1% increase in the PIOC is 6.0% for a one-year lease and 11.5% 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 5.75% for one-year leases and 11.0% for two-year leases.

The second commensurate method, the “CPI-Adjusted NOI” formula, considers the change in the PIOC, the mix of lease terms, and the effect of inflation on NOI. A guideline that would preserve NOI in the face of the 6.2% increase in the Consumer Price Index (see Endnote 3) and the 8.1% increase in the PIOC is 8.5% for a one-year lease and 16.0% 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 8.25% for one-year leases and 15.75% for two-year leases.⁸

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 both the current PIOC change as well as the PIOC projection for the following year. Note that this commensurate does not account for the mix of lease terms or the effect of inflation on NOI. The “traditional” commensurate yields 5.3% for a one-year lease and 6.6% for a two-year lease. This reflects the increase in operating costs of 8.1% found in the 2023 PIOC and the projection of a 3.7% increase next year.⁹

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 does not consider that while inflation may change, the debt service portion of NOI may stay constant. For both of these commensurate methods, including a consideration of the amount of income owners receive on vacancy

Commensurates	
<i>“Net Revenue” Commensurate Adjustment</i>	
<u>1-Year Lease</u>	<u>2-Year Lease</u>
6.0%	11.5%
<i>“Net Revenue” Commensurate Adjustment with Vacancy Leases</i>	
<u>1-Year Lease</u>	<u>2-Year Lease</u>
5.75%	11.0%
<i>“CPI-Adjusted NOI” Commensurate Adjustment</i>	
<u>1-Year Lease</u>	<u>2-Year Lease</u>
8.5%	16.0%
<i>“CPI-Adjusted NOI” Commensurate Adjustment with Vacancy Leases</i>	
<u>1-Year Lease</u>	<u>2-Year Lease</u>
8.25%	15.75%
<i>“Traditional” Commensurate Adjustment</i>	
<u>1-Year Lease</u>	<u>2-Year Lease</u>
5.3%	6.6%

(when there is such income) 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 NOI 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 majority of leases being renewed having a two-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 (as well as the “Net Revenue” 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 NOI to decline over time. However, such degradation is not an inevitable consequence of using the “traditional” commensurate formula.¹⁰

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 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 (8.1%). 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 (3.7%).

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 tax 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 2023 PIOC, as well as the PIOC projection for 2024.

Owner Survey

The Owner Survey gathers information on management fees, insurance, and non-union labor from building managers and owners. A survey, accompanied by a letter describing the purpose of the PIOC, was mailed to the owners or managing agents of buildings that contain rent stabilized units. If a returned survey 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 made in the methodology for the Owner Survey in 2021 were continued in 2023. 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's 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 79.5% of the cost of current year insurance policies.

However, because the number of buildings surveyed was doubled, a greater number of responses were received than in recent years. 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 3.7% of the questionnaires mailed out received a response. This was roughly the same response rate as 2022 (3.9%), however the number of returned surveys was still higher than 2020 (the last year preceding the methodology changes). A total of 529 returned surveys contained usable information, down from 559 in 2022, but up from 503 in 2020. As a result, RGB staff was able to use 522 annual insurance premiums, 172 non-union labor wage rates, and 83 reported management fees. The number of prices in 2022 and 2023 for the Owner Survey is shown in Appendix 1.

Taxes

The 2023 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 38,000 buildings in both the current and the previous tax year. 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 2022 to FY 2023.

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).

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 similar to 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 (defined in Endnote 5) 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 April-March period with the prior April-March period.

Following an owner survey of heating costs in 2022, the weights for the different fuel items in this component were updated in 2023. Notably, more weight was given to heating by natural gas (rising from 52.8% of the Fuel component in 2022 to 70.4% in 2023). Correspondingly, there was less weight given to heating by fuel oil (from 40.1% in 2022 to 29.1% in 2023). There was also less weight given to heating by steam, which fell from 7.1% of Fuel costs in 2022 to 0.5% in 2023.

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 April-March period 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 553 recorded price quotes were gathered (for both Maintenance and Administrative Costs, not including management fees). 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, as described in the "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, for the third consecutive year, because of an increased number of responses, not every insurance policy was verified. Staff verified

insurance policies that accounted for 79.5% of the cost of current year insurance policies.

