

## **The New York City Construction Labor Market**

**A Labor Market Profile Prepared by the Fiscal Policy Institute for the NYC Employment and Training Coalition and NYC Workforce Investment Board**

**April 2006**

### **EXECUTIVE SUMMARY**

- ▶ New York City construction employment is likely to expand considerably over the next five years, with several large commercial construction projects under development. In addition to job openings from the projected increase in construction activity in New York City, there should be several thousand positions available in coming years considering that 30,000 NYC construction workers are nearing retirement. Residential construction continues a four-year surge—the biggest since the early 1970s—while commercial construction is still below its 2001 level.
- ▶ The New York City construction sector employs roughly 250,000 workers, with 175,000 city residents engaged in the construction "trades". Leading occupations include laborers, carpenters, painters, electricians, and plumbers.
- ▶ Construction workers residing in the city are overwhelmingly male, and nearly 63% of construction workers are non-white. Compared to their overall shares of the city workforce, Hispanics are more prevalent in construction, while blacks and other non-white groups are slightly under-represented. Two-thirds of construction workers are immigrants, and roughly half are unionized.
- ▶ Construction trades workers in the city earn a median wage of \$14.90, slightly above the overall city median wage. Two-thirds of construction trades workers have a high school education or less, but the construction industry pays workers with limited formal education better than any major industry in the city's economy. Annual pay for unionized journeypersons can range as high as \$60,000 to \$85,000, along with family health insurance and pension benefits.
- ▶ The apprenticeship system, combining actual work experience with extensive classroom instruction in craft skills, is well-established in the city's non-residential construction sector and provides real career ladders with a significant pay progression.
- ▶ Among several initiatives of the Mayor's Commission on Construction Opportunity, the city's construction unions have committed to reserve over 40% of apprenticeship slots by the year 2010 for veterans, women, high school graduates and economically disadvantaged New Yorkers.

## **THE NEW YORK CITY CONSTRUCTION LABOR MARKET**

The construction industry and construction workers literally build New York, creating the workplaces, houses, apartments, schools, hospitals, public spaces, transportation arteries, bridges and water tunnels essential to our city's existence and smooth functioning. Construction work is often physically demanding and dangerous, but it offers some of the highest wages available for workers with limited formal education. An extensive apprenticeship system provides many of the industry's workers with the craft skills required for the city's demanding construction projects, skills that can provide secure career ladders and demonstrable wage gains.

Between the city's 10,000 construction companies and over 30,000 self-employed construction workers, the New York City construction sector employs roughly 250,000 workers. This is more than twice the size of the New York City construction industry's payroll employment, the most common yardstick to gauge the size of this industry. Most of the data in this labor market profile will focus on the 175,000 city residents engaged in construction occupations, the skilled "trades" part of the construction sector.

### ***How many people work in the NYC construction sector?***

In total, 250,000 work in the city's construction sector. This breaks out as:

- 200,000 city residents in the construction industry (150,000 in construction trades occupations, 13,000 in other blue collar occupations; 37,000 in managerial, professional and administrative occupations)
- 25,000 suburbanites work in the city's construction sector, mostly in the trades occupations
- 25,000 city residents in construction trades occupations work outside the official construction industry, either for government or a non-construction business

