

*The Road to Good Jobs:  
Patterns of Employment in the  
Construction Industry*

By  
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## Acknowledgments

*The Road to Good Jobs* is sponsored by the Transportation Equity Network (TEN), a coalition of over 300 grassroots organizations, which was established in 1997 to make federal, state, and local transportation policy more responsive to the needs of low-income communities and minorities. TEN has affiliates in metropolitan areas across the nation working to create good jobs for African Americans, women, and other groups traditionally excluded from construction. *The Road to Good Jobs* examines the employment discrimination of African Americans and women in the construction industry. But unlike its predecessor, *The Road to Jobs*, released in 2007, *The Road to Good Jobs* will also discuss patterns of pay and union membership in construction across the nation's top twenty-five metropolitan areas.

The research for *The Road to Good Jobs* could not have been completed without the work of Laura Barrett, National Policy Director of the Gamaliel Foundation, whose idea it was to create both the *The Road to Jobs* and *The Road to Good Jobs* studies. Dr. Todd Swanstrom, Des Lee Professor of Community Collaboration and Public Policy Administration at the University of Missouri - St. Louis (UMSL), was primarily responsible for writing the report. Data retrieval and analysis was provided by the Public Policy Research Center at UMSL. Dr. David Laslo's team of dedicated researchers from the UMSL Public Policy Research Center (PPRC) included Christine Marx, Richard Rabe, Maria Freshman, and David Bromm. Becky Pastor helped with composition and layout of the report. Jill Kuhlberg from the George Warren Brown of Social Work at Washington University also provided support in data retrieval and coordination of the project.

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## Executive Summary

Construction is one of the few industries where workers without a college education can obtain good jobs, with decent pay, good benefits, and job ladders. In 2006 the average wage for construction workers was \$18.29 an hour. The looming shortage of skilled construction workers presents an opportunity for disadvantaged groups to obtain good jobs without displacing current workers. Our study of the largest twenty-five metropolitan areas in the country, however, found that both African Americans and women were employed in construction at rates well below their participation in the overall workforce. Indeed, if blacks were employed in construction at the same rate that they employed in the overall workforce in 2006, we estimate that 137,044 more blacks would be employed in construction in our twenty-five metropolitan areas. We also found that women held only between 1 and 9 percent of construction jobs. On the other hand, Hispanics were employed in construction at rates higher than their percentage in the overall workforce. Not all jobs in construction are “good” jobs, however. Pay varies tremendously across metropolitan areas. Our data shows that a construction worker in Chicago makes almost twice as much per hour (\$27.70) as a construction worker in Dallas (\$15.65). The average Dallas construction worker barely makes enough to support a living wage for one adult and one child. Our study found a strong correlation between the unionization rate in metropolitan areas and the average construction wage. We end with policy recommendations both to increase the participation of women, minorities, and disadvantaged groups in construction and to improve the quality of jobs in the construction industry. In particular, we point to the tremendous potential for “green” jobs in construction.

## The Road to Good Jobs: Patterns of Employment in the Construction Industry

The Transportation Equity Network (TEN) is a coalition of about 300 grassroots organizations committed to making transportation more responsive to poor people, minorities, the handicapped, and other disadvantaged groups. TEN's JOBS NOW campaign is designed to target the jobs from federal and state transportation projects to disadvantaged communities. One year ago, TEN published *The Road to Jobs*, an analysis of patterns of employment of blacks, Hispanics, and women in the construction industry in eighteen metropolitan areas. This report updates and expands last year's report.

Last year *The Road to Jobs* pointed to the great need for decent paying jobs for people who do not attend college. Construction jobs can fill that need. They pay well and offer on-the-job training. Moreover, the looming shortage of skilled construction workers presents an opportunity to employ women, minorities, and other disadvantaged groups without displacing current workers. Last year's report showed, however, that blacks and women are employed in the construction industry at rates far below their employment in the general workforce.

Pointing to evidence of continuing discrimination in the construction industry, *The Road to Jobs* proposed policies that would give excluded groups greater access to construction jobs. *The Road to Jobs* garnered considerable media attention, with articles appearing in a number of newspapers, including USA Today, Detroit Free Press, Albany Times Union, and St. Louis Post-Dispatch. News conferences on the report were held by grassroots members of the TEN coalition in a number of cities, including Detroit, Minneapolis, St. Louis, Albany, and Chicago. TEN's JOBS NOW! campaign has continued to win victories around the nation. The Missouri Department of Transportation (MoDOT) signed agreements with grassroots coalitions in Kansas City and St. Louis committing ½ of 1 percent of federal highway dollars on specific projects to local workforce development. Today, in St. Louis, 59 minorities, women, and low-income persons are employed on the I-64 project because of this agreement. The Michigan Department of Transportation committed to a 4-year, \$15 million state policy that will direct transportation funds into local job training. The first class of 80 students just graduated. A TEN affiliate in Minnesota passed a statewide legislation committing the state Department of Transportation to spending the "maximum amount feasible" on local workforce development.

*The Road to Jobs* also found that Hispanic men have established a strong foothold in the construction industry. Generally, this is good news. But, unfortunately, Hispanic men tend to have construction jobs which are less well paid, less unionized, less skilled, and often more dangerous.<sup>1</sup> TEN concluded that it is not enough to open up the construction industry to previously excluded groups; we also must work to improve the quality of jobs in the construction industry. As a result, we have expanded the scope of this year's report to look at job quality as well as job inclusion. Accordingly, we have titled our follow up to last year's report *The Road to Good Jobs*.

### **Introduction: The Need for Good Jobs**

There is a pressing need in the United States for more “good” jobs. A good job is one that pays enough to support a family, includes health and retirement benefits, has safe and supportive working conditions, and includes job ladders so that workers can advance as their skills advance. Although the proportion of jobs that pay poverty or near-poverty wages has actually declined, the proportion of good jobs, as defined above, has risen. Workers must now cope with a much more unstable job market. Increasingly, workers face longer periods of unemployment and a growing number of dead-end jobs with poor pay and benefits.

A few decades ago, workers used to spend most of their career with one company, often unionized, and enjoying high job security, a chance to work their way up job ladders, and solid benefits. Good jobs like this are increasingly a thing of the past. Job quality has deteriorated. Between 1983 and 2006 the amount of time a middle-aged worker could expect to spend with the same employer fell by more than one-third.<sup>2</sup> As a recent study put it: “Workers entering the labor force can expect to hold fewer steady jobs, to not often find themselves on a within-company upward career trajectory, and to receive less on-the-job training.”<sup>3</sup> The tremendous growth of what one author calls “unjobs” is striking: temporary jobs and outsourcing are two of the fastest growing trends in the American labor market. The proportion of workers who get employer-provided health insurance fell from 69.0 percent in 1979 to 55.9 percent in 2004. During that same period the proportion workers provided pensions fell from 50.6 percent to 45.5 percent.<sup>4</sup> Companies are less committed to their workers than they were even a decade ago.

The problem is especially severe for minorities, women, and those with less than a college education. Between 1973 and 2005 the wages of those with a high school education or less fell significantly in inflation-adjusted dollars while those with college degrees or more enjoyed significant increases. In 2005, one-third of black employees and 25.5 percent of women workers made poverty-level wages, compared to “only” 15.2 percent of white male workers. Women, blacks, and Hispanics are less likely than white men to be provided with health insurance or a pension by their employer. In 2004, for example, only 39.7 percent of Hispanics had employer-provided health insurance coverage.<sup>5</sup>

### **Good Jobs in the Construction Industry**

The construction industry offers a supply of good jobs that are increasingly rare in today’s job market. Moreover, individuals without a college degree can get construction jobs that pay well, provide clear job ladders, and include health and pension benefits. One of the great advantages of a construction job is that you can “earn while you learn.” Apprenticeship programs pay workers as they acquire the skills to move up the job ladder. For single mothers or others who cannot afford to stop working in order to get an education, this is very attractive.

The number of construction job openings is growing, presenting more opportunities for disadvantaged groups to obtain good jobs without displacing current workers. Programs to bring women and minorities into good construction jobs can succeed. As we will see, however, there are two problems with this

optimistic scenario: 1) evidence of continuing discrimination against blacks and women in the industry; 2) a falling proportion of good jobs in construction.

In 2006 the average wage in construction in the United States was \$18.29, well above most jobs in the service sector.<sup>6</sup> One reason wages have remained relatively high is that construction is insulated from global competition. Contractors cannot build a new office building or highway in China and then ship it to Chicago. Although skilled construction workers have been hurt by competition from prefabricated components, such as cabinets and windows, it still is basically a labor-intensive industry that relies upon skilled workers to produce one-of-a-kind products adapted to individual sites.

Construction is also a growing industry. It is the only goods producing industry that has enjoyed steady job growth in recent years.<sup>7</sup> The federal government projects annual openings for 245,900 skilled construction workers each year from 2004-2014.<sup>8</sup> These openings are the result of job growth in the industry as well as openings due to retirements and job transfers. The Aspen Institute projects zero growth in the native labor supply in the next twenty years.<sup>9</sup> Realistically, the industry will have to reach out to immigrants, as well as previously excluded groups, such as women and minorities, to meet the demand for construction workers.

Construction is one of the few industries where workers with relatively little formal education can acquire the skills necessary to earn incomes that can support a middle-class lifestyle. The reason for this is that most construction skills are craft skills, learned on the job through formal and informal apprenticeship systems. Many building trades, however, do require basic math skills. Because of this on-the-job training system, construction is one of the few industries today where good jobs are filled by workers advancing up job ladders rather than by educated workers recruited from outside. In banking, schools, and hospitals between 82 and 92 percent of “good” jobs are filled by workers with at least some college; in construction, only 42 percent of “good” jobs go to college-educated workers.<sup>10</sup>

In the construction industry, the most successful job training programs are run by joint union-management apprenticeship committees.<sup>11</sup> Union apprenticeship programs are covered by collective bargaining agreements in each metropolitan area in which a few cents for every hour worked is put into a fund to pay for job training. Each apprenticeship program is run by one of the approximately fourteen building trades (carpenters, electricians, etc.) in each state or metropolitan area. The U.S. Department of Labor registers apprenticeship programs that meet twenty-two basic standards. Each apprenticeship program creates a job ladder from apprentice to journeyman, with hourly wages increasing year by year until the top journeyman status is achieved. The value of the training to an individual worker in the form of higher wages, greater safety, etc. has been estimated at between \$40,000 and \$150,000.<sup>12</sup>

While many jobs in construction fit the picture described above and are “good” jobs, the proportion of good jobs in construction is declining. After controlling for inflation, construction industry wages fell 17 percent between 1973 and 2006.<sup>13</sup> The percentage of construction workers covered by health insurance is below the national average and the U.S. construction industry has death rates well above those reported for other developed countries.<sup>14</sup> Despite the documented need for almost a quarter of a million new skilled construction workers each year, only about 40,000 workers enter construction apprentice

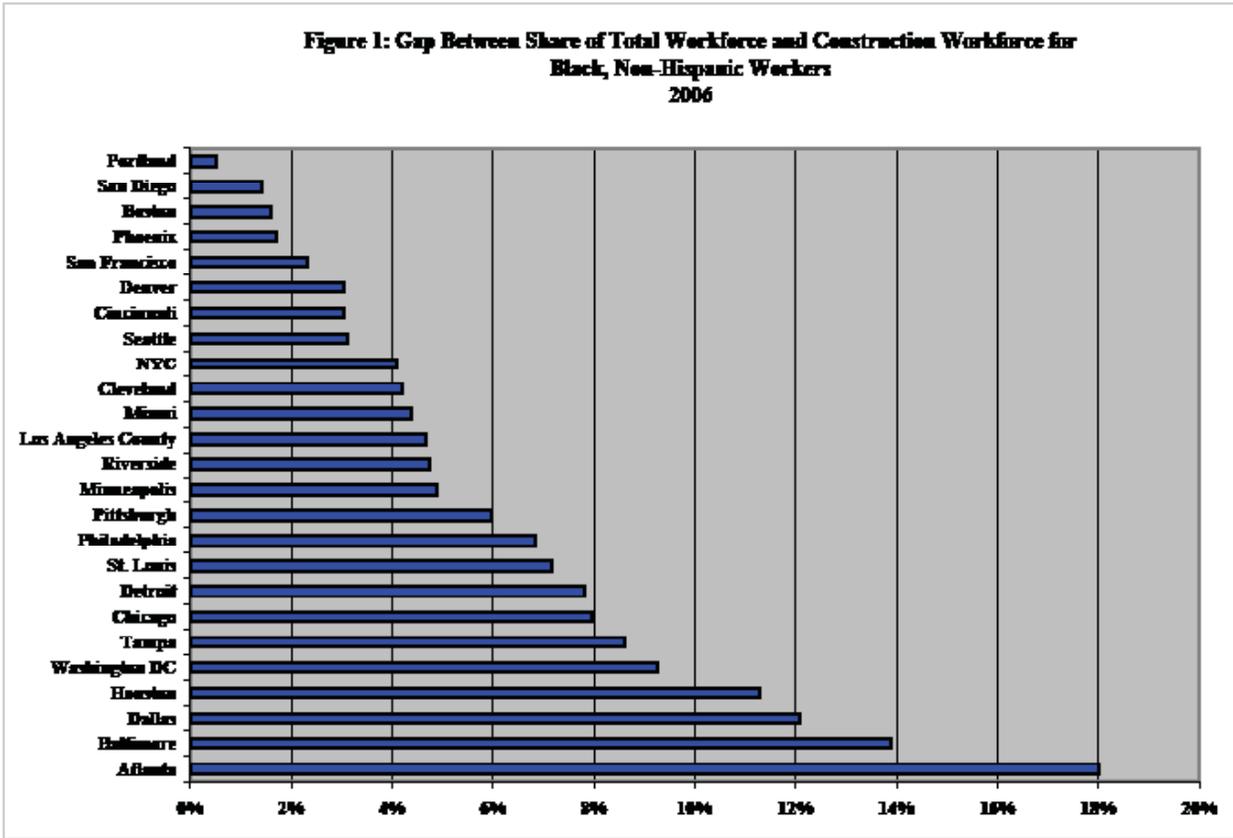
programs each year and fewer than that graduate each year.<sup>15</sup>

The causes of the deterioration of good jobs in construction are complex but probably the most important factor is the declining union presence. The unionization rate in construction in the U.S. fell from 50 percent in 1966 to only 14.2 percent in 2005.<sup>16</sup> The declining unionization rate has resulted in lower skill levels in construction and lower wages. Even the Business Roundtable, founded in 1972 to oppose construction unions, recognizes that underfunding of job training in construction by open-shop contractors is a serious problem.<sup>17</sup> An association of nonunion firms has been formed to provide training but the research shows that joint union-management apprenticeship programs enroll 70 percent of the apprentices, have higher completion rates, and produce more skilled journeymen.<sup>18</sup>

In short, the construction industry presents an opportunity for disadvantaged groups to gain access to good jobs, lifting up not just individuals but whole communities. This opening is threatened, however, by the declining presence of good jobs in the construction industry. We now turn to how these issues play out in the twenty-five largest metropolitan areas in the nation. Are women and minorities gaining access to construction jobs? Are good jobs in construction disappearing?

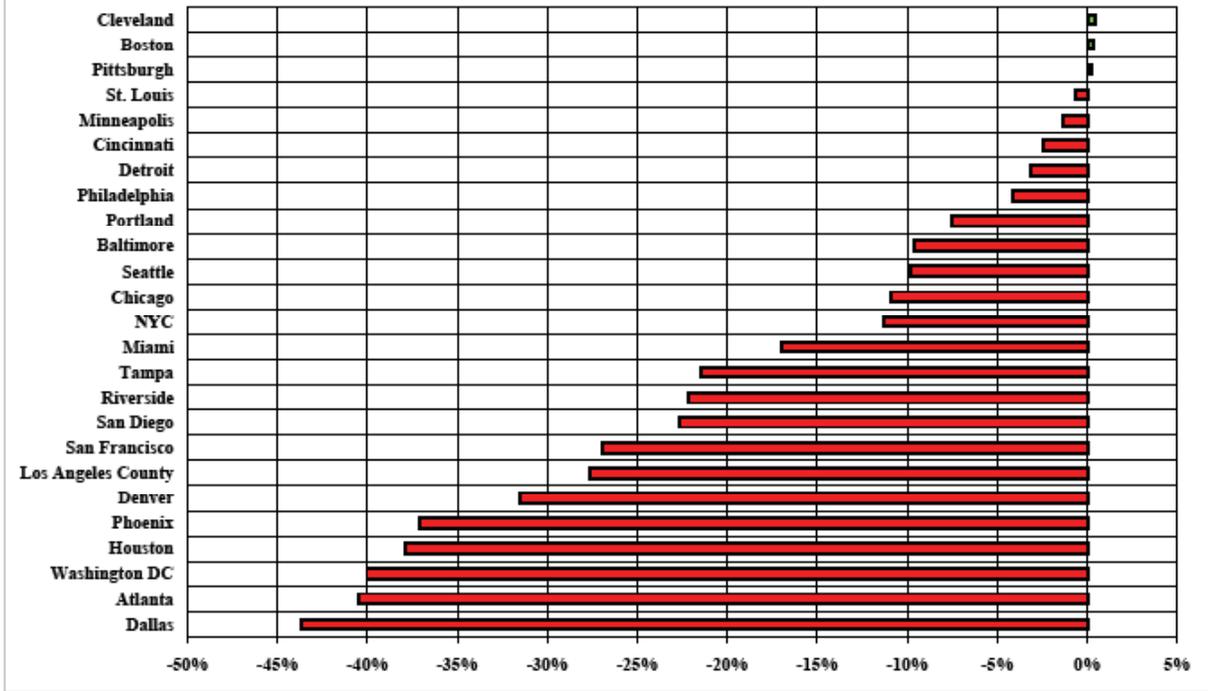
### **Findings on Job Inclusion**

First, we examined the extent which minorities are employed in the construction industry. We assumed that minorities should be employed in construction jobs at about the same percentage as they are in the general workforce. The percentage difference between the proportion in the general workforce and the proportion in construction we call the “employment gap.” A positive number indicates that employment in construction for group in question falls below their participation in the general workforce. A negative number indicates employment at a rate above their participation in the general workforce. (For details about our methodology, see the Appendix.)

