

The Rent Guidelines Board 2002 Price Index of Operating Costs

April 23, 2002

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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 was maintained by the Bureau of Labor

Statistics (BLS) from 1970 to 1981. From 1982 to 1990, the PIOC was prepared by private consulting firms. In 1991, the Rent Guidelines Board (RGB) staff's growing expertise and familiarity made it possible to move the PIOC "in house."

The PIOC measures changes in the cost of purchasing a specified set of goods and services, which must remain constant both in terms of quantity and quality from one year to the next. The need to exclude the effect of any alterations in the quality of services provided requires that very careful specifications of the goods and services priced must be developed and applied. The pricing specifications must permit the measurement of changes in prices paid for carefully defined pricing units with specific terms of sale, such as cash, volume or trade discounts. For certain items, such as real estate taxes, the price paid is determined administratively, and the information is 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 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

WHAT'S NEW

- ✓ The Price Index of Operating Costs for Rent Stabilized Apartment Buildings (PIOC) decreased 1.6% this year.
- ✓ Costs in pre-war buildings fell 3.2%.
- ✓ The PIOC was lower than projected mainly because of sharp decrease in fuel prices and natural gas costs.
- ✓ 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 5.4% this year.
- ✓ Real estate taxes rose 6.6% due mainly to the strong rise in assessments.
- ✓ Labor Costs rose 4.0%, the same increase as last year's growth.
- ✓ The Utilities component decreased by 9.9% due primarily to sharp decreases in natural gas costs.
- ✓ Insurance Costs grew by 16.5%, a significant rise from the 0.7% increase found last year. Rate increases fueled much of the growth in insurance costs.
- ✓ The Price Index of Operating Costs for Rent Stabilized Apartment Buildings is projected to increase 6.4% next year.

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



the various index items. The expenditure weights used in the construction of the 2002 Price Index are based upon the 1983 Expenditure Study and revised on the basis of the 1982-2001 measured price changes.

The importance of each index component is shown by its "expenditure weight" (see Appendix 2). The measured 2001-02 price changes in each index component are also presented in this table. The expenditure weights and the 2001-02 price changes are then combined to provide the overall change in the PIOC over the period from 2001-02.

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-46). 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 buildings are submerged when their expenditure patterns 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 decreased by 1.6%, more than ten percentage points down from the year before (8.7% in 2001). The PIOC has been performed since 1969 — this is the first time that the overall Price Index has been negative in the history of the survey. This year's percent change is a small decrease, largely the result of a major decline in fuel and utility prices in reaction to the extremely high fuel price increases of the past two years (33% and 55%), along with utility prices which are dependent on fuel. In constant dollars, the fuel price is roughly the same as it was in 1998. Among the seven components unaffected by energy prices, changes in prices and costs ranged from the steep rise in insurance costs (16.5%) and in real estate taxes (6.6%) to the slight decline in replacement costs (-0.6%). The "core" PIOC, which excludes the erratic changes in fuel oil, natural gas and electricity costs, is useful for analyzing long-term inflationary trends. The core PIOC rose by 5.4% this year, outpacing the growth in the Consumer Price Index (CPI) (2.5%), by almost 3 percentage points.¹

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.

CHANGE IN COSTS FOR RENT STABILIZED APARTMENT BUILDINGS, APRIL 2001 TO APRIL 2002

Taxes	6.6%
Labor Costs	4.0%
Fuel	-36.1%
Utilities	-9.9%
Contractor Services	3.9%
Administrative Costs	4.6%
Insurance Costs	16.5%
Parts & Supplies	0.9%
Replacement Costs	-0.6%
All Costs	-1.6%

Price Index Components

Taxes



The Tax component of the PIOC is based entirely on real estate taxes. The change in taxes is estimated by comparing aggregate taxes levied on rent stabilized

apartment houses in FY 2001 and FY 2002. The tax data was obtained from the New York City Department of Finance.

Real estate taxes for rent stabilized buildings rose this year by 6.6%. The change in taxes was primarily due to a strong rise in assessments. The tax rate for Class Two properties, the category that contains the vast majority of rent stabilized buildings, declined for the second year in a row. Changes in tax exemptions and 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 6.2% from FY 2001 to FY 2002, mainly due to rising assessments. The Class Two property levy rose more

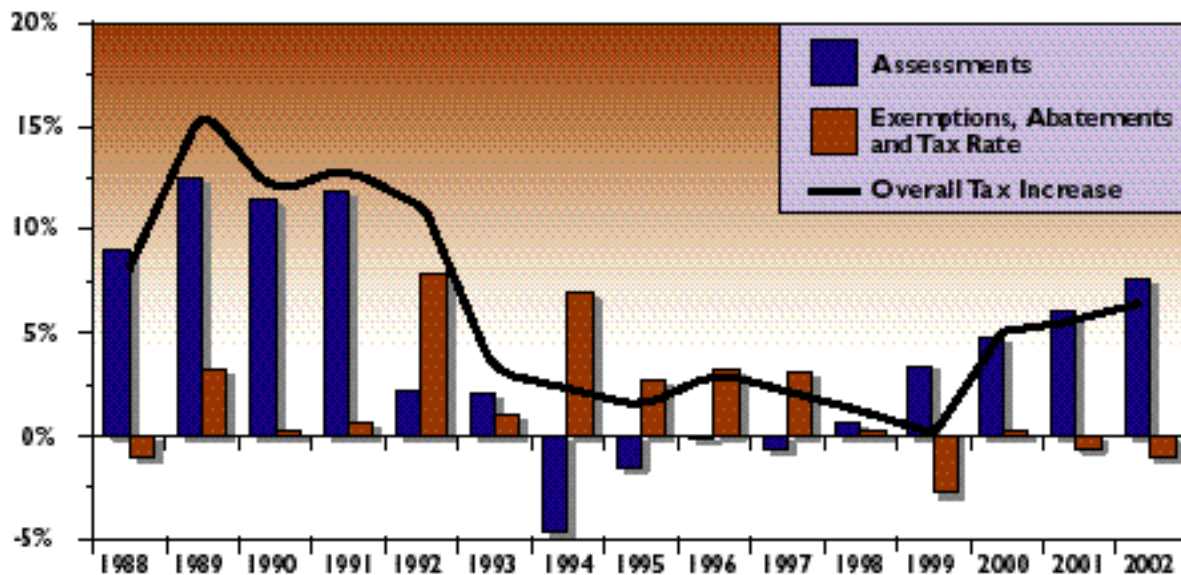
rapidly than the City as a whole, by 7.6%. The distribution of the levy among property classes tends to shift from year to year. In recent years, more of the tax burden has generally fallen on Class Two properties. From FY 2001 to FY 2002, the levy share for Class Two properties increased by .44 percentage points to 34.9% of the total tax burden. The Class Two levy share rose by a similar amount the year before.

Tax Rate — From FY 2001 to FY 2002, the tax rate for Class Two properties decreased for the fourth time in five years, by 0.5% to 10.792. In FY 1998, the tax rate for Class Two properties decreased by 0.1%, and in FY 1999, the tax rate for Class Two fell more rapidly, by 2.8%. In FY 2000, the tax rate for Class Two increased by 1.0%, and in FY 2001, the tax rate for all Class Two properties was essentially unchanged, dropping by 0.04%.

Assessments — The assessed valuations of rent stabilized buildings rose dramatically from the late 1980s through 1991, increasing 8% or more each year (see graph below). In FY 1992 and FY 1993, the increase in valuations for stabilized buildings slowed to 2% per year. The impact of the recession

Rising Property Values Increase Billable Assessments for the Fifth Consecutive Year

(Percent Change in Taxes due to Assessments and Exemptions/Abatements/Tax Rate)



Source: New York City Department of Finance

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.

For the fifth consecutive year, assessments of rent stabilized buildings increased in FY 2002. Across the City, assessments rose by 7.5%, which is 1.6 percentage points higher than last year's rise of 5.9%. All five boroughs showed increases in assessments, ranging from 4.7% in Staten Island to a rise of 8.6% in Manhattan in FY 2002. Assessments rose in Queens by 5.8%, by 5.5% in Brooklyn and by 7.2% in the Bronx.

