
2008 Price Index of Operating Costs

April 29, 2008

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2008 Price Index Of Operating Costs

What's New

- ✓ The Price Index of Operating Costs for Rent Stabilized Apartment Buildings (PIOC) increased 7.8% this year.
- ✓ Costs in pre-war buildings increased 9.1% and costs in post-war buildings rose 6.2%.
- ✓ 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 3.4% this year.
- ✓ Fuel oil costs increased 37.4%.
- ✓ Real estate taxes rose 0.3% due to a rise in assessments for Class Two properties.
- ✓ Labor Costs rose 4.0%.
- ✓ The Utilities component increased by 8.9% due primarily to an increase in water and sewer costs.
- ✓ Insurance Costs grew by 2.3%.
- ✓ The Price Index of Operating Costs for Rent Stabilized Apartment Buildings is projected to increase 7.3% next year.

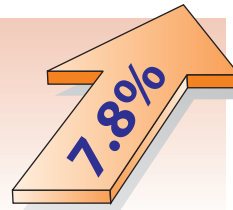
Introduction

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. Minor 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.

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

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



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 *2008 Price Index* are based upon the 1983 Expenditure Study and are revised on the basis of annually measured price changes from 1982-2007.

The importance of each index component is shown by its “expenditure weight” (see Appendix 2). The measured 2007-08 price changes in each index component are also presented in this appendix. The expenditure weights and the 2007-08 price changes are then combined to provide the overall change in the PIOC over the period from 2007-08.

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, April 2007 to April 2008

| | |
|----------------------|-------------|
| Taxes | 0.3% |
| Labor Costs | 4.0% |
| Fuel | 37.4% |
| Utilities | 8.9% |
| Contractor Services | 4.6% |
| Administrative Costs | 5.3% |
| Insurance Costs | 2.3% |
| Parts and Supplies | 2.3% |
| Replacement Costs | 4.0% |
| All Costs | 7.8% |

The 1983 Expenditure Study provides a basis for calculating separate sets of expenditure weights for buildings constructed before 1947 and for buildings constructed in 1947 or later (post-1946). Typically, buildings constructed before 1947 incur a lower percentage of operating and maintenance costs for property taxes, but their fuel costs represent a significantly higher percentage of total operating and maintenance costs than do the fuel costs of the post-1946 buildings. The differences between the pre-1947 and post-1946 expenditure patterns for buildings are combined in the construction of the overall PIOC. It is nevertheless possible to develop separate price indices for the pre-1947 and post-1946 buildings. In addition, there are separate price indices for 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)

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

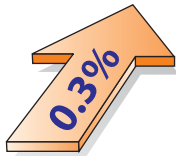
Summary

This year, the PIOC for rent stabilized apartment buildings increased by 7.8%, 2.7 percentage points above the PIOC percentage change from the year before (5.1% in 2007). The PIOC was driven upward by increases in fuel (37.4%) and utility (8.9%) costs. These increases were offset by a slight rise in real estate taxes of 0.3%. More moderate increases were seen in administrative costs (5.3%), labor and replacement costs (both 4.0%), and contractor services (4.6%). Insurance costs and parts and supplies witnessed lower increases, both rising by 2.3%. See the adjacent table and Appendix 2 for changes in costs and prices for all rent stabilized apartment buildings from 2007-08.

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 3.4% this year, which was more than the growth in the Consumer Price Index (CPI) of 2.9%.¹

Price Index Components

Taxes



The Tax component of the PIOC is based entirely on real estate taxes. The change in tax cost is estimated by comparing aggregate taxes levied on rent stabilized apartment houses in Fiscal Year (FY) 2007 and FY 2008. The tax data was obtained from the New York City Department of Finance.

Real estate taxes rose this year by 0.3%, a significantly smaller rise than the 5.8% increase seen last year and the lowest increase in taxes since 1983 when tax costs actually decreased 0.7%. The change in taxes was due to a rise in assessments that was offset by a decrease in the tax rate and an increase in the average value of exemptions. Abatements had little impact on taxes this year.

Tax Levy — The total tax levy for all properties in the City (commercial and residential) increased by 0.5%

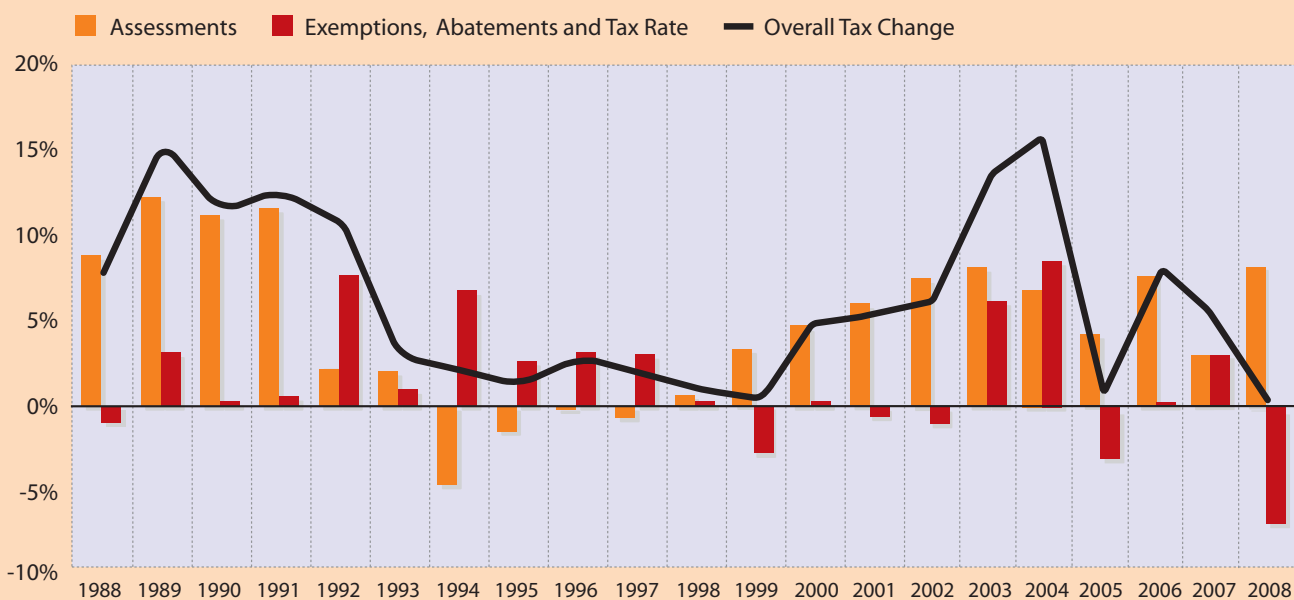
from FY 2007 to FY 2008. The Class Two property levy rose slightly more than that of the City as a whole, at a rate of 1.0%. The distribution of the levy among property classes tends to shift from year to year. From FY 2007 to FY 2008, the levy share for Class Two properties increased, by 0.2 percentage points, from 36.5% to 36.7% of the total tax burden.

Tax Rate — The FY 2007 Class Two tax rate of 12.737 decreased by 6.4%, resulting in a new annualized rate of 11.928 for FY 2008. This decrease follows increases in the tax rate of 2.8% and 1.5% in FY 2007 and FY 2006. The last decrease in the Class 2 tax rate was seen in FY 2005 when the rate declined 3.2%. Significant increases in the tax rate for Class Two properties were seen in FY 2004 and FY 2003 of 9.3% and 7.3% respectively.

Assessments — Assessed valuations of rent stabilized properties rose by 7.8% citywide in FY 2008. This rise in assessments was more than last year's increase (2.9%) and is similar to the increase in assessments seen in FY 2006 of 7.5%. All five boroughs showed increases in assessments. The highest

Percent Change in Taxes due to Assessments and Exemptions/Abatements/Tax Rate 1988-2008

The Rise in Assessments were Offset by a Decrease in the Tax Rate in 2008



Source: New York City Department of Finance

percentage increase in assessments was in the Bronx (12.0%) followed by Brooklyn (10.0%), Manhattan (7.4%), Staten Island (6.3%) and Queens (5.3%).

The change in assessed valuations of rent stabilized buildings in New York City has fluctuated following the cycles in the real estate market. Assessments rose dramatically from the late 1980s through 1991, increasing 8% or more each year (see graph on the previous page). In FY 1992 and FY 1993, the increase in valuations for stabilized buildings slowed to 2% per year. The impact of the recession was finally reflected in tax bills the following two years — valuations dropped 4.7% in FY 1994 and 1.3% in FY 1995. Smaller decreases occurred in the next two years. From FY 1998 to 2003, assessments increased each year at a higher rate than the previous year. Increases in assessed valuations were not as high as the year before in both FY 2004 and FY 2005.

