

---

---

# 2010 Price Index of Operating Costs

April 27, 2010

## **Board Members**

### **Chair:**

Jonathan L. Kimmel, Esq.

### **Public Members:**

Betty Phillips Adams  
Risa A. Levine, Esq.  
Ronald Scheinberg, Esq.  
David H. Wenk

### **Owner Members:**

Magda L. Cruz, Esq.  
Steven J. Schleider

### **Tenant Members:**

Adriene L. Holder, Esq.  
Ronald S. Languedoc, Esq.

## **Staff Members**

### **Executive Director:**

Andrew McLaughlin

### **Research Associates:**

Brian Hoberman  
Danielle Burger

### **Office Manager:**

Leon Klein

### **Public Information:**

Charmaine Superville

### **PIOC Temp Manager:**

Shirley Alexander



# 2010 Price Index Of Operating Costs

## What's New

- ✓ The Price Index of Operating Costs for Rent Stabilized Apartment Buildings (PIOC) increased 3.4% this year.
- ✓ Costs in pre-war buildings increased 1.9% and costs in post-war buildings rose 4.7%.
- ✓ 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 6.0% this year.
- ✓ Fuel oil costs rose 0.5%.
- ✓ Real estate taxes increased 10.1% due to a rise in assessments and tax rate for Class Two properties.
- ✓ Labor Costs rose 3.1%.
- ✓ The Utilities component decreased by 1.7% primarily due to a decline in electricity and gas costs.
- ✓ Insurance Costs decreased by 2.0%.
- ✓ The Price Index of Operating Costs for Rent Stabilized Apartment Buildings is projected to increase 6.7% next year.

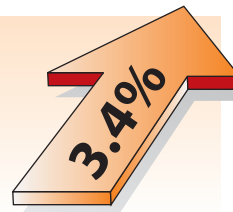
## Introduction

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

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



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 2010 Price Index are based upon the 1983 Expenditure Study and are revised on the basis of annually measured price changes from 1982-2009.

The importance of each index component is shown by its “expenditure weight” (see Appendix 2). The measured 2009-10 price changes in each index component are also presented in this appendix. The expenditure weights and

## 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, May 2009 to March 2010*

Taxes	10.1%
Labor Costs	3.1%
Fuel	0.5%
Utilities	-1.7%
Contractor Services	2.3%
Administrative Costs	4.1%
Insurance Costs	-2.0%
Parts and Supplies	1.7%
Replacement Costs	0.9%
<b>All Costs</b>	<b>3.4%</b>

the 2009-10 price changes are then combined to provide the overall change in the PIOC over the period from 2009-10.

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 3.4%, 0.6 percentage points less than the PIOC percentage change from the year before (4.0% in 2009). The PIOC was driven upward by a significant increase in real estate taxes of 10.1%. More moderate increases were seen in Administrative Costs (4.1%), Labor Costs (3.1%), Contractor Services (2.3%), Parts and Supplies (1.7%) and Replacement Costs (0.9%). These increases were offset by declines in the Utilities (1.7%) and Insurance Costs (2.0%) components. The change in the cost of fuel oil was nearly flat, rising just 0.5%. The growth in the Consumer Price Index (CPI) of 0.53% was nearly three percentage points lower than the PIOC.<sup>1</sup> See the adjacent table and Appendix 2 for changes in costs and prices for all rent stabilized apartment buildings from 2009-10.

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 6.0% this year and was higher than the overall PIOC primarily due to the exclusion of fuel oil costs that rose only 0.5%.

## 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) 2009 and FY 2010. The tax data was obtained from the New York City Department of Finance.

Real estate taxes rose this year by 10.1%. This is the second consecutive double-digit increase in real estate taxes: 11.7% in 2009. The change in taxes was due to a rise in assessments and an increase in the tax rate in FY 2010. Abatements and exemptions had a minor impact on the rise in taxes this year.

**Tax Levy** — The total tax levy for all properties in the City (commercial and residential) increased by 10.6% from FY 2009 to FY 2010. The Class Two property levy rose more than that of the City as a whole, at a rate of 11.3%. The distribution of the levy

among property classes tends to shift from year to year. From FY 2009 to FY 2010, the levy share for Class Two properties increased, by 0.3 percentage points, from 37.2% to 37.5% of the total tax burden. The Class Two proportion of the levy share is the highest since the inception of the four-class system in 1983 when the share was 26.3%.

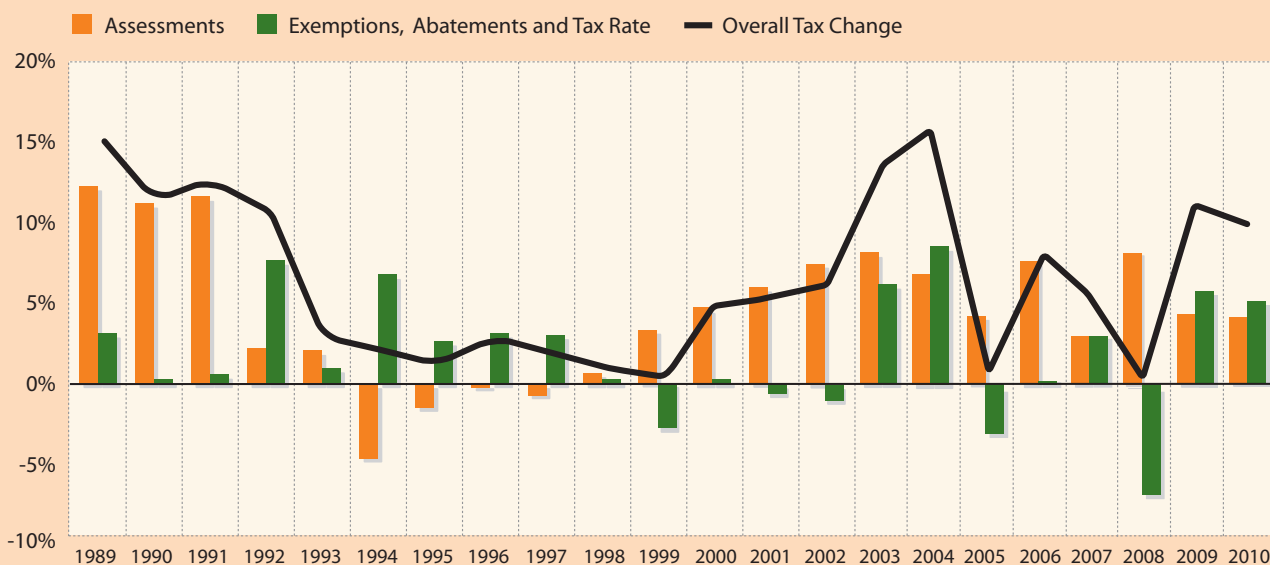
**Tax Rate** — The average annual FY 2009 Class Two tax rate of 12.596 increased by 5.1%, resulting in a new annualized rate of 13.241 for FY 2010. This is the second consecutive year in which the Class Two tax rate rose, increasing 5.6% in FY 2009.

These increases in the Class Two tax rate were preceded by a decrease in the tax rate of 6.4% in FY 2008. Increases in the tax rate of 2.8% and 1.5% were witnessed in FY 2007 and FY 2006, while a decrease 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 4.5% citywide in FY 2010.