Abatements and Exemptions — This year, the number of rent stabilized buildings with abatements declined by almost 6%. The average benefit value of the typical tax abatement also decreased, by 2.4% from FY 2001 to FY 2002. While the number of properties with tax abatements decreased in every borough from FY 2001 to FY 2002, the average value of abatements increased in both Manhattan and Staten Island.

Many of the buildings that were renovated during the 1970s and '80s in New York City benefited from tax abatements. In recent years, many of these abatements have been expiring. The net impact of the decrease in the number of abatements and the minimal change in the average abatement value in FY 2002 is a small increase in the tax liability for rent stabilized buildings as a whole, by approximately 0.3%.

In FY 2002, both the number and value of average tax exemptions increased. Buildings in all boroughs except Queens had an increased number of tax exemptions and the average exemption value increased in every borough except Staten Island. Overall, nearly 1.5% more rent stabilized buildings benefited from tax exemptions than in the year before, and the average value of exemptions increased by 6.4% this year. The increase in tax exemptions had a larger impact on the real estate tax component of the PIOC than the change in abatements. For all stabilized properties, the rising number and value of tax exemptions reduced owners' tax bills by about 0.6%. (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 comprises about two-thirds of the Labor Costs component. The entire Labor Costs component comprises 16% of the overall Price Index

Labor Costs rose 4.0%, the same increase seen in last year's PIOC. Unionized wages as a group increased by 3.4%, offsetting the faster growth in non-union pay (6.4%). This is the ninth consecutive year in which the growth in non-union labor pay outpaced union labor wages. In addition, employers saw an increase in the cost of union benefit contributions of 1.9% which was less than last year's growth of 4.6%. The cost of unemployment insurance was flat.

Fuel



In a reversal of the last two years of rapid growth, the cost of fuel oil decreased by 36% this year. The decreases in cost-weighted prices for #2 fuel oil, #4, and #6 were 32%, 41% and 42% respectively.

The PIOC measures fuel oil prices from May to April and then compares them to the same month from the previous year. Relatively small increases occurred in fuel oil prices in both May and June of 2001 over the same months from the previous year. Then from July to April fuel prices declined each month, the largest decreases occurring in December, January and February, the heart of the heating season.

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. The effect of the decrease in demand due to this year's warmer winter lowered the cost of heating with oil by 18.0%. The remainder of the 36% decrease in fuel costs was due an increase in the supply of crude oil and the resulting price decrease.²

Inflation-Adjusted Fuel Prices Have Returned to Level Seen in 1998

(Price of #2 Fuel Oil in Constant 2002 Dollars)



Source: 1998 to 2002 Price Index of Operating Costs Vendor Surveys

The Fuel component is the most volatile component of the PIOC and is subject to drastic spikes and drops in price. In particular the past five years have seen dramatic changes in price. However, taking the average price for #2 oil in this year's PIOC and applying the Fuel component changes back to 1998, the price in 2002 is roughly the same as in 1998, adjusted into constant 2002 dollars. (See graph above)

Utilities



The Utilities component consists primarily of electricity, natural gas, and water and sewer charges. Telephone and steam costs are a small part of the Utilities 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 billings obtained from the City's Department of Environmental Protection (DEP).

This year, Utilities decreased by 9.9%. Gas and electricity costs, which account for roughly half of the Utilities component, declined sharply: 26.1%

and 12.3% respectively. The double-digit decreases in gas and electricity costs were somewhat offset by a small increase in water and sewer costs (1.6%). Water and sewer costs account for about 50% of the Utilities component. Steam costs which decreased 20.5% and telephone costs which increased 2.2% had little impact on the overall Utilities component.

The large decrease in gas costs was a departure from last year when gas rose sharply (57.4%). The decreases in gas costs were due to lower wholesale prices charged to Con Edison and Keyspan and weather that was warmer than "normal." An increase in supply of natural gas resulted in lower wholesale gas prices charged to Con Edison and Keyspan which led to consistently low fuel adjustments throughout the heating season. This

resulted in low gas rates to owners of multi-family buildings throughout the PIOC year (May 2001-April 2002). Warmer weather during the heating season lowered the cost of heating with gas by 21%. The remainder of the 26.1% decrease in the cost of gas for heating was due to the change in rates.

For the fourth year, the PIOC has measured frontage and metered costs separately. Water and sewer charges for rent stabilized buildings that were billed on a frontage basis in both FY 2001 and FY 2002 increased by 3.0%; the rate set by the New York City Water Board.³ Charges decreased by 2.3% for buildings billed on a metered or mixed-billing basis (buildings with metered bills in calendar years 2000 and 2001 or buildings that switched from frontage to metered billing during the two-year period). This is a change from last year's study, in which buildings with metered or mixed billing increased more than the Water Board's rate.

This year, a larger share of buildings moved from frontage to metered billing (3%), an increase from last year's study when 2.5% of buildings changed over. This group of buildings experienced a 17% decrease in water/sewer costs, twice as large a decrease than in the 2000-2001 time period.

Like in previous years, this year's study found high variability in the change in owners' costs in

buildings billed on a metered basis. Since metered bills reflect actual consumption, which fluctuates with occupancy changes and leaks, costs can vary greatly from year to year, especially in small buildings that are most sensitive to these changes. Of the buildings with metered bills in both 2000 and 2001, more than 45% experienced a decrease in their water/sewer costs and 12 percent had increases that were below the Water Board rate of 3%. This indicates a savings for more than half of property owners who are billed on a metered basis.

The combined increase in water and sewer costs for all rent stabilized buildings was 1.6%.

Contractor Services



The Contractor Services component rose 3.9%, slightly higher than last year's increase of 3.6%. The most important items in this component by weight are repainting and plumbing prices, which comprise two-thirds of the Contractor Services component.

For the second consecutive year, plumbing rates increased more than those for repainting. Repainting rates increased by 2.0% compared to last year's growth of 2.8%. Plumbers' rates rose 5.7% outpacing last year's growth of 4.2%. All of the other items had price relatives between 0.6% to 7.9%.

Painters cited that the reason for the smaller rate increase was due to a continuing trend of fewer customers than in prior years, resulting in more competition between painting contractors. A majority of painters did not increase their rates from the prior year. Several plumbers reported that an increase in the cost of labor, materials and insurance were the three factors which led to a higher increase in their services this year compared to the previous year.

Every item in the Contractor Services component experienced some rise in prices. Elevator Maintenance showed the highest increase (7.1%) of any item in this component due to a new labor agreement with the elevator unions. Floor maintenance for studios had the smallest increase of 0.6%.

Administrative Costs



The Administrative Costs component rose 4.6%, an increase over last year's growth of 4.1%. 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 (5.6%) which comprise 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 higher than last year's (4.5%), indicating that management companies continue to see increased rents and fewer vacancies in the buildings they manage.

Both attorney and accounting fees saw lower increases than last year. Attorneys' fees were almost flat increasing just 0.5% compared to the prior year's rise of 1.6%. Accountants' fees rose 3.9% in 2002, slower than last year's rate of 5.0%. Accountants claimed that increases in inflation and overall operating expenses led to higher rates.

Insurance Costs



Insurance Costs increased sharply this year by 16.5%, the highest increase in any component of the 2002 PIOC. This was a significant rise compared to the changes seen in the Insurance Costs component ranging from -1.5 to +5.2% over the past fourteen years. The last large spike in insurance costs was in 1987 (33.7%). The Insurance Costs component accounts for 6% of the overall Price Index this year. The 16.5% increase has less impact on the 2002 PIOC than changes in components that are weighted more heavily.

Over 80% of the building owner survey responses indicated an increase in insurance costs. About 9% of the responses reported no change from the previous year while 9% showed a decrease in costs.

The percentage of owners changing insurance carriers from year-to-year continued to increase in 2002. Roughly 21% of the building owner responses reported a change in insurance carriers for the surveyed building in the past year. This percentage is up from 19% in 2001, 17% in 2000, 11% in 1999 and 10% in 1998. However, this year only 17% of owners who switched carriers saw a decrease in the cost of their insurance. Twice as high a percentage (34%) switched carriers and realized a decrease in cost last year. Over 78% of owners who found new carriers saw an increase in their insurance costs, up from 64% the year before.