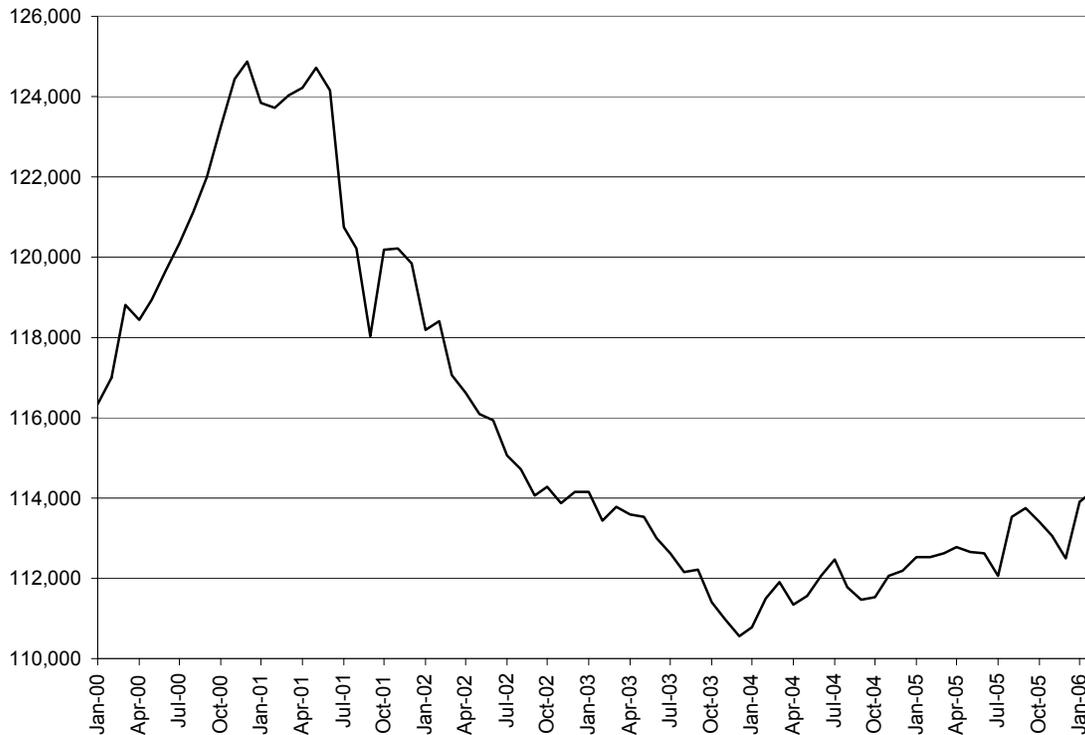
### ***Sector Snapshot***

Construction work is project-based, with workers and companies migrating from one job to the next. Most construction companies are trade-specific contractors or employers, such as electrical, plumbing, masonry, or roofing. General contractors serve as organizing agents, working with engineers and architects and coordinating the entire array of trade contractors. Most residential contractors are very small businesses, averaging 4 to 10 employees, while most non-residential contractors are only slightly larger, averaging 15 to 25 employees.

The New York City construction industry has still not fully recovered from the economic downturn in the early part of this decade. Payroll employment in the city's construction companies dropped more than 10 percent from the first half of 2001 to the low point reached at the beginning of 2004. Over the past two years, payroll employment has recovered about 3,000 out of the 13,000 jobs lost between the peak and the trough points (see **Figure 1**). However, the current payroll employment level of 114,000 is above where the construction industry stood for most of the late 1990s.

Figure 1.

### Construction employment, NYC, January 2000 – February 2006



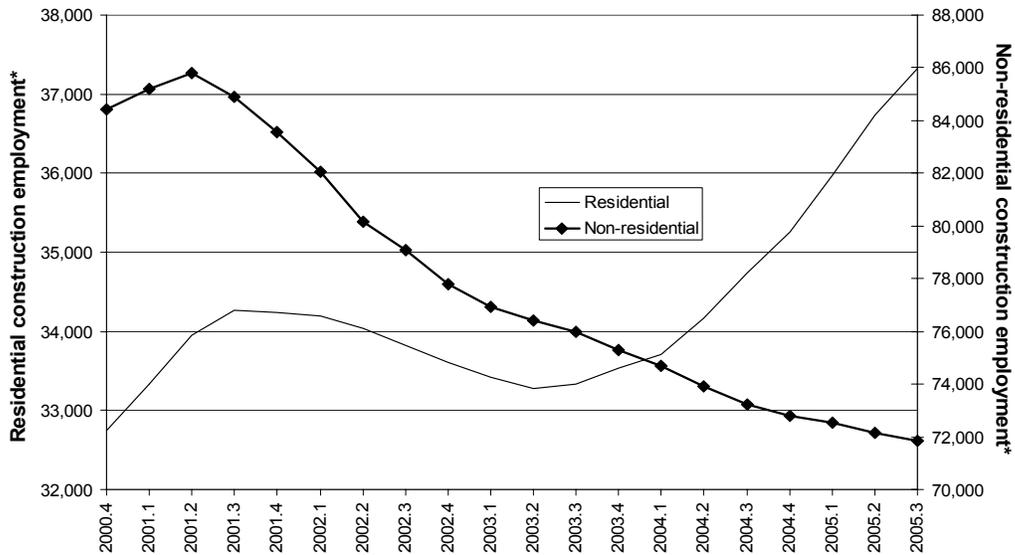
Seasonally Adjusted. Source: Current Employment Survey, NYS DOL. Seasonal adjustment by FPI.