### Percent Change in Taxes due to Assessments and Exemptions/Abatements/Tax Rate 1989-2010

#### Assessments and the Tax Rate Rise in 2010



Source: New York City Department of Finance

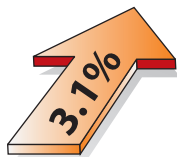
This rise in assessments was similar to last year's increase of 4.8%. This increase was primarily driven by a 7.6% rise in assessments in Manhattan. There were more moderate increases in Brooklyn (1.7%), Queens (0.6%) and Staten Island (.04%). In contrast, the Bronx witnessed a decline in assessments of 8.2%.

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 FY 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. Since 2005, increases in assessments have been between 2.9% and 7.8%.

**Abatements and Exemptions** — This year, the number of rent stabilized buildings with abatements decreased by 6.1%. In addition, the average benefit value of the typical tax abatement also decreased, by 0.2%, from FY 2009 to FY 2010. The net impact of the decrease in both the number of abatements and the average abatement value was a negligible increase in the tax liability for rent stabilized buildings of 0.15%.

In FY 2010, the value of the average tax exemption decreased. However, 1.9% more rent stabilized buildings benefited from tax exemptions. The rise in the number of buildings receiving exemptions was offset by decreases in the value of tax exemptions, resulting in owners' tax bills actually rising by 0.06%. (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 13.4% of the overall Price Index.

Labor Costs rose 3.1%, similar to the increase seen in last year's PIOC of 2.9%. The rise in Labor Costs was due to increases in union and non-union wages as well as rises in healthcare and pension contributions. Unemployment insurance costs rose 6.8%.

Wages comprise three-quarters of the Labor Costs component. For the first time in 17 years the growth in union labor pay outpaced non-union labor wages. Non-union pay increased by 2.1%, which was one percentage point lower than the increase seen in the 2009 PIOC (3.1%). In contrast, the unionized wage increase was one percentage point higher than the previous year, rising 2.7% in 2010 compared to 1.7% in 2009.

## Fuel



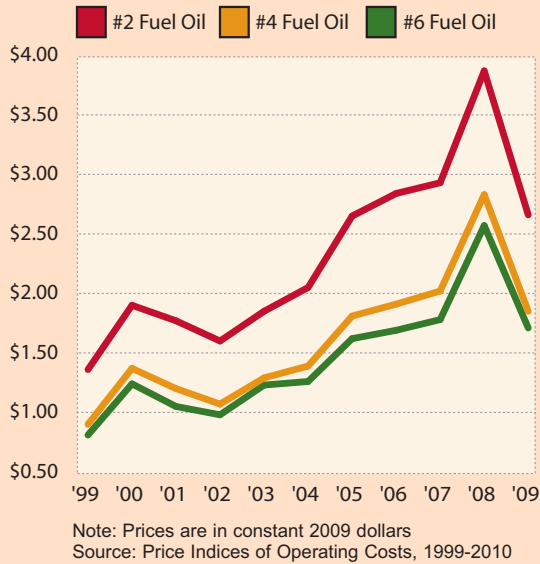
The Fuel component comprises roughly 13% of this year's Price Index. The change in cost measured in this component considers both the change in weather and the change in prices for the three types of heating oil used to heat multi-family buildings in New York City. First, the PIOC measured fuel prices from May to March and then compared them to the same months from the previous year. Over the past 11 months, fuel oil prices increased by 6.7%. The price for #2 oil, which comprises more than half of this component, declined 1.9%. In contrast, prices for #4 and #6 fuel oil increased, rising 15.6% and 22.5%, respectively. (See "Fuel Oil" in the Methodology section of this report for changes in the computation of the Fuel component.)

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 warmer than last year, weather decreased the demand for fuel. The combination of the rise in heating oil prices and a decrease in demand resulted in an increase in the cost for heating buildings with oil by 0.5%.<sup>2</sup>

Changes in the Fuel component have been the most variable of any component in the Price Index over the past nine years. In three of the past six years, the cost of

## Average Inflation Adjusted Fuel Oil Prices per Gallon, 1999-2009

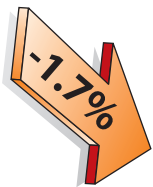
### Average Fuel Oil Prices Have Risen Over the Past Ten Years



fuel oil rose more than 20%, yet in 2007 and 2010 fuel costs rose 0.5%, while in 2009 costs declined 10%. In 2002 and 2004, fuel costs actually declined by 36.1% and 2.8% respectively, yet in 2003 costs rose 66.9%.

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 2009 was \$2.38 a gallon. Adjusted for inflation, the average price in 1999 was \$1.19. This is an annual rate of increase in the price of fuel of more than seven percentage points above the general rate of inflation. (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 more than 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 decreased 1.7%, which is in contrast to last year's increase of 10.9%. Decreases in the costs for gas (22.4%), electricity (5.8%) and steam (8.4%) were offset by an increase in water and sewer costs of 12.9%.<sup>3</sup> (See "Utility Costs Computations" in the Methodology section of this report for changes in the computation of the Utilities component.)

## Contractor Services

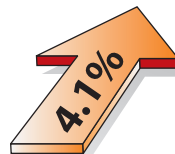


The Contractor Services component rose 2.3%, the lowest increase in this component since 1996 (1.8%) and 0.5 percentage points lower than last year's growth of 2.8%. In contrast, the preceding six years showed growth in this component of more than four percent annually. Previously, Contractor Services 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 nearly two-thirds of the Contractor Services component. Painters' rates rose 0.4%, down from last year's increase of 3.0%. Rates charged by plumbers increased by 4.0%, a higher increase than last year's growth of 2.8%. Painters and plumbers reported that increases in the cost of labor, insurance, and materials were the primary factors that led to an increase in their rates. However, there were a number of painting contractors who lowered their rates due to the poor economy and the need to attract customers.

All other items in this component witnessed increases ranging from 0.9%-6.3% except for floor maintenance, which decreased by 1.3%. (See Appendix 2)

## Administrative Costs



Administrative Costs rose 4.1%, the same increase as in 2009. 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 (4.8%) 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 higher than last year's (4.4%), indicating that management companies raised their fees and/or rents increased at a higher rate than last year and there were fewer vacancies in the buildings they manage.

Accounting fees increased in this year's PIOC by 2.3%, 1.7 percentage points lower than last year's rise of 4.0%. Attorney fees rose 2.1%, higher than the prior year's increase of 1.7%.

All other items in this component witnessed changes in price relatives from 0%-3.2%. (See Appendix 2)

## Insurance Costs

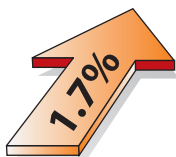


Insurance Costs decreased for the second consecutive year falling 2.0%, a smaller decrease than witnessed in last year's Index (2.9%). The increases seen in this component from 2006 to 2008 of 1.9%-2.5% were more

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%.

Changes in insurance costs for owners varied by the amount of the policy. Policies that cost more than \$5,700, which are nearly half of all insurance quotes verified, saw an average decline in cost of 2.8% upon renewal. Meanwhile, smaller buildings with policies under \$5,700 saw an increase of 1.1%.