Abatements and Exemptions — This year, the number of rent stabilized buildings with abatements decreased by 3.0%. However, the average benefit value of the typical tax abatement increased, by 2.1%, from FY 2007 to FY 2008. The net impact of the decrease in the number of abatements and in the rise in the average abatement value was a negligible increase in the tax liability for rent stabilized buildings of 0.03%.

In FY 2008, both the number of buildings receiving exemptions and the value of average tax exemptions increased. Overall, 0.3% more rent stabilized buildings benefited from tax exemptions than the year before while the average value of exemptions increased by 4.4%. For all stabilized properties, the rise in the number of exemptions combined with the increase in the value of tax exemptions reduced owners' tax bills by 0.5%. (See Appendices 5 and 6)

Labor Costs

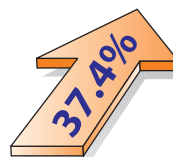
The Price Index measure of labor costs includes union and non-union salaries and benefits, in addition to Social Security and unemployment insurance. The cost of unionized labor makes up nearly two-thirds of the Labor Costs component. The entire Labor Costs component comprises 14% of the overall Price Index.



Labor Costs rose 4.0%, a lower increase than in last year's PIOC (8.1%). The rise in Labor Costs was due to increases in union and non-union wages as well as rises in healthcare and pension contributions. These increases were somewhat offset by an 11.2% decrease in unemployment insurance costs.

Wages comprise three-quarters of the Labor Costs component. For the past fifteen years the growth in non-union labor pay has outpaced union labor wages. Non-union pay increased by 5.6%, which was over two percentage points higher than increases seen in the 2007 price index (3.2%). Unionized wages as a group increased by 2.8%, 1.3 percentage points higher than last year's increase of 1.5%.

Fuel



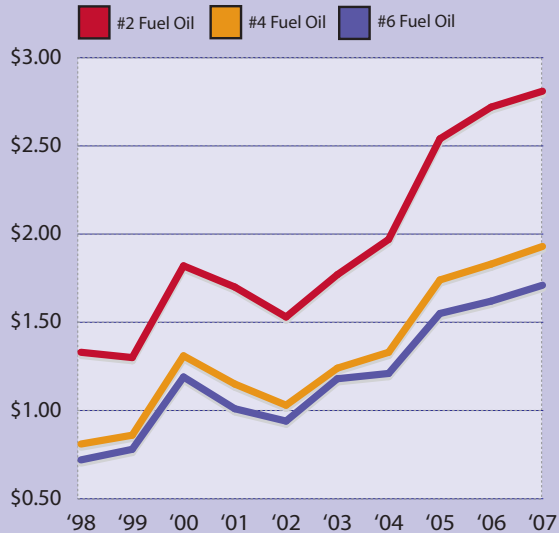
The Fuel component comprises roughly 12% of this year's Price Index. The change in cost measured in this component considers both the change in weather and the change in prices for the three types of heating oil used to heat multi-family buildings in New York City. First, the PIOC measures fuel prices from May to April and then compares them to the same months from the previous year. Over the past 12 months, fuel oil prices increased by 38.4%. The price for #2 oil, which comprises more than half of this component, rose 31.2%. Prices for #4 and #6 fuel oil rose more than #2 oil, rising 47.0% and 51.3%, respectively.

Second, along with measuring price, the PIOC also takes into account the effect of weather on the demand for fuel oil, especially during the heating season when the large majority of the fuel is burned. Since this year was slightly warmer than last year, weather decreased the demand for fuel. The combination of the rise in heating oil prices, and a relatively small decline in demand, increased the cost for heating buildings with oil by 37.4%, nearly the same increase as price alone.²

Over the past seven years, changes in the Fuel component have been the most variable of any component in the Price Index. In three of the last four years, the cost of fuel oil rose more than 20% with only a slight increase of 0.5% in 2007. In 2002 and 2004 fuel costs actually declined by 36.1% and 2.8% respectively, yet in 2003 costs rose 66.9%.

Average Inflation Adjusted Fuel Oil Prices per Gallon, 1998-2007

Average Fuel Oil Prices Have Risen Over the Past Ten Years



Note: Prices are in constant 2007 dollars
Source: Price Indices of Operating Costs, 1999-2008

In addition, the average prices per gallon for all fuel grades, which are pure prices that do not factor in weather, have risen substantially over the past ten years. This is an annual rate of increase in the price of fuel of more than 6% above the general rate of inflation. The average price for #2 fuel oil, which is the most commonly used grade, was \$2.81 per gallon in 2007. Adjusted for inflation, the average price in 1998 was \$1.33. (See graph on this page)

Utilities



The Utilities component consists primarily of electricity, natural gas, and water and sewer charges. In fact, water and sewer costs account for nearly half 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 (i.e. the quantity of electricity, steam, etc. being purchased) and the changes in rate schedules. Water and sewer costs are based on the rate established by the New York City Water Board.

This year Utilities increased 8.9%, which is higher than last year's increase of 6.3%. The highest increases were seen in electricity (12%), steam (13.5%) and water and sewer costs (11.5%).³ Gas costs, which account for roughly a third of the Utilities component, increased 4%, offsetting the larger increases in electricity and water and sewer costs.

Contractor Services

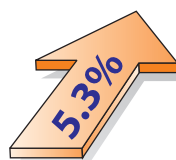


The Contractor Services component rose 4.6%, one percentage point lower than last year's growth of 5.6%. This is the sixth consecutive year that the growth in this component has increased more than four percent. In contrast, Contractor Services costs rose above four percent only once from 1992 through 2002.

The most important items in this component by weight are repainting and plumbing rates, which comprise two-thirds of the Contractor Services component. Painters' rates rose by 4.5%, down from last year's increase of 5.1%. Rates charged by plumbers increased by 4.8%, a lower increase than last year's growth of 5.5%. 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. In addition, the rise in gas prices were also cited as contributing to increases in rates.

The other items in the Contractor Services component all experienced some rise in prices or rates for services. Due to a continued rise in the cost of oil-based materials, the rates charged by roofers increased more than seven percent for the third consecutive year, rising 7.6%, the highest increase of any item in this component. All other items in this component had price relatives ranging from 2.1%-6.0%. (See Appendix 2)

Administrative Costs



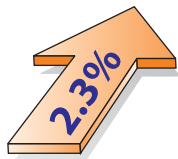
Administrative Costs rose 5.3%, a smaller rise in costs than the past two years when this component grew more than six percent. From 2001-2005, this component's cost rose each year between 4.0% and 5.4%. Increases in

Administrative Costs did not exceed four percent from 1991 through 2000. 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 (5.5%) that comprise over two-thirds 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 lower than last year's (8.2%), indicating that management companies raised their fees and/or rents increased at a lower rate than last year and there were more vacancies in the buildings they manage.

Accounting fees increased in this year's PIOC by 7.1%, 2.2 percentage point higher than last year's rise of 4.9%. Accountants reported that the rise in their costs, such as office rent, led to higher rates. Attorney fees rose 2.1%, slightly lower than the prior year's increase of 2.2%.

Insurance Costs

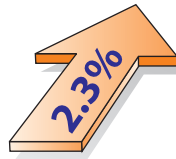


Insurance Costs increased this year by 2.3%, 0.4 percentage points higher than last year's increase in costs of 1.9%. The increases seen in this component in the last three years are more moderate compared to the period between 2002-2005, when escalating insurance costs rose a cumulative 104%. Changes in this component in the fourteen-year period prior to 2002 fluctuated from a decrease of 1.5% to an increase of 5.2%.

Nearly 30% of all insurance quotes gathered this year saw a change in coverage. Those owners who changed the amount of coverage on their buildings, such as increasing the insured value, saw a 7.6% rise in costs.

Roughly 9% of building owners responding in this year's survey reported a change in insurance carriers for the surveyed building in the past year. This percentage is up from 7% in 2007. Owners who changed carriers experienced a decrease in costs of 8.6%. In contrast, owners who remained with the same carrier had an increase in insurance costs of 3.4%, higher than the overall increase for insurance of 2.3%.

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 2.3%, 0.7 percentage points lower than last year's increase of 3.0%. Paint saw the highest increase in price for this component, rising 4.3%.

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 4.0%, the third highest increase in this component since 1982 and the third year out of four in which prices rose more than three percent.

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 front desk, maid or linen service; 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 occupy a single room residing separately and independently of other occupants.

