

Urbanomics

THE ECONOMIC IMPACT OF CAPITAL IMPROVEMENTS & ANNUAL OPERATIONS OF RENT STABILIZED BUILDINGS ON THE ECONOMY OF NEW YORK CITY, 2003-2014

A Report for the Rent Stabilization Association

February, 2015

Executive Summary

The Direct Impact of expenditures on all capital improvements and annual operations of rent stabilized buildings in New York City was estimated to be:

- \$10.85 billion in 2014, from Major Capital Improvements (MCIs) of \$112 million, Individual Apartment Improvements (IAIs) of \$130 million, and Operations & Maintenance (O&M) expenditures of \$10.605 billion.
- In 2014, the largest components of O&M expenditures were \$2.819 billion for taxes, \$1.599 billion for maintenance, \$1.549 billion for fuel, \$1.308 billion for administration, and \$1.127 billion for labor. All other outlays for water/sewer, light & power, insurance and miscellaneous items amounted to \$2.202 billion.
- Relative to 2013, when the total direct impact was \$10.60 billion, the 2014 value of all capital improvements fell 18.8% while the value of annual operations rose 3.0%. The decline in capital outlays stemmed from a \$73 million contraction in MCIs which had reached \$185 million in 2013. In contrast, IAIs increased 15% over the year from \$113 million in 2013.
- Between 2003 and 2014, the annual expenditures on MCIs, IAIs and O&M rose from \$8.26 billion to \$10.85 billion, for a gross outlay of \$114.90 billion to maintain and improve roughly one million rent stabilized apartments in New York City. Over the 12 year period, the value of expenditures climbed by 31.4%, in keeping with the Consumer Price Index (CPI) of the New York City metro area which rose by 31.6%.

The total Economic Impact of all Direct, Indirect and Induced expenditures arising from capital improvements and annual operations of rent stabilized buildings in New York City is estimated to be:

- \$19.4 billion of business revenues in 2014, from direct expenditures of \$10.8 billion on MCIs, IAIs and O&M outlays, indirect expenditures of \$4.6 billion by producers responding to the direct needs for goods and services, and induced expenditures of \$4.0 billion by households whose earnings were generated in the capital improvements and annual operations of rent stabilized buildings in New York City.

- As a contribution to Gross City Product (GCP) of New York City, the value added by the total Economic Impact of MCIs, IAIs and O&M outlays was \$14.0 billion, or 1.9% of a \$725 billion GCP in 2014.
- As a source of employment and labor earnings, the total Economic Impact is estimated to have generated 153,250 man-years of labor in 2014 -- of which 104,000 were equivalent to direct full-time employment in capital improvements and annual operations of rent stabilized buildings – and annual labor income of \$10.4 billion in 2014, of which \$6.8 billion was earned in direct employment. Annual worker earnings for direct labor in rent stabilized building operations and capital improvement averaged \$64,200 in 2014.
- Over the 12 year period, the total economic impact on business revenues in New York City amounted to \$203.8 billion in nominal dollars and \$228.5 billion in 2014 dollars. In nominal dollars of each year, the average impact rose from \$15.0 billion in 2003 to \$19.4 billion in 2014. As a source of employment, the expenditures created 1.81 million man-years of labor with cumulative earnings of \$111.9 billion (\$123.4 billion in 2014 dollars).

Introduction

The annual operations and maintenance, as well as capital improvements, to the stock of rent stabilized apartments in New York City has contributed to the City's economy in numerous ways. By providing direct on-site employment in building management and caretaking, as well as construction employment in apartment and building improvements, the annual expenditures purchase materials and supplies for direct use, such as fuel and insurance, pay property taxes, indirectly stimulate production and employment in building suppliers and service sectors of the City's economy, and contribute to consumer spending by inducing household consumption of building and related industry workers.