A decline in the performance of the stock market over the last 12 months along with the reluctance of insurers to remain in or enter the New York City insurance market after 9/11 for fear of further terrorist attacks have caused insurance costs to rise dramatically. Essentially, there are fewer companies willing to take the financial risk in insuring apartment buildings in New York City.

This year, the RGB staff tried to determine the effect the events of 9/11 had on the rising cost of insurance. The change in cost of insurance was examined up to and after September 2001, by analyzing policies that had renewal dates in the time periods specified below. From the period of April 2001 through September 2001, insurance costs rose 12%. After September of 2001, the change in costs more than doubled with a 30% rise in costs seen from the period of October 2001 to April 2002. The change in insurance costs rose even higher (34%) from January 2002 to April 2002. It is clear that the events of 9/11 had a dramatic impact on the rising cost of insurance for New York City building owners.

Parts and Supplies



The Parts and Supplies component accounts for roughly two percent of the entire Price Index. The overall increase in the Parts and Supplies component was 0.9%, slightly higher than last year's increase of 0.8%. Increases in this component have not exceeded 2.2% since 1992.

Replacement Costs



The Replacement Costs component is even less significant than the Parts and Supplies component, its weight being less than 1/100th of the PIOC. This year there was an overall decrease in Replacement Costs of 0.6%.

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, and 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 (SRO's)—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 decreased 1.5% this year, 12 percentage points lower than the year before and is nearly identical to the 1.6% decrease in costs experienced by the apartment Price Index. The primary difference between the increase in the Hotel Index and the apartment Price Index was in the Tax component. The increase in taxes for all types of Hotels was 10.8% overall (versus 6.6% in apartment buildings), driven mainly by the increase found in assessments for "traditional" hotels. There was notable diversity among hotel subgroups in tax expense this year, as real estate taxes increased in "traditional" stabilized hotels by 12.9%, by 9.9% in SRO's, and by 7.9% in Rooming Houses. The increase in tax burden found for Hotels this year was caused by the gains in assessed value for all classes of rent stabilized Hotels (14.4% for "traditional" hotels, 11.1% for SRO's and 8.5% for Rooming Houses), offset slightly by a decrease in the tax rate. (See Appendix 5)

While the increase in cost for taxes was higher for stabilized Hotels than for apartments, these properties also experienced higher increases for labor expense. Labor Costs increased more rapidly in Hotels (5.4%) versus the 4.0% rise in apartments, mainly due to the greater importance of non-union labor in the Hotel Index. Utility costs decreased in Hotels by 11.6%, a larger decrease than the 9.9% decrease for apartments. The difference was due primarily to electricity costs in Hotels, which are weighted more heavily in Hotels than in apartments. Conversely, the rates for Contractor Services did not rise as quickly in Hotels (2.7%) as they did in apartments (3.9%) this year. Because the Contractor Services component is less important in the Hotel Index (accounting for about 9% of the weight) than in the apartment index (about 14% of the weight), the lower increase in maintenance rates did not offset the overall hotel index significantly. Although the Tax and Labor Costs components showed higher increases than in the apartment index, these gains did not offset the decreases in energy-related costs for hotels. These changes caused the Price Index for all stabilized Hotels to decrease at about the same rate as the Price Index for all stabilized buildings.

Among the different categories of Hotels, the index for "traditional" hotels increased 1.3%, the index for Rooming Houses and SRO's decreased by 3.6% and 4.2% respectively. (See Appendices 4 and 7)

Rent Stabilized Lofts

The increase in the Loft Index this year was 1.4%, 3 percentage points higher than the decrease for apartments. This difference is explained by the fact that while fuel and utility costs decreased, by 38.3% and 8.4% respectively, these costs are less important for lofts than for apartments and placed less downward pressure on the Loft Index. (See Appendix 8)

PIOC Projections for 2003

Each year, 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. Along with the current PIOC, the PIOC Projection provides a basis to assist the Board in setting guidelines for tenants choosing two-year leases.

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.

This year, operating costs in rent stabilized apartment buildings decreased by 1.6% versus last year's PIOC projection of an increase of

CHANGE IN COSTS FOR RENT STABILIZED HOTEL BUILDINGS, APRIL 2001 TO APRIL 2002

Taxes	10.8%
Labor Costs	5.4%
Fuel	-35.3%
Utilities	-11.6%
Contractor Services	2.7%
Administrative Costs	4.4%
Insurance Costs	16.5%
Parts & Supplies	1.1%
Replacement Costs	1.2%
All Costs	-1.5%

CHANGE IN COSTS FOR RENT STABILIZED LOFT BUILDINGS, APRIL 2001 TO APRIL 2002

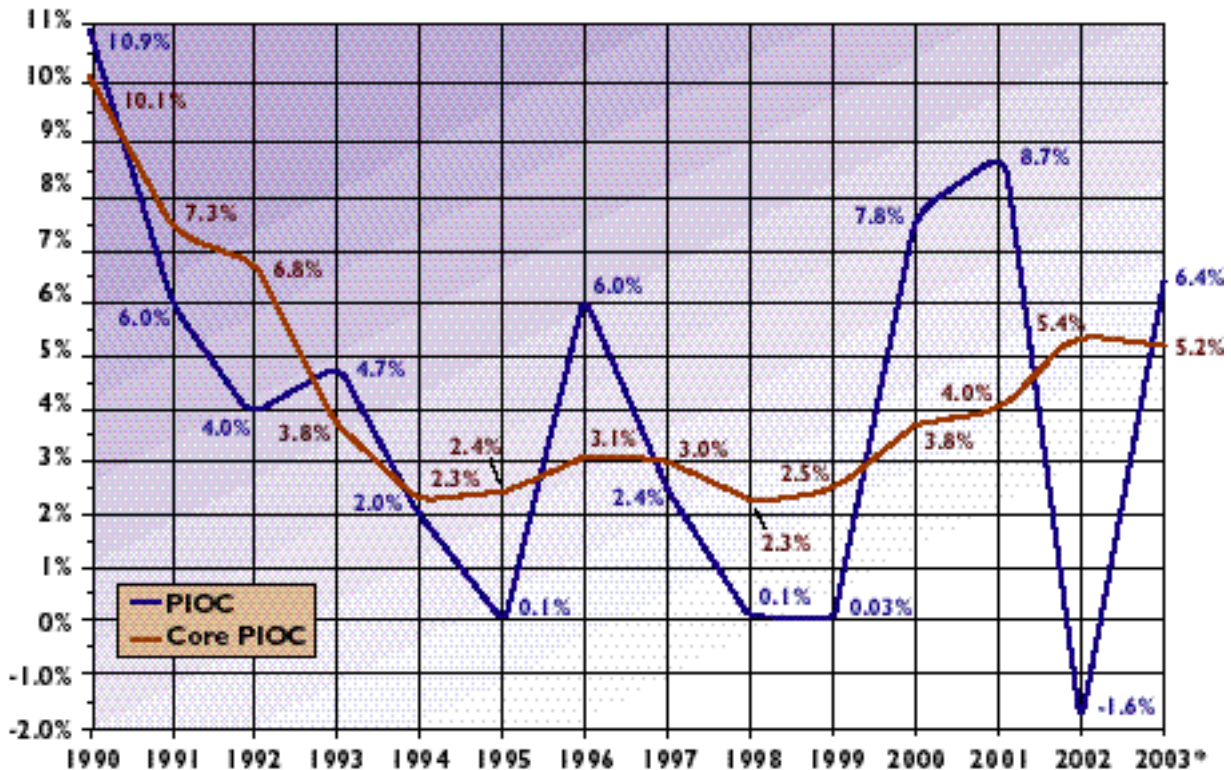
Taxes	6.6%
Labor Costs	3.2%
Fuel	-38.3%
Utilities	-8.4%
Contractor Services	3.9%
Administrative Costs,Legal	0.5%
Administrative Costs,Other	5.3%
Insurance Costs	16.5%
Parts & Supplies	0.9%
Replacement Costs	-0.6%
All Costs	1.4%

PROJECTED CHANGE IN COSTS FOR RENT STABILIZED APARTMENT BUILDINGS, APRIL 2002 TO APRIL 2003

Taxes	4.6%
Labor Costs	3.6%
Fuel	17.6%
Utilities	4.6%
Contractor Services	4.0%
Administrative Costs	4.2%
Insurance Costs	16.4%
Parts & Supplies	1.2%
Replacement Costs	0.8%
All Projected Costs	6.4%

The "Core" PIOC Shows Upward Trend from 1998 to 2002

(Percent Change in the Price Index of Operating Costs and the Core PIOC, 1990-2003)



*Note: The percent change for 2003 was estimated.

