



Construction Careers **FOR OUR COMMUNITIES**



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CONSTRUCTION CAREERS FOR OUR COMMUNITIES

I. EXECUTIVE SUMMARY

A. Overview

The labor movement in Los Angeles—a city of great poverty and great wealth—has received national attention for its innovative approach and commitment to organizing workers in the fight for good jobs. The UCLA Center for Labor Research and Education has an interest in exploring the ways in which organizing and labor policy can be harnessed to address issues of poverty and unemployment and to help create middle-class jobs in the Los Angeles region.

The construction industry is the topic of our research because of its impact on employment and poverty in Los Angeles. Every year billions of dollars are invested in commercial and residential development and public works, and both public and commercial development is expected to proceed apace even in difficult economic times. The unions representing the building trades have led the way in setting job-quality standards, developing rigorous training programs, and improving safety in an industrial sector with a high risk of injury. At the same time, the construction industry has a workforce that is retiring or leaving the trade, which offers fresh opportunities to link the region's underemployed and unemployed workers to new careers in this industry.

The Labor Center's first report, *Helping LA Grow Together: Why the Community Redevelopment Agency Should Adopt the Construction Careers Policy*, examined a proposal, adopted in March 2008 by the Community Redevelopment Agency, that ensures that Los Angeles City residents will have access to construction jobs on agency projects. This local hiring policy requires the negotiation of a Project Labor Agreement (PLA). This contract requires projects that receive a threshold level of subsidy to include local and disadvantaged workers, most of whom are to be referred from union hiring halls. The report explored the challenges presented by an economy plagued with high levels of poverty and hampered by the decline of the middle class, and it documented the benefits of jobs in the building trades. The report demonstrated that construction jobs benefited households by increasing incomes, health benefits, and opportunities for workers to turn their lives around.

This current report continues the exploration of economic development opportunities offered by the region's construction industry. The Community Scholars Program, a partnership between the UCLA Center

for Labor Research and Education and the UCLA Department of Urban Planning, selected the construction sector as an area of investigation for 2007–08. With the guidance of Peter Philips, visiting professor from the University of Utah, students and community members studied the history of industry partnerships with the building trades in the Los Angeles region and explored their success at implementing local hiring agreements. Our hope is that this report will help inform the debate about how to revive Los Angeles’s low-income communities.

B. Summary of Our Study

Our report explores one potential benefit that sometimes emerges from the innovative bargaining structure of PLAs—local hiring goals—through an assessment of projects developed by three public agencies in Los Angeles County: the Los Angeles Community College District (LACCD), the Los Angeles Unified School District (LAUSD), and the City of Los Angeles. Although a local hiring provision is not a universal element of PLAs, it was a negotiated element in each of these agencies.

Our research and analysis included individual-level data for over 38,000 blue-collar construction workers on LAUSD and City of Los Angeles PLAs. From the LACCD we received aggregated data that described the district’s local hiring results on nine building projects. We also conducted interviews of officials, contractors, and workers involved in Los Angeles–area PLAs. Summaries of these interviews are included in this report.

We focused our attention not on the negotiation process that generated PLAs with local hiring goals, but rather on the results. We asked these questions: In these PLAs, were local hiring goals reached? More specifically, did the PLAs increase the number of local hires and local apprenticeship hires for construction on the covered projects? We also asked subsidiary questions regarding whether larger or smaller contractors had an easier time meeting PLA goals: How were goals met throughout the lifecycle of a project? Did a contractor’s experience on one PLA project improve the firm’s local hiring performance on other projects under the PLA? Did the contractor have more difficulty meeting local hiring goals when a project was fast-tracked (as measured by the amount of overtime on the project)? Who was more likely to be a local worker—an apprentice, a journeyworker, or a foreman? How did the size of a contractor affect its ability to meet local hiring goals?

C. Report Conclusions

1. **Local hiring provisions in PLAs significantly increased the number of local hires.** We base this on a comparison between one Los Angeles City project for which local hiring PLA provisions were not thoroughly applied and four similar projects for which these provisions were applied and followed.
2. **Local hiring goals of 30 percent were met and exceeded on all three PLAs.** In fact, local hires—including apprentices and, under some agreements, disadvantaged workers—typically were about 35 percent of all hires.
3. **Compliance should be measured on a project-by-project basis.** In our case studies local hiring goals were applied to the specific building project as a whole, allowing some subcontractors to exceed local hiring goals and some subcontractors to fall short.
4. **Large subcontractors and general contractors disproportionately assumed responsibility for meeting local apprentice and journeyworker hiring goals.** In analyzing Los Angeles City projects, we found that small subcontractors tended to have a lower percentage of local apprentices and local journeyworkers than did larger subcontractors and general contractors.

5. **Apprentices on new construction came on the job later than journeyworkers.** Construction projects have a ramp-up period followed by full construction and then a finishing-off period. Early in a project's lifecycle, contractors met local journeyworker hiring goals, but not those for apprentices or local apprentices. Later, as the project hit its stride, apprentice and local apprentice goals under the PLAs tended to be met.
6. **Contractors improved their local hiring attainments as they gained additional experience.** Our analysis of LAUSD data concluded this to be true for LAUSD projects.
7. **On LAUSD contracts, contractors on moderately paced contracts met local hiring goals more easily than did contractors on fast-tracked LAUSD projects.**
8. **Forty-one percent of apprentices, 39 percent of journeyworkers, and 23 percent of foremen on LAUSD projects were local hires.** This suggests that contractors emphasized hiring local apprentices, a significant finding because one of the goals of local hiring is to encourage the entrance of local workers into the construction trades through apprenticeships.
9. **The success of local hiring goals depends on the size of the local area from which hires will be sought.** In the case of the LACCD, two local areas were defined: a small area that included only the zip code in which the project was being constructed, and a larger area that consisted of the overall LACC district. The nine LACCD projects we studied all met or exceeded the 30 percent local hiring goal established by the PLA. Typically, only about 5 points of these 30 percentage points came from the narrow definition of "local"—that is, the zip code area in which the project was being constructed. The remaining 25 percentage points typically came from the larger local area.

D. Who We Are

The authors of this report are members of the UCLA Community Scholars program of 2008; we are graduate and undergraduate students in the departments of urban planning and public policy at UCLA, community activists, union leaders for construction trades, and workforce specialists from the City of Los Angeles departments of Community Development and the Public Works Bureau of Contract Administration. The community scholars class was co-facilitated by Dr. Philips and Sharon Delugach, staff director of the UCLA Labor Center, with the assistance of Raahi Reddy, graduate student in urban planning at UCLA.

This study began with a conference on January 9, 2008, which was attended by Los Angeles city, school district, and community college officials, union leaders, and construction industry experts. Participants discussed their experiences with PLAs in Los Angeles and other parts of California. During the academic quarter other knowledgeable and interested experts were invited to share their experiences with PLAs in relation to construction, workforce development, and the Los Angeles economy. Community scholars also interviewed workers, contractors, union officials, and public officials in Los Angeles about their experiences working under PLAs.

I. INTRODUCTION

A. Workforce Development: Some Lessons Learned

Traditional workforce development programs, administered through the Workforce Investment Act (WIA), have been criticized for not being effective in helping the unemployed and underemployed gain access to sustainable jobs. The following are potential solutions for specific shortcomings:

1. **Invest workforce dollars in training programs that lead to sustainable jobs.** The term “sustainable jobs” refers to jobs that pay living wages and provide healthcare and access to opportunities for wage growth. Workforce development practitioners in cities, counties, and regions have had a difficult time balancing the short-term need for “any job” with the longer-term goal of “sustainable jobs.” Because sustainable jobs offer a way out of chronic poverty, investments should reflect that.¹
2. **Link training programs to employment opportunities.** By linking programs to growing sectors of the economy, we ensure that workers are equipped with skills for jobs that are in demand.
3. **Provide funding for wrap-around services.** Disadvantaged workers often need child care and other social services. Workforce intermediaries—usually community-based nonprofit organizations—have patched together these services, but without additional funding the services that can be offered will continue to be inadequate.
4. **Be responsive to industry needs.** Programs should target high-demand occupations in growing sectors so that workers will have stable jobs and opportunities to advance their careers.
5. **Create workforce partnerships with workers, members of the community, and local employers for win-win-win results.** This will ensure ongoing participation and strategic planning by all key stakeholders.

B. Why the Construction Sector?

The unionized construction sector brings greater capacity and quality jobs to the workforce development agenda. One of the added values that unions offer is their sponsorship of training centers for the thousands of new entrants in this field. In California alone, union training programs account for 88 percent of all construction-related training in the state.² The apprenticeship programs—joint union and employer partnerships—are available in every trade. They bring millions of dollars into training trusts through collectively bargained contributions. These partnerships ensure that apprentices will be employed by participating contractors while they receive classroom training. And the programs ensure a win-win partnership between new workers, who can become highly skilled employees in high-wage careers, and employers, who can hire from a pool of highly qualified workers.

Local hiring initiatives allow for a third “win” in the partnership by guaranteeing that some of the new entrants are from local disenfranchised communities. PLAs have created a mechanism for public owners, such as cities or counties, to leverage large-scale construction projects for local building trades unions in exchange for allowing some of the jobs to be done by local community members. These agreements have facilitated workforce development strategies that open doors to union training programs for traditionally marginalized workers, including underrepresented African Americans and women.

C. What are PLAs?

Project labor agreements, also called project stabilization agreements, are contracts between the owner or manager of a construction project or series of projects—in either the public or the private sector—and a consortium of labor unions. While traditional collective bargaining in construction entails agreements between contractor organizations and labor unions arranged along craft lines, PLAs are collectively bargained contracts between owners or their representatives and a consortium of craft labor unions. While PLAs generally reflect the terms and conditions of local collectively bargained contracts, the fact that there is a new player at the bargaining table—the owner—opens the door to possibilities for new solutions.

PLAs are not new. The U.S. War Department used PLAs during World War I, and the U.S. Office of Production Management used PLAs during World War II.³ The first PLA in California was awarded for the building of the Shasta Dam (1938 to 1945) in Redding. Other notable PLA projects in California are the Bay Area Rapid Transit (BART) system, San Francisco International Airport's newest terminals, the Los Angeles County Metropolitan Transport Authority's Blue Line, the Los Angeles Convention Center, and construction projects for several large school districts.⁴

This list might suggest that PLAs are primarily or exclusively projects funded by public agencies. A 2001 study of eighty-two California PLAs found, however, that 72 percent of the projects surveyed were private.⁵ PLAs



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may be found on large projects in isolated rural areas or on a series of small projects in dense urban settings. They may be applied to highly technical scientific projects or to more common buildings such as schools and housing structures. The terms and conditions of a PLA can be as varied as the places and projects they govern. Wherever PLAs are applied, however, they have two characteristics in common. First, all PLAs have a no-strike clause that lasts for the length of the agreement, accompanied by an arbitration process to resolve all disputes. Second, all PLAs are voluntary collective agreements between labor and project owners. And as voluntary parties to the agreement, bargaining partners are predisposed to discover common benefits during the negotiation process.

II. LOS ANGELES COMMUNITY COLLEGE DISTRICT PLA

A. History

The PLA between the Los Angeles Community College District (LACCD) and the Building and Construction Trades Council of Los Angeles–Orange County became effective on December 19, 2001. The PLA was negotiated after the voters passed Proposition A (April 2001), which designated \$1.25 billion in bond funds for the renovation, rehabilitation, development, and expansion of LACCD's nine colleges. Proposition AA, which followed in 2003, designated an additional \$980 million for the same types of projects, bringing total funding to about \$2.2 billion. The LACCD's board of trustees had released approximately \$1.1 billion for 168 projects by March 2007.

B. How the LACCD Defines Hiring Goals

The LACCD PLA contains local and at-risk hiring goals that are specific not only to the district but also to the neighborhoods in which the community colleges are located. The PLA requires contractors to make “good faith efforts” to reach out to three specific types of workers. Table 1 summarizes the goals listed in the agreement.⁶

TABLE 1. PLA Goals for LACCD Projects Funded by Proposition A and Proposition AA

PLA GOAL	CONDITIONS
For Apprentices	No more than 30 percent of the project workforce at all times. Half of all apprentices must be first-year apprentices.
For local hiring	At least 30 percent of the workforce.
For at-risk workers	At least 20 percent of the local workforce

Source: Los Angeles Community College District, Proposition A Facilities: Project Labor Agreement, August 8, 2005.

As defined by the LACCD, “local” has two tiers. General (prime) contractors may hire from either tier to fill their project rolls.⁷ Tier I comprises the specific LACCD zip code within which the construction is taking place. Tier II comprises all zip codes within the LACC district. The LACCD specifies that if a sufficient number of Tier 1 workers cannot be hired, unions must try to hire workers from Tier 2—that is, from any LACCD zip code.

The LACCD PLA specifies that 20 percent of local hiring—that is, 6 percent of the total qualified local workforce—should include qualified “at-risk” workers from both tiers who are referred to the contracting unions through a placement program. PV Jobs, a nonprofit agency, was chosen to implement this provision. Through its Jobs and Interns Program, PV Jobs recruits and places local at-risk workers on LACCD jobsites. PV Jobs identifies an at-risk worker as someone who has one or more of the following barriers to employment: lacks a high school diploma, has a history of substance abuse, has a household income below 50 percent of the local median, is homeless, is a welfare recipient, has been convicted of a crime, is unemployed, or is a single parent.⁸

Clients are referred to PV Jobs by over fifty organizations, including local WorkSource Centers and other community-based job referral programs. PV Jobs provides a general readiness orientation for construction jobs as well as trade-specific orientations that insure that the individuals who are most likely to succeed in a construction career are indentured into a union-management apprenticeship program and placed on a construction site. The referring agency provides case management and assists in providing the supportive services and training necessary to place an individual into a union apprenticeship program and onto the LACCD job site.

C. Stories from the Field: Ron Lister

Ronald Lister is twenty years old and graduated from the Watts WLCAC Youthbuild Program (apprenticeship-prep) in May 2008.

Lister went into Youthbuild because he could make money while earning his GED. He didn't realize that Youthbuild also had hands-on construction-based learning—and that's what kept him in the program.

Before he enrolled in Youthbuild, his average day was spent hanging out in his neighborhood, participating in negative extracurricular activities. He worked nights at a warehouse, where he made \$11.00 an hour with no benefits and no opportunity to advance.

Lister's most memorable community service project for Youthbuild was at Los Angeles Southwest College's "Community Day," where Lister and his colleagues passed out food and clothing to underprivileged families in the community.

Lister was elected as chair of the Policy Committee, a position he feels honored to hold. He admits his success in the program was due in part to his mentor, Jim Smith, Youthbuild's director, who "stays in my ear and says 'every day is not promised to you.'"

These words Lister takes to heart.

On the jobsite he has been framing windows, which he learned must be done very precisely: he had to redo two of the windows he had worked on.

Lister's current goals are completing his GED and researching the Building Trades and Union Apprenticeships. One thing he knows for sure is that he will continue to work in a "hands-on" kind of job.

