



# *City of Huntington Beach*

## *Charter Review Commission*

### **AGENDA**

**Thurs., Jan. 21, 2010, 6:00 PM**  
**City Hall, City Council Chambers**

- I. **Roll Call:** Jerry Bame, Ralph Bauer, Mark Bixby, Patrick Brenden, Shirley Dettloff, Dick Harlow, Gregory Hartnett, Marijo Johnson, Gary Kutscher, Joe Shaw, Ray Silver, Sharie Sneddon, Tim Stuart, Dave Sullivan, Shane Whiteside

II. **Public Comments:**

An opportunity for the public to comment on any item of interest, either in general or specific to this agenda, that is within the subject matter or jurisdiction of the Commission. Comments will be limited to no more than 3 minutes. Speakers are encouraged to submit their comments in writing. Each Commission Member will receive a copy of all the submitted comments.

- III. **This meeting has been scheduled to take public testimony on a proposal to add a section to the City Charter on the use of the prevailing wage. Commission discussion on this item will take place at their next meeting on Tuesday, February 2.**
- IV. **Discussion and possible action on the Charter Review Commission Timeline/Schedule.**
- V. **Adjourn to the next regular meeting scheduled for Tuesday, Feb. 2 at 6 PM in City Hall Room B 8.**

**Attachments: \***

1. **City staff memo on prevailing wage requirements**
2. **Information from Jim Adams on behalf of the LA/OC Building & Construction Trades Council:**
  - a. **A copy of his original letter containing language to be included in the Charter**
  - b. **A document supporting prevailing wage: *Prevailing Wage Laws are Good for America***
  - c. **The results of eleven studies of the: *Effects of Prevailing Wage Laws.***
  - d. **A booklet on *Construction Apprenticeship Programs Career Training for the California Recovery.***
  - e. **A booklet on *Prevailing Wage and Government Contracting Costs.***
  - f. **A *California State Building Trades* bulletin with respect to the Supreme Court grants review of Building Trades Petition on whether Charter Cities can exempt contractors on their projects from State Law requiring contractors on Public Works Project to pay prevailing wages.**
3. **Updated Charter Review Timeline**

\* Material related to the Charter Sections to be discussed and submitted prior to the posting of the agenda will be included in the agenda packet. Items received after posting of the agenda will be distributed at the Commission meeting as late communications.

**ATTACHMENT #1**



# CITY OF HUNTINGTON BEACH

## INTERDEPARTMENTAL COMMUNICATION

**TO:** Fred Wilson, City Administrator

**FROM:** Travis K. Hopkins, PE, Director of Public Works

**DATE:** January 14, 2010

**SUBJECT: Prevailing Wage Practices**

Prevailing wage is the rate paid to a majority of workers engaged in a particular craft, classification, or type of work within a locality. In California, the rate is determined by the State Director of Industrial Relations. As a charter city, Huntington Beach is not required to pay prevailing wage on projects that are of a municipal affair, however, it is City Council policy to require these wages for public works construction that was reaffirmed in 2002.

Funding source can direct the prevailing wage requirement. Accepting federal and state grants requires the payment of state prevailing wages. Certain local agencies, such as the Orange County Transportation Authority (OCTA), administer federal programs. Grants received through these agencies incorporate the prevailing wage requirement. The current Huntington Beach practice is requires prevailing wage on all publicly bid construction projects.

Maintenance activities such as street sweeping are exempt from the prevailing wage requirement. Beginning in 2009, the city implemented a policy to pursue the most cost effective maintenance services. Selected providers must meet the city's insurance, financial, and licensing requirements. The chart below summarizes the current prevailing wage practice.