At the request of the Rent Stabilization Association (RSA), this total Economic Impact has been measured for the City's one million rent stabilized apartments on an annual basis over the period 2003 to 2014. For most of these years, expenditure data was directly available for Major Capital Improvements (MCIs) from the New York State Division of Housing and Community Renewal (NYS DHCR), estimated for Individual Apartment Improvements (IAIs) based upon the building membership records of RSA's share of all rent stabilized apartments, and computed directly from the New York City Rent Guidelines Board (RGB) annual *Income and Expense Study* for pre-1947 and post-1946 rent stabilized apartments on an average monthly basis citywide.

This report briefly describes the direct estimation of all such expenditures and the total Economic Impact estimation based upon policy simulations in the *Implan Pro* economic impact model that was calibrated for the New York City economy in 2013.

Direct Impact of Capital Improvements and Annual Operations of Rent Stabilized Buildings in New York City

The direct impact consists of annual outlays for MCIs, IAIs, and O&Ms of all rent stabilized stock in New York City for the period 2003 through 2014. Over this period, the number of rent stabilized apartments declined from 1,056,883 units to an estimated 986,630 units, based on the enumerated stabilized units of the triennial *Housing and Vacancy Survey (HVS)* of the US Census Bureau and the annual *Changes to the Rent Stabilized Housing Stock in New York City*, a report of the New York City Rent Guidelines Board (RGB). As the *Changes* suggest, the rent stabilized housing stock is in a constant state of flux with units entering as well as exiting stabilization status. According to the RGB analysis, the loss of 151,531 stabilized units from conversions and decontrol mechanisms between 2002 and 2013 more than offset the addition of 90,351 units largely from tax incentive programs.

According to the Rent Stabilization Law, the value of capital improvements can enable a landlord to legally increase the rent for a stabilized unit. For a vacated unit, a 20% rent increase authorized by State law will apply and landlords may further raise rents by adding 1/40th the cost of Individual Apartment Improvements (IAIs) to the monthly rent in buildings with fewer than 35 units (or 1/60th when 35 units or more). This will also deregulate the unit if the resulting rent exceeds \$2,000. The second type of improvement increase is a Major Capital Improvement (MCI) which results in a building-wide rent increase. The rent increase as an outcome of a MCI cannot, as a matter of law, be more than 6% of the rent that was being charged at the time the increase was applied. Because both major rent increase mechanisms must meet with public approval, their value is officially recorded or can be estimated.

Major Capital Improvements (MCIs)

The value of Major Capital Improvements to rent stabilized buildings are reported to the Office of Rent Administration of NYS DHCR by building owners for the purpose of deregulating units from the rent stabilized stock. Each year, the number of MCI applications and the dollar value of those applications is significantly reduced by the number and value of those applications granted in full or partial value. Table 1 presents the MCI data on cases granted in whole or part, and the amount requested and allowed by the State housing agency. Allowed amounts are approximately 27% less than costs claimed by owners, while owners also routinely undertake major construction projects (such as building façade repairs and lead paint abatements) that are not eligible for MCI rent increases. The table shows the amount allowed increased between 2003 and 2011, but fell in 2012 due to legislative changes to the rent laws that expired in June 2011. In 2013, allowed amounts recovered but then fell again in 2014, averaging roughly the high value of 2011 amounts on an annual basis in the two most recent years. However, the aging of most rent stabilized stock suggests that more applications with even more costly improvements should result in higher value MCI amounts allowed in the future.

Table 1. Major Capital Improvements, 2003-2014

| Year | Granted Cases | Amount Requested | Amount Allowed | Ave. Amt. Allowed |
|-------------|----------------------|-------------------------|-----------------------|--------------------------|
| 2003 | 1,235 | \$155,103,493 | \$126,666,287 | \$102,564 |
| 2004 | 1,212 | \$138,982,845 | \$115,627,928 | \$95,403 |
| 2005 | 1,024 | \$130,204,255 | \$103,750,564 | \$101,319 |
| 2006 | 1,060 | \$183,433,320 | \$122,465,685 | \$115,534 |
| 2007 | 1,036 | \$144,239,659 | \$113,491,177 | \$109,547 |
| 2008 | 901 | \$128,342,697 | \$97,667,230 | \$108,399 |
| 2009 | 906 | \$166,238,377 | \$118,727,069 | \$131,045 |
| 2010 | 985 | \$197,771,726 | \$139,112,623 | \$141,231 |
| 2011 | 852 | \$238,748,776 | \$153,284,754 | \$179,912 |
| 2012 | 753 | \$168,015,593 | \$120,455,727 | \$159,968 |
| 2013 | 1,091 | \$282,170,096 | \$185,382,687 | \$169,920 |
| 2014 | 688 | \$140,738,859 | \$112,304,323 | \$163,233 |