PIOC by Building Age

Previous versions of the PIOC examined data based on whether a building was built pre- or post-war (i.e., before 1947 or after 1946). Beginning this year, indices are now calculated based on whether the building was constructed prior to 1974, or on or after January 1, 1974. With passage of the Emergency Tenant Protection Act (ETPA) of 1974, buildings containing six or more residential units constructed prior to 1974 are rent stabilized. However, generally speaking, buildings constructed or extensively renovated after 1973 are subject to rent stabilization only because the owner has agreed to receive tax benefits in exchange for entering the rent stabilization program. Therefore, the number of buildings entering and leaving stabilization among post-1973 buildings is more fluid than the pre-1974 buildings. Also note that the proportion of post-1973 buildings is much smaller than the number of pre-1974 buildings. Delineating buildings by a construction date of post-1973 and pre-1974 should give greater insight into the operating costs of “traditional” rent stabilized buildings, versus those that are newer and benefiting from tax benefit programs.

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 for the time period from April 2023 to March 2024.

Taxes were projected by using data from the Department of Finance’s tentative assessment roll for FY 2024 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 US Energy Information Administration’s (EIA) current “Short-Term Energy Outlook” report about projected prices, plus changes in projected usage according to a projected return to 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.¹¹

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

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Endnotes

1. Note that this report is designed to study only those costs incurred by owners in the operation and maintenance of buildings containing rent stabilized units. It does not quantify costs paid by tenants to live in these buildings, such as rent, utilities, and other miscellaneous costs.
2. 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 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/>.

3. The average CPI for All Urban Consumers, New York-Northeastern New Jersey for the year from March 2022 to February 2023 (313.2) compared to the average for the year from March 2021 to February 2022 (294.7) rose by 6.2%. This is the latest available CPI data and is roughly analogous to the 'PIOC year.'
4. 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, 92% of the more than 38,000 buildings analyzed were part of Tax Class 2.
5. The cost-weight relatives are calculated on an April to March time period. The April 2022 to March 2023 time period was 5.2% 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 1991-2020. 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.
6. The commensurate rent adjustments were first introduced before deregulation was wide-spread. At their inception, with little to no deregulation, these formulas largely reflected the rent stabilized stock at large, despite being designed to keep NOI constant in only those units subject to rent stabilization. Note that with deregulation permitted under state law from 1993 through 2019, thousands of buildings now contain both rent stabilized and deregulated units. Because the commensurates were not designed to keep NOI constant in deregulated units (where annual adjustments in rents are subject to changes in the real estate rental market), these formulas will not necessarily keep NOI constant for buildings that contain both rent stabilized and deregulated units.
7. From 1997 through 2019, vacancy allowance increases of up to 20% were permitted under state law. In 2019, with the passage of the Housing Stability and Tenant Protection Act, vacancy allowance increases were no longer permitted, but increases on vacancy leases equal to renewal lease guidelines were permitted. In addition, any vacant unit where the previous tenant was charged a preferential rent can charge up to the higher legal rent to the incoming tenant. Therefore, while vacancy allowance increases are no longer permitted under state law, increases upon vacancy are possible. See Endnote 7 for the estimated impact of vacancy leases.
8. The following assumptions were used in the computation of the "Net Revenue" and "CPI Adjusted NOI" commensurates: (1) the required change in owner revenue is 65.4% of the 2023 PIOC increase of 8.1%, or 5.3%. The 65.4% figure is the most recent ratio of average operating costs to average income in buildings that contain rent stabilized units; (2) for only the "CPI-Adjusted NOI" commensurate, the increase in revenue due to the impact of inflation on NOI is 34.6% times the latest 12-month increase in the CPI ending February 2023 (6.2%), or 2.2%; (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 2021 NYC Housing and Vacancy Survey data; (5) for the commensurate formulas, including the impact on revenue from vacancy leases, a 1.55% increase in vacancy leases was applied to the estimated 9.26% of rent stabilized units that turn over each year (as based on 2021 NYC Housing and Vacancy Survey data). This increase was derived from rent data from the 2021 and 2022 Homes and Community Renewal (HCR) owner registration files for leases in 2022 where the owner noted the change in rent was due to vacancy; and (6) the collectability of these commensurate adjustments are assumed.
9. The "traditional" formula adjusts only owner expenses, not NOI. Expenses are adjusted based on the current PIOC change for the one-year lease commensurate, and by the both the current PIOC and the PIOC projection for the two-year lease commensurate.
10. 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.
11. Source: "Short-Term Energy Outlook," March 2023. U.S. Energy Information Administration, Department of Energy. <https://www.eia.gov/outlooks/steo/data.php?type=tables>.

