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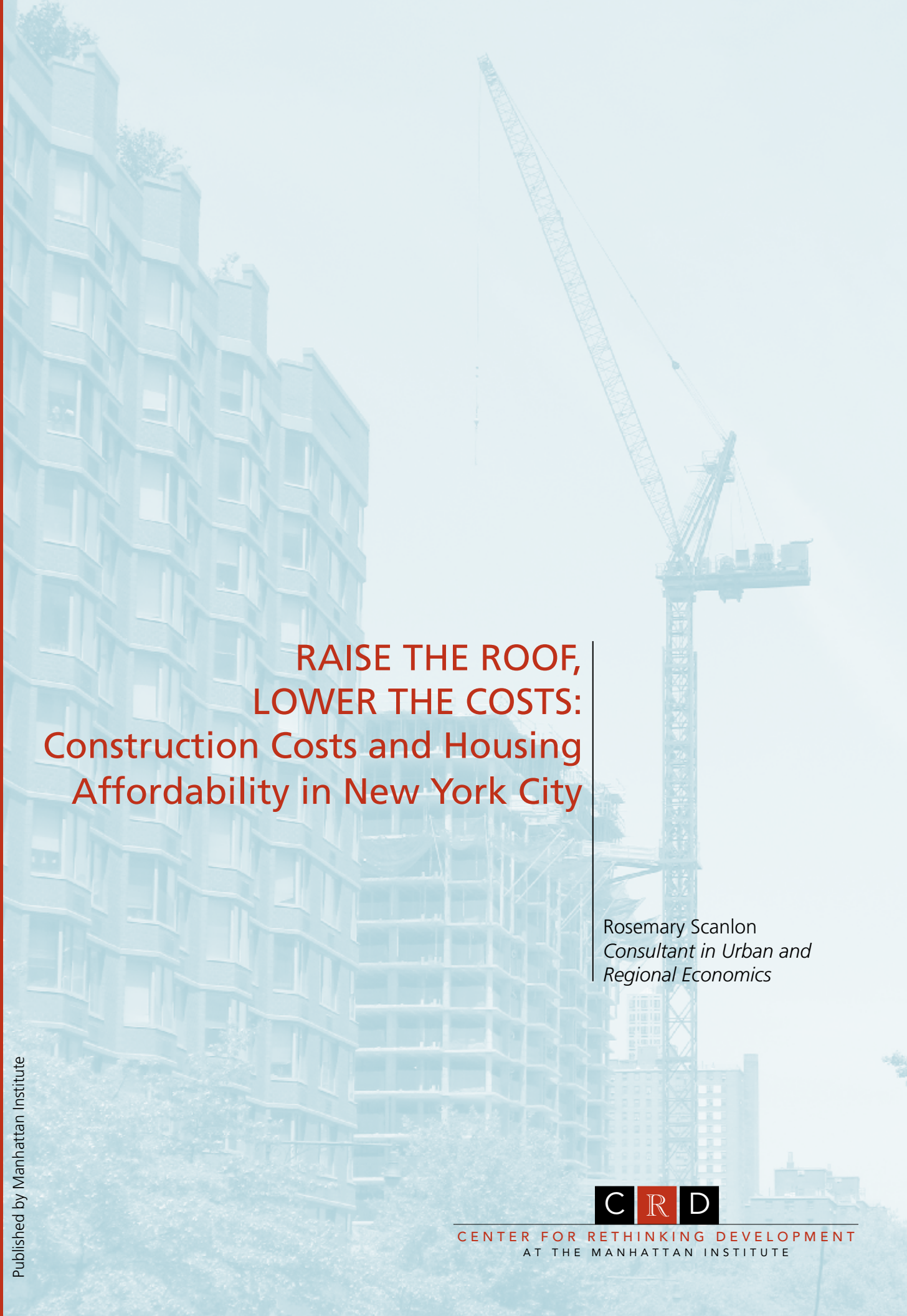

RAISE THE ROOF, LOWER THE COSTS: Construction Costs and Housing Affordability in New York City

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Executive Summary

The challenges that make building in New York City famously difficult have not reduced the level of construction the city has experienced over the past few years. The city's desirability as a place to live and do business, the high incomes earned by its large cohort of accomplished professionals, and the easy availability of credit have spurred an extraordinary building boom that has overcome every obstacle thrown in its way.

There are reasons nevertheless to investigate the causes of the local construction industry's out-of-scale cost structure. First, incomes in the crucial financial sector, on which so many other sectors depend, though still strong in 2007, will probably decline in 2008 due to upheavals arising from the subprime mortgage crisis. Credit of all kinds has become less available. And housing costs have reached a painfully large fraction of income—already in 2006, 40 percent of all New York City households were spending more than 35 percent of household income on rent.

In the face of these potential constraints on demand, the prices of building materials such as steel, glass, aluminum, and copper have shot up, climbing 1 percent per month in 2006, while petroleum-based products such as asphalt keep surpassing earlier peaks. Significantly, perhaps, the number of building permits issued in the first quarter of 2008 was 40 percent lower than it was four quarters earlier. In short, we have probably left a period of rising incomes and demand and entered a period of flattening income growth, some softening in demand for housing, and costs that continue to soar.

These warning signs and trends do not necessarily augur contraction of the construction industry as a whole. Indeed, a major source of cost inflation is the continuing intensity of demand for contractors, subcontractors, and construction supervisors, whose numbers are effectively limited by the city's idiosyncratic rules and procedures. Large public projects and infrastructure repair will keep demand high for the foreseeable future. The issue is not the health of the construction industry but rather whether intense demand in some areas will deny resources to others.

The population segments already bearing the brunt of this cost spiral are those of lower and moderate income. The rejuvenation of neighborhoods such as Bushwick in Brooklyn and the Lower East Side of Manhattan, where ten or fifteen years ago only subsidized housing was being built, has drawn market-rate developers, who have bid up the price of land. Government subsidies that are still available have not kept up with land's rate of appreciation. In any event, the question arises as to whether subsidies should continue to flow to neighborhoods where housing can be built without them.

If the per-unit level of subsidy is no longer sufficient to keep building costs affordable, how does such housing get built, so as to assure the continued residence of population segments vital to the city's economy and diversity? The most important way, and the impetus for this paper, is to identify costs that, first, are within the city's power to control and, second, unduly burden the construction process and thus threaten, in time, to reduce the amount of new construction in this growing city. In an inflationary environment, those costs responsible for project delays are particularly difficult to excuse. Since the amounts of land, labor, and materials available, while not fixed, are certainly finite, savings in some sectors should benefit the economies of others.

The following recommendations meet both criteria mentioned above:

- *Reduce delays in construction time, and thus cost, by streamlining the city's regulatory and permitting processes.*
- *Continue to increase the amount of buildable space available for residential development through rezoning, upzoning, and other techniques.*
- *Preserve the use of nonunion labor in the construction of affordable housing.*
- *Reform the state's negligence laws, in particular, those imposing absolute liability on builders for accidents on the job site.*
- *Monitor the unfolding impact of the recent curtailment of the 421-a tax-abatement program, which has been responsible over the years for spurring building in neighborhoods where it would not otherwise have occurred.*

With these steps, New York City can help lay the foundation for a secure future of economic growth.

About the Author

ROSEMARY SCANLON is associate professor of economics at the Schack Institute of Real Estate, New York University, and a consultant in urban and regional economics. From 1997 to 1999, as a visiting research fellow at the London School of Economics, she served as project director of the London/New York Economic Study. From 1993 to 1997, she served as New York State deputy comptroller, monitoring the budget and economy of New York City. She is probably best known in the city for her tenure as chief economist of the Port Authority of New York and New Jersey (1983-1993), during which she initiated a wide range of research programs on the economy and demography and commissioned economic impact analyses of capital investment projects.

Ms. Scanlon's recent consulting work includes: a study of the economic impact of the arts and of capital investment in the arts in New York City; an assessment of the economic-development potential of transportation projects proposed for the New York area; a proposal to establish an economic research capability within the government of London; and advisory reviews of economic and infrastructure strategies for Seoul and Melbourne.

Ms. Scanlon earned undergraduate and graduate degrees in economics in her native Canada and is a graduate of the Program for Management Development at Harvard Business School. She has been an invited speaker in Australia, Canada, China, France, Italy, Mexico, Spain, and the United Kingdom.

REGINA ARMSTRONG, principal of the economics research and consulting firm Urbanomics, undertook the initial work on this study and participated in many of the early interviews that made it possible.

CONTENTS

A NOTE ON METHODOLOGY

The findings and recommendations in this report are based on published sources of construction cost data from the Bureau of Labor Statistics and *Engineering News-Record*, other published sources such as the U.S. Bureau of the Census and the New York State Department of Labor, and on interviews conducted between 2006 and 2008 with more than fifty specialists in housing construction in New York City. These included developers, contractors, architects, lawyers, and senior officials in city government and nonprofit housing-development organizations. Observations and quotations relied on throughout this report are attributed to sources by profession, not by name, at their request, in order to assure confidentiality.

Unless otherwise specified, all quoted material, whether indented or set off by quotation marks, comes from these interviews.

Raise the Roof, Lower the Costs: Construction Costs and Housing Affordability in New York City

Rosemary Scanlon

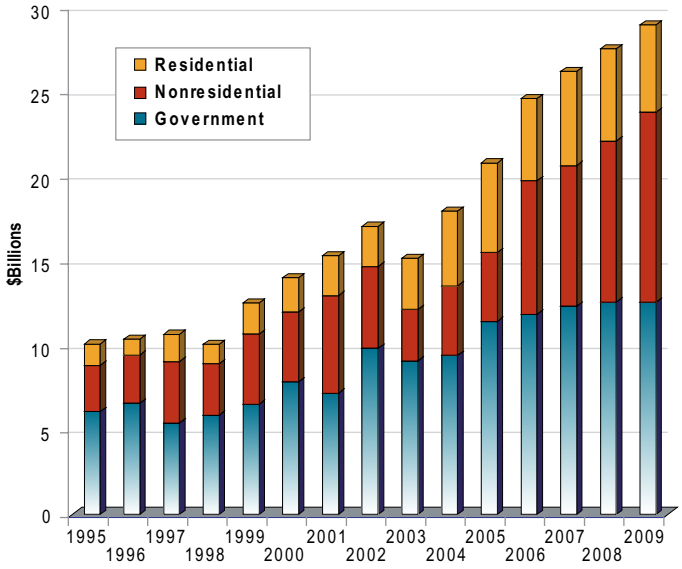
CHAPTER I. CONSTRUCTION IS NOW A BOOMING INDUSTRY IN NEW YORK CITY

The years since 2003 have seen a steadily increasing volume of construction in New York City in all categories—infrastructure, including transportation and public works; commercial office, hotel, and retail; and residential.

The New York Building Congress reported in its October 2007 *New York City Construction Outlook* that construction spending in all categories would exceed $26 billion in 2007. Just four years earlier it was $15 billion, as Chart 1 shows.

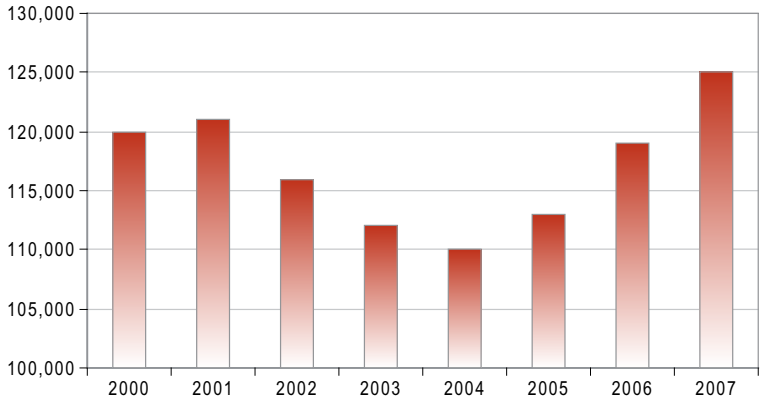
Construction sites are everywhere these days. A skyscraper rises in Midtown. (© Hope Cohen)

Chart 1. Total Construction Activity in New York City, 1995-2006, Forecast 2007-2009



Source: *New York City Construction Outlook, Construction Forecast 2007-2009*, New York Building Congress, October 2007. Prepared by Urbanomics, based on data from F.W.Dodge, U.S. Bureau of the Census, and miscellaneous agency capital budgets.