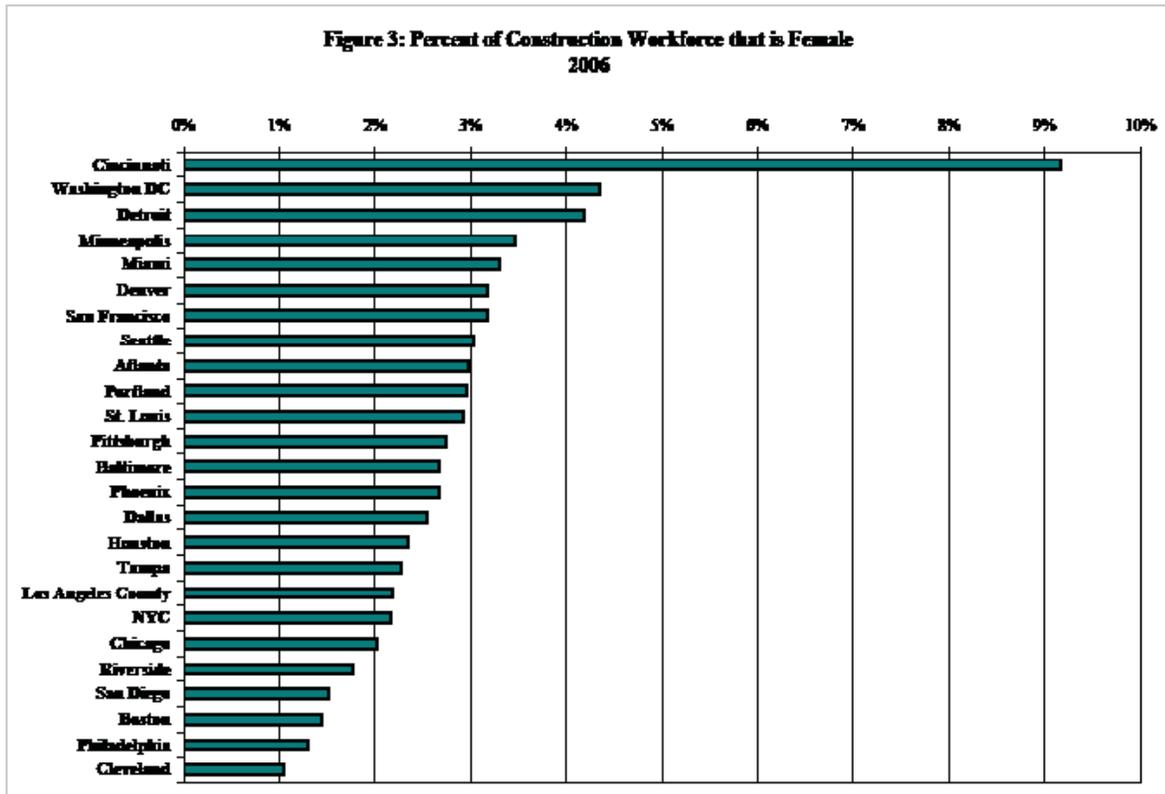


In every metropolitan area we studied, we found a positive employment gap for African Americans (Figure 1). Atlanta had the largest gap (18 percent), followed by Baltimore, Dallas, and Houston. The cities most open to employment by African Americans were Portland, San Diego, and Boston. Portland’s employment gap, for example, was less than 1 percent. Overall, we estimate that 137,044 black workers are “missing” from the construction workforce in our twenty-five metropolitan areas. In other words, if blacks participated in construction at the same rate they participated in all industries, thousands of more blacks would be employed in construction.

**Figure 2: Gap Between Share of Total Workforce and Share of Construction Workforce - Hispanic Workers 2006**



The findings for Hispanics are dramatically different. In only three cities (Cleveland, Boston, and Pittsburgh) did Hispanics have a smaller percentage of the construction workforce than the general workforce and even in these cities the gap was tiny. In all the other cities Hispanics had a greater presence in construction than in the workforce generally. Dallas, Atlanta, and Washington, DC all had negative employment gaps of 40 percent or more, meaning that Hispanics were employed in construction at a much higher rate than the general workforce.

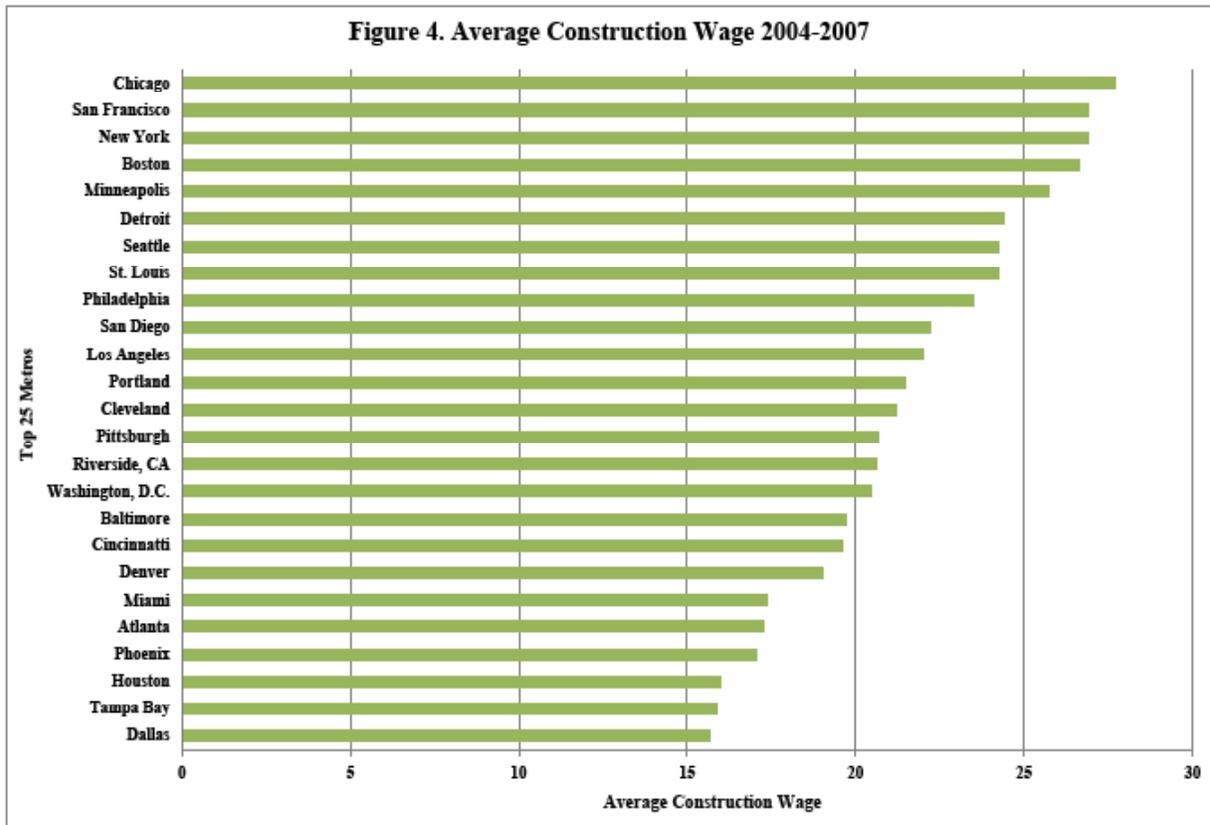


The employment goal for women is more difficult to determine. Unlike minorities, many have questioned whether women should be expected to hold the same percentage of jobs in construction that they hold in the overall workforce. The construction industry has many physically demanding jobs, and some question whether women have the physical strength for some jobs or whether women are interested in construction jobs. In fact, construction has changed. In many parts of construction backbreaking labor has been replaced by machines. Women are clearly capable of operating construction machinery and doing most other forms of construction work as well. Recognizing the changing realities of the skilled trades, under the leadership of Secretary of Labor Ray Marshall, the Department of Labor established goals and timetables for the employment of women in construction. In 1980, the Department of Labor raised set the goal that one out of every four apprenticeships, most of which are in construction, should be held by women. We think 25 percent is a reasonable goal for employment in construction.

The exclusion of women from skilled construction jobs has deep historical roots. Skilled construction work has been viewed traditionally as “man’s work.” As late as 1968, out of 77,151 apprenticeships in construction nationwide, only 2 were held by women.<sup>19</sup> Since then women have made inroads into skilled construction jobs. As Figure 3 shows, however, none of the cities we studied came even close to realizing the 25 percent goal in 2006. The female percentage of the construction workforce varied from a high of 9 percent in Cincinnati to a low of 1 percent in Cleveland. We still have a long way to go.

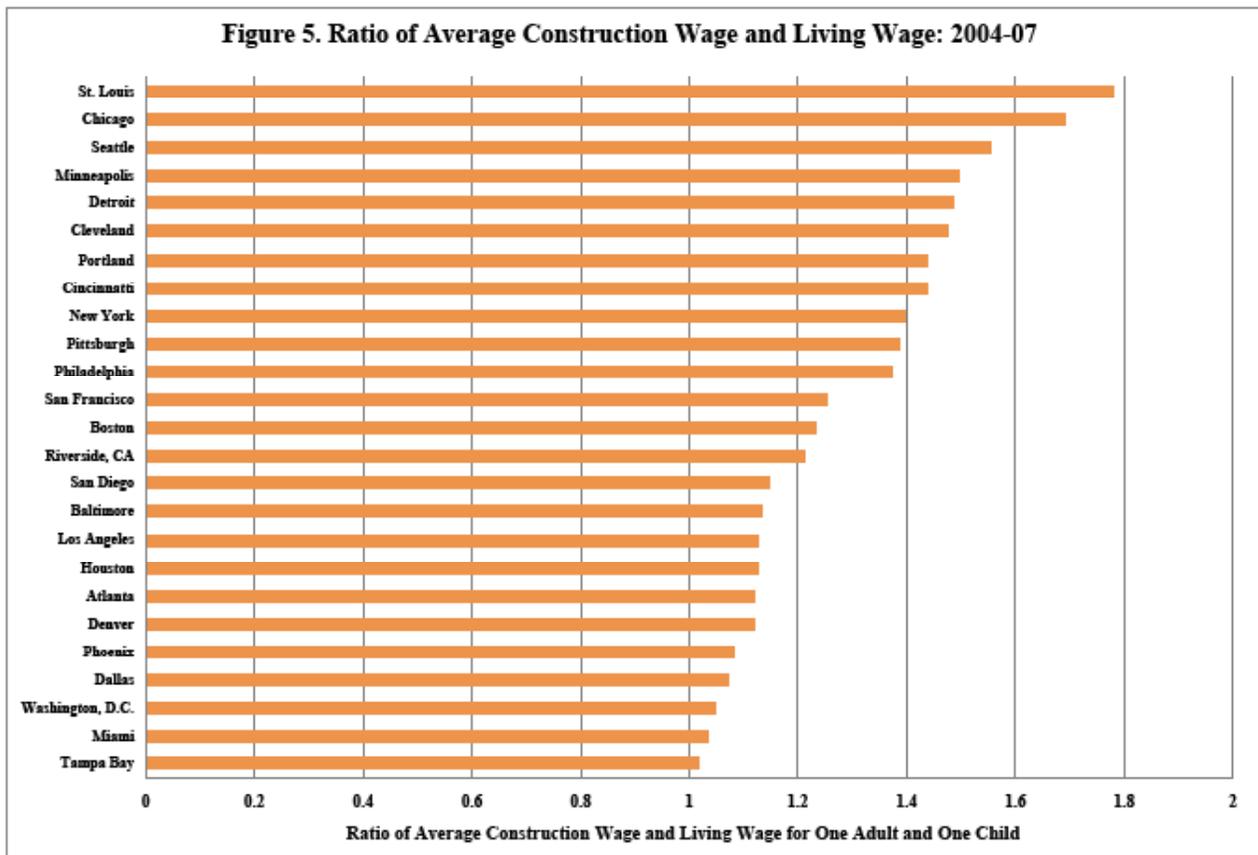
### Findings on Job Quality

At the same time that it is important to track the access of women and minorities to construction jobs, it is also important to see if those jobs are good jobs. It does little good to gain access to an industry if the pay is poor, the benefits are inadequate, working conditions are dangerous, and there are few opportunities for advancement. We begin by examining pay in the construction industry in our twenty-five metropolitan areas.

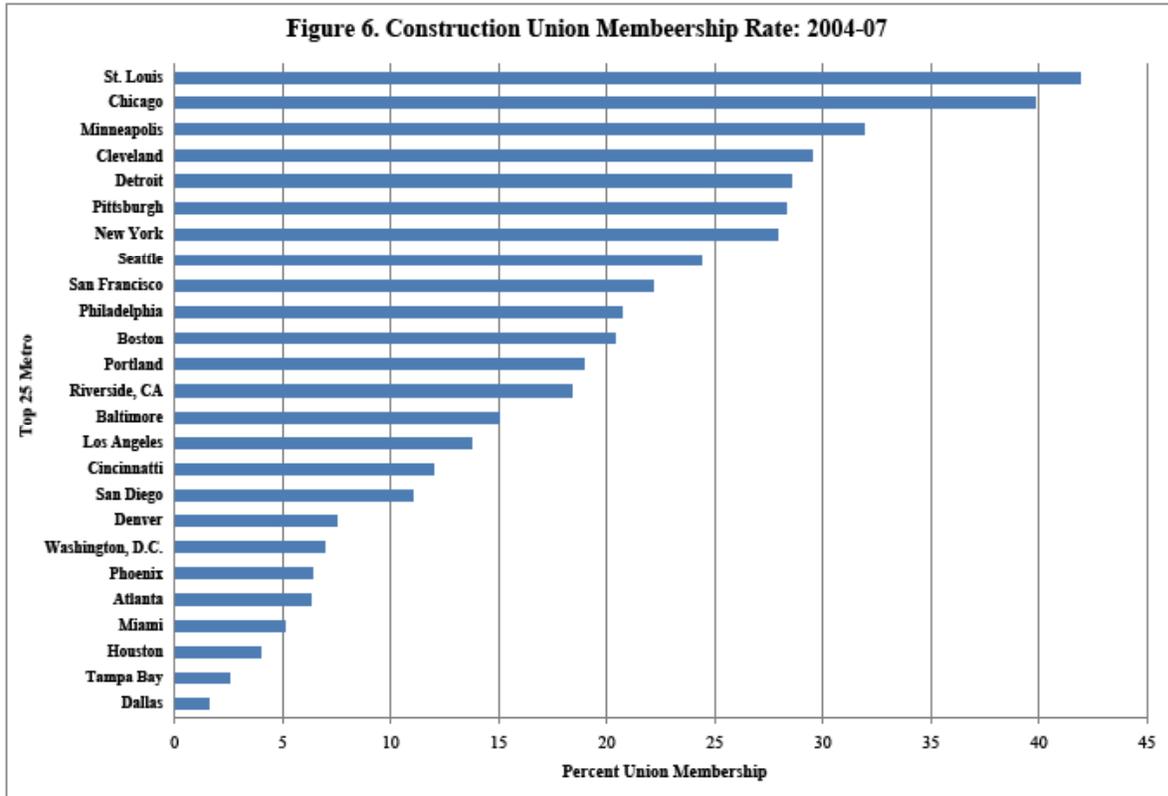


As Figure 4 shows, wages in the construction industry vary tremendously from one metropolitan area to the next. The metropolitan areas with the highest wages are Chicago (\$27.70), San Francisco (\$26.91), and New York (\$26.88). The lowest hourly wages are in Dallas (\$15.65), Tampa Bay (\$15.88), and Houston (\$15.99). The average annual construction wage varies from a high of \$57,610 in Chicago to a low of \$32,540 in Dallas. In other words, whether calculated by the hour or by the year, a construction worker in Chicago makes on average 77 percent more than a construction worker in Dallas.

The difference in wages is huge but of course this comparison ignores the variation in the cost of living across different metropolitan areas. The Living Wage Calculator estimates the minimum pay rate at which an employee can meet basic needs and remain self-sufficient without government assistance.<sup>20</sup> The living wage is based on geographically-specific data on the cost of food, housing, child care, medical care, transportation, and other necessities. Estimates for state and federal income taxes and payroll taxes are also factored into the living wage calculation. These costs are adjusted to reflect the household structure (number and ages of adults and children, and gender of adults in the household). Because the wage is intended to reflect the lowest wage at which the employee can meet basic needs, the calculation of each component includes assumptions that reflect the most likely decisions of low-wage earners. For example, the food calculation assumes that all food will be prepared in the home, and the child care expenditures are based on the lowest costs possible for the selected geography.



As Figure 5 shows, when you control for the cost of living in different metropolitan areas all of the metro areas provide a living wage for one adult and one child, but some do much better than others. The rankings of metropolitan areas in terms of what the average construction wage can buy are very different. Now, the top metro area in the country is St. Louis, where the average construction wage is 1.78 times the living wage. St. Louis is followed by Chicago (1.69) and Seattle (1.56). The worst metropolitan areas for construction wages are Tampa Bay (1.02) Miami (1.03) and Washington, D.C. (1.05). The cost of living in these metropolitan areas means that a full-time construction wage is barely enough to support a single parent with one child. The main culprit in the case of Washington, DC, which has a fairly healthy construction wage, is the high cost of housing. Areas that were near the top on hourly wage, such as New York, Boston, and San Francisco, fall to the middle or bottom of the pack after the cost of living is taken into account.



Why do some metropolitan areas have much higher construction wages, even after controlling for the cost of living? The main reason is the strength of the construction trade unions. Figure 6 shows that the presence of unions in construction varies tremendously across the country. St. Louis has the highest unionization rate at 41.9 percent, followed by Chicago (39.8 percent), and Minneapolis (31.9 percent). The lowest unionization rate is found in Dallas (1.6 percent), followed by Tampa Bay (2.5 percent), and Houston (4.0 percent).

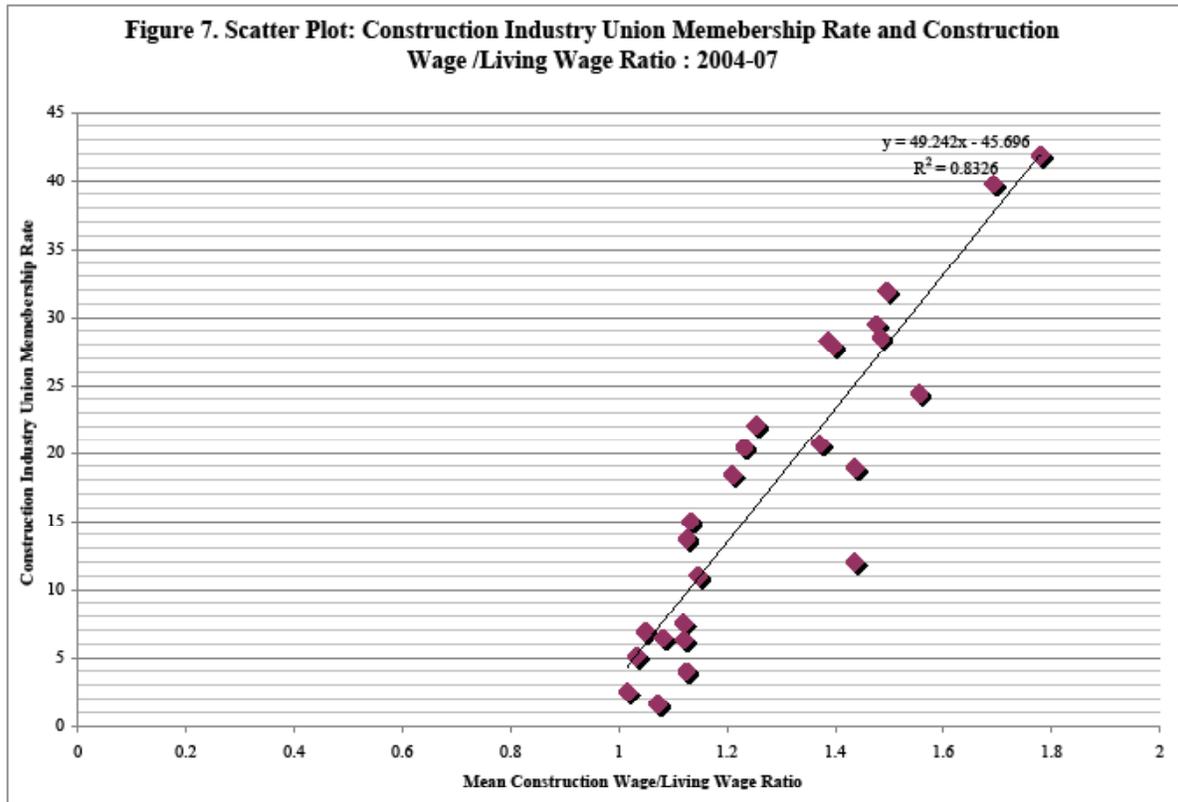


Figure 7 shows the relationship between union membership and the ratio of construction industry wages to the living wage. Each dot represents a metropolitan area and the line represents the best fit-correlation between the two variables. The upward slope of the line shows that as the union membership rates increase across metropolitan areas, the effective buying power of the average construction worker also increases. There is a strong relationship between union membership and construction wages. The R-Square statistic indicates that union membership “explains” over 83 percent of the wage variation. Not surprisingly, St. Louis construction workers, who have the highest unionization rate (41.9 percent), also have greatest buying power (78 percent higher than the living wage). On the other hand, Dallas construction workers, who have the lowest unionization rate (1.6 percent), have weak buying power from their wages (just 7 percent above the living wage).