The Price Index for all stabilized Hotels increased 7.4% this year, 2.1 percentage points higher than the 5.3% increase found the year before. The Price Index for Hotels was just 0.4 percentage points lower overall 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 Utilities, Labor Costs, and Contractor Services components. The increase in Utilities for all types of Hotels was 6.6% versus 8.9% in apartment buildings. This difference was

due to water and sewer, which witnessed double-digit increases, having more weight in the Apartment Index. Labor Costs rose 5.3%, about 1.3 percentage points higher than in the Apartment Index (4.0%). Contractor Services saw a higher increase in the Apartment Index (4.6%) than for Hotels (3.4%) due to more weight being placed on repainting, plumbing and roof repair for apartments, items that witnessed the highest increases. These disparities resulted in a Hotel Index that was lower than that for apartments.

Prices in all other components in the Hotel Index had similar changes in rates to the same components in the Apartment Index. Taxes decreased in Hotels by 0.7%, while increasing 0.3% for apartments. Insurance costs increased at the same rate in both indices and Fuel costs were roughly a percentage point higher for apartments. See the table on this page for changes in costs and prices for all rent stabilized hotels from 2007-08.

Among the different categories of Hotels, the index for “traditional” hotels increased 5.9%, which was lower than increases for both Rooming Houses (8.9%) and SROs (9.6%). The differences between these indices are primarily due to the increased weight placed on the Tax component for “traditional” hotels and the disparity among the three hotel types in the Fuel Costs component, with Rooming Houses showing the lowest increase in the cost for fuel. (Appendices 4 and 7)

Rent Stabilized Lofts

The increase in the Loft Index this year was 6.3%, 1.5 percentage points lower than the increase for apartments. This difference is explained by the fact that Attorney fees and Insurance Costs, which rose 2.1% and 2.3% respectively, carry much more weight for lofts than for apartments. More weight put on these components placed more downward pressure on the Loft Index. See the table on this page and Appendix 8 for changes in costs and prices for all rent stabilized lofts from 2007-08.

The Core PIOC

The Core PIOC (see graph on the following page), which measures long-term local trends by factoring out shifts in fuel costs, gas, and electricity rates, rose 3.4% in 2008. The rise in the 2008 Core was 4.4 percentage points lower than the Apartment Index (7.8%). The large rise in the cost for fuel oil, which is not included in the Core PIOC calculation, resulted in the largest disparity between these two indices since 2003.

The Core rose at a slower rate than projected due primarily to a reduction in the tax rate for Class 2 properties that was not reflected in last year’s Core projection. Taxes were projected to rise 13.6% but instead rose 0.3%. Furthermore, both Utilities and Insurance Costs rose less than projected. Utilities rose 11.2% versus the 14.3% projection, while Insurance Costs rose 2.3% versus the predicted rise of 7.1%. Replacement Costs, that has very little weight in the Core Index, rose 4.0% versus the projected increase of 1.3%. All

Hotels

*Change In Costs for
Rent Stabilized Hotel
Buildings, April 2007
to April 2008*

| | |
|----------------------|-------------|
| Taxes | -0.7% |
| Labor Costs | 5.3% |
| Fuel | 36.1% |
| Utilities | 6.6% |
| Contractor Services | 3.4% |
| Administrative Costs | 5.0% |
| Insurance Costs | 2.3% |
| Parts and Supplies | 1.4% |
| Replacement Costs | 1.8% |
| All Costs | 7.4% |

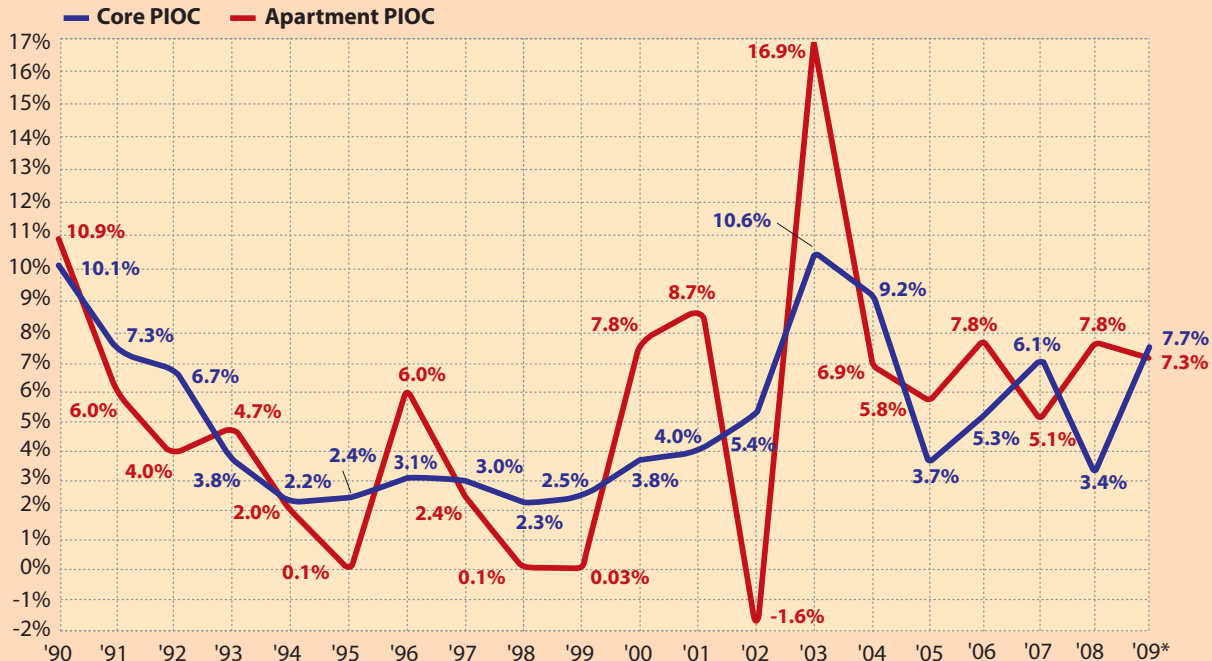
Lofts

*Change In Costs for
Rent Stabilized Loft
Buildings, April 2007
to April 2008*

| | |
|---------------------|-------------|
| Taxes | 0.3% |
| Labor Costs | 4.5% |
| Fuel | 41.1% |
| Utilities | 9.4% |
| Contractor Services | 4.6% |
| Admin Costs, Legal | 2.1% |
| Admin Costs, Other | 5.6% |
| Insurance Costs | 2.3% |
| Parts and Supplies | 2.3% |
| Replacement Costs | 4.0% |
| All Costs | 6.3% |

Percent Change in the Price Index of Operating Costs and the Core PIOC, 1990-2009

The Rise in the “Core” PIOC was Less than the Apartment Index in 2008



*Note: The percent change for 2009 is estimated.

Source: Price Indices of Operating Costs, 1990-2008, PIOC projection for 2009

of the remaining changes in the core components in the 2008 projected core and the 2008 actual Core show agreement within 0.7 percentage points.

PIOC Projections for 2009

Section 26-510 of the Rent Stabilization Law requires the Board to consider the prevailing and projected operating and maintenance costs. Projections for the 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 April 2008, 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 affect about one-fifth of the market basket of operating costs measured in the index — have become increasingly volatile. Unpredictable geo-political events and changing weather patterns are some of the forces behind large changes in fuel-related costs (heating fuel, electricity, gas and steam) that have in turn hindered the accuracy of the PIOC projections in recent studies. The tax component, which accounts for one-quarter of the

entire Price Index, has also become harder to project due to changes in tax policy, such as tax rate reductions, after the release of the Price Index.

This year, operating costs in rent stabilized apartment buildings increased by 7.8% versus last year's projected PIOC increase of 8.5%. The components that showed the most variance between actual changes in costs versus projected changes were Taxes and Fuel. Taxes were projected to rise 13.7%, but actually increased 0.3% due to a seven percent reduction in the tax rate and final assessments that were lower than projected. In contrast, Fuel, a historically volatile component, increased by 37.4% in 2008 versus the expected increase of 8.0%, a difference of nearly 30 percentage points. The larger than expected rise in fuel costs coupled with a lower than projected rise in taxes offset each other resulting in a overall apartment index that was only 0.7 percentage points lower than projected.

Insurance Costs rose 2.3%, compared to the projected increase of 7.1%. Replacement Costs were projected to rise 1.3% but actually rose 4.0%. The remaining five 2008 projected components of the PIOC were within 1.1 percentage points of the actual measured changes.