## 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 1.7%, nearly one

percentage point lower than last year's increase of 2.6%.

## 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 0.9%, over five percentage points lower than the 6.1% increase reported in the 2009 Price Index.

## 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 occupy a single room residing separately and independently of other occupants.

The Price Index for all stabilized Hotels increased 3.9% this year, more than the rise of 3.5% witnessed the year before. The Price Index for Hotels was 0.5 percentage points higher 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 and Tax components. The decrease in Utilities for all types of Hotels was 5.2% versus 1.7% in apartment buildings. This difference was due to a double-digit increase in water and sewer costs having more weight in the Apartment Index, and declining electricity costs having more weight in the Hotel Index. In addition, Taxes increased 13.5% for Hotels versus the 10.1% increase for apartments. These disparities resulted in a Hotel Index that was higher than that for apartments.

In addition to the changes above, Fuel declined 0.8% for hotels but increased 0.5% for apartments. Similarly, Parts and Supplies decreased 0.3% for hotels

but increased 1.7% in the Apartment Index. Prices and costs in all other components in the Hotel Index had similar changes in rates to the same components in the Apartment Index. See the table on this page for changes in costs and prices for all rent stabilized hotels from 2009-10.

Among the different categories of Hotels, the index for “traditional” hotels increased 4.9%, which was higher than increases for both Rooming Houses (2.2%) and SROs (3.2%). The differences between these indices are primarily due to the increased weight placed on the Tax component for “traditional” hotels. Furthermore, there were disparities among the three hotel types in Fuel and Utilities. The Hotel and Rooming House indices showed a decrease in the cost for both of these components while the SRO Index witnessed a decrease in Utilities but an increase in Fuel. (See Appendices 4 and 7)

### **Rent Stabilized Lofts**

The increase in the Loft Index this year was 3.8%, 0.4 percentage points higher than the increase for apartments. This difference is explained by the fact that Fuel rose 4.1% for lofts versus 0.5% for apartments. This higher increase in the Fuel component placed more upward 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 2009-10.

### **The Core PIOC**

The Core PIOC, which measures long-term local trends by factoring out shifts in fuel costs, gas, and electricity rates, rose 6.0% in 2010. The rise in the 2010 Core was 2.6 percentage points higher than the Apartment Index. The Core PIOC rose faster than the overall PIOC because fuel costs rose at a lesser rate (0.5%) than the Index as a whole (3.4%) and gas costs decreased 22.4%. (See graph on next page)

The Core rose at a slower rate than projected due primarily to a reduction in insurance costs that was not reflected in last year’s Core projection and Taxes rising at a slower rate than anticipated. Insurance was projected to rise 6.1% but instead declined 2.0%. Taxes rose 10.1% instead of the projected change of 15.2%. Furthermore, Contractor Services increased less than projected, rising 2.3% instead of 4.3%. All of the remaining changes in the core components in the 2010 projected Core and the 2010 actual Core show agreement within 1.3 percentage points.

### **PIOC Projections for 2011**

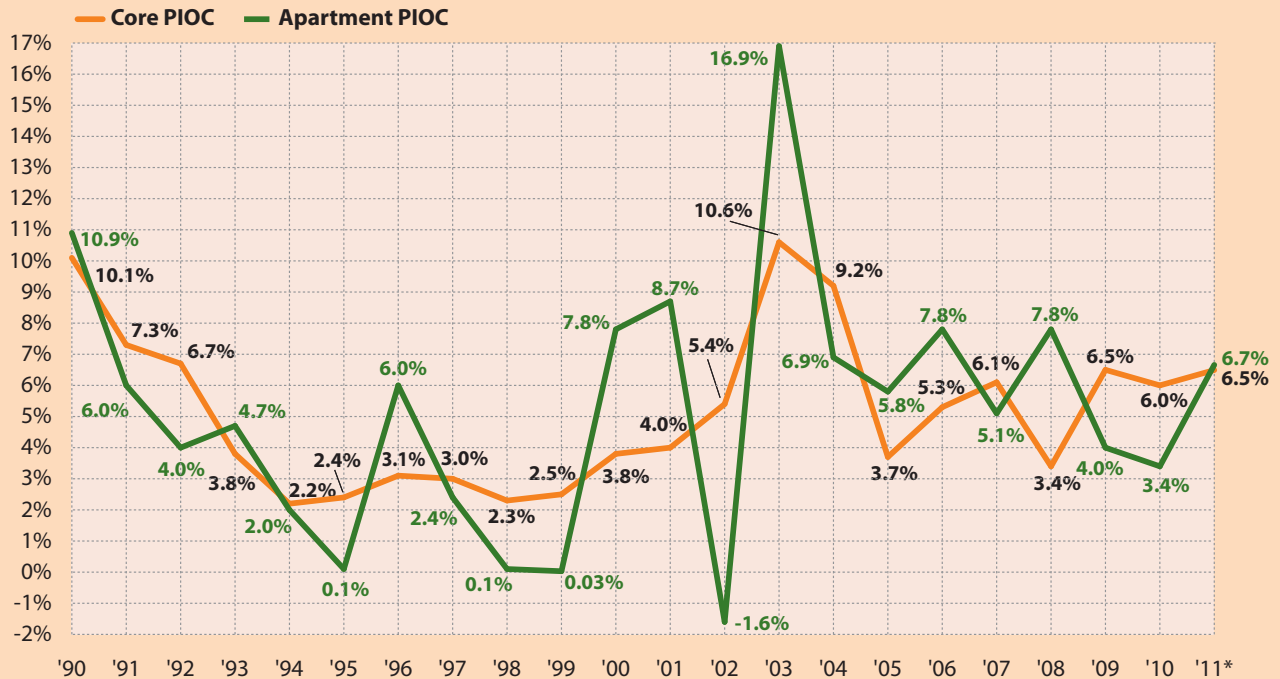
Section 26-510 of the Rent Stabilization Law requires the Board to consider prevailing and projected operating and maintenance costs. Projections for components of the PIOC are performed to provide the Rent Guidelines Board with an estimate of how much costs are expected to rise in the year

<b>Hotels</b>	
<i>Change In Costs for Rent Stabilized Hotel Buildings, May 2009 to March 2010</i>	
Taxes	13.5%
Labor Costs	2.5%
Fuel	-0.8%
Utilities	-5.2%
Contractor Services	3.2%
Administrative Costs	3.8%
Insurance Costs	-2.0%
Parts and Supplies	-0.3%
Replacement Costs	2.1%
<b>All Costs</b>	<b>3.9%</b>

<b>Lofts</b>	
<i>Change In Costs for Rent Stabilized Loft Buildings, May 2009 to March 2010</i>	
Taxes	10.1%
Labor Costs	2.8%
Fuel	4.1%
Utilities	0.6%
Contractor Services	2.3%
Admin Costs, Legal	2.1%
Admin Costs, Other	4.4%
Insurance Costs	-2.0%
Parts and Supplies	1.7%
Replacement Costs	0.9%
<b>All Costs</b>	<b>3.8%</b>

**Percent Change in the Price Index of Operating Costs and the Core PIOC, 1990-2011**

**The “Core” PIOC Rose More than the Apartment Index in 2010**



\*Note: The percent change for 2011 is estimated.