Chart 2. Construction Employment in New York City, 2000-2007



Source: New York State Department of Labor

Prepared by Urbanomics, and based on the capital budgets of public agencies as well as data from the U.S. Bureau of the Census and F.W. Dodge, the report forecast a continuing increase in construction spending in 2008 and a level of $29 billion in 2009.

Employment in the industry as well began to increase in 2005 and showed strong gains by 2007. (See Chart 2.)

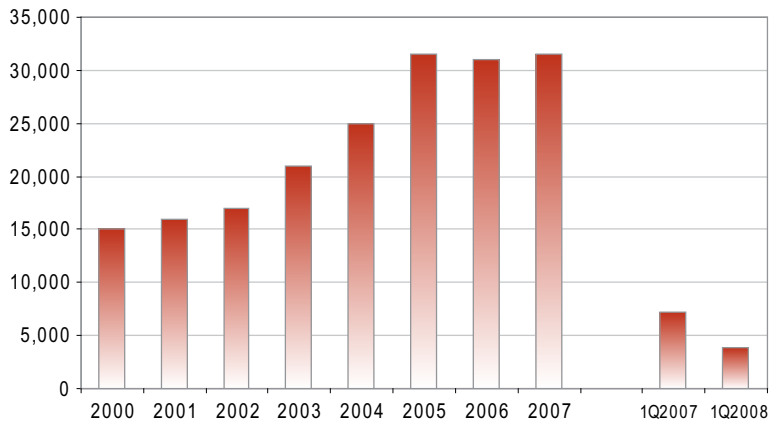
Residential construction has also increased strongly since 2003, as measured in dollar terms in Chart 1, or

in the number of building permits issued throughout the five boroughs, as shown in Chart 3. While the number of permits issued in 2000, 2001, and 2002 hovered around 15,000, the annual volume beginning in 2005 has been double that.

Construction was active throughout the city in this period. In 2007, permits were issued for almost 11,000 units in Brooklyn, for 9,500 units in Manhattan, and for more than 7,600 units in Queens.

Some weakness occurred citywide in the first quarter of 2008, when the total number of permits issued in the city fell by more than 40 percent compared with the same quarter in 2007. It is too early to tell whether the city's housing market is weakening along with that of the rest of the United States. If one uses housing starts as the standard, the nationwide slowdown began in early 2006. (See Chart 4.) New York's decline in early 2008 may well reflect a weakening toward the end of 2007 that was masked by the rush to begin construction before changes to the city's 421-a tax-abatement program were to take effect. (See Appendix A for details.)

Chart 3. Building Permits Issued in New York City, 2000-2007, IQ2007, IQ2008

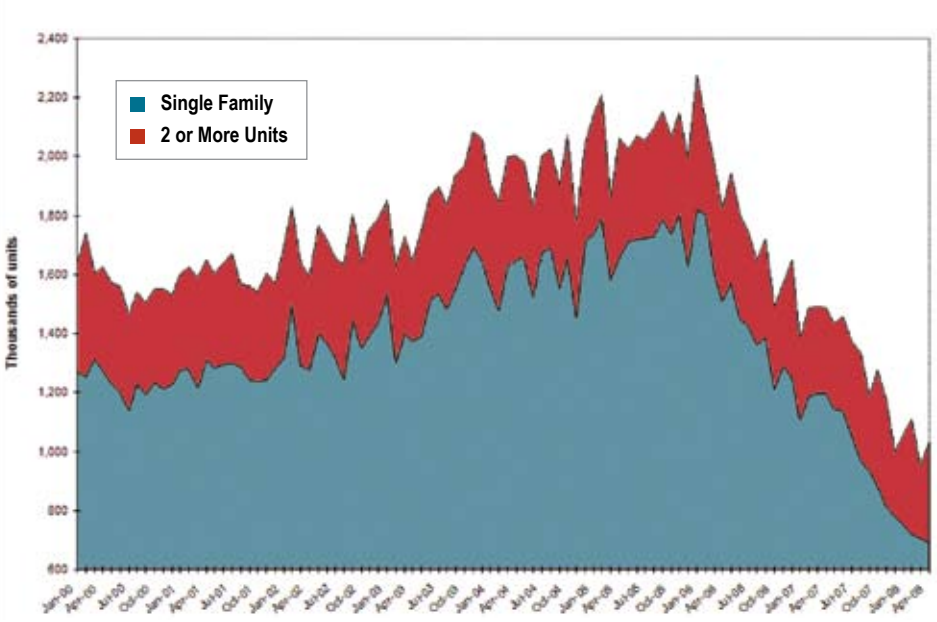


Source: U.S. Bureau of the Census

Apartments sprouting in the Rockaways. (© Julia Vitullo-Martin)

Institutions including Cooper Union are expanding. (© Hope Cohen)

Chart 4. New Housing Units Started in the United States, 2000-2008
Seasonally Adjusted Annual Rate



Source: U.S. Bureau of the Census

More and more new construction looms over established, low-rise neighborhoods. (© Julia Vitullo-Martin)

The boom encompasses public works as well. (© Hope Cohen)

CHAPTER 2. THE RISING COSTS OF CONSTRUCTION: MATERIALS, LAND, LABOR, LOGISTICS, REGULATION

This chapter and to some extent those that follow discuss the full range of costs confronting New York City's construction industry. Since the purpose of this paper is not only to diagnose problems but to propose solutions to policymakers, it is necessary to categorize costs according to the availability of policy remedies for them.

- *Unavoidable costs* are very difficult to reduce, either because they are beyond the reach of both developers and local government, or because they are endemic to building locally. An example of the former would be the prices of essential materials used in the construction process such as steel, aluminum, copper, and petroleum-based products such as asphalt, because their price is determined in the global market. Examples of endemic costs would be the logistical difficulty of making deliveries to a city spread across three islands, or the complexity of building in areas of very high population density, where impact on the surroundings must be mitigated and reviewed because it is likely to be immediate and severe.

- *Avoidable costs* are usually those that result from actions taken by legislators, public officials, bureaucrats, and enforcement personnel and therefore can be reduced. For the purposes of this paper, however, avoidable costs are not in the strict sense unnecessary costs. Those that protect the health, welfare, and safety of New York's workers, residents, and visitors may be reversible, but they are undeniably essential. We instead focus on laws, policies, and regulations that are arbitrary, redundant, and in almost all cases needlessly expensive, from the standpoint of the costs of compliance and the costs of delay they exact. "Avoidable costs" thus refers to the present state of many aspects of the permitting process, zoning and environmental reviews, and the state's liability laws, among other factors.

- *Cyclical costs* refers to costs imposed by the construction boom, which is still with us. These take account of the shortage of contractors, subcontractors, and supervisory personnel and the rising cost of land. They are assumed to be temporary and are the inevitable by-product of prosperity and demand.

It is possible that relief from some unavoidable costs can be found, for example, through the use of substitute materials or by establishing procedures to buy materials in the futures markets. We also recognize that federal policy and the vigor of the banking sector powerfully affect the health and activity level of the construction industry. However, the policies and practices we focus on in this paper are those that can be improved by the governments of New York State and New York City.

Costs — and accidents — increase when construction labor and management are stretched to the limit. (© Hope Cohen)

City-owned vacant property in the Bronx being transformed into Boricua Village — 452 affordable apartments, along with educational and retail uses. (© Hope Cohen)

Sharply rising costs of construction since 2003—for materials, land, labor, and logistics—have added to the existing high costs of complying with the multiplicity of regulations that apply to all forms of development in New York City. This combination is threatening the capacity of developers to produce rental or ownership housing that a wide range of lower-income to middle-income households in the city can afford.

Every aspect of building in New York City has long been expensive: hard costs and land costs, along with soft costs such as insurance and professional fees for lawyers, architects, and consultants of every kind, who are needed for navigating the regulatory maze. New York's geography, density, and traffic congestion add to the high costs of construction. They are responsible for the scarcity of space for storing construction materials and for the logistical challenges involved in delivering materials from distant warehouses so that they arrive at construction sites at precisely the time they are needed.

Table 1 data provided, by a nationwide construction-management firm, highlight the cost differential in building a high-rise office building in the central business districts of New York, Chicago, and Atlanta in the early months of 2008.

In this comparison, no single cost in New York City accounted for all or most of the total differential. Costs for *each element* in the process were significantly higher in New York than in Chicago, where the Loop is also a dense urban environment. Some New York costs were double those in Chicago. For structural frame costs per square foot (psf), New York costs were triple those in Atlanta.

Similar cost differentials between New York and Chicago are found in the construction of residential buildings. A condominium tower in Manhattan due for completion in 2008 is expected to amount to $425-$430 psf, while costs run $275 psf for a high-rise condominium in downtown Chicago.

Labor costs, which constitute the major share of hard costs, are significantly higher in New York than in other major U.S. cities, as shown in Table 2, which compares hourly union rates for key trades in construction.

Table 1. Comparative Costs of Office Construction

	New York City	Chicago	Atlanta
Direct Cost psf	$352.39	$163.52	$141.09
General Conditions	$ 32.44	$ 19.33	$ 10.35
Other Costs, incl. fees	$ 15.35	$ 6.23	$ 2.86
Total Project Costs	**$400.18**	**$189.08**	**$154.20**

Source: Cost estimates from major construction firm, April 2008

Construction Costs Have Increased Rapidly Since 2004

Construction costs began rising in 2003, as construction activity picked up in New York City, while strong demand resulting from domestic and international economic growth strained supply inventories and pushed up prices of basic construction materials.

Table 2. Comparison of Hourly Union Pay Scales for Selected Trades, New York City and Selected Cities, September 2007

	New York City	Boston	Chicago	Los Angeles	San Francisco	Philadelphia
Structural Ironworkers	$79.53	$54.28	$62.94	$51.63	$51.63	$60.06
Electricians	$79.16	$63.00	$60.80	$50.26	$66.89	$64.04
Carpenters	$70.52	$53.92	$54.27	$42.47	$49.31	$54.95
Pipefitters	$77.32	$60.90	$57.61	$49.47	$51.70	$61.96
Plumbers	$73.45	$60.70	$57.60	$36.84	$71.09	$58.94
Crane Operators	$82.15	$53.74	$56.78	$51.45	$51.32	$54.19

Source: *Engineering News-Record*, September 17, 2007

Increases in costs have affected all construction across the country, not only in New York, although the rate of increase has often been much greater here due to the number and size of both public and private projects, as well as the limited availability of high-quality firms to perform this work. The Building Cost Index for the United States, prepared by Turner Construction Company, shows sharp increases beginning in 2004. (See Table 3.)

Engineering News-Record compiles an index of building costs in twenty major cities across the United States. Chart 5 shows that New York City's booming construction industry has experienced increases that surpassed the twenty-city index in several years since 2000, particularly in 2006 and 2007.

Table 3. Turner Construction Building Cost Index, U.S. Average, 2003-2007

	U.S. Average Index	Percent Change
2003	621	0.3%
2004	655	5.4%
2005	717	9.5%
2006	793	10.6%
2007	854	7.7%

Source: Turner Construction Building Cost Index, *2007 Fourth Quarter Forecast* www.turnerconstruction.com

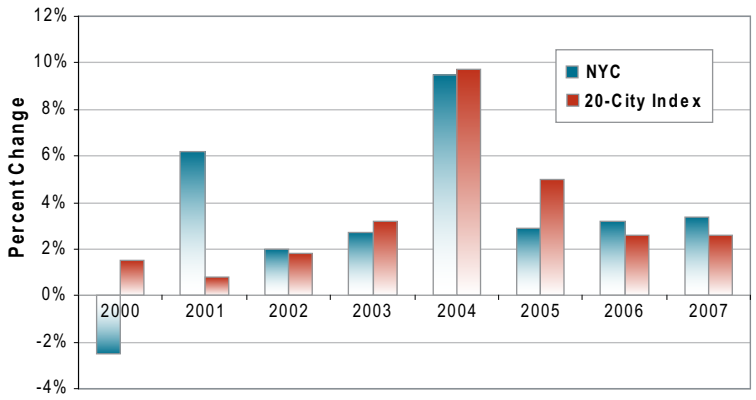
The *Engineering News-Record* Building Cost Index for major U.S. cities shows overall cost increases that have occurred in New York and other comparable cities since 2000. Chart 6 demonstrates that building costs have risen strongly across all of the selected cities, and notably in New York, Chicago, Boston, and Los Angeles.

As an example of these rising costs, a twenty-five-story condominium project in Manhattan was budgeted in 2006 at $360 psf, while a similar thirty-five-story condo project due for completion in 2008 was budgeted at $428 psf.