Source: NYS DHCR Office of Rent Administration

Individual Apartment Improvements (IAIs)

Although data were not directly available from NYS DHCR on past trends in IAI investment, an estimate was made using the record of expenditures by RSA member buildings as they represent a significant sample of all rent stabilized apartments in New York City.

As Table 2 shows by the size of member buildings, those with fewer than 35 apartments are allowed to increase monthly rents by 1/40th of the value of Individual Apartment Improvements (IAIs), while those with more than 35 apartments are allowed 1/60th of the IAIs value. Over the 2003-2014 period, the RSA member buildings expended more than \$618 million on Individual Apartment Improvements. With a membership apartment role that ranged from 31% to 21% of New York City's rent stabilized unit stock, the aggregate value of all investment in IAIs is estimated to be \$2.132 billion in the 12 years.

Table 2. Individual Apartment Improvements, 2003-2014

| Year | Rent Stabilized Apts | | <35 RSA Apts | | >35 RSA Apts | | Total IAIs in NYC |
|------|----------------------|-----------|---------------|--------------|---------------|--------------|-------------------|
| | RSA | NYC | Rent Increase | IAIs | Rent Increase | IAIs | |
| 2003 | 330,534 | 1,056,883 | \$468,673 | \$18,746,925 | \$1,035,115 | \$62,106,928 | \$258,530,397 |
| 2004 | 329,703 | 1,051,738 | \$483,043 | \$19,321,722 | \$663,126 | \$39,787,586 | \$188,556,121 |
| 2005 | 329,298 | 1,043,677 | \$513,887 | \$20,555,494 | \$658,456 | \$39,507,355 | \$190,363,179 |
| 2006 | 319,380 | 1,038,444 | \$552,736 | \$22,109,453 | \$784,611 | \$47,076,630 | \$224,954,285 |
| 2007 | 316,731 | 1,034,023 | \$456,182 | \$18,247,262 | \$592,046 | \$35,522,741 | \$175,541,511 |
| 2008 | 308,681 | 1,026,840 | \$529,180 | \$21,167,204 | \$780,058 | \$46,803,494 | \$226,107,311 |
| 2009 | 305,624 | 1,007,423 | \$530,336 | \$21,213,430 | \$745,336 | \$44,720,152 | \$217,335,797 |
| 2010 | 294,618 | 998,615 | \$446,702 | \$17,868,070 | \$323,626 | \$19,417,544 | \$126,380,531 |
| 2011 | 258,953 | 986,840 | \$403,391 | \$16,135,652 | \$374,968 | \$22,498,080 | \$147,228,694 |
| 2012 | 241,069 | 984,301 | \$393,127 | \$15,725,066 | \$284,427 | \$17,065,610 | \$133,886,541 |
| 2013 | 221,566 | 985,388 | \$295,072 | \$11,802,863 | \$227,197 | \$13,631,825 | \$113,117,700 |
| 2014 | 207,326 | 986,630 | \$362,545 | \$14,501,802 | \$213,845 | \$12,830,721 | \$130,070,884 |

Source: Rent Stabilization Association and Urbanomics

Operations & Maintenance Expenditures (O&Ms)

Each year, the New York City Rent Guidelines Board issues an annual *Income and Expense Study*, as required by the Rent Stabilization Law. The *Study* is intended to analyze the cost of operating and maintaining rental housing as part of the process of establishing rent adjustments for stabilized apartments. The data are based upon the Real Property Income and Expense (RPIE) statements filed by rent stabilized buildings with the New York City Department of Finance.