Source: Price Indices of Operating Costs, 1990-2010, PIOC and Core PIOC projections for 2011

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 2010, 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 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, the current worldwide recession 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 roughly 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 period covered in this Price Index.

This year, operating costs in rent stabilized apartment buildings increased by 3.4% versus last year’s projected PIOC increase of 2.2%. The components that showed the most variance between actual changes in costs versus projected changes were

Fuel, Insurance Costs and Taxes. Fuel, a historically volatile component, was projected to decline 24.5%, but actually rose 0.5%. Insurance costs, which almost always increase, declined by 2.0% in 2010 versus the expected increase of 6.1%, a difference of roughly eight percentage points. And Taxes were anticipated to rise 15.2%, but actually rose 10.1%.

Meanwhile, Contractor Services were projected to increase 4.3%, but only rose 2.3%, and Utilities were expected to increase 0.8%, but actually declined 1.7%. The remaining four 2010 projected components of the PIOC were within 1.3 percentage points of the actual measured changes.

Overall, the PIOC is expected to grow by 6.7% from 2010 to 2011. Costs are predicted to rise in each component, with Utilities increasing the greatest proportion, by 9.5%. Fuel, the most volatile PIOC component, is expected to increase 8.9%. Taxes, the component that carries the most weight in the Index, is projected to increase 8.3% due to an increase in billable assessments, levy share and the tax rate for Class Two properties. Insurance Costs that have decreased over the past two years are projected to rise 5.6%. More moderate increases are projected in Administrative Costs (4.5%), Labor Costs (4.0%) and Contractor Services (3.2%). The table on this page shows predicted changes in PIOC components for 2011. The core PIOC is projected to rise 6.5%, slightly less 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 3.4% increase in the PIOC is 2.75% for a one-year lease and 5.5% for a two-year lease. Guidelines using this formula and adding assumptions for the impact of vacancy increases on revenues when apartments experience turnover are 1.25% for one-year leases and 2.25% 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 0.53% increase in the Consumer Price Index (see

### 2011 Projections

*Projected Change In Costs for Rent  
Stabilized Apartment Buildings,  
March 2010 to March 2011*

Taxes	8.3%
Labor Costs	4.0%
Fuel	8.9%
Utilities	9.5%
Contractor Services	3.2%
Administrative Costs	4.5%
Insurance Costs	5.6%
Parts and Supplies	1.8%
Replacement Costs	1.7%
<b>All Projected Costs</b>	<b>6.7%</b>

## Commensurates

### "Net Revenue" Commensurate Adjustment

<u>1-Year Lease</u>	<u>2-Year Lease</u>
2.75%	5.5%

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

<u>1-Year Lease</u>	<u>2-Year Lease</u>
1.25%	2.25%

### "CPI-Adjusted NOI" Commensurate Adjustment

<u>1-Year Lease</u>	<u>2-Year Lease</u>
3.0%	5.75%

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

<u>1-Year Lease</u>	<u>2-Year Lease</u>
1.5%	2.5%

### "Traditional" Commensurate Adjustment

<u>1-Year Lease</u>	<u>2-Year Lease</u>
2.4%	4.8%

Endnote 1) and the 3.4% increase in the PIOC is 3.0% for a one-year lease and 5.75% for a two-year lease. Guidelines using this formula and adding the estimated impact of vacancy increases are 1.5% for one-year leases and 2.5% 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 2.4% for a one-year lease and 4.8% for a two-year lease, given the increase in operating costs of 3.4% found in the 2010 PIOC and the projection of a 6.7% 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 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 (3.4%). 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 (6.7%). 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 over 41,000 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.

Over 16% of the questionnaires mailed out were returned to the RGB. A total of 755 returned surveys contained usable information, from which quotes of owners' annual insurance costs (605), non-union labor quotes (154) and management fees (133) were validated. The number of verified prices in 2009 and 2010 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.

Due to a change in the pricing of electricity, staff was unable to calculate the cost of electricity for the month of April 2010.<sup>7</sup> Therefore, the Utilities component price relative in the 2010 PIOC was calculated by comparing the 11-month period of May 2009 to March 2010, to the similar period of May 2008 to March 2009. Please note that in order to maintain consistency throughout the Price Index, all other components calculated from monthly prices, namely Fuel, are based on this 11-month period. Future price indices will be calculated using a 12-month period from April to March.

In addition to the change in methodology explained above, there was a change in the way the electricity items were calculated in the Utilities component in this year's Price Index. Utility costs in the Price Index have historically been based on one of two methodologies – either an average over a 12-month period from May to April, or a point-to-point comparison of April-to-April costs over two years. In previous price indices, the price changes in the electricity items were calculated on a point-to-point basis. However, due to the erratic changes in monthly electricity costs in the past several years, an 11-month average is used this year to calculate electricity items.<sup>8</sup> This is the same methodology historically used to calculate the gas and steam items of this component. Using the average annual change in costs is felt to be a more accurate way to calculate electricity usage over the entire time period of the Price Index year. After this year, a 12-month average from April to March will be used in future calculations of electricity costs.

---

---

Finally, to measure the change in water and sewer costs for rent stabilized buildings, staff used the Water Board FY 2010 increase of 12.9%.<sup>9</sup>

## Fuel Oil

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 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. As explained in the "Utility Costs Computations" section of this report, this year's Fuel component is calculated over an 11-month period from May to March.

## Real Estate Tax Computations

The sample of buildings used to compute the 2010 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 over 37,000 buildings in FY 2009 and FY 2010. 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 increase in aggregate tax bills for these buildings from FY 2009 to FY 2010.

## 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 676 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 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. Due to the May to March period used for the 2010 PIOC, this year projections are based on the time period from April 2010 to March 2011. A May to April period was used to calculate projected costs in previous Price Indices.

Taxes were projected by using data from the Department of Finance's tentative assessment roll for FY 2011 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 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 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>10</sup>

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

## Acknowledgments

The Rent Guidelines Board would like to acknowledge the following individuals for their assistance in preparing the Price Index of Operating Costs this year: Dr. James F. Hudson for technical assistance and methodology and report review; Shirley Alexander for supervising the data collectors for the owner and vendor surveys and Jeanette Bisamunyu and Charmaine Superville for collecting owner and vendor information. □