Overall, the PIOC is expected to grow by 7.3% from 2008 to 2009, with projected increases in every PIOC component. Three of the more volatile components, Fuel, Insurance Costs, and Utilities, are projected to rise 4.7%, 6.8%, and 11.0% respectively. Taxes are projected

to increase 10.3% due to an increase in billable assessments and the tax rate for Class Two properties.⁴ Contractor Services are expected to rise 5.4%, Administrative Costs 6.2%, and Labor Costs are projected to increase by 3.6%. The table on this page shows predicted changes in PIOC components for 2009. The core PIOC is projected to rise 7.7%, a higher rate than the overall PIOC.

Commensurate Rent Adjustment

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 7.8% increase in the PIOC is 6.25% for a one-year lease and 11.5% for a two-year lease. Guidelines using this formula and adding assumptions for the impact of vacancy increases on revenues when apartments

2009 Projections

Projected Change In Costs for Rent Stabilized Apartment Buildings, April 2008 to April 2009

| | |
|----------------------------|-------------|
| Taxes | 10.3% |
| Labor Costs | 3.6% |
| Fuel | 4.7% |
| Utilities | 11.0% |
| Contractor Services | 5.4% |
| Administrative Costs | 6.2% |
| Insurance Costs | 6.8% |
| Parts and Supplies | 1.7% |
| Replacement Costs | 1.5% |
| All Projected Costs | 7.3% |

Commensurates

"Net Revenue" Commensurate Adjustment

| <u>1-Year Lease</u> | <u>2-Year Lease</u> |
|---------------------|---------------------|
| 6.25% | 11.5 % |

"Net Revenue" Commensurate Adjustment with Vacancy Increase

| <u>1-Year Lease</u> | <u>2-Year Lease</u> |
|---------------------|---------------------|
| 4.75% | 9.5% |

"CPI-Adjusted NOI" Commensurate Adjustment

| <u>1-Year Lease</u> | <u>2-Year Lease</u> |
|---------------------|---------------------|
| 7.5% | 13.25% |

"CPI-Adjusted NOI" Commensurate Adjustment with Vacancy Increase

| <u>1-Year Lease</u> | <u>2-Year Lease</u> |
|---------------------|---------------------|
| 6.0% | 11.25% |

"Traditional" Commensurate Adjustment

| <u>1-Year Lease</u> | <u>2-Year Lease</u> |
|---------------------|---------------------|
| 5.4% | 8.1 % |

experience turnover are 4.75% for one-year leases and 9.5% 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) and NOI constant. This is commonly called the "CPI-Adjusted NOI" formula. A guideline that would preserve NOI in the face of the 2.9% increase in the Consumer Price Index (see Endnote 1) and the 7.8% increase in the PIOC is 7.5% for a one-year lease and 13.25% for a two-year lease. Guidelines using this formula and adding the estimated impact of vacancy increases are 6.0% for one-year leases and 11.25% for two-year leases.⁵

The original formula that has been in use since the inception of the Rent Guidelines Board is called the "traditional" commensurate adjustment. The "traditional" commensurate yields 5.4% for a one-year lease and 8.1% for a two-year lease, given the increase in operating costs of 7.8% found in the 2008 PIOC and the projection of a 7.3% increase next year.⁶

As a means of compensating for cost changes, this "traditional" commensurate rent adjustment has two major flaws. First, although the 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.⁷

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 both that vacancy increases are charged and collected, and 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 (7.8%). 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 (7.3%). 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 *Mortgage Survey* 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. 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 nearly 42,000 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 proportional to the share of stabilized buildings in that borough. The “multiple contact” method was used for the ninth consecutive year for the Owner Survey. Three successive mailings were sent at timed intervals to the owner or managing agent of each property selected in the survey sample.

Roughly 15% of the questionnaires mailed out were returned to the RGB. A total of 697 returned surveys contained usable information, from which quotes of owners’ annual insurance costs (567), non-union labor quotes (120) and management fees (64) were validated. The number of verified prices in 2007 and 2008 for the Owner Survey is shown in Appendix 1.

Fuel Oil Vendor Survey

Fuel price information is gathered on a monthly basis via a telephone survey. A monthly survey makes it possible to keep in touch with fuel 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 quotes gathered this year are 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 2008 tax price relative was drawn by providing a list of rent stabilized properties registered with DHCR to the Department of Finance. Finance “matched” this list against its records to provide data on assessed value, tax exemptions, and tax abatements for nearly 35,000 buildings in FY 2007 and FY 2008.

The Department of Finance data was used to compute a tax bill for each stabilized building in FY 2007 and FY 2008. The change computed for the PIOC is simply the percentage increase in aggregate tax bills for these buildings from FY 2007 to FY 2008.

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. All vendor quotes were obtained over the telephone. The telephone interview procedures used for gathering price quotes were unchanged from prior years. A total of 615 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, Heating Degree Days, and telephone and utility rate schedules. These items are used in computing some of the labor components, changes in utility costs for electricity, gas, steam, and telephone, and the cost-weighted change in fuel prices. Finally, to measure the change in water and sewer costs for rent stabilized buildings, staff used the Water Board FY 2008 increase of 11.5%.⁸

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.

Taxes were projected by using data from the Department of Finance's tentative assessment roll for FY 2009 and the amended and restated City Council tax-fixing resolution to estimate (for Class Two properties) the change in class levy share and assessments, the tax rate and the impact of exemptions and abatements in the coming fiscal year. These estimates produce a projected tax cost for the owners of rental properties. Labor costs are projected by analyzing labor contract terms supplied by apartment workers union Local 32-BJ and a ten-year geometric average of all other Labor items. Fuel 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.⁹

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

Acknowledgments

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Endnotes

1. The average CPI-U for All Urban Consumers, New York-Northeastern New Jersey for the year from March 2006 to February 2007 (221.8) compared to the average for the year from March 2007 to February 2008 (228.3) rose by 2.93%. 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 April, monthly cost-weighted figures from May to April, or the two most recent fiscal year bills.
2. The May 2007 to April 2008 year was 6.2% warmer than the most recent 5-year average "normal" year and 1.4% warmer than the year before. "Normal" weather refers to the typical number of Heating Degree Days measured at Central Park, New York City, over a given period. 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. The most recent five-year average "normal" temperature refers to the total number of average annual Heating Degree Days from "PIOC" years, May 2003 to April 2008, measured in Central Park by the National Weather Service.
3. Note that the electricity items are calculated on a point-to-point basis. In this case, the electricity increase represents a comparison of the price for electricity in April 2007 to the price in April 2008. If we were to calculate electricity on a monthly basis, with cost weights for heating use, the change for the twelve-month period from May 2007 to April 2008 would be a 9.9% increase.

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4. Please note that the PIOC real estate tax projection assumes the extension of the 7% across-the-board reduction in the tax rate enacted in the FY 2008 budget. The *January 2008 Financial Plan*, released by the Office of Management and Budget states the following: “However, adopting it will depend on a variety of factors unknown today – from the health of the City’s economy to the continued help the City receives from its partners in government to the outlook for future years.” January 24, 2008, page 1.
 5. The following assumptions were used in the computation of the commensurates: (1) the required change in landlord revenue is 68.9% of the 2008 PIOC increase of 7.8%, or 5.4%. The 68.9% 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 31.1% times the latest 12-month increase in the CPI ending February 2008 (2.93%) or 0.9%; (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 2005 Housing and Vacancy Survey; and (5) for the commensurate formulae, including a vacancy assumption, the 10.69% median increase in vacancy leases found in the rent stabilized apartments that reported a vacancy lease in the 2006 apartment registration file from the Division of Housing and Community Renewal was used.
 6. The collectability of legally authorized adjustments is assumed. Calculating the “traditional” commensurate rent adjustment requires an assumption about next year’s PIOC. In this case, the 7.3% PIOC projection for 2009 is used.
 7. Whether profits will actually decline depends on the level of inflation, the composition of NOI (i.e. how much is debt service and how much is profit), and changes in tax law and interest rates.
 8. “Public Information Regarding Water and Wastewater Rates,” New York City Water Board, April 2007.
 9. Source: “Short-Term Energy Outlook,” April 2008. U.S. Energy Information Administration, Department of Energy.