Major cost elements for construction of an office or residential building are:

- *Land*
- *Hard Costs*, which encompass labor and materials for site preparation, foundation, superstructure and walls, electrical, plumbing, interior finishes, and HVAC, together with "general conditions."[1] Contingency allocations and other fees may account for one-third of total hard costs. Material costs usually account for 40 percent of hard costs in a market-rate residential building, assuming

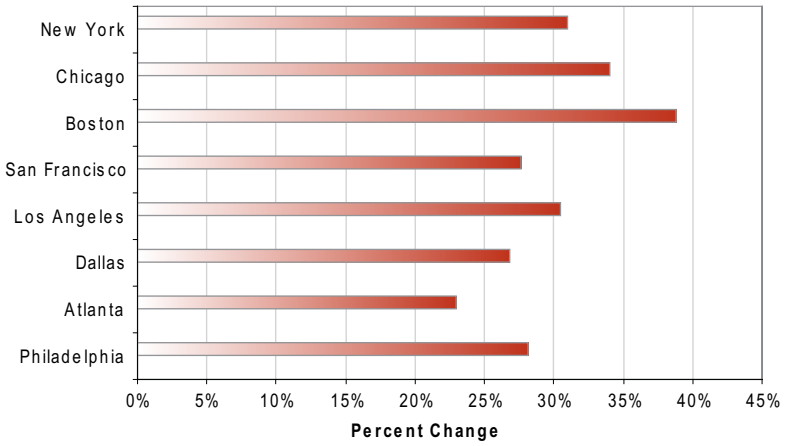
Chart 5. ENR Building Cost Index, New York City & 20-City Index, 2000-2007



Source: *Engineering News-Record*, www.enr.com, accessed June 2008. Data are for the month of December in each year.

Note: ENR's Building Cost Index is based on local costs for skilled labor (union labor including fringe benefits for bricklayers, carpenters, structural ironworkers), for portland cement and 2x4 lumber, and on the national average price for structural steel.

Chart 6. Increases in Building Costs, New York City and Competitor U.S. Cities, 2000-2007



Source: *Engineering News-Record*, www.enr.com, accessed June 2008. Data are for the month of December in each year.

it is using union labor. These prices escalated sharply between 2004 and 2006.

- *Soft Costs* consist of financing, insurance, professional fees for architects, lawyers, and consultants, who must deal with the multiple permits required, as well as compliance with building codes and environmental regulations. These costs typically add 20 to 25 percent to hard costs and can be particularly onerous for developers of affordable housing.

- *Developers' Fees/Profits* vary according to whether the developer is commercial or nonprofit but are reported to be in the vicinity of 25 percent.

Materials Costs Soar in 2004 and 2005

According to the Producer Price Index (PPI) series of the U.S. Bureau of Labor Statistics (BLS), the cost of basic materials used in building construction soared between 2003 and 2006, and particularly in the years 2004 and 2005:

- Copper-mill prices shot up 185 percent.
- Steel-mill prices were 65 percent higher in the summer of 2006 than they were in 2003.
- Drywall prices were up 63 percent.
- Structural/architectural metal gained 35 percent.
- Aluminum-mill prices went up almost 30 percent.

These price increases are reflected in the BLS producer-price series for construction materials and equipment. (See Charts 7-10.) Similarly, the ENR charts that together comprise Chart 11 show increases for six key building materials.

Prices of steel, concrete, and most metals (including copper and aluminum) stabilized somewhat during 2007. The only outright decline in prices has been in lumber and lumber products, a result of the sharp decline in housing construction in most other areas of the United States.

In recent months, prices of some construction products have once again begun to increase. For example, steel-mill products in May 2008 were 20.8 percent higher than they were in May 2007, following an increase of only 1 percent in the preceding twelve months, according to the May 2008 PPI. The overall PPI for materials and construction components gained 5.5 percent in the year ending in May 2008, after a gain of only 1.8 percent in the preceding twelve months. In line with the rapid increase in the per-barrel price of oil in recent months, the price of No. 2 diesel fuel rose 75.8 percent in the

year ending in May of this year, after gaining 8.6 percent between May 2006 and May 2007.

Considering the scale of these price increases at the producer level, New York developers estimate that the rising costs of building materials in the city—steel, glass, aluminum, copper—were contributing to an increase in hard costs at the rate of 1 percent per month during 2006. Industry executives describe these increases as unprecedented.

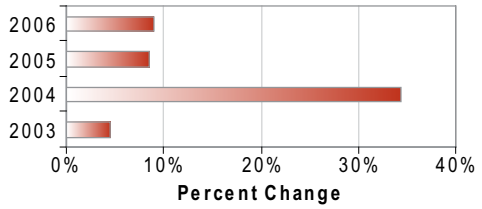
During this decade, the market for building materials has become global, a reflection of the massive increase in demand from the rapidly growing economies of China, India, and parts of the Middle East and Latin America.

The Supply of Skilled Contractors Has Not Kept Up with the Boom

During the course of this study, industry leaders repeatedly cited the shortage in skilled contractors, subcontractors, specialty trades, and first-line supervisory managers as a major concern. The huge volume of construction under way has created a demand for which there is no adequate supply. Moreover, the special requirements and knowledge required for building in New York serve as a barrier to entry for national or international developers and contractors who might otherwise be available. As one developer explained:

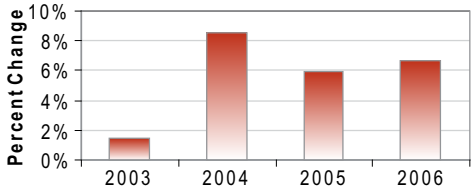
> We have a limited number of participants: there are only five or six contractors who can do poured-in-place concrete and who can build up to forty to fifty stories. This requires great expertise and needs to be done in two or three days. The same is true of plumbing or electrical contractors, HVAC or superstructure contractors. There are few competent contractors in these fields that major lenders or bond insurers would take on.
>
> So if there are twenty big jobs going on in New York City, a contractor can do two jobs by putting his best team on the work, but in the third or fourth

Chart 7. Price Increases for Metals and Metal Products, United States, 2003-2006



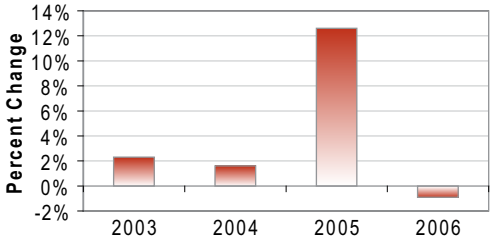
Source: Producer Price Index, U.S. Bureau of Labor Statistics

Chart 8. Percent Change in Materials and Components for Construction, United States, 2003-2006



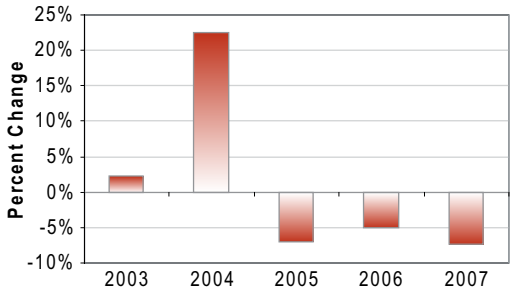
Source: Producer Price Index, U.S. Bureau of Labor Statistics

Chart 9. Percent Change in Construction Machinery and Equipment, United States, 2003-2006



Source: Producer Price Index, U.S. Bureau of Labor Statistics

Chart 10. Producer Prices for Lumber and Wood Products, United States, 2003-2007



Source: Producer Price Index, U.S. Bureau of Labor Statistics

Chart II-1. Structural Steel Price per Ton, United States, 2000-2007

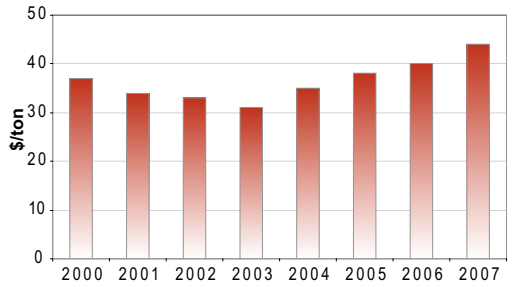


Chart II-2. Cement Price per Ton, United States, 2000-2007

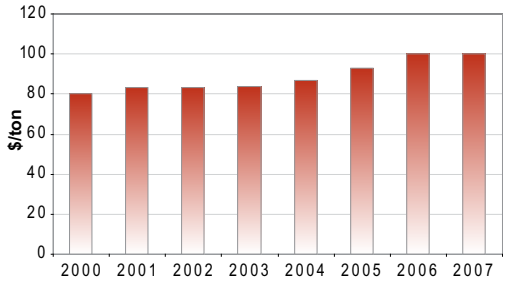


Chart II-3. Reinforcing Bar ("Rebar") Price per Ton, United States, 2000-2007

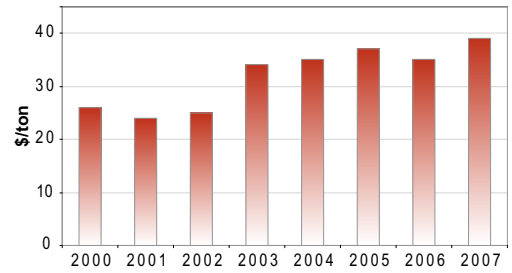


Chart II-4. Asphalt Price per Ton, United States, 2000-2007

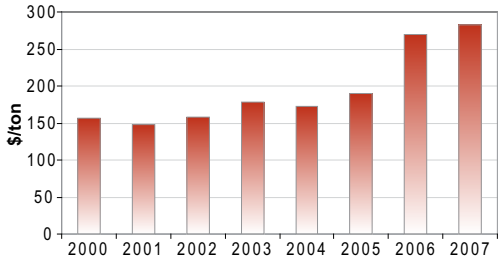


Chart II-5. Lumber Price per Million Board Feet, United States, 2000-2007

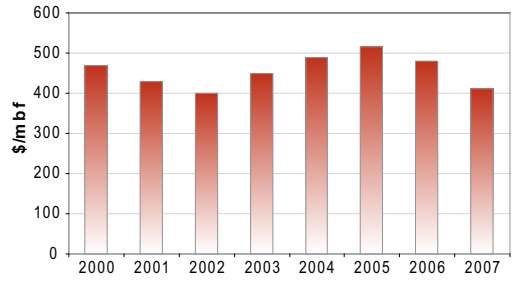
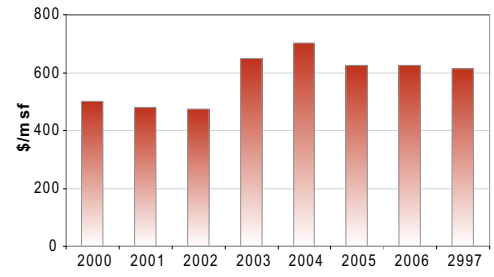


Chart II-6. Plywood Price per Million Square Feet, United States, 2000-2007

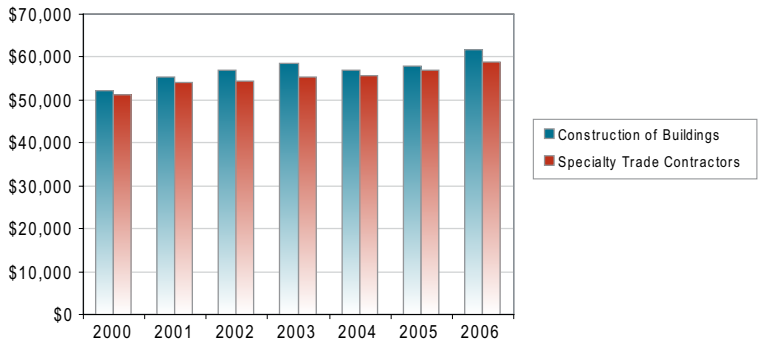


Source: *Engineering News-Record*

job, he could only offer the "B team" and then the "C team." The lenders aren't happy, charge more, and so the price of the job gets bumped up.

One large contractor working on both commercial and housing projects in the city noted that "there are only two or three contractors or concrete subcontractors to do a curtain wall.… [W]e are negotiating rather than bidding, and booking these subcontractors months in advance. Costs are now what the market will bear."