Appendices

1. PIOC Sample, Number of Price Quotes per Item, 2022 vs. 2023

<u>Spec #</u>	<u>Description</u>	<u>2022</u>	<u>2023</u>	<u>Spec #</u>	<u>Description</u>	<u>2022</u>	<u>2023</u>
211	Apartment Value	110	112	817	Large Trash Bags	16	15
212	Non-Union Super	117	115	818	Smoke Detectors	13	14
216	Non-Union Janitor/Porter	61	57	902	Refrigerator #2	11	10
	LABOR COSTS	288	284	903	Air Conditioner #1	9	9
				906	Dishwasher	11	10
				908	Range #2	11	10
301	Fuel Oil #2	26	26	909	Carpet	10	11
302	Fuel Oil #4	8	7	910	Dresser	5	5
	FUEL OIL	34	33	911	Mattress & Box Spring	9	8
					MAINTENANCE	407	459
501	Repainting	65	74				
502	Plumbing, Faucet	25	27	601	Management Fees	97	83
503	Plumbing, Stoppage	23	25	602	Accountant Fees	23	21
504	Elevator #1, 6 fl., 1 e.	6	9	603	Attorney Fees	19	20
505	Elevator #2, 13 fl., 2 e.	5	8	604	Newspaper Ads	28	21
506	Elevator #3, 19 fl., 3 e.	5	7	607	Bill Envelopes	11	11
507	Burner Repair	9	8	608	P.O. Box	10	10
508	Boiler Repair, Tube	10	8	609	Copy Paper	11	11
509	Boiler Repair, Weld	6	6		ADMINISTRATIVE COSTS	199	177
510	Refrigerator Repair	9	14				
511	Range Repair	9	14				
512	Roof Repair	12	13	701	INSURANCE COSTS	552	522
514	Floor Maint. #1, Studio	5	11				
515	Floor Maint. #2, 1 Br.	5	10				
516	Floor Maint. #3, 2 Br.	5	10				
517	Extermination Services	10	11				
518	Linen/Laundry Service	4	4		ALL ITEMS	1,480	1,475
519	Electrician Services	10	14				
805	Paint	12	11				
808	Bucket	15	16				
810	Linens	8	10				
811	Pine Disinfectant	14	16				
813	Switch Plate	11	11				
815	Toilet Seat	15	15				
816	Deck Faucet	14	15				

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2. Expenditure Weights, Price Relatives, Percent Changes, and Standard Errors, All Apartments, 2023