Reflecting the housing boom sweeping many parts of the country in recent years, the city has seen the biggest surge in residential construction activity since the early 1970s. More housing units were constructed in the past four years than in the entire decade of the 1990s. However, since the non-residential construction business is much larger than residential construction in New York City, the residential building boom has not been sufficient to offset the job losses sustained by the downturn in commercial construction (see **Figure 2**).

Given several large commercial construction projects (rebuilding at Ground Zero, downtown Brooklyn, new stadiums for the Yankees and the Mets, the Atlantic Yards Arena, and the forthcoming Hudson Yards), major public transportation projects (the Fulton transit hub, the World Trade Center PATH station, the Moynihan station, the extension of the 7 subway line to the Hudson Yards area) and the City's ambitious 5-year school construction plan, employment is likely to expand considerably over the next five years. Housing construction is also likely to stay reasonably healthy considering the City's commitment to build more affordable housing. There are also several indications that the volume of construction activity related to residential and commercial renovation work will remain high.

Figure 2.

### Residential & non-residential construction employment, NYC, 1<sup>st</sup> quarter 2000 to 3<sup>rd</sup> quarter 2005



\*4-quarter moving averages (year ending). Source: NYS DOL, Quarterly Survey of Employment and Wages (202 series)

Figure 3.

### NYC-resident employment in construction occupations

#### Construction occupations

Construction occupations	Number	Percent
Laborers	45,500	26.0%
Carpenters	29,400	16.7%
Painters	20,900	11.9%
Electricians	18,300	10.5%
First-line svprs	12,000	6.8%
Plumbers, pipelayers, steamfitters	10,900	6.2%
Brick & stone masons	4,600	2.6%
Roofers	3,800	2.2%
Structural iron & steel	3,700	2.1%
Drywall & ceiling tile	3,600	2.1%
Carpet & tile	3,300	1.9%
Helpers	3,200	1.8%
Elevators	2,800	1.6%
All other construction occupations	13,300	7.6%
<b>All construction occupations</b>	<b>175,400</b>	<b>100.0%</b>

All NYC occupations 3,460,200

Source: FPI analysis of Current Population Survey ORG files, 2002 - 2005 pooled data. Numbers and percents are 4-year averages.

## ***Worker Characteristics***

According to the Census Bureau, there are 175,000 city residents working in construction trades occupations. This figure is much greater than the 110,000 to 120,000 payroll employment level for city construction companies, because it includes about 30,000 self-employed workers and several thousand others who may be “misclassified” (some workers who should be considered “employees” but who are paid as “independent contractors”). Although it is inherently difficult to reliably quantify, some portion of construction activity is conducted on a cash basis and is under-counted in the official government data. The cash part of the construction business also includes several thousand undocumented workers, particularly in residential construction and remodeling work.

Among leading trades occupations, laborers form the largest group, with 45,500 workers, or 26% of the total (see **Figure 3**). Carpenters, painters, electricians and plumbers round out the list of the top five specific trades occupations. There are also about 12,000 first-line supervisors (6.8% of the total) who come from the entire range of specific trades categories. The larger trades within the “all other” category include masons, roofers, structural iron and steel workers, and elevator constructors.

Construction trades workers residing in the city are overwhelmingly male, more heavily immigrant, and slightly more likely to be non-white than the overall resident city workforce (see **Figure 4**). Women currently comprise only 2.2% of the construction trades workforce. Construction workers are also much more likely to have union representation than the average city worker (37% vs. 27%), and if the self-employed are excluded, 45% of city construction workers are unionized. Even this figure understates the degree of unionization since most of the 25,000 non-resident trades workers employed on city construction jobs are union members. Unionization is also much higher on commercial and infrastructure projects and large residential buildings than on small residential construction sites.