Chart 12. Average Annual Wages of Labor in Construction of Buildings & Specialty Trade Contractors, New York City, 2000-2006



Source: New York State Department of Labor, Quarterly Employment and Wage Series, December 2007

Rising Labor Costs Have Become a Major Burden

Until 2006, labor costs were not a major force in driving up building costs in New York City. Union wage increases have been predictable—although the hidden costs of featherbedding and other inefficient work rules have not. But the limited capacity among contractors and builders is now widely seen as the driving force behind the recent large cost increases.

Average annual wages, as reported by the New York State Department of Labor, increased from $52,212 in 2000 to $61,707 in 2006, a gain of 18.2 percent, or 2.6 percent per year, as shown in Chart 12.

Average wages for specialty-trade contractors increased by 15 percent between 2000 and 2006, reaching a level of $59,000 in 2006, for an average annual gain of just over 2 percent. Since the inflation rate in the metropolitan area increased by 20.6 percent during the same years, on average labor rates did not increase in real terms.

The state labor department reported that prevailing wage rates for key skilled trades, effective July 1, 2007, increased in the range of 1 to 6 percent, with the higher gains posted by brick masons, carpenters, and crane operators. In early 2008, a developer of both market-rate and affordable housing reported that union labor rates were increasing by 6 to 8 percent due to shortages in the labor pool, and that "some trades even show 50 percent increases," particularly in mid-rise and high-rise construction. As another developer noted:

> You can bring in workers—they're called "travelers"—from other jurisdictions when necessary, but we can't seem to import contractors, so there will be a shortage of supervisory or organizational strength. Also, contractors live and die with the economic cycles, so they don't like to overstaff during boom times. In a crunch, overtime goes up and labor costs go up.

Land Is Now the Major Cost Factor

Given current development pressures, land costs have risen sharply in all five boroughs of the city.

Changes in land costs over a particular period of time are difficult to measure unless the same property has changed hands in that same period. As an example, a property in Harlem was sold in early 2006 for $112 psf and was resold ten months later for $133 psf, a gain of almost 19 percent. In other instances in Harlem, land prices increased from $125 psf for residential buildings in late 2005 to as much as $285 psf in early 2007 for buildings with mixed residential and retail uses.

Other neighborhoods have also experienced dramatic increases:

- An appraiser reports that land in Manhattan on blocks outside the prime core, which had been selling for $100 psf in 2001, is now going for $400-$500 psf. Within the core, land can go for as much as $1,100 psf.

- Similar price increases for land have been reported in downtown Brooklyn, where land that sold in the range of $70 psf in early 2005 had risen to around $250 psf by mid-2007.

Land prices can vary within neighborhoods, and even from block to block. But in general, land costs are being driven by the boom in construction throughout the city—of commercial projects, residential projects, and infrastructure. When major properties, particularly in Manhattan, change hands simply as the result of purchases by investors, the effect is the same.

The large-scale and widespread development of condominiums in Manhattan has driven up land prices there and pushed housing development into the other boroughs, where land costs are now rising rapidly as well. In Greenpoint, Brooklyn, land costs have reportedly risen from $80 psf to $200 psf in just the past two years.

New York City's Vast Array of Building Codes, Regulations, and Required Permits Adds a Significant Premium to Construction Costs

Almost without exception,[2] developers and contractors interviewed for this study cited the morass of regulations and requirements for permits as causing expensive and unnecessary costs and delays. Highly specialized legal and architectural professionals are required to penetrate this regulatory maze. Overlapping jurisdictions between city agencies can cause extensive delays. Applications for special permits or for zoning variances can take months or years, as can environmental studies and other reviews. And delays in obtaining one set of permits can cause others to lapse and force the application process to be repeated.

For major commercial, luxury, or mixed-use projects, these costs can be more than offset by high rentals or sales prices. But the added costs of compliance and the attendant delays can seriously threaten the economic viability of lower- or middle-income housing.

For example, one developer who is experienced in developing housing projects in New York as well as in other U.S. cities observed that "New York City agencies take so long on everything—for example, the time it takes to get a Certificate of Occupancy or a Fire Protection Plan. And it is so complicated to deal with the Department of Buildings and the Fire Department. It is just not an efficient process. Nothing is predictable. These delays cost money." An executive of a major national construction company provided further detail on obtaining a Certificate of Occupancy: "Chicago has the same various inspection groups as New York City (plumbing, electrical, fire, general construction, etc.), and it takes about one month of time basically due to a close coordination process through agencies. In New York City, you cannot start early enough to secure a C of O. The process here can take months (four to six at a minimum) and requires a significant effort and cost by all parties to accomplish this task."

A contractor explained the onerous nature of permit renewal from the city's Department of Buildings (DOB) and the Department of Transportation (DOT) for fencing, sidewalk sheds, highway use, cranes, etc. "They expire too quickly, generally in thirty days, and never more than ninety days or when the insurance expires, whichever is sooner. This requires repeated refilings, with significant costs in time and expediter charges." He recommends making the period in which the permit is in effect coterminous with the duration of the project or effective until the insurance expires.

An architect remarked that recently more and more sites in the city require some kind of zoning change or variance from the Board of Standards and Appeals (BSA), which adds time and cost to the process. Moreover, anything built with New York City housing funds must bear the additional burden of reviews by the Division of Architecture, Construction, and Engineering (DACE) in the city's Department of Housing Preservation and Development (HPD)—as well as environmental reviews that similar market-rate projects do not face. "The amount of time to acquire the necessary permits and

regulatory clearances is significant—a BSA application takes six to nine months, approvals from DACE from HPD take about four months, and a ULURP [Uniform Land Use Review Procedure, required for disposition of city-owned land], if necessary, takes at least six months. And these need to happen in a serial fashion rather than in parallel, adding still more delay and cost to the development process."

A contractor marveled that "for a builder doing affordable [subsidized] projects, it seems as if the city is giving him funds to pay its own fees."

And another spoke of problems with DOT, saying that it "issues endless permits. There can be as many as one dozen on a basic job. The fines and violations are time-consuming and costly. And I have to file a site plan with DOT on logistics, but DOT won't sign off, and then I have to go to the community planning board for approval."

According to one contractor, "The city's regulatory burdens basically add an aggravation factor that discourages outside companies from coming to New York and increases the prices that contractors will charge."

Another offered: "Affordable housing is a rule-encrusted world, whether it is the range of federal rulings, state regulations, or navigating the whole range of codes and permits in the city. It is a boon to consultants and a bane to soft costs in New York."

The Current Boom Is Also a Cause of Rising Costs

In summary, there have been significant cost increases in the price of building materials, in land prices, in the fees collected by contractors and subcontractors whose capacity has been stretched thin, and in overtime wages paid, especially since 2006. Indeed, the regulatory agencies are overtaxed as well, causing further delays and thus a longer period for which financing is required and exposure to escalating prices lasts. In addition, the sheer availability of credit has spurred building during this period, intensifying already costly demands on capacity. A well-known construction attorney stated that in the past few years, real estate investment trusts (REITs) became a staple of people's investment portfolios and thus made yet more capital available for building. And insatiable demand and big profit margins drew into the industry relative amateurs, who were inattentive to monitoring costs.

"As long as condos could sell for $1,000 per square foot, and then $1,500 and up to $2,000 per square foot, the costs of construction just kept going up," this attorney observed. "And this drove up prices for all housing construction, and mopped up all the best construction resources in the process."

CHAPTER 3. THE DEMOGRAPHIC AND ECONOMIC CONTEXT, 2000-2008

No discussion of construction costs in New York in 2008 can ignore broad trends in the city's economy and demography or their effect on the economics of the construction industry—particularly on the quantity of certain kinds of housing. Unless an extraordinary range of new government subsidies suddenly appears, the distribution of wealth and income within New York's population will strongly influence what kind of housing gets built.

Population Growth Has Continued Since 2000

Despite much concern after the terrorist attack of September 11, 2001, about whether New York would remain a secure place to call home, the city's population has continued to increase. Chart 13 shows that in the present decade, almost 270,000 residents joined the eight million recorded in the 2000 Census, making this the third consecutive decade of strong growth, after the loss of more than 800,000 residents during the 1970s' long years of recession.

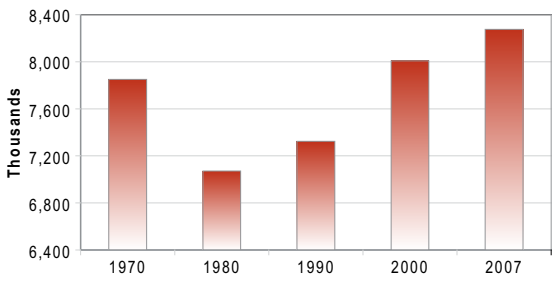
The growth in the city's population has been driven by an influx of immigrants and younger Americans drawn by the city's robust economy and appealing lifestyle, as well as by an influx of formerly suburban empty-nesters. New York is also experiencing a baby boom, foretelling a surge in construction of educational and other facilities over the next few years.

Economic Trends, 2000-2007

By 2007, New York's economy was in full recovery from the recession that began with the dot-com bust of 2000-2001, which was aggravated by the September 11 attacks and the disruption of commercial activity in Lower Manhattan that they caused. Today, the rebuilding of the World Trade Center site is under way, and access to the transportation network is restored. Reflecting confidence in the city's revived economic health, private developers as well as city and regional agencies have launched major construction and renovation projects throughout the five boroughs.

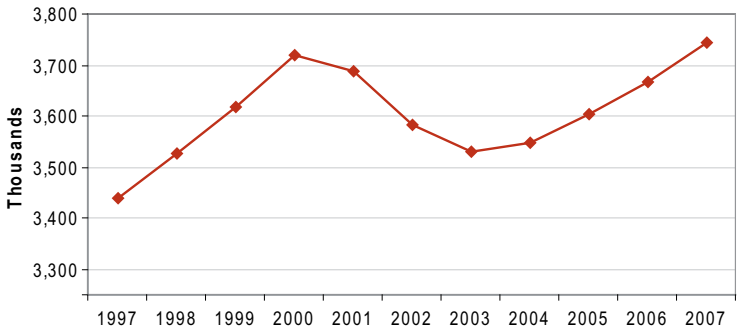
The city also more than recovered from the declines in employment levels that occurred in 2001, 2002,

Chart 13. New York City Population Census, 1970-2000, 2007 (est.)



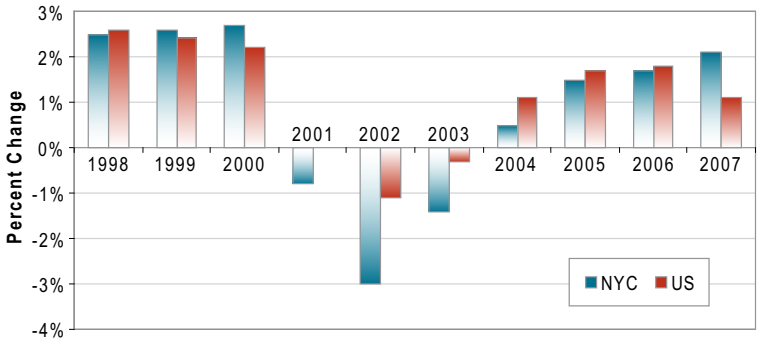
Source: Decennial Census and Current Population Estimates, U.S. Bureau of the Census

Chart 14. Total Wage and Salary Employment, New York City, 1997-2007



Source: New York State Department of Labor

Chart 15. Comparison of Employment Change, New York City and United States, 1998-2007



Source: U.S. Bureau of Labor Statistics; New York State Department of Labor

Table 4. Total Wages and Salaries Earned in New York City in Nominal Dollars

	2003	2007 (est.)
Total Wages & Salaries	$206.7 Billion	$300.0 Billion
Total Employment	3.4 Million	3.7 Million
Average Wage	$60,365	$82,000

Source: New York State Department of Labor. 2007 (est.) by author

and 2003. As Chart 14 demonstrates, by 2007, total wage and salary employment of 3.745 million had surpassed employment levels reached in the previous peak year of 2000.

While the 2000-2003 recession was particularly severe locally, since 2005 the city's employment growth has kept pace with the national rate, even surpassing it in 2007. Chart 15 tracks the growth levels in the city and the nation.

Growth in Wages at Place of Work Is Strong

Table 4 shows that wages and bonuses from jobs in the city also increased strongly over the decade's middle years, rising from $206.7 billion in 2003, the last year of the recession, to an estimated $300 billion in 2007.

