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# 2013 Price Index of Operating Costs

April 18, 2013

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# 2013 Price Index Of Operating Costs

## What's New

- ✓ The Price Index of Operating Costs (PIOC) for Rent Stabilized Apartment Buildings increased 5.9% this year.
- ✓ Costs in natural-gas heated buildings increased 4.3% and costs in fuel-oil heated buildings rose 7.3%.
- ✓ The “core” PIOC, which excludes the erratic changes in fuel oil prices, natural gas, and electricity costs, is useful for analyzing inflationary trends. The core rose by 3.7% this year.
- ✓ Fuel Oil costs rose 20.0%.
- ✓ Real estate taxes increased 2.6% due to a rise in assessments for Class Two properties.
- ✓ Labor Costs rose 3.0%.
- ✓ The Utilities component increased by 6.3%, primarily due to an increase in water and sewer costs.
- ✓ Insurance Costs increased by 7.1%.
- ✓ The Price Index of Operating Costs for Rent Stabilized Apartment Buildings is projected to increase 2.6% next year.

## Introduction

The Price Index of Operating Costs (PIOC) measures the price change in a market basket of goods and services used in the operation and maintenance of rent stabilized apartment buildings in New York City. The goods and services which make up the market basket were originally selected on the basis of the findings of a study of 1969 expenditure patterns by owners of rent stabilized apartment buildings. Changes in the specification of some of these goods and services have been carried out over time to maintain the representativeness of the market basket. The relative importance of the various goods and services in the market basket was updated in 1983 by means of a study of expenditure patterns of owners of rent stabilized apartment buildings. Additional updates to these expenditure patterns have been done throughout the years in order to present a current and relevant analysis of changes in owner expense.

*The Price Index of Operating Costs for Rent Stabilized Apartment Buildings rose ...*



The PIOC 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. For certain items, such as real estate taxes, the price paid is determined administratively, through information collected from City records.

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. The expenditure weights used in the construction of the 2013 Price Index are based upon the 1983 Expenditure Study and relevant updates and are revised on the basis of annually measured price changes from 1982-2012.

## 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 Pushbroom, Plumbing, Faucet or Roof Repair.

**Price Relative** - the ratio 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.

## Apartments

*Change In Costs for  
Rent Stabilized Apartment  
Buildings, March 2012  
to March 2013*

Taxes	2.6%
Labor Costs	3.0%
Fuel Oil	20.0%
Utilities	6.3%
Contractor Services	3.3%
Administrative Costs	2.4%
Insurance Costs	7.1%
Parts and Supplies	4.7%
Replacement Costs	2.0%
<b>All Costs</b>	<b>5.9%</b>

The importance of each index component is shown by its “expenditure weight” (see Appendix 2). The measured 2012-13 price changes in each index component are also presented in this appendix. The expenditure weights and the 2012-13 price changes are then combined to provide the overall change in the PIOC over the period from 2012-13.

The PIOC consists of nine cost components, each designed to measure changes in a category of costs such as fuel oil, insurance, utilities, etc. The methodology for each component is described in the final section of this report.

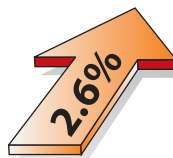
## Overview

This year, the PIOC for all rent stabilized apartment buildings increased by 5.9%, 3.1 percentage points more than the PIOC percentage change from the year before (2.8% in 2012). Increases occurred in all nine of the PIOC components. The PIOC was driven upward by significant increases in Fuel Oil (20.0%), Insurance Costs (7.1%) and Utilities (6.3%).<sup>1</sup> More moderate increases were seen in Contractor Services (3.3%), Labor Costs (3.0%), Taxes (2.6%) and Administrative Costs (2.4%). The Parts and Supplies and Replacement Costs components, each of which carry very little weight in the PIOC, increased 4.7% and 2.0% respectively. The growth in the Consumer Price Index (CPI) during this same time period was lower than the PIOC, rising 1.9%.<sup>2</sup> See the adjacent table and Appendix 2 for changes in costs and prices for all rent stabilized apartment buildings from 2012-13.

The “core” PIOC, which excludes erratic changes in fuel oil, natural gas, and electricity costs, is useful for analyzing long-term inflationary trends. The core PIOC rose by 3.7% this year and was lower than the overall PIOC due to the exclusion of the costs for fuel oil, which rose 20.0%, and natural gas used for heating.

## Price Index Components

### Taxes



The Taxes component of the PIOC is based entirely on real estate taxes and accounts for nearly thirty percent of the overall price index. The change in tax cost is estimated by comparing aggregate taxes levied on rent stabilized apartment buildings in Fiscal Year (FY) 2012 and FY 2013.

Real estate taxes rose this year by 2.6%. This is just over a third of the growth seen in last year's price index (7.5%). The growth in taxes was due almost exclusively to a rise in assessments. A significant decline in abatements also contributed to the rise in taxes, although its impact on

tax growth was minor. While assessments rose, tax rates declined. The decrease in tax rates, along with an increase in the total value of exemptions, had the effect of dampening the growth in real estate taxes in FY 2013.

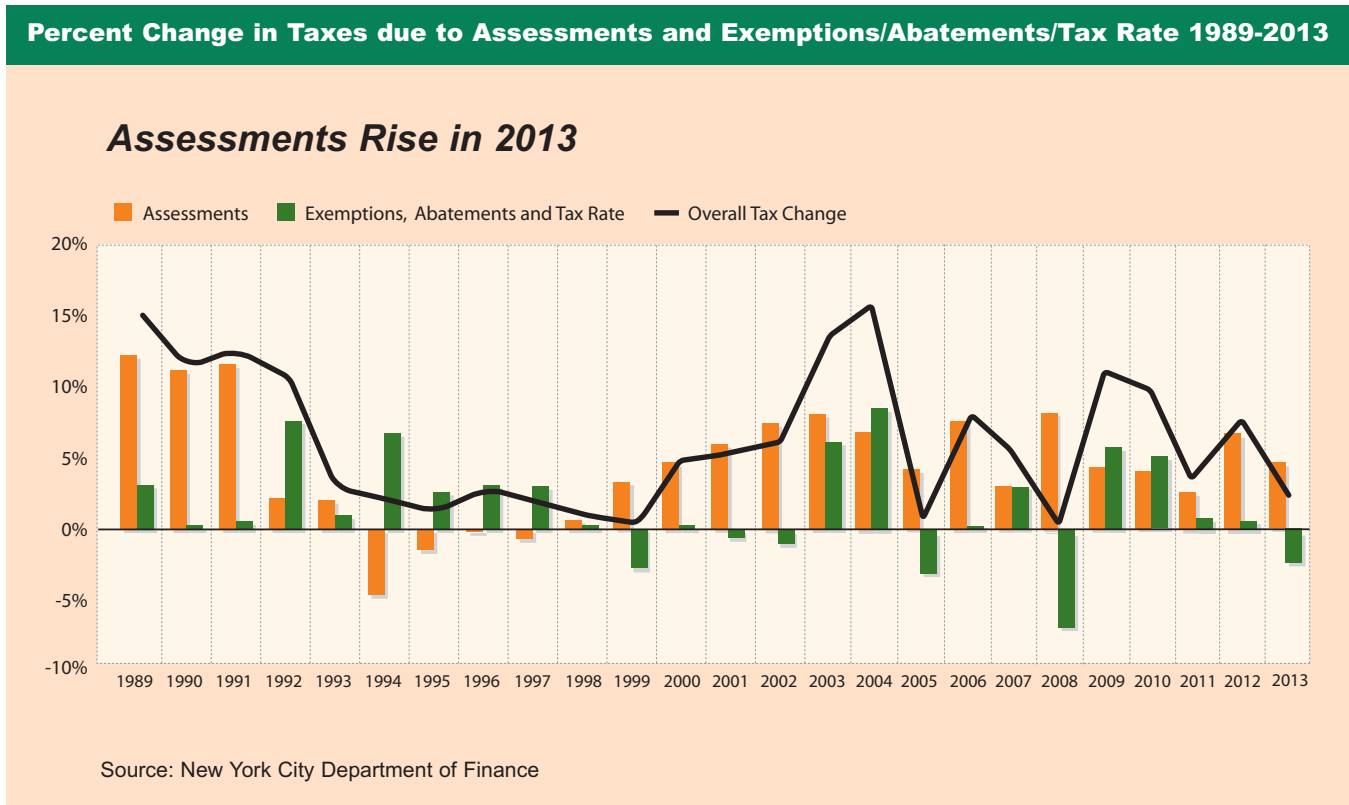
**Tax Levy** — The total tax levy for all properties in the City (commercial and residential) increased by 4.4% from FY 2012 to FY 2013. The Class Two property levy rose at a slower pace than that of the City as a whole, at a rate of 2.1%. The distribution of the levy among property classes tends to shift from year to year. From FY 2012 to FY 2013, the levy share for Class Two properties decreased, by 0.8 percentage points, from 37.8% to 37.0% of the total tax burden. Although the Class Two levy share declined, it is still significantly higher than the 26.3% share that was established at the inception of the four-class tax system in 1983.