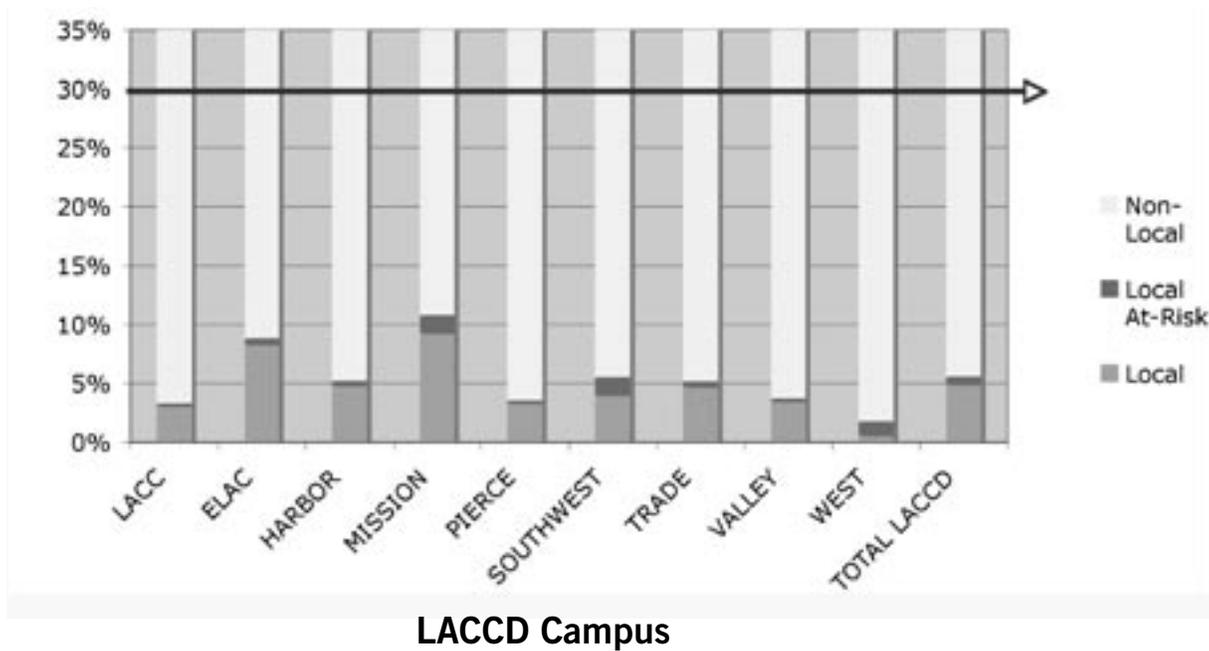
D. Hiring Goals Create Tradeoffs

An analysis of LACCD hiring data shows that PLA requirements create two tradeoffs. First, the size of the area from which workers are drawn affects the contractor's ability to hire local workers: the smaller the area, the more difficult it is to meet the hiring goals. When workers were drawn from Tier I—a single zip code—contractors were able to meet only 5 to 10 percentage points of the 30 percent hiring goal. Local hiring rose above 30 percent when workers were pulled from Tier II.

Second, the contractor's ability to hire local workers may be related to size: small contracting firms have greater difficulty meeting local hiring goals than large firms do. In comparison to the contractors employed by other local government agencies, LACCD contractors are relatively small and, because of the LEED standards, relatively specialized. The skills required to do the specialized work may be scarce within the local labor pool, making it difficult to hire from Tier 1. LACCD staff reported that many subcontractors on small projects did not meet local hiring goals. LACCD staff reported that the larger general contractors were able to meet the goals, which explains why the aggregate numbers meet or exceed the PLA goals. (This is consistent with the analysis of the City of Los Angeles local hiring data, which is discussed below.)

LACCD hired Padilla & Associates, a consulting firm that specializes in contract compliance, to gather and analyze information on local hiring rates. The resulting report, issued in December 2007, revealed that the percentage of local workers hired from Tier I, including at-risk workers, fell far short of the PLA goal of 30 percent (Figure 1). The line at 30 percent represents the goal outlined in the PLA. At only one site—Southwest—did the percentage of Tier I workers exceed 10 percent. The average across all LACCD project sites was less than 10 percent. When the labor market was restricted to Tier I, at-risk hires tended to be 5 percent or less.

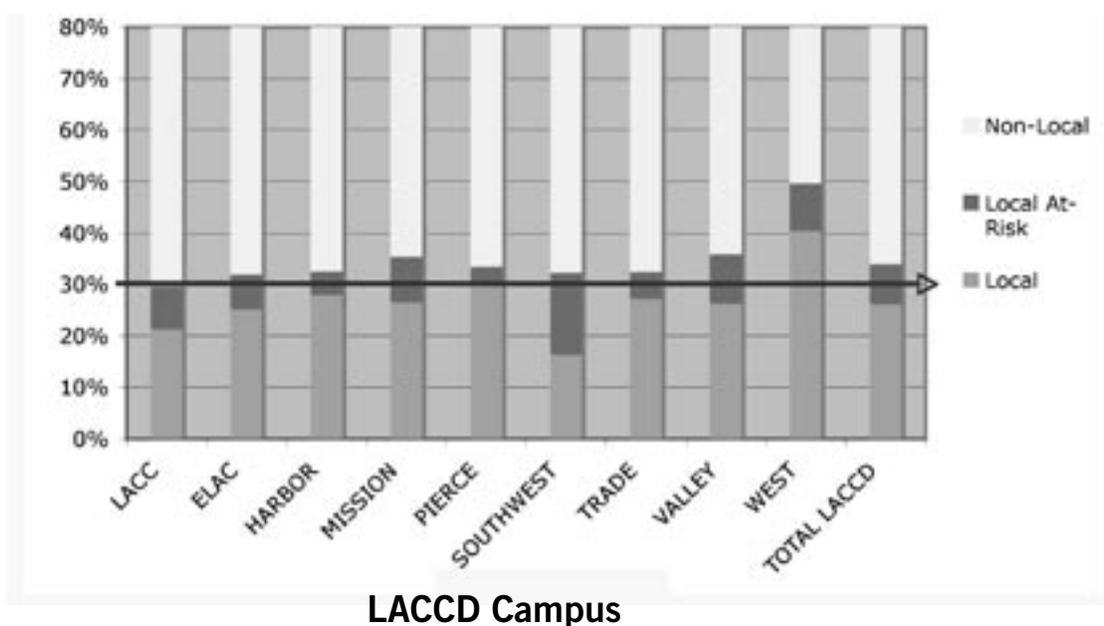
FIGURE 1. Percentage of Tier 1 Workers Hired for LACCD Building Projects, by Campus



Source: Padilla Associates, 2008

In contrast, when workers were drawn from the larger Tier II area, eight of nine projects met the local hiring goals set forth in the PLA (Figure 2). The average percentage of local workers hired was 34 percent. Of that, at-risk workers made up approximately 8 percentage points. Some variation in the percentage of at-risk and all other workers was evident across the nine colleges. At the high end was West, for which 49 percent of the workers, including at-risk workers, were drawn from Tier II. At the low end was LACC, with only 30 percent of Tier II workers. In general, however, combined local and at-risk Tier II workers made up between 30 and 35 percent of job site labor.

FIGURE 2. Percentage of Tier II Workers Hired for LACCD Building Projects, by Campus



Source: Padilla Associates, 2008

PLAs with local hiring goals can work, but only when the size of the labor market and the scarcity of specialized skills are taken into consideration. LACCD mitigated the effect of the tradeoffs that are inevitable by helping small contractors qualify for LACCD PLA work through a program designed to increase their knowledge and skills.

E. The Benefits of Boot Camp

To help small and emerging businesses meet LACCD project requirements, the district sponsors what it calls a Small Business Boot Camp.⁹ According to the LACCD website, once contractors have completed the eight-week program, they can apply for prequalification status and thus be able to bid on LACCD contracts. They may also qualify to bid on LAUSD projects. Not only does the boot camp assist existing contractors, it also expands LACCD's and LAUSD's list of qualified contractors. The boot camp is offered in South and Central L.A., East L.A., and the San Fernando Valley.

F. Keeping Track of Compliance

The general contractor, the subcontractors, and union dispatch have hiring responsibilities on each project. To improve the hiring process, LACCD staff identified complications and developed improvements that ensure better coordination among contractors and unions. One of the strengths of LACCD's PLA is that it requires that multiple monitors oversee hiring, from LACCD's part-time staff to PV Jobs, which reports compliance and reminds contractors that they have to hire locally.

LACCD works with about 2,500 Small Business Enterprises (SBEs), small contracting firms that rely largely on their core employees to complete jobs. LACCD contracts 70 percent of the value of its contracts to these SBEs, a percentage that vastly exceeds their goal of 28 percent. SBEs must be certified by an appropriate agency, such as LACCD or LAUSD, and their annual revenue may not exceed a set amount (\$31 million for general contractors; \$13 million for specialty trades).

The definition of "small," like "local," is determined by the parties to the PLA. The smaller the geographic size of the labor market and the smaller the capitalization of general and specialty contractors, the more difficult it is to meet defined small business hiring goals. Because the smallest subcontractors have the greatest difficulty in meeting local hiring goals, owners and managers who are setting hiring goals for small contractors should consider the tradeoffs that exist between the two objectives.¹⁰

Although SBEs are good news for small businesses, small businesses are governed by lax local hiring requirements: they allow them to employ their experienced core employees. A "core" employee is a definitional concept, just like "local," "at risk," and "small." In principle, a core employee is a worker who is a long-time employee of the contractor and who fulfills an essential function within the company. In practice, a core employee is usually defined as someone who has worked for the contractor for a defined number of months in the past year. PLAs sometimes recognize this by permitting a larger number of core workers for the small contractor. If the contractor is local, these core workers also may be local; if the small contractor is not local, these core workers are also likely not to be local.

LACCD maintains that part of its role is to help contractors meet local hiring goals. The district provides outreach and technical assistance to contractors. PV Jobs and LACCD consistently remind contractors of their local hiring goals. LACCD has dedicated three or four employees on a part-time basis to work with the "pipeline" groups—like PV Jobs—that promote local hiring, as well as contractors and unions.

The original negotiators of the LACCD's PLA believed that the district's projects could provide construction career opportunities for new, at-risk individuals who wanted to enter the construction trades. They committed to having 20 percent of all local hires (or 6 percent of all workers on their projects) be at-risk individuals. PV Jobs was contracted to help LACCD meet this goal.

Although LACCD data show that PV Jobs has been able to bring approximately fifty new, at-risk individuals into LACCD projects, the majority of workers who were classified by the district as "at-risk" were individuals who were either previously employed construction workers who met at-risk criteria because of, for example, past low incomes or a criminal record, or individuals who obtained LACCD employment through contractors or unions rather than PV Jobs. It might be helpful to expand monitoring to determine when an at-risk worker first enters the construction trade, whether the at-risk worker recently re-entered the trade, or whether the worker has been working steadily in construction for some time and nonetheless meets one of the at-risk criteria. This would help parties to the PLA better gauge the extent to which the PLA work is creating new careers in construction, enhancing the careers of at-risk workers by upgrading their skills and earnings, or simply providing additional work for otherwise at-risk individuals.

III. LOS ANGELES UNIFIED SCHOOL DISTRICT PSA

A. History of PSAs

The project labor agreement for the Los Angeles Unified School District (LAUSD) is called a project stabilization agreement, or PSA. The LAUSD is the second largest employer in Los Angeles County; only the county government employs more people. The LAUSD is composed of eight subdistricts.

In the mid 1990s, the LAUSD started developing a multi-year capital improvement plan to address a critical shortage of classroom seats. The resulting New School Construction Program has a goal of providing 165,000 new seats by the end of 2013. State and local bond measures provide most of the funding for the \$10.8 billion estimated cost.¹¹ Proposition BB, passed by voters in 1997, funded construction projects under the first LAUSD PSA. The passage of Measure K in 2002 provided \$3.34 billion for the expansion of the New School Construction program and for modernization and repair projects. An additional \$1 billion was approved in bonds for other school districts in Los Angeles County.¹² Overall, about \$12.6 billion of LAUSD's current \$20-billion construction program has been allocated for new construction, and about \$7.4 billion has been set aside for modernization and repair.¹³ Seventy of 132 projected new schools have been completed, as have 16,150 of 20,000 modernization and repair projects and 60 of 65 school additions.

In May 2003, the LAUSD Board of Education approved a five-year PSA extension with the Los Angeles and Orange Counties Building and Construction Trades Council and the corresponding local signatory craft unions. The PSA became effective on October 1, 2003, for Measure K and any other future bond, and on November 1, 2003, for the Proposition BB projects.¹⁴ The agreement provides a uniform labor relations framework across all district construction projects that are funded in whole or in part by bond money identified in the PSA.

LAUSD's first PSA, which was signed into effect in August 1999, allocated \$2.4 billion in Proposition BB funds to the New School Construction Program; the construction program targeted 85 schools.¹⁵ In 2003 the total amount of funding for new construction from Prop BB and Prop K, not including private or other district funds, was \$5,750,000,000 for a total of 804 schools and 736,675 enrolled students.¹⁶ The 1999 PSA excluded contracts for maintenance jobs costing less than \$15,000 and construction jobs less than \$25,000.

The 2003 agreement terminated the 1999 PSA. The 2003 agreement includes changes in the hiring procedure outlined in the earlier agreement, plus thresholds for coverage and union's subscription agreement.

All work done under job order contracts is covered by the new PSA, regardless of funding, per state law.¹⁷

The current PSA applies to general (prime) multi-trade contracts that exceed \$175,000, to general (prime) specialty contracts that exceed \$20,000, and to all subcontracts flowing from these contracts, as well as job order contracts. All contractors on projects that meet these criteria must confirm acceptance of the PSA terms through a letter of assent for each of the projects they work on. The project labor coordinator (PLC) must receive the letter of assent at least forty-eight hours before work begins. The PSA overrides any conflicting local collective bargaining agreements of the signatory unions.

With some exemptions, the PSA requires contractors to hire their workforce through a referral from the appropriate union hall. If unions fail to refer a candidate within two business days of a request for a worker, contractors can hire from other sources. The PSA allows specialty and subcontractors to hire up to five core employees through an alternative procedure in which one core employee alternates with one employee from the unions. (A similar provision has been negotiated with the LACCD.) A contractor's core workforce is comprised of employees who appeared on the firm's active payroll for at least 50 of the 100 working days prior to the contract award, possess all required licenses, can perform the work safely, and are district residents—that is, "local."¹⁸

The PSA establishes a 50 percent district resident participation goal. The agreement asks unions to refer local workers first, until at least 50 percent of a particular contractor's employees are district residents. "Local" residency is defined as living in one of the zip codes that fall within the boundaries of LAUSD's eight subdistricts. The 50 percent goal can include core employees who are required to register at the union hiring hall, but are not required to become a member of a union. Instead of specifying the 50 percent goal, the LAUSD may request that contractors hire a certain minimum percentage—up to 30 percent—of workers from specific district zip codes. The local hiring goal requires the unions to exert their "best effort" to comply with the referral procedure. The contractors, in turn, can reject any applicant referred by the unions, as long as they exercise this right in "good faith."

The residency requirement for qualifying as a core employee is more binding and easier to enforce because it is regulated by the unions. The PSA states that up to 30 percent of the workforce for each craft may be apprentices; of these hires, 40 percent must be first-year apprentices. This provision was included to help new workers start a career in construction. A labor management committee, jointly chaired by a representative of the LAUSD and a designee of the trades council, is responsible for overseeing the enforcement of this provision.¹⁹



Ironworkers Local 416 apprentices attending a hearing in L.A. City Hall.

B. “We-Build” Helps At-Risk Workers

Another LAUSD program, the “We-Build” Program, is a pre-apprenticeship program that serves as a feeder program that funnels local workers into apprenticeship programs sponsored by the building trades and LAUSD construction projects. “We-Build” is a separate job training program, but its primary goal is to help contractors reach the PSA’s 50 percent local hiring goal. The program’s local hiring and training efforts are market-driven: Los Angeles has a shortage of skilled labor.

Although the LAUSD PLA does not contain a goal for hiring at-risk workers, “We-Build” does recruit from the district’s at-risk populations. The organization’s target groups for recruitment are African Americans, Native Americans, women, ex-offenders, out-of-school youth, foster care youth, and the homeless.

The “We-Build” Program is facilitated through a partnership between the LAUSD Facilities Services and Adult and Career Education Divisions. The program consists of ten weeks, or 300 hours, of pre-apprenticeship training. Graduates of the program are competitively positioned for placement on an LAUSD construction project through its contractors and local trade unions. To be eligible for “We-Build,” individuals must be at least eighteen years old, must possess a valid California driver’s license and a Social Security card, and must be a local district resident.

“We-Build” apprenticeship training is offered at has seven district locations: East Los Angeles Occupational Center, East Los Angeles Skills Center, Harbor Occupational Center, Maxine Waters Employment Preparation Center, North Valley Occupational Center, West Valley Occupational Center, and Los Angeles Technology Center. “We-Build” works collaboratively with the City of Los Angeles, Los Angeles Community Redevelopment Agency, DPSS GROW Program, California Employment Development Department, Hub Cities Consortium, LAUSD High Schools and Healthy Starts Program, Los Angeles Mission, Para Los Niños, P.O.W.E.R. Collaborative, Torres Martinez Tribal TANF, United Jobs Creation Council (UJCC), Union Rescue Mission, The Weingart Center, and Helmets to Hardhats, among others.