Construction workers have lower levels of educational attainment than the workforce as a whole. Two-thirds of city construction workers have a high school education or less, compared to 43% of the overall city workforce. On the other hand, probably well over half of trades workers have completed or are completing apprenticeship programs. These programs involve a fairly intensive, 3-5 year course of vocational education and skills training, which is not reflected in the government’s usual educational attainment measures.

## ***Race/Ethnicity***

Nearly 63% of New York City construction workers are black, Hispanic or “other” non-white (largely Asian). This is slightly higher than the 61% of all city workers in these race/ethnic groupings. Compared to their overall share of the city’s workforce, Hispanics are more prevalent in construction (they comprise one-third of all construction workers), while black non-Hispanics and the “other” grouping are slightly under-represented (see **Figure 5**).



Figure 5.

## Race and ethnicity of NYC-resident construction workers by occupation

	As percent of occupation				Number
	White non-Hispanic	Black non-Hispanic	Hispanic	Other	
Construction laborers	29%	18%	40%	12%	45,500
Carpenters	42%	31%	22%	5%	29,400
Painters, construction and maintenance	32%	14%	45%	8%	20,900
Electricians	52%	12%	31%	5%	18,300
First-line supervisors, all construction	44%	20%	23%	12%	12,000
Pipelayers, plumbers, pipefitters, and steamfitters	52%	25%	14%	9%	10,900
Brickmasons, blockmasons, and stonemasons	27%	38%	17%	19%	4,600
Roofers	23%	18%	49%	11%	3,800
Structural iron and steel workers	36%	0%	40%	24%	3,700
Drywall installers, ceiling tile installers, and tapers	17%	16%	67%	0%	3,600
Carpet, floor, and tile installers and finishers	42%	24%	35%	0%	3,300
Helpers, construction trades	23%	28%	49%	0%	3,200
All other construction occupations	40%	24%	28%	9%	16,100
<b>All construction occupations</b>	<b>37.3%</b>	<b>20.8%</b>	<b>33.1%</b>	<b>8.8%</b>	<b>175,400</b>
<b>All other NYC occupations</b>	<b>39.2%</b>	<b>23.0%</b>	<b>24.3%</b>	<b>13.5%</b>	<b>3,284,800</b>
<b>Total NYC workforce</b>	<b>39.1%</b>	<b>22.9%</b>	<b>24.8%</b>	<b>13.2%</b>	<b>3,460,200</b>

Source: FPI analysis of Current Population Survey ORG files, 2002 - 2005 pooled data. Numbers and percents are 4-year averages.

### *Immigrants*

While 48% of all New York City workers are foreign-born, 64% of construction trades workers are foreign-born. Immigrants account for at least 50% of the five major trades occupations and for 54% of first-line supervisors (see **Figure 6**). The immigrant share of occupations is highest for the least-skilled painters and laborers categories. Immigrants who have come to the U.S. within the past five or six years account for nearly one-quarter of laborers (23%) and for nearly 21% of painters. Across all construction trades, recent immigrants represent nearly 15% of the total, more than twice their 6.6% share of all city workers.

### *Wages*

Because of the high incidence of self-employment and other factors, there is a greater discrepancy in construction than for most sectors between hourly wages as reported by the Census Bureau (see **Figure 7**), and annual wages reported by the New York State Department of Labor (see **Figure 8**). Construction trades have a median hourly wage of \$14.90, slightly above the \$14.60 median for all city workers. Electricians have the highest median wage (\$20.77) while supervisors enjoy the highest mean (or average) hourly wage (\$26.78). Among the largest trades occupations, laborers have the lowest median wage at \$12.98. Painters have a lower median wage than carpenters, but a higher average hourly wage.

Figure 6.

### Immigrant share of NYC-resident construction workforce

Selected Occupations	Percent among those in occupation		
	US-born*	All Immigrants	Recent**
Laborers	30%	70%	23%
Carpenters	33%	67%	10%
Painters	24%	76%	21%
Electricians	50%	50%	6%
First-line supervisors	46%	54%	2%
Plumbers, pipelayers, steamfitters	43%	57%	5%
All construction occupations	35.6%	64.4%	14.9%
All other NYC occupations	52.9%	47.1%	6.1%
Total NYC workforce	52.0%	48.0%	6.6%

Source: FPI analysis of Current Population Survey ORG files, 2002 - 2005 pooled data.