**Tax Rate** — The average annual FY 2012 Class Two tax rate of 13.433 decreased by 1.88%, resulting in a new annualized rate of 13.181 for FY 2013. This is the first time in the last five years that the Class Two tax rate

declined. For a historical perspective of changes in the tax rate, see the green bars on the graph below.

**Assessments** — Assessed valuations of rent stabilized properties rose by 4.9% citywide in FY 2013, a smaller increase than the 7.1% witnessed in FY 2012. Assessments rose in all five boroughs, with Staten Island witnessing the highest growth at 13.2%. More moderate increases were seen in Brooklyn (5.5%), Manhattan (5.2%) and Queens (4.9%). The Bronx saw the lowest rise in assessments, at 1.3%. Buildings in Manhattan generally drive much of the change in assessed value Citywide. This was true in FY 2013, with 64% of all valuations emanating from this borough. For a historical perspective of changes in tax assessments, see the orange bars on the graph on this page.

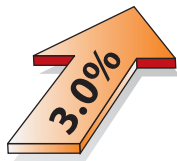
**Abatements and Exemptions** — This year, the number of rent stabilized buildings with tax abatements decreased by 26.5%. In addition, the average benefit value of the typical tax abatement also decreased, by 21.4%, from FY 2012 to FY 2013. The net impact of



the decreases in the number of abatements and the average abatement value was a negligible rise in the tax liability for rent stabilized buildings of 0.1%.

In FY 2013, 1.8% more rent stabilized buildings benefited from tax exemptions and the value of the average tax exemption also increased slightly, by 0.2%. These increases in the average value of tax exemptions and the number of buildings receiving exemptions resulted in owners' tax bills decreasing by 0.3%. (See Appendices 5 and 6)

### Labor Costs



The Price Index measure of Labor Costs includes union and non-union salaries and benefits, in addition to Social Security and unemployment insurance. The cost of unionized labor makes up nearly two-thirds of the Labor Costs component. The entire Labor Costs component comprises 12.9% of the overall Price Index.

Labor Costs rose 3.0%, higher than the increase seen in last year's PIOC of 2.5%. The rise in Labor Costs was due to increases in union and non-union wages, as well as rises in healthcare and pension contributions.

Wages comprise three-quarters of the Labor Costs component. Non-union pay increased by 2.7%, half a percentage point higher than the increase seen in the 2012 PIOC (2.2%). Similarly, the unionized wage increase was 0.6 percentage points higher than the previous year, rising 2.4% in 2013, compared to 1.8% in 2012.

### Fuel Oil



The Fuel Oil component comprises 13.2% of this year's Price Index (see Endnote 1). The change in cost measured in this component considers both the change in weather and the change in prices for the three types of heating oil used to heat multi-family buildings in New York City. This year the Fuel Oil component rose 20.0%, a significantly higher rise than witnessed in last year's index of 1.6%.

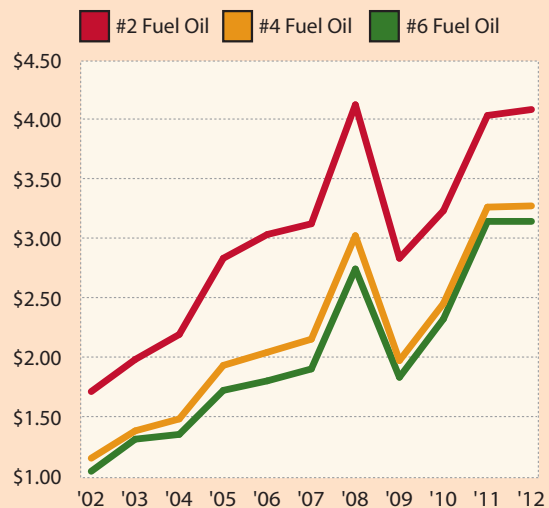
The PIOC measured fuel oil prices from April to March and then compared them to the same months from the previous year. Over the past 12 months, fuel oil prices, which do not take weather into account, increased by 2.9%. The price for #2 oil, which comprises about half of this component, increased 3.8%. Prices for #4 and #6 heating oil rose at a slower rate than #2 oil, rising 3.1% and 0.7%, respectively.

Over the past ten years the average prices per gallon for all fuel grades, which are pure prices that do not factor in weather, have risen substantially. The average price for all grades of fuel oil in calendar year 2012 was \$3.80 a gallon. Adjusted for inflation, the average price in 2002 was \$1.51. This is an annual rate of increase in the price of fuel oil of almost ten percentage points above the general rate of inflation. Adjusted for inflation, the price of #2 Fuel Oil (the most commonly used fuel oil) rose by 1.3% in 2012, following an increase of 24.7% in 2011. (See graph on this page.)

Along with measuring price, the PIOC also takes into account the effect of weather on the demand for

### Average Inflation-Adjusted Fuel Oil Prices per Gallon, 2002-2012

*Average Fuel Oil Prices Have Risen Over the Past Ten Years*



Note: Prices are in constant 2012 dollars.  
Source: NYC RGB Price Indices of Operating Costs, 2002-2013

## Fuel Oil Cost Relatives vs. Change in Fuel Prices, 2004-2013

<i>PIOC Year</i>	<i>Fuel Oil Cost Relative*</i>	<i>Change in Fuel Oil Price**</i>
2013	20.0%	2.9%
2012	1.6%	20.8%
2011	23.1%	20.3%
2010	0.5%	6.7%
2009	-10.1%	-16.9%
2008	37.4%	38.4%
2007	0.5%	-3.0%
2006	22.8%	28.2%
2005	20.0%	26.5%
2004	-2.8%	0.6%

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

\*\* Weighted change in #2, #4 and #6 fuel oil prices.

Source: NYC RGB Price Indices of Operating Costs, 2004-2013

fuel oil, especially during the heating season when a large majority of the fuel is burned. Since this year was colder than last year, weather increased the demand for fuel oil. The combination of the rise in heating oil prices and an increase in demand resulted in a rise in the cost for heating buildings with oil by 20.0%.<sup>3</sup>

In years that are colder than the prior year, the weather factor will place upward pressure on the Fuel Oil cost relative, enhancing pure price increases of fuel oil and dampening the effect of price declines. However, in years that are warmer than the prior year, the Fuel Oil component will be lower than pure price increases and will show larger declines if fuel oil prices decrease. For instance, the 2013 Price Index calculates an increase in fuel oil prices of 2.9%, but the rise in the Fuel Oil component is 20.0% due to the weather being significantly colder than the previous PIOC year. In contrast, in the 2012 PIOC, weather was significantly warmer than the prior year and thus less fuel oil was used, so although fuel oil prices rose by 20.8%, the price relative reported in last year's PIOC was 1.6%. See the table on this page for a comparison

of the Fuel Oil component relatives and the change in fuel oil prices over the past ten years.

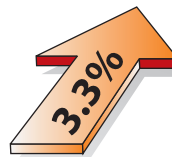
## Utilities



The Utilities component consists primarily of electricity, natural gas, and water and sewer charges. In fact, water and sewer costs account for over 60% of the Utilities component. Telephone and steam costs are a small part of this component. In the case of most Utilities items, changes in costs are measured using the PIOC specifications (e.g. the quantity of electricity, steam, etc. being purchased) and the changes in rate schedules.

This year Utilities increased 6.3%, which is in contrast to last year's decrease of 4.0%. The growth in this component was driven by a 7.0% increase in water and sewer costs and a 5.8% rise in gas costs. The cost of electricity (0.7%) and steam (20.9%) also increased, but had only a minor impact on the growth of Utilities because these items carry very little weight in this component.

## Contractor Services



The Contractor Services component rose 3.3%, almost the same amount as last year's growth of 3.2%. This is the fifth consecutive year in which the growth in this component was under four percent. Between the years 2003 and 2008 the growth in this component was more than four percent annually. Previously, Contractor Services costs rose above four percent only once from 1992 through 2002.

The most important items in this component by weight are repainting and plumbing rates, which comprise almost two-thirds of the Contractor Services component. Painters' rates rose 3.4%, nearly the same as last year's increase of 3.5%. Rates charged by plumbers increased by 1.2%, a lower increase than last year's growth of 2.8%. Painters and plumbers reported that increases in the cost of labor and materials were the primary factors that led to an increase in their rates.