Wages surged among the higher-income employees of firms in the city's leading industries, primarily finance and insurance, professional and business services, and media and communications. For example, average wages of workers in finance and insurance soared 68 percent between 2003 and 2007, reflecting disproportionate gains at upper income levels, while average wages in all other industries in the city grew 15.5 percent, only slightly ahead of the 14.7 percent increase in local inflation rates. (See Table 5.)

In addition, bonuses at Wall Street firms have increased sharply since 2003, reaching $34 billion in 2006 and $33 billion in 2007 despite the $10-billion plunge in profits at Wall Street firms that year. Housing prices at the top end of the market are considered to be driven at least in part by the size of these annual bonuses. (See Chart 16 for bonus trends.)

Median Household Incomes Fail to Show Measurable Gains

By contrast, the household incomes of lower- and middle-income workers in New York City have by and large not kept pace with inflation in this decade:

- The median household income in New York was $46,480 in 2006, the most recent measurement by the U.S. Bureau of the Census.[3] This figure was 21.4 percent higher than the median income in 1999, which was $38,293, according to the 2000 Census.
- However, the Consumer Price Index in the New York metropolitan area increased by 24.7 percent during these years, which means that the inflation-adjusted median income of city

Table 5. Average Wages in Financial Industry vs. All Other Industries, New York City, 2003, 2007

	2003	2007 (est.)	Percent Change
Average Wage, Financial	$167,083	$280,500	+68.0%
Average Wage, Nonfinancial	$49,690	$57,390	+15.5%
New York Area CPI Inflation			+14.7%

Source: U.S. Bureau of Labor Statistics; New York State Department of Labor. 2007 estimates by author

households was actually lower in 2006 than it was in 1999.[4]

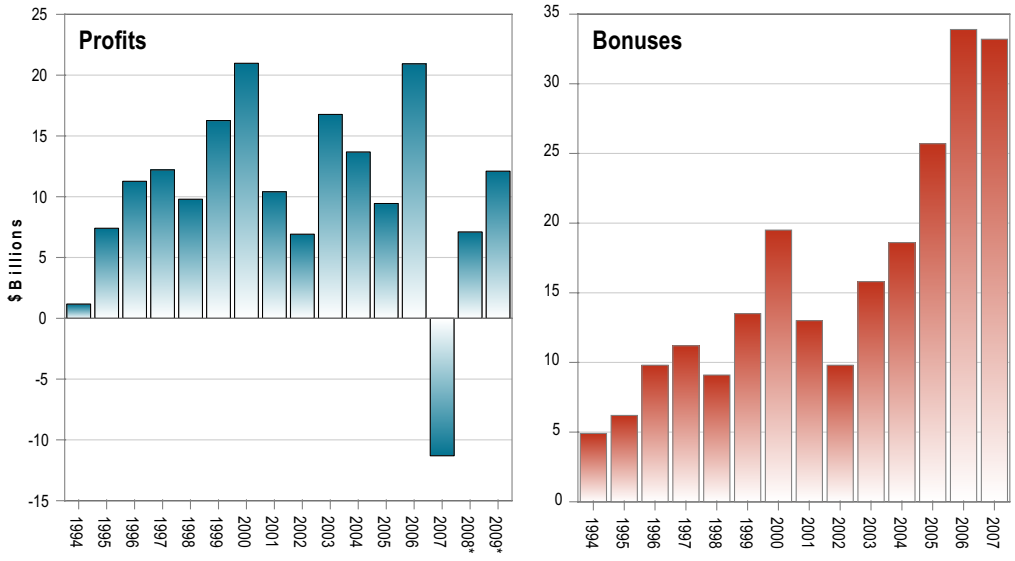
- The metropolitan area's housing costs went up more steeply than overall inflation, rising 33 percent between 1999 and 2006 and further reducing the ability of a median-income household to buy, rent, or pay the asking prices for shelter during this decade.
- Poverty levels in the city have not eased during the decade. Some 16.3 percent of all families and 23 percent of all families with children lived below the poverty line in 2006.

The American Community Survey (ACS) of 2006 compares average household income in New York City by quintile. It found that the average income of the top quintile of households is 23.95 times the average income of the lowest quintile. While substantial, the gap here is not the largest anywhere: in a comparison of major cities, New York ranks sixth, behind Washington and Boston but ahead of Los Angeles and San Francisco.[5]

A Steep Rise in Housing Prices, 2003-2008

In 2006, the median value of owner-occupied homes in New York City was $496,400, more than 160 percent higher than the median value in the nation, according to the 2006 ACS. This disparity had widened considerably since the city-nation comparison made by the 2000 Census for 1999, when the median value of a single-family,

Chart 16. Wall Street Profits and Bonuses, 1994-2007; Profits Forecast, 2008-2009



* City forecast

Note: Profits are for broker/dealer operations of NYSE member firms.

Source: Prepared by the Office of the State Deputy Comptroller, based on data from New York State Department of Labor, New York Stock Exchange Euronext, Securities Industry and Financial Markets Association, and the New York City Office of Management and Budget

owner-occupied home in New York was $211,900, or 77 percent greater than the national average.

Strong demand for housing throughout this decade has left vacancy rates in the city at very low levels. The ACS reports that in 2006, the vacancy rate was 2 percent for owner-occupancy homes and 3.7 percent for rental properties.

Prices of apartments and townhouses in New York began rising sharply in the last half of 2003 in tandem with the city's improving economy and population growth.

According to leading appraisal firm Miller Samuel Inc., the inflation-adjusted median price of a cooperative apartment in Manhattan increased from $400,000 in the third quarter of 2003 to $750,000 in the first quarter of 2008, a gain of 50 percent in real terms.[6] The median sales price of a condominium in Manhattan in the first quarter of 2008 was $1.61 million, 45 percent higher in real terms than it was in mid-2003. Chart 17 tracks these sales trends. In both cases, average prices were much higher than the median, a reflection of the escalating prices of prime Manhattan properties, which doubled between mid-2003 and the first quarter of 2008.

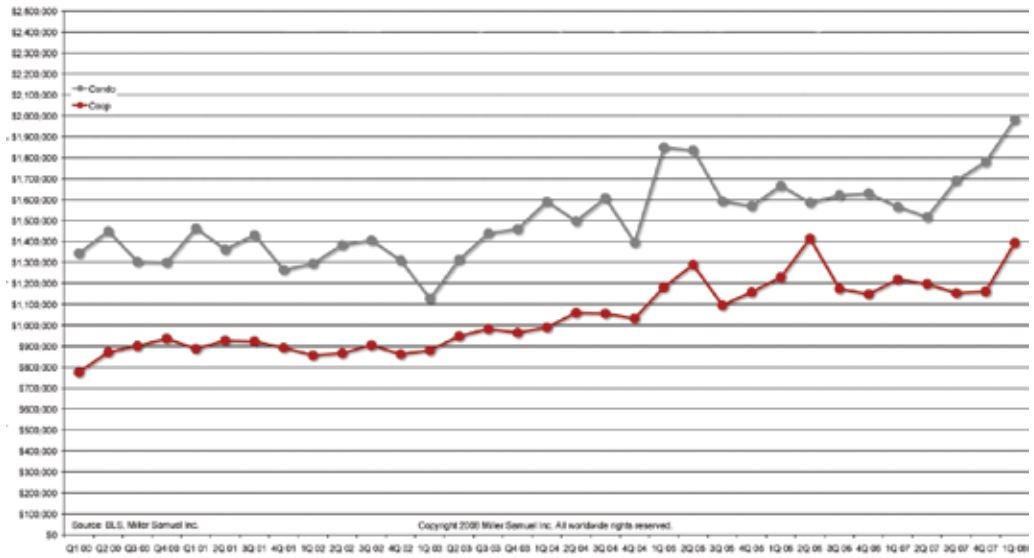
Housing prices also have risen significantly in the other boroughs. The Corcoran Report for Brooklyn cites a median price for co-ops of $450,000 and of $655,000 for condominiums at year-end 2007.[7] The report notes that price increases in Brooklyn for the year were a "moderate 8 percent," in contrast to the strong price gains "in the exuberant early part of the decade," due primarily to a spurt in new condominium development.

For the city's two million rental units, the ACS measured median rents at $945 per month in 2006 and reported that more than 40 percent of all rental households were paying 35 percent or more of their household incomes in rent that year.

Rents have continued to increase strongly through 2007 and into early 2008. Marcus & Millichap report that the actual rents paid in Manhattan's large, market-rate properties went up 7.5 percent in the twelve-month period extending through the first quarter of 2008, following an 8.6 percent gain in 2007.[8] Rental strength is believed to be driven by low vacancy rates, which in Manhattan were reported to be as low as 2.3 percent.

In Brooklyn, effective rents increased 6.7 percent over the twelve months preceding the end of the first

Chart 17. Co-op/Condo Inflation-Adjusted Average Sales Price, Manhattan, Quarterly 2000-2008



Source: Miller Samuel Inc., Real Estate Appraisers & Consultants. Shown in current dollars.

quarter of 2008, following a gain of 8.1 percent the previous year. Vacancy rates are reported to have edged up over the past two years, mostly due to the large number of new completions. Permits were issued for almost 9,000 multifamily units in 2007, a gain of 36 percent over the previous year.

In these strong markets, the average rents for market-rate housing are high—$3,731 per month in Manhattan and $1,374 in Brooklyn in the first quarter of 2008, according to the Marcus & Millichap reports.

In summary, the combined effects of continued population growth and the city's remarkable economic recovery from the difficult years of 2001 to 2003, along with the surge in wages earned by the top echelons of the city's high-margin finance and business-services industries, have led to continued strong demand and sharp increases in the price levels of rental and for-sale housing throughout the city. At the same time, income growth has been weak for most city households, with gains in median household incomes being eroded by rising inflation.

In New York City, continued demand for scarce supply exerts continued upward pressure on housing prices, which are already high by national standards, while affordability continues to elude a vast portion of city residents, whose household incomes have not increased in real terms during this decade.

The Economic Outlook for the Second Half of 2008 and Early 2009

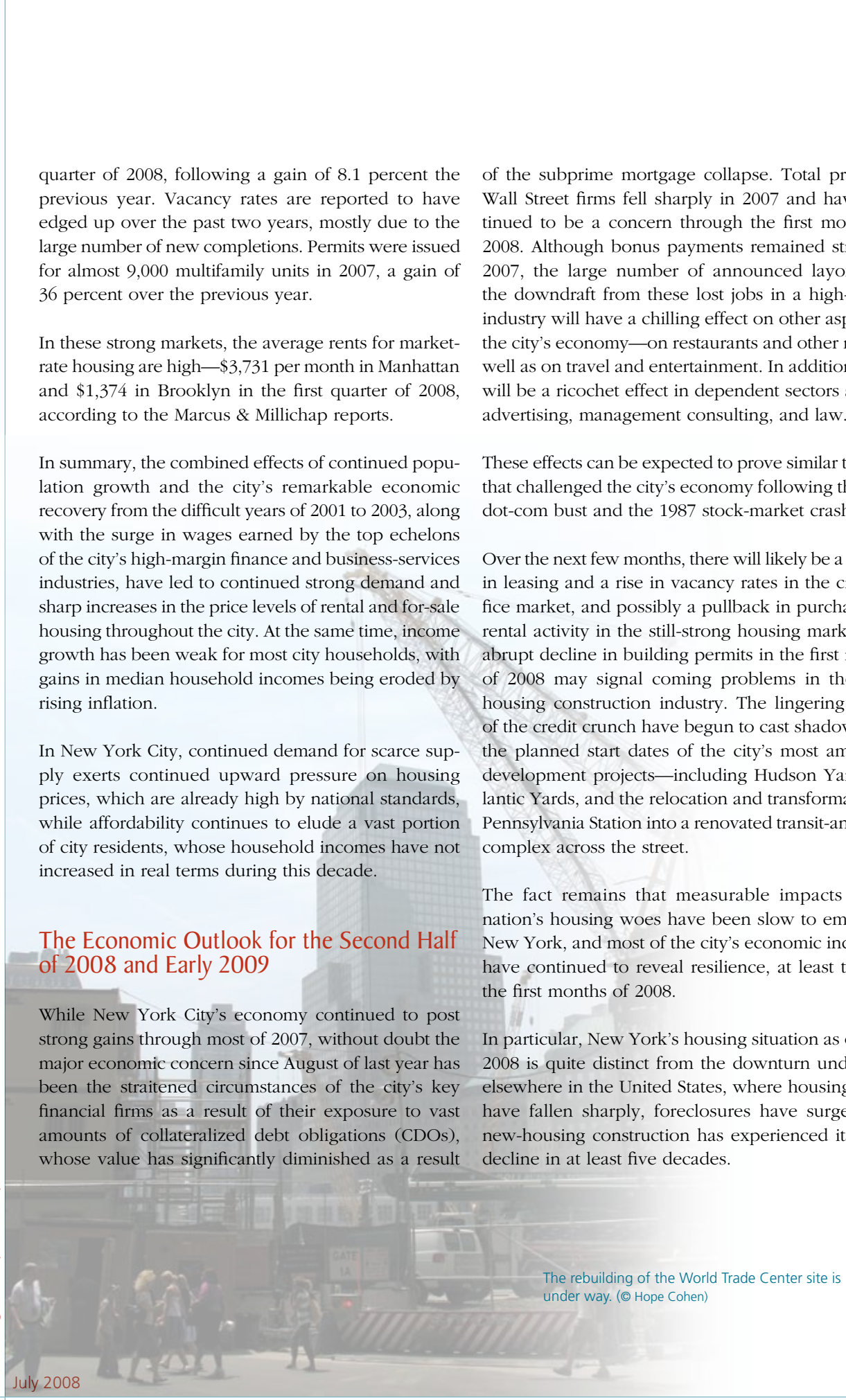
While New York City's economy continued to post strong gains through most of 2007, without doubt the major economic concern since August of last year has been the straitened circumstances of the city's key financial firms as a result of their exposure to vast amounts of collateralized debt obligations (CDOs), whose value has significantly diminished as a result of the subprime mortgage collapse. Total profits of Wall Street firms fell sharply in 2007 and have continued to be a concern through the first months of 2008. Although bonus payments remained strong in 2007, the large number of announced layoffs and the downdraft from these lost jobs in a high-paying industry will have a chilling effect on other aspects of the city's economy—on restaurants and other retail as well as on travel and entertainment. In addition, there will be a ricochet effect in dependent sectors such as advertising, management consulting, and law.