### Huntington Beach Prevailing Wage Practices

<b>Funding Source</b>	<b>Project Type</b>	<b>Projects Examples</b>	<b>Prevailing Wage</b>
Federal grants	Public Works construction	FEMA – Civic Center EPA – Drainage pipeline FHWA – Street rehabilitation	Yes - required per granting agency
State grants	Public Works construction	Caltrans – Traffic signals, safe routes to school	Yes - required per granting agency
City funds	Public Works construction	Sewer and water systems, facilities, pavement replacement	Yes - per current City Council policy
City funds	Maintenance & service	Street sweeping, graffiti removal	No - optional on new contracts

**ATTACHMENT #2**



RICHARD N. SLAWSON  
Executive Secretary

# Los Angeles / Orange Counties Building and Construction Trades Council

Affiliated with the Building & Construction Trades Dept., AFL-CIO

1626 Beverly Boulevard  
Los Angeles, CA 90026-5784  
Phone (213) 483-4222  
(714) 827-6791  
Fax (213) 483-4419

January 8, 2010

To: Huntington Beach Charter City Review Commission

From: Jim Adams, Council Representative

**Re: Information regarding the requested inclusion of prevailing wage language into the new City Charter.**

Dear Commissioners:

This packet of information is being supplied to you to assist you in your decision with respect to the inclusion of language to continue the requirement that prevailing wages be paid on all City funded construction projects in Huntington Beach.

1. A copy of original letter containing actual language to be included in the Charter.
2. A document supporting prevailing wages; *Prevailing Wage Laws Are Good For America.*
3. The results of eleven studies of the; *Effects of Prevailing Wage Laws.*
4. A booklet on *Construction Apprenticeship Programs Career Training for California's Recovery.*
5. A booklet on *Prevailing Wages and Government Contracting Cost's*
6. A *California State Building Trades* bulletin with respect to the Supreme Court grants review of Building Trades Petition on whether Charter Cities can exempt Contractors on their projects from State Law requiring Contractors on Public Works Projects to pay prevailing wages.

**Thank you for your consideration. If you have questions, I can be reached by office phone 213 483-4222, cell # 213 479-8283, email [jimc.adams@sbcglobal.net](mailto:jimc.adams@sbcglobal.net)**



# Los Angeles / Orange Counties Building and Construction Trades Council

**RICHARD N. SLAWSON**  
Executive Secretary

Affiliated with the Building & Construction Trades Dept., AFL-CIO

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*City Admin*  
*City Deputy Admin*  
*City Attorney*  
1626 Beverly Boulevard  
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*Pat Daphus*

July 15, 2009

Office Of City Clerk  
City of Huntington Beach  
2000 Main Street  
Huntington Beach, CA 92648

Dear City Clerk:

Please consider this letter a formal request to incorporate the prevailing wage language listed below into the proposed City Charter. We specifically request you forward this letter to the Huntington Beach City Councilpersons as well as the Charter City Review Committee for their consideration into the proposed Charter.

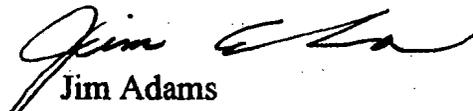
The language is as follows:

### ***Prevailing Wages***

***The provisions of California Labor Code Section 1770 et. seq. regarding prevailing wages on public works and related regulations, as now existing and as may be amended, are accepted and made applicable to the City, its departments, boards, officers, agents and employees.***

Thank you for your consideration. If I can be of any assistance please contact me at Council Offices. You may also reach me by cell #213 479-8283. My email address is [jimeadams@sbcglobal.net](mailto:jimeadams@sbcglobal.net)

Sincerely,

  
Jim Adams  
Council Representative

RECEIVED  
2009 JUL 15 AM 11:08  
CITY CLERK  
CITY OF  
HUNTINGTON BEACH

# CONSTRUCTION APPRENTICESHIP PROGRAMS

## CAREER TRAINING FOR CALIFORNIA'S RECOVERY



### EXECUTIVE SUMMARY

The current economic downturn has caused vast unemployment in California's construction industry. In the year ending in June 2009, the state lost almost a fifth (18.6%) of its construction jobs, the greatest percentage among all major industries.<sup>1</sup> Getting workers back on the job is crucial to getting the California economy back on its feet.

Yet, increased employment is not enough for an equitable recovery. The construction industry's historically good jobs have been depleted by the squeeze on the middle-class over the past 30 years. And the industry is shifting to a green economy, with a focus on new skills, in response to climate change and high energy costs. As the economy revives, new construction jobs must include middle-class career paths and training in skills for the green economy.

As this report demonstrates, building trades apprenticeship programs provide the best model to keep the construction industry on the high road and provide high-quality jobs, to the benefit of the industry, the workers and the greater community.