Because filings and analysis require time, each annual *Study* reports on O&M data lagged by two years. For example, on a citywide basis, the *2014 Income and Expense Study* showed that rent stabilized property owners collected monthly rents averaging \$1,126 per unit in 2012, while the average monthly operating cost of units was \$841. Rents and costs were lower in units in pre-war structures and higher among post-war buildings. Among nine (9) cost components of O&M, taxes have historically been the largest operating expense.

Average Operating & Maintenance (O&M) costs are reported annually in the *Study* on a per month basis per rent stabilized apartment by building size and location, depending upon whether the residential structures were built before 1947 or after 1946. Based upon the triennial *Housing and Vacancy Survey (HVS)*, the stock of rent stabilized apartments was compiled on a Pre-1947 and Post-1946 basis from 2002 to 2012, with annual interpolations and a class extension to 2014. Similarly, the time series in monthly O&M costs by component were extrapolated from 2012 to 2014. Table 3 provides aggregate annual results for all rent stabilized apartments based upon the

citywide average O&M monthly costs per unit applied to all units in New York City by structure class. Costs are shown for the five largest cost components and the remaining all other, which include water/sewer, light & power, insurance and miscellaneous costs.

Table 3. Operating & Maintenance Expenditures, 2003-2014

| Year | Aggregate O&M Costs for Rent Stabilized Apts (\$000,000) | | | | | | Total |
|------|--|-----------|-----------|-----------|-----------|-----------|------------|
| | Taxes | Fuel | Maint | Admin | Labor | All Other | |
| 2003 | \$1,931.5 | \$700.8 | \$1,436.2 | \$949.5 | \$955.4 | \$1,898.2 | \$7,871.7 |
| 2004 | \$2,139.6 | \$807.2 | \$1,423.0 | \$960.5 | \$970.9 | \$2,005.9 | \$8,307.1 |
| 2005 | \$1,975.7 | \$1,043.4 | \$1,394.0 | \$937.5 | \$1,008.1 | \$2,116.4 | \$8,475.1 |
| 2006 | \$2,046.5 | \$1,050.1 | \$1,427.5 | \$965.0 | \$997.8 | \$2,150.6 | \$8,637.5 |
| 2007 | \$2,196.3 | \$1,204.4 | \$1,467.0 | \$1,010.7 | \$1,052.3 | \$2,217.9 | \$9,148.6 |
| 2008 | \$2,332.2 | \$1,420.1 | \$1,456.3 | \$1,079.9 | \$1,065.2 | \$2,320.1 | \$9,673.7 |
| 2009 | \$2,396.4 | \$1,115.5 | \$1,422.5 | \$1,107.5 | \$1,048.5 | \$2,306.3 | \$9,396.7 |
| 2010 | \$2,504.7 | \$1,162.6 | \$1,415.4 | \$1,080.3 | \$1,041.9 | \$2,171.3 | \$9,376.3 |
| 2011 | \$2,532.1 | \$1,345.3 | \$1,569.3 | \$1,222.0 | \$1,083.9 | \$1,841.4 | \$9,594.0 |
| 2012 | \$2,631.5 | \$1,250.8 | \$1,639.5 | \$1,314.5 | \$1,089.2 | \$1,953.5 | \$9,879.0 |
| 2013 | \$2,717.3 | \$1,472.0 | \$1,569.9 | \$1,264.1 | \$1,105.0 | \$2,169.1 | \$10,297.4 |
| 2014 | \$2,819.3 | \$1,549.2 | \$1,599.3 | \$1,307.6 | \$1,127.1 | \$2,202.4 | \$10,604.9 |

Source: New York City Rent Guidelines Board and Urbanomics

In 2014, it is estimated that O&M costs reached \$10.6 billion. The largest components of expenditures were \$2.819 billion for taxes, \$1.599 billion for maintenance, \$1.549 billion for fuel, \$1.307 billion for administration, and \$1.127 billion for labor. All other outlays for water/sewer, light & power, insurance and miscellaneous items amounted to \$2.202 billion.