Source: Price Indices of Operating Costs, 1990-2002, PIOC projection for 2003

2.1%. The sharp decline in fuel and utilities costs contributed the most to the variance between the 2002 projection and the actual 2002 PIOC. Fuel prices decreased by 36% versus the expected decrease of 14%. PIOC projection methodology assumes a return to "normal" weather based on the most recent five-year average (see Endnote 2) when predicting fuel prices. The fact that the past year was much warmer than the prior year contributed about 18% to the large decrease in fuel prices and 21% to the decline in gas heating costs. The downward spike in energy prices, which was much lower than anticipated, drove the remainder of the fuel cost decrease. Falling energy costs and the warmer weather also contributed to utility costs decreasing by 9.9% instead of the 1.0% increase predicted. Insurance Costs, another volatile and unpredictable component, rose 14 percentage points higher than

the 2.5% estimate due to unanticipated increases in coverage and rates seen in the beginning of 2001 and after the 9/11 attacks. Administrative Costs rose about 1 percentage point more than predicted, while Parts and Supplies rose by about 0.7 percentage points less than expected. Replacement Costs were projected to increase by 1.0%, but declined by 0.6% in 2002. Real Estate Taxes, Contractor Services and Labor Costs components, about 55% of the PIOC taken together, rose within half of one percent of the projected levels.

The core PIOC (see graph on this page), which measures long-term local trends by factoring out shifts in fuel costs, gas, and electricity rates, rose 5.4% versus last year's RGB projection of 4.3%. Insurance Costs, non energy-related Utilities and Replacement Costs showed the most variation between the actual and predicted core increases. All

of the remaining changes in the core components in the 2002 projection and the actual 2002 core show agreement within a percentage point. The CPI grew on average for the year ending March 2001 to the year ending March 2002 (the latest figures available) by 2.5%. It is interesting to note that although the CPI uses a different market basket, the change in non-fuel-related costs measured in the core PIOC is nearly three percentage points higher than the CPI this year.

Overall, the PIOC is expected to grow by 6.4% from 2002 to 2003 due to a 4.6% projected increase in taxes and utilities, moderate projected growth in Labor Costs, Contractor Services and Administrative Costs, a 17.6% projected increase in Fuel and a 16.4% estimated rise in Insurance Costs. The core PIOC is projected to rise less rapidly than the overall PIOC, by 5.2% as the energy-related costs that are predicted to rise sharply are eliminated.

Taxes +4.6%

Property taxes comprise roughly a quarter of the PIOC. From the mid-1980s to the early 1990s, taxes often rose faster than the overall PIOC. From 1993-99, slower increases in tax rates and falling or stable assessments meant that taxes increased more slowly than they had in the prior period. However, the current trend of rising assessments, including the 7.5% increase in assessments found in FY 2002, indicate that the effects of New York City's economic recovery are now being felt in the Tax component.

Class Two properties include rent stabilized apartments, co-ops and condominiums. Within this category, rent stabilized dwellings are classified as either "rental buildings" or "4-10 unit family buildings." Based on the preliminary tax roll, the Finance Department forecasts billable assessments (the assessed value of a property on which tax liability is based) for rental buildings to increase by 9.6%, while billables for 4-10 family buildings are expected to increase by 6.6% in FY 2003. However, preliminary assessments are slightly imprecise because following the release of the tentative assessment roll each year, a small percentage of

appraisals are contested and overall final assessments are generally reduced.

After adjusting for estimated changes in the class levy share, the value of exemptions, the tax rate, the value of abatements, and contested assessments, it is estimated that tax costs to owners will grow by 5.5% and 2.6% respectively for rentals and 4-10 unit properties. Once these tax class categories are combined according to their proportion of the stabilized stock and distribution by borough, average property tax bills for rent stabilized buildings, which are predominantly classified as "rental" buildings, are estimated to increase by 4.6% in the next fiscal year.

Labor Based Components

(Labor Costs +3.6%, Contractor Services +4.0% and Administrative Costs +4.2%)

Labor based components in the PIOC include Labor Costs, comprising the wages and benefits of building maintenance workers (e.g. superintendents, porters, etc.), Contractor Services, which primarily covers the work of plumbers and painters, and Administrative Costs, which is almost entirely comprised of management, legal, and accounting fees.

Contracts for both the Westchester County (formerly 32E which serves the Bronx) and the New York City chapters of Union Local 32B-32J were negotiated through 2003 so exact projections of the rate change in wages could be calculated. All other projected labor increases are based on a geometric nine-year average.

Wages for members of Local 32B-32J in the Bronx will rise 2.7% while wages for New York City Local 32B-32J are predicted to rise 3.2% for superintendents and 3.3% for handypersons and others. By combining these increases with the remaining items in the Labor Costs component, an increase of 3.6% is projected in labor costs for the coming year.

Increases in Contractor Services and Administrative Costs are projected by averaging the growth rates observed in each component over the past three years. The cost of Contractor Services has been variable in the recent past and based on a three-year average is projected to increase by 4.0%

next year. In comparison, gains in Administrative Costs have been fairly constant since 1991 and are estimated to rise by 4.2% in the next year.

Fuel +17.6%

The cost of fuel oil depends heavily on volatile weather patterns as well as political and economic variables that cannot be reliably predicted. Given these difficulties (and barring unforeseen natural or geo-political events), the cost of oil heating in New York City is estimated to increase by 17.6% in the coming year following this year's significant cost decrease.

Assuming that annual temperatures in 2003 return to the most recent five-year average for Central Park, New York City (see Endnote 2), which would be about 13% colder than the weather experienced in 2001-02, the commensurate increase in demand for heating fuels will in turn increase the cost of fuel oil to building owners.

In sum, based on current U.S. Energy Information Administration (EIA) forecasts, rising fuel prices and accelerated fuel consumption brought about by "normal" weather conditions, are estimated to increase fuel oil heating costs to owners of stabilized buildings in New York City by 17.6% in the next year.⁴

Utilities +4.6%

In the PIOC, the costs of electricity, natural gas, water and sewer service, purchased steam and telephone service are grouped as Utilities. Water and sewer costs alone account for about 50% of the component this year, while electricity and gas comprise another 47% of the utility category (15% and 32% respectively). Steam and telephone prices constitute the remainder of the Utilities component (3%).

Next year, the overall cost of utilities is estimated to rise by 4.6%. The bulk of this growth will come from the estimated increases in water and sewer charges (a 6.5% increase is proposed by the Water Board for the coming fiscal year) and the cost of natural gas (a 4.1% increase according to EIA price estimates and an assumed return to the five-

year average weather pattern). The projected increase in water and gas costs is lowered by more moderate estimated gains in the cost of purchased steam (1.7%) and electricity (0.1%).

In total, weighted changes in water and sewer charges, electricity, steam, telephone and natural gas costs, are projected to cause Utilities to rise by 4.6% in 2003.

Insurance Costs +16.4%

Insurance Costs for rent stabilized buildings increased sharply by 16.5% in 2002 up from the growth of 4.9% the year before. This variable component showed an increase of 0.7% in 2000, an increase of 3.5% in 1999 and a decrease of 1.5% in 1998. Based on data gathered in this year's Owner's Survey for increases found in policies renewed after October 1, 2001 and a nine-year geometric average, a 16.4% increase is estimated over the coming year.

Parts and Supplies +1.2%

The Parts and Supplies component has usually played a very small role in the PIOC, comprising slightly more than 2% of the index in 2002. Over the past ten years there has been very modest growth in this component ranging from 0.8% to 2.2%. This trend should extend to 2003 when the cost of Parts and Supplies is estimated to increase by 1.2%.