We have not been able to obtain data on benefits and working conditions down to the metropolitan level. We do know, however, that, nationwide, 83 percent of unionized construction workers have employment-based health insurance compared to only 48 percent of nonunion construction workers. Similarly, 71 percent of union construction workers participate in retirement plans, compared to only 21 percent of nonunion workers.<sup>21</sup> Clearly, unionized construction workers enjoy both better wages and benefits compared than nonunion construction workers. Moreover, unions run, with contractors, the best apprenticeship training programs around the country.

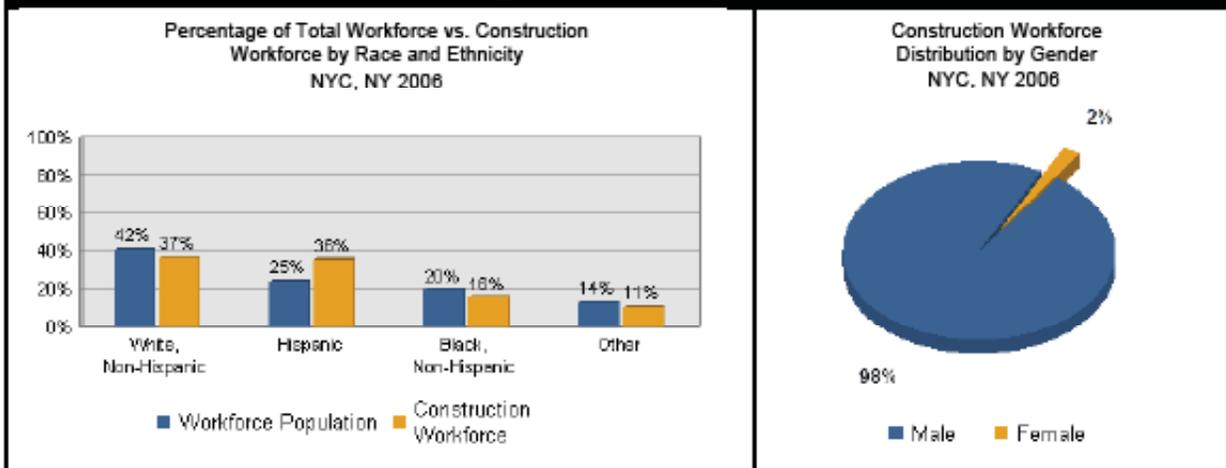
We now turn to the profiles of the twenty-five largest metropolitan areas in the nation.

Reports from Individual Metropolitan Areas

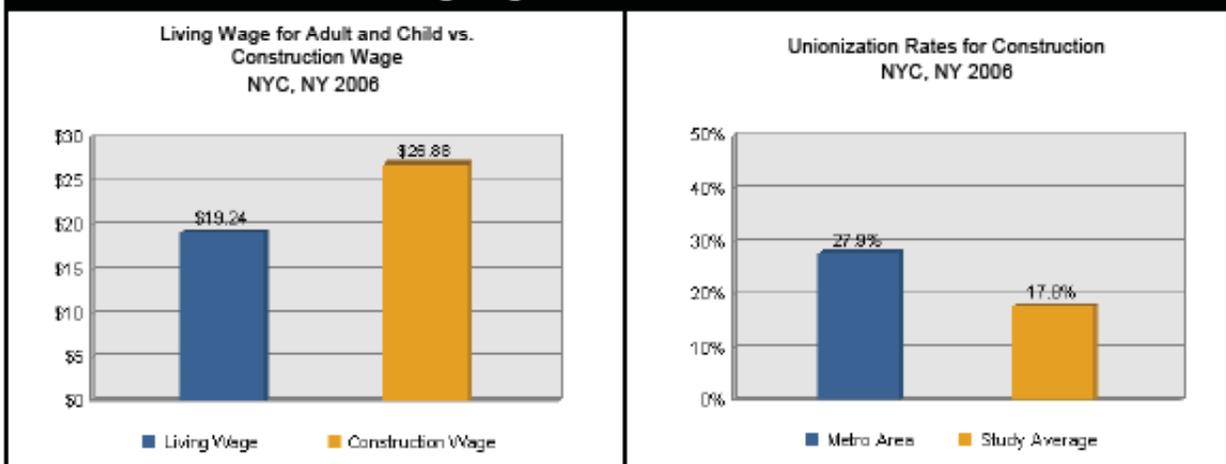
**NYC, New York**

Metro Area Population, Construction Wage, Minimum and Living Wage				
County/City	2006 Total Population ACS Estimates	2007 Average Construction Wage	Minimum Wage	Living Wage for Adult and a Child
Queens, NY	7,737,049	\$26.88	\$7.15	\$19.24
New York, NY				
Bronx, NY				
Kings, NY				

**Workforce by Race, Ethnicity, and Gender**

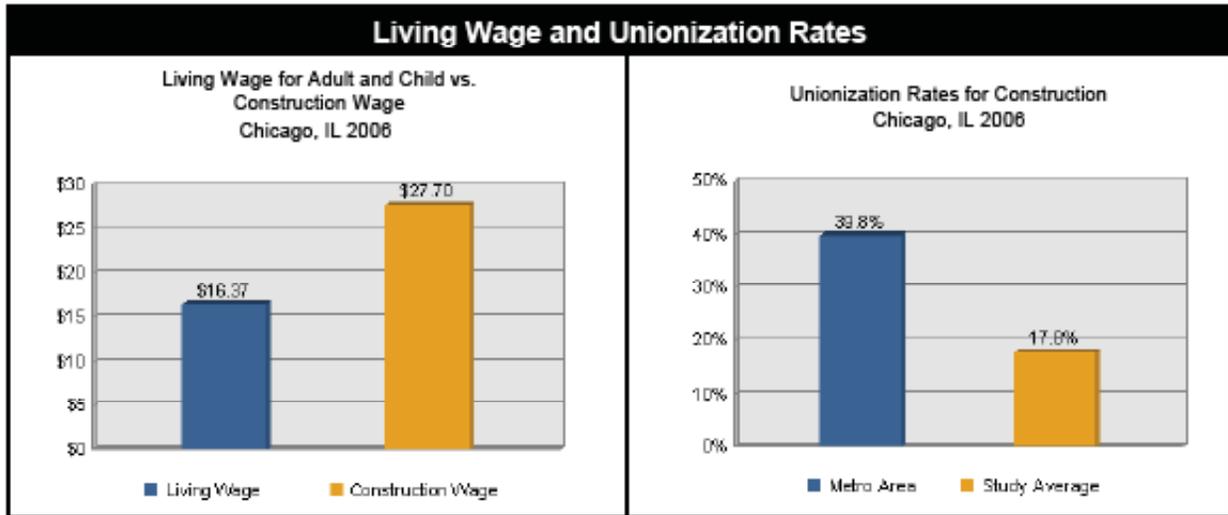
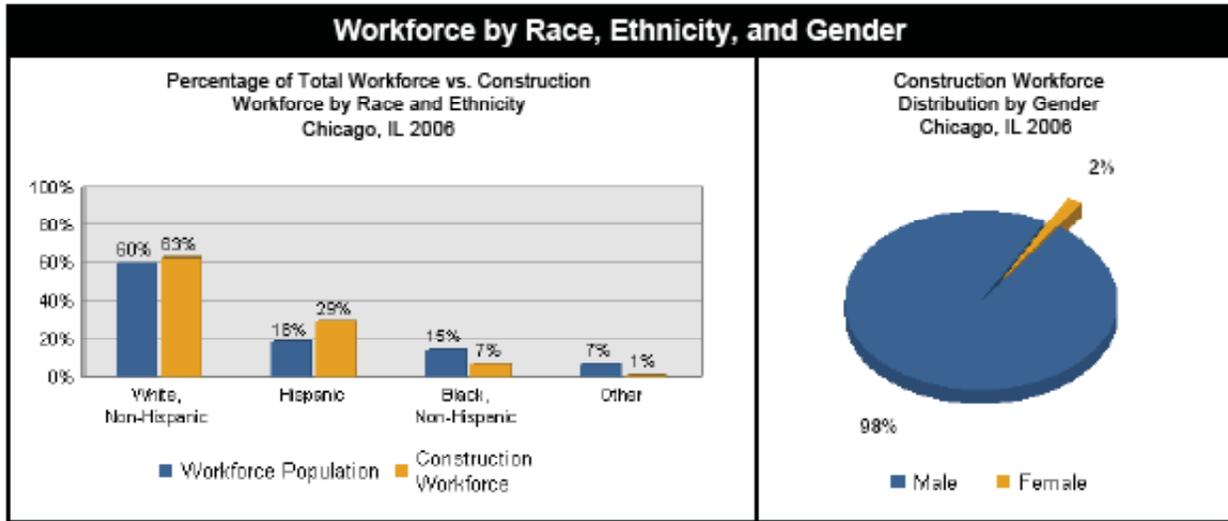


**Living Wage and Unionization Rates**



## Chicago, Illinois

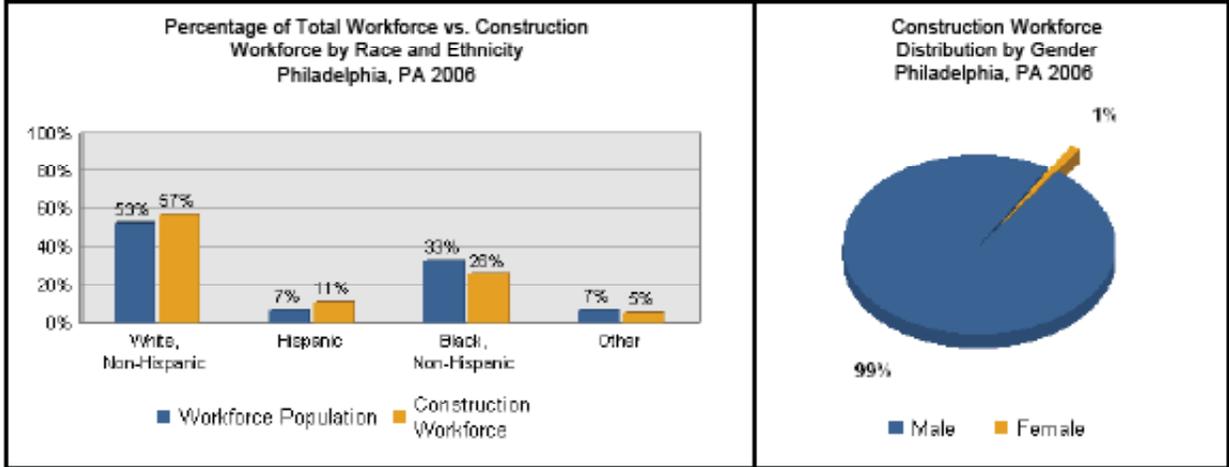
Metro Area Population, Construction Wage, Minimum and Living Wage				
County/City	2006 Total Population ACS Estimates	2007 Average Construction Wage	Minimum Wage	Living Wage for Adult and a Child
<b>Cook, IL</b>	<b>5,288,655</b>	<b>\$27.70</b>	<b>\$7.50</b>	<b>\$16.37</b>



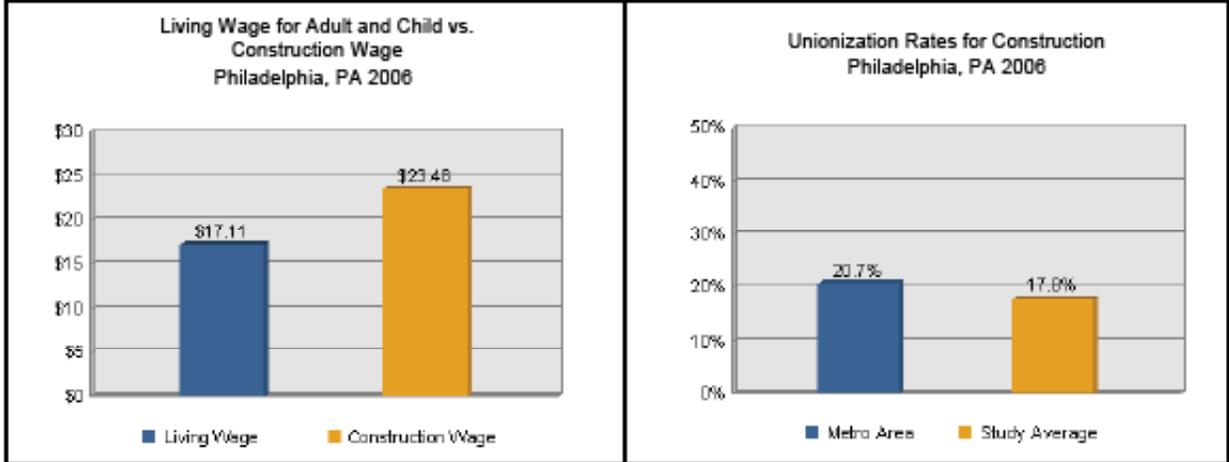
# Philadelphia, Pennsylvania

Metro Area Population, Construction Wage, Minimum and Living Wage				
County/City	2006 Total Population ACS Estimates	2007 Average Construction Wage	Minimum Wage	Living Wage for Adult and a Child
Philadelphia, PA	1,448,304	\$23.48	\$7.15	\$17.11

## Workforce by Race, Ethnicity, and Gender



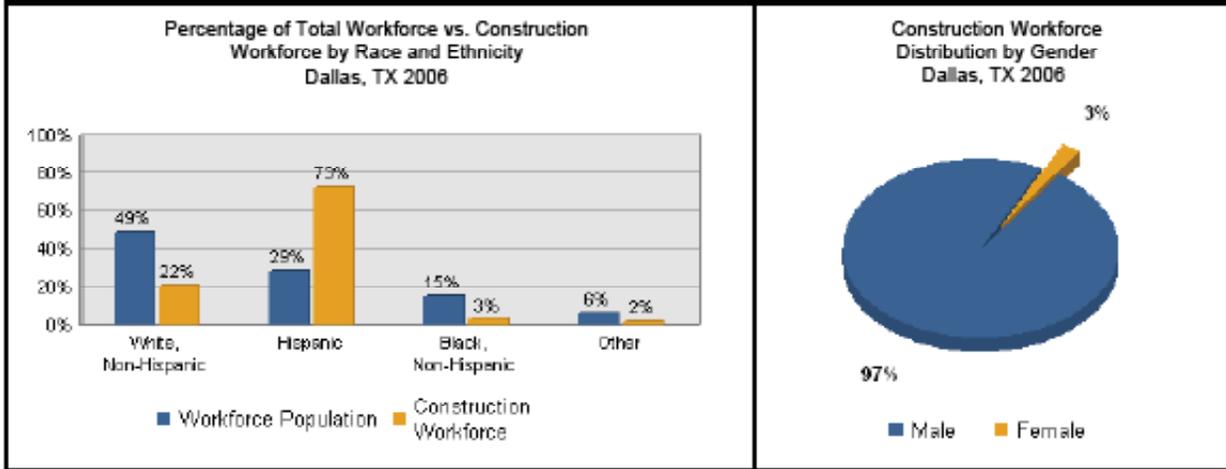
## Living Wage and Unionization Rates



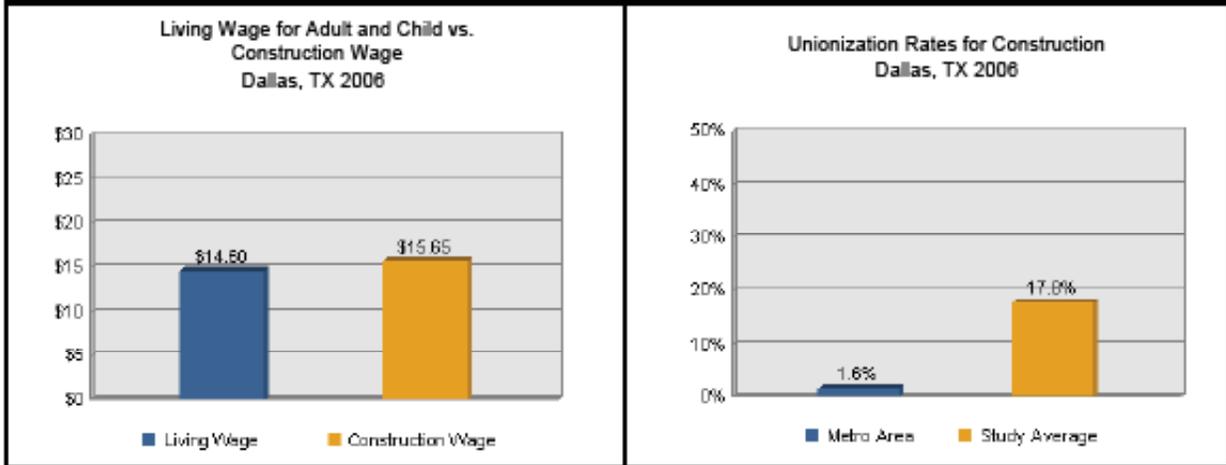
## Dallas, Texas

Metro Area Population, Construction Wage, Minimum and Living Wage				
County/City	2006 Total Population ACS Estimates	2007 Average Construction Wage	Minimum Wage	Living Wage for Adult and a Child
Dallas, TX	2,345,815	\$15.65	\$5.85	\$14.60

### Workforce by Race, Ethnicity, and Gender



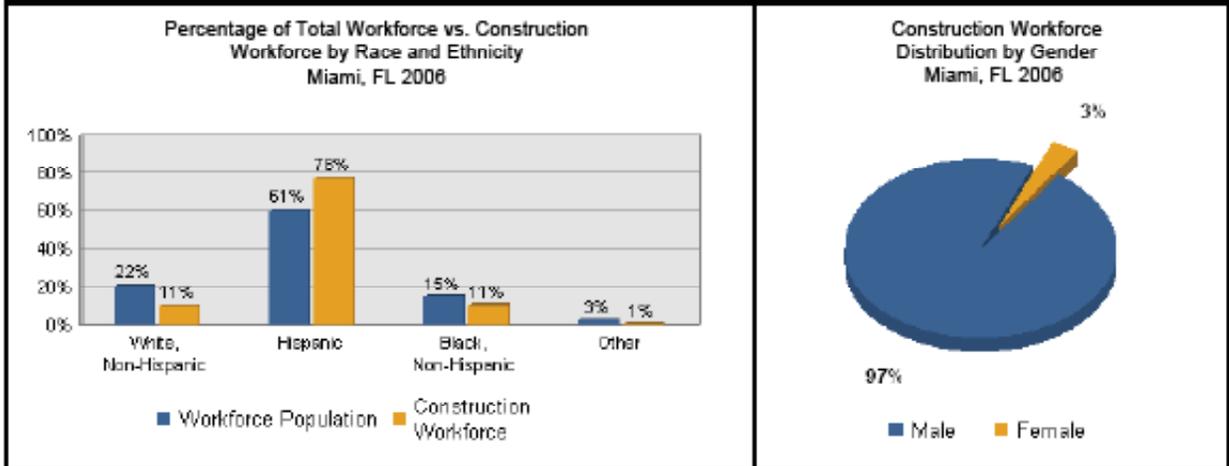
### Living Wage and Unionization Rates



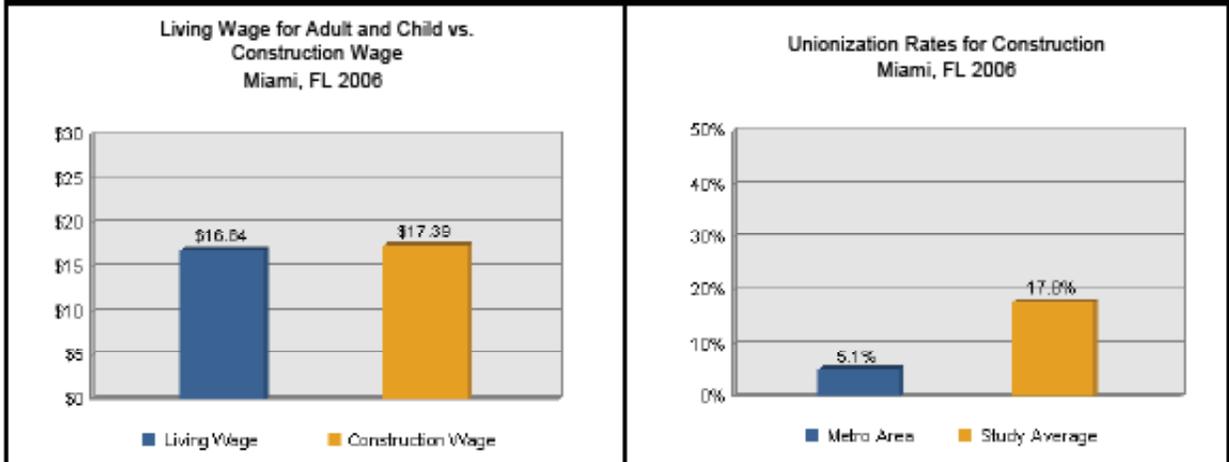
# Miami, Florida

Metro Area Population, Construction Wage, Minimum and Living Wage				
County/City	2006 Total Population ACS Estimates	2007 Average Construction Wage	Minimum Wage	Living Wage for Adult and a Child
Miami-Dade, FL	2,402,208	\$17.39	\$8.67	\$16.64