Appendices

1. PIOC Sample, Number of Price Quotes per Item, 2007 vs. 2008

| Spec | Description | 2007 | 2008 | Spec | Description | 2007 | 2008 |
|------|--------------------------|------------|------------|------|-----------------------|--------------|--------------|
| 211 | Apartment Value | 145 | 116 | 701 | INSURANCE COSTS | 622 | 567 |
| 212 | Non-Union Super | 121 | 82 | | | | |
| 216 | Non-Union Janitor/Porter | 51 | 38 | 801 | Light bulbs | 7 | 6 |
| | LABOR COSTS | 317 | 236 | 802 | Light Switch | 7 | 6 |
| 301 | Fuel Oil #2 | 27 | 25 | 803 | Wet Mop | 12 | 9 |
| 302 | Fuel Oil #4 | 6 | 6 | 804 | Floor Wax | 11 | 10 |
| 303 | Fuel Oil #6 | 6 | 6 | 805 | Paint | 12 | 10 |
| | FUEL | 39 | 37 | 806 | Pushbroom | 11 | 6 |
| 501 | Repainting | 125 | 121 | 807 | Detergent | 6 | 5 |
| 502 | Plumbing, Faucet | 33 | 32 | 808 | Bucket | 10 | 10 |
| 503 | Plumbing, Stoppage | 32 | 31 | 809 | Washers | 12 | 10 |
| 504 | Elevator #1 | 14 | 13 | 810 | Linens | 10 | 10 |
| 505 | Elevator #2 | 14 | 13 | 811 | Pine Disinfectant | 10 | 7 |
| 506 | Elevator #3 | 14 | 12 | 812 | Window/Glass Cleaner | 10 | 8 |
| 507 | Burner Repair | 11 | 11 | 813 | Switch Plate | 7 | 5 |
| 508 | Boiler Repair, Tube | 11 | 10 | 814 | Duplex Receptacle | 7 | 6 |
| 509 | Boiler Repair, Weld | 6 | 5 | 815 | Toilet Seat | 15 | 11 |
| 510 | Refrigerator Repair | 9 | 6 | 816 | Deck Faucet | 11 | 10 |
| 511 | Range Repair | 10 | 11 | | PARTS & SUPPLIES | 158 | 129 |
| 512 | Roof Repair | 25 | 22 | 901 | Refrigerator #1 | 6 | 6 |
| 513 | Air Conditioner Repair | 6 | 6 | 902 | Refrigerator #2 | 11 | 10 |
| 514 | Floor Maint. #1 | 5 | 6 | 903 | Air Conditioner #1 | 5 | 5 |
| 515 | Floor Maint. #2 | 5 | 6 | 904 | Air Conditioner #2 | 5 | 5 |
| 516 | Floor Maint. #3 | 5 | 6 | 905 | Floor Runner | 7 | 6 |
| 518 | Linen/Laundry Service | 5 | 5 | 906 | Dishwasher | 7 | 7 |
| | CONTRACTOR SERVICES | 330 | 316 | 907 | Range #1 | 7 | 7 |
| 601 | Management Fees | 99 | 64 | 908 | Range #2 | 7 | 7 |
| 602 | Accountant Fees | 27 | 29 | 909 | Carpet | 10 | 10 |
| 603 | Attorney Fees | 21 | 23 | 910 | Dresser | 5 | 5 |
| 604 | Newspaper Ads | 21 | 18 | 911 | Mattress & Box Spring | 5 | 5 |
| 605 | Agency Fees | 5 | 4 | | REPLACEMENT COSTS | 75 | 73 |
| 606 | Lease Forms | 6 | 6 | | | | |
| 607 | Bill Envelopes | 9 | 10 | | | | |
| 608 | Ledger Paper | 7 | 7 | | | | |
| | ADMINISTRATIVE COSTS | 195 | 161 | | ALL ITEMS | 1,736 | 1,519 |

2. Expenditure Weights, Price Relatives, Percent Changes and Standard Errors, All Apartments, 2008

| Spec # | Item Description | Expenditure Weights | Price Relative | % Change | Standard Error | Spec # | Item Description | Expenditure Weights | Price Relative | % Change | Standard Error |
|--------|--------------------------------|---------------------|----------------|---------------|----------------|--------|----------------------|---------------------|----------------|--------------|----------------|
| 101 | TAXES, FEES, & PERMITS | 0.2727 | 1.0032 | 0.32% | 0.0665 | 601 | Management Fees | 0.7220 | 1.0551 | 5.51% | 1.1419 |
| 201 | Payroll, Bronx, All | 0.1052 | 1.0304 | 3.04% | 0.0000 | 602 | Accountant Fees | 0.1346 | 1.0710 | 7.10% | 1.5154 |
| 202 | Payroll, Other, Union, Supts. | 0.1059 | 1.0257 | 2.57% | 0.0000 | 603 | Attorney Fees | 0.1084 | 1.0213 | 2.13% | 1.0357 |
| 203 | Payroll, Other, Union, Other | 0.2625 | 1.0275 | 2.75% | 0.0000 | 604 | Newspaper Ads | 0.0040 | 1.0456 | 4.56% | 1.7557 |
| 204 | Payroll, Other, Non-Union, All | 0.2895 | 1.0559 | 5.59% | 0.8138 | 605 | Agency Fees | 0.0055 | 1.0140 | 1.40% | 0.8212 |
| 205 | Social Security Insurance | 0.0441 | 1.0384 | 3.84% | 0.0000 | 606 | Lease Forms | 0.0090 | 1.0336 | 3.36% | 1.6128 |
| 206 | Unemployment Insurance | 0.0069 | 0.8877 | -11.23% | 0.0000 | 607 | Bill Envelopes | 0.0088 | 1.0187 | 1.87% | 1.1825 |
| 207 | Private Health & Welfare | 0.1859 | 1.0516 | 5.16% | 0.0000 | 608 | Ledger Paper | 0.0077 | 1.0278 | 2.78% | 2.0519 |
| | LABOR COSTS | 0.1403 | 1.0398 | 3.98% | 0.2356 | | ADMINISTRATIVE COSTS | 0.0752 | 1.0526 | 5.26% | 0.8571 |
| 301 | Fuel Oil #2 | 0.6120 | 1.3021 | 30.21% | 1.2096 | 701 | INSURANCE COSTS | 0.0867 | 1.0233 | 2.33% | 0.8083 |
| 302 | Fuel Oil #4 | 0.1484 | 1.4594 | 45.94% | 0.7968 | 801 | Light Bulbs | 0.0362 | 1.0132 | 1.32% | 1.4154 |
| 303 | Fuel Oil #6 | 0.2397 | 1.5027 | 50.27% | 0.5918 | 802 | Light Switch | 0.0438 | 1.0000 | 0.00% | 0.0000 |
| | FUEL | 0.1211 | 1.3735 | 37.35% | 0.7629 | 803 | Wet Mop | 0.0390 | 1.0066 | 0.66% | 0.4770 |
| 401 | Electricity #1, 2,500 KWH | 0.0098 | 1.1261 | 12.61% | 0.0000 | 804 | Floor Wax | 0.0466 | 1.0181 | 1.81% | 0.9924 |
| 402 | Electricity #2, 15,000 KWH | 0.1248 | 1.1192 | 11.92% | 0.0000 | 805 | Paint | 0.2254 | 1.0431 | 4.31% | 2.5419 |
| 403 | Electricity #3, 82,000 KWH | 0.0000 | 1.1044 | 10.44% | 0.0000 | 806 | Pushbroom | 0.0345 | 1.0000 | 0.00% | 0.0000 |
| 404 | Gas #1, 12,000 therms | 0.0055 | 1.0826 | 8.26% | 0.0000 | 807 | Detergent | 0.0366 | 1.0000 | 0.00% | 0.0000 |
| 405 | Gas #2, 65,000 therms | 0.0618 | 1.0398 | 3.98% | 0.0000 | 808 | Bucket | 0.0383 | 1.0042 | 0.42% | 0.4308 |
| 406 | Gas #3, 214,000 therms | 0.2751 | 1.0389 | 3.89% | 0.0000 | 809 | Washers | 0.0955 | 1.0318 | 3.18% | 1.8127 |
| 407 | Steam #1, 1.2m lbs | 0.0171 | 1.1297 | 12.97% | 0.0000 | 811 | Pine Disinfectant | 0.0547 | 1.0234 | 2.34% | 1.4467 |
| 408 | Steam #2, 2.6m lbs | 0.0066 | 1.1475 | 14.75% | 0.0000 | 812 | Window/Glass Cleaner | 0.0510 | 1.0030 | 0.30% | 0.3215 |
| 409 | Telephone | 0.0089 | 0.9498 | -5.02% | 0.0000 | 813 | Switch Plate | 0.0469 | 1.0000 | 0.00% | 0.0000 |
| 410 | Water & Sewer | 0.4905 | 1.1150 | 11.50% | 0.0000 | 814 | Duplex Receptacle | 0.0327 | 1.0245 | 2.45% | 2.6677 |
| | UTILITIES | 0.1518 | 1.0889 | 8.89% | 0.000 | 815 | Toilet Seat | 0.0955 | 1.0327 | 3.27% | 2.1509 |
| 501 | Repainting | 0.3872 | 1.0451 | 4.51% | 0.7605 | 816 | Deck Faucet | 0.1233 | 1.0241 | 2.41% | 1.2899 |
| 502 | Plumbing, Faucet | 0.1400 | 1.0494 | 4.94% | 1.1204 | | PARTS AND SUPPLIES | 0.0159 | 1.0228 | 2.28% | 0.6673 |
| 503 | Plumbing, Stoppage | 0.1241 | 1.0470 | 4.70% | 1.3385 | 901 | Refrigerator #1 | 0.0946 | 1.0262 | 2.62% | 1.0895 |
| 504 | Elevator #1, 6 fl., 1 e. | 0.0558 | 1.0472 | 4.72% | 0.7723 | 902 | Refrigerator #2 | 0.4687 | 1.0471 | 4.71% | 1.7337 |
| 505 | Elevator #2, 13 fl., 2 e. | 0.0363 | 1.0452 | 4.52% | 0.8233 | 903 | Air Conditioner #1 | 0.0167 | 1.0337 | 3.37% | 2.0322 |
| 506 | Elevator #3, 19 fl., 3 e. | 0.0204 | 1.0477 | 4.77% | 0.8334 | 904 | Air Conditioner #2 | 0.0208 | 1.0199 | 1.99% | 1.4351 |
| 507 | Burner Repair | 0.0385 | 1.0546 | 5.46% | 2.1470 | 905 | Floor Runner | 0.0958 | 1.0000 | 0.00% | 0.0000 |
| 508 | Boiler Repair, Tube | 0.0531 | 1.0287 | 2.87% | 1.7013 | 906 | Dishwasher | 0.0472 | 1.0546 | 5.46% | 2.0590 |
| 509 | Boiler Repair, Weld | 0.0453 | 1.0214 | 2.14% | 2.2983 | 907 | Range #1 | 0.0465 | 1.0738 | 7.38% | 1.6187 |
| 510 | Refrigerator Repair | 0.0113 | 1.0580 | 5.80% | 3.6349 | 908 | Range #2 | 0.2095 | 1.0398 | 3.98% | 1.4329 |
| 511 | Range Repair | 0.0113 | 1.0270 | 2.70% | 1.4430 | | REPLACEMENT COSTS | 0.0066 | 1.0399 | 3.99% | 0.8822 |
| 512 | Roof Repair | 0.0636 | 1.0763 | 7.63% | 1.8831 | | CONTRACTOR SERVICES | 0.1297 | 1.0462 | 4.62% | 0.4297 |
| 513 | Air Conditioner Repair | 0.0082 | 1.0217 | 2.17% | 1.9998 | | ALL ITEMS | 1.0000 | 1.0778 | 7.78% | 0.1492 |
| 514 | Floor Maint. #1, Studio | 0.0003 | 1.0604 | 6.04% | 4.2417 | | | | | | |
| 515 | Floor Maint. #2, 1 Br. | 0.0005 | 1.0421 | 4.21% | 4.3662 | | | | | | |
| 516 | Floor Maint. #3, 2 Br. | 0.0043 | 1.0403 | 4.03% | 4.1932 | | | | | | |