Replacement Costs +0.8%

This component accounted for about one percent of the entire Price Index in 2002. Over the past year, Replacement Costs decreased by 0.6%. Although the 15-year trend of growth in Replacement Costs reversed in 2002, these costs should rise by an estimated 0.8% over the next year.

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. A formula which has been in use since the inception of the Rent Guidelines Board (which is called the “traditional” commensurate adjustment) yields 0% for a one-year lease and 0% for a two-year lease⁵, given the decrease in operating costs of 1.6% found in the 2002 PIOC, and the projection of a 6.4% 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 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

Two alternatives to the “traditional” commensurate method have been used by the Rent Guidelines Board. The first, called the “Net Revenue” approach, adjusts for the mix of lease terms. While this 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 vacancy increases. Under the “Net Revenue” formula, a guideline that would preserve NOI in the face of this year's 1.6% decrease in the PIOC, is -2.25% for a one-year lease and -1.0% 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 -5.0% for one-year leases and -3.5% for two-year leases.

Another alternative to the “traditional” commensurate considers lease terms while adjusting NOI upward to reflect general inflation, keeping both O&M and NOI constant. This is commonly called the “CPI-Adjusted NOI” formula. A guideline which would preserve NOI in the face of the 2.5% increase in the Consumer Price Index (see Endnote 1) and the 1.6% decrease in the PIOC is 0% for a one-year lease and 0% for a two-year lease (see Endnote 5). Guidelines using this formula and adding the estimated

"TRADITIONAL"
COMMENSURATE
ADJUSTMENT

<u>1 Year Lease</u>	<u>2 Year Lease</u>
0%	0%

"NET REVENUE"
COMMENSURATE
ADJUSTMENT

<u>1 Year Lease</u>	<u>2 Year Lease</u>
-2.25%	-1.0%

"NET REVENUE"
COMMENSURATE
ADJUSTMENT WITH
VACANCY INCREASE

<u>1 Year Lease</u>	<u>2 Year Lease</u>
-5.0%	-3.5%

"CPI-ADJUSTED NOI"
COMMENSURATE
ADJUSTMENT

<u>1 Year Lease</u>	<u>2 Year Lease</u>
0%	0%

"CPI-ADJUSTED NOI"
COMMENSURATE
ADJUSTMENT WITH
VACANCY INCREASE

<u>1 Year Lease</u>	<u>2 Year Lease</u>
-3.5%	-1.75%

impact of vacancy increases are -3.5 for one-year leases and -1.75 for two-year leases.⁸

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.

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 & 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.

This year, the questionnaire contained additional questions to indicate whether or not a change of insurance coverage was required by the insurance company. The results indicated that a large majority of coverage change was required by the insurer and very few owners initiated changes on their insurance policies.

The sample frame for the Owner Survey included more than 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 proportional to the share of stabilized buildings in that borough. The “multiple contact” method was used for the fourth 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.

Over 18% of the questionnaires mailed out were returned to the RGB. A total of 843 returned surveys contained usable information, from which 658 quotes of owners’ annual insurance costs, 198 non-union labor quotes and 103 management fees were validated. The number of verified prices in 2001 and 2002 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 was the same as last year and is contained in Appendix 1.

To calculate changes in fuel oil costs, monthly price data is weighted using a degree-day formula to account for changes in the weather. The number of Heating Degree Days (see Endnote 2) is a measure of heating requirements.

Real Estate Tax Computations

The sample of buildings used to compute the 2002 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 more than 37,000 buildings in FY 2001 and FY 2002.

The Department of Finance data was used to compute a tax bill for each stabilized building in FY 2001 and FY 2002. The change computed for the PIOC is simply the percentage increase in aggregate tax bills for these buildings from FY 2001 to FY 2002.

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 & Supplies (e.g. mops), and Replacement Costs (e.g. refrigerators). As in prior years, the vendor database was updated by adding new vendors and deleting those who no longer carry the products in question. 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 725 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.

Water/Sewer Sample

To measure the change in water and sewer costs for rent stabilized buildings, actual bills from a random sample of properties were accessed through the New York City Department of Environmental Protection (DEP)'s Customer Information System (CIS) and examined. This study used the same basic methodology that has been used in the last three RGB water/sewer studies. This year, the sample size was increased to 1,700 rent stabilized buildings to ensure a normal sampling distribution, thus reducing statistical error. The random sample of buildings was drawn from the most recent list of stabilized buildings registered with DHCR. The sample included 1,100 buildings (65%) billed on frontage in both years, 451 buildings (27%) billed on metered billing in both years, and 48 buildings (3%) that converted from frontage to metered

billing. This last group of properties was a similar share of the sample as in two of the previous studies (3% in 2001, 6% in 2000 and 3% in the 1999 PIOC). 101 records (6%) for the desired time period were deemed unusable and removed from the analysis due to incomplete data, often resulting from a large number of estimated or missing bills due to meter malfunctions and other technical problems.

With the assistance of DEP staff, each building's accounts were examined to determine the latest available correct billing amounts for the current year (either FY 2002 or calendar year 2001) and prior year (either FY 2001 or calendar year 2000) depending on the billing type. Adjustments were made for billing errors, rebate program credits, and irregular billing periods when they occurred. Following data collection, weights were created based on the proportion of properties that were billed on a frontage basis or metered basis (including mixed-billing). The weights were then assigned to the two items within the Utilities Component. Similar to the method used in prior RGB PIOC studies, the Water Board FY 2002 increase of 3.0% in water and sewer charges was assigned to all buildings in the frontage component item, after an examination of 200 actual frontage bills showed a 3% increase in charges during the time period.

Other Items

In addition to the items previously discussed, a number of other pieces of information are needed to complete the PIOC, including union contract and benefit information, Social Security rates, unemployment insurance rates, Heating Degree Days, 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.

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 2003 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 and 4-10 family buildings. Labor costs are projected by analyzing labor contract terms supplied by apartment workers union Local 32-BJ and a nine-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 (see Endnote 2).

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

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Endnotes

- (1) The average CPI-U for All Urban Consumers, New York-Northeastern New Jersey for the year from April 2000 to March 2001 (183.8) compared to the average for the year from April 2001 to March 2002 (188.3) rose by 2.5%. This is the latest available CPI data and is roughly analogous to the 'PIOC year', which for the majority of components compares 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 2001 to April 2002 year was 13% warmer than the most recent 5-year average "normal" year, and 30% 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 1997 to April 2002 measured in Central Park by the National Weather Service. This year, the new 30-year normals of Heating Degree Days calculated by the U.S. Department of Commerce, National Oceanic and Atmospheric Administration from 1971-2000 were used.
- (3) "Public Information Regarding Water and Wastewater Rates", New York City Water Board, April 2002.
- (4) Source: "Short-Term Energy Outlook," March 2002. U.S. Energy Information Administration, Department of Energy.
- (5) Under this formula there is no increase in revenue required, since there was a decrease in costs. Thus, the adjustments for both one- and two-year leases are set at 0%.
- (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 6.4% PIOC projection for 2003 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), changes in tax laws, and interest rates.
- (8) The following assumptions were used in the computation of the commensurates: (1) The required change in landlord revenue is 61% of the 2002 PIOC decrease of 1.6%, or -1.0%. The 61% 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 39% times the latest 12-month increase in the CPI ending March 2002 (2.5%) or 1.0%. (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 1999 Housing and Vacancy Survey. (5) For the commensurate formulae including a vacancy assumption, the 12.0% median increase in vacancy leases found in the 1998 *Recent Movers Study* was used.