Percents are 4-year averages.

\*Including Puerto Rico

\*\*Report arriving in US within past five or six years.

Figure 7.

### Hourly wages for NYC-resident construction workers

Selected Occupations	Mean hourly wage*	Median hourly wage*
Laborers	\$15.88	\$12.98
Carpenters	\$18.26	\$14.69
Electricians	\$23.72	\$20.77
Painters	\$18.65	\$13.44
First-line supervisors	\$26.78	\$19.95
Plumbers, pipelayers, steamfitters	\$19.69	\$16.62
All construction occupations	\$18.95	\$14.90
<b>All NYC occupations</b>	<b>\$19.47</b>	<b>\$14.60</b>
All construction occupations, high-school education or less	\$18.01	\$14.00
All NYC occupations, high-school education or less	\$13.29	\$10.83

\*Wages in 2005\$, using NY Metro CPI

Source: FPI analysis of Current Population Survey ORG files, 2002 - 2005 pooled data. Wages are 4-year averages.

What is more striking, however, is that for workers with limited formal education, construction pays better than any major industry in the city economy. Construction workers with a high school education or less have an average hourly wage 35% above that of all city workers at that education level. This 35% construction wage premium is based on an average combining union and non-union wages. Union wages alone would be considerably higher.

The apprenticeship system in the non-residential construction sector establishes real career ladders with a significant pay progression, and thus can serve as a model for other parts of the economy. Entry-level construction trades workers average about \$30,000 a year, but “experienced” workers average over \$69,000 annually (see **Figure 8**). Carpenters average \$28,000 at first but two-thirds of all carpenters make an average of \$62,260 per year. Unionized trades workers also have fairly good fringe benefits, including health insurance and a pension plan. For unionized journey-persons, supplemental benefits can average from 50% to 80% of hourly wages.

Figure 8.

### Hourly wages for NYC construction occupations, 2<sup>nd</sup> quarter 2005

	Annual Wages			
	Mean	Median	Entry *	Experienced**
All NYC Construction Occupations	\$56,330	\$54,650	\$30,260	\$69,370
Structural Iron and Steel Workers	\$75,800	\$82,790	\$53,560	\$86,920
Operating Engineers and Other Construction Equipment Operators	\$75,680	\$79,400	\$54,160	\$86,440
First-Line Supervisors/Managers of Construction Trades	\$75,330	\$71,680	\$49,420	\$88,280
Boilermakers	\$64,060	\$58,980	\$49,220	\$71,480
Electricians	\$64,020	\$60,950	\$38,350	\$76,850
Plumbers, Pipefitters, and Steamfitters	\$62,440	\$62,920	\$34,060	\$76,630
Pile-Driver Operators	\$62,390	\$67,360	\$37,680	\$74,750
Elevator Installers and Repairers	\$61,760	\$64,540	\$46,270	\$69,500
Tile and Marble Setters	\$60,880	\$59,060	\$39,490	\$71,580
Reinforcing Iron and Rebar Workers	\$60,210	\$64,880	\$30,840	\$74,900
Sheet Metal Workers	\$56,470	\$60,900	\$28,760	\$70,330
Carpet Installers	\$54,680	\$52,790	\$30,320	\$66,860
Insulation Workers, Mechanical	\$53,500	\$47,800	\$33,540	\$63,480
Hazardous Materials Removal Workers	\$53,120	\$55,730	\$38,960	\$60,210
Stonemasons	\$52,280	\$47,910	\$41,590	\$57,620
Brickmasons and Blockmasons	\$51,600	\$48,830	\$34,270	\$60,270
Construction and Building Inspectors	\$51,330	\$49,670	\$35,770	\$59,110
Tapers	\$51,090	\$60,400	\$21,650	\$65,820
Carpenters	\$50,850	\$46,680	\$28,030	\$62,260
Helpers--Brickmasons, Blockmasons, Stonemasons, & Tile & Marble Setters	\$46,250	\$49,970	\$24,410	\$57,170
Painters, Construction and Maintenance	\$45,990	\$47,040	\$22,400	\$57,780
Helpers--Roofers	\$45,370	\$45,800	\$28,180	\$53,970
Construction Laborers	\$45,300	\$49,370	\$23,150	\$56,380
Roofers	\$45,020	\$34,540	\$25,560	\$54,760
Insulation Workers, Floor, Ceiling, and Wall	\$43,540	\$36,700	\$27,100	\$51,760
Paperhangers	\$39,340	\$35,050	\$25,310	\$46,350
Glaziers	\$38,960	\$31,410	\$22,880	\$47,000
Construction and Related Workers, All Other	\$37,890	\$41,530	\$17,800	\$47,930
Helpers--Electricians	\$36,170	\$37,080	\$26,510	\$41,010
Earth Drillers, Except Oil and Gas	\$33,310	\$33,310	\$32,560	\$33,680
Helpers--Pipelayers, Plumbers, Pipefitters, and Steamfitters	\$31,380	\$24,830	\$20,360	\$36,890
Helpers--Carpenters	\$24,340	\$18,630	\$16,070	\$28,480
Helpers--Painters, Paperhangers, Plasterers, and Stucco Masons	\$23,730	\$21,670	\$18,760	\$26,220