3. Price Relative by Building Type, Apartments, 2008

| Spec # | Item Description | Pre-1947 | Post-1946 | Gas Heated | Oil Heated | MASTER METERED BLDGS |
|------------------|----------------------|---------------|---------------|---------------|---------------|----------------------|
| 101 | TAXES | 1.0170 | 0.9829 | 1.0032 | 1.0032 | 1.0032 |
| 201-207 | LABOR COSTS | 1.0421 | 1.0373 | 1.0406 | 1.0399 | 1.0412 |
| 301-303 | FUEL | 1.3597 | 1.4310 | 1.3030 | 1.3760 | 1.3048 |
| 401-410 | UTILITIES | 1.0811 | 1.0926 | 1.0644 | 1.1101 | 1.0809 |
| 501-516 | CONTRACTOR SERVICES | 1.0466 | 1.0451 | 1.0465 | 1.0462 | 1.0456 |
| 601-608 | ADMINISTRATIVE COSTS | 1.0516 | 1.0537 | 1.0494 | 1.0531 | 1.0551 |
| 701 | INSURANCE COSTS | 1.0233 | 1.0233 | 1.0233 | 1.0233 | 1.0233 |
| 801-816 | PARTS AND SUPPLIES | 1.0232 | 1.0219 | 1.0244 | 1.0223 | 1.0164 |
| 901-908 | REPLACEMENT COSTS | 1.0405 | 1.0386 | 1.0428 | 1.0391 | 1.0329 |
| ALL ITEMS | | 1.0907 | 1.0622 | 1.0417 | 1.1006 | 1.0568 |

4. Price Relative by Hotel Type, 2008

| Spec # | Item Description | Hotel | Rooming House | SRO |
|------------------|----------------------|---------------|---------------|---------------|
| 101 | TAXES | 0.9860 | 1.0197 | 0.9863 |
| 205-206, 208-216 | LABOR COSTS | 1.0557 | 1.0520 | 1.0511 |
| 301-302 | FUEL | 1.3523 | 1.3021 | 1.4369 |
| 401-407, 409-410 | UTILITIES | 1.0565 | 1.1031 | 1.0709 |
| 501-516 | CONTRACTOR SERVICES | 1.0310 | 1.0376 | 1.0388 |
| 601-608 | ADMINISTRATIVE COSTS | 1.0502 | 1.0487 | 1.0485 |
| 701 | INSURANCE COSTS | 1.0233 | 1.0233 | 1.0233 |
| 801-816 | PARTS AND SUPPLIES | 1.0080 | 1.0247 | 1.0227 |
| 901-904, 907-911 | REPLACEMENT COSTS | 1.0156 | 1.0234 | 1.0241 |
| ALL ITEMS | | 1.0588 | 1.0895 | 1.0965 |

5. Percentage Change in Real Estate Tax Sample by Borough and Source of Change, Apartments and Hotels, 2008

| | % Change Due to Assessments | % Change Due to Exemptions | % Change Due to Abatements | % Change Due to Tax Rates | % Change Due to Interactions | Total % Change |
|-------------------|-----------------------------|----------------------------|----------------------------|---------------------------|------------------------------|----------------|
| APARTMENTS | | | | | | |
| Manhattan | 7.45% | -0.32% | 0.03% | -6.46% | -0.45% | 0.24% |
| Bronx | 12.04% | -2.09% | -0.06% | -6.83% | -0.63% | 2.44% |
| Brooklyn | 10.01% | -0.96% | 0.05% | -6.62% | -0.58% | 1.91% |
| Queens | 5.25% | -0.20% | 0.05% | -6.50% | -0.32% | -1.71% |
| Staten Island | 6.26% | -0.04% | -0.89% | -6.68% | -0.39% | -1.74% |
| All apts | 7.82% | -0.54% | 0.03% | -6.52% | -0.46% | 0.32% |
| HOTELS | | | | | | |
| Hotel | 7.36% | -0.85% | 0.19% | -7.55% | -0.54% | -1.40% |
| RH | 9.07% | -0.13% | 0.00% | -6.39% | -0.58% | 1.97% |
| SRO | 5.44% | -0.08% | 0.10% | -6.48% | -0.35% | -1.37% |
| All hotels | 6.82% | -0.35% | 0.11% | -6.81% | -0.46% | -0.69% |

Note: Totals may not add due to rounding.