Spec #	Item Description	Expenditure Weight	Price Relative	% Change	Standard Error	Spec #	Item Description	Expenditure Weight	Price Relative	% Change	Standard Error
101	TAXES	0.2957	1.0769	7.69%	0.0373	805	Paint	0.0268	1.1448	14.48%	2.1376
201	Payroll, Bronx, All (Union)	0.0470	1.0221	2.21%	0.0000	808	Bucket	0.0052	1.0314	3.14%	2.8954
202	Payroll, Other, Union, Supts.	0.0491	1.0244	2.44%	0.0000	811	Pine Disinfectant	0.0060	1.0737	7.37%	3.5323
203	Payroll, Other, Union, Other	0.1263	1.0253	2.53%	0.0000	813	Switch Plate	0.0052	0.9945	-0.55%	4.4623
204	Payroll, Other, Non-Union, All	0.5713	1.0335	3.35%	0.6700	815	Toilet Seat	0.0122	1.0751	7.51%	2.1903
205	Social Security Insurance	0.0546	1.0309	3.09%	0.0000	816	Deck Faucet	0.0161	1.0628	6.28%	4.3848
206	Unemployment Insurance	0.0143	0.8139	-18.61%	0.0000	817	Large Trash Bags	0.0107	1.1452	14.52%	4.0300
207	Private Health & Welfare	0.1374	1.0387	3.87%	0.0000	818	Smoke Detectors	0.0097	1.1022	10.22%	4.2103
	LABOR COSTS	0.1278	1.0289	2.89%	0.3828	902	Refrigerator #2	0.0370	1.0288	2.88%	2.3446
301	Fuel Oil #2	0.2095	1.2519	25.19%	2.0386	903	Air Conditioner #1	0.0013	1.0469	4.69%	3.2997
302	Fuel Oil #4	0.0813	1.1830	18.30%	3.3642	906	Dishwasher	0.0042	1.0692	6.92%	4.7812
405	Gas #2, 650 therms	0.1346	1.1780	17.80%	0.0000	908	Range #2	0.0195	1.0679	6.79%	3.6681
406	Gas #3, 2,140 therms	0.5697	1.1874	18.74%	0.0000		MAINTENANCE	0.1840	1.0944	9.44%	0.7721
407	Steam #1, 1,150 Mlbs	0.0036	1.0372	3.72%	0.0000	601	Management Fees	0.4542	0.9913	-0.87%	1.7300
408	Steam #2, 2,600 Mlbs	0.0012	1.0433	4.33%	0.0000	602	Accountant Fees	0.1243	1.0439	4.39%	1.4053
	FUEL	0.0703	1.1986	19.86%	0.5073	603	Attorney Fees	0.2899	1.0535	5.35%	1.5166
401	Electricity #1, 2,500 KWH	0.1518	1.1585	15.85%	0.0000	604	Newspaper Ads	0.0094	1.2118	21.18%	9.0149
402	Electricity #2, 15,000 KWH	0.1621	1.1652	16.52%	0.0000	607	Bill Envelopes	0.0226	1.3140	31.40%	5.7052
404	Gas #1, 120 therms	0.0170	1.2543	25.43%	0.0000	608	P.O. Box	0.0266	1.0654	6.54%	0.0497
410	Water & Sewer	0.6691	1.0490	4.90%	0.0000	609	Copy Paper	0.0269	1.1672	16.72%	5.5378
	UTILITIES	0.1082	1.0880	8.80%	0.0000	409	Communications	0.0460	1.0112	1.12%	0.0000
501	Repainting	0.2344	1.1283	12.83%	1.5557		ADMIN COSTS	0.1438	1.0329	3.29%	0.9420
502	Plumbing, Faucet	0.1019	1.0902	9.02%	2.0156	701	INSURANCE COSTS	0.0702	1.1292	12.92%	1.4360
503	Plumbing, Stoppage	0.0959	1.0761	7.61%	2.0038		ALL ITEMS	1.0000	1.0811	8.11%	0.2291
504	Elevator #1, 6 fl., 1 e.	0.0193	1.0656	6.56%	1.6663						
505	Elevator #2, 13 fl., 2 e.	0.0122	1.0803	8.03%	1.6281						
506	Elevator #3, 19 fl., 3 e.	0.0068	1.0676	6.76%	1.7564						
507	Burner Repair	0.0323	1.0576	5.76%	2.1832						
508	Boiler Repair, Tube	0.0443	1.1831	18.31%	8.3846						
509	Boiler Repair, Weld	0.0364	1.0851	8.51%	4.3650						
510	Refrigerator Repair	0.0123	0.9963	-0.37%	2.2656						
511	Range Repair	0.0115	0.9963	-0.37%	2.2656						
512	Roof Repair	0.0583	1.0887	8.87%	3.5427						
514	Floor Maint. #1, Studio	0.0035	1.1082	10.82%	5.0470						
515	Floor Maint. #2, 1 Br.	0.0062	1.1625	16.25%	4.4477						
516	Floor Maint. #3, 2 Br.	0.0547	1.1580	15.80%	4.7559						
517	Extermination Services	0.0463	1.0359	3.59%	3.3255						
519	Electrician Services	0.0697	1.0516	5.16%	3.2304						

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3. Price Relatives by Building Type, Apartments, 2023

Component Description	Pre-1974	Post-1973	Gas Heated	Oil Heated
TAXES	7.2%	12.1%	7.7%	7.7%
LABOR COSTS	2.9%	2.9%	2.9%	2.9%
FUEL	20.0%	16.9%	18.6%	23.3%
UTILITIES	8.2%	11.0%	10.4%	11.6%
MAINTENANCE	9.5%	8.9%	9.5%	9.4%
ADMINISTRATIVE COSTS	3.3%	3.1%	3.3%	3.3%
INSURANCE COSTS	12.9%	12.9%	12.9%	12.9%
ALL ITEMS	8.2%	8.1%	8.0%	9.0%