Source: New York State Department of Labor, Occupational Employment Surveys

\*Entry wage: mean wage of the bottom third of wages in an occupation.

\*\* Experienced wage: mean wage of the top two-thirds of wages in an occupation.

## ***The Apprenticeship System***

The apprenticeship model combines actual work experience with extensive class-related instruction in craft skills, construction technologies, health and safety, and professional standards. Apprenticeships are considered employment and count as a job placement for programs required to achieve government contract performance goals. For employers an apprenticeship program provides considerable economic advantages associated with a better skilled workforce. For workers, an apprenticeship provides the opportunity for extensive skill acquisition and a more certain path to job security and improved compensation. In New York, construction companies are not eligible to bid on some publicly-funded projects unless they have their own apprenticeship program or their workers have access to union-operated apprenticeship programs. As stated in Article 23 of New York's Labor Law, "it is the declared public policy of the state of New York to develop sound apprenticeship training standards and to encourage industry and labor to institute training programs." For more information from the New York State Department of Labor on apprenticeship programs, see: <http://www.labor.state.ny.us/apprenticeship/Appindex.shtm>.

The completion of an apprenticeship (moving from apprentice to journey status) confers not only greater skills and respectability, but also substantially better compensation. People entering the construction industry can expect a 3-5 year apprenticeship involving both on-the-job training and a defined number of hours of classroom instruction. Apprenticeships are secured by contacting the trades union covering a specific trade (e.g., carpentry, electrical, plumbing, elevator construction and repair). Most union apprenticeship programs require a high school diploma or GED; there may also be physical (strength) and aptitude tests.

## ***Prevailing Wage***

The New York State Labor Law (Article 8, section 220) requires that "prevailing wages" and "supplemental benefits" be paid on most public works construction projects. In practice, prevailing rates and benefit contributions are usually those established by collective bargaining agreements covering at least 30% of workers in a given area. The prevailing wage concept stems from a concern that unbridled competition among employers to pay low wages in construction would lead to a less-skilled and less-productive workforce and to shoddy construction practices and unsafe public buildings and infrastructure. While the prevailing wage concept was first incorporated into federal law in 1868, it was not until the passage of the Davis-Bacon Act in 1931 that construction wage standards first really became enforceable at the federal level. New York's first state prevailing wage law dates to 1894, and now over half of the states have these "little Davis-Bacon" laws.

Prevailing rates of wages and supplements are determined annually. The New York City Comptroller is charged under state law with updating and enforcing prevailing wage requirements in New York City. Prevailing wage permits employers to pay registered apprentices wages equivalent to 40% to 50% of journeyman wages. Prevailing wage requirements also set allowable ratios of apprentices to journeymen. For example, the prevailing wage schedule for New York City, as of May 12, 2006, calls for an electrician to be paid \$44.00 an hour and a mid-level apprentice electrician (third term) to be paid \$18.65 an hour. Supplemental benefits would be \$35.51 per hour for a journeyman electrician, and \$14.19 for the mid-level apprentice.