The Direct Aggregate Capital Investment and Annual Operating Costs

The three major cost components comprise the annual investment and operating expenditures of all rent stabilized buildings in New York City. Between 2003 and 2014, as Table 4 shows, the annual expenditures on MCIs, IAIs and O&Ms rose from \$8.3 billion to \$10.8 billion, for a gross outlay of \$114.9 billion to maintain and improve roughly one million rent stabilized apartments in New York City. In 2014, the highest cost year, aggregate outlays were \$10.8 billion from Major Capital Improvements (MCIs) of \$112 million, Individual Apartment Improvements (IAIs) of \$130 million, and Operations & Maintenance (O&M) expenditures of \$10.605 billion.

Over the 12 year period, the value of expenditures climbed by 31.4%, in keeping with the Consumer Price Index (CPI) of the New York City metro area which rose by 31.6%. Yet outlays for MCIs decreased by 11.3% as those for IAIs contracted by 49.7%, while the expense of Operations & Maintenance rose 34.7% between 2003 and 2014. Though more IAI investment occurred than MCI, O&M outlays comprised the overwhelming share of spending at 96.8% of total.

Table 4. The Direct Expenditure Impact of Investment & Operations, 2003-2014

| Year | All Capital Investment & Operating Expenses (\$'000) | | | |
|---------|--|---------------|-----------------|-----------------|
| | MCIs | IAs | O&Ms | TOTAL |
| 2003 | \$126,666.3 | \$258,530.4 | \$7,871,678.8 | \$8,256,875.4 |
| 2004 | \$115,627.9 | \$188,556.1 | \$8,307,096.0 | \$8,611,280.0 |
| 2005 | \$103,750.6 | \$190,363.2 | \$8,475,113.0 | \$8,769,226.8 |
| 2006 | \$122,465.7 | \$224,954.3 | \$8,637,480.7 | \$8,984,900.6 |
| 2007 | \$113,491.2 | \$175,541.5 | \$9,148,590.2 | \$9,437,622.9 |
| 2008 | \$97,667.2 | \$226,107.3 | \$9,673,678.0 | \$9,997,452.6 |
| 2009 | \$118,727.1 | \$217,335.8 | \$9,396,744.9 | \$9,732,807.7 |
| 2010 | \$139,112.6 | \$126,380.5 | \$9,376,250.8 | \$9,641,743.9 |
| 2011 | \$153,284.8 | \$147,228.7 | \$9,594,009.8 | \$9,894,523.2 |
| 2012 | \$120,455.7 | \$133,886.5 | \$9,879,036.6 | \$10,133,378.8 |
| 2013 | \$185,382.7 | \$113,117.7 | \$10,297,414.8 | \$10,595,915.2 |
| 2014 | \$112,304.3 | \$130,070.9 | \$10,604,911.6 | \$10,847,286.9 |
| 2003-14 | \$1,508,936.1 | \$2,132,072.9 | \$111,262,005.2 | \$114,903,014.2 |
| | 1.3% | 1.9% | 96.8% | 100.0% |
| Year | Percent Change (%) | | | |
| | MCIs | IAs | O&Ms | TOTAL |
| 2003-04 | -8.7% | -27.1% | 5.5% | 4.3% |
| 2004-05 | -10.3% | 1.0% | 2.0% | 1.8% |
| 2005-06 | 18.0% | 18.2% | 1.9% | 2.5% |
| 2006-07 | -7.3% | -22.0% | 5.9% | 5.0% |
| 2007-08 | -13.9% | 28.8% | 5.7% | 5.9% |
| 2008-09 | 21.6% | -3.9% | -2.9% | -2.6% |
| 2009-10 | 17.2% | -41.9% | -0.2% | -0.9% |
| 2010-11 | 10.2% | 16.5% | 2.3% | 2.6% |
| 2011-12 | -21.4% | -9.1% | 3.0% | 2.4% |
| 2012-13 | 53.9% | -15.5% | 4.2% | 4.6% |
| 2013-14 | -39.4% | 15.0% | 3.0% | 2.4% |
| 2003-14 | -11.3% | -49.7% | 34.7% | 31.4% |

Source: NYS DHCR, RSA, NYC RGB and Urbanomics

The Total Economic Impact of Capital Investment and Annual Operating Costs

The IMPLAN Model

The annual value of capital investment and operating expenditures for the period 2003-2014 was entered into the IMPLAN model calibrated for the New York City economy in 2013. The MCIs and IAs were entered under the industry category *Maintenance and repair construction of residential structures*, while the individual components of the O&Ms were entered separately by respective sectors such as *Fuel, Electricity & Power, Insurance*.