6. Tax Change by Borough and Community Board, Apartments, 2008

| Borough | Community Board | Number of Buildings | Tax Relative | Borough | Community Board | Number of Buildings | Tax Relative | Borough | Community Board | Number of Buildings | Tax Relative |
|------------------|-----------------|---------------------|---------------|-----------------|-----------------|---------------------|--------------|----------------------|-----------------|---------------------|---------------|
| Manhattan | | 12,015 | 0.24% | (Bronx cont.) | 6 | 441 | 8.88% | (Bklyn. cont.) | 17 | 592 | 1.89% |
| | 1 | 56 | 9.35% | | 7 | 932 | 3.13% | | 18 | 69 | 2.11% |
| | 2 | 1,088 | 1.39% | | 8 | 332 | 0.27% | Queens | | 5,908 | -1.71% |
| | 3 | 1,535 | 0.16% | | 9 | 279 | 4.02% | | 1 | 1,658 | 3.97% |
| | 4 | 965 | 2.39% | | 10 | 169 | -0.34% | | 2 | 795 | 2.80% |
| | 5 | 281 | 1.05% | | 11 | 285 | 2.51% | | 3 | 376 | -0.65% |
| | 6 | 822 | -1.04% | | 12 | 359 | -4.22% | | 4 | 362 | -3.09% |
| | 7 | 1,822 | -1.05% | Brooklyn | | 11,569 | 1.91% | | 5 | 1,141 | 0.65% |
| | 8 | 2,077 | -1.11% | | 1 | 1,381 | 4.04% | | 6 | 313 | -4.88% |
| | 9 | 674 | 5.65% | | 2 | 580 | 1.27% | | 7 | 361 | -1.88% |
| | 10 | 838 | 21.23% | | 3 | 744 | 8.25% | | 8 | 183 | -3.70% |
| | 11 | 578 | 10.65% | | 4 | 1,151 | 2.25% | | 9 | 197 | 1.64% |
| | 12 | 1,361 | 2.89% | | 5 | 294 | 10.46% | | 10 | 53 | 0.47% |
| Lower | | 8,135 | -0.20% | | 6 | 891 | 2.10% | | 11 | 117 | -8.96% |
| Upper | | 3,970 | 3.41% | | 7 | 794 | 5.41% | | 12 | 152 | 1.38% |
| Bronx | | 4,865 | 2.44% | | 8 | 873 | 7.42% | | 13 | 45 | -4.67% |
| | 1 | 282 | 7.84% | | 9 | 521 | 3.75% | | 14 | 78 | 2.82% |
| | 2 | 220 | 8.17% | | 10 | 741 | 1.25% | Staten Island | | 155 | 1.74% |
| | 3 | 272 | 13.29% | | 11 | 688 | 0.75% | | 1 | 106 | -1.66% |
| | 4 | 642 | 2.04% | | 12 | 591 | -0.79% | | 2 | 26 | 2.70% |
| | 5 | 623 | 4.70% | | 13 | 161 | -1.16% | | 3 | 21 | -3.78% |
| | | | | | 14 | 852 | 1.51% | Total | | 34,602 | 0.32% |
| | | | | | 15 | 363 | -0.37% | | | | |
| | | | | | 16 | 274 | 17.76% | | | | |

Note: No Community Board could be assigned to the following number of buildings for each borough: Manhattan (8), Bronx (29), Brooklyn (9), Queens (77), Staten Island (2). The number of buildings in the category "All" for each borough includes these buildings which could not be assigned a Community Board. 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, 2008

| Spec # | Item Description | Expenditure Weights | Price Relative | % Change | Standard Error | Spec # | Item Description | Expenditure Weights | Price Relative | % Change | Standard Error |
|--------|------------------------------|---------------------|----------------|---------------|----------------|--------|-----------------------|---------------------|----------------|--------------|----------------|
| 101 | TAXES, FEES, & PERMITS | 0.2868 | 0.9931 | -0.69% | 0.8616 | 601 | Management Fees | 0.6566 | 1.0551 | 5.51% | 1.1419 |
| 205 | Social Security Insurance | 0.0529 | 1.0384 | 3.84% | 0.0000 | 602 | Accountant Fees | 0.0788 | 1.0710 | 7.10% | 1.5154 |
| 206 | Unemployment Insurance | 0.0146 | 0.8877 | -11.23% | 0.0000 | 603 | Attorney Fees | 0.1140 | 1.0213 | 2.13% | 1.0357 |
| 208 | Hotel Private Health/Welfare | 0.0434 | 1.1870 | 18.70% | 0.0000 | 604 | Newspaper Ads | 0.0952 | 1.0456 | 4.56% | 1.7557 |
| 209 | Hotel Union Labor | 0.3132 | 1.0400 | 4.00% | 0.0000 | 605 | Agency Fees | 0.0244 | 1.0140 | 1.40% | 0.8212 |
| 210 | SRO Union Labor | 0.0122 | 1.0400 | 4.00% | 0.0000 | 606 | Lease Forms | 0.0103 | 1.0336 | 3.36% | 1.6128 |
| 211 | Apartment Value | 0.1253 | 1.0540 | 5.40% | 0.6848 | 607 | Bill Envelopes | 0.0119 | 1.0187 | 1.87% | 1.1825 |
| 212 | Non-Union Superintendent | 0.3109 | 1.0512 | 5.12% | 0.8722 | 608 | Ledger Paper | 0.0088 | 1.0278 | 2.78% | 2.0519 |
| 213 | Non-Union Maid | 0.0000 | 0.0000 | NA | 0.0000 | | ADMINISTRATIVE COSTS | 0.0828 | 1.0497 | 4.97% | 0.7871 |
| 214 | Non-Union Desk Clerk | 0.0000 | 0.0000 | NA | 0.0000 | 701 | INSURANCE COSTS | 0.0483 | 1.0233 | 2.33% | 0.8083 |
| 215 | Non-Union Maint. Worker | 0.0000 | 0.0000 | NA | 0.0000 | 801 | Light Bulbs | 0.0153 | 1.0132 | 1.32% | 1.4154 |
| 216 | Non-Union Janitor/Porter | 0.1275 | 1.0693 | 6.93% | 1.8987 | 802 | Light Switch | 0.0168 | 1.0000 | 0.00% | 0.0000 |
| | LABOR COSTS | 0.1585 | 1.0530 | 5.30% | 0.3735 | 803 | Wet Mop | 0.0470 | 1.0066 | 0.66% | 0.4770 |
| 301 | Fuel Oil #2 | 0.7040 | 1.3021 | 30.21% | 1.2096 | 804 | Floor Wax | 0.0592 | 1.0181 | 1.81% | 0.9924 |
| 302 | Fuel Oil #4 | 0.0151 | 1.4594 | 45.94% | 0.7968 | 805 | Paint | 0.1263 | 1.0431 | 4.31% | 2.5419 |
| 303 | Fuel Oil #6 | 0.2810 | 1.5027 | 50.27% | 0.5918 | 806 | Pushbroom | 0.0400 | 1.0000 | 0.00% | 0.0000 |
| | FUEL | 0.1354 | 1.3608 | 36.08% | 0.8677 | 807 | Detergent | 0.0500 | 1.0000 | 0.00% | 0.0000 |
| 401 | Electricity #1, 2,500 KWH | 0.0666 | 1.1261 | 12.61% | 0.0000 | 808 | Bucket | 0.0476 | 1.0042 | 0.42% | 0.4308 |
| 402 | Electricity #2, 15,000 KWH | 0.0721 | 1.1192 | 11.92% | 0.0000 | 809 | Washers | 0.0486 | 1.0318 | 3.18% | 1.8127 |
| 403 | Electricity #3, 82,000 KWH | 0.2394 | 1.1044 | 10.44% | 0.0000 | 810 | Linens | 0.2991 | 1.0012 | 0.12% | 1.1291 |
| 404 | Gas #1, 12,000 therms | 0.0580 | 1.0826 | 8.26% | 0.0000 | 811 | Pine Disinfectant | 0.0218 | 1.0234 | 2.34% | 1.4467 |
| 405 | Gas #2, 65,000 therms | 0.0461 | 1.0398 | 3.98% | 0.0000 | 812 | Window/Glass Cleaner | 0.0201 | 1.0030 | 0.30% | 0.3215 |
| 406 | Gas #3, 214,000 therms | 0.2120 | 1.0389 | 3.89% | 0.0000 | 813 | Switch Plate | 0.0566 | 1.0000 | 0.00% | 0.0000 |
| 407 | Steam #1, 1.2m lbs | 0.0003 | 1.1297 | 12.97% | 0.0000 | 814 | Duplex Receptacle | 0.0402 | 1.0245 | 2.45% | 2.6677 |
| 409 | Telephone | 0.1574 | 0.9498 | -5.02% | 0.0000 | 815 | Toilet Seat | 0.0486 | 1.0327 | 3.27% | 2.1509 |
| 410 | Water & Sewer | 0.1481 | 1.1150 | 11.50% | 0.0000 | 816 | Deck Faucet | 0.0629 | 1.0241 | 2.41% | 1.2899 |
| | UTILITIES | 0.1502 | 1.0660 | 6.60% | 0.0000 | | PARTS AND SUPPLIES | 0.0414 | 1.0138 | 1.38% | 0.3837 |
| 501 | Repainting | 0.2164 | 1.0451 | 4.51% | 0.7605 | 901 | Refrigerator #1 | 0.0204 | 1.0262 | 2.62% | 1.0895 |
| 502 | Plumbing, Faucet | 0.0888 | 1.0494 | 4.94% | 1.1204 | 902 | Refrigerator #2 | 0.1001 | 1.0471 | 4.71% | 1.7337 |
| 503 | Plumbing, Stoppage | 0.0834 | 1.0470 | 4.70% | 1.3385 | 903 | Air Conditioner #1 | 0.0599 | 1.0337 | 3.37% | 2.0322 |
| 504 | Elevator #1, 6 fl., 1 e. | 0.0383 | 1.0472 | 4.72% | 0.7723 | 904 | Air Conditioner #2 | 0.0708 | 1.0199 | 1.99% | 1.4351 |
| 505 | Elevator #2, 13 fl., 2 e. | 0.0343 | 1.0452 | 4.52% | 0.8233 | 907 | Range #1 | 0.0088 | 1.0738 | 7.38% | 1.6187 |
| 506 | Elevator #3, 19 fl., 3 e. | 0.0316 | 1.0477 | 4.77% | 0.8334 | 908 | Range #2 | 0.0406 | 1.0398 | 3.98% | 1.4329 |
| 507 | Burner Repair | 0.0282 | 1.0546 | 5.46% | 2.1470 | 909 | Carpet | 0.3437 | 1.0122 | 1.22% | 1.2999 |
| 508 | Boiler Repair, Tube | 0.0351 | 1.0287 | 2.87% | 1.7013 | 910 | Dresser | 0.1863 | 1.0000 | 0.00% | 0.0000 |
| 509 | Boiler Repair, Weld" | 0.0354 | 1.0214 | 2.14% | 3.6349 | 911 | Mattress & Box Spring | 0.1693 | 1.0192 | 1.92% | 1.5990 |
| 511 | Range Repair | 0.1330 | 1.0270 | 2.70% | 1.4430 | | REPLACEMENT COSTS | 0.0168 | 1.0184 | 1.84% | 0.5764 |
| 512 | Roof Repair | 0.0288 | 1.0763 | 7.63% | 1.8831 | | ALL ITEMS | 1.0000 | 1.0740 | 7.40% | 0.2920 |
| 513 | Air Conditioner Repair | 0.0422 | 1.0217 | 2.17% | 1.9998 | | | | | | |
| 514 | Floor Maint. #1, Studio | 0.0008 | 1.0604 | 6.04% | 4.2417 | | | | | | |
| 515 | Floor Maint. #2, 1 Br. | 0.0018 | 1.0421 | 4.21% | 4.3662 | | | | | | |
| 516 | Floor Maint. #3, 2 Br. | 0.0165 | 1.0403 | 4.03% | 4.1932 | | | | | | |
| 518 | Linen/Laundry Service | 0.1853 | 1.0000 | 0.00% | 0.0000 | | | | | | |
| | CONTRACTOR SERVICES | 0.0798 | 1.0337 | 3.37% | 0.3426 | | | | | | |