Other items in this component witnessed changes in costs ranging from 1.1% to 10.3%. (See Appendix 2)

## Administrative Costs



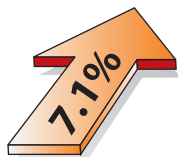
Administrative Costs rose 2.4%, 0.2 percentage points lower than last year's increase (2.6%) and the smallest growth in this component since the inception of the Price Index in 1969. Fees paid to management companies, accountants, and attorneys make up nearly this entire component.

A large portion of the growth in the Administrative Costs component can be attributed to a rise in management company fees (2.5%) that comprise nearly three-quarters of this component. Management fees are often tied to apartment buildings' rental income and are affected by changes in rents and vacancies. This year's growth is less than last year's (3.0%), indicating that management companies lowered their fees and/or rents increased at a slower rate than last year. In addition, the lower growth rate may also be the result of more vacancies and/or collection losses in the buildings they manage compared to the previous year.

Accounting fees increased in this year's PIOC by 1.3%, higher than last year's rise of 0.8%. Attorney fees rose 3.2%, 1.3 percentage points higher than last year's growth of 1.9%.

All other items in this component witnessed changes in price relatives from a decrease of 1.6% to an increase of 4.4%. (See Appendix 2)

## Insurance Costs



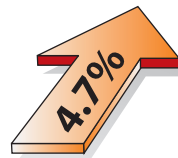
For the second consecutive year there was an increase in the Insurance Costs component, rising 7.1%, compared to last year's increase of 2.5%. These increases were preceded by three years of negative growth ranging from 0.4% to 2.9%.

Changes in insurance costs for owners varied by the amount of the policy. Policies that cost more than

\$4,666.45, which represent half of all verified insurance quotes, saw an average increase in cost of 8.2% upon renewal. Meanwhile, buildings with policies of \$4,666.45 or less saw an increase of 2.3%.

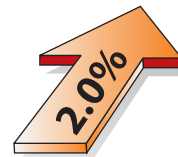
In recent years, the changes in Insurance Costs have been impacted by events outside of traditional market forces. These events have made changes in this component quite volatile. For example, in the three years following 911, the cost to insure multi-family buildings grew a cumulative 104%. With this in mind, RGB staff measured the impact that Superstorm Sandy had on insurance policies renewed after this hurricane hit at the end of October 2012. Prior to November, the average increase in insurance costs was 5.6%. The increase on policies renewed from November forward nearly doubled, rising 10.4%.

## Parts and Supplies



The Parts and Supplies component accounts for less than two percent of the entire Price Index. The overall increase in the Parts and Supplies component was 4.7%, a full percentage point higher than the 3.7% increase in 2012 and the highest increase in this component since 2006.

## Replacement Costs



The Replacement Costs component has the lowest weight of any component, with its weight being less than 1/100th of the PIOC. This year Replacement Costs rose 2.0%, a smaller rise than the 3.2% increase reported in the 2012 Price Index.

## PIOC by Building Type

The 1983 Expenditure Study provides a basis for calculating separate sets of expenditure weights for different types of buildings that contain rent stabilized units. In addition to the all apartment PIOC, this report includes separate indices for buildings constructed before 1947 (pre-1947) and for buildings constructed



in 1947 or later (post-1946) as well as gas-heated, oil-heated and master-metered buildings. Although the expenditure weights for all rent stabilized buildings and for each of the five subcategories of buildings differ, the price changes are the same for each of the six indices. (See Appendices 2 and 3)

Typically, buildings constructed before 1947 incur a lower percentage of operating and maintenance costs for property taxes, which rose 2.6%, than post-1946 buildings. However their fuel oil costs, which increased by 20.0%, represent a significantly higher percentage of total operating and maintenance costs. As a result, the PIOC for Pre-1947 buildings was 6.8%, higher than that for Post-1946 buildings (4.9%).

Indices were also calculated for different types of heating systems. Due to the moderate increase in natural gas costs of 5.9% for heating multi-family buildings in NYC, the Price Index for gas-heated buildings rose 4.3%. Buildings heated with fuel oil saw a rise in costs of 7.3%, three percentage points higher than gas-heated buildings. The PIOC for master-metered buildings was 6.0%.

## Rent Stabilized Hotels

The Hotel Price Index includes separate indices for each of three categories of rent stabilized hotels (due to their dissimilar operating cost profiles) and a general index for all stabilized Hotels. The three categories of hotels are: 1) “traditional” hotels — a multiple dwelling which has amenities such as a front desk, maid or linen services; 2) Rooming Houses — a multiple dwelling other than a hotel with thirty or fewer sleeping rooms; and 3) single room occupancy hotels (SROs) — a multiple dwelling in which one or two persons reside separately and independently of other occupants in a single room.

The Price Index for all stabilized Hotels rose 7.4% this year, a significantly higher increase than the 3.7% rise in 2012. The Price Index for Hotels was 1.5 percentage points higher than the increase in costs measured in the Apartment Price Index. Significant disparities between the Hotel Index and the Apartment Index were seen in the Taxes and Utilities components. Taxes for Hotels increased at a higher pace (5.8%) than the increase for apartments (2.6%). Furthermore, the increase in Utilities for all types of Hotels was 7.9%, versus the 6.3% rise for apartment buildings.

In addition to the changes in costs in Taxes and Utilities mentioned above, increases were seen in the remaining Hotel cost components. The highest increase was seen in Fuel Oil costs, which make up 16% of the PIOC for hotels, rising 19.8%. Insurance also witnessed a significant increase, with costs growing 7.1%. More moderate increases were seen in the remaining components. Contactor Services increased 3.5%, Labor by 3.1% and Administrative Costs rose 2.4%. Parts and Supplies and Replacement Costs, which carry very little weight in the Hotel Index, rose 4.1% and 0.1%, respectively. See the table on this page for changes in

### Hotels

#### *Change In Costs for Rent Stabilized Hotel Buildings, March 2012 to March 2013*

Taxes	5.8%
Labor Costs	3.1%
Fuel Oil	19.8%
Utilities	7.9%
Contractor Services	3.5%
Administrative Costs	2.4%
Insurance Costs	7.1%
Parts and Supplies	4.1%
Replacement Costs	0.1%
<b>All Costs</b>	<b>7.4%</b>

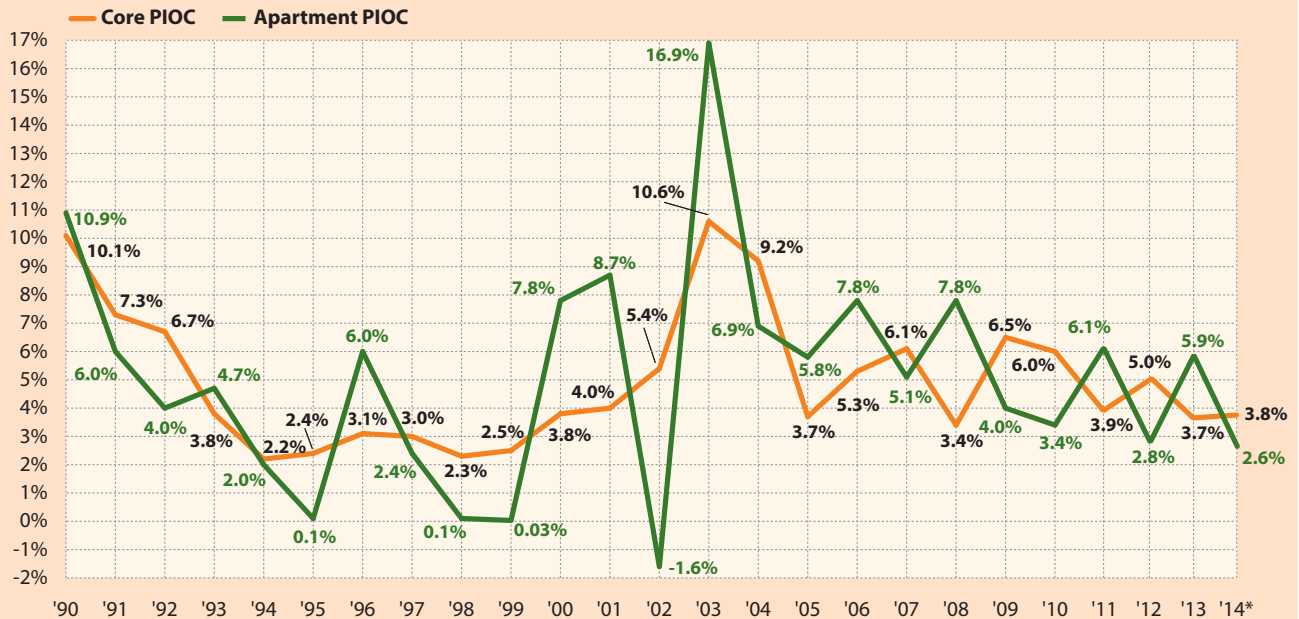
### Lofts

#### *Change In Costs for Rent Stabilized Loft Buildings, March 2012 to March 2013*

Taxes	2.6%
Labor Costs	3.0%
Fuel Oil	20.1%
Utilities	6.4%
Contractor Services	3.3%
Admin Costs, Legal	3.2%
Admin Costs, Other	2.3%
Insurance Costs	7.1%
Parts and Supplies	4.7%
Replacement Costs	2.0%
<b>All Costs</b>	<b>5.8%</b>

## Percent Change in the Price Index of Operating Costs and the Core PIOC, 1990-2014

### The Apartment Index Rose More than “Core” PIOC in 2013



\*Note: The percent change for 2014 is estimated.