## Workforce by Race, Ethnicity, and Gender

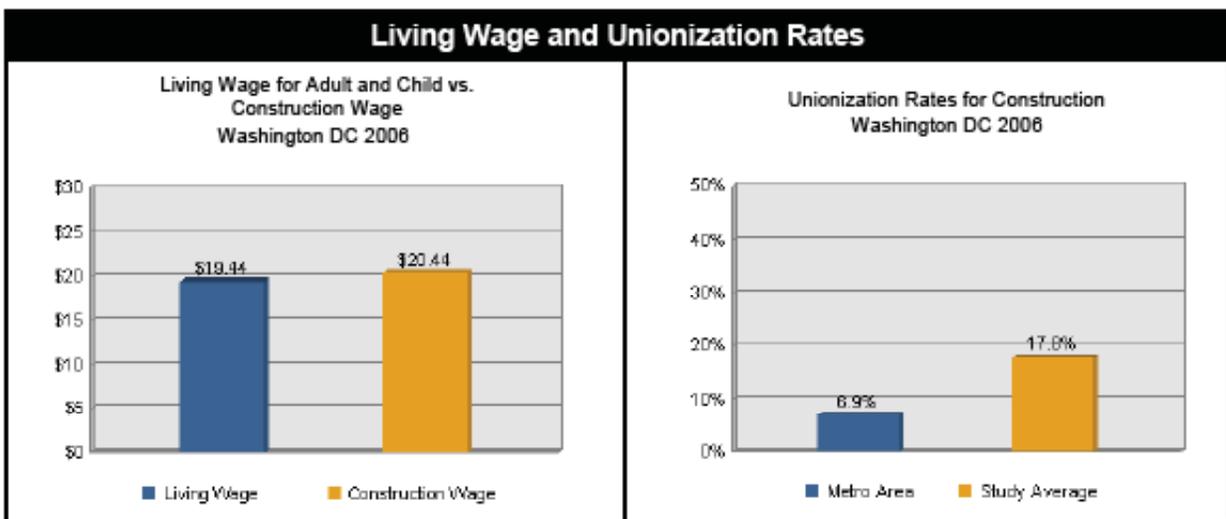
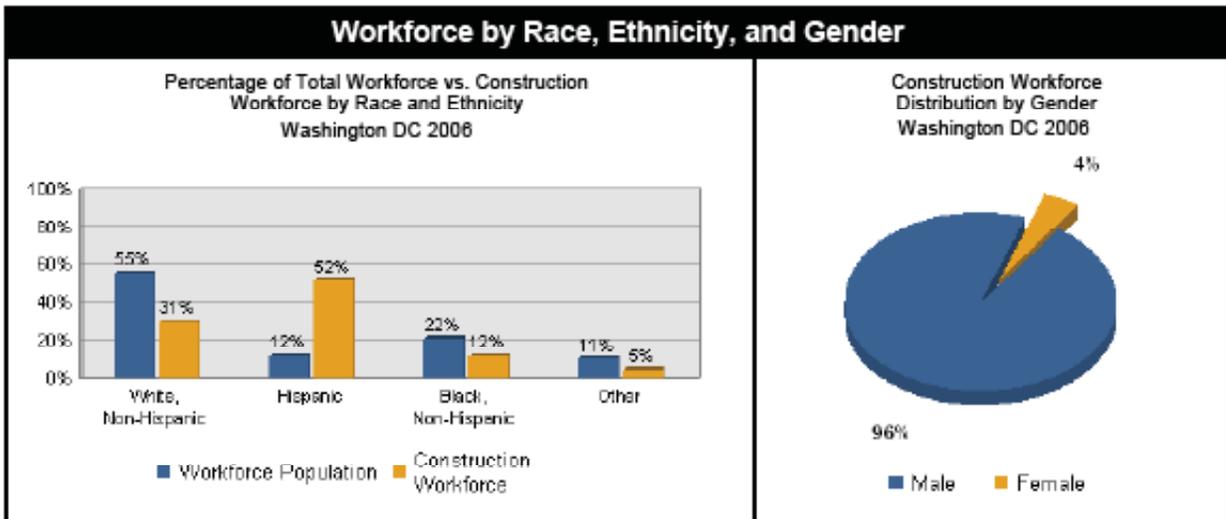


## Living Wage and Unionization Rates



## Washington DC

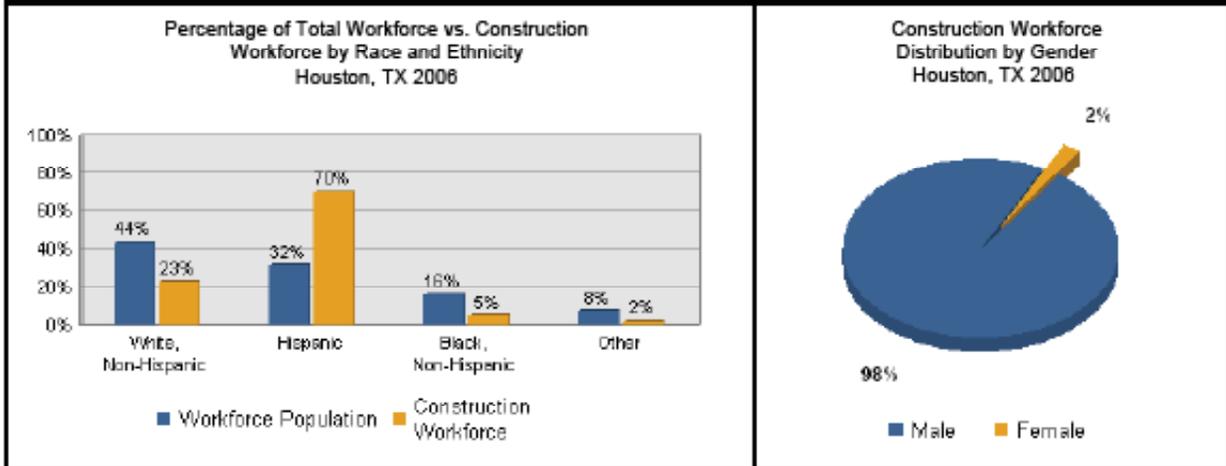
Metro Area Population, Construction Wage, Minimum and Living Wage				
County/City	2006 Total Population ACS Estimates	2007 Average Construction Wage	Minimum Wage	Living Wage for Adult and a Child
District of Columbia, DC	3,643,507	\$20.44	\$7.00	\$18.44
Fairfax, VA			\$5.85	
Arlington, VA				
Alexandria city, VA				
Prince Georges, MD			\$8.15	



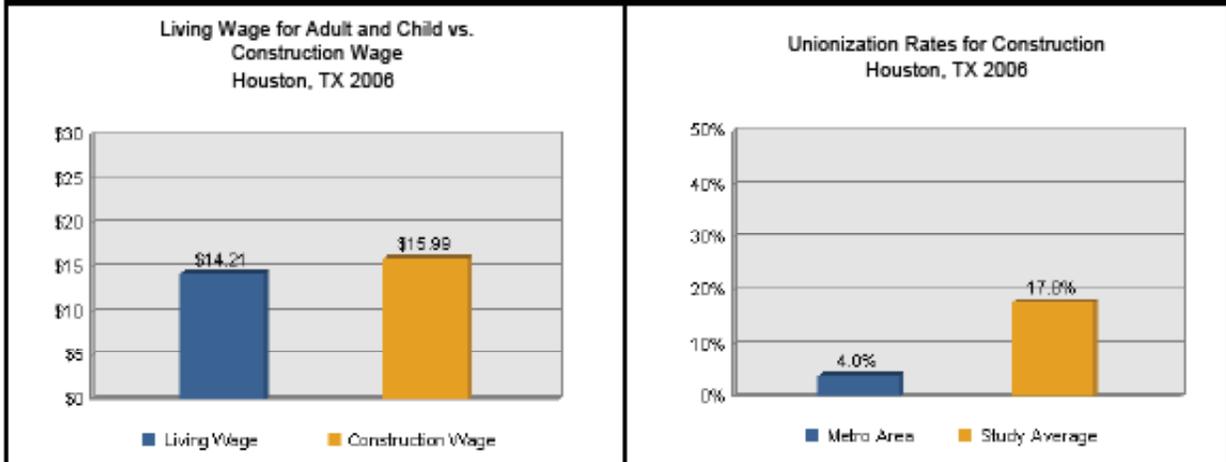
# Houston, Texas

Metro Area Population, Construction Wage, Minimum and Living Wage				
County/City	2006 Total Population ACS Estimates	2007 Average Construction Wage	Minimum Wage	Living Wage for Adult and a Child
Harris, TX	3,886,207	\$15.99	\$5.85	\$14.21

## Workforce by Race, Ethnicity, and Gender



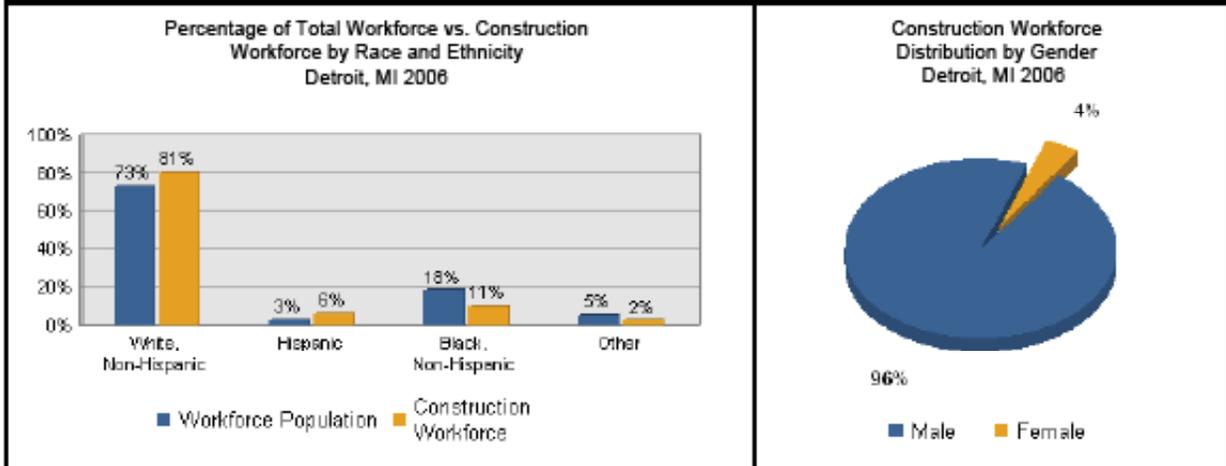
## Living Wage and Unionization Rates



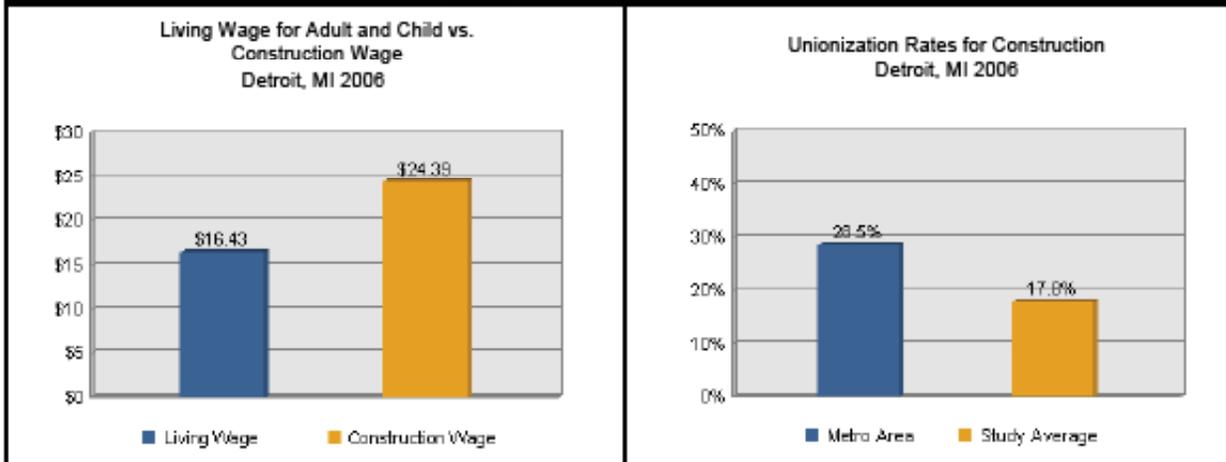
## Detroit, Michigan

Metro Area Population, Construction Wage, Minimum and Living Wage				
County/City	2006 Total Population ACS Estimates	2007 Average Construction Wage	Minimum Wage	Living Wage for Adult and a Child
Macomb, MI	4,018,000	\$24.39	\$7.15	\$16.43
Wayne, MI				
Oakland, MI				

### Workforce by Race, Ethnicity, and Gender



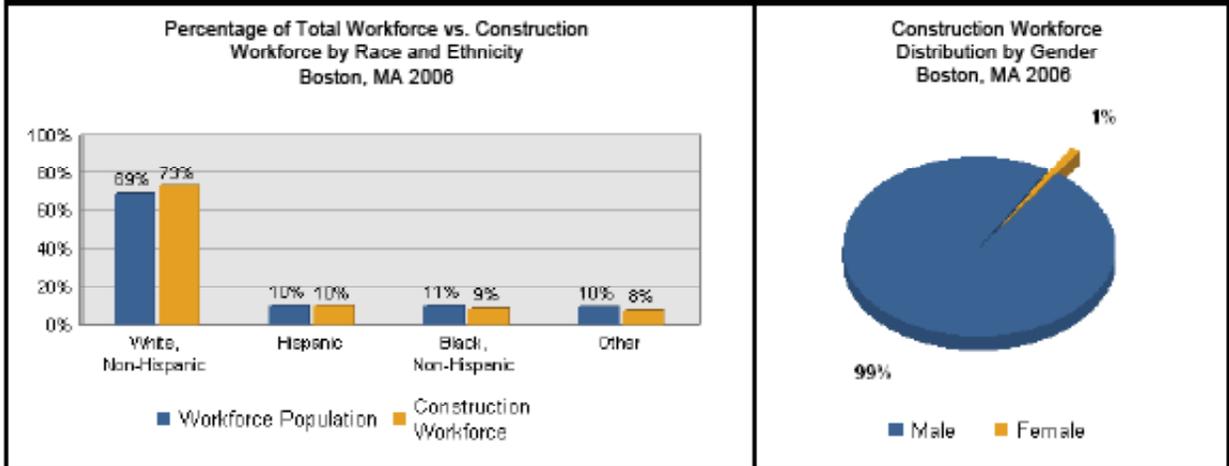
### Living Wage and Unionization Rates



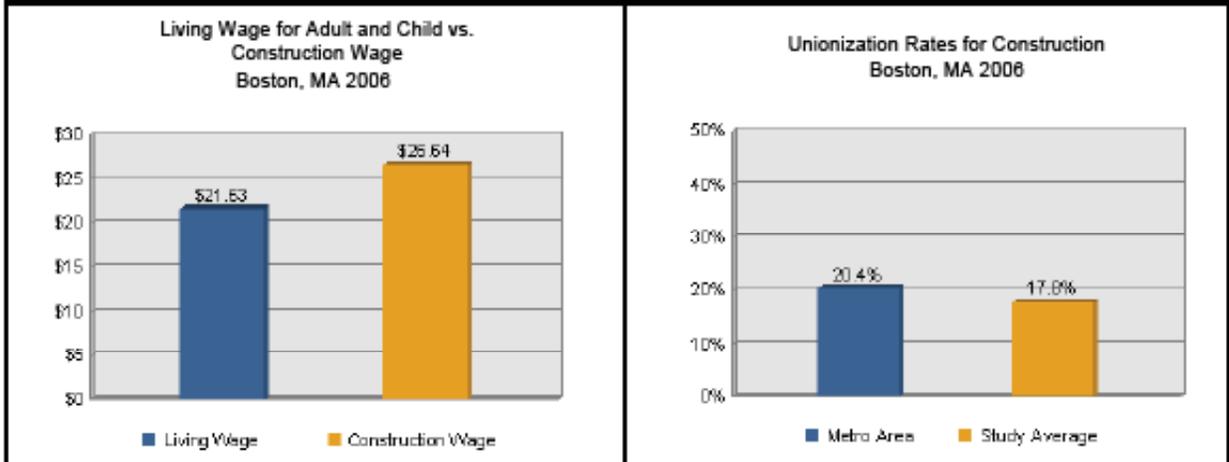
# Boston, Massachusetts

Metro Area Population, Construction Wage, Minimum and Living Wage				
County/City	2006 Total Population ACS Estimates	2007 Average Construction Wage	Minimum Wage	Living Wage for Adult and a Child
Suffolk, MA	687,810	\$25.64	\$7.50	\$21.63