## Endnotes

1. The average CPI for All Urban Consumers, New York-Northeastern New Jersey for the year from March 2008 to February 2009 (236.4) compared to the average for the year from March 2009 to February 2010 (237.6) rose by 0.53%. 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 May to March, or the two most recent fiscal year bills.
2. Due to changes in methodology of the Price Index, the cost-weight relatives are calculated on a May to March time period. The May 2009 to March 2010 time period was 5.7% warmer than the previous May to March period. “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. See “Utilities Component Computations” and “Fuel Oil” in the Methodology section of this report for a detail explanation of changes to the Fuel component calculations.
3. Note that the electricity items are calculated on an annual basis. This is a change in methodology from previous Price Indices when electricity relatives were calculated on a point-to-point basis. This change was made due to the erratic changes that occur in monthly electricity costs as witnessed in the past several years. Using the average annual change in costs is a more accurate way to calculate electricity usage over the entire time period of the Price Index.
4. The following assumptions were used in the computation of the commensurates: (1) the required change in landlord revenue is 70.0% of the 2010 PIOC increase of 3.4%, or 2.4%. The 70.0% 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 30.0% times the latest 12-month increase in the CPI ending February 2010 (0.53%) or 0.16%; (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 *2008 Housing and Vacancy Survey*; (5) for the commensurate formulae, including a vacancy assumption, the 11.13% median increase in vacancy leases found in the rent stabilized apartments that reported a vacancy lease in the 2008 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 6.7% PIOC projection for 2011 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. The RGB hypothetical electricity bill is comprised of many elements, including a “Market Supply Charge” that is published by Con Edison. This rate has historically been published for a three-month period that precedes the actual billing month, allowing us to know April rates by as early as January or February. But beginning in February of 2010, Con Edison began using daily fuel adjustment pricing for the Market Supply Charge, rather than a monthly rate predicted in advance. As a result, the Market Supply Charge cannot be calculated until the end of each month and staff was unable to calculate the cost of electricity for the month of April 2010.
8. In recent Price Indices, as a point of comparison, the annual average price change in electricity has been reported as a footnote to these reports.
9. “Public Information Regarding Water and Wastewater Rates,” New York City Water Board, April 2010.
10. Source: “Short-Term Energy Outlook,” March 2010. U.S. Energy Information Administration, Department of Energy.

# Appendices

## 1. PIOC Sample, Number of Price Quotes per Item, 2009 vs. 2010

Spec	Description	2009	2010	Spec	Description	2009	2010
211	Apartment Value	140	143	701	INSURANCE COSTS	648	605
212	Non-Union Super	94	106				
216	Non-Union Janitor/Porter	40	48	801	Light bulbs	5	7
	LABOR COSTS	274	297	802	Light Switch	5	7
301	Fuel Oil #2	24	22	803	Wet Mop	5	6
302	Fuel Oil #4	6	5	804	Floor Wax	9	10
303	Fuel Oil #6	6	5	805	Paint	12	11
	FUEL	36	32	806	Pushbroom	5	8
501	Repainting	126	127	807	Detergent	6	7
502	Plumbing, Faucet	35	32	808	Bucket	15	13
503	Plumbing, Stoppage	38	33	809	Washers	14	14
504	Elevator #1	12	11	810	Linens	10	11
505	Elevator #2	12	11	811	Pine Disinfectant	11	13
506	Elevator #3	11	10	812	Window/Glass Cleaner	8	9
507	Burner Repair	11	10	813	Switch Plate	10	10
508	Boiler Repair, Tube	10	11	814	Duplex Receptacle	9	9
509	Boiler Repair, Weld	5	6	815	Toilet Seat	18	15
510	Refrigerator Repair	6	8	816	Deck Faucet	17	13
511	Range Repair	10	12		PARTS & SUPPLIES	159	163
512	Roof Repair	23	22	901	Refrigerator #1	7	9
513	Air Conditioner Repair	6	6	902	Refrigerator #2	12	10
514	Floor Maint. #1	5	9	903	Air Conditioner #1	8	7
515	Floor Maint. #2	5	9	904	Air Conditioner #2	9	6
516	Floor Maint. #3	5	9	905	Floor Runner	7	5
518	Linen/Laundry Service	5	5	906	Dishwasher	11	8
	CONTRACTOR SERVICES	325	331	907	Range #1	11	8
601	Management Fees	93	133	908	Range #2	8	7
602	Accountant Fees	27	31	909	Carpet	11	10
603	Attorney Fees	22	21	910	Dresser	5	7
604	Newspaper Ads	18	18	911	Mattress & Box Spring	7	7
605	Agency Fees	5	5		REPLACEMENT COSTS	96	84
606	Lease Forms	6	8				
607	Bill Envelopes	10	10				
608	Ledger Paper	7	5				
	ADMINISTRATIVE COSTS	188	231		ALL ITEMS	1,726	1,743