Appendix

1. PIOC Sample, Number of Price Quotes per Item, 2001 vs. 2002

Spec	Description	2001	2002	Spec	Description	2001	2002
211	Apartment Value	159	191	701	INSURANCE COSTS	607	658
212	Non-Union Super	99	127				
216	Non-Union Janitor/Porter	63	71	801	Light bulbs	6	9
	LABOR COST	321	389	802	Light Switch	7	7
301	Fuel Oil #2	29	29	803	Wet Mop	12	10
302	Fuel Oil #4	8	8	804	Floor Wax	7	6
303	Fuel Oil #6	6	6	805	Paint	15	15
	FUEL	43	43	806	Pushbroom	6	10
501	Repainting	115	128	807	Detergent	5	8
502	Plumbing,Faucet	33	33	808	Bucket	10	14
503	Plumbing,Stoppage	37	32	809	Washers	10	10
504	Elevator #1	11	12	810	Linens	10	10
505	Elevator #2	11	12	811	Pine Disinfectant	7	7
506	Elevator #3	11	11	812	Window/Glass Cleaner	6	6
507	Burner Repair	15	18	813	Switch Plate	11	11
508	Boiler Repair,Tube	10	10	814	Duplex Receptacle	8	11
509	Boiler Repair,Weld	6	6	815	Toilet Seat	15	17
510	Refrigerator Repair	13	13	816	Deck Faucet	10	14
511	Range Repair	14	11		PARTS & SUPPLIES	145	165
512	Roof Repair	22	23	901	Refrigerator #1	9	12
513	Air Conditioner Repair	10	11	902	Refrigerator #2	11	14
514	Floor Maint. #1	8	7	903	Air Conditioner #1	5	6
515	Floor Maint. #2	8	7	904	Air Conditioner #2	5	7
516	Floor Maint. #3	8	7	905	Floor Runner	11	13
518	Linen/Laundry Service	5	5	906	Dishwasher	6	10
	CONTRACTOR SERVICES	337	346	907	Range #1	6	10
601	Management Fees	117	103	908	Range #2	7	10
602	Accountant Fees	30	29	909	Carpet	12	13
603	Attorney Fees	21	21	910	Dresser	8	7
604	Newspaper Ads	19	19	911	Mattress & Box Spring	13	9
605	Agency Fees	5	5		REPLACEMENT COSTS	93	111
606	Lease Forms	12	9				
607	Bill Envelopes	12	12				
608	Ledger Paper	8	8				
	ADMINISTRATIVE COSTS	224	206		All Items	1,770	1,918

2. Expenditure Weights, Price Relatives, Percent Changes and Standard Errors, All Apartments, 2002

Spec #	Item Description	Expenditure Weights	Price Relative	% Change	Standard Error	Spec #	Item Description	Expenditure Weights	Price Relative	% Change	Standard Error
101	TAXES,FEES,& PERMITS	0.2450	1.0663	6.63%	0.0302	601	Management Fees	0.6859	1.0563	5.63%	0.8835
201	Payroll,Bronx,All	0.1181	1.0350	3.50%	0.0000	602	Accountant Fees	0.1446	1.0391	3.91%	1.2273
202	Payroll,Other, Union,Supts.	0.1166	1.0315	3.15%	0.0000	603	Attorney Fees	0.1311	1.0048	0.48%	0.5362
203	Payroll, Other, Union,Other	0.2879	1.0339	3.39%	0.0000	604	Newspaper Ads	0.0044	1.0208	2.08%	3.2062
204	Payroll,Other, Non-Union,All	0.2867	1.0643	6.43%	0.9792	605	Agency Fees	0.0054	1.0540	5.40%	0.5254
205	Social Security Insurance	0.0469	1.0347	3.47%	0.0000	606	Lease Forms	0.0102	1.0376	3.76%	2.3199
206	Unemployment Insurance	0.0072	1.0000	0.00%	0.0000	607	Bill Envelopes	0.0100	1.0178	1.78%	3.1868
207	Private Health & Welfare	0.1366	1.0194	1.94%	0.0000	608	Ledger Paper	0.0084	1.0642	6.42%	4.1967
	LABOR COSTS	0.1604	1.0403	4.03%	0.2808		ADMINISTRATIVE COSTS	0.0817	1.0464	4.64%	0.6377
301	Fuel Oil #2	0.5841	0.6773	-32.27%	0.7133	701	INSURANCE COSTS	0.0599	1.1650	16.50%	1.5304
302	Fuel Oil #4	0.1540	0.5901	-40.99%	0.9883	801	Light Bulbs	0.0380	1.0004	0.04%	0.0647
303	Fuel Oil #6	0.2620	0.5827	-41.73%	1.1399	802	Light Switch	0.0478	1.0110	1.10%	1.1962
	FUEL	0.1163	0.6391	-36.09%	0.5347	803	Wet Mop	0.0430	1.0036	0.36%	0.3777
401	Electricity #1,2,500 KWH	0.0107	0.8863	-11.37%	0.0000	804	Floor Wax	0.0397	1.0000	0.00%	0.0000
402	Electricity #2,15,000 KWH	0.1369	0.8763	-12.37%	0.0000	805	Paint	0.2244	1.0252	2.52%	1.6558
403	Electricity #3,82,000 KWH	0.0000	0.8863	-11.37%	0.0000	806	Pushbroom	0.0359	1.0211	2.11%	2.1421
404	Gas #1,12,000 therms	0.0054	0.7813	-21.87%	0.0000	807	Detergent	0.0332	1.0112	1.12%	1.1930
405	Gas #2,65,000 therms	0.0635	0.6800	-32.00%	0.0000	808	Bucket	0.0397	1.0112	1.12%	1.1106
406	Gas #3,214,000 therms	0.2547	0.7528	-24.72%	0.0000	809	Washers	0.0990	0.9834	-1.66%	1.7003
407	Steam #1,1.2m lbs	0.0167	0.8013	-19.87%	0.0000	811	Pine Disinfectant	0.0474	1.0148	1.48%	1.1816
408	Steam #2,2.6m lbs	0.0065	0.7779	-22.21%	0.0000	812	Window/Glass Cleaner	0.0507	1.0000	0.00%	0.0000
409	Telephone	0.0088	1.0220	2.20%	0.0000	813	Switch Plate	0.0453	1.0234	2.34%	1.8628
410	Water & Sewer - Frontage	0.3615	1.0300	3.00%	0.0000	814	Duplex Receptacle	0.0340	1.0064	0.64%	0.6882
411	Water & Sewer - Metered	0.1352	0.9771	-2.29%	1.1605	815	Toilet Seat	0.1005	1.0109	1.09%	0.6910
	UTILITIES	0.1629	0.9006	-9.94%	0.1569	816	Deck Faucet	0.1214	1.0000	0.00%	0.0000
501	Repainting	0.4106	1.0198	1.98%	0.5978		PARTS AND SUPPLIES	0.0205	1.0094	0.94%	0.4416
502	Plumbing,Faucet	0.1382	1.0567	5.67%	1.4107	901	Refrigerator #1	0.0926	1.0119	1.19%	0.8931
503	Plumbing,Stoppage	0.1246	1.0570	5.70%	1.7516	902	Refrigerator #2	0.4775	0.9687	-3.13%	1.7125
504	Elevator #1,6 fl.,1 e.	0.0549	1.0719	7.19%	1.7535	903	Air Conditioner #1	0.0171	1.0272	2.72%	2.4656
505	Elevator #2,13 fl.,2 e.	0.0359	1.0788	7.88%	2.1746	904	Air Conditioner #2	0.0221	1.0078	0.78%	0.7394
506	Elevator #3,19 fl.,3 e.	0.0208	1.0538	5.38%	1.1993	905	Floor Runner	0.0878	1.0246	2.46%	2.2038
507	Burner Repair	0.0381	1.0268	2.68%	1.1425	906	Dishwasher	0.0473	1.0085	0.85%	0.5820
508	Boiler Repair,Tube	0.0457	1.0428	4.28%	2.4174	907	Range #1	0.0456	1.0192	1.92%	1.2973
509	Boiler Repair,Weld	0.0334	1.0339	3.39%	2.2775	908	Range #2	0.2100	1.0180	1.80%	1.5347
510	Refrigerator Repair	0.0126	1.0178	1.78%	2.4528		REPLACEMENT COSTS	0.0088	0.9940	-0.60%	0.9072
511	Range Repair	0.0134	1.0086	0.86%	0.8805		ALL ITEMS	1.0000	0.9839	-1.61%	0.1494
512	Roof Repair	0.0575	1.0490	4.90%	3.0241						
513	Air Conditioner Repair	0.0088	1.0210	2.10%	2.0621						
514	Floor Maint.#1,Studio	0.0003	1.0055	0.55%	0.5670						
515	Floor Maint.#2,1 Br.	0.0005	1.0087	0.87%	0.8893						
516	Floor Maint.#3,2 Br.	0.0047	1.0179	1.79%	1.8354						
	CONTRACTORSERVICES	0.1446	1.0385	3.85%	0.4620						