## Workforce by Race, Ethnicity, and Gender

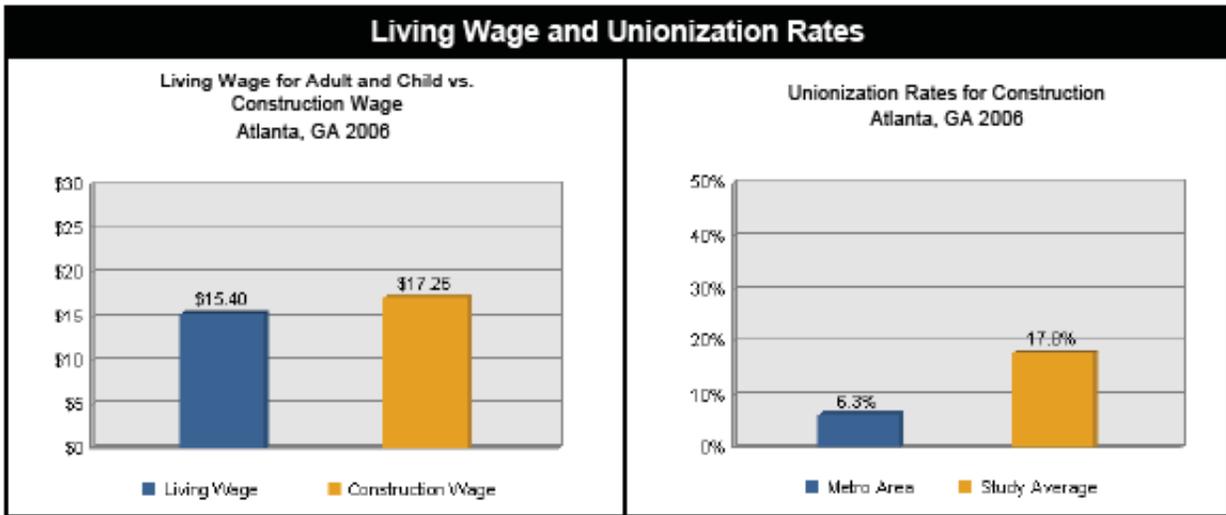
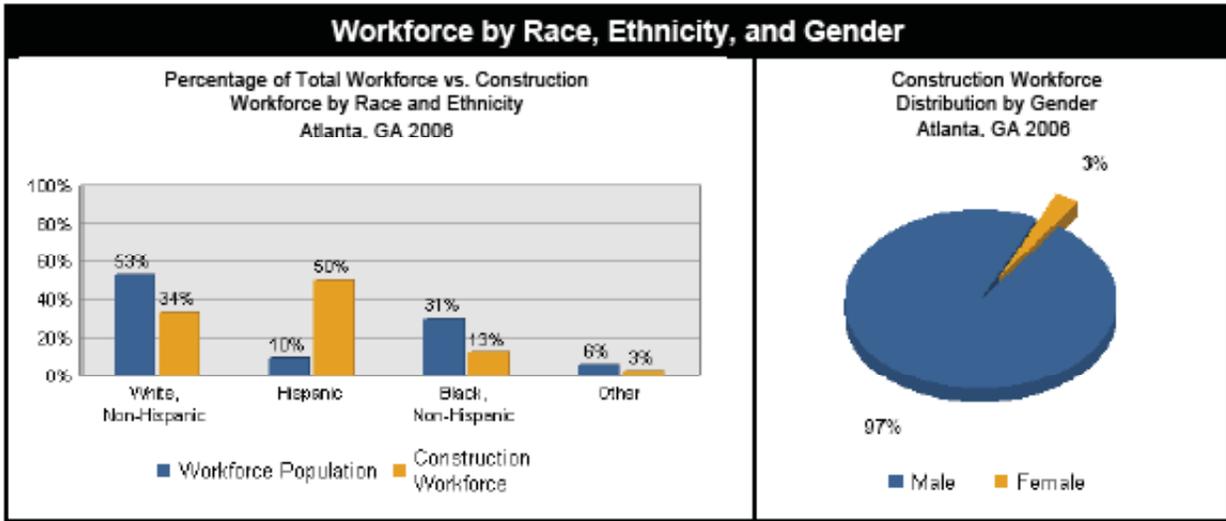


## Living Wage and Unionization Rates



## Atlanta, Georgia

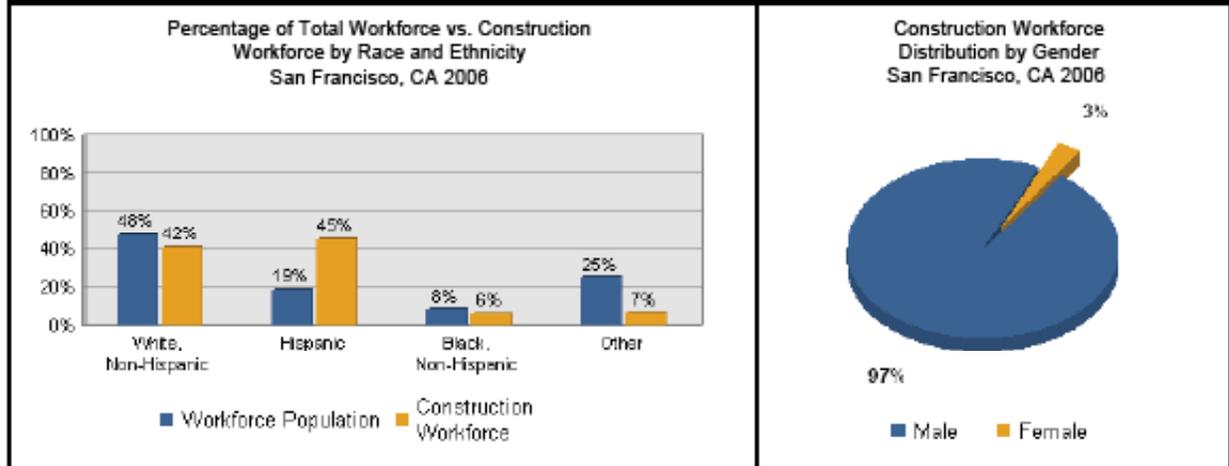
Metro Area Population, Construction Wage, Minimum and Living Wage				
County/City	2006 Total Population ACS Estimates	2007 Average Construction Wage	Minimum Wage	Living Wage for Adult and a Child
Fulton, GA	3,120,040	\$17.26	\$5.85	\$15.40
DeKalb, GA				
Cobb, GA				
Gwinnett, GA				



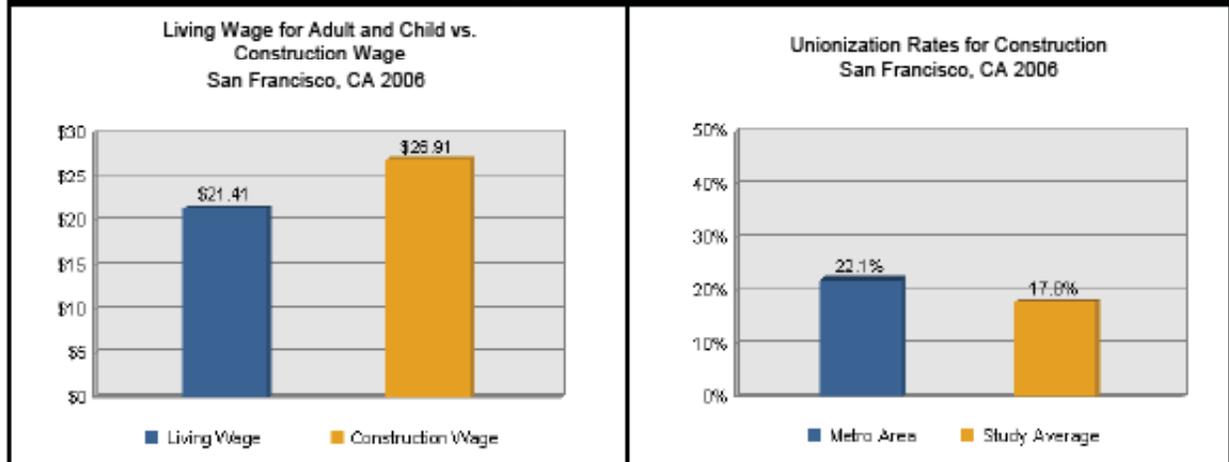
# San Francisco, California

Metro Area Population, Construction Wage, Minimum and Living Wage				
County/City	2006 Total Population ACS Estimates	2007 Average Construction Wage	Minimum Wage	Living Wage for Adult and a Child
Contra Costa, CA	3,225,788	\$26.81	\$7.50	\$21.41
San Francisco, CA				
Alameda, CA				

## Workforce by Race, Ethnicity, and Gender



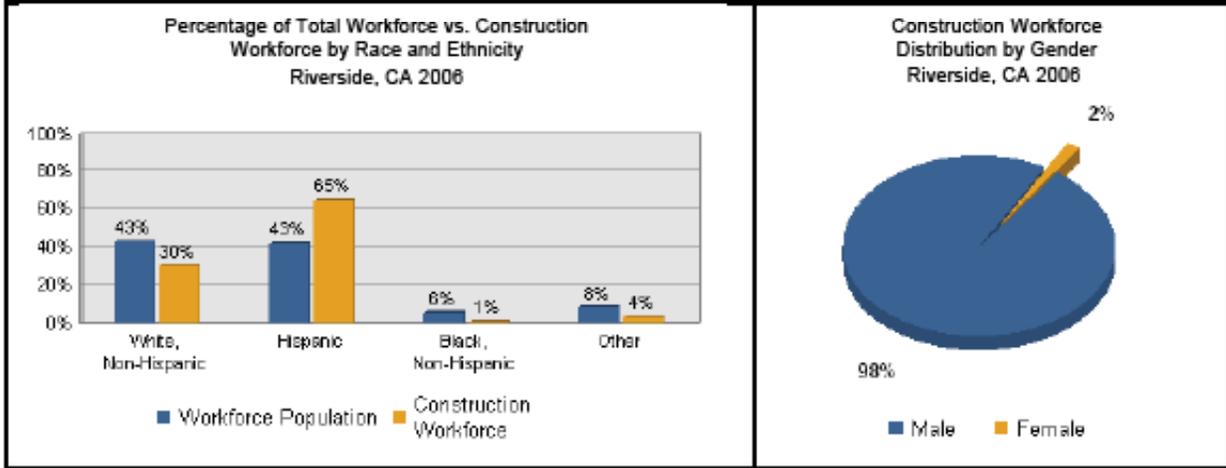
## Living Wage and Unionization Rates



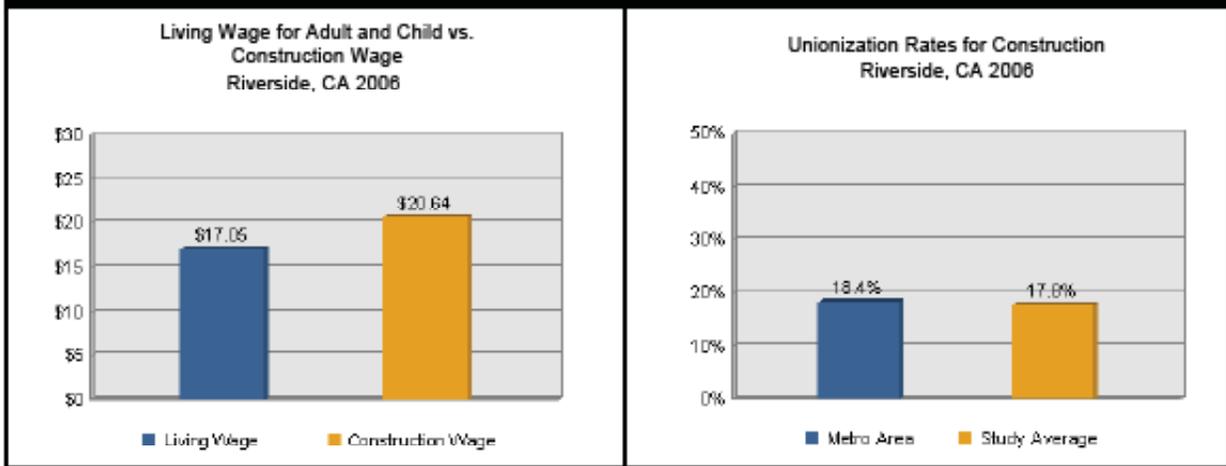
## Riverside, California

Metro Area Population, Construction Wage, Minimum and Living Wage				
County/City	2006 Total Population ACS Estimates	2007 Average Construction Wage	Minimum Wage	Living Wage for Adult and a Child
San Bernardino, CA	4,026,135	\$20.64	\$7.50	\$17.05
Riverside, CA				

### Workforce by Race, Ethnicity, and Gender



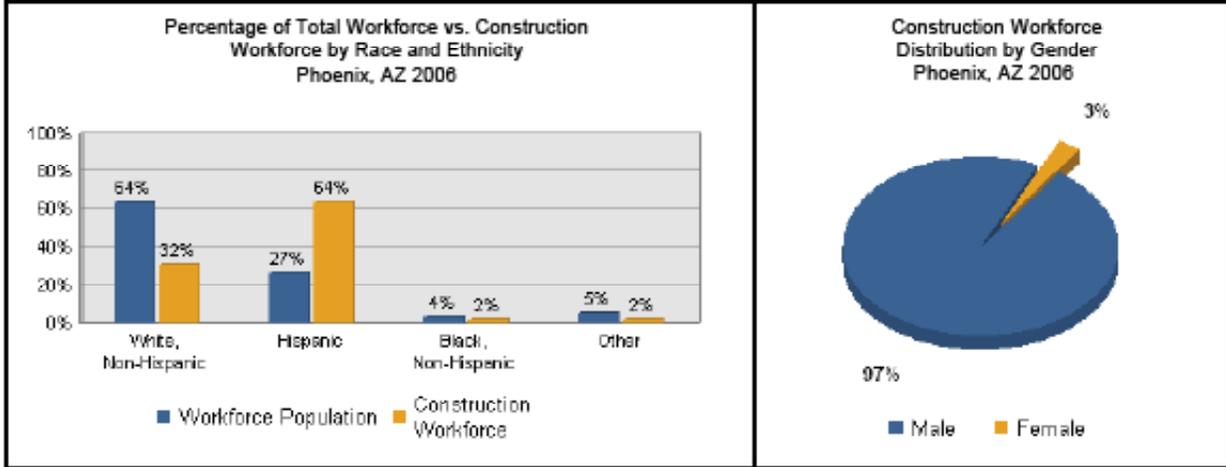
### Living Wage and Unionization Rates



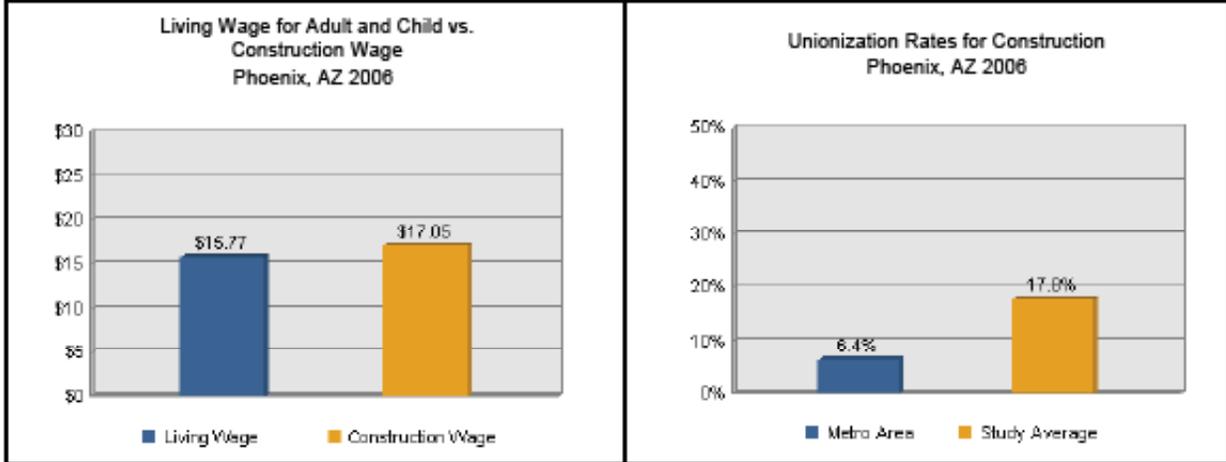
# Phoenix, Arizona

Metro Area Population, Construction Wage, Minimum and Living Wage				
County/City	2006 Total Population ACS Estimates	2007 Average Construction Wage	Minimum Wage	Living Wage for Adult and a Child
Maricopa, AZ	3,788,123	\$17.05	\$8.75	\$15.77

## Workforce by Race, Ethnicity, and Gender

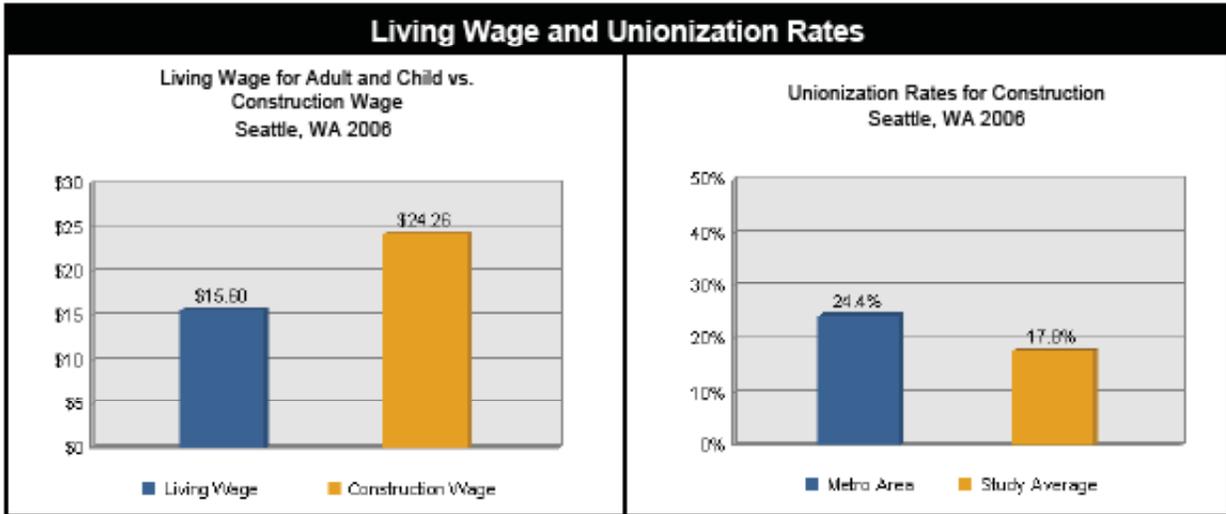
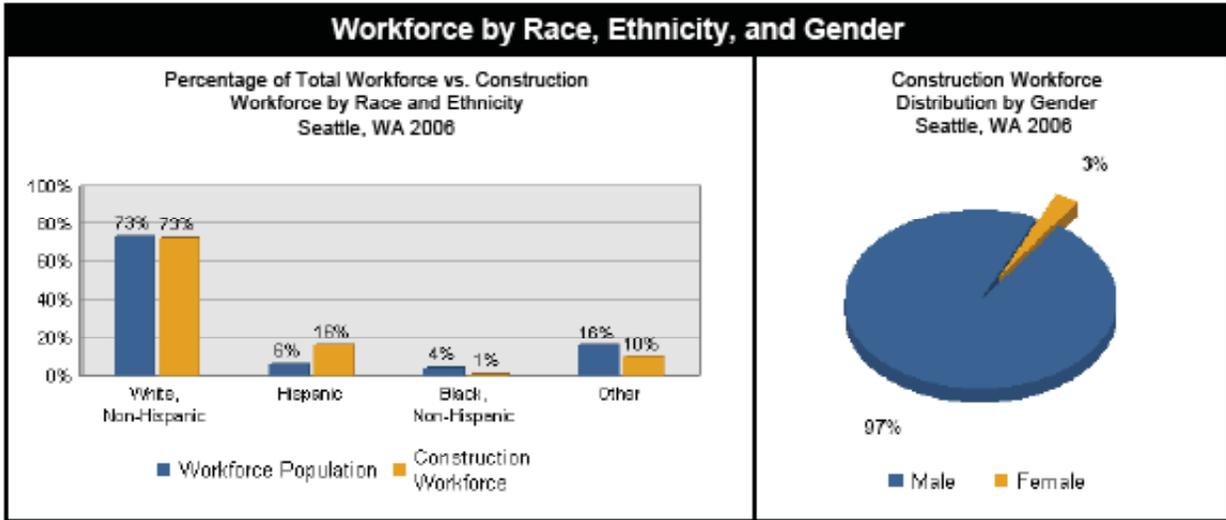