Source: NYC RGB Price Indices of Operating Costs, 1990-2013, PIOC and Core PIOC projections for 2014

costs and prices for all rent stabilized hotels from 2012-2013.

Among the different categories of Hotels, the index for “traditional” hotels increased 7.5%, Rooming Houses by 6.1% and SROs by 7.7%. (See Appendices 4 and 7)

### Rent Stabilized Lofts

The increase in the Loft Index this year was 5.8%, nearly the same increase seen in apartments (5.9%). Although the increases in the components for these indices were similar, there were disparities in the importance that the components hold in each index. Insurance Costs rose 7.1% in both indices but this rise in costs carried more weight in the Lofts Index, making up 17% of this index versus 7% for the Apartment Index. In contrast, the similar increases in Utilities, 6.3% for apartments versus 6.4% for lofts, carried more weight in the Apartment Index (16%) as compared to

the Lofts Index (8%). These disparities in the weights for components that make up these two indices resulted in a Loft Index that was just 0.1 percentage points lower than the PIOC for Apartments. See the table on the previous page and Appendix 8 for changes in costs and prices for all rent stabilized lofts from 2012-13.

### The Core PIOC

The Core PIOC, which measures long-term local trends by factoring out shifts in fuel costs, gas, and electricity rates, rose 3.7% in 2013. The rise in the 2013 Core was 2.2 percentage points lower than the Apartment Index. The Core PIOC rose at a slower pace than the overall PIOC because fuel oil costs rose at a faster rate (20.0%) than the Index as a whole (5.9%). Furthermore, the Core Index excludes the cost for heating apartments with natural gas, which witnessed a rise in costs of 5.9%. (See graph on this page.)

## PIOC Projections for 2014

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 performed to provide the Rent Guidelines Board with an estimate of how much costs are expected to rise in the year following the current Price Index. The PIOC Projection is used in correlation with the old “traditional” commensurate rent adjustment formula only. Before the new commensurate formulas were devised, the projection was used to assist the Board in setting guidelines for tenants choosing two- or three-year leases.

It is important to note that changes in costs and prices after March 2013, the last month covered by this study, will be measured in next year’s Price Index. The PIOC Projection is not used in the calculation of the ‘Net Revenue’ and ‘CPI-Adjusted NOI’ commensurate formulas (see the “Commensurate Rent Adjustment” section on the next page), which calculate one- and two-year guidelines that will compensate owners for the most recent change in costs measured by the Price Index. The PIOC Projection should not be considered in combination with these newer formulas in establishing guidelines.

Projecting changes in the PIOC has become more challenging in recent years. Energy prices — which represent about one-fifth of the market basket of operating costs measured in the index — have become increasingly volatile. Unpredictable geopolitical events, recession and changing weather patterns are some of the forces behind large changes in fuel-related costs (heating fuel oil, electricity, gas and steam) that have in turn hindered the accuracy of the PIOC projections in recent studies. The tax component, which accounts for roughly thirty percent of the entire Price Index, has also become harder to project due to changes in tax policy, such as tax rate reductions and changes to the City’s tentative assessment roll, after the period covered in this Price Index.

This year, operating costs in rent stabilized apartment buildings increased by 5.9%, versus last year’s projected PIOC increase of 7.0%. The

## 2014 Projections

### *Projected Change In Costs for Rent Stabilized Apartment Buildings, March 2013 to March 2014*

Taxes	2.2%
Labor Costs	4.0%
Fuel Oil	-6.6%
Utilities	6.1%
Contractor Services	3.1%
Administrative Costs	2.6%
Insurance Costs	10.4%
Parts and Supplies	2.1%
Replacement Costs	1.8%
<b>All Projected Costs</b>	<b>2.6%</b>

components that showed the most variance between actual changes in costs versus projected changes were Insurance Costs, Taxes and Parts and Supplies. Insurance Costs were expected remain flat, but instead rose by 7.1% in 2013. Meanwhile, Taxes were anticipated to rise 6.4%, but actually rose just 2.6%. Parts and Supplies were projected to increase 2.0%, but instead rose 4.7%. The remaining 2013 projected components of the PIOC were within 1.4 percentage points of the actual measured changes.

Overall, the PIOC is expected to grow by 2.6% from 2013 to 2014. Costs are predicted to rise in each component except Fuel Oil, where costs are anticipated to decline 6.6%. The largest growth, of 10.4%, is projected to be in the Insurance Costs component. The Utilities component is anticipated to increase 6.1%, while more moderate increases are projected in Labor (4.0%), Administrative Costs (2.6%) and Contractor Services (3.1%). Taxes, the component that carries the most weight in the Index, is projected to increase 2.2%. The Parts and Supplies and Replacement Costs components are expected to rise 2.1% and 1.8%, respectively. The table on this page shows predicted changes in PIOC components for 2014. The core PIOC is projected to rise 3.8%, more than the overall projected Apartment PIOC.

## Commensurates

### "Net Revenue" Commensurate Adjustment

<u>1-Year Lease</u>	<u>2-Year Lease</u>
5.0%	9.0%

### "Net Revenue" Commensurate Adjustment with Vacancy Increase

<u>1-Year Lease</u>	<u>2-Year Lease</u>
3.25%	6.25%

### "CPI-Adjusted NOI" Commensurate Adjustment

<u>1-Year Lease</u>	<u>2-Year Lease</u>
6.25%	9.75%

### "CPI-Adjusted NOI" Commensurate Adjustment with Vacancy Increase

<u>1-Year Lease</u>	<u>2-Year Lease</u>
4.25%	7.25%

### "Traditional" Commensurate Adjustment

<u>1-Year Lease</u>	<u>2-Year Lease</u>
4.0%	4.9%

## 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 indicating how much rents would have to change for net operating income (NOI) in stabilized buildings to remain constant. 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 landlords' current dollar NOI at a constant level. In other words, the formula provides a set of one- and two-year renewal rent increases or guidelines that will compensate owners for the change in prices measured by the PIOC and keep net operating income "whole."

The first commensurate method is called the "Net Revenue" approach. While this formula takes into consideration the types of leases actually signed by tenants, it does not adjust landlords' NOI for inflation. The "Net Revenue" formula is presented in two ways: First, adjusting for the mix of lease terms; and Second, adding an assumption for stabilized apartment turnover and the impact of revenue from vacancy increases. Under the "Net Revenue" formula, a guideline that would preserve NOI in the face of this year's 5.9% increase in the PIOC is 5.0% for a one-year lease and 9.0% for a two-year lease. Using this formula and adding assumptions for the impact of vacancy increases on revenues when apartments experience turnover result in guidelines of 3.25% for one-year leases and 6.25% 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 1.9% increase in the Consumer Price Index (see Endnote 1) and the 5.9% increase in the PIOC is 6.25% for a one-year lease and 9.75% for a two-year lease. Guidelines using this formula and adding the estimated impact of vacancy increases are 4.25% for one-year leases and 7.25% for two-year leases.<sup>4</sup>

The "traditional" commensurate adjustment is the formula that has been in use since the inception of the Rent Guidelines Board. The "traditional" commensurate yields 4.0% for a one-year lease and 4.9% for a two-year lease. This reflects the increase in operating costs of 5.9% found in the 2013 PIOC and the projection of a 2.6% increase next year.<sup>5</sup>

As a means of compensating for cost changes, this "traditional" commensurate rent adjustment has two major flaws. First, although the

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formula is supposed to keep landlords' current dollar income constant, the formula does not consider the mix of one- and two-year lease renewals. Since only about three-fifths of leases are renewed in any given year, with a preponderance of leases having a two-year duration, the formula does not necessarily accurately estimate the amount of income needed to compensate landlords for O&M cost changes.

A second flaw of the "traditional" commensurate formula is that it does not consider the erosion of landlords' income by inflation. By maintaining current dollar NOI at a constant level, adherence to the formula may cause profitability to decline over time. However, such degradation is not an inevitable consequence of using the "traditional" commensurate formula.<sup>6</sup>

All of these methods have their limitations. The "traditional" commensurate formula is artificial and does not consider the impact of lease terms or inflation on landlords' income. The "Net Revenue" formula does not attempt to adjust NOI based on changes in interest rates or deflation of landlord profits. The "CPI-Adjusted NOI" formula inflates the debt service portion of NOI, even though interest rates have been generally falling, rather than rising, over recent years. Including a consideration of the amount of income owners receive on vacancy assumes that turnover rates are constant across the City.