4. Price Relative by Hotel Type, 2023

Component Description	"Traditional" Hotel	Rooming House	SRO
TAXES	4.9%	5.2%	5.3%
LABOR COSTS	2.9%	3.4%	3.1%
FUEL	20.5%	25.1%	19.8%
UTILITIES	7.6%	13.6%	9.3%
MAINTENANCE	9.7%	9.0%	8.3%
ADMINISTRATIVE COSTS	2.7%	3.6%	2.9%
INSURANCE COSTS	12.9%	12.9%	12.9%
ALL ITEMS	7.3%	9.9%	8.9%

5. Percentage Change in Real Estate Tax by Borough and Source of Change, Apartments and Hotels, 2023

	% 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	6.2%	0.3%	0.2%	0.0%	0.0%	6.8%
Bronx	10.4%	-1.3%	0.2%	0.6%	0.0%	9.9%
Brooklyn	11.5%	-1.2%	0.3%	-0.4%	0.0%	10.3%
Queens	8.7%	-0.2%	0.3%	-1.1%	0.0%	7.8%
Staten Island	10.8%	-1.2%	0.3%	0.0%	0.0%	9.9%
All Apartments	7.8%	-0.1%	0.3%	-0.3%	0.0%	7.7%
HOTELS						
"Traditional" Hotel	5.7%	-0.1%	-0.6%	0.0%	0.0%	4.9%
Rooming House	5.1%	-0.1%	0.2%	0.0%	0.0%	5.2%
SRO	5.1%	-0.1%	-0.3%	0.5%	0.0%	5.3%
All Hotels	5.4%	-0.1%	-0.4%	0.2%	0.0%	5.1%

* 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, 2023

Borough	Community Board	# of Buildings	Tax Relative	Borough	Community Board	# of Buildings	Tax Relative	Borough	Community Board	# of Buildings	Tax Relative
Manhattan		11,509	6.76%		7	938	9.30%		17	595	10.07%
	1	95	8.77%		8	350	9.07%		18	82	9.71%
	2	1,021	6.16%		9	362	10.97%	Queens		7,551	7.75%
	3	1,500	6.48%		10	236	11.50%		1	1,995	9.10%
	4	878	7.55%		11	352	9.08%		2	854	6.49%
	5	228	7.51%		12	540	9.89%		3	631	8.03%
	6	702	6.73%	Brooklyn		13,037	10.28%		4	712	6.38%
	7	1,606	6.39%		1	1,697	13.35%		5	1,213	8.28%
	8	1,717	5.50%		2	601	15.51%		6	318	7.33%
	9	673	8.05%		3	1,229	9.29%		7	523	8.56%
	10	1,005	11.78%		4	1,378	9.18%		8	277	9.96%
	11	713	9.96%		5	476	10.33%		9	270	8.60%
	12	1,342	8.46%		6	817	8.69%		10	81	4.13%
Lower		7,306	6.45%		7	841	10.06%		11	143	7.59%
Upper		4,203	8.52%		8	997	9.89%		12	276	3.71%
Bronx		6,028	9.93%		9	590	8.50%		13	58	5.52%
	1	461	10.76%		10	740	9.59%	St. Island		203	9.94%
	2	289	18.73%		11	664	8.67%		1	137	10.04%
	3	429	14.48%		12	557	7.73%		2	45	12.35%
	4	755	9.74%		13	191	10.56%		3	21	8.58%
	5	690	10.33%		14	835	9.29%				
	6	626	9.47%		15	336	11.46%				
					16	411	11.34%	ALL		38,328	7.69%

Note: There were 29 buildings in Manhattan that 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, 2023