## Living Wage and Unionization Rates



## Seattle, Washington

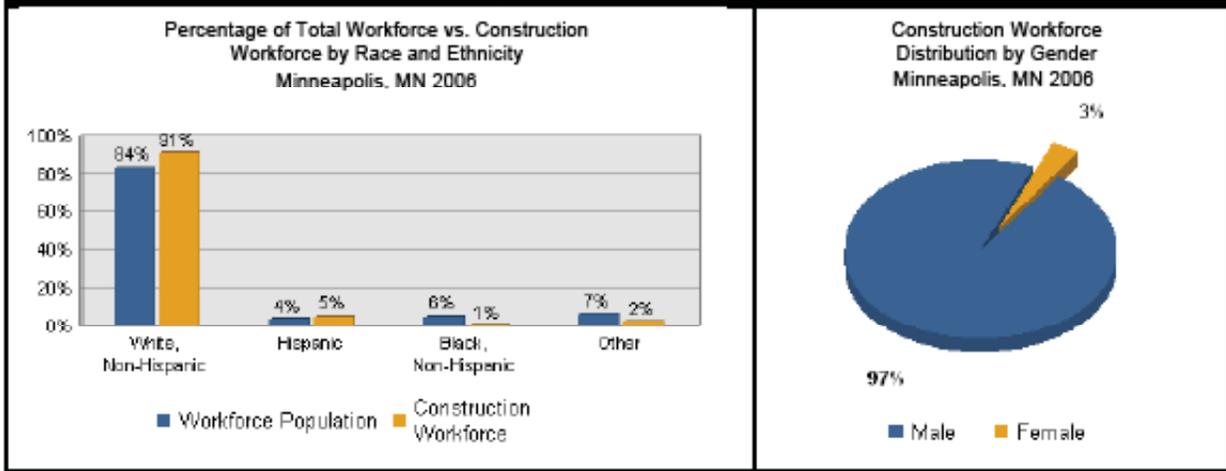
Metro Area Population, Construction Wage, Minimum and Living Wage				
County/City	2006 Total Population ACS Estimates	2007 Average Construction Wage	Minimum Wage	Living Wage for Adult and a Child
<b>King, WA</b>	<b>1,826,732</b>	<b>\$24.26</b>	<b>\$7.93</b>	<b>\$15.60</b>



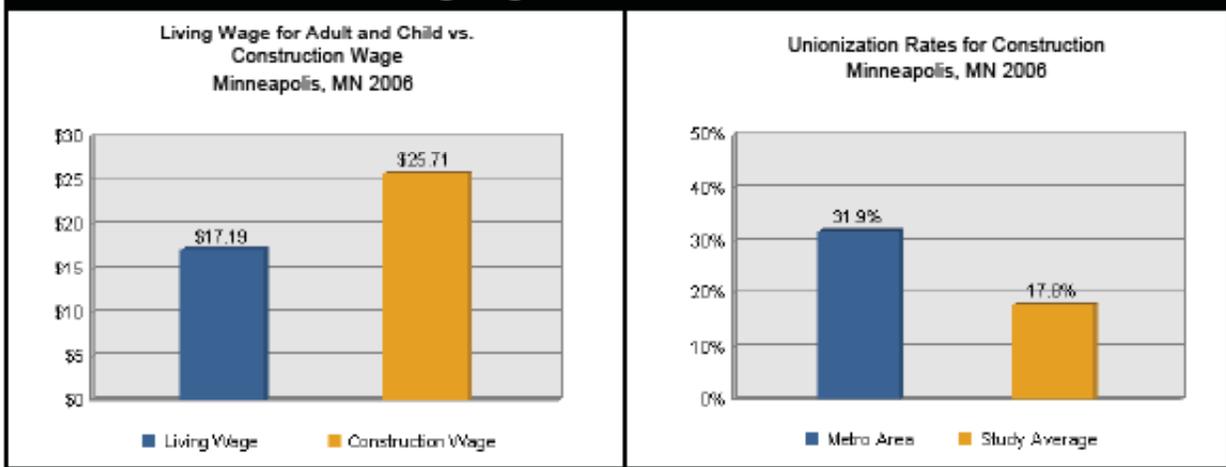
# Minneapolis, Minnesota

Metro Area Population, Construction Wage, Minimum and Living Wage				
County/City	2006 Total Population ACS Estimates	2007 Average Construction Wage	Minimum Wage	Living Wage for Adult and a Child
Dakota, MN	2,330,314	\$25.71	\$8.15	\$17.18
Hennepin, MN				
Ramsey, MN				
Anoka, MN				

## Workforce by Race, Ethnicity, and Gender



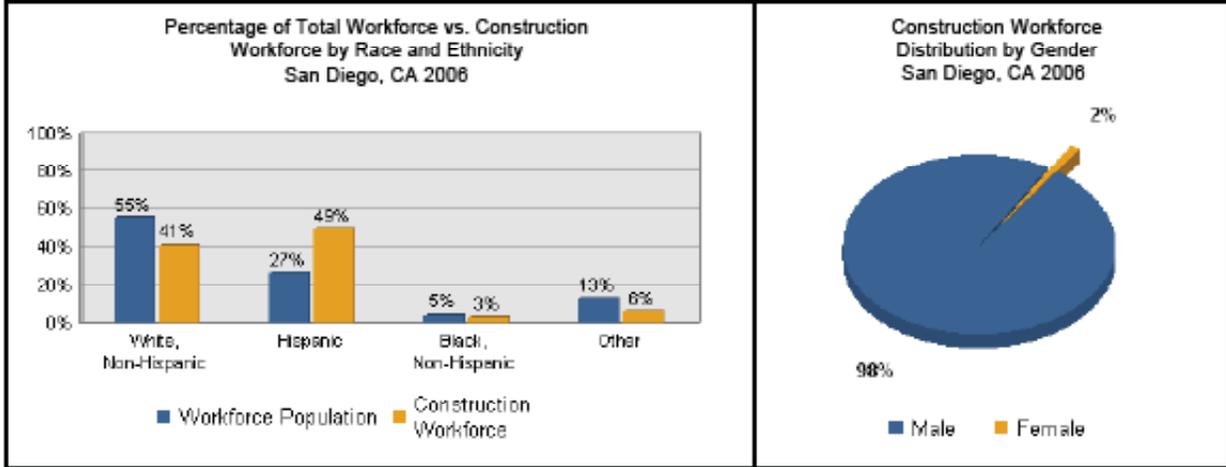
## Living Wage and Unionization Rates



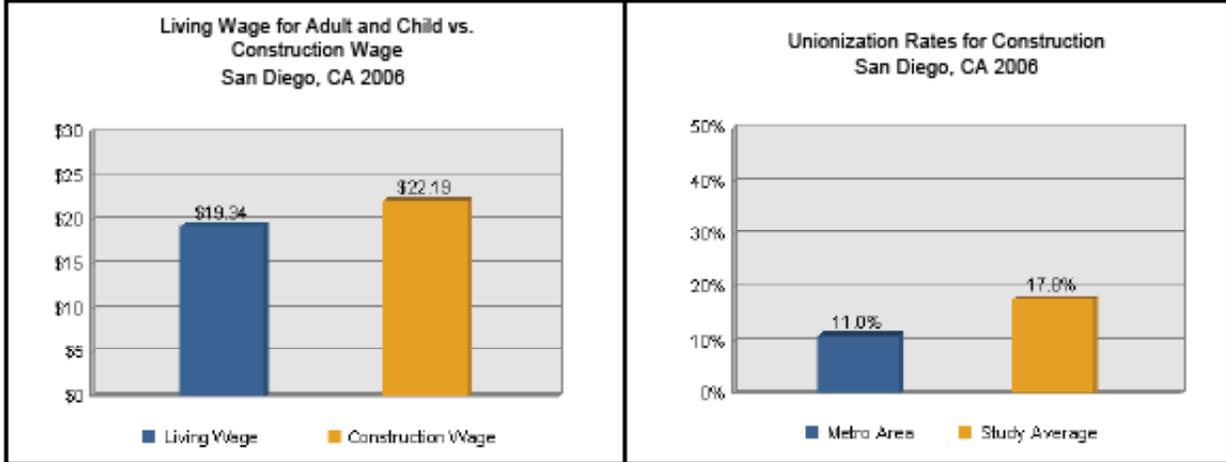
## San Diego, California

Metro Area Population, Construction Wage, Minimum and Living Wage				
County/City	2006 Total Population ACS Estimates	2007 Average Construction Wage	Minimum Wage	Living Wage for Adult and a Child
San Diego, CA	2,941,454	\$22.19	\$7.50	\$19.34

### Workforce by Race, Ethnicity, and Gender



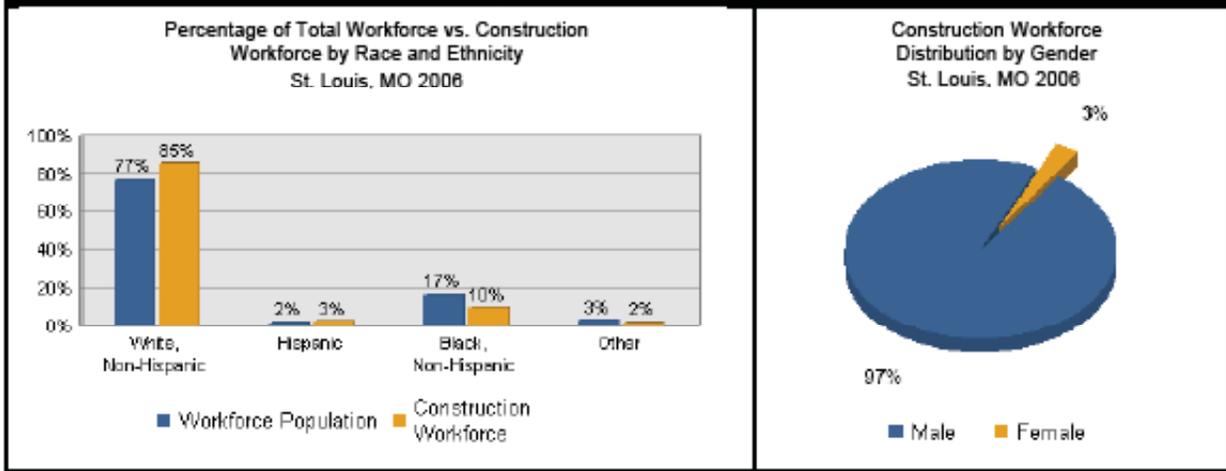
### Living Wage and Unionization Rates



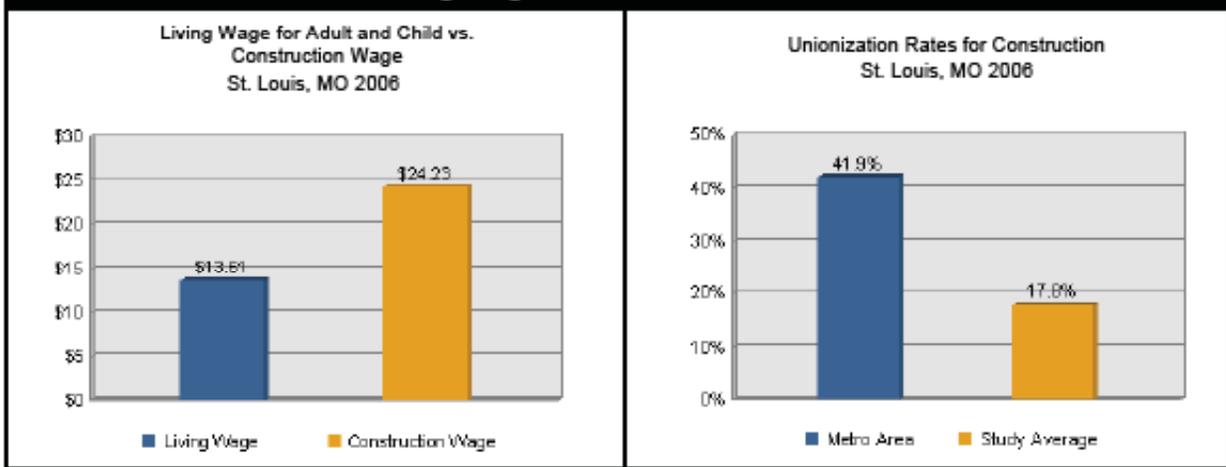
## St. Louis, Missouri

Metro Area Population, Construction Wage, Minimum and Living Wage				
County/City	2006 Total Population ACS Estimates	2007 Average Construction Wage	Minimum Wage	Living Wage for Adult and a Child
Madison, IL	1,873,913	\$24.23	\$7.50	\$13.61
St. Clair, IL				
St. Louis City, MO			\$8.50	
St. Louis County, MO				

### Workforce by Race, Ethnicity, and Gender



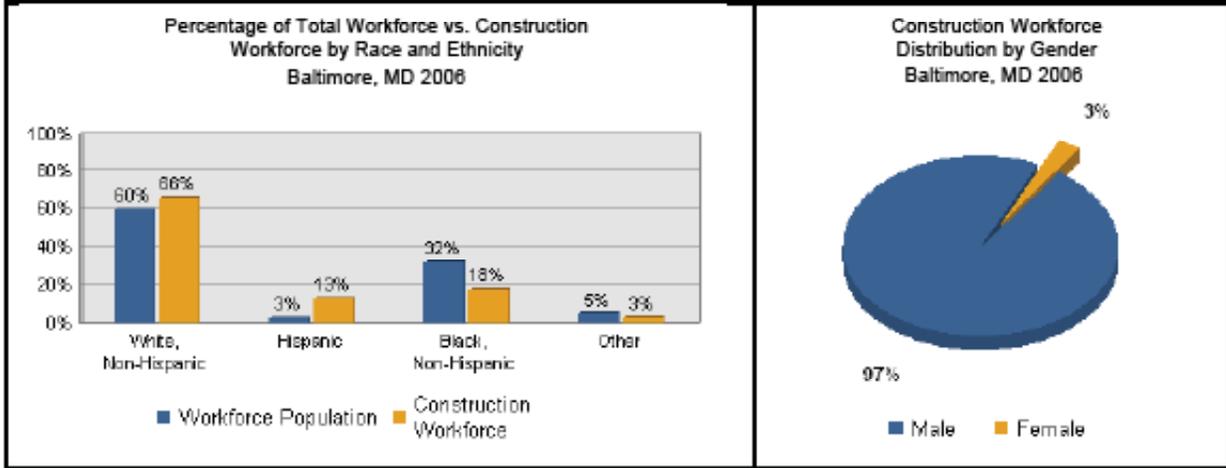
### Living Wage and Unionization Rates



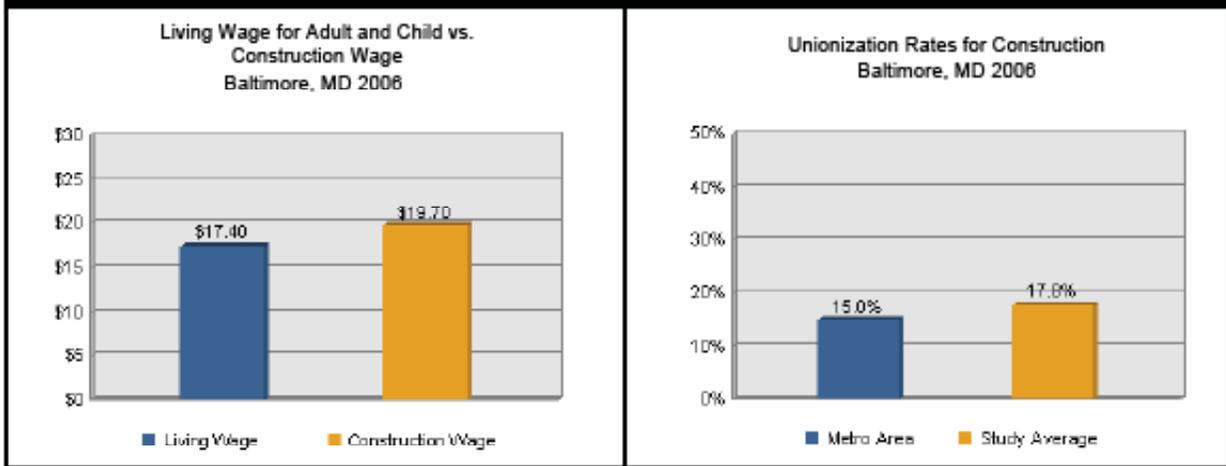
## Baltimore, Maryland

Metro Area Population, Construction Wage, Minimum and Living Wage				
County/City	2006 Total Population ACS Estimates	2007 Average Construction Wage	Minimum Wage	Living Wage for Adult and a Child
Baltimore, MD	1,418,750	\$18.70	\$8.15	\$17.40
Baltimore city, MD				

### Workforce by Race, Ethnicity, and Gender



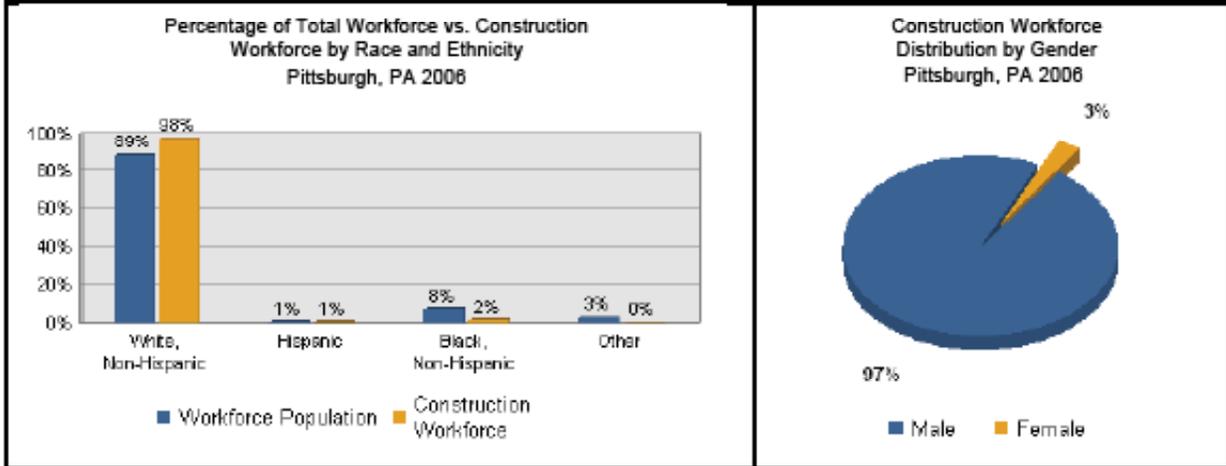
### Living Wage and Unionization Rates



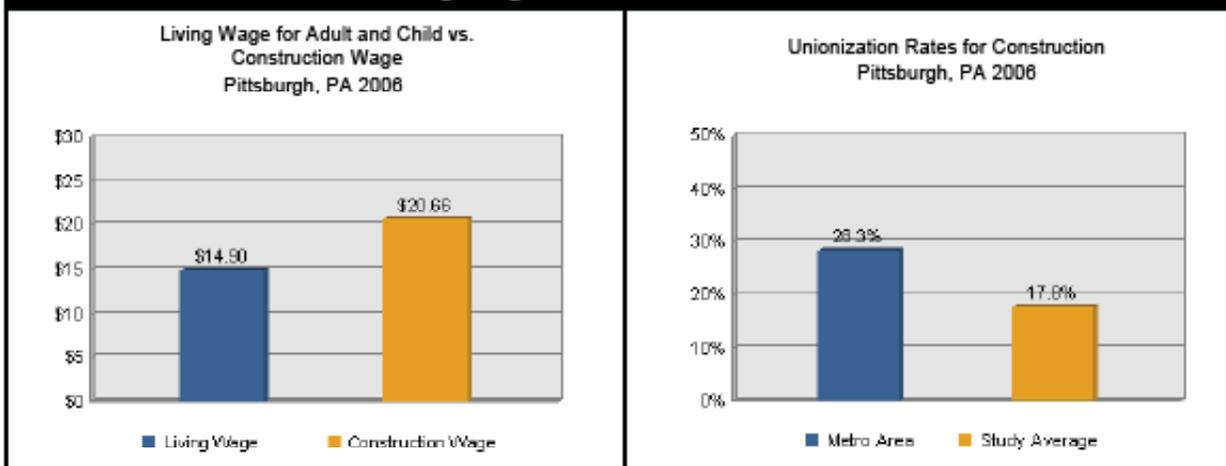
# Pittsburgh, Pennsylvania

Metro Area Population, Construction Wage, Minimum and Living Wage				
County/City	2006 Total Population ACS Estimates	2007 Average Construction Wage	Minimum Wage	Living Wage for Adult and a Child
Allegheny, PA	1,588,851	\$20.66	\$7.15	\$14.90
Westmoreland, PA				