These effects can be expected to prove similar to those that challenged the city's economy following the 2000 dot-com bust and the 1987 stock-market crash.

Over the next few months, there will likely be a decline in leasing and a rise in vacancy rates in the city's office market, and possibly a pullback in purchase and rental activity in the still-strong housing market. The abrupt decline in building permits in the first months of 2008 may signal coming problems in the city's housing construction industry. The lingering effects of the credit crunch have begun to cast shadows over the planned start dates of the city's most ambitious development projects—including Hudson Yards, Atlantic Yards, and the relocation and transformation of Pennsylvania Station into a renovated transit-and-retail complex across the street.

The fact remains that measurable impacts of the nation's housing woes have been slow to emerge in New York, and most of the city's economic indicators have continued to reveal resilience, at least through the first months of 2008.

In particular, New York's housing situation as of early 2008 is quite distinct from the downturn under way elsewhere in the United States, where housing prices have fallen sharply, foreclosures have surged, and new-housing construction has experienced its worst decline in at least five decades.



The rebuilding of the World Trade Center site is under way. (© Hope Cohen)

CHAPTER 4. THE CHALLENGE OF BUILDING HOUSING THAT IS AFFORDABLE

"Stick and brick" in the Bronx. (© Julia Vitullo-Martin)

As the preceding sections have demonstrated, most types of building are occurring in great volume within the city's borders, due largely to the continuing prosperity of the people, businesses, and government bodies that will be using, occupying, and paying for them, even in a climate of spiraling rents and prices. The intended constituency for one category of building, however, lacks the means to handle its full cost. That category is known as affordable housing.

Almost all housing commonly designated as "affordable" in New York City, throughout the range of low- to moderate-income projects, is built with some form of public subsidy. Most of it can be found outside Manhattan, primarily in Brooklyn and the Bronx; the relatively little being built in Manhattan can be found mainly north of 96th Street. Within central Manhattan, affordability can be achieved through the use of a variety of federal and city programs, such as the tax-exempt and taxable bond programs administered by the New York City Housing Development Corporation (HDC); by using a range of low- and mixed-income programs carried out by the city's HPD; and under the umbrella of various state programs that offer subsidized mortgages or other forms of assistance to particular constituencies, such as the elderly and working families. The 421-a program, which abates property taxes for some period of years to encourage building in most parts of the city, has been considered by developers to be especially effective, but starting in July 2008, its eligibility requirements will be significantly altered—with unfortunate results, some predict. (See Appendix A.)

The "block-and-plank" (concrete block and flooring) form of structure, which generally rises to ten-to-twelve stories, and the "stick-and-brick" (wood and brick) building type, which is reserved for lower-rise buildings, are favored forms of construction because they are less complex and costly to build than structures above those heights. Stick-and-brick technology is cost-effective enough to have built thousands of units of outer-borough housing, affordable even without subsidy. Programs such as those pioneered in the Bronx by The Community Preservation Corporation, or by the Nehemiah projects in Brooklyn, have played a significant role in turning around once-devastated neighborhoods.

Construction costs go up significantly for high-rise buildings that require structural steel reinforcement, additional fire-safety measures, and elevators, among other features. In many cases, the cost of these elements makes a larger structure economically infeasible, even allowing for the additional number of units such a structure could accommodate.

Nearly all affordable housing outside of Manhattan is now built with nonunion labor, which is estimated to cost from 20 to 25 percent less than its unionized counterpart. There are exceptions: one contractor who builds primarily for-sale housing in the affordable range uses only union labor because he believes that the savings realized from more efficient and professional execution justify union labor's higher wages. Several of our interview subjects stated that New York's union labor force is appreciably more efficient than union labor elsewhere. They say it is also more efficient than local nonunion labor, although, as one contractor related, nonunion contractors who have built projects in Harlem and upper Manhattan "have honed" their high-rise construction skills in the process.

The rising costs of materials over the past four years have been a major concern of developers of affordable housing. Hard costs for affordable housing projects outside of Manhattan, using nonunion labor, have risen from estimates of $130 psf in 2004 to $170-$185 psf in 2006 to levels lately that range upward of $200 psf. A low-rise, stick-and-brick building is now estimated to cost $125-$150 psf if built with nonunion labor. Recently, an eleven-story block-and-plank building in Brooklyn, built with union labor, had hard costs of $220 psf, while another in the Bronx "with fewer bells and whistles" came in at $193 psf in hard costs. Other recent estimates for projects using union labor quote hard costs at $275 psf, depending on the size and type of construction.

One developer has provided a comparison of recent hard costs for market-rate and affordable housing projects in Manhattan and the other boroughs:

- For a high-rise condominium or rental building in Manhattan, hard costs range up to $450 psf if union labor is used. The same type of construction in the other boroughs would be less—about $375 psf.

- For a high-rise (fifteen-twenty story) building outside Manhattan, hard costs would be about $300 psf if nonunion labor is used.

- For a mid-rise (twelve-fifteen story) block-and-plank building in Manhattan north of 96th Street, hard costs would be $250-$275 psf for union construction. If built nonunion, hard costs would be $200 psf.

While building materials were the most rapidly appreciating cost factor during 2004-2006, pushing up hard costs of construction for all types of building in New York City, the most rapidly appreciating cost factor since 2006 has been land. Land costs have reached the point where they now seriously threaten the capacity to build housing that is affordable, even on the Lower East Side, in Harlem, in upper Manhattan, and throughout the other four boroughs, because for the first time in a long time, market-rate developers think they can make money building there.

Several developers have suggested that to moderate increases in hard costs, it may be possible to find substitutes for some construction materials, or to lock in prices for critical inputs such as steel and aluminum by purchasing futures contracts. Using nonunion contractors and workers, a practice well established outside Manhattan, also significantly lowers hard costs.

The supply of land within the city's borders, however, is finite, and its effective expansion depends on contentious and time-consuming revisions to the zoning resolution. Most of the land the city accumulated through tax foreclosure during the fiscal crisis of the 1970s (the *in rem* program) has long since been turned over to private developers, both nonprofit and for-profit, to erect affordable housing. Thanks to the city's revitalization in recent years, land has become much more valuable throughout the city's neighborhoods. Given the state of existing subsidy programs, land's current prices now constitute the major barrier to constructing affordable housing. In fact, several development companies indicate that they have stopped purchasing land, one executive noting, "We are waiting until the market breaks and prices come down."

The importance of land costs can be seen in the following pro-forma examples of various types of affordable-housing projects, assuming a 100-unit building outside of Manhattan with no parking requirement, hard costs of $225 psf, soft costs of 25 percent of hard costs, and interest rates of 7.5 percent on the first mortgage:[9]

A. *An Affordable Condominium* that needed to buy land at $120 psf and pay a developer's fee of 25 percent would require a subsidy of $85,000 per unit in order to yield a per-unit sales price of no more than $460,000.

B. *An Affordable Co-operative Apartment House* that needed to buy land at no more than $25 psf and pay a developer's fee of 25 percent would require a subsidy of $85,000 per unit in order to yield a per-unit sales price of $262,000 (affordable to families of four with household income of $90,000 a year and total housing costs not to exceed 35 percent of gross income).

C. *An Affordable-Rental Project* with a construction cost per unit of $281,000 and an average rental of $2,782, with a first mortgage of $13.5 million supplemented by an HDC subordinate loan with a value of $75,000 per eligible unit, would work only if the nonprofit developer accepted a 4 percent fee and the land were totally free.

Are There Ways to Moderate Land Costs and Expand Availability?

The Bloomberg administration has rightly been lauded for its reclassification of industrial or commercial areas to permit housing development, and for allowing greater density in some residential areas. Virtually all experts interviewed for this report believed that rezoning is the key to expanding the supply of land. In fact, they argued strongly that as important as the Bloomberg rezonings have been, they have not gone far enough.

"Inclusionary zoning" generates affordable housing by increasing the density allowed for development. Rather than providing a monetary subsidy, the government encourages the provision of affordable units by awarding a market-oriented floor-area bonus. The classical form of New York inclusionary zoning—going back a couple of decades—applies in the densest areas of Manhattan, essentially as a site-specific, ad-hoc form of upzoning, increasing allowable floor area by 20 percent in return for construction or rehabilitation of affordable housing on-site or within a defined geographical area. Each of the Bloomberg administration's recent major rezonings (Greenpoint-Williamsburg, West Chelsea, Hudson Yards, 125th Street, etc.), by contrast, has been designed with its own bonus formula. It remains to be seen how effective and economically efficient this system is at creating housing that people with lower or moderate incomes can afford.

On the other hand, downzoning, which reduces the density permitted in an area or neighborhood, effectively drives the supply of land down—while driving its cost up. And the requirements of "contextual zoning," which specifies building shapes or envelopes and imposes absolute height limits, can hinder efficient and economical design. One architect we interviewed said it added "too many constraints on building design and makes affordability extremely unlikely in such zones."

One- and two-family homes in Staten Island prove that it is possible to build relatively low-cost housing without subsidies. (© Julia Vitullo-Martin)

Decades-old rules force developers to provide off-street parking for at least some percentage of housing units in most neighborhoods outside the Manhattan core. Parking that is located outside and around a building absorbs land that would otherwise be available for residential use. The necessity of providing these parking spaces has rendered many potential development sites unusable because they cannot accommodate both the building planned and the spaces required. The construction cost of a parking space within a building, according to developers of affordable housing, ranges from $30,000 to $50,000.[10] And, since the relationship between spaces and apartments is often not one-to-one, those costs get passed along in the rent (or purchase price and maintenance charges) paid by residents who may not be getting any benefit from this amenity.

One new program, the New York City Acquisition Fund, has been set up to provide short-term loans to affordable housing projects for the purchase of land and buildings. The fund, now at $230 million, is underwritten by the city as well as financial and nonprofit institutions.

The Department of City Planning, in a major review it conducted in early 2006, estimated that some 40,000 empty parcels of land, primarily in Brooklyn and Queens, were available for residential construction, while another 518,000 residential parcels have structures on them that are smaller than the existing zoning would allow.

In addition, developers estimate that schools, religious organizations, and other nonprofit institutions own several thousand parcels of land that could be used for housing development.

Finally, as one developer remarked, "We can always build up and leverage off air rights. Even in an already dense city, we have land."

Other Issues Facing Developers of Affordable Housing

Insurance

While the availability and cost of general liability insurance and surety bonds have improved markedly since the early part of this decade, when premiums increased sharply and few insurance companies were offering coverage in New York State, insurance costs of construction in New York City remain high, say industry experts.