## 2. Expenditure Weights, Price Relatives, Percent Changes and Standard Errors, All Apartments, 2010

Spec #	Item Description	Expenditure Weights	Price Relative	% Change	Standard Error	Spec #	Item Description	Expenditure Weights	Price Relative	% Change	Standard Error
101	TAXES	<b>0.2728</b>	<b>1.1012</b>	<b>10.12%</b>	<b>0.0494</b>	601	Management Fees	0.7261	1.0483	4.83%	0.9265
201	Payroll, Bronx, All (Union)	0.1043	1.0287	2.87%	0.0000	602	Accountant Fees	0.1369	1.0233	2.33%	0.9248
202	Payroll, Other, Union, Supts.	0.1030	1.0258	2.58%	0.0000	603	Attorney Fees	0.1028	1.0215	2.15%	2.2110
203	Payroll, Other, Union, Other	0.2556	1.0277	2.77%	0.0000	604	Newspaper Ads	0.0039	1.0089	0.89%	0.5692
204	Payroll, Other, Non-Union, All	0.2944	1.0215	2.15%	0.6259	605	Agency Fees	0.0055	1.0000	0.00%	0.0000
205	Social Security Insurance	0.0437	1.0252	2.52%	0.0000	606	Lease Forms	0.0085	1.0191	1.91%	2.0514
206	Unemployment Insurance	0.0057	1.0678	6.78%	0.0000	607	Bill Envelopes	0.0088	1.0321	3.21%	2.2917
207	Private Health & Welfare	0.1932	1.0556	5.56%	0.0000	608	Ledger Paper	0.0074	1.0231	2.31%	2.2226
	LABOR COSTS	<b>0.1339</b>	<b>1.0313</b>	<b>3.13%</b>	<b>0.1843</b>		ADMINISTRATIVE COSTS	<b>0.0735</b>	<b>1.0411</b>	<b>4.11%</b>	<b>0.7220</b>
301	Fuel Oil #2	0.6054	0.9226	-7.74%	0.9175	701	INSURANCE COSTS	<b>0.0769</b>	<b>0.9798</b>	<b>-2.02%</b>	<b>0.5879</b>
302	Fuel Oil #4	0.1477	1.0895	8.95%	0.5660	801	Light Bulbs	0.0350	1.0176	1.76%	1.7926
303	Fuel Oil #6	0.2469	1.1548	15.48%	0.2706	802	Light Switch	0.0417	1.0484	4.84%	3.9761
	FUEL	<b>0.1334</b>	<b>1.0046</b>	<b>0.46%</b>	<b>0.5656</b>	803	Wet Mop	0.0374	1.0225	2.25%	2.3221
401	Electricity #1, 2,500 KWH	0.0080	0.9749	-2.51%	0.0000	804	Floor Wax	0.0467	0.9902	-0.98%	2.8328
402	Electricity #2, 15,000 KWH	0.1047	0.9392	-6.08%	0.0000	805	Paint	0.2296	1.0188	1.88%	1.4238
403	Electricity #3, 82,000 KWH	0.0000	0.9690	-3.10%	0.0000	806	Pushbroom	0.0329	1.0146	1.46%	1.5237
404	Gas #1, 12,000 therms	0.0042	0.7903	-20.97%	0.0000	807	Detergent	0.0349	1.0522	5.22%	2.9027
405	Gas #2, 65,000 therms	0.0615	0.7817	-21.83%	0.0000	808	Bucket	0.0370	1.0186	1.86%	0.9954
406	Gas #3, 214,000 therms	0.2727	0.7745	-22.55%	0.0000	809	Washers	0.0969	1.0102	1.02%	1.8091
407	Steam #1, 1.2m lbs	0.0167	0.9261	-7.39%	0.0000	811	Pine Disinfectant	0.0554	1.0174	1.74%	1.7966
408	Steam #2, 2.6m lbs	0.0062	0.8894	-11.06%	0.0000	812	Window/Glass Cleaner	0.0522	1.0097	0.97%	0.9607
409	Telephone	0.0075	1.0812	8.12%	0.0000	813	Switch Plate	0.0446	1.0024	0.24%	0.4179
410	Water & Sewer	0.5185	1.1290	12.90%	0.0000	814	Duplex Receptacle	0.0319	1.0097	0.97%	1.0346
	UTILITIES	<b>0.1636</b>	<b>0.9832</b>	<b>-1.68%</b>	<b>0.0000</b>	815	Toilet Seat	0.0964	1.0251	2.51%	1.6230
501	Repainting	0.3877	1.0036	0.36%	0.7878	816	Deck Faucet	0.1275	1.0123	1.23%	1.2232
502	Plumbing, Faucet	0.1399	1.0421	4.21%	1.5255		PARTS AND SUPPLIES	<b>0.0149</b>	<b>1.0172</b>	<b>1.72%</b>	<b>0.5204</b>
503	Plumbing, Stoppage	0.1249	1.0372	3.72%	1.5230	901	Refrigerator #1	0.0968	0.9989	-0.11%	0.6379
504	Elevator #1, 6 fl., 1 e.	0.0548	1.0194	1.94%	0.6873	902	Refrigerator #2	0.4674	1.0083	0.83%	0.5741
505	Elevator #2, 13 fl., 2 e.	0.0359	1.0166	1.66%	0.7046	903	Air Conditioner #1	0.0162	1.0260	2.60%	1.9909
506	Elevator #3, 19 fl., 3 e.	0.0199	1.0186	1.86%	0.7375	904	Air Conditioner #2	0.0205	1.0215	2.15%	1.5916
507	Burner Repair	0.0392	1.0308	3.08%	1.8723	905	Floor Runner	0.0885	1.0000	0.00%	0.0000
508	Boiler Repair, Tube	0.0517	1.0632	6.32%	3.9583	906	Dishwasher	0.0491	1.0245	2.45%	1.8166
509	Boiler Repair, Weld	0.0430	1.0215	2.15%	2.2393	907	Range #1	0.0484	1.0126	1.26%	2.0373
510	Refrigerator Repair	0.0115	1.0548	5.48%	2.4868	908	Range #2	0.2130	1.0136	1.36%	0.7377
511	Range Repair	0.0109	1.0397	3.97%	2.0140		REPLACEMENT COSTS	<b>0.0065</b>	<b>1.0093</b>	<b>0.93%</b>	<b>0.3468</b>
512	Roof Repair	0.0676	1.0413	4.13%	1.6199		ALL ITEMS	<b>1.0000</b>	<b>1.0343</b>	<b>3.43%</b>	<b>0.1235</b>
513	Air Conditioner Repair	0.0081	1.0086	0.86%	0.9082						
514	Floor Maint. #1, Studio	0.0003	0.9866	-1.34%	3.0209						
515	Floor Maint. #2, 1 Br.	0.0005	0.9868	-1.32%	3.0482						
516	Floor Maint. #3, 2 Br.	0.0042	0.9868	-1.32%	3.0400						
	CONTRACTOR SERVICES	<b>0.1244</b>	<b>1.0232</b>	<b>2.32%</b>	<b>0.4973</b>						

### 3. Price Relative by Building Type, Apartments, 2010

Spec #	Item Description	Pre-1947	Post-1946	Gas Heated	Oil Heated	MASTER METERED BLDGS
101	TAXES	1.1049	1.0953	1.1012	1.1012	1.1012
201-207	LABOR COSTS	1.0298	1.0329	1.0299	1.0314	1.0285
301-303	FUEL	0.9882	1.0718	0.9236	1.0075	0.9255
401-410	UTILITIES	0.9610	0.9760	0.8852	1.0791	0.9422
501-516	CONTRACTOR SERVICES	1.0246	1.0194	1.0193	1.0242	1.0229
601-608	ADMINISTRATIVE COSTS	1.0394	1.0433	1.0400	1.0412	1.0356
701	INSURANCE COSTS	0.9798	0.9798	0.9798	0.9798	0.9798
801-816	PARTS AND SUPPLIES	1.0172	1.0172	1.0174	1.0171	1.0179
901-908	REPLACEMENT COSTS	1.0092	1.0096	1.0119	1.0086	1.0074
<b>ALL ITEMS</b>		<b>1.0188</b>	<b>1.0472</b>	<b>0.9957</b>	<b>1.0443</b>	<b>1.0206</b>

### 4. Price Relative by Hotel Type, 2010

Spec #	Item Description	Hotel	Rooming House	SRO
101	TAXES	1.1293	1.1332	1.1405
205-206, 208-216	LABOR COSTS	1.0293	1.0110	1.0193
301-303	FUEL	0.9826	0.9226	1.0793
401-407, 409-410	UTILITIES	0.9590	0.9598	0.9110
501-516, 518	CONTRACTOR SERVICES	1.0326	1.0291	1.0301
601-608	ADMINISTRATIVE COSTS	1.0387	1.0347	1.0371
701	INSURANCE COSTS	0.9798	0.9798	0.9798
801-816	PARTS AND SUPPLIES	0.9879	1.0122	1.0109
901-904, 907-911	REPLACEMENT COSTS	1.0227	1.0189	1.0186
<b>ALL ITEMS</b>		<b>1.0494</b>	<b>1.0221</b>	<b>1.0315</b>

## 5. Percentage Change in Real Estate Tax Sample by Borough and Source of Change, Apartments and Hotels, 2010

	% 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	7.60%	-0.35%	-0.06%	5.11%	0.36%	12.65%
Bronx	-8.24%	3.86%	-0.90%	8.65%	-0.22%	3.14%
Brooklyn	1.66%	0.08%	0.23%	5.33%	0.09%	7.38%
Queens	0.61%	0.15%	0.16%	5.22%	0.04%	6.18%
Staten Island	0.42%	5.48%	-0.14%	5.48%	0.30%	11.55%
<b>All Apartments</b>	<b>4.53%</b>	<b>0.06%</b>	<b>0.15%</b>	<b>5.16%</b>	<b>0.23%</b>	<b>10.12%</b>
<b>HOTELS</b>						
Hotel	25.88%	-16.79%	0.00%	3.47%	0.36%	12.93%
RH	8.09%	-0.19%	0.00%	5.02%	0.39%	13.32%
SRO	9.37%	-1.35%	0.63%	5.02%	0.39%	14.05%
<b>All Hotels</b>	<b>14.30%</b>	<b>-5.97%</b>	<b>0.27%</b>	<b>4.52%</b>	<b>0.38%</b>	<b>13.51%</b>

Note: Totals may not add due to rounding.