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 (5.9%). The traditional method differs from the other formulas in that it uses both the PIOC's actual change in costs as well as the projected change in costs (2.6%). If the change in projected costs, which may not be an accurate estimate of owner's costs, is added to the "Net Revenue" and "CPI-Adjusted NOI" formulas, the

resulting guidelines will likely over- or under-compensate for the change in costs.

Each of these formulae may be best thought of as a starting point for deliberations. The other Rent Guidelines Board annual research reports (e.g., the Income and Affordability Report and the Income and Expense Study) and testimony to the Board can be used to modify the various estimates depending on these other considerations.

## **Methodology**

### **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 stabilized buildings. If the returned questionnaire was not complete, an interviewer contacted the owner/manager and the missing information was gathered. And for the second consecutive year owners could complete the survey online. All of the price information given by the owner/managing agent was then confirmed by calling the relevant insurance and management companies and non-union employees.

The sample frame for the Owner Survey included over 39,000 stabilized buildings registered with the New York State Division of Housing and Community Renewal (DHCR). A random sampling scheme was used to choose 5,100 addresses from this pool for the owner mailing. The number of buildings chosen in each borough was nearly proportional to the share of stabilized buildings in that borough. Three successive mailings were sent at timed intervals to the owner or managing agent of each property selected in the survey sample.

Roughly 12.6% of the questionnaires mailed out were returned to the RGB, a similar rate to last year (12.5%). A total of 581 returned surveys contained usable information, from which quotes of owners' annual insurance costs (393), non-union labor quotes (136) and management fees (112) were validated. The

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number of verified prices in 2012 and 2013 for the Owner Survey is shown in Appendix 1.

## Utility Cost Computations

The Utilities component consists of costs for electricity, gas, steam, telephone, and water and sewer. 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. Where the component represents prices to heat a building, such as Spec 406 (gas), monthly price data is adjusted to account for changes in weather. Water and sewer price changes are based on annual rate adjustments set by the NYC Water Board. Telephone prices are determined by calculating a hypothetical bill based on rates provided by Verizon. The price relatives for the Utilities component were calculated using the most recent 12-month period from April-March and comparing it to the prior April-March period.

## Fuel Oil

Fuel oil price information is gathered on a monthly basis via a telephone survey. 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 that do not care to look up a year's worth of prices. The number of fuel oil quotes gathered this year is similar to last year and are 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 2) is a measure of heating requirements.

## Real Estate Tax Computations

The sample of buildings used to compute the 2013 tax price relative was drawn by providing a list of rent

stabilized properties registered with DHCR 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 36,000 buildings in FY 2012 and FY 2013. This data was used to compute a tax bill for each stabilized building 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 2012 to FY 2013.

## Vendor Survey

The Vendor Survey is used to gather price quotes for Contractor Services (e.g., painting), Administrative Costs (e.g., accountant and attorney fees), Parts and Supplies (e.g., mops), and Replacement Costs (e.g., refrigerators). As in prior years, the vendor database was 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 the first time, from websites that carry items in the PIOC's market basket of goods. (Web prices were not used in calculating the Contractor Services component.) A total of 598 recorded price quotes were gathered. For a description of the items priced and the number of price quotations obtained for each item, refer to Appendix 1.

## Other Items

In addition to the items previously discussed, a number of other pieces of information are needed to complete the PIOC, including labor union contract and benefit information, Social Security rates, unemployment insurance rates and Heating Degree Days. These items are used in computing some of the labor components, and the cost-weighted changes in fuel oil and utility prices.

## Price Index Projections

The PIOC Projections are estimated by using data from federal, state and local agencies; estimates from related industry experts; and trend forecasting using three-year

or long-term averages. This year projections are based on the time period from April 2013 to March 2014.

Taxes were projected by using data from the Department of Finance's tentative assessment roll for FY 2013 along with 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 the owners of rental properties. Labor costs are projected by calculating the average wage increase of the most recent labor contracts for apartment workers union Local 32-BJ and a ten-year geometric average of all other Labor items. Fuel oil costs 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 obtaining rate projections for the coming year from the New York City Water Board and EIA projections. Natural gas rate projections are combined with assumptions about usage if the coming year's weather had the five-year average number of Heating Degree Days.<sup>7</sup>

The other components — Administrative Costs, Contractor Services, Parts and Supplies, and Replacement Costs — are projected by using twenty-year geometric averages of the component price relatives.

The methodology for projecting Insurance Costs was altered this year due to Superstorm Sandy. In past years, staff used a geometric average of the changes in costs to this component as the projected Insurance Costs relative. Assuming that the effects of this storm will continue to impact insurance costs going forward, this year staff used the increase in the cost of insurance after October 2012, of 10.4%, as the projected change in this component for 2014.

## **Acknowledgments**

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## **Endnotes**

1. Prior to the 2012 PIOC, the Fuel Oil component was entitled "Fuel" in previously PIOC's. This change was made to eliminate any confusion as to whether this component included other fuel types used for heating. The Fuel Oil component measures the cost of heating rent stabilized building with #2, #4, and #6 fuel oil.
2. The average CPI for All Urban Consumers, New York-Northeastern New Jersey for the year from March 2011 to February 2012 (248.8) compared to the average for the year from March 2012 to February 2013 (253.5) rose by 1.9%. This is the latest available CPI data and is roughly analogous to the 'PIOC year', which for the majority of components compare the most recent point-to-point figures from April to March, monthly cost-weighted figures from April to March, or the two most recent fiscal year bills.
3. Due to changes in methodology of the 2010 Price Index, the cost-weight relatives are now calculated on an April to March time period. The April 2012 to March 2013 time period was 16.3% colder than the previous April to March period. "Normal" weather refers to the typical number of Heating Degree Days measured at Central Park, New York City, over the 30-year period from 1981-2010. A Heating Degree Day is defined as, for one day, the number of degrees that the average temperature for that day is below 65 degrees Fahrenheit.
4. The following assumptions were used in the computation of the commensurates: (1) the required change in landlord revenue is 67.2% of the 2013 PIOC increase of 5.9%, or 4.0%. The 67.2% figure is the most recent ratio of average operating costs to average income in stabilized buildings; (2) for the "CPI-Adjusted NOI" commensurate, the increase in revenue due to the impact of inflation on NOI is 32.8% times the latest 12-month increase in the CPI ending February 2013 (1.9%) or 0.62%; (3) these lease terms are only illustrative—other combinations of one- and two-year guidelines could produce the adjustment in revenue; (4) assumptions regarding lease renewals and turnover were derived from the 2011 Housing and Vacancy Survey; (5) for the commensurate formulae, including a vacancy assumption, the 8.33% median increase in vacancy leases found in the rent stabilized apartments that reported a vacancy lease in the 2012 apartment registration file from the Division of Housing and Community Renewal was used; and (6) the collectability of these commensurate adjustments are assumed.
5. Calculating the "traditional" commensurate rent adjustment requires an assumption about next year's PIOC. In this case, the 2.6% PIOC projection for 2014 is used.
6. 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.
7. Source: "Short-Term Energy Outlook," March 2013. U.S. Energy Information Administration, Department of Energy.

# Appendices

## 1. PIOC Sample, Number of Price Quotes per Item, 2012 vs. 2013

Spec	Description	2012	2013	Spec	Description	2012	2013
211	Apartment Value	104	101	701	INSURANCE COSTS	534	393
212	Non-Union Super	102	86				
216	Non-Union Janitor/Porter	52	50	801	Light Bulbs	13	8
	LABOR COSTS	258	237	802	Light Switch	12	8
				803	Wet Mop	11	8
				804	Floor Wax	11	6
301	Fuel Oil #2	22	21	805	Paint	12	10
302	Fuel Oil #4	5	5	806	Pushbroom	14	8
303	Fuel Oil #6	5	5	807	Detergent	7	7
	FUEL OIL	32	31	808	Bucket	11	10
				809	Washers	12	10
501	Repainting	126	112	810	Linens	10	13
502	Plumbing, Faucet	33	33	811	Pine Disinfectant	13	8
503	Plumbing, Stoppage	32	32	812	Window/Glass Cleaner	13	6
504	Elevator #1, 6 fl., 1 e.	12	10	813	Switch Plate	12	8
505	Elevator #2, 13 fl., 2 e.	12	10	814	Duplex Receptacle	13	8
506	Elevator #3, 19 fl., 3 e.	11	10	815	Toilet Seat	14	10
507	Burner Repair	11	10	816	Deck Faucet	13	10
508	Boiler Repair, Tube	10	10		PARTS & SUPPLIES	191	138
509	Boiler Repair, Weld	7	5				
510	Refrigerator Repair	5	6	901	Refrigerator #1	8	7
511	Range Repair	10	7	902	Refrigerator #2	10	10
512	Roof Repair	23	20	903	Air Conditioner #1	8	7
513	Air Conditioner Repair	6	4	904	Air Conditioner #2	5	7
514	Floor Maint. #1, Studio	5	5	905	Floor Runner	8	11
515	Floor Maint. #2, 1 Br.	5	6	906	Dishwasher	8	7
516	Floor Maint. #3, 2 Br.	5	6	907	Range #1	8	7
518	Linen/Laundry Service	5	5	908	Range #2	6	7
	CONTRACTOR SERVICES	318	291	909	Carpet	11	11
				910	Dresser	5	5
				911	Mattress & Box Spring	5	5
601	Management Fees	72	112		REPLACEMENT COSTS	82	84
602	Accountant Fees	27	27				
603	Attorney Fees	21	20				
604	Newspaper Ads	18	18				
605	Agency Fees	5	5				
606	Lease Forms	7	5				
607	Bill Envelopes	10	10				
	ADMINISTRATIVE COSTS	150	197		ALL ITEMS	1,565	1,371