“We-Build” works with community and faith-based organizations to recruit at-risk individuals for its program. These organizations, which provide local district residents with access to training and employment support services, are Alameda Corridor Jobs Coalition, Community Coalition, Chinatown Service Center, Department of Defense Employer Support of the Guard and Reserve (ESGR), East Los Angeles Community Corporation, SCOPE, South Los Angeles WorkSource Center, and United Auto Workers (UAW) WorkSource Center.

As of February 20, 2008, the “We-Build” Program had graduated 563 residents. Sixty-two percent of the graduates were Hispanic, 24 percent were African American, 6 percent were White, 6 percent were Asian/Pacific Islander, and 1 percent was Native American (two residents identified themselves as “Other,” and 1 percent declined to state an ethnicity). The success rate for the program is high: 84 percent of “We-Build” graduates have landed construction jobs.²⁰

C. Stories from the Field: Eric Curry, Pre-Apprentice

Eric Curry graduated from the Watts Labor Community Action Committee’s (WLCAC) Youthbuild Program (apprenticeship-prep) in May 2008. Youthbuild is a program sponsored by the LAUSD that works with local youth and helps train them for careers in construction. Before joining Youthbuild, Curry worked with family and friends doing side jobs, sometimes barely making minimum wage, sometimes making \$10.00 per hour without benefits. “Back then I was in the streets hanging out with my buddies, wasting time.”

Curry heard about Youthbuild and felt it offered a good opportunity to further his skills. Since joining the program he has worked on several construction sites. His favorite job was building the low income housing

units at 49th Street and Figueroa in South L.A. He worked with a veteran named Tom, who showed him how to frame and build stairs. “It’s much harder than I thought it would be,” he laughs, recalling how many nails he had to bend just to frame one set of stairs. The job gave him a feeling of great pride: “It feels like giving birth to a kid, watching that building come to life.”

Curry says that he didn’t know anything about unions or apprenticeships before he joined Youthbuild. During the program, union reps and outreach coordinators made a presentation about the wages and benefits available through union building trades. After graduating he plans to apply to one of the apprenticeship programs. “Youthbuild has really encouraged me to be a leader, and helped me change my community and provided me with the knowledge to have a great career in construction.”

D. SBEs Can Increase Local Hires

In February 2003, LAUSD passed an SBE policy that set a 25 percent small business participation goal for district projects. The policy targets firms that are identified by the Small Business Administration (SBA) as small construction contractors. Generally, small general contractors are limited to \$31 million in annual receipts, and specialty contractors are limited to \$13 million.²¹ LAUSD requires that contractors submit a monthly list of their subcontractor payments. Between July 2003 and June 2007, SBEs received 72 percent of all district construction contracts.

The SBA’s \$13 million ceiling for small subcontractors is somewhat higher than the ceiling we established: fewer than twenty workers, which works out to about \$8 million in total receipts.²² This is important because we find that small subcontractors have a more difficult time meeting local hiring goals. The fact that the LAUSD uses the SBA’s size standard for specialty contractors, which is a bit more relaxed, means that the district has less difficulty meeting its goals.

LAUSD’s Small Business Program enhances the participation of small firms on district construction projects. The program includes the Small Business Boot Camp and the Contractor MoneyWorks Program. The Small Business Boot Camp is a free eight-week training program for small contractors offered in South L.A., East L.A., and the San Fernando Valley. Participants learn bidding procedures, safety regulations, bonding access, and how to work under LAUSD’s PSA. As of 2007, LAUSD had awarded more than \$50 million in contracts to over 475 graduates of the Small Business Boot Camp. The Contractor MoneyWorks Program is a free five-session seminar program in which participants receive financial information and fiscal training. LAUSD requires small contractors to be certified as either a Small Business Enterprise or a Small Economically Disadvantaged Business Enterprise. It also recognizes certification from a number of other public agencies.

E. Stories from the Field: Larry Batice, President of LDB Reinforcing

Larry Batice owns LDB Reinforcing, a company that specializes in post tension ironwork. Batice grew up in Los Angeles and enlisted in the U.S. Army when he was eighteen years old; he served for six years. Batice was first exposed to construction work when he, along with hundreds of other local community members, was recruited to work on the massive Century Freeway Project in 1985. Batice’s father-in-law was a member of the Ironworkers, and Batice recalls that there weren’t many African Americans in the trade at that time. “There were many barriers of racism,” he notes, “but we pressed on.”

Batice learned to pour concrete. He admitted that he had to get used to heavy work and working in the heat and the cold. A job on the Pasadena City Hall project helped him gain the skills he needed to join the Ironworkers Local 416. Twenty years in the trade paid off last year when Batice received his contractor's license.

In December 2007 he graduated from LAUSD's Small Business Boot Camp, which gave him a big advantage in negotiating with the school district. Larry Batice tells local young people that "you're not going to find work like this on the streets, which provides a good living and benefits," and he offers this advice: "There is still racism and discrimination out there, but you can't let anyone deter you."

F. Keeping Track of Compliance

To assure contractors that the "no strike, no lock out" provisions of the PSAs are followed, grievances are handled in a timely and orderly manner by a PLC, a position that is provided for in the LAUSD PSA. The PCL is in charge of educating and advising contractors, unions, and LAUSD clients about the PSA procedures, and it is responsible for promoting the "We Build" and the Small Business Programs. LAUSD has designated Parsons Constructors Inc. (PCI) as the district's PLC.

The PLC also facilitates the settlement of grievances and disputes involving unions, contractors, and the district; this may include mediation, negotiation, and the issuing of interpretations. Grievances cover issues such as wrongful termination, nonpayment of employee benefits to the union fund, and hiring disputes (for example, a contractor's failure to hire one worker from the union after a core employee is brought on). Most disputes are resolved before or during a mediation meeting between the parties and a PCI representative. The mediation meeting is the second stage in the dispute resolution process. The third stage is arbitration.²³

The PSA's monitoring and enforcing procedures primarily target general (prime) contractors. General contractors on construction projects that cost a few million dollars or more must attend a PSA pre-job conference with the assistance of the PLC. General contractors provide a pre-job conference form to the trades council; the form, which is intended to provide a basis for subsequent discussion and collaboration, contains contact information for the subcontractors that will be involved in the project and other relevant details.

The PLC encourages general contractors to discuss the details and requirements of the PSA with their subcontractors and to distribute PSA requirements when the subcontract is signed. Subcontractors can also learn about PSA requirements at the Small Business Boot Camp, and the PLC conducts quarterly seminars to teach contractors how to successfully perform under a PSA or PLA.

Departments within LAUSD monitor contractor and union compliance with the district's resident—local—hiring provisions and the prevailing wage requirements.²⁴ If contractors are not hiring many district residents or "We-Build" graduates, or if unions are not sending district residents to jobsites, LAUSD employees in the "We-Build" program talk to the contractors and unions and encourage them to make greater efforts to increase the number of district residents on the job. The PCI assists with this process.

G. Local Hires on LAUSD Projects

The LAUSD provided data on about 38,000 individual blue-collar construction workers who have been employed on district PLAs since 2004. (Prior to 2004, there was no tracking system because the first PSA did not include a local participation goal.)²⁵ Table 2 shows the percentile distribution of their dates of employment. It took six quarters to go from the 10th to the 50th percentile of all work, and it took another six

quarters to go from the 50th to the 90th percentile. Thus the data reflect a relatively even level of employment over the time period that we analyzed.

TABLE 2. Percentile Distribution of Total Employment of Blue-Collar Workers on LAUSD PLA Projects

PERCENTILE OF TOTAL EMPLOYMENT	EMPLOYED BY
10	27-Sep-04
20	6-Mar-05
30	6-Jul-05
40	31-Oct-05
50	3-Apr-06
60	14-Aug-06
70	25-Dec-06
80	21-May-07
90	1-Oct-07

Source: LAUSD certified payroll dataset, 2008.

H. Stories from the Field: James Woodruff

James Woodruff is a thirty-one-year-old African American. He is a first-year apprentice ironworker at Local 416 in Norwalk. James grew up in a broken family in Southeast Los Angeles. He describes himself as “the black sheep of the family.” Unlike his sister, who went to college, James made a series of bad choices after high school that put him in prison from age nineteen to age twenty-seven.

When he left prison, James could not get a decent job because of his record. Last August, after working for four years on low-paying jobs, he joined the ironworker apprenticeship program. “That day, my life changed one hundred percent,” James says. “I enrolled on Monday and on Wednesday I was making \$18.85 an hour. That was too good to be true.”

For the first time in his life, James—who still lives with the aunt who raised him—has the chance to substantively contribute to household expenses. “Before, I could barely live off of what I was making. Now I can take my girlfriend out for dinner,” James said. “Putting gas in the car isn’t a problem now. In a year or so I might buy a new car.” After relying for thirty-one years on the public health system, he has private insurance for the first time in his life.



James Woodruff, Ironworkers Local 416

Having more financial stability and a career to pursue has radically changed James’s attitude toward the future. Although he had never really thought about having his own family before, he is now considering getting married and having kids in three or four years. Since both James and his girlfriend have good jobs, they are planning to buy a house together.

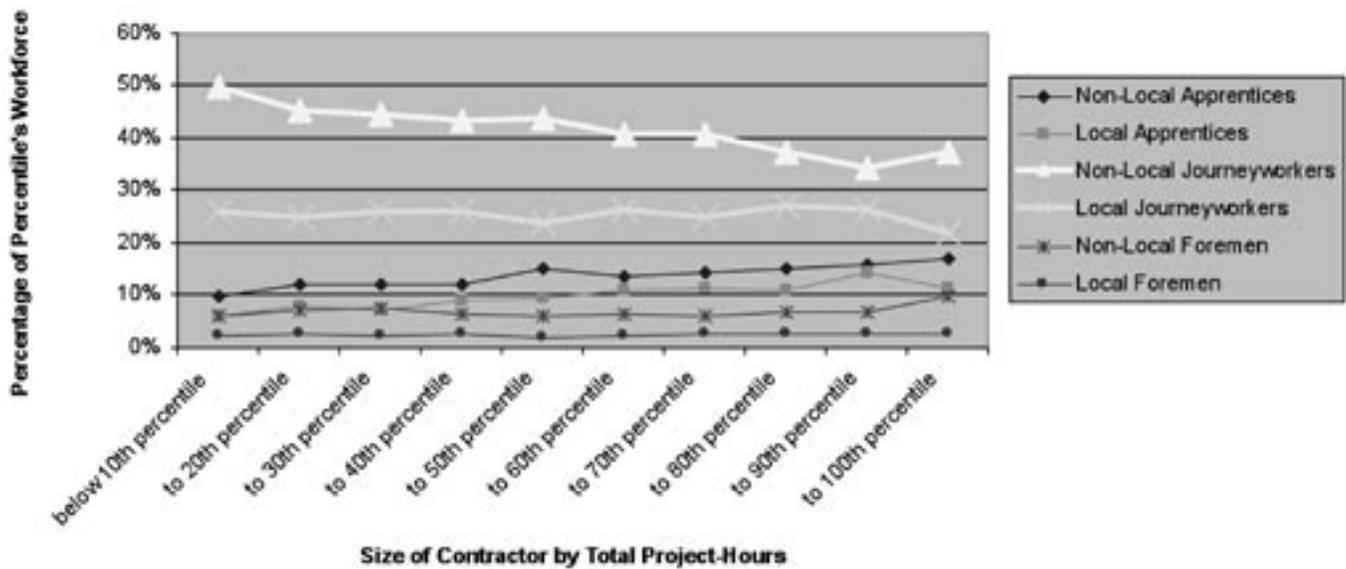
Although “it is a tough job,” James thinks that the iron apprenticeship program is a great chance to learn and really improve his life. “These guys are cool,” said James talking about his workmates. “If you work hard, at Local Union 416 there is no stigma against people with records. They give you a second chance.”

After completing the apprenticeship program, James would like to go back to school and get a Spanish degree. As he advances through the program and his wage improves, he also wants to begin saving money to buy a truck. Having his own business by age forty is now his dream.

I. Size Matters

Figure 3 shows how the employment of local and non-local apprentices, journeymen, and foremen varied with the size of the contractor.²⁶ This information begins to address the question of whether the size of a contracting firm influences its ability or willingness to comply with local hiring goals.

FIGURE 3. Percentage of Contractor’s Total Hours, by Class of Worker and Size of Contractor



Source: LAUSD certified payroll dataset, 2008.

The horizontal axis in Figure 3 shows the array of LAUSD contractors, from the smallest on the left, to the largest, as measured by the number of hours contractors had on individual building projects. The vertical axis shows the average percentage of the total number of hours that each class of worker—local and non-local apprentices, journeymen, and foremen—logged on each project.

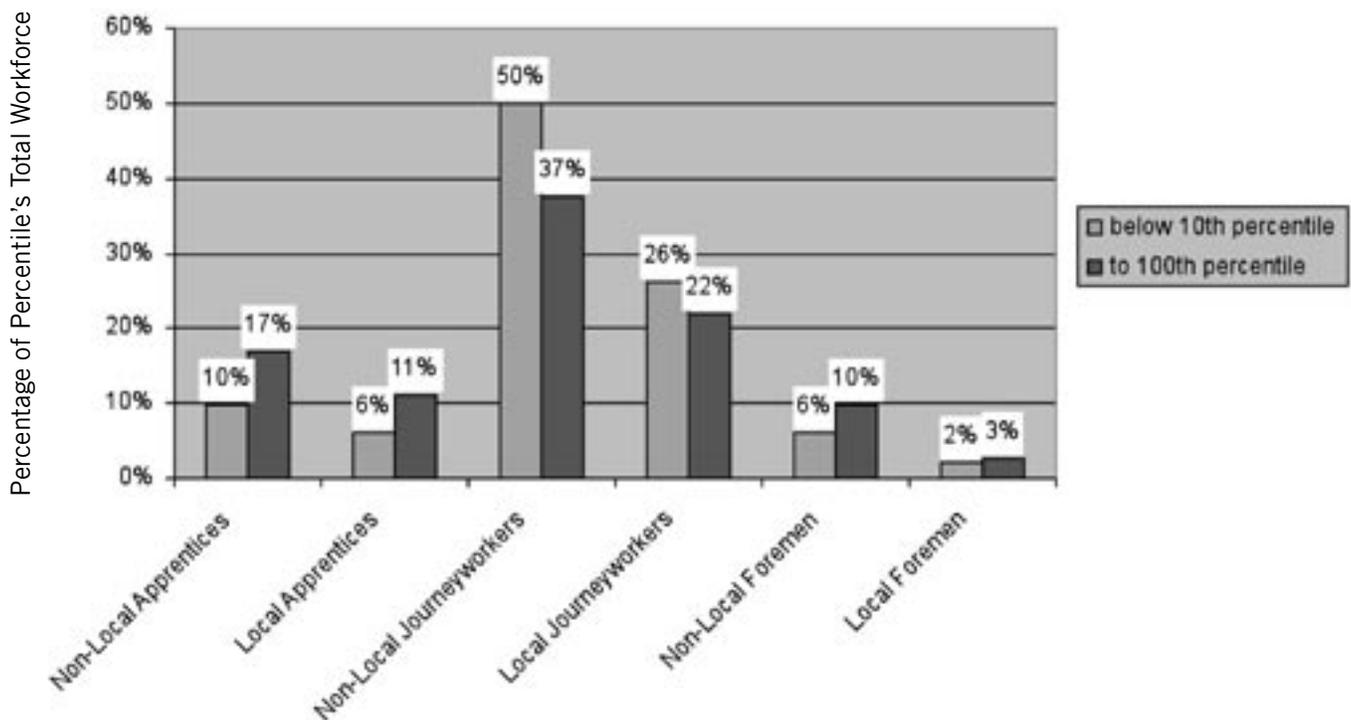
As the figure shows, as contractors increase in size, the average percentage of hours worked by non-local journeymen falls 10 percentage points. In contrast, the percentage for local journeymen remains basically constant, at around 28 percent. The largest contractors are the exception; for these firms the share for local journeymen falls to about 22 percent. So the first visible effect of the PLA’s local hiring provisions is that they preserve local journeyworker hours among larger contractors, while the share going to non-local journeymen is depleted by other types of workers as contractors get larger.