8. Expenditure Weights and Price Relatives, Lofts, 2008

| Spec # | Item Description | Weights | Price Relative | Spec # | Item Description | Weights | Price Relative |
|--------|--------------------------------|---------------|----------------|--------|------------------------------|---------------|----------------|
| 101 | TAXES | 0.2630 | 1.0032 | | ADMINISTRATIVE COSTS, LEGAL | 0.0792 | 1.0213 |
| 201 | Payroll, Bronx, All" | 0.0000 | 1.0304 | 601 | Management Fees | 0.8179 | 1.0551 |
| 202 | Payroll, Other, Union, Supts. | 0.2575 | 1.0257 | 602 | Accountant Fees | 0.1408 | 1.0710 |
| 203 | Payroll, Other, Union, Other | 0.0000 | 1.0275 | 604 | Newspaper Ads | 0.0048 | 1.0456 |
| 204 | Payroll, Other, Non-Union, All | 0.5363 | 1.0559 | 605 | Agency Fees | 0.0065 | 1.0140 |
| 205 | Social Security Insurance | 0.0424 | 1.0384 | 606 | Lease Forms | 0.0096 | 1.0336 |
| 206 | Unemployment Insurance | 0.0074 | 0.8877 | 607 | Bill Envelopes | 0.0110 | 1.0187 |
| 207 | Private Health & Welfare | 0.1564 | 1.0516 | 608 | Ledger Paper | 0.0094 | 1.0278 |
| | LABOR COSTS | 0.0916 | 1.0454 | | ADMINISTRATIVE COSTS - OTHER | 0.0942 | 1.0561 |
| 301 | Fuel Oil #2 | 0.3377 | 1.3021 | 701 | INSURANCE COSTS | 0.2117 | 1.0233 |
| 302 | Fuel Oil #4 | 0.5555 | 1.4594 | 801 | Light Bulbs | 0.0362 | 1.0132 |
| 303 | Fuel Oil #6 | 0.1068 | 1.5027 | 802 | Light Switch | 0.0437 | 1.0000 |
| | FUEL | 0.0847 | 1.4109 | 803 | Wet Mop | 0.0390 | 1.0066 |
| 401 | Electricity #1, 2,500 KWH | 0.0108 | 1.1261 | 804 | Floor Wax | 0.0466 | 1.0181 |
| 402 | Electricity #2, 15,000 KWH | 0.1395 | 1.1192 | 805 | Paint | 0.2254 | 1.0431 |
| 403 | Electricity #3, 82,000 KWH | 0.0000 | 1.1044 | 806 | Pushbroom | 0.0345 | 1.0000 |
| 404 | Gas #1, 12,000 therms | 0.0061 | 1.0826 | 807 | Detergent | 0.0366 | 1.0000 |
| 405 | Gas #2, 65,000 therms | 0.0685 | 1.0398 | 808 | Bucket | 0.0383 | 1.0042 |
| 406 | Gas #3, 214,000 therms | 0.1943 | 1.0389 | 809 | Washers | 0.0955 | 1.0318 |
| 407 | Steam #1, 1.2m lbs | 0.0190 | 1.1297 | 811 | Pine Disinfectant | 0.0546 | 1.0234 |
| 408 | Steam #2, 2.6m lbs | 0.0072 | 1.1475 | 812 | Window/Glass Cleaner | 0.0510 | 1.0030 |
| 409 | Telephone | 0.0098 | 0.9498 | 813 | Switch Plate | 0.0468 | 1.0000 |
| 410 | Water & Sewer - Frontage | 0.5447 | 1.1150 | 814 | Duplex Receptacle | 0.0328 | 1.0245 |
| | UTILITIES | 0.0759 | 1.0945 | 815 | Toilet Seat | 0.0955 | 1.0327 |
| 501 | Repainting | 0.3871 | 1.0451 | 816 | Deck Faucet | 0.1234 | 1.0241 |
| 502 | Plumbing, Faucet | 0.1400 | 1.0494 | | PARTS AND SUPPLIES | 0.0167 | 1.0228 |
| 503 | Plumbing, Stoppage | 0.1241 | 1.0470 | 901 | Refrigerator #1 | 0.0947 | 1.0262 |
| 504 | Elevator #1, 6 fl., 1 e. | 0.0558 | 1.0472 | 902 | Refrigerator #2 | 0.4687 | 1.0471 |
| 505 | Elevator #2, 13 fl., 2 e. | 0.0363 | 1.0452 | 903 | Air Conditioner #1 | 0.0168 | 1.0337 |
| 506 | Elevator #3, 19 fl., 3 e. | 0.0204 | 1.0477 | 904 | Air Conditioner #2 | 0.0208 | 1.0199 |
| 507 | Burner Repair | 0.0385 | 1.0546 | 905 | Floor Runner | 0.0958 | 1.0000 |
| 508 | Boiler Repair, Tube | 0.0531 | 1.0287 | 906 | Dishwasher | 0.0473 | 1.0546 |
| 509 | Boiler Repair, Weld | 0.0453 | 1.0214 | 907 | Range #1 | 0.0464 | 1.0738 |
| 510 | Refrigerator Repair | 0.0113 | 1.0580 | 908 | Range #2 | 0.2096 | 1.0398 |
| 511 | Range Repair | 0.0113 | 1.0270 | | REPLACEMENT COSTS | 0.0130 | 1.0399 |
| 512 | Roof Repair | 0.0636 | 1.0763 | | | | |
| 513 | Air Conditioner Repair | 0.0082 | 1.0217 | | | | |
| 514 | Floor Maint. #1, Studio | 0.0003 | 1.0604 | | | | |
| 515 | Floor Maint. #2, 1 Br. | 0.0005 | 1.0421 | | | | |
| 516 | Floor Maint. #3, 2 Br. | 0.0043 | 1.0403 | | | | |
| | CONTRACTOR SERVICES | 0.0701 | 1.0462 | | ALL ITEMS | 1.0000 | 1.0630 |