## 6. Tax Change by Borough and Community Board, Apartments, 2010

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>12,711</b>	<b>12.65%</b>	Brooklyn	7	933	3.4%	Queens	17	613	3.3%
	1	84	12.3%		8	333	5.1%		18	77	3.9%
	2	1,121	14.6%		9	302	-1.6%			<b>6,531</b>	<b>6.18%</b>
	3	1,585	16.4%		10	211	6.6%		1	1,881	6.8%
	4	1,001	14.4%		11	313	2.9%		2	874	7.6%
	5	267	13.3%		12	429	4.9%		3	454	-0.7%
	6	843	12.5%			<b>12,907</b>	<b>7.38%</b>		4	449	1.6%
	7	1,798	13.4%		1	1,542	13.9%		5	1,236	11.2%
	8	2,125	10.8%		2	644	9.3%		6	316	6.5%
	9	761	14.0%		3	956	15.9%		7	437	5.8%
	10	1,003	19.4%		4	1,346	3.4%		8	167	8.6%
	11	698	16.6%		5	425	9.3%		9	219	4.4%
12	1,419	8.8%	6	977	14.3%	10	57	6.6%			
Lower		<b>8,317</b>	<b>12.7%</b>	7	899	9.4%	11	79	10.0%		
Upper		<b>4,394</b>	<b>12.5%</b>	8	977	11.3%	12	145	9.4%		
Bronx		<b>5,389</b>	<b>3.14%</b>	9	567	6.0%	13	34	11.6%		
	1	358	-8.8%	10	805	9.9%	14	99	7.7%		
	2	257	7.5%	11	732	5.2%	Staten Island	<b>167</b>	<b>11.55%</b>		
	3	343	3.1%	12	604	4.3%	1	117	15.6%		
	4	727	2.3%	13	175	10.3%	2	27	6.2%		
	5	664	3.0%	14	877	4.1%	3	22	1.9		
	6	494	2.6%	15	363	5.8%		<b>37,705</b>	<b>10.12%</b>		
			16	319	6.2%	<b>ALL</b>					

Note: No Community Board could be assigned to the following number of buildings for each borough: Manhattan (6), Bronx (25), Brooklyn (8), Queens (84), Staten Island (1). 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, 2010

Spec #	Item Description	Expenditure Weights	Price Relative	% Change	Standard Error	Spec #	Item Description	Expenditure Weights	Price Relative	% Change	Standard Error
101	TAXES	<b>0.2925</b>	<b>1.1351</b>	<b>13.51%</b>	<b>1.5884</b>	601	Management Fees	0.6629	1.0483	4.83%	0.9265
205	Social Security Insurance	0.0517	1.0252	2.52%	0.0000	602	Accountant Fees	0.0804	1.0233	2.33%	0.9248
206	Unemployment Insurance	0.0120	1.0678	6.78%	0.0000	603	Attorney Fees	0.1085	1.0215	2.15%	2.2110
208	Hotel Private Health/Welfare	0.0492	1.0371	3.71%	0.0000	604	Newspaper Ads	0.0932	1.0089	0.89%	0.5692
209	Hotel Union Labor	0.3123	1.0389	3.89%	0.0000	605	Agency Fees	0.0245	1.0000	0.00%	0.0000
210	SRO Union Labor	0.0121	1.0442	4.42%	0.0000	606	Lease Forms	0.0098	1.0191	1.91%	2.0514
211	Apartment Value	0.1227	0.9940	-0.60%	0.7466	607	Bill Envelopes	0.0121	1.0321	3.21%	2.2917
212	Non-Union Superintendent	0.3111	1.0248	2.48%	0.6224	608	Ledger Paper	0.0086	1.0231	2.31%	2.2226
213	Non-Union Maid	0.0000	0.0000	NA	0.0000		ADMINISTRATIVE COSTS	<b>0.0813</b>	<b>1.0378</b>	<b>3.78%</b>	<b>0.6669</b>
214	Non-Union Desk Clerk	0.0000	0.0000	NA	0.0000	701	INSURANCE COSTS	<b>0.0431</b>	<b>0.9798</b>	<b>-2.02%</b>	<b>0.5879</b>
215	Non-Union Maintenance Worker	0.0000	0.0000	NA	0.0000						
216	Non-Union Janitor/Porter	0.1289	1.0130	1.30%	1.5465						
	LABOR COSTS	<b>0.1547</b>	<b>1.0253</b>	<b>2.53%</b>	<b>0.2926</b>	801	Light Bulbs	0.0150	1.0176	1.76%	1.7926
301	Fuel Oil #2	0.6958	0.9226	-7.74%	0.9175	802	Light Switch	0.0163	1.0484	4.84%	3.9761
302	Fuel Oil #4	0.0150	1.0895	8.95%	0.5660	803	Wet Mop	0.0458	1.0225	2.25%	2.3221
303	Fuel Oil #6	0.2892	1.1548	15.48%	0.2706	804	Floor Wax	0.0602	0.9902	-0.98%	2.8328
	FUEL	<b>0.1505</b>	<b>0.9923</b>	<b>-0.77%</b>	<b>0.6432</b>	805	Paint	0.1307	1.0188	1.88%	1.4238
401	Electricity #1, 2,500 KWH	0.0603	0.9749	-2.51%	0.0000	806	Pushbroom	0.0387	1.0146	1.46%	1.5237
402	Electricity #2, 15,000 KWH	0.0672	0.9392	-6.08%	0.0000	807	Detergent	0.0483	1.0522	5.22%	2.9027
403	Electricity #3, 82,000 KWH	0.2159	0.9690	-3.10%	0.0000	808	Bucket	0.0467	1.0186	1.86%	0.9954
404	Gas #1, 12,000 therms	0.0494	0.7903	-20.97%	0.0000	809	Washers	0.0502	1.0102	1.02%	1.8091
405	Gas #2, 65,000 therms	0.0510	0.7817	-21.83%	0.0000	810	Linens	0.2946	0.9501	-4.99%	4.7598
406	Gas #3, 214,000 therms	0.2333	0.7745	-22.55%	0.0000	811	Pine Disinfectant	0.0224	1.0174	1.74%	1.7966
407	Steam #1, 1.2m lbs	0.0003	0.9261	-7.39%	0.0000	812	Window/Glass Cleaner	0.0209	1.0097	0.97%	0.9607
409	Telephone	0.1487	1.0812	8.12%	0.0000	813	Switch Plate	0.0547	1.0024	0.24%	0.4179
410	Water & Sewer	0.1739	1.1290	12.90%	0.0000	814	Duplex Receptacle	0.0398	1.0097	0.97%	1.0346
	UTILITIES	<b>0.1469</b>	<b>0.9481</b>	<b>-5.19%</b>	<b>0.0000</b>	815	Toilet Seat	0.0498	1.0251	2.51%	1.6230
501	Repainting	0.2183	1.0036	0.36%	0.7878	816	Deck Faucet	0.0660	1.0123	1.23%	1.2232
502	Plumbing, Faucet	0.0895	1.0421	4.21%	1.5255		PARTS AND SUPPLIES	<b>0.0385</b>	<b>0.9969</b>	<b>-0.31%</b>	<b>1.4479</b>
503	Plumbing, Stoppage	0.0846	1.0372	3.72%	1.5230	901	Refrigerator #1	0.0217	0.9989	-0.11%	0.6379
504	Elevator #1, 6 fl., 1 e.	0.0380	1.0194	1.94%	0.6873	902	Refrigerator #2	0.1039	1.0083	0.83%	0.5741
505	Elevator #2, 13 fl., 2 e.	0.0343	1.0166	1.66%	0.7046	903	Air Conditioner #1	0.0605	1.0260	2.60%	1.9909
506	Elevator #3, 19 fl., 3 e.	0.0311	1.0186	1.86%	0.7375	904	Air Conditioner #2	0.0724	1.0215	2.15%	1.5916
507	Burner Repair	0.0290	1.0308	3.08%	1.8723	907	Range #1	0.0095	1.0126	1.26%	2.0373
508	Boiler Repair, Tube	0.0345	1.0632	6.32%	3.9583	908	Range #2	0.0430	1.0136	1.36%	0.7377
509	Boiler Repair, Weld	0.0339	1.0215	2.15%	2.4868	909	Carpet	0.3408	1.0281	2.81%	1.8818
511	Range Repair	0.1291	1.0397	3.97%	2.0140	910	Dresser	0.1771	1.0349	3.49%	2.4206
512	Roof Repair	0.0308	1.0413	4.13%	1.6199	911	Mattress & Box Spring	0.1710	1.0053	0.53%	0.5570
513	Air Conditioner Repair	0.0424	1.0086	0.86%	0.9082		REPLACEMENT COSTS	<b>0.0160</b>	<b>1.0213</b>	<b>2.13%</b>	<b>0.7981</b>
514	Floor Maint. #1, Studio	0.0008	0.9866	-1.34%	3.0209						
515	Floor Maint. #2, 1 Br.	0.0018	0.9868	-1.32%	3.0482						
516	Floor Maint. #3, 2 Br.	0.0160	0.9868	-1.32%	3.0400						
518	Linen/Laundry Service	0.1859	1.0625	6.25%	5.4027						
	CONTRACTOR SERVICES	<b>0.0766</b>	<b>1.0315</b>	<b>3.15%</b>	<b>1.0850</b>		ALL ITEMS	<b>1.0000</b>	<b>1.0395</b>	<b>3.95%</b>	<b>0.4909</b>