3. Price Relatives by Building Type, Apartments, 2002

Spec #s	Item Description	Pre-1947	Post-1946	Gas Heated	Oil Heated	MASTER METERED BLDGS
101	TAXES,FEES, & PERMITS	1.0663	1.0663	1.0663	1.0663	1.0663
201-207	LABOR COSTS	1.0436	1.0364	1.0423	1.0403	1.0446
301-303	FUEL	0.6459	0.6123	0.6768	0.6378	0.6757
401-411	UTILITIES	0.8861	0.8947	0.8244	0.9691	0.8757
501-516	CONTRACTOR SERVICES	1.0393	1.0363	1.0341	1.0396	1.0405
601-608	ADMINISTRATIVE COSTS	1.0440	1.0494	1.0425	1.0470	1.0425
701	INSURANCE COSTS	1.1650	1.1650	1.1650	1.1650	1.1650
801-816	PARTS AND SUPPLIES	1.0092	1.0097	1.0094	1.0094	1.0089
901-908	REPLACEMENT COSTS	0.9944	0.9931	0.9969	0.9934	0.9992
ALL ITEMS		0.9683	0.9943	0.9870	0.9728	0.9906

4. Price Relative by Hotel Type, 2002

Spec #	Item Description	Hotel	RH	SRO
101	TAXES,FEES,& PERMITS	1.1286	1.0791	1.0986
205-206,208-216	LABOR COSTS	1.0541	1.0474	1.0555
301-302	FUEL	0.6511	0.6773	0.6100
401-407,409-411	UTILITIES	0.8961	0.8811	0.8510
501-509,511-516,518	CONTRACTOR SERVICES	1.0227	1.0315	1.0348
601-608	ADMINISTRATIVE COSTS	1.0448	1.0403	1.0412
701	INSURANCE COSTS	1.1650	1.1650	1.1650
801-816	PARTS AND SUPPLIES	1.0118	1.0116	1.0076
901-904,907-911	REPLACEMENT COSTS	1.0151	1.0067	1.0077
ALL ITEMS		1.0125	0.9640	0.9577

5. Percentage Change in Real Estate Tax Sample by Borough and Source of Change, Apartments and Hotels, 2002

	% 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	8.56%	-0.55%	-0.04%	-0.52%	-0.04%	7.40%
Bronx	7.20%	-1.36%	0.97%	-0.57%	-0.03%	6.21%
Brooklyn	5.47%	-0.55%	0.58%	-0.54%	-0.03%	4.95%
Queens	5.82%	-0.50%	0.81%	-0.53%	-0.03%	5.58%
Staten Island	4.74%	-0.46%	-0.30%	-0.52%	-0.02%	3.44%
TOTAL	7.47%	-0.61%	0.32%	-0.53%	-0.03%	6.63%
HOTELS						
Hotel	14.42%	-0.92%	0.00%	-0.56%	-0.08%	12.86%
RH	8.46%	-0.04%	0.00%	-0.47%	-0.04%	7.91%
SRO	11.09%	0.12%	-0.74%	-0.55%	-0.06%	9.86%
TOTAL	12.09%	-0.34%	-0.32%	-0.54%	-0.06%	10.82%

Note: Totals may not add due to rounding.

6. Tax Change by Borough and Community Board, Apartments, 2002

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		13,017	7.40%	(Bronx Cont.)	6	451	5.92%	Queens	17	604	5.30%
	1	34	11.26%	7	914	7.71%	18		70	3.05%	
	2	1,223	8.19%	8	349	4.28%	6,373	5.58%			
	3	1,542	6.64%	9	286	8.09%					
	4	1,029	7.12%	10	171	6.44%					
	5	299	7.97%	11	277	8.05%					
	6	961	6.48%	12	382	5.21%					
	7	2,103	8.18%	Brooklyn	12,412	4.95%			1	1,482	0.46%
	8	2,345	7.31%						2	688	6.95%
	9	707	7.15%						3	733	4.58%
	10	756	5.37%						4	1,250	0.37%
	11	572	0.27%						5	296	4.28%
	12	1,426	9.19%						6	994	5.80%
Lower Man.	9,035	7.37%	7						885	4.62%	7
Upper Man.	3,982	7.69%	8				937	5.65%	8	186	5.75%
Bronx	4,866	6.21%	9				551	5.64%	9	204	7.79%
			10				837	5.32%	10	63	5.17%
			11				753	4.85%	11	133	7.36%
			12	618	4.52%	12	153	4.89%			
			13	180	4.63%	13	52	4.55%			
			14	904	5.91%	14	86	4.34%			
15	391	3.79%	Staten Is.	176	3.44%						
16	222	2.32%				1	119	3.35%			
Total	36,844	6.36%				2	33	3.69%			

Note: No Community Board could be assigned to the following number of buildings for each borough: Manhattan (20),Bronx (60),Brooklyn (16),Queens (140),Staten Island (3). The number of buildings in the category "All" for each borough includes these buildings which could not be assigned a Community Board. Lower 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, 2002