Spec #	Item Description	Expenditure Weight	Price Relative	% Change	Standard Error	Spec #	Item Description	Expenditure Weight	Price Relative	% Change	Standard Error
101	TAXES	0.3625	1.0508	5.08%	0.5302	518	Linen/Laundry Service	0.1146	1.2328	23.28%	11.8513
205	Social Security Insurance	0.0481	1.0309	3.09%	0.0000	519	Electrician Services	0.0228	1.0516	5.16%	3.2304
206	Unemployment Insurance	0.0100	0.8139	-18.61%	0.0000	805	Paint	0.0489	1.1448	14.48%	2.1376
208	Hotel Private Health/Welfare	0.0603	1.0281	2.81%	0.0000	808	Bucket	0.0211	1.0314	3.14%	2.8954
209	Hotel Union Labor	0.3101	1.0281	2.81%	0.0000	810	Linens	0.0622	1.1183	11.83%	9.1769
210	SRO Union Labor	0.0121	1.0281	2.81%	0.0000	811	Pine Disinfectant	0.0080	1.0737	7.37%	3.5323
211	Apartment Value	0.1071	1.0395	3.95%	0.5111	813	Switch Plate	0.0142	0.9945	-0.55%	4.4623
212	Non-Union Superintendent	0.3225	1.0323	3.23%	0.8915	815	Toilet Seat	0.0203	1.0751	7.51%	2.1903
216	Non-Union Janitor/Porter	0.1299	1.0365	3.65%	0.6676	816	Deck Faucet	0.0267	1.0628	6.28%	4.3848
	LABOR COSTS	0.1577	1.0298	2.98%	0.3052	817	Large Trash Bags	0.0265	1.1452	14.52%	4.0300
301	Fuel Oil #2	0.5828	1.2519	25.19%	2.0386	818	Smoke Detectors	0.0242	1.1022	10.22%	4.2103
302	Fuel Oil #4	0.0142	1.1830	18.30%	3.3642	902	Refrigerator #2	0.0137	1.0288	2.88%	2.3446
403	Electricity #3, 82,000 KWH	0.2126	1.0966	9.66%	0.0000	903	Air Conditioner #1	0.0078	1.0469	4.69%	3.2997
405	Gas #2, 650 therms	0.0353	1.2121	21.21%	0.0000	908	Range #2	0.0066	1.0679	6.79%	3.6681
406	Gas #3, 2,140 therms	0.1549	1.2103	21.03%	0.0000	909	Carpet	0.0410	0.9597	-4.03%	4.3912
407	Steam #1, 1,150 Mlbs	0.0003	1.0372	3.72%	0.0000	910	Dresser	0.0229	0.9394	-6.06%	9.8578
	FUEL	0.1523	1.2100	21.00%	1.1891	911	Mattress & Box Spring	0.0195	1.0024	0.24%	4.3847
401	Electricity #1, 2,500 KWH	0.1388	1.1585	15.85%	0.0000		MAINTENANCE	0.1244	1.0930	9.30%	0.3051
402	Electricity #2, 15,000 KWH	0.1474	1.1652	16.52%	0.0000	601	Management Fees	0.5262	0.9913	-0.87%	1.7300
404	Gas #1, 120 therms	0.0870	1.2543	25.43%	0.0000	602	Accountant Fees	0.0663	1.0439	4.39%	1.4053
410	Water & Sewer	0.6268	1.0490	4.90%	0.0000	603	Attorney Fees	0.1285	1.0535	5.35%	1.5166
	UTILITIES	0.0468	1.0992	9.92%	0.0000	604	Newspaper Ads	0.0823	1.2118	21.18%	9.0149
501	Repainting	0.1457	1.1283	12.83%	1.5557	607	Envelopes	0.0064	1.3140	31.40%	5.7052
502	Plumbing, Faucet	0.0498	1.0902	9.02%	2.0156	608	P.O. Box	0.0075	1.0654	6.54%	0.0497
503	Plumbing, Stoppage	0.0497	1.0761	7.61%	2.0038	609	Copy Paper	0.0076	1.1672	16.72%	5.5378
504	Elevator #1, 6 fl., 1 e.	0.0209	1.0656	6.56%	1.6663	409	Communications	0.1752	1.0112	1.12%	0.0000
505	Elevator #2, 13 fl., 2 e.	0.0183	1.0803	8.03%	1.6281		ADMIN COSTS	0.0873	1.0284	2.84%	1.1956
506	Elevator #3, 19 fl., 3 e.	0.0167	1.0676	6.76%	1.7564	701	INSURANCE COSTS	0.0690	1.1292	12.92%	1.4360
507	Burner Repair	0.0168	1.0576	5.76%	2.1832		ALL ITEMS	1.0000	1.0827	8.27%	0.3623
508	Boiler Repair, Tube	0.0208	1.1831	18.31%	8.3846						
509	Boiler Repair, Weld	0.0202	1.0851	8.51%	2.2656						
511	Range Repair	0.0804	0.9963	-0.37%	2.2656						
512	Roof Repair	0.0258	1.0887	8.87%	3.5427						
514	Floor Maint. #1, Studio	0.0005	1.1082	10.82%	5.0470						
515	Floor Maint. #2, 1 Br.	0.0010	1.1625	16.25%	4.4477						
516	Floor Maint. #3, 2 Br.	0.0086	1.1580	15.80%	4.7559						
517	Extermination Services	0.0236	1.0359	3.59%	3.3255						