### ***Mayor Bloomberg's Commission on Construction Opportunity***

In October 2005, Mayor Bloomberg's Commission on Construction Opportunity announced several recommendations to better expand job opportunities in the New York City construction industry. Included among the Commission's ten initiatives:

- The city's construction unions have committed to reserve over 40% of the slots in their apprenticeship program by the year 2010 for veterans, women, high school graduates, and economically disadvantaged New Yorkers.
- The City will partner with STRIVE to provide educational assistance and work readiness training to prepare economically disadvantaged individuals for the construction industry.
- City University of New York (CUNY) and construction employers will develop a curriculum focused on preparing students for managerial and administrative "non-trades" jobs in the industry.
- The City will work with Non-Traditional Employment for Women (NEW), a construction skills pre-apprenticeship program for women, to encourage more women to enter the construction trades.
- Several developers and institutions undertaking large construction projects agreed to further the objectives of the Commission by, among other things, funding a compliance office to monitor implementation, and establishing good faith goals to raise the percentage of apprentice and journeyman positions held by women to 15%.
- To ensure greater compliance with prevailing wage laws, the City Comptroller will add enforcement staff and the Mayor and the Comptroller will seek State legislation to buttress the Comptroller's prevailing wage enforcement powers.

For more on the Construction Opportunity Commission, see:  
[http://www.nyc.gov/html/sbs/html/press/pressrelease\\_100505.html](http://www.nyc.gov/html/sbs/html/press/pressrelease_100505.html)

### ***Job Openings Likely From Retirements***

In addition to job openings due to the projected increase in construction activity in New York City, there should be several thousand positions available in coming years considering that 30,000 city construction workers are nearing retirement age (see **Figure 9**). At least an additional 5,000 suburban construction workers employed in the city are nearing retirement. Nearly a quarter of all electricians and plumbers are approaching retirement, and significant numbers of carpenters will also retire. Also, over 20% of first-line supervisors will retire in the next 15 years.

Figure 9.

### Ages of NYC-resident construction workers in workforce

Selected occupations	Age group as portion of occupation					Average	Number
	16 - 30	31 - 40	41 - 50	51 - 60	Over 60	Age	
Laborers	29%	32%	26%	9%	4%	37.8	45,500
Carpenters	25%	37%	25%	12%	1%	38.2	29,400
Painters	22%	40%	26%	4%	8%	38.9	20,900
Electricians	26%	25%	22%	21%	6%	40.7	18,300
First-line supervisors	18%	15%	45%	19%	4%	43.8	12,000
Plumbers, pipelayers, steamfitters	16%	33%	29%	23%	0%	41.8	10,900
All construction occupations	26.1%	29.5%	26.7%	13.3%	4.4%	39.4	175,400
All other NYC occupations	26.4%	26.6%	23.6%	16.1%	7.2%	40.5	3,284,800
Total NYC workforce	26.4%	26.7%	23.8%	16.0%	7.1%	40.4	3,460,200

<b>NYC construction workers to reach normal retirement age in next 15 years:</b>	<b>31,000</b>
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Source: FPI analysis of Current Population Survey ORG files, 2002 - 2005 pooled data. Numbers and percents are 4-year averages.

### ***Non-Trades Construction Employment***

Not all jobs in the construction industry occur on a construction site. Nearly one in four jobs in construction companies are primarily office-based and range from project managers, engineers and executives, to administrative and technical positions such as “cost estimator”. For some trades workers, a possible career advancement move could be to move into a project manager or other managerial or technical position within the non-trades category. There are roughly 37,000 non-trades workers in the New York City construction industry. For a detailed analysis of the non-trades segment of construction, see [Building Jobs, A Blueprint for the “New” New York](#), January 2004, prepared by the Fiscal Policy Institute for the Building Trades Employer Association and the Consortium for Worker Education (available at: <http://www.fiscalpolicy.org/buildingjobs.pdf>).