As contractor size increases, non-local journeyworker hours decline and the share of hours going to both non-local and local apprentices rises. Put another way, while smaller contractors tend to use non-local journeyworkers, larger contractors substitute apprentices, particularly local apprentices, for non-local journeyworkers while (for the most part) maintaining the employment share of local journeyworkers. Furthermore, the share of hours going to local apprentices rises faster with increases in contractor size when compared to the increase in the non-local apprentice share of all hours (with, again, the exception of the very largest contractors).

The data in Figure 3 may be viewed from the opposite direction: reading from right to left, it is clear that the contractors having the most difficulty in meeting local hiring goals were the smaller contractors. Although smaller contractors were able to employ roughly the same percentage of local journeyworkers (measured in hours) as larger contractors, smaller contractors had greater difficulty in employing apprentices, particularly local apprentices. Further research is needed to clarify why this is so, but regulators should be aware that smaller contractors and perhaps smaller projects will have greater difficulty in meeting local hiring targets.

Figure 4 compares the distribution of hours by class of worker for the very smallest (below the 10th percentile) and very largest (up to the 100th percentile) contractors. The largest contractors used more apprentices, both non-local (17 percent versus 10 percent) and local (11 percent versus 6 percent). The smallest contractors had approximately the same percentage share of hours going to local workers (34 percent for the smallest, 36 percent for the largest), but they “caught up” by using more local journeyworkers (26 percent versus 22 percent). Recall that Figure 3 shows that the relative use of local journeyworkers dropped from around 28 percent for all other contractors to 22 percent for the largest contractors, while the use of non-local journeyworkers jumped. In our data, the contractors using the highest percentage of local workers—43 percent—were those in the second largest decile falling between the 80th and 90th percentiles.

FIGURE 4. Percentage of Hours for Smallest and Largest Contractors, by Class of Worker



Source: LAUSD certified payroll dataset, 2008

Our basic findings are: 1) smaller contractors have more difficulty in meeting local hiring goals, particularly those for apprentices; 2) larger contractors have been better able than small contractors to meet local hiring goals, but this trend is reversed for the very largest contractors; and 3) the door into the industry for local apprentices opens wider as contractors become larger (although again with some reversal for the very largest contractors).

J. Stories from the Field: Tom Rivera

Borbon, Inc., is a large painting contractor that is reaping the benefits of a spike in construction and contracting opportunities. The firm has worked on a number of projects for the City of Los Angeles and for the LAUSD. Borbon, Inc., is familiar with projects that include community benefit clauses and have local hiring agreements. The company maintains a workforce of approximately 200 workers, 80 of whom are core workers who have been with the company for an average of fifteen years. The majority of Borbon's workforce resides in Los Angeles, so the firm has not had problems complying with local hiring requirements in PLAs.

Tom Rivera, superintendent of Borbon, Inc., is an enthusiastic support of PLAs. "I love the PLA," he says. "PLAs are good for workers and the contractors because they ensure that everyone is playing by the rules."

Borbon, Inc. is willing—determined, in fact—to meet local hiring standards in PLAs. The major obstacle for the company is finding people who want to make painting a career. "At recruitment events, for example, you might have lists of fifty people, and only one will sign up for painting," Rivera says. "The rest may choose to be an electrician or do drywall." Rivera wants to work with local job coordinators to hire qualified employees who are interested in training for a career. "We invest a lot of time and effort into training our workers. To be quite honest, Borbon is a hard place to work. We are very, very demanding and have high expectations."



Tom Rivera of Borbon, Inc.

K. Predicting the Percentage of Local Hires

To predict the percentage of local hires that a contractor will make, we applied a statistical method called a regression analysis to our data. A regression analysis examines the relationship between variables or sets of variables. Table 3 reports the results of this analysis.

TABLE 3. Ordinary Least Squares Linear Regression Model Predicting the Percentage of Local Hires

Constant variable	Unstandardized Coefficients		Standardized Coefficients	t	Sig
	B	Std. Error	Beta		
Number of times contractor was on various LAUSD projects	.350	.006		56.614	.000
Contractor's total hours on this LAUSD project	.001	.000	.095	8.878	.000
Percentage of apprentice hours in contractor's total hours on this project	6.08E-008	.000	.001	.135	.892
Percentage of foreman hours of contractor's total hours on this project	.094	.014	.075	6.923	.000
	-.169	.020	-.089	-8.386	.000

Note: The dependent variable is the contractor's percentage of local hours on each LAUSD project.

Source: LAUSD certified payroll dataset, 2008.

The model uses four independent (causal) variables to predict the share of total hours that will go to local workers (apprentices, journeymen, and foremen combined). These variables are: the number of times the contractor has worked on separate LAUSD PLA projects during the time span of the study;²⁷ the contractor's size, measured by the total hours the contractor spent on the project;²⁸ the contractor's use of apprentices, measured by the percentage of total hours worked by apprentices; and the contractor's use of foremen, measured by the percentage of total hours worked by foremen.²⁹ The numbers in column B represent the estimated effects of each potential independent variable on what we are trying to predict—the percentage of local workers hired.

To understand these estimates, we must look at the variable means, which are shown in Table 4.

TABLE 4. Description of Data in Regression Model

Descriptive Statistics			
	Mean	Std. Deviation	Number of Observations
Contractors percent local on project	0.38	0.34	8911
Number of times contractor on any LAUSD project	39	58	8911
Contractor's total hours on LAUSD project	2134	7916	8911
Percentage of apprentice hours in contractor's total hours on LAUSD project	0.23	0.27	8911
Percentage of foreman hours in contractor's total hours on LAUSD project	0.09	0.18	8911

Source: LAUSD certified payroll dataset, 2008.

The average percentage of local hours—that is, hours worked by local hires—was 38 percent of the total hours worked by an average contractor; in Table 4 the percentage is expressed as a decimal: .38. To predict the percentage of local hours, the calculation starts with a “constant,” or starting point, of 35 percent, or .35. For each instance of an additional project done by the contractor under the LAUSD PLA, .1 percent, or .001, is added. Table 4 shows that on average, a contractor worked on 39 separate LAUSD PLA projects. So, 3.9 percentage points are added to the percentage of local hours.

Most contractors, of course, are not average. Most have fewer than 39 distinct experiences with LAUSD PLAs, and some contractors have many more. A minority of contractors who have been on LAUSD PLAs more than 100 times pull up the average. Nonetheless, the model tells us that experience matters. Contractors learn how to comply with the local hiring goals. With each additional ten projects a contractor is on, one can expect the contractor to hire additional local workers at the rate of 1 percentage point.³⁰

The regression model in Table 3 shows a positive correlation between the size of a contractor and the percentage of local hours on a project. Based on the data in Figure 3, we expected this correlation. In the regression model, however, the correlation is small and statistically insignificant. Nonetheless, we think that size does affect local hours and that limitations in our data and model prevent a stronger result.³¹

LAUSD regulators encourage the employment of apprentices. We expected the percentage of apprentices to affect the percentage of local hires, and it does. An increase of 10 percentage points for apprentices produces an increase in the percentage of local hires of almost 1 percentage point. This result is statistically significant as well as practically significant. As the percentage of apprentices increases, the percentage of local hires goes up.

We also found that the percentage of local hires was linked to the percentage of foremen on the contractor’s crew: the greater the percentage of foremen, the lower the percentage of local hires. This result is strong and statistically significant. On average, 9 percent of the crews among the contractors in our data were foremen. A hypothetical 10 percentage point increase for foremen, from 9 percent to 19 percent, leads to a 1.7 percentage point drop in local hires. We do not know why this is the case. One possibility is that foremen tend not to be local and so may not be inclined to hire local workers. A second possibility is that a high percentage of foremen may imply that the job demands a more specialized set of skills, skills that local workers do not have. Further research is needed to clarify the significance of the foremen effect.

L. Predicting Whether Workers Will Be Local

The first regression model predicted the behavior of the contractor. Now we want to use worker characteristics to predict whether the worker hired will be local. For example, if the worker is African American, is the worker more likely to be a local? Or, if the worker receives a lot of work on the site, is the worker more likely to be local? Because the amount of LAUSD data is so large, we drew a 10 percent random sample—about 3,800 employees—for this analysis.

Table 5 shows that electricians, who account for 28 percent of all workers, comprise the largest trade in our sample. They are followed by laborers (11 percent), carpenters (10 percent), painters (7 percent), and plumbers (6 percent). Relative to the construction industry as a whole, these percentages are typical, with the exception of electricians: 28 percent is unusually high for building construction. This may reflect some of the characteristics of the repair and renovation projects that are included in our data.

TABLE 5. Percentage of Various Trades on LAUSD Construction Projects

Trade	Percentage of sample
Electrician	28%
Laborer	12%
Carpenter	10%
Painter	7%
Plumber	6%
Sheet metal worker (hvac)	4%
Roofer	4%
Drywall installer/lather	4%
Iron worker	4%
Asbestos and lead abatement (laborer)	3%
Trade exempt	2%
Asbestos abatement laborer	2%
Cement mason	2%
Operating engineer	2%
Carpet/linoleum	1%
Glazier	1%
Drywall finisher	1%
Plasterer	1%
Building/construction inspector	1%
Tile layer	1%
Asbestos heat and frost insulators	1%

Source: LAUSD certified payroll dataset, 2008.

Note: A 10 percent random sample of the LAUSD data was used for this analysis.

Table 6 shows the demographic characteristics of the 10 percent random sample of the LAUSD data. Most of these workers—60 percent—were Hispanic, and most—64 percent—were married. More than a third were local—that is, they resided in an LAUSD zip code.³²

TABLE 6. Demographic Characteristics of Workers on One LAUSD Construction Project

Characteristic	Percentage of sample
Hispanic	60%
White	26%
Declined to state	5%
Afro-American/Black	4%
Asian/Pacific Islander	3%
Other	2%
Native American	0.3%
Apprentice	26%
Journeyworker	63%
Foreman	11%
Married	64%
Single	36%
Male	99%
LA resident	38%

Source: LAUSD Certified Payroll dataset, 2008

Note: A 10 percent random sample of the LAUSD data was used for this analysis.

To predict whether a worker is local, we used two logistic regression analyses.³³ Results of these analyses are shown in Table 7. The first regression looked across all trades, while the second regression looked within each trade.³⁴ Odds ratios are used to express estimated effects; they tell us whether being local is more likely or less likely, based on each independent variable. Odds ratios are always “compared-to-whom” estimates. For example, males are likely to be local compared to females; married workers are likely to be compared to single workers.

For example, Table 7 shows that, compared to a female worker, a male worker was 1.355 times more likely to be local when we looked across all trades, and 1.416 times more likely to be local when we looked within each trade. The three asterisks after each of the two estimated odds ratios indicate that the ratio is statistically significant, with less than a 1 percent chance that the finding is wrong.

To determine odds ratios for a worker’s race/ethnicity, all workers were compared to African Americans. In all cases except “Other” in the first model, the estimated odds ratios are less than one. This means that, when compared to African Americans, a worker in any of the listed racial/ethnic groups (except “Other”) is less likely to be local. Thus, whites are about 37 percent less likely than African Americans to be local. Although there are fewer African Americans in the sample overall, they are the most likely to be local workers.

TABLE 7. Logistic Regression Predicting Whether a Worker Is Local

Variable	Model	
	Across all trades	Within each trade
	Odds Ratio	Odds Ratio
asian/pacific islander	0.890**	0.805***
declined to state	0.447***	0.552***
hispanic	0.721***	0.777***
native american	0.364***	0.429***
other	1.149**	0.983
white	0.369***	0.392***
male	1.355***	1.416***
married	1.117***	1.065***
journeworker	0.909***	0.917***
foreman	0.506***	0.506***
total hours worked per week (weighted by overtime)	1.002***	1.001**
total hours worked on project (weighted by overtime) (divided by 1000)	0.997***	0.998***
fast-track project (ratio of overtime to straight-time hours)	0.821***	0.902***
when work occurred	1.000	1.000

Source: LAUSD certified payroll dataset, 2008

Note: This analysis uses African Americans as the base population.

***Statistically significant, with a 1 percent chance of being wrong. **Statistically significant, with a 5 percent chance of being wrong. No asterisks indicate that the finding is not statistically significant.

Table 7 shows that the more hours a worker logs per week, the more likely it is that the worker is local; the more hours the worker logs overall on the project, the less likely it is that the worker is local. This finding suggests that workers who live close to the job site are more likely to move to another, non-PLA project, while workers who live farther away tend to stay on the project. Interestingly, if the project is fast-tracked (measured by the ratio of overtime work to straight-time work), the worker is less likely to be local. This suggests that the

local hiring goals of the PLA are balanced against other economic and construction needs: local hiring may be more difficult when the project is a hurry-up affair.

The last variable in Table 7 is “When work occurred.” Here the odds ratio indicates that it is neither more nor less likely that the worker will be local as time goes on. This means that within our data set, local hiring has been fairly stable over time. Earlier results indicate that individual contractors learn with experience and improve their local hiring, but we do not see an aggregate trend in the data. Data for the analysis were drawn between 2004 and 2007, when the construction economy was booming. The results for local hiring may be affected by the fact that the business cycle did not change dramatically during the time in which we collected our data.

The purpose of testing two logistic regression models is to determine whether general patterns across trades differ substantially from those within trades. The answer appears to be “no”: the results for each variable are substantially the same.

M. Stories from the Field: Jesus Fernandez

Jesus Fernandez has more than twenty years of experience in the painting industry, including his current position as apprenticeship coordinator for the International Union of Painters and Allied Trades (IUPAT), District Council 36. Fernandez is firmly in favor of PLAs: “PLAs give apprenticeships the opportunity to recruit people from the community and put them in a career.” There are seven stages in a painting apprenticeship. Retention of first-stage apprentices who are in school is roughly 50 percent. Retention rises to 75 percent for seventh-stage apprentices. Fernandez believes that this rise in the retention rate is directly tied to the fact that apprentices who are near the end of their training begin to realize the possibility of a career. “We’ve been able to recruit, train, and keep more people from the local community because jobs are there to be filled. This is an avenue to learn a trade and become something more.”



Jesus Fernandez, IUPAT, District Council 36

Fernandez received his training in a local work source program. “If it wasn’t for the chance I got through a work source center, I wouldn’t be here. Work source programs do work.” He notes that the growth of PLAs offer more opportunities for local hires to move to another job: “If you don’t have a PLA in place, contractors will bring in anybody off the street, then after the job is done they’re gone. PLAs don’t bring in people once, but sustain job opportunities.”

Jesus Fernandez has no doubt about the worth of the workers who complete the IUPAT’s apprenticeship program. “It’s a gateway to a career,” he points out. “They’re being trained for a future.”

N. How LAUSD Projects Fared

From our analyses of the LAUSD data we have learned that large contractors are more likely to do better regarding local hiring goals. Although more local journeyworkers than local apprentices are hired for LAUSD projects, the percentage of local apprentices in relation to all apprentices is greater than the percentage of local journeyworkers in relation to all journeyworkers. A journeyworker or foreman is less likely to be local than an apprentice is.

We have also learned that contractors improve their local hiring as they gain additional experience on LAUSD PLAs and that contractors on fast-tracked projects have greater difficulty attaining local hiring goals.

Table 8 provides summary data from our 10 percent random sample. Among local workers, apprentices and journeyworkers constitute a higher percentage of all local workers when compared to non-local apprentices and journeyworkers as a percentage of all non-local workers. The reason is that a higher percentage of non-local workers are foremen. Nevertheless, local apprentices constitute a higher share of all apprentices when compared to local journeyworkers as a share of all journeyworkers. And local foremen have the lowest share of their group when compared to the other two occupational categories.

TABLE 8. Percentage of Local and Non-Local Workers, by Occupation

	Non-local	Local	
Apprentice	25%	29%	
Journeyworker	61%	65%	
Foreman	13%	7%	
Total	100%	100%	
Occupation Group			
	Non-local	Local	Total
Apprentice	59%	41%	100%
Journeyworker	61%	39%	100%
Foreman	77%	23%	100%

Source: LAUSD certified payroll dataset, 2008.