According to one housing developer, "The issue is liability insurance, which is much more expensive here." The main problem is New York State's Scaffold Law, formally known as Labor Law 240-241, which imposes absolute liability on the builder in the event a worker falls, e.g., from a scaffold or bridge, regardless of whether he or she has been negligent.

Because of the Scaffold Law, some insurance companies refuse to write general liability policies in New York State, and others have publicly stated that their rates in New York are substantially higher as a result.[11] Legislation that would turn New York into a "comparative liability" state is regularly introduced but has never reached the floor of the legislature for a vote.

Green Technology

One architect estimated that adding basic green features (e.g., energy-efficient design for heating and cooling, recycling gray water for non-potable uses) to residential construction now adds between 3 and 5 percent to construction costs, with payback of those additional sums expected within a two-to-five-year period. He suggested that a more accurate way to evaluate the return on these investments is by calculating it over the building's full life span. "When operating costs are taken into account, greenness contributes to affordability. It costs so much less to heat and cool a green building that even with the 3-to-5 percent construction premium, the structure's total cost (both to build it and to maintain it over its useful life) is 12-15 percent less than it would be for its conventional counterpart." Investing in green features appears to be more attractive to developers of rental buildings than to condominium developers because they are more likely to benefit directly from the longer-term payback in operating costs.

CHAPTER 5. NEW YORK CITY'S AMBITIOUS PROGRAM TO PROVIDE AFFORDABLE HOUSING

"Affordable housing is fundamental to our long-term economic prosperity."
— Mayor Michael Bloomberg

Mayor Bloomberg launched his New Housing Marketplace Plan on July 1, 2003. By February 2006, it had grown to become a $7.5 billion program to create and preserve 165,000 housing units for lower- and middle-income households by 2013.

By March 2008, the construction or preservation of almost 71,000 units had begun, according to a May 2008 HPD press release. Ultimately, 55.5 percent of the units included in the Marketplace Plan will have been newly constructed. The balance will be either existing units that have been rehabilitated or units already in the Mitchell-Lama middle-income housing program that the city's Marketplace Plan was able to keep there through restructuring mortgages and financing capital improvements.

About $5.8 billion ($4.5 billion from the capital budget and $1.26 billion from the expense budget) of the plan's $7.5 billion total funding will be supplied by the city. Non-city sources are expected to fund the remaining $1.1 billion. That amount breaks down as follows:

- Almost $600 million to be derived from federal Low-Income Housing Tax Credits
- $360 million from the New York City Acquisition Fund, which the city, businesses, and nonprofit organizations together created for the acquisition of land and buildings owned by the private sector
- $130 million from the New York City Housing Trust Fund, representing surplus revenues from the Battery Park City Authority
- $50 million in funding received by the Lower Manhattan Development Corporation (LMDC) from the federal government to help New York City recover from the destruction inflicted on September 11, 2001

New York City's Independent Budget Office (IBO) conducted a review of the first four years of the program.[12] It noted that the plan had preserved 40,200 units, or 55 percent of the ultimate number to be preserved. Less new construction was accomplished—some 23,700 units, or 26 percent of the ultimate number.

On balance, the IBO found, "the city's ability to accomplish the remaining plan goals for preservation appears fairly solid … with expected resources available to finance 92 percent of the target, but … the city's capital budget would be able to finance only 49 percent of the units needed to meet the 2013 goals for *new construction*."[13] The discrepancy between rates of preservation and new construction can probably be explained by the steep and inflating costs of construction. Rehabilitation programs entail many of the same cost challenges as new construction, but the preservation program includes financial remedies as well as physical reconstruction, bringing down the average cost per unit.

The IBO report raised concerns that HDC may incur difficulties in financing its remaining share of 11,000 units by 2013, partly because the portion to be paid out of HDC reserves was largely used up in the first four years, and partly because the volume cap for both tax-exempt and taxable private-activity bonds, which are used to finance primary mortgages, is being approached.

In addition, the IBO report questioned whether the amount of money expected from off-budget sources will be available—particularly the market-driven programs of 421-a, which are expected to yield 4,500 units. Another concern was the likelihood of the 2,550 units expected from the inclusionary zoning program materializing by 2013, since the number of affordable-housing units that are produced directly depends on the volume of market-rate development.

The IBO report concluded that "a reassessment of the goals and assumptions may be necessary to help ensure that the plan carefully balances its ambitions with the means available to achieve them."

CHAPTER 6. RECOMMENDATIONS

Just about every aspect of constructing a building has long been more expensive in New York City than elsewhere in the nation. Most of the cost factors responsible are beyond any individual's direct control, being subject to the dynamics of national and global markets in materials and labor. The high and rising levels of these costs in the face of shrinking credit, growing unemployment, and declining income growth suggest that the economic context of supply and demand for housing is becoming less robust than it has been for the past few years. These trends will affect the volume of all forms of construction to varying degrees, despite today's low vacancy rates, which is an indication of pent-up demand.

To counter these trends, policymakers need to focus on those areas of construction costs that are within their power to reduce. Because every sector of New York's construction world is competing for the same supply of goods and services, cost reductions in some sectors (e.g., commercial, institutional) will benefit the other sectors (residential, public works). The segment least able to survive the growing gap between prices, which reflect high and rising construction costs, and incomes, which have been declining in real terms, is a component of the residential sector—housing for lower- and middle-income people. Because currently available subsidies are not large enough to close that gap, the focus of New York City's government should be on removing from the building process the arbitrary and redundant factors that unnecessarily drive up costs. By establishing conditions that permit the construction of housing inexpensive enough for this population to afford, the city gives itself some chance of remaining a place where every income level is represented.

Land is the single most important cost factor, but high wages, hidden labor costs, regulatory requirements that delay local builders while discouraging outside builders from entering the market, and transportation difficulties all contribute their own premium to the cost structure of construction. To make a dent in the problem, New York needs to address above all the challenge of land costs, while not failing to address the policies and practices that make a difficult set of conditions worse than they need to be.

1. Reduce delays in construction time, and thus cost, by streamlining the city's regulatory and permitting processes.

Complaints about the inefficiencies and contradictions in the city's permitting requirements and inspection practices were recurrent in the interviews conducted for this study. The issue is not so much the purposelessness of the required regulations and permits but the costliness of the process and the amount of time it consumes. Reducing the difficulty and costs of meeting regulatory requirements could also help to reduce the barriers to entry confronting contractors and subcontractors based outside New York City, thus easing a major shortage in the city's construction economy and lowering overall costs of construction.

No element in the regulatory process has been identified as the prime culprit in adding to cost; rather, the cumulative effect of the myriad steps required throughout the process causes frequent and protracted delays and thus adds substantially to the overall costs of construction. While the details can be best addressed by agencies working in concert with developers, three areas of improvement can be identified:

Reviews

- No longer impose various forms of review on forms of construction identical to those that are exempted. Mandatory reviews of the environmental impact of new government-subsidized housing, for example, encourage developers to build nonsubsidized housing, which does not require them.

Permits

- Instead of sequentially granting permits demanded by laws covering different aspects of the building process, do so in parallel. For this to occur, there needs to be better coordination between agencies, particularly the Department of Buildings and the Department of Transportation.

The standard eighteen months from first application to last approval could be reduced to six to eight months in this fashion.

Certificates of Occupancy

- Lengthen the period that a Temporary Certificate of Occupancy (TCO) remains in force to six months. The current duration of two months is rarely sufficient and requires builders to go to the trouble of applying for a renewal. A standard TCO duration of six months would give the various agencies including the Fire Department time to inspect and approve the premises in question and move directly to a permanent Certificate of Occupancy. It would also eliminate the risk that one TCO could expire before its replacement is granted.

2. Continue to increase the amount of buildable space available for residential development.

The Bloomberg administration's rezoning of vast swaths of the city, such as Hudson Yards, Atlantic Yards, the Brooklyn waterfront, downtown Brooklyn, and Flushing and Jamaica in Queens, has opened these areas to redevelopment. Although the increased availability of land, and the more intensive use of it that is now permitted, have not yet slowed the rapid appreciation in prices, continuation of this effort will surely do so. Such measures are particularly necessary in view of the depletion of the *in rem* stock, which the city acquired through tax foreclosures during and after the fiscal crisis of the 1970s, and which it then sold to developers at almost no cost. At present, the rejuvenation of formerly depressed neighborhoods where *in rem* housing was plentiful has opened would-be developers of affordable housing to competition from for-profit developers who seek to acquire the same parcels. The antidote to the price escalation that has resulted is in effect the creation of more developable land through changes to the zoning resolution.

Steps should include:

- Rezoning large tracts of underdeveloped land that still lie fallow along the city's waterfront and in old manufacturing districts, particularly in Brooklyn and the Bronx. These could be prepared to receive mixed-income housing, stores, schools, and recreational facilities.

- Upzoning more areas of low density, particularly those near subway stations outside of Manhattan's central business district (CBD). Since the city cannot expand its boundaries, it must permit increased density (and thus higher buildings) in many of its neighborhoods if it is to accommodate growth while attempting to keep land costs manageable. Given the superior economics of mid-rise (twelve-fifteen story) buildings, City Planning should set density levels for some neighborhoods that would correspond to the residential capacities of such buildings as a way of promoting their construction.

- Eliminating or drastically limiting the obsolete 1961 requirement to provide on-site parking in mid-density residential zones outside the Manhattan CBD. The requirement applies even to areas and projects whose residents are unlikely to own cars. Where the requirement is now satisfied by on-site surface parking, doing this would make more land available for housing. Where the requirement is now met with on-site garage space, this change would significantly lower construction costs, since building parking facilities placed within buildings costs between $30,000 and $50,000 per space.

- Encouraging the granting of variances to schools, religious institutions, and other nonprofit organizations that own adjacent parcels on which affordable housing could be built.

3. Preserve the use of nonunion labor in the construction of affordable housing.

While unions have, in recent years, shown greater willingness to allow their members to work on projects that involve a mix of union and nonunion labor, the bulk of affordable housing outside the Manhattan CBD is still being built with nonunion workers, who earn wages 20-25 percent lower than those of their union counterparts. The unions are now, however,

applying considerable pressure to adopt "prevailing wage" rules at mixed-workforce building sites, which would require developers to pay nonunion workers the same wages they pay union workers, thereby removing the incentive to hire the former in order to realize cost savings. Prevailing-wage rules add further costs by requiring developers to prove that they are in compliance with the law.

4. Reform the state's negligence laws.

Legislation has regularly been introduced in Albany to amend the state's Scaffold Law (Labor Law 240-241) to state that when worksite injuries occur, principles of comparative liability will apply to contractors and building owners, rather than absolute liability principles, which have been in effect for more than a century. In other words, damages for negligence would be apportioned according to the various parties' degrees of negligence. This single action would lower the costs of litigation; it would also lower the cost of insurance by attracting more insurance companies willing to write general liability policies in New York City and New York State. In addition, the legislation would bring New York State's liability laws into alignment with such laws in the other forty-nine states.

5. Monitor the unfolding impact of the recent curtailment of tax abatements.

Recently the state revised New York City's 421-a program in a number of ways, including reducing the areas where property taxes on new housing could be for all intents and purposes automatically abated. (Depending on the project, the abatements may remain in effect from ten to twenty-five years.) It remains to be seen whether the areas now excluded from the program have progressed as far as the state and city believe they have and whether they are, in fact, able to attract development without the spur of the program, which makes housing more affordable by reducing purchasers' overall carrying costs.

New York has always been a place of boom and bust. (© Hope Cohen)

Appendix A. Changes to the 421-a Program

In 2006-2007, the city and state enacted legislation to modify the 421-a provision of New York's Real Property Tax Law just before it was scheduled to sunset. The changes take effect as of July 1, 2008. There is wide agreement in industry and government circles that many projects were accelerated so that they could "get into the ground" before this date and so maintain eligibility for tax benefits under the previous 421-a scheme.

The original Section 421-a was designed to encourage development in the early 1970s, when virtually no new housing was being built in the city. It served as a corrective to the property-tax system's long-standing imbalances in favor of existing structures over new construction of multifamily housing by providing a tax abatement that diminished over some number of years. (The exact period of time depended on location, use of government subsidy in construction, and provision of affordable housing.) Essentially, 421-a eases a new building into the property-tax system over time.

However, as documented in this report, by 2007 housing construction was entering a fifth year of strong activity throughout the city. Advocates for affordable housing, internal and external experts on the municipal budget, and a range of politicians asked why the city should forgo hundreds of millions of dollars in tax revenues from the residents of luxury buildings, who could well afford to pay their full share of property taxes.