## Workforce by Race, Ethnicity, and Gender



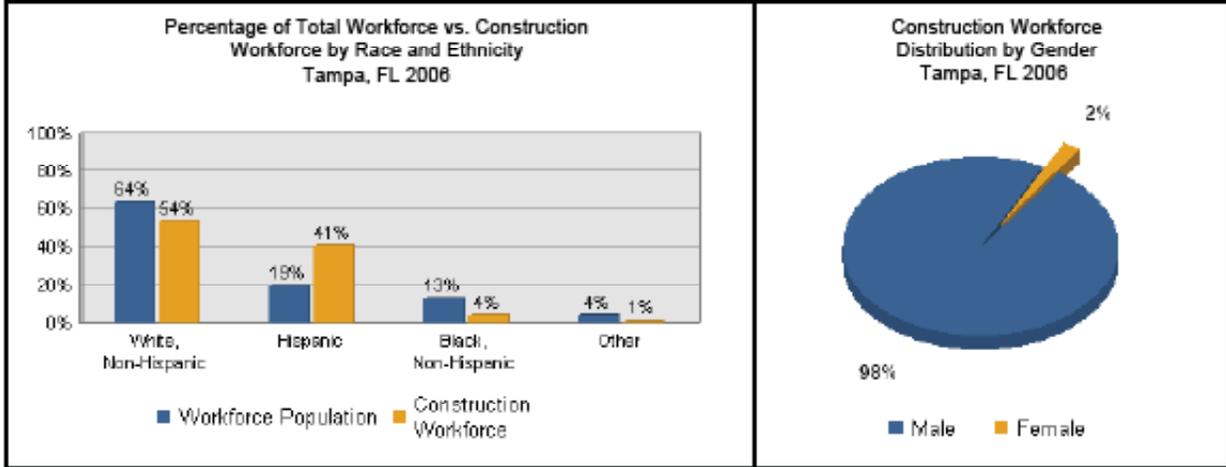
## Living Wage and Unionization Rates



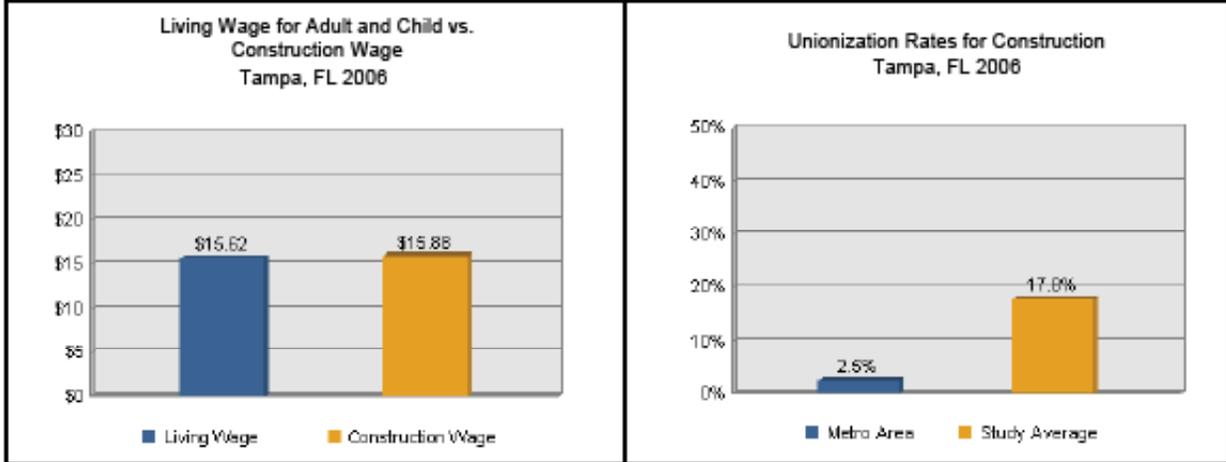
## Tampa, Florida

Metro Area Population, Construction Wage, Minimum and Living Wage				
County/City	2006 Total Population ACS Estimates	2007 Average Construction Wage	Minimum Wage	Living Wage for Adult and a Child
Hillsborough, FL	1,157,738	\$15.88	\$8.67	\$15.62

### Workforce by Race, Ethnicity, and Gender



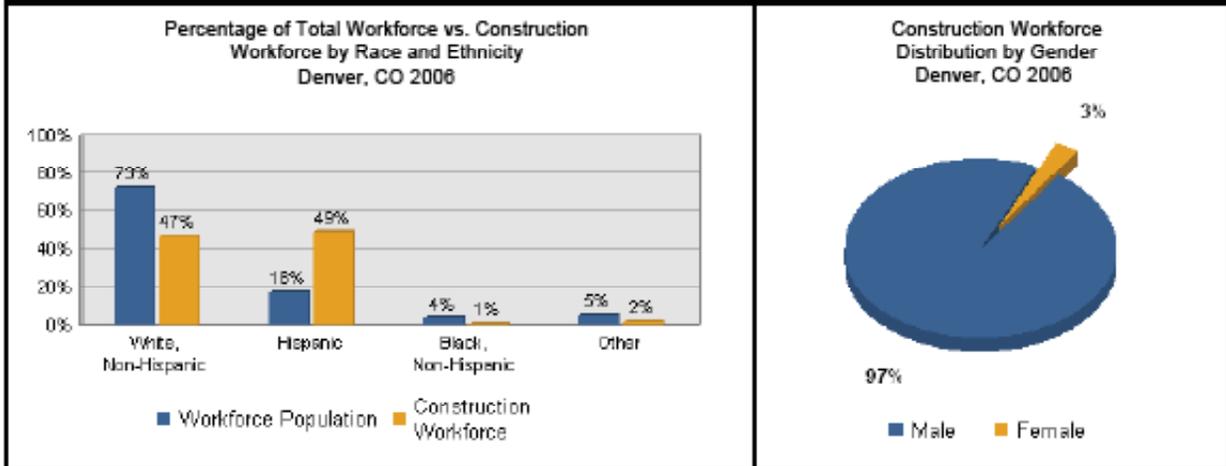
### Living Wage and Unionization Rates



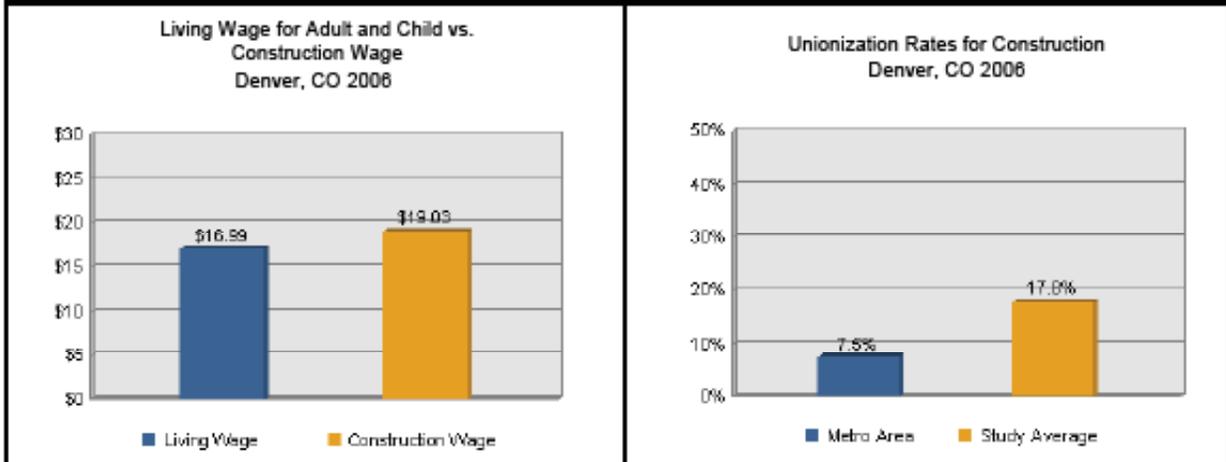
# Denver, Colorado

Metro Area Population, Construction Wage, Minimum and Living Wage				
County/City	2006 Total Population ACS Estimates	2007 Average Construction Wage	Minimum Wage	Living Wage for Adult and a Child
Denver, CO	566,974	\$19.03	\$8.95	\$16.99

## Workforce by Race, Ethnicity, and Gender



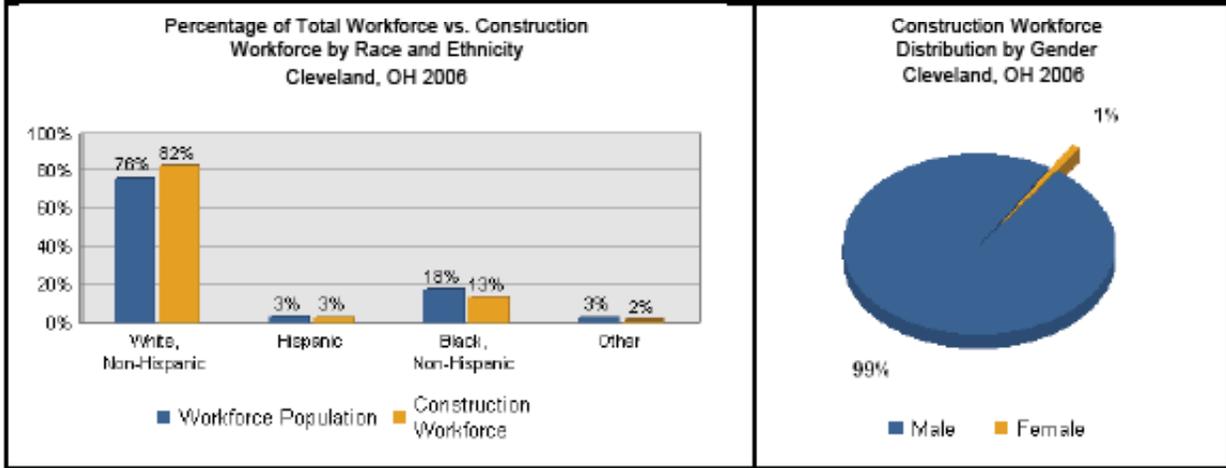
## Living Wage and Unionization Rates



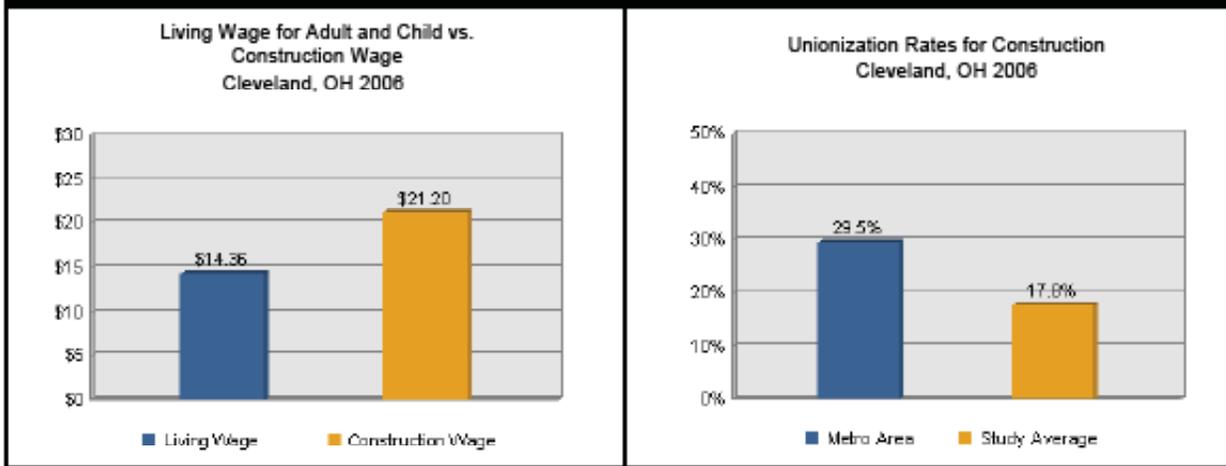
## Cleveland, Ohio

Metro Area Population, Construction Wage, Minimum and Living Wage				
County/City	2006 Total Population ACS Estimates	2007 Average Construction Wage	Minimum Wage	Living Wage for Adult and a Child
Cuyahoga, OH	1,818,234	\$21.20	\$8.85	\$14.36
Lorain, OH				

### Workforce by Race, Ethnicity, and Gender



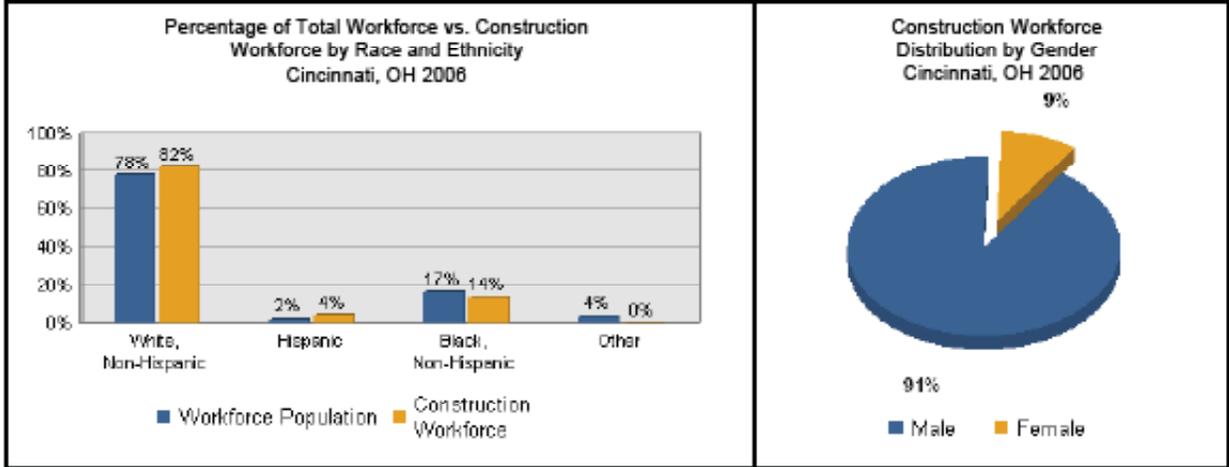
### Living Wage and Unionization Rates



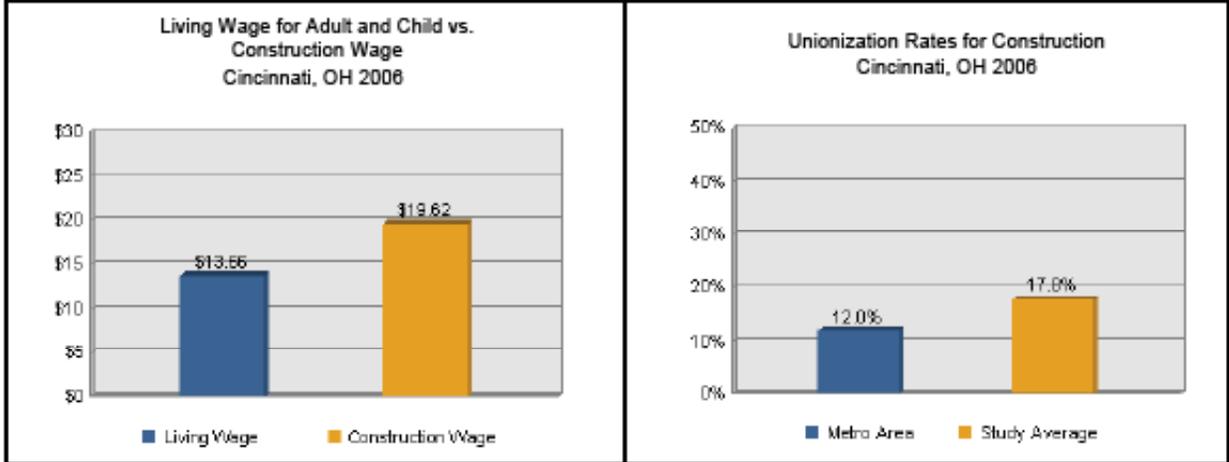
# Cincinnati, Ohio

Metro Area Population, Construction Wage, Minimum and Living Wage				
County/City	2006 Total Population ACS Estimates	2007 Average Construction Wage	Minimum Wage	Living Wage for Adult and a Child
Hamilton, OH	822,508	\$19.62	\$8.95	\$13.66

## Workforce by Race, Ethnicity, and Gender



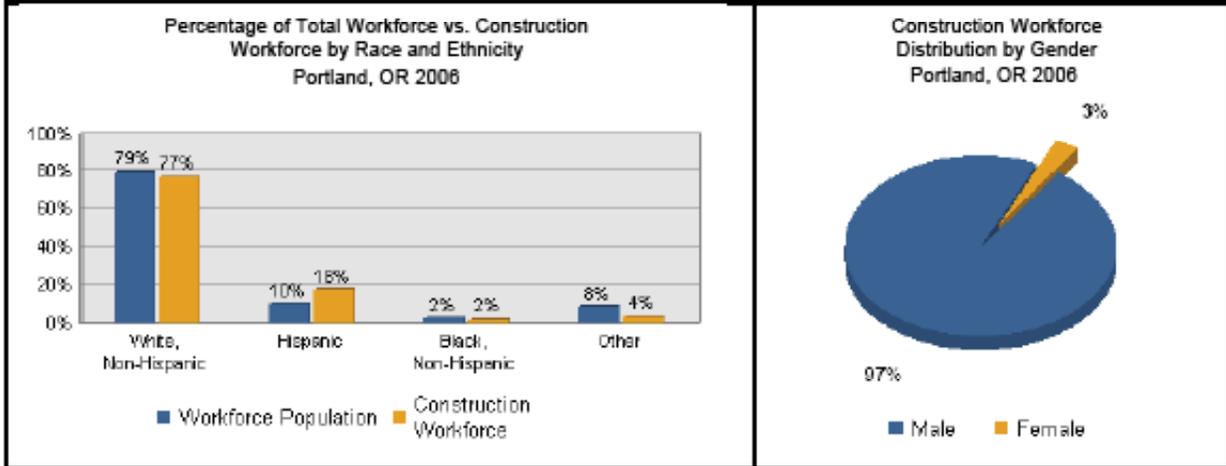
## Living Wage and Unionization Rates



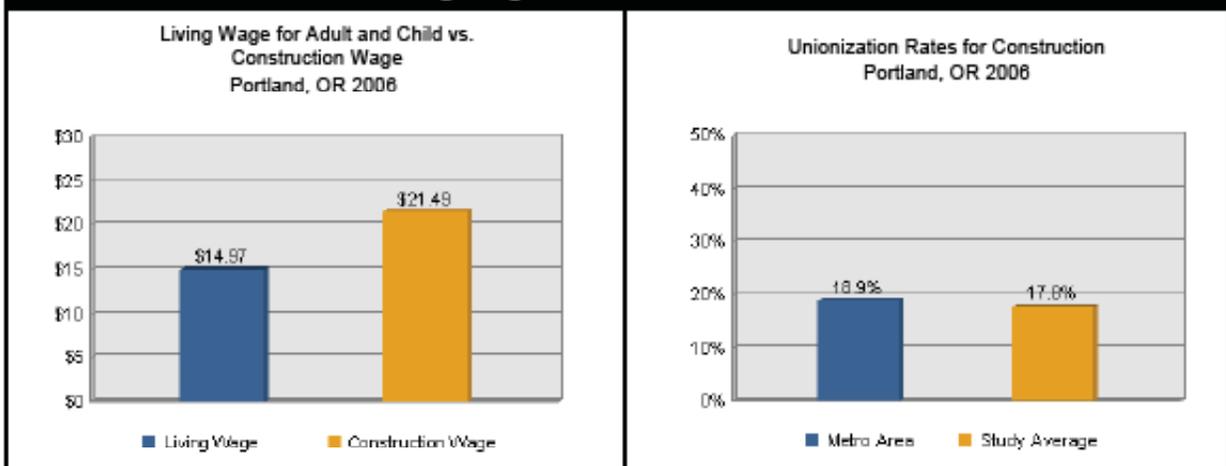
## Portland, Oregon

Metro Area Population, Construction Wage, Minimum and Living Wage				
County/City	2006 Total Population ACS Estimates	2007 Average Construction Wage	Minimum Wage	Living Wage for Adult and a Child
Washington, OR	1,195,723	\$21.48	\$7.80	\$14.97
Multnomah, OR				

### Workforce by Race, Ethnicity, and Gender



### Living Wage and Unionization Rates



## Policy Recommendations

Our nation's infrastructure is crumbling before our eyes. This provides us with a challenge and an opportunity -- the challenge to rebuild America to be strong and more economically competitive and the opportunity to put millions of people to work in the process. We must ensure that at all levels of government our national investment creates good jobs that benefit all members of the community, including women and minorities.