Note: A 10 percent random sample of the LAUSD data was used for this analysis.

In general, contractors hire more journeyworkers than apprentices or foremen. Contractors also hire more non-locals than locals. Despite these general trends, we find that under the PLA's local hiring goal, contractors hire disproportionately more apprentices. And they disproportionately hire *local* apprentices. This suggests that PLA local hiring goals do encourage the hiring of *new* local workers.

IV. FRONTIER WOMEN—BREAKING BOUNDARIES

A. Amy Denissen, Assistant Professor of Sociology, California State Northridge

“In a time of increasing financial responsibilities and decreasing opportunities for women without a college education, access to the highly paid construction trades is an important concern. Yet, despite federal regulations that encourage the hiring of women and political changes won by the women's movement, women's representation in the building trades has declined from 7 percent in the 1980s to 2.4 percent at

the beginning of the twenty-first century. Today in Los Angeles, women account for just 1.5 percent of construction apprentices. The potential of effective local hiring strategies that focus on women in project labor agreements can have a major impact in turning this trend around.”

B. Stories from the Field: Kim Bruckner

“I started with the Ironworkers in November 2005. Before that I was a Human Resource Manager. Before that I was a nanny, waitress, nutritionist...nothing very physical. One day I looked around at the office workers around me, and I noticed how they stared lifelessly into their computer screens. This was not my style. I thought to myself, ‘It’s now or never!’ and I decided to pursue the construction industry. I had no idea at the time what an ironworker even was. I researched all of the union trades and stumbled across the Ironworkers website. I saw a picture of a group of ironworkers sitting on the beam high up in the sky with a huge American flag waving beside them. They looked so proud. They looked free. I knew in that moment that I would become a union ironworker.

“No one really supported me when I announced my plans. They didn’t think I’d be able to handle it. Let’s face it—I am a 5-foot, 5-inch, 125-pound female. They didn’t think I’d survive. But I had the heart and I knew it.

“It took eight months until I had met an ironworker who led me to the employer that would sponsor me. I am two and a half years into my apprenticeship with Los Angeles Ironworkers 433, and I am very happy with my choice. I dig working hard under the sun and have so much respect for myself as well as my brother and sister Ironworkers for what we do. I make good money, along with benefits and a retirement. Most of all, I take pride in my work, I share a camaraderie with my fellow Ironworkers, and I have the freedom of being myself on the job. These are the things which are priceless.”

C. Stories from the Field: Mary Michels

“It was January 1980. My marriage was ending, and I knew I would soon be on my own with two boys to raise. I was working at a furniture store as accountant clerk, making a little above minimum wage. I was looking forward to the day I would be making \$5.00 an hour.

“One day my dad called and asked me if I’d like to become a welder. He could get me a job making decent money. I said yes and he took me to the Pacoima skill center and introduced me to Rusty, the welding teacher.

“In the early ’80s they had a program that would pay you \$100.00 a week to go to school. It was called the CETA program. Without that I would never have been able to go to school. Because I quit my job I was not eligible for unemployment. I was eligible for the program because my income was low and I was considered a displaced housewife. That \$100.00 made all the difference

“Welding school was interesting. Work was really good and the Ironworkers couldn’t get enough welders. The majority of the students had family in the trade and knew once they were certified they would have a job. A lot of the students went to work at Budweiser in Van Nuys. They encouraged me to get a job there. They said that they had a lot of little guys. ‘If they can do it, so can you.’

“When my certification came through my life was forever changed. I went down to the union hall and said I wanted to work at Budweiser. I was there for a year and a half. I loved it there—when I was doing something someone would come over and show me the correct way to do it. I had a lot of teachers. I was treated very well.



Mary Michels, Ironworkers Local 433, retired

“After that I joined the apprentice program. It was two nights a week for three years. One of the good things about being an apprentice was that you made contacts, and we were allowed to hustle jobs. I always preferred to hustle my own jobs than go through the union hall, because if I did, the boss would know who he was getting.

“I feel I was so lucky to get into the Ironworkers. I can still feel that excitement of going to a job. I loved welding. I was treated very well over the years. I think the guys maybe thought of me as their sister, their mother, I am not sure.

“Making the kind of money I did as a union worker allowed me to finish raising my boys. I was able to put food on the table, buy them nice clothes for school, own and maintain my own home. It’s amazing that I could make that kind of money and love the work, too.

“It’s been three years since I retired. The first year of retirement I went to school to learn how to use a computer. I was surprised at how many women in their sixties were going back to school because they couldn’t make it on their social security income. It was heartbreaking. Because I made men’s money I am getting a nice social security check. I also get a pension and an annuity. I’ll be comfortable in my retirement years.

“I keep busy with all my different projects. I still like getting up early in the morning. When I drive past a building going up I do feel sad that I am not on it. A part of me would really love to go back. That welding is just waiting for me. I know it is.”

D. Stories from the Field: Jann Whetstone-Brooks

Jann Whetstone-Brooks is an outreach coordinator with the State Building & Construction Trades Council of California. Her job is to go to high schools and community-based organizations to talk to students and adults about careers in the trades. The job is particularly satisfying to Jann because of the hard road that led to where she is today.

Jann went to Venice High School and was a poor student. She didn’t like school, she got bad grades, she ditched classes, and then she became pregnant when she was seventeen. She stayed in school but began working at Bob’s Big Boy in Culver City. Finally it was too much, and she left high school without a diploma.

She gave birth to her daughter, then decided to study child development at West Los Angeles College. She found she didn’t like being confined to a classroom. She was bored, so she dropped out.

Jann describes this period in her life as an all-time low. She was working temp jobs and was on welfare. She was floundering.

Jann’s older brother was a program manager for Youthbuild, and Jann decided to enroll, just so that she could fix things around her house. She never thought it would lead to a career. At Youthbuild she participated in Habitat for Humanity, fixing up houses. She learned about apprenticeship programs in which she could earn \$30.00 an hour if she specialized in a trade.

“I was on welfare getting \$456.00 per month. That’s \$9,600 per year. I couldn’t afford anything for me and my baby. I started asking, ‘where are those \$30-an-hour jobs?’”

Jann enrolled in JobLinks, an apprenticeship preparation program. She was number one in the Youthbuild group. Occasionally the class would go on apprenticeship field trips, and one day they went to a career day sponsored by Electric Women. “I saw women climbing ladders, bending pipe, and pulling wire. There were older women, tiny women. I thought, ‘I can do that!’”

Jann applied for an Electricians, IBEW 11, apprenticeship in October and went back to Youthbuild. In July, she went for an orientation with IBEW 11. She told them that her hobbies were jet skiing and rollerblading. The people leading the orientation were enthusiastic. They were looking for athletic women.

On July 10, 1997, Jann quit her temp job and on July 23, she was hired for her first job as an apprentice. She had “no tools and no money.” She went back to Youthbuild, and the director of the apprenticeship program gave her the money to buy tools and told her to pay him back later.

The first day on the job, in Beverly Hills, Jann showed up with her “shiny brand new tools” and mistakenly wore two tool pouches instead of a tool pouch and screw bag.

“The guys I worked with were really nice to me and called me Super Chick. It was a joke, but it stuck.”

Jann experienced some discrimination as a woman in the trades. Instead of showing her how to bend pipe, a foreman told her to just sweep the floor. So Jann took the initiative and enrolled in a pipe-bending class through the apprenticeship program, even though that is usually something people learn on the job.

Jann got injured on the job in 2004. “That was the last time I worked with my tools.” It was hard to find light duty work, so Jann went back to working temp jobs. Then she learned about her current job with the State Building & Construction Trades Council of California—doing outreach in schools and the community.

“I am glad for the opportunity I’ve had to work in the trades. It changed my life and my family’s life forever. It also gives me an opportunity to share my experiences and encourage others.”



Jann Whetstone-Brooks, State Building & Construction Trades Council of California

V. CITY OF LOS ANGELES PLA

A. History

On February 2, 1998, the Los Angeles City Council awarded \$218 million for the renovation and reconstruction of City Hall to repair damage caused by the 1994 Northridge earthquake. Councilmember Rita Walters requested that the Bureau of Contract Administration conduct an audit of local worker hours after she was approached by constituents who were upset by the lack of local workers on the project. The investigation revealed that less than 2 percent of the total worker hours were performed by local residents.

Manny Perez, Labor Compliance Officer with the Bureau of Contract Administration, recalls, “I remember five African American young men sitting on a curb in front of a library in South Los Angeles that was being renovated. They had boots and hardhats and were ready to work. But the employer—who had a contract with the city—said, ‘I have no need for your help. I have my own crew.’ He would not open doors, even in those young men’s own neighborhood. It was determined that even if local residents were hired, it would just be ‘tokenism’ on a project because there was no plan for retention or a career path.”³⁵

As a result, the City of Los Angeles and the Los Angeles Orange County Building Trades Council began negotiating PLAs with local hiring provisions. These agreements are the basis on which the city can monitor and assess the number of local residents working on its projects.

This study surveys five PLA projects undertaken by the City of Los Angeles. They are part of a citywide program of public safety construction and renovation projects. With the exception of the new police administration building, all were approved by voters in bond measures that included time restrictions for completion.

In 2000, voters approved Proposition F, which included funds for the construction of fire stations, including Fire Station 64. The bond required the fire facilities to be built within six and one-half years from the time of the bond's approval. In 2002, Proposition Q provided funds for the renovation and construction of police stations and other public safety facilities, including Harbor Station, Hollenbeck Station, and Metro Detention Center. The bond required the facilities to be built within seven years of the time of approval. In 2003, the Los Angeles City Council approved the construction of a new police headquarters facility.

As of December 2007 the estimated costs of these buildings were:

New Police Administration Building, \$230 million

Metro Detention Center, \$74 million

Harbor Replacement Police Station, \$35 million

Hollenbeck Police Station, \$31 million

Fire Station 64, \$12 million

B. Goals, Not Requirements

Local hiring provisions in the current city PLAs are goals, not requirements. The goals for each of the five PLAs are 30 percent local hires, 20 percent apprentices, and 10 percent disadvantaged workers. The fulfillment of these categories may overlap. That is, apprentices may also be local hires, or disadvantaged workers may also be apprentices.

According to the BCA, under the PLAs the definition of "local" is residency in one of the zip codes within the city of Los Angeles. A worker is considered "at risk" or "disadvantaged" if he or she has a household income below 50 percent of the local median, is homeless, is a welfare recipient, has a prior conviction, is unemployed, or is a single parent. Data on at-risk and disadvantaged workers were not available.³⁶

C. Stories from the Field: Gus Martinez



Gus Martinez, IBEW

In December 2000 Gus Martinez was an usher in the luxury seating area of the Staples Center. In a good year, he made \$9,000. He also had a second job at the Kodak Theater. He remembers watching the people going to their luxury booths at the Staples Center and wondering what they did for a living. On one occasion about a year ago, he asked two men about their work. The two men were Rick Jarvis and Dain Perry from Morrow Meadows Corporation, a large-scale electrical contracting company. Jarvis and Perry told Martinez that they were working on the L.A. Live Project, just across the street from the Staples Center.

Jarvis explained the process of becoming a qualified electrician to Martinez, and he mentioned the apprenticeship program at the Electrical Training Institute, a training center

run by the International Brotherhood of Electrical Workers. The minimum requirements for the program included a basic knowledge of algebra. Martinez did not have the necessary proficiency in algebra, so he enrolled in a course at L.A. Community College. As soon as he passed his math course he applied to the electrical apprenticeship program. He didn't pass the entrance exam, but that did not deter him. He continued to study, and passed the test on his second try. After he passed the exam, he had a final interview with the union apprenticeship coordinators. "There was no way I was going to leave that interview without convincing them to hire me," he recalls. Three weeks later, Martinez was accepted into the program.

Martinez is in his eighth period as a local-hire electrical apprentice working for Morrow Meadows Corporation on the L.A. Live project, right across the street from his old job. "On my first days of working I was so nervous. I didn't want to mess up," he said. One of the hardest parts of the job is the early hours. "It was a big adjustment getting up early. I was so used to working in the evening." Martinez notes that with the apprenticeship his future "is much brighter."

Electrical apprentices start at \$13.90 an hour and are given a 5 percent raise every time they pass a semester of the program, along with annual collective bargaining raises. Apprentices also receive health and pension benefits. As a journeyman electrician, Martinez will make \$34.75 an hour in addition to benefits. "My only regret is that I wish I would have done it sooner. I watched those guys walk by for eight years. I'm glad I asked when I did."

D. Keeping Track of Compliance

An oversight committee meets monthly to discuss contractor compliance. If a contractor is found to be noncompliant, the City of Los Angeles may take several enforcement measures.

If payroll inconsistencies are suspected, the city requests the contractor's payroll records. The city may charge the contractor \$25 per day, per worker, for nonsubmittal of information. If the contractor fails to use apprentices, the city uses a Division of Apprentice Standards (DAS) form, which lays the groundwork for de-barring the contractor for up to three years.

If noncompliance is persistent, the city may make a recommendation to declare a contractor "nonresponsive." This nonresponsive declaration may last for up to five years. This has a significant impact on the contractor's reputation and prospects for future contracting work. The city can also deny certification if contractors breach their agreement. Contractors are occasionally removed from a project.

A notice of noncompliance can be issued if a contractor fails to submit documentation for local hiring goals. If not resolved, this will be taken into consideration when the contractor submits a request to reduce his or her contract retention percentage from 10 to 5.

E. Impact of the City's Hiring Goals

What has been the effect of the Los Angeles PLA on the local hiring and apprenticeship hiring goals for covered projects? To answer this question, we exploit the fact that one of the study's PLA projects was begun before the city adopted and implemented the agreement. The general contractor questioned whether the PLA's local hiring goals applied to this project. Indirect evidence suggests that many of the contractors on this project—particularly the subcontractors—did not attempt to follow the hiring guidelines. Assuming this to be the case, we treat this project as if it were not a PLA project, which allows us to use it as a benchmark for measuring the effects of the PLA on the other four projects.

In our analysis we parse the data down to local journeyworkers, local apprentices, non-local journeyworkers,

and non-local apprentices in order to focus, in part, on local apprentices—a group of local workers who enter the building trades through formal training in an apprenticeship program. Other new local workers might come into the industry without apprenticeship training, as laborers or in sub-journeyworker categories such as material handler. New local apprentices are of particular interest because they receive formal training that can lead to the development of enhanced skills.

F. Stories from the Field: Bob Henley

“I am a pipe fitter with UA Local 250.

“As a teenager, I started getting in trouble with the law. I even went to jail a few times. The last time I went in was for three years. I can honestly say that if I had a better environment and a good job, I wouldn’t have been in trouble so much. I just didn’t have an incentive to do good when all I could get was a job paying minimum wage. It’s embarrassing when you can’t provide for your family because your wages are so little. That just makes you frustrated.

“After being in trouble so much, my dad suggested that I turn my life around and join an apprenticeship program. So I did. Because the money and the benefits were good, I didn’t want to mess up anymore. I wanted to be sure that I kept my job.

“Now I make over \$27 an hour. With overtime, last week my paycheck was \$2,700. That gave me an incentive to not sell drugs. It gives me the incentive to do good in life. To take care of my kids and be proud that I can take them to the doctor when they get sick or give them gas money. It gives me the incentive to save up and buy a home instead of slinging drugs in an old vacant house. That’s what a good middle-class job does. It gives you pride to know you too can contribute to make your life, and those that you love, better.”



Bob Henley, UA Local 250

G. Five City Projects

Table 9 shows the hours of work completed by blue-collar construction workers on five Los Angeles city projects begun after August 2005. Our data end in December 2007, when the projects were winding down but not completed.