## 2. Expenditure Weights, Price Relatives, Percent Changes and Standard Errors, All Apartments, 2013

Spec #	Item Description	Expenditure Weights	Price Relative	% Change	Standard Error	Spec #	Item Description	Expenditure Weights	Price Relative	% Change	Standard Error
101	TAXES	<b>0.2963</b>	<b>1.0258</b>	<b>2.58%</b>	<b>0.1156</b>	601	Management Fees	0.7436	1.0253	2.53%	0.9630
201	Payroll, Bronx, All (Union)	0.1003	1.0138	1.38%	0.0000	602	Accountant Fees	0.1304	1.0129	1.29%	0.5714
202	Payroll, Other, Union, Supts.	0.1012	1.0263	2.63%	0.0000	603	Attorney Fees	0.1002	1.0321	3.21%	2.6118
203	Payroll, Other, Union, Other	0.2514	1.0272	2.72%	0.0000	604	Newspaper Ads	0.0039	1.0252	2.52%	1.2168
204	Payroll, Other, Non-Union, All	0.2918	1.0266	2.66%	1.1893	605	Agency Fees	0.0050	1.0055	0.55%	0.3293
205	Social Security Insurance	0.0430	1.0250	2.50%	0.0000	606	Lease Forms	0.0084	1.0439	4.39%	4.8014
206	Unemployment Insurance	0.0064	1.0840	8.40%	0.0000	607	Bill Envelopes	0.0085	0.9839	-1.61%	3.2052
207	Private Health & Welfare	0.2060	1.0453	4.53%	0.0000		ADMINISTRATIVE COSTS	<b>0.0716</b>	<b>1.0241</b>	<b>2.41%</b>	<b>0.7677</b>
	LABOR COSTS	<b>0.1288</b>	<b>1.0296</b>	<b>2.96%</b>	<b>0.3471</b>	701	INSURANCE COSTS	<b>0.0682</b>	<b>1.0711</b>	<b>7.11%</b>	<b>1.1211</b>
301	Fuel Oil #2	0.5072	1.2101	21.01%	0.8727	801	Light Bulbs	0.0339	1.1063	10.63%	4.6985
302	Fuel Oil #4	0.2550	1.2030	20.30%	0.4466	802	Light Switch	0.0419	1.0468	4.68%	3.8184
303	Fuel Oil #6	0.2378	1.1752	17.52%	0.5348	803	Wet Mop	0.0366	1.0187	1.87%	1.3150
	FUEL OIL	<b>0.1316</b>	<b>1.2000</b>	<b>20.00%</b>	<b>0.4744</b>	804	Floor Wax	0.0443	0.9957	-0.43%	0.7147
401	Electricity #1, 2,500 KWH	0.0074	1.0715	7.15%	0.0000	805	Paint	0.2498	1.0919	9.19%	3.5759
402	Electricity #2, 15,000 KWH	0.0877	1.0017	0.17%	0.0000	806	Pushbroom	0.0315	1.0090	0.90%	0.6027
403	Electricity #3, 82,000 KWH	0.0000	1.2308	23.08%	0.0000	807	Detergent	0.0339	0.9943	-0.57%	5.2372
404	Gas #1, 12,000 therms	0.0029	0.9068	-9.32%	0.0000	808	Bucket	0.0357	1.0705	7.05%	2.2939
405	Gas #2, 65,000 therms	0.0459	1.0665	6.65%	0.0000	809	Washers	0.0928	1.0037	0.37%	0.3731
406	Gas #3, 214,000 therms	0.1987	1.0578	5.78%	0.0000	811	Pine Disinfectant	0.0559	1.0399	3.99%	6.1388
407	Steam #1, 1.2m lbs	0.0147	1.2197	21.97%	0.0000	812	Window/Glass Cleaner	0.0517	1.0243	2.43%	2.6346
408	Steam #2, 2.6m lbs	0.0049	1.1777	17.77%	0.0000	813	Switch Plate	0.0421	1.0514	5.14%	3.9558
409	Telephone	0.0074	1.0191	1.91%	0.0000	814	Duplex Receptacle	0.0304	1.0297	2.97%	2.2586
410	Water & Sewer	0.6304	1.0700	7.00%	0.0000	815	Toilet Seat	0.0947	1.0556	5.56%	4.3333
	UTILITIES	<b>0.1634</b>	<b>1.0633</b>	<b>6.33%</b>	<b>0.0000</b>	816	Deck Faucet	0.1247	1.0239	2.39%	1.1787
501	Repainting	0.3824	1.0338	3.38%	0.7319		PARTS AND SUPPLIES	<b>0.0144</b>	<b>1.0468</b>	<b>4.68%</b>	<b>1.1184</b>
502	Plumbing, Faucet	0.1441	1.0118	1.18%	0.9409	901	Refrigerator #1	0.0955	0.9886	-1.14%	3.1363
503	Plumbing, Stoppage	0.1253	1.0126	1.26%	1.0116	902	Refrigerator #2	0.4655	0.9998	-0.02%	1.4639
504	Elevator #1, 6 fl., 1 e.	0.0548	1.0138	1.38%	0.7205	903	Air Conditioner #1	0.0164	1.0406	4.06%	3.5072
505	Elevator #2, 13 fl., 2 e.	0.0350	1.0115	1.15%	0.6300	904	Air Conditioner #2	0.0204	1.0166	1.66%	1.1501
506	Elevator #3, 19 fl., 3 e.	0.0196	1.0137	1.37%	0.7158	905	Floor Runner	0.0877	1.0432	4.32%	2.8116
507	Burner Repair	0.0374	1.0652	6.52%	2.6966	906	Dishwasher	0.0496	1.0000	0.00%	4.5459
508	Boiler Repair, Tube	0.0513	1.0382	3.82%	2.1211	907	Range #1	0.0489	1.0340	3.40%	3.5845
509	Boiler Repair, Weld	0.0409	1.0436	4.36%	2.4848	908	Range #2	0.2159	1.0688	6.88%	6.8415
510	Refrigerator Repair	0.0120	1.1218	12.18%	5.1324		REPLACEMENT COSTS	<b>0.0061</b>	<b>1.0201</b>	<b>2.01%</b>	<b>1.6977</b>
511	Range Repair	0.0112	1.1031	10.31%	4.1398		ALL ITEMS	<b>1.0000</b>	<b>1.0594</b>	<b>5.94%</b>	<b>0.1378</b>
512	Roof Repair	0.0737	1.0758	7.58%	2.4837						
513	Air Conditioner Repair	0.0077	1.0796	7.96%	5.1799						
514	Floor Maint. #1, Studio	0.0003	1.0192	1.92%	1.9494						
515	Floor Maint. #2, 1 Br.	0.0004	1.0121	1.21%	1.2742						
516	Floor Maint. #3, 2 Br.	0.0039	1.0145	1.45%	1.4956						
	CONTRACTOR SERVICES	<b>0.1196</b>	<b>1.0327</b>	<b>3.27%</b>	<b>0.4341</b>						

### 3. Price Relative by Building Type, Apartments, 2013

Spec #	Item Description	Pre-1947	Post-1946	Gas Heated	Oil Heated	MASTER METERED BLDGS
101	TAXES	3.0%	1.9%	2.6%	2.6%	2.6%
201-207	LABOR COSTS	2.8%	3.1%	3.0%	2.9%	3.0%
301-303	FUEL OIL	20.1%	19.4%	21.0%	19.8%	21.0%
401-410	UTILITIES	6.1%	6.6%	6.1%	6.1%	10.8%
501-516	CONTRACTOR SERVICES	3.2%	3.4%	3.2%	3.3%	3.1%
601-607	ADMINISTRATIVE COSTS	2.4%	2.4%	2.5%	2.4%	2.2%
701	INSURANCE COSTS	7.1%	7.1%	7.1%	7.1%	7.1%
801-816	PARTS AND SUPPLIES	4.7%	4.7%	4.9%	4.6%	4.3%
901-908	REPLACEMENT COSTS	2.2%	1.6%	2.0%	2.0%	2.5%
<b>ALL ITEMS</b>		<b>6.8%</b>	<b>4.9%</b>	<b>4.3%</b>	<b>7.3%</b>	<b>6.0%</b>