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8. Expenditure Weight and Price Relatives, Lofts, 2023

Spec #	Item Description	Expenditure Weight	Price Relative	% Change	Spec #	Item Description	Expenditure Weight	Price Relative	% Change
101	TAXES	0.2937	1.0769	7.69%	805	Paint	0.0464	1.1448	14.48%
202	Payroll, Other, Union, Supts.	0.2160	1.0244	2.44%	808	Bucket	0.0090	1.0314	3.14%
204	Payroll, Other, Non-Union, All	0.5509	1.0335	3.35%	811	Pine Disinfectant	0.0108	1.0737	7.37%
205	Social Security Insurance	0.0384	1.0309	3.09%	813	Switch Plate	0.0061	0.9945	-0.55%
206	Unemployment Insurance	0.0051	0.8139	-18.61%	815	Toilet Seat	0.0212	1.0751	7.51%
207	Private Health & Welfare	0.1897	1.0387	3.87%	816	Deck Faucet	0.0279	1.0628	6.28%
	LABOR COSTS	0.0814	1.0313	3.13%	817	Large Trash Bags	0.0155	1.1452	14.52%
301	Fuel Oil #2	0.2855	1.2519	25.19%	818	Smoke Detectors	0.0142	1.1022	10.22%
302	Fuel Oil #4	0.5354	1.1830	18.30%	902	Refrigerator #2	0.0741	1.0288	2.88%
405	Gas #2, 650 therms	0.0429	1.1780	17.80%	903	Air Conditioner #1	0.0025	1.0469	4.69%
406	Gas #3, 2,140 therms	0.1162	1.1874	18.74%	906	Dishwasher	0.0083	1.0692	6.92%
407	Steam #1, 1,150 Mlbs	0.0153	1.0372	3.72%	908	Range #2	0.0391	1.0679	6.79%
408	Steam #2, 2,600 Mlbs	0.0047	1.0433	4.33%		MAINTENANCE	0.0889	1.0927	9.27%
	FUEL	0.0685	1.2001	20.0%		ADMIN COSTS - LEGAL	0.0717	1.0535	5.35%
401	Electricity #1, 2,500 KWH	0.0086	1.1585	15.85%	601	Management Fees	0.8129	0.9913	-0.87%
402	Electricity #2, 15,000 KWH	0.1087	1.1652	16.52%	602	Accountant Fees	0.1469	1.0439	4.39%
404	Gas #1, 120 therms	0.0035	1.2543	25.43%	604	Newspaper Ads	0.0094	1.2118	21.18%
410	Water & Sewer - Frontage	0.8792	1.0490	4.90%	607	Envelopes	0.0073	1.3140	31.40%
	UTILITIES	0.0552	1.0633	6.33%	608	PO Box	0.0087	1.0654	6.54%
501	Repainting	0.2879	1.1283	12.83%	609	Copy Paper	0.0087	1.1672	16.72%
502	Plumbing, Faucet	0.0820	1.0902	9.02%	409	Communications	0.0060	1.0112	1.12%
503	Plumbing, Stoppage	0.0772	1.0761	7.61%		ADMIN COSTS - OTHER	0.0712	1.0058	0.58%
504	Elevator #1, 6 fl., 1 e.	0.0318	1.0656	6.56%	701	INSURANCE COSTS	0.2693	1.1292	12.92%
505	Elevator #2, 13 fl., 2 e.	0.0202	1.0803	8.03%		ALL ITEMS	1.0000	1.0896	8.96%
506	Elevator #3, 19 fl., 3 e.	0.0112	1.0676	6.76%					
507	Burner Repair	0.0239	1.0576	5.76%					
508	Boiler Repair, Tube	0.0328	1.1831	18.31%					
509	Boiler Repair, Weld	0.0270	1.0851	8.51%					
510	Refrigerator Repair	0.0076	0.9963	-0.37%					
511	Range Repair	0.0071	0.9963	-0.37%					
512	Roof Repair	0.0596	1.0887	8.87%					
514	Floor Maint. #1, Studio	0.0001	1.1082	10.82%					
515	Floor Maint. #2, 1 Br.	0.0003	1.1625	16.25%					
516	Floor Maint. #3, 2 Br.	0.0023	1.1580	15.80%					
517	Extermination	0.0271	1.0359	3.59%					
519	Electrician	0.0263	1.0516	5.16%					

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