IMPLAN is a widely-accepted statistical software program of MIG, Inc. that is built upon standard input-output methodology. Input-output analysis is a method that computes how an entire economic system is affected by a direct impact on a portion of the system -- i.e., a change in investment, technology, consumption, production or a public or private policy. An input-output model replicates the inter-industry linkages in an economy, and the feedback relationships between producers, household consumers, private investors, government, and the balance of trade with the rest of world. In doing so, it predicts the ripple or multiplier effects that emanate between sectors, resulting in indirect and induced effects. Indirect effects largely result from second-round impacts on producers of goods and services that supply the direct sector, while induced effects can occur from changes in household spending. IMPLAN measures each of these effects on output, employment, and value added by detailed industry.

Unlike other economic analysis models, IMPLAN constructs a complete set of regional social accounts and calibrates a regional economy based upon regional purchase coefficients, commutation patterns, and local tax rates. IMPLAN was developed as a cost-effective way to building regional input-output models. Generating regional input-output models ordinarily entails a vast amount of data and the expense of surveying industries within a region to develop a list of commodity purchases or production functions. The IMPLAN accounts meticulously comply with the accounting standards used in the "Input-Output Study of the U.S. Economy" by the U.S. Bureau of Economic Analysis (1980) and the rectangular formatting recommended by the United Nations.¹

The value of capital investment and operating expenditures for the period 2003-2014 was entered into the IMPLAN model in the appropriate sectors on an annual basis. A commodities impact analysis was performed using a Type 2 multiplier model. The commodities impact divides the event value to all industries producing that commodity.² Type 2 multipliers give the direct, indirect, and induced effects where the induced effect is based on income changes as reported for residents-only income from the Social Accounting Matrices (SAM) accounts.

The Findings for All Capital & Operating Expenditures

Over the 12 year period, the cumulative value of capital investment and operating expenditures was \$114.9 billion in current value terms. Each year, when this direct value was expended in the New York City economy, it created beneficial indirect and induced effects that increased overall spending and the Gross City Product (GCP). By period end, the cumulative economic impact amounted to \$203.8 billion in nominal dollars which reflected the indirect impact of \$48.4 billion, the induced impact of \$42.7 billion and the direct impact on overall spending³.

¹ IMPLAN: Input-output System. Scott A. Lindall & Douglas C. Olson, MIG, Inc., Stillwater, MN

² IMPLAN Professional Version 2.0, Social Accounting & Impacts Analysis Software. 3rd edition-February 2004. MIG, inc. Stillwater, MN

³ The direct value is marginally greater than the direct output (at \$112.7 billion) because the model assumed a small portion of the capital improvements was not purchased locally.

Expressed in 2014 dollars, the cumulative economic impact was \$228.5 billion over the 2003-2014 period. In nominal dollars of each year, the total impact rose from \$15.0 billion in 2003 to \$19.4 billion in 2014, despite the decline in rent stabilized units citywide from 1,057,000 units in 2003 to an estimated 986,630 in 2014.