### 4. Price Relative by Hotel Type, 2013

Spec #	Item Description	Hotel	Rooming House	SRO
101	TAXES	6.7%	1.8%	6.4%
205-206, 208-216	LABOR COSTS	3.1%	3.0%	3.0%
301-303	FUEL OIL	19.9%	21.0%	18.6%
401-407, 409-410	UTILITIES	9.1%	2.9%	7.8%
501-516, 518	CONTRACTOR SERVICES	3.5%	2.8%	3.8%
601-607	ADMINISTRATIVE COSTS	2.5%	2.3%	2.4%
701	INSURANCE COSTS	7.1%	7.1%	7.1%
801-816	PARTS AND SUPPLIES	3.6%	5.5%	4.4%
901-904, 907-911	REPLACEMENT COSTS	-0.1%	0.5%	0.7%
<b>ALL ITEMS</b>		<b>7.5%</b>	<b>6.1%</b>	<b>7.7%</b>

## 5. Percentage Change in Real Estate Tax Sample by Borough and Source of Change, Apartments and Hotels, 2013

	% Change Due to Assessments	% Change Due to Exemptions	% Change Due to Abatements	% Change Due to Tax Rates	% Change Due to Interactions	Total % Change
<b>APARTMENTS</b>						
Manhattan	5.17%	-0.17%	-0.01%	-1.92%	-0.10%	2.98%
Bronx	1.31%	-0.59%	-0.04%	-1.82%	-0.01%	-1.15%
Brooklyn	5.50%	-1.61%	0.24%	-1.94%	-0.08%	2.12%
Queens	4.93%	0.39%	0.10%	-1.94%	-0.10%	3.37%
SI	13.16%	-8.66%	0.12%	-1.94%	-0.09%	2.59%
<b>All Apartments</b>	<b>4.87%</b>	<b>-0.34%</b>	<b>0.06%</b>	<b>-1.92%</b>	<b>-0.09%</b>	<b>2.58%</b>
<b>HOTELS</b>						
Hotel	6.02%	0.19%	0.00%	0.52%	-0.01%	6.72%
Rooming House	3.42%	-0.03%	0.08%	-1.64%	-0.08%	1.75%
SRO	7.23%	-0.36%	0.02%	-0.49%	-0.04%	6.36%
<b>All Hotels</b>	<b>6.11%</b>	<b>-0.06%</b>	<b>0.02%</b>	<b>-0.21%</b>	<b>-0.03%</b>	<b>5.83%</b>

Note: Totals may not add due to rounding.

## 6. Tax Change by Borough and Community Board, Apartments, 2013

Borough	Community Board	Number of Buildings	Tax Relative	Borough	Community Board	Number of Buildings	Tax Relative	Borough	Community Board	Number of Buildings	Tax Relative
Manhattan		<b>12,073</b>	<b>2.98%</b>	Brooklyn		<b>11,976</b>	<b>2.12%</b>	Queens	17	558	1.43%
	1	75	3.48%		7	933	-0.34%		18	78	-0.90%
	2	1,073	4.76%		8	340	0.06%		1	1,788	4.62%
	3	1,506	4.65%		9	286	0.33%		2	822	3.40%
	4	940	-3.39%		10	187	-1.53%		3	432	1.76%
	5	267	4.68%		11	310	-1.54%		4	425	5.28%
	6	785	3.33%		12	427	-0.54%		5	1,139	3.26%
	7	1,687	4.54%		1	1,492	4.53%		6	318	2.44%
	8	1,928	1.94%		2	555	3.93%		7	441	3.39%
	9	720	3.03%		3	886	-4.54%		8	207	6.52%
	10	953	6.36%		4	1,223	4.15%		9	209	2.04%
	11	707	2.45%		5	400	-6.09%		10	57	1.63%
12	1,394	2.16%	6	872	3.46%	11	113		4.39%		
Lower	<b>7,837</b>	<b>2.95%</b>	7	799	2.88%	12	170		3.49%		
Upper	<b>4,236</b>	<b>3.20%</b>	8	882	2.17%	13	48	-1.55%			
Bronx		<b>5,458</b>	<b>-1.15%</b>	9	529	2.80%	14	111	1.28%		
	1	408	-0.46%	10	754	1.64%	Staten Island	<b>169</b>	<b>2.59%</b>		
	2	250	-3.80%	11	659	1.27%		1	111	3.28%	
	3	372	-23.72%	12	578	1.01%		2	30	-0.45%	
	4	729	0.18%	13	165	3.29%		3	24	0.00%	
	5	659	-1.08%	14	847	1.24%		<b>ALL</b>	<b>36,050</b>	<b>2.58%</b>	
	6	530	-1.72%	15	353	1.81%					
			16	331	28.41%						

Note: No Community Board (CB) could be assigned to the following number of buildings for each borough: Manhattan (10), Bronx (27), Brooklyn (15), Queens (94), Staten Island (4). The number of buildings in the category "All" for each borough includes these buildings which 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 Weights, Price Relatives, Percent Changes and Standard Errors, All Hotels, 2013