## 8. Expenditure Weights and Price Relatives, Lofts, 2010

Spec #	Item Description	Weights	Price Relative	Spec #	Item Description	Weights	Price Relative
101	TAXES	<b>0.2704</b>	<b>1.1012</b>		ADMINISTRATIVE COSTS, LEGAL	<b>0.0727</b>	<b>1.0215</b>
201	Payroll, Bronx, All	0.0000	1.0287	601	Management Fees	0.8175	1.0483
202	Payroll, Other, Union, Supts.	0.2489	1.0258	602	Accountant Fees	0.1423	1.0233
203	Payroll, Other, Union, Other	0.0000	1.0277	604	Newspaper Ads	0.0046	1.0089
204	Payroll, Other, Non-Union, All	0.5418	1.0215	605	Agency Fees	0.0065	1.0000
205	Social Security Insurance	0.0418	1.0252	606	Lease Forms	0.0090	1.0191
206	Unemployment Insurance	0.0061	1.0678	607	Bill Envelopes	0.0110	1.0321
207	Private Health & Welfare	0.1614	1.0556	608	Ledger Paper	0.0091	1.0231
	LABOR COSTS	<b>0.0906</b>	<b>1.0285</b>		ADMINISTRATIVE COSTS - OTHER	<b>0.0952</b>	<b>1.0436</b>
301	Fuel Oil #2	0.3349	0.9226	701	INSURANCE COSTS	<b>0.1930</b>	<b>0.9798</b>
302	Fuel Oil #4	0.5547	1.0895	801	Light Bulbs	0.0349	1.0176
303	Fuel Oil #6	0.1103	1.1548	802	Light Switch	0.0416	1.0484
	FUEL	<b>0.0957</b>	<b>1.0408</b>	803	Wet Mop	0.0374	1.0225
401	Electricity #1, 2,500 KWH	0.0088	0.9749	804	Floor Wax	0.0467	0.9902
402	Electricity #2, 15,000 KWH	0.1170	0.9392	805	Paint	0.2296	1.0188
403	Electricity #3, 82,000 KWH	0.0000	0.9690	806	Pushbroom	0.0329	1.0146
404	Gas #1, 12,000 therms	0.0047	0.7903	807	Detergent	0.0349	1.0522
405	Gas #2, 65,000 therms	0.0682	0.7817	808	Bucket	0.0370	1.0186
406	Gas #3, 214,000 therms	0.1924	0.7745	809	Washers	0.0969	1.0102
407	Steam #1, 1.2m lbs	0.0185	0.9261	811	Pine Disinfectant	0.0553	1.0174
408	Steam #2, 2.6m lbs	0.0068	0.8894	812	Window/Glass Cleaner	0.0522	1.0097
409	Telephone	0.0084	1.0812	813	Switch Plate	0.0446	1.0024
410	Water & Sewer - Frontage	0.5753	1.1290	814	Duplex Receptacle	0.0320	1.0097
	UTILITIES	<b>0.0841</b>	<b>1.0062</b>	815	Toilet Seat	0.0963	1.0251
501	Repainting	0.3875	1.0036	816	Deck Faucet	0.1276	1.0123
502	Plumbing, Faucet	0.1400	1.0421		PARTS AND SUPPLIES	<b>0.0161</b>	<b>1.0172</b>
503	Plumbing, Stoppage	0.1249	1.0372	901	Refrigerator #1	0.0969	0.9989
504	Elevator #1, 6 fl., 1 e.	0.0548	1.0194	902	Refrigerator #2	0.4673	1.0083
505	Elevator #2, 13 fl., 2 e.	0.0360	1.0166	903	Air Conditioner #1	0.0163	1.0260
506	Elevator #3, 19 fl., 3 e.	0.0199	1.0186	904	Air Conditioner #2	0.0204	1.0215
507	Burner Repair	0.0392	1.0308	905	Floor Runner	0.0885	1.0000
508	Boiler Repair, Tube	0.0517	1.0632	906	Dishwasher	0.0492	1.0245
509	Boiler Repair, Weld	0.0431	1.0215	907	Range #1	0.0483	1.0126
510	Refrigerator Repair	0.0115	1.0548	908	Range #2	0.2131	1.0136
511	Range Repair	0.0109	1.0397		REPLACEMENT COSTS	<b>0.0131</b>	<b>1.0093</b>
512	Roof Repair	0.0675	1.0413				
513	Air Conditioner Repair	0.0082	1.0086				
514	Floor Maint. #1, Studio	0.0002	0.9866				
515	Floor Maint. #2, 1 Br.	0.0005	0.9868				
516	Floor Maint. #3, 2 Br.	0.0042	0.9868				
	CONTRACTOR SERVICES	<b>0.0692</b>	<b>1.0232</b>		ALL ITEMS	<b>1.0000</b>	<b>1.0382</b>