Table 5. The Total Economic Impact of Investment & Operations, 2003-2014

| Year | Direct Capital Investment & Operating Impacts (Current\$ & 000s) | | | |
|---------|---|-----------------|-------------------|------------------|
| | Employment | Labor Earnings | Value Added (GCP) | Output (Agg Exp) |
| 2003 | 104.9 | \$5,545,223.4 | \$6,619,069.0 | \$8,128,260.5 |
| 2004 | 104.4 | \$5,653,271.7 | \$6,800,611.2 | \$8,500,051.7 |
| 2005 | 103.1 | \$5,674,596.7 | \$6,908,915.4 | \$8,662,030.9 |
| 2006 | 102.2 | \$5,782,317.2 | \$7,036,883.4 | \$8,863,442.6 |
| 2007 | 103.2 | \$5,998,530.2 | \$7,359,044.5 | \$9,318,964.1 |
| 2008 | 103.6 | \$6,010,805.0 | \$7,449,553.7 | \$9,325,172.1 |
| 2009 | 104.0 | \$6,143,624.8 | \$7,509,891.8 | \$9,561,246.5 |
| 2010 | 99.6 | \$5,999,548.6 | \$7,363,615.0 | \$9,461,112.4 |
| 2011 | 97.1 | \$6,065,074.8 | \$7,695,672.9 | \$9,814,332.0 |
| 2012 | 101.7 | \$6,372,492.3 | \$7,924,813.9 | \$9,907,581.5 |
| 2013 | 102.9 | \$6,486,585.2 | \$8,099,080.8 | \$10,366,018.0 |
| 2014 | 104.0 | \$6,675,635.3 | \$8,342,791.9 | \$10,775,839.1 |
| 2003-14 | 1,230.6 | \$72,407,705.2 | \$89,109,941.6 | \$112,684,051.3 |
| Year | Total Economic Impact (Direct, Indirect, Induced in Current\$ & 000s) | | | |
| | Employment | Labor Earnings | Value Added (GCP) | Output (Agg Exp) |
| 2003 | 156.0 | \$8,566,176.8 | \$11,243,741.6 | \$15,012,744.4 |
| 2004 | 155.2 | \$8,766,286.6 | \$11,556,580.2 | \$15,608,889.9 |
| 2005 | 151.5 | \$8,733,302.2 | \$11,605,263.8 | \$15,702,752.3 |
| 2006 | 149.9 | \$8,884,298.4 | \$11,797,937.1 | \$16,028,829.0 |
| 2007 | 151.8 | \$9,250,056.8 | \$12,345,071.5 | \$16,834,945.1 |
| 2008 | 150.0 | \$9,158,422.8 | \$12,302,817.6 | \$16,695,388.9 |
| 2009 | 152.6 | \$9,488,793.3 | \$12,628,396.7 | \$17,240,416.8 |
| 2010 | 147.0 | \$9,311,101.9 | \$12,420,496.0 | \$17,082,769.0 |
| 2011 | 145.1 | \$9,488,813.5 | \$12,917,903.5 | \$17,691,367.4 |
| 2012 | 149.7 | \$9,840,958.8 | \$13,221,728.9 | \$17,896,681.9 |
| 2013 | 151.3 | \$10,044,220.0 | \$13,540,181.3 | \$18,613,870.8 |
| 2014 | 153.2 | \$10,380,465.6 | \$13,997,615.0 | \$19,369,155.5 |
| 2003-13 | 1,813.3 | \$111,912,896.4 | \$149,577,733.2 | \$203,777,810.9 |

Source: Urbanomics, based on the Implan Pro Model

As a source of employment, some 1.8 million man-years of full-time labor were created in the City's economy over the period. On average per year, the total job impact exceeded 150,000, or was equivalent to nearly 4 percent of the total nonfarm employment in New York City.

Expressed as a multiplier effect, each man-year of direct employment generated an additional 0.47 man-years of indirect and induced employment. Cumulative labor earnings amounted to \$111.9 billion in nominal dollars or represented an average annual earnings of \$61,718 (\$68,080 in 2014 dollars).

In 2014, the direct, indirect and induced impact of capital and operating expenditures on rent stabilized buildings contributed \$14.0 billion to Gross City Product (GCP), or accounted for 1.9% of New York City's \$725 billion GCP. Over the 12 years, the cumulative contribution to GCP measured \$150 billion in nominal dollars and \$165 billion in 2014 dollars. Each dollar of direct value added (GCP) generated \$0.68 dollars of indirect and induced value added, or had an average multiplier of nearly 1.7 that benefitted numerous other producers and consumer sectors in the City.