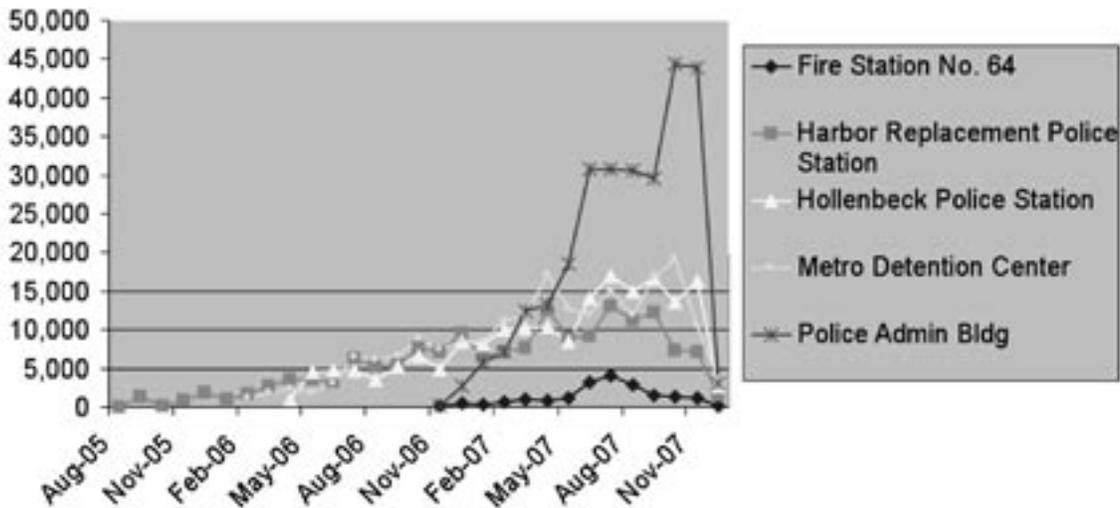
TABLE 9. Hours of Work Completed by Blue-Collar Construction Workers on Five PLA Projects

Table 8: Hours of Work by Month for Blue Collar Construction Workers on Five PLA Projects					
	Hours by Project and Month				
	Fire Station No. 64	Harbor Replacement Police Station	Hollenbeck Police Station	Metro Detention Center	Police Admin Bldg
Aug-05		51			
Sep-05		1,278			
Oct-05		131			
Nov-05		803			
Dec-05		1,816			
Jan-06		1,078			
Feb-06		1,740		1,204	
Mar-06		2,639		1,840	
Apr-06		3,566	1,077	2,414	
May-06		3,629	4,632	1,873	
Jun-06		3,302	4,786	3,029	
Jul-06		6,306	4,784	6,407	
Aug-06		5,202	3,579	6,077	
Sep-06		5,470	5,344	6,709	
Oct-06		7,736	6,568	8,874	
Nov-06	133	7,059	4,955	7,528	227
Dec-06	433	9,443	8,512	8,473	2,801
Jan-07	302	6,458	8,236	8,421	5,836
Feb-07	659	7,109	10,036	11,295	7,090
Mar-07	1,100	7,728	10,155	11,850	12,423
Apr-07	872	12,578	10,360	17,237	13,247
May-07	1,207	8,997	8,468	12,807	18,607
Jun-07	3,151	9,146	14,138	11,860	30,736
Jul-07	4,041	13,088	16,923	15,178	30,811
Aug-07	2,933	11,275	14,989	11,978	30,593
Sep-07	1,568	12,204	16,717	16,659	29,654
Oct-07	1,303	7,372	13,575	19,277	44,377
Nov-07	1,226	7,129	16,273	10,575	43,932
Dec-07	176	1,591	2,797	3,593	3,097

Source: City of Los Angeles certified payroll dataset, 2008.

Figure 5 graphically presents the data listed in Table 9, allowing us to see the variation in size and length of these projects. For instance, Fire Station 64 and the Police Administration Building were the two newest projects; the Police Administration Building was the largest. The promulgation of the PLA local hiring provisions came after the Harbor Replacement Police Station broke ground, but before acceptance of the Metro Detention Center bid was announced.³⁷ Thus, in our analysis, the Harbor Replacement Police Station is the benchmark project against which we compare the performance of the other four projects.

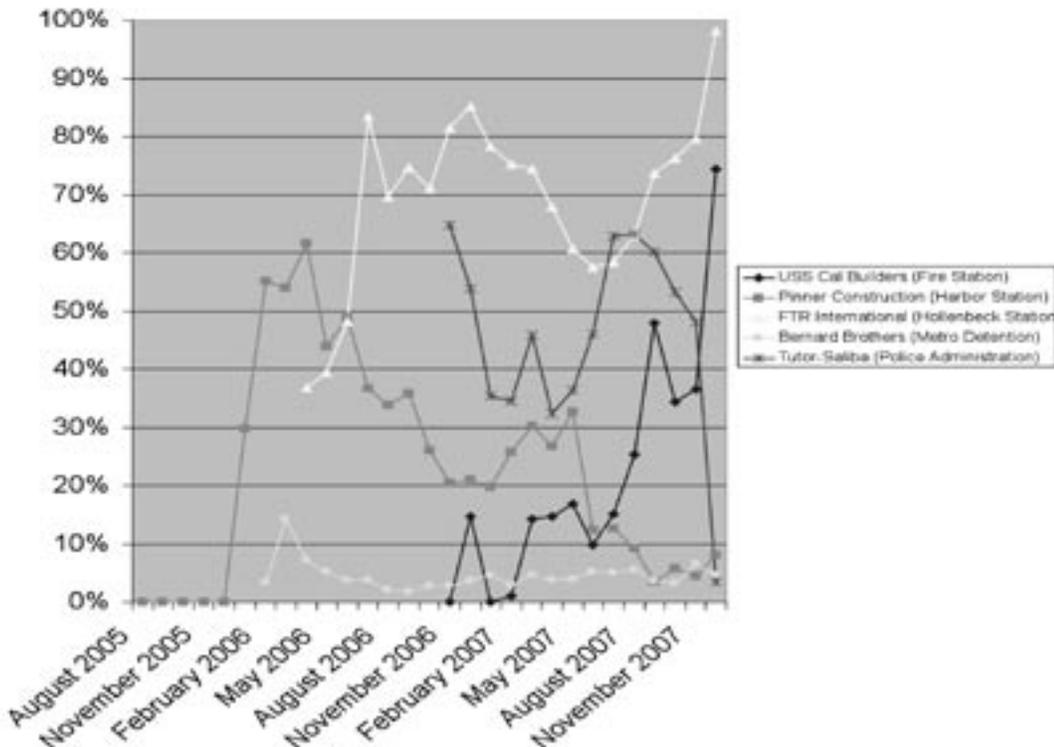
FIGURE 5. Hours of Work for Blue-Collar Workers on Five Projects, by Month



Source: City of Los Angeles certified payroll dataset, 2008.

Each of the five projects was organized by a general contractor. All projects employed contractors other than the general contractor. The general contractor and other contractors, in turn, hired subcontractors. Figure 6 shows that although some general contractors performed much of the project work themselves, others relied on subcontractors. FTR International, general contractor for the Hollenbeck Police Station, self-performed about 70 percent of the work on this project; in sharp contrast, Bernard Brothers, general contractor for the Metro Detention Center, subbed out more than 90 percent. The number of subcontractors can affect local hiring outcomes because each subcontractor has hiring responsibilities.

FIGURE 6. Percentage of Hours Completed by General Contractors, by Month



Source: City of Los Angeles certified payroll dataset, 2008.

Table 10 shows the number and percentage of blue-collar construction workers that were employed by general contractors and subcontractors on each project. The differences are dramatic: the general contractor for the Hollenbeck Police Station employed one-third of all the workers on the project, whereas the general contractor for the Metro Detention Center employed only 3 percent of all the project’s workers.

TABLE 10. Number and Percentage of Blue-Collar Construction Workers Hired by General Contractors and Subcontractors, by Project

Project	Number of Workers on Project			
	Subcontractor		General Contractor	
	Row %	Count	Row %	Count
Fire Station No. 64	93%	193	7%	15
Harbor Replacement	92%	797	8%	70
Hollenbeck Police Station	66%	496	34%	250
Metro Detention Center	97%	919	3%	29
Police Admin Bldg	70%	1005	30%	439

Source: City of Los Angeles certified payroll dataset, 2008.

Table 11 shows that, on average, the blue-collar workers hired by general contractors worked longer on each project than did the blue-collar workers hired by subcontractors. This makes sense because the general contractor typically is on the project as long or longer than any of the subcontractors. In most cases, the total project hours per capita were substantially higher—two to four times—for workers employed by the general contractor. Table 10 shows that the Metro Detention Center general contractor hired only 15 workers, or 3 percent of the total, and Table 11 shows that these 15 workers logged only 4 percent of the project’s work hours. In contrast, the general contractor for the Hollenbeck Police Station hired 250 workers, or 34 percent of all workers, and these workers accounted for 70 percent of the hours.

TABLE 11. Percentage of Total Hours and Mean per Capita Hours for General Contractors and Subcontractors, by Project

Project	Hours on Project			
	Subcontractor		General Contractor	
	Row Sum of Total Hours%	Mean Per Capita Total Hours	Row Sum of Total Hours%	Mean Per Capita Total Hours
Fire Station No. 64	79%	78	21%	269
Harbor Replacement	78%	162	22%	521
Hollenbeck Police Station	30%	114	70%	522
Metro Detention Center	96%	214	4%	290
Police Admin Bldg	49%	134	51%	315

Source: City of Los Angeles certified payroll dataset, 2008.

This variation is relevant because the general contractor signs the PLA and may feel more responsibility in implementing the PLA’s local hiring provisions. Put another way, more subcontractors equals less local hiring. The general contractor has overall responsibility for the project and a direct relationship with the owner, who sets the local hiring goals. As shown here, in some cases the general contractor has considerable direct control over hiring decisions because the firm is doing much of the work through self-performance rather

than subcontracting. One might expect better compliance with PLA local hiring provisions in these cases.

Table 12 shows the largest contractors on each project, based on the number of workers each contractor employed. Three contractors accounted for 50 percent or more of the workers on these projects. In the case of Fire Station 64, the smallest project, the three largest contractors did not include the general contractor. On the remaining two projects—the Harbor Replacement Police Station (our benchmark) and the Metro Detention Center—employment was spread across more contractors. This may confound to some extent our use of the Harbor Replacement Police Station as a benchmark if all projects with many subcontractors have greater difficulty in implementing local hiring provisions when compared to projects with fewer subcontractors. Comparing the Harbor Replacement Police Station to the Metro Detention Center will help determine the extent to which this may be a problem.

TABLE 12. Contractors That Account for About 50 Percent of All Workers

Contractor	Number of Workers	Cumulative Percentage of Workers
Fire Station 64 (18 subs)		
Kretschmar & Smith, Inc.	39	19
Century Reinforcing, Inc.	38	37
Rock Hard Concrete Co.	32	52
Total	208	
Harbor Police Station (45 subs)		
Standard Drywall Inc.	136	16
Pinner Construction, Inc.	70	24
Upland Contracting, Inc.	55	30
Bledsoe Masonry, Inc.	54	36
Miller Environmental, Inc.	48	42
Anderson Charnesky Structural Steel.	37	46
Neubauer Electric Inc.	35	50
Total	867	
Hollenbeck Police Station (26 subs)		
FTR INTL.	250	34
Surface Trend Inc.	67	42
Paramount Scaffold, Inc.	66	51
Total	746	
Metro Detention Center (40 subs)		
R.J. Daum	222	23
Sure Forming, Inc.	84	32
Comet Electric Inc.	61	39
Fontana Steel	57	45
Reyes Masonry Construction	57	51
Total	948	
Police Administration Building (19 subs)		
Tutor Saliba Corporation	439	30
Century Reinforcing, Inc.	203	44
Manuel D. Tejada Trucking	124	53
Total	1444	

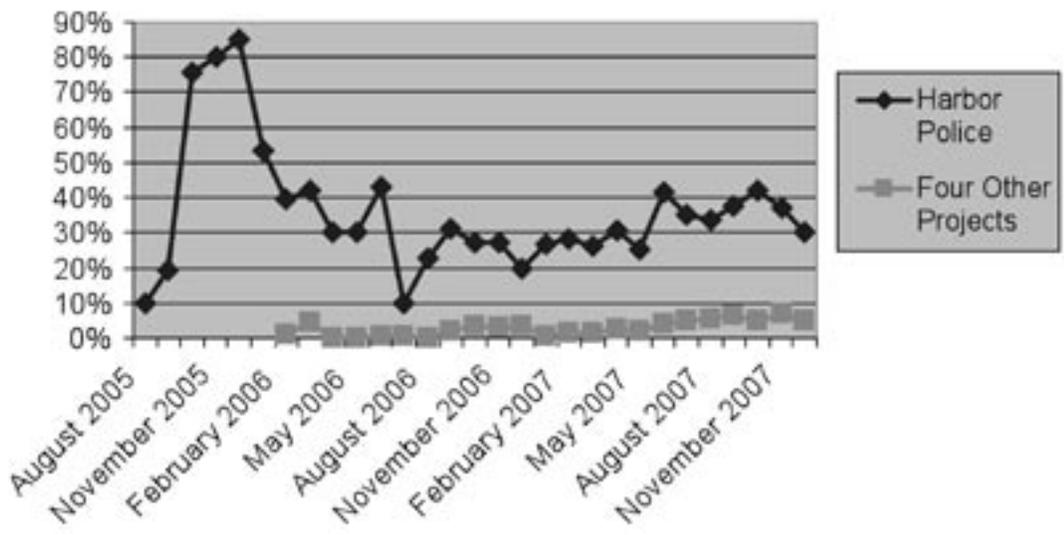
Source: City of Los Angeles certified payroll dataset, 2008.

Table 12 also shows the total number of workers employed on each project and the total number of subcontractors on each project. The direct responsibility for meeting the PLA’s local hiring provisions varied considerably. Some projects had more subcontractors, and some projects had workers concentrated among a few contractors (not necessarily the general contractor). The amount of self-performed and subcontracted work also varied. We want to know whether the diffusion or concentration of hiring authority influenced compliance with the local hiring and apprenticeship provisions of the PLA; this will be examined below.

Of crucial importance for our analysis, of course, is the fact that the Harbor Replacement Police Station was begun sixteen months before the Harbor Replacement PLA was adopted. One measure of a contractor’s compliance with the provisions of the PLA is the extent to which contractors reported the race/ethnicity of their workers to the city. The PLA did not set any goals regarding race/ethnicity, so underreporting workers’ ethnic status was neither an advantage to contractors nor an evasion of local hiring provisions. The failure to report these data may reflect either an unawareness of the PLA or a general lack of compliance with the PLA. Thus, a comparison of racial/ethnic reporting on the Harbor Replacement Police Station project with the other four projects avoids circular reasoning—that is, we cannot simply identify a project as not complying whenever it fails to meet the PLA’s hiring goals.

Figure 7 shows that initially the racial/ethnic categorization of blue-collar workers on the Harbor Replacement Police Station was not closely recorded. As it became apparent that the city was requiring its contractors to make local hires, reporting improved. Nevertheless, the record of worker race/ethnicity for the Harbor Replacement Police Station is substantially less complete than it is on the other projects, across all time periods.

FIGURE 7. Percentage of Workers Whose Race/Ethnicity Is Recorded as Unknown, by Month



Source: City of Los Angeles certified payroll dataset, 2008.

Table 13 shows that the underreporting of race/ethnicity for the Harbor Replacement Police Station was entirely a failure of the subcontractors. A comparison of Figure 7 with Figure 6 shows that the underreporting of race/ethnicity for this project, while still high relative to the other projects, was lowest during the period in early 2006 when self-performance by the general contractor was at its highest.

TABLE 13. Reporting of Ethnicity for the Harbor Replacement Police Station Project and Four Other Projects Combined, by General Contractor and Subcontractor

	Project							
	All other projects				Harbor Police Station			
	Type of Contractor				Type of Contractor			
	Subcontractor		General Contractor		Subcontractor		General Contractor	
	Count	Col %	Count	Col %	Count	Col %	Count	Col %
African American	109	4.2%	62	8.5%	18	2.3%	7	10.0%
American Indian	10	.4%	2	.3%	2	.3%		
Asian Pacific American	31	1.2%	6	.8%	5	.6%		
Caucasian	683	26.1%	151	20.6%	159	19.9%	35	50.0%
Hispanic American	1623	62.1%	460	62.8%	309	38.8%	25	35.7%
Unknown	157	6.0%	52	7.1%	304	38.1%	3	4.3%

Source: City of Los Angeles certified payroll dataset, 2008

Table 14 compares the reporting of race/ethnicity for the Harbor Replacement Police Station to reporting for the Metro Detention Center, the two projects with a large number of subcontractors. Table 13 shows clearly that underreporting was not simply a function of having many subcontractors. Race/ethnicity was not reported for only 2.7 percent of the Metro Detention Center subcontractors' employees, while race/ethnicity was not reported for 38.1 percent of the workers hired by the Harbor Replacement Police Station subcontractors. These data as a whole suggest that PLA implementation was less rigorous on the Harbor Replacement Police Station project than on the other projects, with the lack of compliance concentrated among the subcontractors.