In fact, the abatement program made possible a wide range of construction. Perhaps the main beneficiaries were smaller developers, outside the Manhattan core, who were able to build homes, both with government subsidies and without, that moderate- and middle-income New Yorkers were able to afford specifically because of the reduced carrying costs resulting from the abatement.

Major changes made to 421-a include:[14]

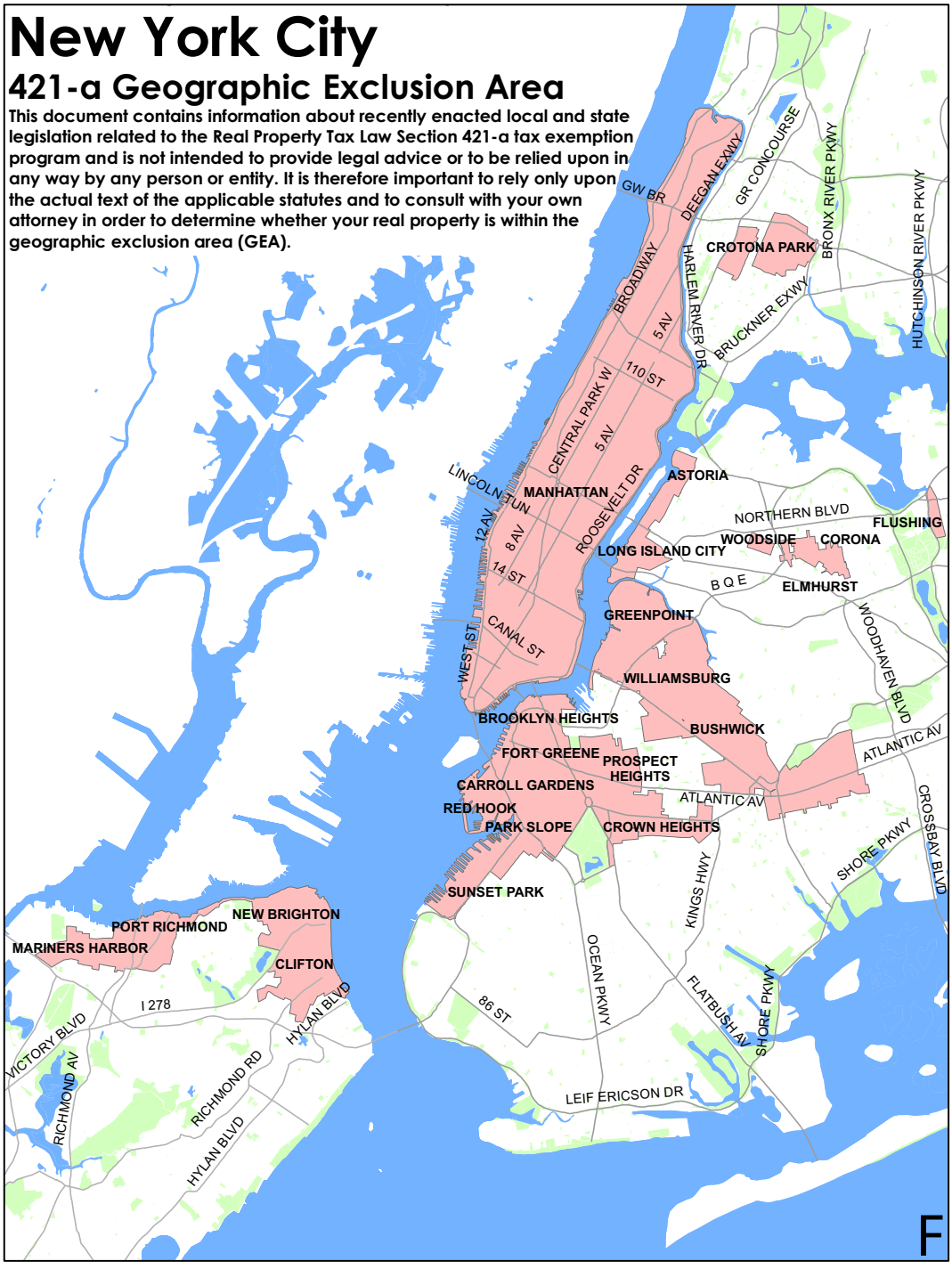
Replacement of the negotiable certificate program with an Affordable Housing Trust Fund. In anticipation of the 2008 changes, the city stopped issuing written agreements for negotiable-certificates projects as of December 2007. This program had provided developers of affordable housing projects with certificates to sell to developers of market-rate condominiums, co-ops, or rental apartments in the city's more affluent neighborhoods. These sales directed a funding stream to low-cost development, and market-rate developers cashed in their certificates for greater tax benefits than they would qualify for otherwise.

Tax revenues realized from elimination of the certificates will be allocated to an Affordable Housing Trust Fund, targeted at the city's poorest communities.

Expansion of the "geographic exclusion area" from central Manhattan and Greenpoint-Williamsburg to all of Manhattan and neighborhoods throughout the other four boroughs. (See map.) In the areas in which participation is not as of right, abatements are available only to those projects that provide affordable housing. Maximum (twenty-five-year) benefits are limited to projects providing the affordable units on-site. Now developments in not only the Upper East Side and Park Slope but in Bushwick, Crotona, and New Brighton must meet these requirements for abatement eligibility.

Establishment of a cap on the total amount of 421-a tax benefits that any market-rate unit may receive, based on its assessed value. In 2008, only the first $65,000 of an apartment's billable exempt assessed value will be eligible for the exemption; the cap will be increased by 3 percent, compounded annually.

Appendix A. 421-a Geographic Exclusion Area



Source: New York City Department of Housing Preservation and Development, http://www.nyc.gov/html/hpd/downloads/pdf/Citywide-GEA-Overview.pdf

Appendix B. List of Those Interviewed for This Study

Christopher Albero, vice president, Cauldwell Wingate
Richard T. Anderson, president, New York Building Congress
Jay Badame, vice president, Tishman Construction Corporation
Laurel Blatchford, deputy commissioner, and staff, New York City Department of Housing Preservation and Development
Les Bluestone, development principal, Blue Sea Development Co. LLC
Frank Braconi, chief economist, Office of the New York City Comptroller
Mark Capone, vice president, Ferrara Brothers Building Materials Corp.
Louis Coletti, president and chief executive officer, Building Trades Employers' Association
John Crotty, executive vice president, and staff, New York City Housing Development Corporation
Marolyn Davenport, senior vice president, Real Estate Board of New York
Thomas Farrell, senior managing director, and David Dishy, managing director, Tishman Speyer
James A. Fenniman, executive vice president, Bollinger Insurance
Paul Fernandes, chief of staff, Building & Construction Trades Council of Greater New York
Jack Freeman, principal, Freeman/Frazier & Associates, Inc.
Mark Ginsberg, partner, Curtis+Ginsberg Architects LLP
Timothy J. Grogan, senior editor, *Engineering News-Record*, McGraw-Hill
Veronica Hackett, president, The Clarett Group
Fred Harris, senior vice president, AvalonBay Communities, Inc.
Sandy Hornick, deputy executive director, and Eric Kober, director, New York City Department of City Planning
Daniel Kaplan, senior principal, FXFowle Architects, PC
Gale Kaufman, managing director, Duvernay + Brooks LLC
Carol Lamberg, executive director, Settlement Housing Fund, Inc.
Michael Lappin, president and chief executive officer, The Community Preservation Corporation
Charles Laven, president, Henry Lanier, partner, Esther Sandrof, partner, and Peter Beck, vice president, Forsyth Street Advisors
Nick Lembo, president, Monadnock Construction Inc.
Barry B. LePatner, partner, LePatner & Associates LLP
Jeffrey Levine, chairman, Douglaston Development
Robert LiMandri, deputy commissioner, and staff, New York City Department of Buildings
Edwin Lopez, chapter manager, New York Electrical Contractors Association
Frank McArdle, former general manager, The General Contractors Association of NY, Inc.
Ray McGuire, member, Kauff McClain & McGuire LLP
Jonathan Miller, president and chief executive officer, Miller Samuel Inc., Real Estate Appraisers & Consultants
Sara Mirski, director of development, Boymelgreen Group
Charles Murphy, vice president and general manager, and Christopher Zegler, vice president, Turner Construction Company
D. Kenneth Patton, divisional dean, Schack Institute of Real Estate, New York University
Jerilyn Perine, executive director, Citizens Housing and Planning Council
Bradford Perkins, principal and director, Perkins Eastman Architects
Vincent L. Riso, principal, The Briarwood Organization
John Tynan, director of housing, Catholic Charities Progress of Peoples Development Corporation
Robert Van Ancken, executive managing director, and Duane Buress, researcher, Grubb & Ellis
Mark Willis, executive vice president, JPMorgan Chase

Endnotes

1. "General conditions" is a catchall term to account for unbudgeted costs to contractors from, for example, delays and the additional bond and surety coverage that consequently must be purchased, as well as from escalation in the cost of materials.

2. There were two exceptions. One developer, familiar with working in other U.S. cities, regards New York City's zoning and building codes, which allow significant building to be carried out "as of right," as a major advantage. A developer of affordable housing said that he did not see the city's regulations as a major barrier: "Even though these slow things down, and time value is an enormous cost, complex regulations make sense in New York."

3. The American Community Survey (ACS) for New York City 2006, U.S. Bureau of the Census.

4. U.S. Bureau of Labor Statistics, New York Regional Office.

5. This detail is reported in the 2008 Income and Affordability Study, New York City Rent Guidelines Board, June 6, 2008.

6. Miller Samuel Inc., Real Estate Appraisers & Consultants, www.millersamuel.com.

7. *Brooklyn Year End 2007*, The Corcoran Report, www.corcoran.com.

8. Marcus & Millichap, Real Estate Investment Services, www.marcusmillichap.com.

9. Examples provided by a financial cost estimator of affordable housing projects.

10. This requirement appears to be even more antiquated in a time of $130-per-barrel oil and a place where the mayor has set out a series of recommendations to lower the city's carbon footprint by 2030. The parking requirement has been widely criticized by city planning experts including Alex Garvin, a former member of the City Planning Commission, and Nick Peterson, an urban planning consultant, who concluded in an op-ed in the *New York Times* of December 23, 2007: "Eliminating the parking requirement will reduce traffic congestion and pollution, and it will free acres of land for new housing, stores and offices. It will allow all developers to build more affordable housing and encourage more convenient, transit-friendly retail and commercial destinations."

11. In a memorandum in support of Labor Law 240 Reform, April 29, 2003, Zurich North American's Construction Division cited rates for scaffolding insurance of 73.7 per $1,000 sales in New York City, compared with 19.1 in New Jersey, 14.5 in Illinois, and 13.9 in Massachusetts.

12. *The Mayor's New Housing Marketplace Plan: Progress to Date and Prospects for Completion*, New York City Independent Budget Office, Fiscal Brief, November 2007.

13. Italics added. IBO's projections for the 2008-2013 period are based on the average per-unit costs of the program that obtained between 2004 and 2007, and on the assumption "that construction costs are relatively flat" in the forecast years.

14. 421-a Legislation Overview and FAQ, updated February 28, 2008, New York City Department of Housing and Preservation Development, http://home2.nyc.gov/html/hpd/downloads/pdf/421a-FAQ.pdf, accessed June 2008.

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The Center for Rethinking Development (CRD) fosters a new understanding of the importance of development to New York City's well-being. Focusing on such areas as zoning and planning, environmental review, building codes, historic preservation, and public housing, CRD issues research reports, hosts forums, and offers concrete and feasible proposals for reform.

Many of CRD's specific recommendations for zoning changes have been adopted by the city. Its work on broader issues of construction costs, environmental reviews, and other bottlenecks to building continues to frame policy discussions in the development world—public, private, and not-for-profit.

New Yorkers have become far more development-friendly in the past few years, but are rightly troubled about New York's decaying infrastructure—roads, subways, bridges, tunnels—so necessary to support an expanding city. The costs of housing—rehabilitation as well as new construction—worry everyone concerned about keeping and attracting jobs and business. CRD explains and makes a case for the importance of reconnecting environmental reviews to infrastructural planning and implementation, targeting incentives to neighborhoods that are still weak rather than those that are strong, and tempering historic preservation with economic reason. Addressing these commonsense concerns is key to ensuring that the city continues to thrive and grow.

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