Spec #	Item Description	Expenditure Weights	Price Relative	% Change	Standard Error	Spec #	Item Description	Expenditure Weights	Price Relative	% Change	Standard Error
101	TAXES,FEES,& PERMITS	0.2428	1.1082	10.82%	0.326	601	Management Fees	0.6185	1.0563	5.63%	0.8835
205	Social Security Insurance	0.0566	1.0347	3.47%	0.0000	602	Accountant Fees	0.0839	1.0391	3.91%	1.2273
206	Unemployment Insurance	0.0154	1.0000	0.00%	0.0000	603	Attorney Fees	0.1366	1.0048	0.48%	0.5362
208	Hotel Private Health/Welfare	0.0343	1.1622	16.22%	0.0000	604	Newspaper Ads	0.1023	1.0208	2.08%	3.2062
209	Hotel Union Labor	0.3200	1.0450	4.50%	0.0000	605	Agency Fees	0.0240	1.0540	5.40%	0.5254
210	SRO Union Labor	0.0124	1.0480	4.80%	0.0000	606	Lease Forms	0.0115	1.0376	3.76%	2.3199
211	Apartment Value	0.1235	1.0281	2.81%	0.8921	607	Bill Envelopes	0.0135	1.0178	1.78%	3.1868
212	Non-Union Superintendent	0.3104	1.0675	6.75%	1.2371	608	Ledger Paper	0.0096	1.0642	6.42%	4.1967
213	Non-Union Maid	0.0000	0.0000	NA	0.0000		ADMINISTRATIVE COSTS	0.0893	1.0435	4.35%	0.6531
214	Non-Union Desk Clerk	0.0000	0.0000	NA	0.0000	701	INSURANCE COSTS	0.0328	1.1650	16.50%	1.5304
215	Non-Union Maintenance Worker	0.0000	0.0000	NA	0.0000	801	Light Bulbs	0.0157	1.0004	0.04%	0.0647
216	Non-Union Janitor/Porter	0.1273	1.0565	5.65%	1.4349	802	Light Switch	0.0180	1.0110	1.10%	1.1962
	LABOR COSTS	0.1771	1.0542	5.42%	0.4393	803	Wet Mop	0.0508	1.0036	0.36%	0.3777
301	Fuel Oil #2	0.6755	0.6773	-32.27%	0.7133	804	Floor Wax	0.0494	1.0000	0.00%	0.0000
302	Fuel Oil #4	0.0157	0.5901	-40.99%	0.9883	805	Paint	0.1233	1.0252	2.52%	1.6558
303	Fuel Oil #6	0.3088	0.5827	-41.73%	1.1399	806	Pushbroom	0.0408	1.0211	2.11%	2.1421
	FUEL	0.1274	0.6467	-35.33%	0.5969	807	Detergent	0.0444	1.0112	1.12%	1.1930
401	Electricity #1,2,500 KWH	0.0715	0.8863	-11.37%	0.0000	808	Bucket	0.0484	1.0112	1.12%	1.1106
402	Electricity #2,15,000 KWH	0.0777	0.8763	-12.37%	0.0000	809	Washers	0.0495	0.9834	-1.66%	1.7003
403	Electricity #3,82,000 KWH	0.2539	0.8863	-11.37%	0.0000	810	Linens	0.3163	1.0125	1.25%	1.1881
404	Gas #1,12,000 therms	0.0566	0.7813	-21.87%	0.0000	811	Pine Disinfectant	0.0185	1.0148	1.48%	1.1816
405	Gas #2,65,000 therms	0.0465	0.6800	-32.00%	0.0000	812	Window/Glass Cleaner	0.0196	1.0000	0.00%	0.0000
406	Gas #3,214,000 therms	0.1927	0.7528	-24.72%	0.0000	813	Switch Plate	0.0536	1.0234	2.34%	1.8628
407	Steam #1,1.2m lbs	0.0003	0.8013	-19.87%	0.0000	814	Duplex Receptacle	0.0410	1.0064	0.64%	0.6882
409	Telephone	0.1536	1.0220	2.20%	0.0000	815	Toilet Seat	0.0501	1.0109	1.09%	0.6910
410	Water & Sewer - Frontage	0.1072	1.0300	3.00%	0.0000	816	Deck Faucet	0.0606	1.0000	0.00%	0.0000
411	Water & Sewer - Metered	0.0401	0.9771	-2.29%	1.1605		PARTS AND SUPPLIES	0.0536	1.0109	1.09%	0.4654
	UTILITIES	0.1616	0.8841	-11.59%	0.0465	901	Refrigerator #1	0.0196	1.0119	1.19%	0.8931
501	Repainting	0.2156	1.0198	1.98%	0.5978	902	Refrigerator #2	0.1004	0.9687	-3.13%	1.7125
502	Plumbing,Faucet	0.0824	1.0567	5.67%	1.4107	903	Air Conditioner #1	0.0604	1.0272	2.72%	2.4656
503	Plumbing,Stoppage	0.0787	1.0570	5.70%	1.7516	904	Air Conditioner #2	0.0737	1.0078	0.78%	0.7394
504	Elevator #1,6 fl.,1 e.	0.0354	1.0719	7.19%	1.7535	907	Range #1	0.0085	1.0192	1.92%	1.2973
505	Elevator #2,13 fl.,2 e.	0.0319	1.0788	7.88%	2.1746	908	Range #2	0.0401	1.0180	1.80%	1.5347
506	Elevator #3,19 fl.,3 e.	0.0303	1.0538	5.38%	1.1993	909	Carpet	0.3452	1.0183	1.83%	1.0728
507	Burner Repair	0.0263	1.0268	2.68%	1.1425	910	Dresser	0.1842	1.0191	1.91%	1.2827
508	Boiler Repair,Tube	0.0284	1.0428	4.28%	2.4174	911	Mattress & Box Spring	0.1679	1.0143	1.43%	1.4376
509	Boiler Repair,Weld	0.0246	1.0339	3.39%	2.4528		REPLACEMENT COSTS	0.0222	1.0124	1.24%	0.5569
511	Range Repair	0.1479	1.0086	0.86%	0.8805		ALL ITEMS	1.0000	0.9848	-1.52%	0.1605
512	Roof Repair	0.0244	1.0490	4.90%	3.0241						
513	Air Conditioner Repair	0.0426	1.0210	2.10%	2.0621						
514	Floor Maint.#1,Studio	0.0009	1.0055	0.55%	0.5670						
515	Floor Maint.#2,1 Br.	0.0019	1.0087	0.87%	0.8893						
516	Floor Maint.#3,2 Br.	0.0171	1.0179	1.79%	1.8354						
518	Linen/Laundry Service	0.2116	1.0000	0.00%	0.0000						
	CONTRACTOR SERVICES	0.0931	1.0266	2.66%	0.3146						

8. Expenditure Weights and Price Relatives, Lofts, 2002

Spec #	Item Description	Weights	Price Relative	Spec #	Item Description	Weights	Price Relative
101	TAXES	0.2422	1.0663		ADMINISTRATIVE COSTS,LEGAL	0.1067	1.0048
201	Payroll,Bronx,All	0.0000	1.0350	601	Management Fees	0.7980	1.0563
202	Payroll,Other, Union,Supts.	0.2887	1.0315	602	Accountant Fees	0.1554	1.0391
203	Payroll,Other, Union,Other	0.0000	1.0339	604	Newspaper Ads	0.0053	1.0208
204	Payroll,Other, Non-Union,All	0.5406	1.0643	605	Agency Fees	0.0066	1.0540
205	Social Security Insurance	0.0459	1.0347	606	Lease Forms	0.0111	1.0376
206	Unemployment Insurance	0.0079	1.0000	607	Bill Envelopes	0.0129	1.0178
207	Private Health & Welfare	0.1169	1.0194	608	Ledger Paper	0.0106	1.0642
	LABOR COSTS	0.1102	1.0317		ADMINISTRATIVE COSTS - OTHER	0.1021	1.0528
301	Fuel Oil #2	0.3173	0.6773	701	INSURANCE COSTS	0.1499	1.1650
302	Fuel Oil #4	0.5677	0.5901				
303	Fuel Oil #6	0.1150	0.5827	801	Light Bulbs	0.0380	1.0004
	FUEL	0.0848	0.6169	802	Light Switch	0.0478	1.0110
401	Electricity #1,2,500 KWH	0.0118	0.8863	803	Wet Mop	0.0430	1.0036
402	Electricity #2,15,000 KWH	0.1518	0.8763	804	Floor Wax	0.0397	1.0000
403	Electricity #3,82,000 KWH	0.0000	0.8863	805	Paint	0.2244	1.0252
404	Gas #1,12,000 therms	0.0060	0.7813	806	Pushbroom	0.0359	1.0211
405	Gas #2,65,000 therms	0.0699	0.6800	807	Detergent	0.0332	1.0112
406	Gas #3,214,000 therms	0.1784	0.7528	808	Bucket	0.0397	1.0112
407	Steam #1,1.2m lbs	0.0184	0.8013	809	Washers	0.0990	0.9834
408	Steam #2,2.6m lbs	0.0071	0.7779	811	Pine Disinfectant	0.0473	1.0148
409	Telephone	0.0097	1.0220	812	Window/Glass Cleaner	0.0508	1.0000
410	Water & Sewer - Frontage	0.3981	1.0300	813	Switch Plate	0.0452	1.0234
411	Water & Sewer - Metered	0.1489	0.9771	814	Duplex Receptacle	0.0341	1.0064
	UTILITIES	0.0842	0.9156	815	Toilet Seat	0.1005	1.0109
				816	Deck Faucet	0.1215	1.0000
501	Repainting	0.4105	1.0198		PARTS AND SUPPLIES	0.0221	1.0094
502	Plumbing,Faucet	0.1382	1.0567	901	Refrigerator #1	0.0927	1.0119
503	Plumbing,Stoppage	0.1246	1.0570	902	Refrigerator #2	0.4775	0.9687
504	Elevator #1,6 fl.,1 e.	0.0548	1.0719	903	Air Conditioner #1	0.0172	1.0272
505	Elevator #2,13 fl.,2 e.	0.0359	1.0788	904	Air Conditioner #2	0.0220	1.0078
506	Elevator #3,19 fl.,3 e.	0.0208	1.0538	905	Floor Runner	0.0878	1.0246
507	Burner Repair	0.0381	1.0268	906	Dishwasher	0.0473	1.0085
508	Boiler Repair,Tube	0.0457	1.0428	907	Range #1	0.0455	1.0192
509	Boiler Repair,Weld	0.0335	1.0339	908	Range #2	0.2101	1.0180
510	Refrigerator Repair	0.0126	1.0178		REPLACEMENT COSTS	0.0176	0.9940
511	Range Repair	0.0134	1.0086				
512	Roof Repair	0.0574	1.0490				
513	Air Conditioner Repair	0.0088	1.0210				
514	Floor Maint.#1,Studio	0.0003	1.0055				
515	Floor Maint.#2,1 Br.	0.0005	1.0087				
516	Floor Maint.#3,2 Br.	0.0047	1.0179				
	CONTRACTORSERVICES	0.0801	1.0385		ALL ITEMS	1.0000	1.0138