TABLE 14. Reporting of Ethnicity for the Harbor Replacement Police Station and the Metro Detention Center, by General Contractor and Subcontractor

	Project							
	Metro Detention Center				Harbor Police Station			
	Type of Contractor				Type of Contractor			
	Subcontractor		General Contractor		Subcontractor		General Contractor	
	Count	Col %	Count	Col %	Count	Col %	Count	Col %
African American	27	2.9%	1	3.4%	18	2.3%	7	10.0%
American Indian	4	.4%			2	.3%		
Asian Pacific American	12	1.3%			5	.6%		
Caucasian	277	30.1%	6	20.7%	159	19.9%	35	50.0%
Hispanic American	574	62.5%	21	72.4%	309	38.8%	25	35.7%
Unknown	25	2.7%	1	3.4%	304	38.1%	3	4.3%

Source: City of Los Angeles certified payroll dataset, 2008

H. Stories from the Field: Al Dominguez and Deonna Dominguez

Al Dominguez has worked in the construction sector for over twenty-eight years, first as a plumber after retiring from the U.S. Marine Corps. In the past four years he has been running a small plumbing contracting company, MAD Steel, with his daughter Deonna. Dominguez is currently working on three housing projects with the City of Los Angeles as well as several private commercial projects. The company is unionized, and city projects make up about 50 percent of the company’s work.

“I think that there should be more opportunities for bidding projects for small businesses,” Al says. “We have to compete with the large companies, who usually win the bids. I would love to see a better system put in place to even out the playing field for small businesses.” Dominguez supports PLAs, even though local hiring requirements add an extra layer of “paperwork” that would not be necessary with a regular hire. And he has worked on projects where the subcontractors do all the paperwork properly and on time, but the prime contractor loses it or does not submit it to the owner on time—yet the subcontractor is still held accountable. “I think there should be a more direct link between the subcontractor and the city’s compliance people to avoid these types of problems,” he says. As a union contractor, whether he works on a PLA or a non-PLA project doesn’t make much difference for his company, apart from the few extra hoops he has to jump through to fulfill local hiring goals.

I. Size—and Type—Matters

The size and type of contractor also had a bearing on compliance. Table 15 suggests that subcontractors were less likely than general contractors to hire local journeyworkers or local apprentices. Furthermore, smaller contractors—firms with twenty or fewer workers on the project—appeared to be less likely than large contractors to make these hiring decisions. This may reflect the possibility that when the PLA sets project-wide hiring goals, general contractors, relative to subcontractors, feel more directly responsible for these goals because they have responsibility for the overall project. Large contractors may feel more responsibility than small contractors do because the behavior of small contractors will not have as great an affect on the aggregate results for local hires.

TABLE 15. Hiring Practices for All Projects, by Occupation

Type of Worker	Subcontractor		General Contractor	
	Contractor with 20 or fewer workers	Contractor with more than 20 workers	Contractor with 20 or fewer workers	Contractor with more than 20 workers
Local Journeyworker	14%	23%	27%	28%
Local Apprentice	4%	9%	33%	12%
Non-Local Journeyworker	71%	53%	33%	49%
Non-Local Apprentice	12%	15%	7%	11%

Source: City of Los Angeles certified payroll dataset, 2008.

Note: Only one general contractor had 20 or fewer workers. The sample sizes for the other three categories are 780, 2630, 15, and 788 for columns 1 through 4.

Three factors, then, may have affected compliance with the PLA's local hiring goals: whether a project was started before or after the PLA was adopted, whether the contractor was a general contractor or subcontractor, and whether the contractor was large or small. Table 16 summarizes these factors.

TABLE 16. Hiring Practices for Harbor Replacement Police Station and All Other Projects, by Occupation

Type of Worker	All other projects				Harbor Police Station		
	Subcontractor		General Contractor		Subcontractor		General Contractor
	Contractor with 20 or fewer workers	Contractor with more than 20 workers	Contractor with 20 or fewer workers	Contractor with more than 20 workers	Contractor with 20 or fewer workers	Contractor with more than 20 workers	Contractor with more than 20 workers
Local Journeyworker	15%	25%	27%	29%	12%	17%	13%
Local Apprentice	3%	10%	33%	12%	4%	5%	11%
Non-Local Journeyworker	71%	52%	33%	48%	69%	61%	59%
Non-Local Apprentice	10%	14%	7%	10%	15%	17%	17%

Source: City of Los Angeles certified payroll dataset, 2008.

Note: The sample sizes, from left to right, are 530, 2083, 15, 718, 250, 547 and 70.

Table 16 suggests that small subcontractors do not comply with PLA hiring goals to the same extent that other contractors do. On the Harbor Replacement Police Station project (our benchmark), only 16 percent of the 250 blue-collar workers hired by small contractors (those with 20 or fewer workers on the project) were either local journeyworkers or local apprentices. Only 19 percent were either local or non-local apprentices. Similarly, on the four comparison projects, only 18 percent of the 530 workers hired by small subcontractors were either local journeyworkers or local apprentices. Similarly, only 13 percent were either local or non-local apprentices. This suggests that if the PLA had an apprentice-hire effect or a local-hire effect, it did not include small contractors. No significant difference is evident among small contractors in either local hiring or apprentice hiring outcomes when the Harbor Replacement Police Station project is compared to the four other projects. This may reflect the greater difficulty small contractors have in meeting local hiring goals; it may also reflect a diminished sense of responsibility on the part of small contractors, which might be a result of their indirect relationship to the owner and the assumption that their small crews will not much affect aggregate results one way or the other.

At the other extreme are the large general contractors. For the four projects that were begun after the PLA was implemented, 41 percent of the blue-collar workers were either local apprentices or local journeyworkers, and 22 percent were apprentices in general.³⁸ The local hiring percentage for large subcontractors on these four projects was almost as high: 35 percent of their workers were either local journeyworkers or local apprentices. And for apprentices who were either local or non-local, their percentage was higher: 24 percent. On the Harbor

Replacement Police Station project, the percentage of local or non-local apprentices hired by large subcontractors and the general contractor roughly matched the percentage achieved by large and general contractors on the other four projects. Thus, the PLA did not directly affect the overall hiring of apprentices. To the extent that the PLA encouraged the hiring of union contractors and those union contractors were mandated by their collectively bargained contracts to hire apprentices, the PLA may have indirectly influenced the hiring of apprentices. This notion is supported by the data in Table 17, which show that union contractors typically had one apprentice for every four journeyworkers, while non-union contractors typically had one apprentice for every nine journeyworkers.

TABLE 17. Percentage of Apprentices and All Journeyworkers, by Contractor’s Union Status

Contractor’s Union Status	Apprentices	All Journeyworkers
Nonunion	7.4%	92.6%
Union	21.8%	78.2%

Source: City of Los Angeles certified payroll dataset, 2008

Table 18 shows that while the Harbor Replacement Police Station project had nearly twice as many nonunion contractors as did the other projects, the five projects had almost the same percentage of workers employed by nonunion contractors. Thus, collectively bargained contracts regulated the apprenticeship ratios for about 93 percent of the workers on benchmark and comparison projects alike. This is why there is no direct effect of the PLA on apprenticeship ratios in general. An indirect effect might be implied if one assumed that the PLA encouraged more union work. It appears, however, that this was not the case.

TABLE 18. Percentage of Nonunion Contractors and Workers, by Project

	Harbor Police Replacement Building	Comparison Group of Four Other Projects
Nonunion contractors as percentage of all contractors	19.6%	10.6%
Nonunion workers as percentage of all workers	6.7%	7.1%

Source: City of Los Angeles certified payroll dataset, 2008

Where the Harbor Replacement Police Station project fell short was in the area of local hires that included local apprentices. Twenty-two percent of the workers hired by large subcontractors on the Harbor Replacement Police Station project were local journeyworkers and apprentices, compared to 35 percent hired by large subcontractors on the other projects. The PLA appears to have affected local hiring more than it affected apprentice hiring.

One other dimension of Table 16 deserves attention. Although the PLA’s local and apprentice hiring provisions did not specifically target local apprenticeships, from a community standpoint this type of hire is desirable. Let us set aside the 33 percent of local apprentices hired by the small general contractor on Fire Station 64, found in Table 11, because the total number of blue-collar workers was only fifteen. Of the

workers hired by large general contractors and subcontractors on the comparison projects in Table 16, 12 percent and 10 percent, respectively, were local apprentices. Only 3 percent of the workers hired by small subcontractors on the comparison projects were local apprentices.

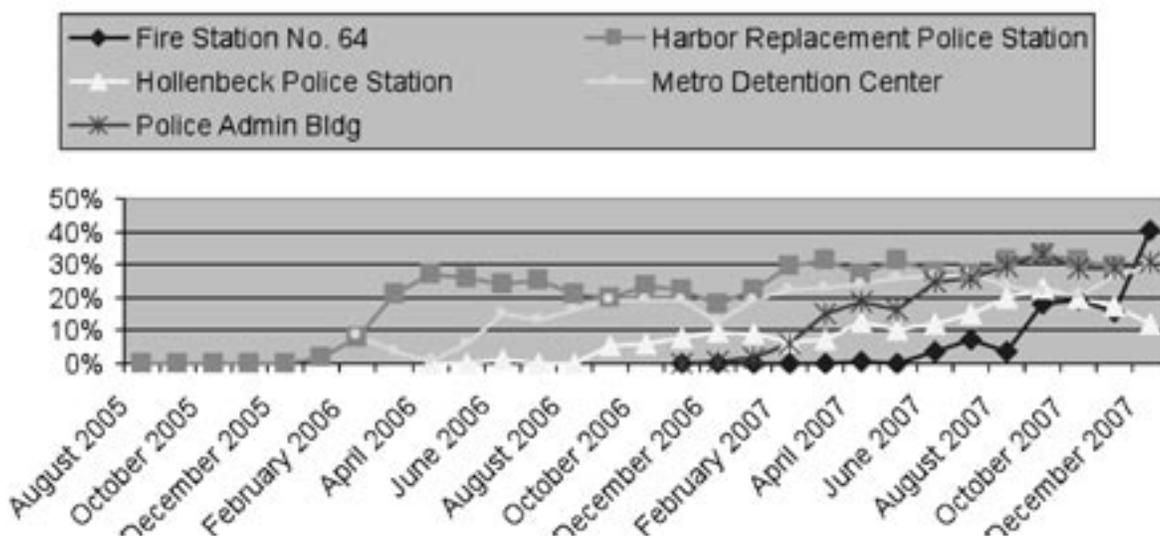
Similarly, the local apprentices hired by small subcontractors on the Harbor Replacement Police Station project comprised only 4 percent of the subcontractor’s total hires. Dissimilarly, and significantly, only 5 percent of 547 total workers hired by large subcontractors on the Harbor Replacement Police Station project were local apprentices; 22 percent were either local or non-local apprentices. Put differently, large subcontractors on the other four comparison projects hired twice as many local apprentices (10 percent versus 5 percent), while having only slightly more apprentices overall (24 percent to 22 percent), when compared to large subcontractors on the Harbor Replacement Police Station project. Results for the project’s general contractor, however, were nearly the same as those for large and general contractors on the comparison projects—11 percent and 12 percent, respectively.

These results suggest two conclusions. First, hiring local apprentices is more difficult for small subcontractors. Second, on the Harbor Replacement Police Station project, difficulties in obtaining local journeyworker hires were common to both the general and the large subcontractors, and the difficulties of obtaining local apprenticeship hires were concentrated among the large subcontractors. Our overall conclusion in this section is that the PLA increased both local hiring and local apprentice hiring, except among small contractors.

J. Timing Matters, Too

Workers come onto projects at different times. Figure 8 shows apprentice hours as a percentage of all blue-collar hours on each separate project, by month. Apprentices were taken on later than journeyworkers were for each of the projects. It can be several months after groundbreaking before apprentices account for a significant percentage of the hours worked during any given time period. This suggests that owners should have some patience with contractors regarding the attainment of apprenticeship goals.

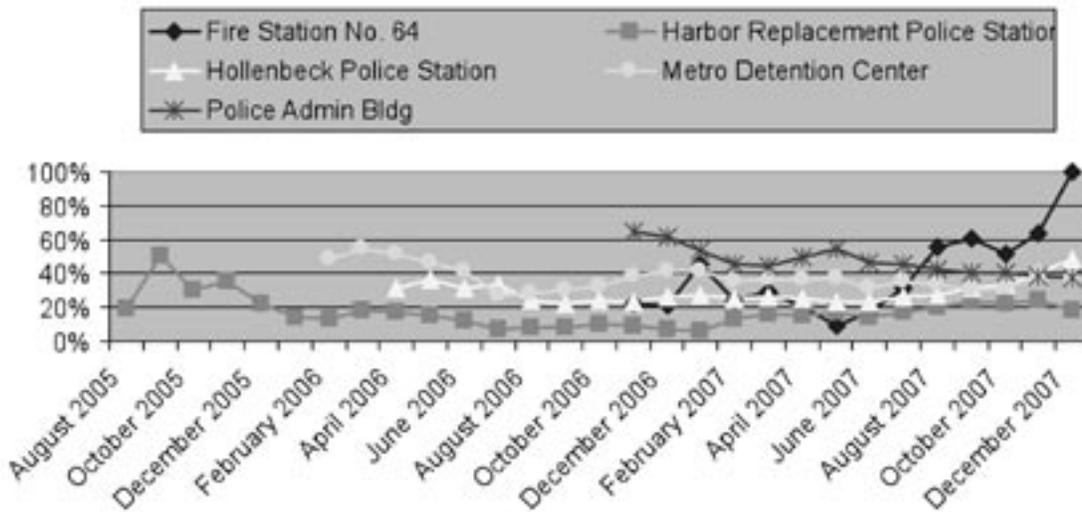
FIGURE 8. Apprentice Hours as a Percentage of Total Hours, by Project and Month



In contrast, Figure 9 shows that local journeyworkers and local apprentices as a group were not hired late. In every project, a significant percentage of all the project hours in the first month were completed by local workers. The high upward reach of the local hours toward the end of the Fire Station 64 project occurred

because that project had few workers in the last month for which we have data. It also may be that the high percentage of local hires in the last five months of the project reflects an effort to offset low percentages in the previous months.

FIGURE 9. Percentage of Total Local Blue-Collar Construction Hours, by Project and Month

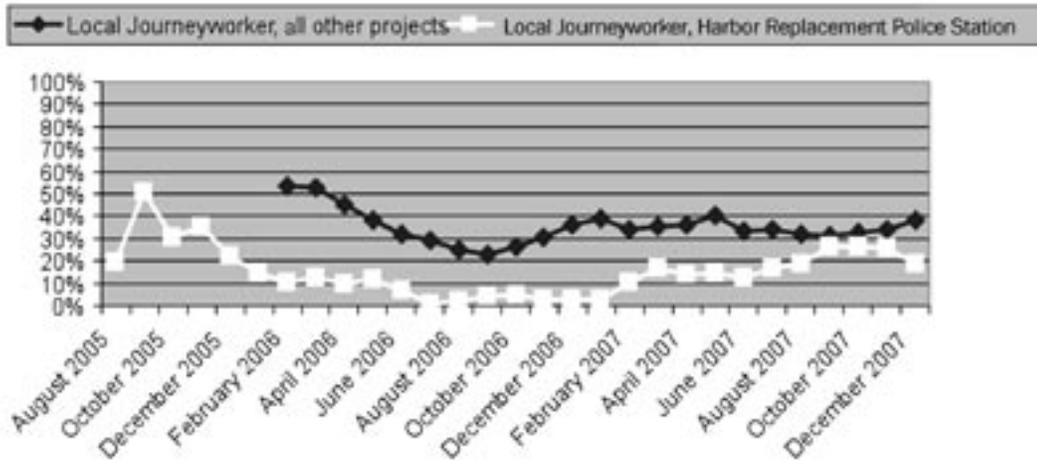


Source: City of Los Angeles certified payroll dataset, 2008.