Two new trends give us cause for hope in the years ahead. Congress must consider a new transportation appropriations bill in 2009. If Congress is serious about addressing climate change as well as our decaying infrastructure, the transportation appropriations bill is the perfect place to begin this work. Creating a more diversified transportation system that encourages biking, walking, and greatly increased transit options will both help the climate and provide green jobs. In addition, the incorporation of "green" technologies, products, and practices will open up new and refashioned job opportunities in the construction field. Many of these opportunities will flow from innovative public policy which is focused on environmental sustainability, economic growth, and the equitable distribution of those economic benefits. For example, the wave of Green Buildings Codes in various cities across the country requires buildings to be constructed or retrofitted in line with nationally accepted energy efficiency standards. These regulations provide a stimulus to job creation in the fields of solar paneling, HVAC installation, carpentry, and other fields.

The demand for skilled construction labor is growing. In many regions of the country, the combination of an aging construction workforce and growing demand could lead to crippling labor shortages. Construction companies and unions need to recruit new workers and diversify their workforces if they are to meet future needs. The looming shortage of skilled labor in the construction industry is a crisis, but it is also an opportunity - an opportunity to give everyone a chance at achieving the American Dream. There will be plenty of jobs to go around, and a larger skilled construction workforce will grow all the more important as the United States attempts to address its infrastructure needs, including the repair of existing roads and bridges and responsible investment in new infrastructure.

### *Federal Level*

- 1) **The federal government should increase investment in public transportation. Currently, only about 20 percent of federal transportation spending goes toward public transportation, which has been shown to generate more jobs and build the economy in a more substantial way than spending on highways.**

High gas prices are enough justification for increased investment in public transportation. Whether bus systems, rail systems, or inter-city freight and passenger trains, public transportation demand is rising as people escape congestion and the high cost of driving.

In addition to the benefits to people's pocketbooks, public transportation investments act as engines of economic revitalization and create good jobs. Analysis from the Transportation and Infrastructure Committee of the House of Representatives shows that for every dollar investment in transit, \$6.21 is generated in economic activity. Also, a recent PIRG report showed that investment in transit produces nineteen percent more jobs than equivalent investments in road and bridge projects (see: <http://www.uspirg.org/home/reports/report-archives/transportation/transportation2/a-better-way-to-go>).

**2) Federal transportation law (23 USC 140) allows states to utilize up to ½ of 1% of Surface Transportation Program (federal highway) funds for workforce development. This provision should be made mandatory and extended to all federal transportation projects, including public transit.**

Until recently, only a few states have used the provision that allows ½ of 1 percent of federal highway funds to be utilized for targeted recruitment, training, pre-apprentice programs, and other workforce development initiatives. Recently, grassroots groups have won programs to reserve ½ of 1 percent of federal highway funds for job training programs in Michigan and Minnesota. Illinois is considering an even bigger investment, with work hours also reserved for low-income people, minorities and women through its capital bill, currently before the Illinois Legislature. Grassroots leaders have won community benefits agreements in Missouri as well, reserving ½ of 1 percent of the budget of highway projects for job training and contractor incentives.

The Safe, Accountable, Flexible and Efficient Transportation Equity Act (SAFETEA-LU), which became law in August of 2005, guarantees at least \$244 billion in highway and transit spending over a five-year period, from 2005 through 2009. We recommend that the ½ of 1 percent provision be extended to all federal transportation projects, including public transit. If this provision were applied to all SAFETEA-LU spending, it would generate \$1.22 billion for workforce development.

**3) SAFETEA-LU included a “Sense of Congress” (Section 1920) that called for state DOTs to “facilitate and encourage” collaboration to “leverage scarce training and community resources and to help ensure local participation in the building of transportation projects.” Section 1920 should be made mandatory and extended to all large federal construction projects, including projects by the Department of Housing and Urban Development (HUD), the National Aeronautics and Space Administration (NASA), and the U.S. Corps of Engineers. Implementation of this provision would mean that 30 percent of the work hours on large federally funded construction projects would be reserved for low-income people, ex-offenders, women and minorities.**

- 4) Federal transportation law should make repairing existing infrastructure a priority over building new highways that promote more urban sprawl. “Fix it first!” We should also ensure we create complete streets so that everyone can safely and conveniently use the roads, even if they don’t have a car.**

The collapse of an interstate highway bridge in Minneapolis placed the issue of decaying infrastructure on the nation’s agenda. The American Society of Civil Engineers Report Card for America’s Infrastructure gave a grade of D to our roads and a grade of C to our bridges. The federal government should require that states first repair existing roads and bridges before building new roads and bridges. Research has shown that “fix it first” smart growth construction projects generate more jobs than new highways that fuel sprawl. (For evidence on this point, see: [www.goodjobsfirst.org/pdf/backintown.pdf](http://www.goodjobsfirst.org/pdf/backintown.pdf).) A complete streets policy would ensure that when the road is reconstructed or repaired, it provides safe access to all who use the road (pedestrians of all ages and abilities, bicyclists, transit riders, as well as auto and truck drivers). This would not only create good jobs, but also provide better access to those jobs for low-income workers who cannot afford a car.

- 5) Unions are a very important part of the construction industry, helping to insure that workers are well-trained, adequately paid, and enjoy reasonable benefits. The Employee Free Choice Act has bi-partisan support and will protect the right to organize. We support it.**

Our research shows that metropolitan areas with higher rates of union membership in construction enjoy significantly higher real wages. Nationally, unionized construction workers are much more likely to have health insurance and retirement benefits. Just as important, unions have been shown to run, in conjunction with contractors, the best apprenticeship training programs. Unions benefit not just individual workers but the whole community. By increasing the productivity of construction workers, unions sustain a living wage and decent benefits for workers who can support their families and boost local businesses and the local tax base. According to a poll by Peter D. Hart Research Associates in December 2006, 60 million American workers would join a union if they could. Presently, labor law is tilted against unions. The Employee Free Choice Act would level the playing field so that American workers could make the choice themselves free of any coercion.

- 6) The Green Job Act, passed as part of the 2007 energy bill, authorizes \$125 million per year to create an Energy Efficiency and Renewable Energy Worker Training Program. The Green Jobs Act is an initial pilot program designed to identify needed**

skills, develop training programs, and train workers for jobs in a range of green industries. It targets a broad range of populations for eligibility, but has a special focus on creating “green pathways out of poverty.” Congress has not yet appropriated any funds for the Green Jobs Act. We support full funding.

Jobs in the energy efficiency industry – which primarily focuses on weatherizing and retrofitting buildings – are for the most part familiar construction jobs. The Green Jobs Act creates training partnerships that require the participation of unions to support training that results in good jobs leading to economic self-sufficiency. A portion of the funds are directed to partnerships that train people under 200 percent of the poverty line. Although this is a small program, it is an important model to build on as the “green economy” grows dramatically.

**7) Invest in a green economic recovery that targets infrastructure, including building efficiency and mass transit. Pass a Clean Energy Corps to ensure that the work of rebuilding and retrofitting America is done by those who most need work.**

America is suffering through an economic recession, rising energy prices and energy insecurity, and job losses. All of these problems can and should be addressed simultaneously. A recent report from the Center for American Progress and the Political Economy Research Institute demonstrates that a targeted investment of \$100 billion – roughly the amount the federal government returned to taxpayers as an economic stimulus earlier this year -- in greening America’s infrastructure would create 2 million jobs, many of them in the construction industry. A number of organizations have proposed a Clean Energy Corps (CEC) as a vehicle for this kind infrastructure investment. The CEC would focus on retrofitting America’s building stock and creating a skilled workforce which will be more racially diverse than today’s. Concentrated in cities and struggling communities CEC would combat global warming, grow local and regional economies, and demonstrate the equity and employment promise of the clean energy economy.

### *State/Local Level*

**1) State and local policies like Renewable Portfolio Standards, LEED building standards, Energy Efficiency Resource Standards, and Public Benefit Funds should be passed as a means to create large numbers of new construction jobs, while reducing greenhouse gas emissions and energy costs.**

There are a number of state and local policy tools to ensure the healthy development of energy efficiency and renewable energy markets. These are job creation policies, and far better economic development vehicles than tax giveaways to individual green businesses.

These kinds of job creation efforts can be paired with other policies to ensure that green jobs initiatives are smart and sustainable and pay off for workers and communities. Detailed policy recommendations can be found in the Greener Pathways report, available at: <http://www.greenforall.org/resources/greener-pathways-jobs-and-workforce-development-in>

**2) State Departments of Transportation (DOTs) should reserve 30% of the work hours on highway and transit projects for low-income people, ex-offenders, minorities and women. State DOTs should encourage the development of local task forces to publicize opportunities in construction and should work with community-based organizations to develop pre-apprenticeship programs to prepare under-represented groups for employment in the construction industry.**

The Missouri DOT (MoDOT) I-64 project in St. Louis is a model for increased construction work hours designated for the target populations. The project has pledged up to \$2.5 million towards job training, including pre-apprenticeship programs, as well as contractor incentives for women, minority, and low-income persons, and has reserved 30% of the work hours on the project for these populations. (See [http://www.thenewi64.org/new6\\_workforcedevelopment.jsp](http://www.thenewi64.org/new6_workforcedevelopment.jsp).)

**3) Local governments should pass ordinances requiring local workforce development on all large publicly funded construction projects.**

With the help of MORE2, a coalition of churches, Kansas City passed path-breaking legislation on April 26, 2007, which applies goals for hiring minorities and women to all construction firms doing business with the city. City governments around the country are exploring creative ways to insure that local residents benefit from construction in their communities.

**4) Community-based organizations (CBOs) should work to negotiate “Community Benefits Agreements” (CBAs) on large construction projects in their communities that include guarantees for employing local residents, including women, minorities, and low-income people.**

The Alameda Corridor project is a model of how community groups can negotiate a CBA that includes local workforce development. (See Lisa Rangelhelli, Replicating Success: The Alameda Corridor Job Training & Employment Program, Center for Community Change, 2002; available at: <http://www.communitychange.org/shared/publications/downloads/ACJC%20Replication%20Manual.pdf>.)

## Metropolitan Area Profiles

### **Metro area core counties included in the construction workforce analysis by race, ethnicity, and gender:**

New York City: Queens, New York, Bronx, and Kings

Los Angeles: Los Angeles County

Chicago: Cook County

Philadelphia: Philadelphia

Dallas: Dallas

Miami: Miami-Dade

Washington, D.C.: District of Columbia, Fairfax, Arlington, Alexandria City,  
Prince Georges

Houston: Harris

Detroit: Macomb, Wayne, and Oakland

Boston: Suffolk

Atlanta: Fulton, DeKalb, Cobb, and Gwinnett

San Francisco: Contra Costa, San Francisco, and Alameda

Riverside: San Bernadino and Riverside

Phoenix: Maricopa

Seattle: King

Minneapolis: Dakota, Hennepin, Ramsey, and Anoka

San Diego: San Diego County

St. Louis: Madison, St. Clair, St. Louis City, and St. Louis County

Baltimore: Baltimore County and Baltimore City

Pittsburgh: Allegheny and Westmoreland

Tampa: Hillsborough

Denver: Denver County

Cleveland: Cuyahoga and Lorain

Cincinnati: Hamilton

Portland: Washington and Multnomah

## Appendix: Data and Methodology

To examine patterns of employment in the construction industry we used data from the 2006 American Community Survey (ACS). Conducted by the U. S. Census Bureau, ACS conducts a rolling, random sample of housing unit addresses throughout the United States and Puerto Rico. Each year, about 1-in-40 addresses, or 2.5 percent of the nation's population, respond to the survey. The size of the sample permits reasonably accurate generalizations for communities of 65,000 or more. There are more than 60 questions on the American Community Survey. Responding to the survey is required by law. In 2010 the ACS will replace the long form in the decennial census.

For ACS data the residence of individual records can be allocated to a particular Public Use Microdata Area (PUMA). These areas contain about 100,000 people and, like other census geographies, are drawn to contain a more or less homogeneous population to the extent that that is possible for such a large population and area. ACS also includes information on the PUMA in which respondents work, allowing for place of work tabulations, which is what our analysis of discrimination in the construction industry is based upon.

To access the data we relied upon Steven Ruggles, Matthew Sobek, Trent Alexander, Catherine A. Fitch, Ronald Goeken, Integrated Public Use Microdata Series: Version 3.0 [Machine-readable database]. Minneapolis, MN: Minnesota Population Center [producer and distributor], 2004.

Aside from the PUMS and ACS data, additional geographic information was required for the project. In particular, GIS (Geographic Information System) shapefiles were necessary to identify which PUMAs should be used to represent each of the urban counties in our eighteen metropolitan areas. In generating data for the metro areas, core urban counties and urban cities (state of Virginia only) efforts were made to assure that the data represented only the geographic area covering the county – no more and no less. However, it is sometimes not the case that the PUMAs and counties have consistent boundaries, such that a county is made up of exactly one or more PUMAs. Thus, in cases where a PUMA intersected (or “straddled”) the boundaries of a geographic unit for which data was desired, that PUMA had to be either included or excluded from the calculations. The decision of whether to include or exclude the PUMA depended on the number of “completely contained” PUMAs that fell within the geo-area in question: if the area already had at least two completely contained PUMAs – making accurate calculations for the area possible – then the straddling PUMA was left excluded while if the area had one or fewer completely contained PUMAs residing within it, then the straddling PUMA was included and any additional counties falling outside of the geo-area in question but inside the straddling PUMA were noted in the outputted data for the geo-area. Finally, for geo-areas composed of exactly one PUMA, only that one PUMA was used in making the necessary calculations.

Labor force calculations were based on the variable which reports, for individuals working in the county or counties under examination, whether or not they were in the labor force at the time of the survey, and if they were in the labor force, whether they were employed or unemployed. All calculations were restricted to those who were in the labor force and employed at the time of the survey. Individuals were identified

as being in the construction occupation based on the variable which gives for each individual reporting an occupation based on the six-digit SOC code starting with “47”. We eliminated the less skilled and less well paid category of “helpers” (47-3000) and laborers (47-2961) from our analysis of construction jobs. Any individuals reporting an occupation of “unemployed” were also omitted from the occupational calculations, along with those reporting that they were “not in the labor force” or “unemployed” at the time of the survey.

To calculate the proportion of the total workforce or the construction industry that was of a particular race or ethnicity any respondent reporting Hispanic descent was coded into the Hispanic category, while all others were placed into either the non-Hispanic white, non-Hispanic black, or Other (also non-Hispanic) categories. The gender composition of the construction industry is the percentage of the workforce in the county who were females. Note that our analysis is based on the jobs located in the county, not on construction workers who happen to live in the county.

## Endnotes

<sup>1</sup> Paul M. Goodrum, “Hispanic and Non-Hispanic Wage Differentials: Implications for United States Construction Industry,” *Journal of Construction Engineering and Management*, July/August, pp. 552-559; Paul M. Goodrum and Jiukun Dai, “Differences in Occupational Injuries, Illnesses, and Fatalities Among Hispanic and Non-Hispanic Construction Workers.” *Journal of Construction Engineering and Management*, September 2005: 1021-1028.

<sup>2</sup> Peter Gosselin, *High Wire: The Precarious Financial Lives of American Families* (New York: Basic Books, 2008), p. 116.

<sup>3</sup> Chris Benner, Laura Leete, and Manuel Pastor, *Staircases or Treadmills: Labor Market Intermediaries and Economic Opportunity in a Changing Economy* (New York: Russell Sage, 2007), p. 4.

<sup>4</sup> Lawrence Mishel, Jared Bernstein, and Sylvia Allegretto, *The State of Working America 2006/2007* (Cornell University Press, 2007), pp. 135 and 138.

<sup>5</sup> *Ibid.*

<sup>6</sup> Center to Protect Workers’ Rights, *The Construction Chart Book: The U.S. Construction Industry and its Workers*, 4<sup>th</sup> ed. (Silver Springs, MD: Center to Protect Workers’ Rights, Center for Constructoin Resarch and Training, December 2007).

<sup>7</sup> Jeff Grabelsky, “Construction of De-construction? The Road to Revival in the Building Trades,” *New Labor Forum* 16 (2), 2007, pp. 49-60.

<sup>8</sup> Daniel Hecker, “Occupational Employment Projections to 2014,” *Monthly Labor Review*, November, 2005, pp. 70-101.

<sup>9</sup> Aspen Institute, *Grow Faster Together or Grow Slowly Apart: How Will American Work in the 21<sup>st</sup> Century* (Aspen Institute, 2002); as cited in Robert Giloth, “Full Employment and Local Workforce Politics and Policies,” in *Economic Development in American Cities*, edited by Michael I. J. Bennett and Robert Giloth (State University of New York Press, 2007), p. 2.

<sup>10</sup> Pablo A. Mitnick Matthew Zeidenberg, *From Bad to Good Jobs? An Analysis of the Prospects for Career Ladders in the Service Industries* (Center on Wisconsin Strategy, 2007). Mitnick and Zeidenberg define “good” jobs as jobs paying more than \$12.60 an hour in 2000.

<sup>11</sup> Robert W. Glover, Donald W. Long, Carl T. Haas, and Christine Alemany, *Return-on-Investment (ROI) Analysis of Education and Training in the Construction Industry* (Center for Construction Industry Studies, 1999).

<sup>12</sup> Bruce Nissen, *Training for the Workforce of the Future: Advantages and Disadvantages of Using Registered Apprentices in Two County GOB Projects* (Research Institute on Social and Economic Policy, Florida International University, 2006).

<sup>13</sup> Center to Protect Workers Rights, *op. cit.*

<sup>14</sup> Center to Protect Workers Rights, *op. cit.*

<sup>15</sup> Cihan Bilginsoy, “The Hazards of Training: Attrition and Retention in Construction Industry Apprenticeship Programs,” *Industrial and Labor Relations Review* 57 (1), 2003, pp. 54-67.

<sup>16</sup> David Weil, “The Contemporary Industrial Relations System in Construction: Analysis, Observations and Speculations,” *Labor history* 46 (4), 2005, pp. 447-471; and Center to Protect Workers Rights, *op. cit.*

<sup>17</sup> Business Roundtable, *Confronting the Skilled Construction Workforce Shortage: A Blueprint for the Future* (Business Roundtable, 1997).

<sup>18</sup> Glover, et al, *op. cit.*

<sup>19</sup> Robert W. Glover, “Apprenticeships: A Route to the High-Paying Skilled Trades for Women? In *Job Training for Women: The Promise and Limits of Public Policies*, edited by Sharon L. Harlan & Ronnie Steinberg (Temple University Press, 1984), p. 277.

<sup>20</sup> See <http://www.livingwage.geog.psu.edu/>; accessed September 18, 2008.

<sup>21</sup> Center to Protect Workers Rights, *op. cit.* Both figures refer to production workers, not supervisory employees.