Spec #	Item Description	Expenditure Weights	Price Relative	% Change	Standard Error	Spec #	Item Description	Expenditure Weights	Price Relative	% Change	Standard Error
101	TAXES	<b>0.3448</b>	<b>1.0583</b>	<b>5.83%</b>	<b>0.6558</b>	601	Management Fees	0.6812	1.0253	2.53%	0.9630
205	Social Security Insurance	0.0508	1.0250	2.50%	0.0000	602	Accountant Fees	0.0769	1.0129	1.29%	0.5714
206	Unemployment Insurance	0.0133	1.0840	8.40%	0.0000	603	Attorney Fees	0.1062	1.0321	3.21%	2.6118
208	Hotel Private Health/Welfare	0.0500	1.0355	3.55%	0.0000	604	Newspaper Ads	0.0920	1.0252	2.52%	1.2168
209	Hotel Union Labor	0.3187	1.0341	3.41%	0.0000	605	Agency Fees	0.0225	1.0055	0.55%	0.3293
210	SRO Union Labor	0.0125	1.0336	3.36%	0.0000	606	Lease Forms	0.0096	1.0439	4.39%	4.8014
211	Apartment Value	0.1192	1.0336	3.36%	0.5701	607	Bill Envelopes	0.0116	0.9839	-1.61%	3.2052
212	Non-Union Superintendent	0.3095	1.0291	2.91%	1.6961		<b>ADMINISTRATIVE COSTS</b>	<b>0.0768</b>	<b>1.0243</b>	<b>2.43%</b>	<b>0.7248</b>
213	Non-Union Maid	0.0000	0.0000	NA	0.0000	701	<b>INSURANCE COSTS</b>	<b>0.0372</b>	<b>1.0711</b>	<b>7.11%</b>	<b>1.1211</b>
214	Non-Union Desk Clerk	0.0000	0.0000	NA	0.0000	801	Light Bulbs	0.0152	1.1063	10.63%	4.6985
215	Non-Union Maint. Worker	0.0000	0.0000	NA	0.0000	802	Light Switch	0.0172	1.0468	4.68%	3.8184
216	Non-Union Janitor/Porter	0.1260	1.0212	2.12%	0.8749	803	Wet Mop	0.0470	1.0187	1.87%	1.3150
	<b>LABOR COSTS</b>	<b>0.1449</b>	<b>1.0311</b>	<b>3.11%</b>	<b>0.5407</b>	804	Floor Wax	0.0599	0.9957	-0.43%	0.7147
301	Fuel Oil #2	0.6251	1.2101	21.01%	0.8727	805	Paint	0.1491	1.0919	9.19%	3.5759
302	Fuel Oil #4	0.0172	1.2030	20.30%	0.4466	806	Pushbroom	0.0390	1.0090	0.90%	0.6027
303	Fuel Oil #6	0.3578	1.1752	17.52%	0.5348	807	Detergent	0.0493	0.9943	-0.57%	5.2372
	<b>FUEL</b>	<b>0.1599</b>	<b>1.1975</b>	<b>19.75%</b>	<b>0.5781</b>	808	Bucket	0.0473	1.0705	7.05%	2.2939
401	Electricity #1, 2,500 KWH	0.0698	1.0715	7.15%	0.0000	809	Washers	0.0504	1.0037	0.37%	0.3731
402	Electricity #2, 15,000 KWH	0.0701	1.0017	0.17%	0.0000	810	Linens	0.2672	1.0393	3.93%	2.3302
403	Electricity #3, 82,000 KWH	0.1953	1.2308	23.08%	0.0000	811	Pine Disinfectant	0.0237	1.0399	3.99%	6.1388
404	Gas #1, 12,000 therms	0.0427	0.9068	-9.32%	0.0000	812	Window/Glass Cleaner	0.0217	1.0243	2.43%	2.6346
405	Gas #2, 65,000 therms	0.0322	1.0665	6.65%	0.0000	813	Switch Plate	0.0542	1.0514	5.14%	3.9558
406	Gas #3, 214,000 therms	0.1440	1.0578	5.78%	0.0000	814	Duplex Receptacle	0.0398	1.0297	2.97%	2.2586
407	Steam #1, 1.2m lbs	0.0003	1.2197	21.97%	0.0000	815	Toilet Seat	0.0513	1.0556	5.56%	4.3333
409	Telephone	0.1823	1.0191	1.91%	0.0000	816	Deck Faucet	0.0677	1.0239	2.39%	1.1787
410	Water & Sewer	0.2633	1.0700	7.00%	0.0000		<b>PARTS AND SUPPLIES</b>	<b>0.0346</b>	<b>1.0408</b>	<b>4.08%</b>	<b>0.9491</b>
	<b>UTILITIES</b>	<b>0.1146</b>	<b>1.0787</b>	<b>7.87%</b>	<b>0.0000</b>	901	Refrigerator #1	0.0212	0.9886	-1.14%	3.1363
501	Repainting	0.2128	1.0338	3.38%	0.7319	902	Refrigerator #2	0.1026	0.9998	-0.02%	1.4639
502	Plumbing, Faucet	0.0911	1.0118	1.18%	0.9409	903	Air Conditioner #1	0.0606	1.0406	4.06%	3.5072
503	Plumbing, Stoppage	0.0838	1.0126	1.26%	1.0116	904	Air Conditioner #2	0.0716	1.0166	1.66%	1.1501
504	Elevator #1, 6 fl., 1 e.	0.0375	1.0138	1.38%	0.7205	907	Range #1	0.0096	1.0340	3.40%	3.5845
505	Elevator #2, 13 fl., 2 e.	0.0330	1.0115	1.15%	0.6300	908	Range #2	0.0432	1.0688	6.88%	6.8415
506	Elevator #3, 19 fl., 3 e.	0.0302	1.0137	1.37%	0.7158	909	Carpet	0.3466	1.0104	1.04%	2.3675
507	Burner Repair	0.0273	1.0652	6.52%	2.6966	910	Dresser	0.1774	1.0003	0.03%	0.0318
508	Boiler Repair, Tube	0.0337	1.0382	3.82%	2.1211	911	Mattress & Box Spring	0.1672	0.9470	-5.30%	4.4923
509	Boiler Repair, Weld	0.0318	1.0436	4.36%	5.1324		<b>REPLACEMENT COSTS</b>	<b>0.0146</b>	<b>1.0015</b>	<b>0.15%</b>	<b>1.1854</b>
511	Range Repair	0.1315	1.1031	10.31%	4.1398		<b>ALL ITEMS</b>	<b>1.0000</b>	<b>1.0737</b>	<b>7.37%</b>	<b>0.2723</b>
512	Roof Repair	0.0332	1.0758	7.58%	2.4837						
513	Air Conditioner Repair	0.0396	1.0796	7.96%	5.1799						
514	Floor Maint. #1, Studio	0.0008	1.0192	1.92%	1.9494						
515	Floor Maint. #2, 1 Br.	0.0017	1.0121	1.21%	1.2742						
516	Floor Maint. #3, 2 Br.	0.0150	1.0145	1.45%	1.4956						
518	Linen/Laundry Service	0.1970	1.0000	0.00%	0.0000						
	<b>CONTRACTOR SERVICES</b>	<b>0.0725</b>	<b>1.0346</b>	<b>3.46%</b>	<b>0.6349</b>						

## 8. Expenditure Weights and Price Relatives, Lofts, 2013

Spec #	Item Description	Weights	Price Relative	Spec #	Item Description	Weights	Price Relative
101	TAXES	<b>0.2943</b>	<b>2.58%</b>		ADMINISTRATIVE COSTS, LEGAL	<b>0.0646</b>	<b>3.21%</b>
201	Payroll, Bronx, All	0.0000	1.38%	601	Management Fees	0.8350	2.53%
202	Payroll, Other, Union, Supts.	0.2442	2.63%	602	Accountant Fees	0.1352	1.29%
203	Payroll, Other, Union, Other	0.0000	2.72%	604	Newspaper Ads	0.0045	2.52%
204	Payroll, Other, Non-Union, All	0.5362	2.66%	605	Agency Fees	0.0059	0.55%
205	Social Security Insurance	0.0410	2.50%	606	Lease Forms	0.0088	4.39%
206	Unemployment Insurance	0.0068	8.40%	607	Bill Envelopes	0.0105	-1.61%
207	Private Health & Welfare	0.1718	4.53%		ADMINISTRATIVE COSTS - OTHER	<b>0.0933</b>	<b>2.33%</b>
	LABOR COSTS	<b>0.0874</b>	<b>3.01%</b>	701	INSURANCE COSTS	<b>0.1716</b>	<b>7.11%</b>
301	Fuel Oil #2	0.2802	21.01%	801	Light Bulbs	0.0338	10.63%
302	Fuel Oil #4	0.5927	20.30%	802	Light Switch	0.0419	4.68%
303	Fuel Oil #6	0.1271	17.52%	803	Wet Mop	0.0366	1.87%
	FUEL	<b>0.1126</b>	<b>20.15%</b>	804	Floor Wax	0.0443	-0.43%
401	Electricity #1, 2,500 KWH	0.0085	7.15%	805	Paint	0.2498	9.19%
402	Electricity #2, 15,000 KWH	0.1011	0.17%	806	Pushbroom	0.0316	0.90%
403	Electricity #3, 82,000 KWH	0.0000	23.08%	807	Detergent	0.0339	-0.57%
404	Gas #1, 12,000 therms	0.0033	-9.32%	808	Bucket	0.0357	7.05%
405	Gas #2, 65,000 therms	0.0357	6.65%	809	Washers	0.0928	0.37%
406	Gas #3, 214,000 therms	0.0985	5.78%	811	Pine Disinfectant	0.0558	3.99%
407	Steam #1, 1.2m lbs	0.0168	21.97%	812	Window/Glass Cleaner	0.0518	2.43%
408	Steam #2, 2.6m lbs	0.0055	17.77%	813	Switch Plate	0.0421	5.14%
409	Telephone	0.0085	1.91%	814	Duplex Receptacle	0.0305	2.97%
410	Water & Sewer - Frontage	0.7221	7.00%	815	Toilet Seat	0.0947	5.56%
	UTILITIES	<b>0.0816</b>	<b>6.39%</b>	816	Deck Faucet	0.1248	2.39%
501	Repainting	0.3823	3.38%		PARTS AND SUPPLIES	<b>0.0156</b>	<b>4.68%</b>
502	Plumbing, Faucet	0.1441	1.18%	901	Refrigerator #1	0.0955	-1.14%
503	Plumbing, Stoppage	0.1253	1.26%	902	Refrigerator #2	0.4655	-0.02%
504	Elevator #1, 6 fl., 1 e.	0.0548	1.38%	903	Air Conditioner #1	0.0164	4.06%
505	Elevator #2, 13 fl., 2 e.	0.0351	1.15%	904	Air Conditioner #2	0.0204	1.66%
506	Elevator #3, 19 fl., 3 e.	0.0196	1.37%	905	Floor Runner	0.0877	4.32%
507	Burner Repair	0.0374	6.52%	906	Dishwasher	0.0496	0.00%
508	Boiler Repair, Tube	0.0512	3.82%	907	Range #1	0.0488	3.40%
509	Boiler Repair, Weld	0.0410	4.36%	908	Range #2	0.2160	6.88%
510	Refrigerator Repair	0.0120	12.18%		REPLACEMENT COSTS	<b>0.0122</b>	<b>2.01%</b>
511	Range Repair	0.0112	10.31%		ALL ITEMS	<b>1.0000</b>	<b>5.77%</b>
512	Roof Repair	0.0737	7.58%				
513	Air Conditioner Repair	0.0077	7.96%				
514	Floor Maint. #1, Studio	0.0002	1.92%				
515	Floor Maint. #2, 1 Br.	0.0005	1.21%				
516	Floor Maint. #3, 2 Br.	0.0039	1.45%				
	CONTRACTOR SERVICES	<b>0.0666</b>	<b>3.27%</b>				