K. An Overall Assessment of the Effect of the PLA on Local Hiring of Journeyworkers and Apprentices

In Figure 10, journeyworker and apprentice hours are distributed between local and non-local hires and between the Harbor Replacement Police Station project and all other projects. Recall that the Harbor Replacement Police Station project began prior to the PLA and that there was some dispute regarding whether the PLA local hiring and apprentice hiring provisions applied to it. When compared to the other projects, the Harbor Replacement Police Station project fell short in terms of the number of local journeyworkers and local apprentices hired. Overall, the Harbor Replacement Police Station project also underperformed in terms of local journeyworker and local apprentice employment. The distance between the line representing the percentage of all local journeyworker hours for the other four projects and the line that represents the police station project illustrates the effect of the PLA when it was clearly applied to local journeyworker employment practices. In most months there was about a 20 percentage point increase in local journeyworker hours where the PLA was enforced.

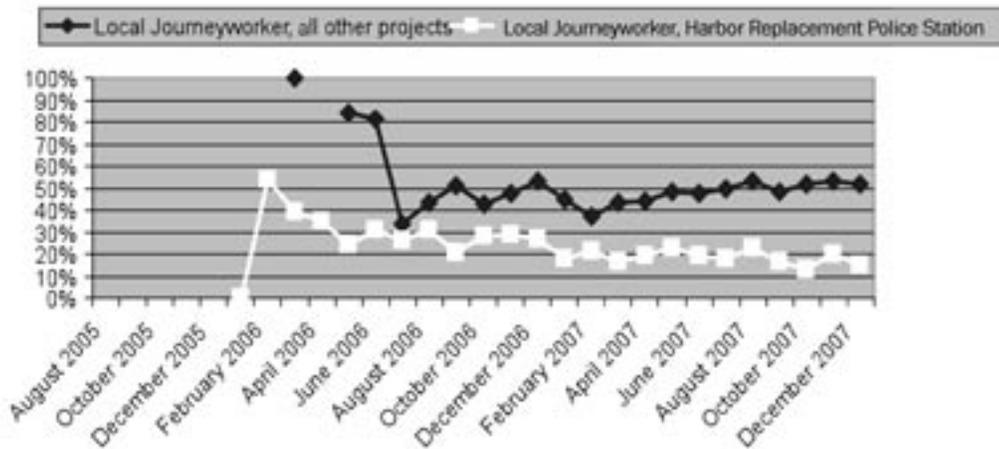
FIGURE 10. Percentage of Journeyworker Hours, by Project and Month



Source: City of Los Angeles certified payroll dataset, 2008.

Similarly, in most months there was a 10 to 20 percentage point difference in total local apprenticeship hours on projects where the PLA was clearly implemented, as Figure 11 shows. Indeed, in the later months, when the four other projects were in full swing and the number of apprentices had increased, the proportion of local apprentice hours as a share of all apprentice hours rose around 30 percentage points. Again, in approximate terms, about three times as many local apprentices worked on projects where the PLA was enforced, compared to the benchmark case, where PLA compliance was incomplete. Thus, a clear and timely implementation of PLA local hiring requirements appears to add about 20 percentage points to local journeyworkers' and local apprentices' shares of hours.

FIGURE 11. Percentage of Local Apprentice Hours, by Project and Month



Source: City of Los Angeles certified payroll dataset, 2008.

L. Stories from the Field: Patrick Wooten

Patrick Wooten, a second-period painter's apprentice with the Painters and Allied Trades, currently works on the L.A. County/USC Medical Facility building site. He says he never thought he would be working as a union painter, making \$17.00 an hour and planning for his future.

Wooten grew up in a single-parent household with seven other siblings. To make ends meet, Wooten's mother sold homemade candy and other foods. In an effort to improve his situation Wooten joined the Air Force right out high school, where he remained for two and one-half years. After he left the Air Force he worked in a number of janitorial jobs that had no opportunity for growth. His life took a bad turn when he met some people who promised him fast money for selling drugs. He was arrested in 1997 and was incarcerated for ten years.

In 2005 Wooten was paroled into a transitional program that helped him land a job making \$7.50 an hour. He worked at least eleven hours a day to help support his kids. After two years of never being late and never missing a day of work, he asked his boss for a fifteen-cent raise. His boss told him that he would have to work another ninety days before he would even consider his request.

Wooten was very discouraged. Then a family member told him about a construction program offered through the UAW WorkSource Center. Although he was a bit skeptical that a real job would come from the program, he attended the initial orientation. After hearing about the requirements for a job in the construction industry, he felt that the program might offer real hope for a better life. Wooten followed all the steps outlined by the WorkSource staff, and he did everything he was asked to do to get ready for work. Two weeks later, he received a call from the WorkSource Center. He was offered work as an entry-level apprentice as part of a local hiring program.

"I was excited and nervous about being able to do the job. I worked originally as part of a clean-up crew, and from there I went to various other job sites. I always made sure I did my best to never be late." Wooten noticed that most of the people on the job sites with him were friends or family of his boss, so he felt he had to work extra hard to prove himself every time. He did extra work for his boss without pay to



Hart Keeble (*fourth from left*), Business Manager, with members of Ironworkers Local 416

demonstrate his dedication. To his surprise, his hard work was rewarded. When work on the project slowed down, resulting in a number of workers being laid off—including some of his boss’s family—Wooten worked without interruption. To continue building his expertise, Wooten attends the union apprenticeship classes regularly and has just advanced to a second-period apprentice. “I wish I knew about these programs a long time ago,” he says. “I am really grateful for the opportunity to work in this career.”

VI. WHAT IT ALL MEANS: OUR CONCLUSIONS

Project labor agreements are just that—agreements. A consortium of labor unions and an owner agree to a PLA, and in the negotiations for the PLA, the two sides hammer out a bargain. This report focuses on one aspect of that bargain—local hiring provisions—that sometimes emerges in the negotiation of PLAs. In examining three case studies in the Los Angeles area where local hiring provisions were an outcome of PLA bargaining, we found one basic fact and three basic lessons. The basic fact is this: in these three PLAs, local hiring provisions and related procedures resulted in local hires that were roughly 35 percent to 40 percent of all hires. This is an increase of about 10 percent over our benchmark case and an increase of 2 percent over the percentage of local hires found in an earlier audit of city projects in Los Angeles. We also found evidence that PLA provisions favor the hiring of apprentices, particularly of local apprentices.

We discovered that the negotiated local hiring provisions in the Los Angeles PLA have increased local hires and increased the number of new local workers in construction. We also found two tradeoffs that make local hiring challenging. First, when the PLA defines the local area narrowly, then reaching local hiring goals can be more challenging. Second, and perhaps a little less obvious, when the construction is being done by small contractors, especially small contractors using specialized crews, local hiring goals can again be more challenging. There are a number of reasons for this. First, small contractors may have core employees that do not meet local hiring criteria. Second, small contractors, when compared to general contractors, may feel more distant from the owner and less informed of the owner’s local hiring needs and goals. Third, small contractors may not be on the project long, giving them less time to adjust to the hiring goals set out in the PLA.

Whatever the reason, the data support the conclusion that small contractors have a more difficult time meeting PLA local hiring goals. Owners wishing to encourage small and emerging contractors on their projects might consider implementing small contractor boot camps or other learning opportunities that will help small contractors meet local hiring goals.

We conclude that local hiring provisions work. Partners in a PLA need to pay particular attention to calibrating local hiring goals with definitions of local areas. Moreover, owners who wish to encourage the participation of small contractors on their projects must accommodate the tradeoff between local hiring goals and small contractor realities by helping small contractors meet the local hiring objectives.

NOTES

1. Helena Worthen, “The Workforce Investment Act and the Labor Movement,” *Working USA* 6, no. 3 (2002): 78.
2. Sharon Delugach and Raahi Reddy, *Helping LA Grow Together: Why the Community Redevelopment Agency Should Adopt the Construction Careers Policy* (Los Angeles: UCLA Center for Research and Education, 2008), 15.
3. Joseph A. McCartin, *Labor’s Great War: The Struggle for Industrial Democracy and the Origins of Modern Labor Relations, 1912–1921* (Chapel Hill, NC: The University of North Carolina Press, 1997), 73; John T. Dunlop, *Project Labor Agreements*, Harvard University Joint Center for Housing Studies Working Paper Series W02-7 (Cambridge, MA: Harvard University, 2002), 1.
4. Kimberly Johnston-Dodds, *Constructing California: A Review of Project Labor Agreements*, California State Library, California Research Bureau Reports, CRB 01-010, 1. Available at digitalarchive.ocl.org/da/ViewObjectMain.jsp;jsessionid=84ae0c5f82401c00ad328fd14c87b866a40773516f8a?fileid=0000020402:000000988715&reqid=99 (accessed March 31, 2008).
5. *Ibid.*, 1.

6. Los Angeles Community College District, "Proposition A Facilities: Project Labor Agreement," August 08, 2005.
7. Ibid.
8. PV Jobs, "Overview." Available at www.PVJobs.org (accessed June 2004).
9. Los Angeles Community College District, "DesignBuild." Available at http://www.build-laccd.org/doing_business.html#mentoring.
10. This need not always be the case. Some small contractors are also local contractors with local workers. However, our data suggest that in the aggregate, small contractors have more difficulty meeting local hiring goals. This issue is worthy of more research.
11. Los Angeles Unified School District, Facilities Services Division.
12. Howard Fine, "It's Bonanza Time for Building Contractors Who Specialize in School Facilities," *Los Angeles Business Journal*, Nov. 18, 2002.
13. Veronica Soto, additional notes, April 17, 2008.
14. The Los Angeles/Orange Counties Building and Construction Trades Council and Signatory Craft Unions. *Project Stabilization Agreement, 2003*.
15. Johnston-Dodds, *Constructing California*.
16. Citizen Oversight of Public School Construction Programs, "21st Century School Fund," February 12, 2003. Available at www.21csf.org/csf-home/Documents/CitizenOversight.pdf.
17. Soto, additional notes.
18. "The core workforce is comprised of those employees:
 - (i) whose names appeared on the contractor's active payroll for fifty of the one hundred working days before award of Project Work to the contractor;
 - (ii) who possess any license required by state or federal law for the Project Work to be performed;
 - (iii) who have the ability to safely perform the basic functions of the applicable trade; and who are residents of the District on the effective date of this Agreement, or have been residents of the District for the one hundred working days prior to the award of Project Work to the contractor." (Los Angeles Unified School District, "Project Stabilization Agreement," June 2003, Section 3.6).
19. Los Angeles Unified School District, "Project Stabilization Agreement," Section 8, p. 41.
20. "We Build," "Certified Payroll Employee Report," Facilities Services Division, February 20, 2008.
21. "General building and heavy construction contractors have a size standard of \$31 million in average annual receipts. Special trade construction contractors have a size standard of \$13 million. The size standard for Land Subdivision is \$6.5 million in average annual receipts. The size standard for Dredging is \$18.5 million in average annual receipts." U.S. Small Business Administration, *Guide to Size Standards*. Available at <http://www.sba.gov/services/contractingopportunities/sizestandardstocp/indexguide/index.html> (accessed March 31, 2008).
22. In our analysis of small subcontractors on City of Los Angeles PLAs, below, we define "small" as fewer than twenty blue-collar workers. In rough terms, this would be less than about \$1.5 million or \$2 million in payroll costs including payroll taxes. Assuming labor costs to be about 30 percent for specialty contractors (this depends on how much of the materials they put in place are bought by the general contractor), the \$2 million in payroll would correspond to about \$8 million in total receipts.
23. Dan Sloan (LAUSD PSA Coordinator, Parsons Constructors, Inc.), personal interview, February 28, 2008.
24. Sloan, interview.
25. In order to insure these workers privacy, the LAUSD eliminated names from the data and provided each worker with an identification number. Minor errors in this procedure led to about 1 percent of the ID numbers to be shared by more than one individual. We have kept this error in the data in mind in our analysis.
26. In future research these data may be used for a variety of purposes including asking questions regarding individual worker movements across projects within the LAUSD set of projects and also examining contractor behavior on multiple LAUSD projects.
27. It may be that some contractors had experience with earlier LAUSD PLA projects, but we do not have data on this.
28. This is only an approximation of the contractor's actual size. Many contractors will run more than one project at a time. So one contractor may be on several non-LAUSD projects and, in fact, be quite large, while on the LAUSD project for which we have data this hypothetically large contractor may have only a small presence. While this may happen, our assumption here is that generally large contractors will have a larger presence on LAUSD projects, compared to small contractors.
29. We do not include the percentage of journeyworker hours because once you account for apprentices and foremen you have implicitly accounted for journeyworkers also. Recall that these three job categories will add to 100 percent of all the hours in our data. The F test for our model is statistically significant at the 1 percent level but the R-square is only 2 percent, meaning that there remains considerable variation in the percentage of local hiring that is unexplained by the model. Tests for heteroskedasticity and omitted variable bias were rejected at the 1 percent and 5 percent levels, but accepted at the 10 percent level.
30. As one can see from the t-statistic and the "Sig" column, which gives the probability of being wrong associated with this t statistic, the effect of experience is statically significant at a rigorous level (less than a 1 percent chance of being wrong).
31. Cognoscenti of ordinary least squares (OLS) regression models will have noticed that because our dependent variable is a percentage, it is bounded between zero and one, violating a technical assumption of OLS regression technique. An intuitive understanding of the meaning of this assumption is this: the model predicts a straight line. Thus the model can predict percentages above 100 percent. And unless you are an athlete committed to giving more than a 100 percent effort, or a bank that gives better than 100 percent service, the idea of more than 100 percent local hire does not make sense. The technical solution to this problem is to transform the dependent variable into the log of the odds ratio: $\ln(\text{percent local hire}/(1-\text{percent local hire}))$, which is not a bounded variable and in principle can vary from minus to plus

infinity. The disadvantage of this trick is that it leads to a dependent variable that is not as easily interpreted as the percentage of local hire in our model. In the background, we re-estimated our model using this more technical dependent variable and also weighting the regression to privilege observations where the percent local hire was not close to the 0 percent or 100 percent boundaries. In this weighted least squares model, the effect of contractor size on the log of the odds ratio of the percent local hours was positive and statistically significant. This is why we assert in the text that we believe the effect is there, but that it slipped from our grasp using the technically less correct but more easily interpreted percentage of local hire as a dependent variable.

32. This is not quite the definition of "local" used by LAUSD, which includes unincorporated parts of Los Angeles County. However, this definition allows for a direct comparison with our data for the City of Los Angeles, described elsewhere in this report.
33. These two logistic regressions have about 81,500 observations that are worker-week observations. So, if one worker is in the data for five weeks and another worker is in the data for two weeks, the first worker occurs in the regression as five observations while the second shows up as two observations. The Chi-square statistics are statistically significant at the 1 percent level and the pseudo R-squares are 3 percent and 6 percent for the first and second models, respectively.
34. The second regression has indicator variables for each trade, but these estimates are not reported in the table. The first regression does not include any indicator (or dummy) variables for craft occupation.
35. Manny Perez Jr. (Labor Compliance Officer, Bureau of Contract Administration), personal interview, February 26, 2008.
36. Jose Ramirez (Senior Management Analyst, Bureau of Contract Administration), personal interview, April 24, 2008.
37. The contractor, Pinner Construction Company, submitted a letter on May 18, 2005, that stated: "For the betterment of the community, and to improve relations with the City of Los Angeles, Pinner Construction Co., Inc. will commit to the terms of a Project Labor Agreement for the above noted project, similar to the one as outlined in accordance with the Police Headquarters Facility." Pinner was awarded the contract on June 29, 2005, but the PLA was not signed until October 24, 2006. Language in the PLA's Section VII Referral Process was not clear regarding the hiring process between core workers and additional workers.
38. The one small general contractor on these four post-PLA projects had even higher percentages but employed only fifteen workers.

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