<sup>1</sup> California Employment Development Department, Labor Market Division. 2009. California Employment Highlights for July 2009. Current Employment Statistics (CES) Program.

### KEY FINDINGS

- Construction work has two faces. It can provide stable, middle-class careers or temporary, hazardous, dead-end jobs.
- Apprenticeship programs strengthen communities by providing career paths and consistent health insurance for people from disadvantaged backgrounds. They also benefit the building industry by reducing workplace injuries, reducing turnover and providing a motivated and well-trained workforce.
- Most apprenticeship programs in California (82%) are joint labor-management programs established through collective bargaining. Those programs produce almost all (92%) of the state's apprenticeship graduates.
- The joint labor-management programs are more successful than unilateral management programs at removing barriers to graduation and therefore have much higher completion rates.
- Local policies are needed that encourage and support successful apprenticeship programs. These include local hiring requirements, resources for support services, and using the public contracting process to set and enforce standards.
- With a proven record of success in producing a skilled workforce, apprenticeship programs provide the best means to train workers in the skills needed for the new green economy.

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## ECONOMIC TRENDS

An historical look at the middle-class shows that as worker productivity increases, wages also increase. Between 1947 and 1979, worker productivity and income doubled together. Since the 1980s, however, incomes have grown only a quarter as much as worker productivity. Since 2000, middle-class families have experienced a nearly 4% decline in real income while productivity has increased 18.5%.<sup>2</sup>

The disconnect between wages and productivity means that the benefits of increased productivity have not been shared equally. In fact, half of overall economic growth from 1993 to 2007 went to the top 1% of incomes. In the boom times of 2000-2007, the top 1% of incomes captured two-thirds of the economic growth.<sup>3</sup>

Besides family-supporting wages, a good, middle-class job encompasses employer-provided health insurance, pensions, paid vacation and holidays, sick leave and family leave, a safe and healthy workplace, some degree of employment security and opportunities for advancement.<sup>4</sup> The history of “good jobs” over the last three business cycles (1980s, 1990s, and first half of 2000s) shows a sharp deterioration in the provision of benefits.<sup>5</sup> For the years 1979-2006, the share of jobs with employer-provided health insurance declined 5.3% and those with employer-provided pensions declined 6.4%.<sup>6</sup>

Rebuilding the middle class will require reconnecting worker productivity with compensation through the creation and support of good jobs.

### Shifting to the Green Economy

The new, green economy is changing the face of construction, with new types of jobs using new technologies and innovations on current practices. Solar panel installation or energy efficiency auditing are examples of new green jobs that build on skills that trained and qualified construction workers have had for years.

#### Definition: Green jobs

Jobs with family-supporting wages and benefits, in fields that contribute significantly to preserving or enhancing environmental quality.<sup>7</sup>

<sup>2</sup> Middle Class Task Force (MCTF). The Vice President of the United States. 2009. *The American Recovery and Reinvestment Act: Helping Middle Class Families*.

<sup>3</sup> Saez, Emmanuel. 2009. Striking it Richer: The Evolution of Top Incomes in the United States. Updated version of an article which appeared in *Pathways Magazine*. Stanford Center for the Study of Poverty and Inequality, Winter 2008, 6-7.

<sup>4</sup> Definition taken from Schmitt, John. 2007. *The Good, the Bad, and the Ugly: Job Quality in the United States over the Three Most Recent Business Cycles*. Center on Economic and Policy Research (CEPR) and Sarah White and Jason Walsh. 2008. *Greener Pathways: Jobs and Workforce Development in the Clean Energy Economy*. Center on Wisconsin Strategy (COWS), The Workforce Alliance and The Apollo Alliance.

<sup>5</sup> Schmitt, John. 2007. *The Good, the Bad, and the Ugly: Job Quality in the United States over the Three Most Recent Business Cycles*. Center on Economic and Policy Research (CEPR).

<sup>6</sup> Schmitt, op cit.

<sup>7</sup> White, Sarah and Jason Walsh. 2008. *Greener Pathways: Jobs and Workforce Development in the Clean Energy Economy*. Center on Wisconsin Strategy (COWS), The Workforce Alliance and The Apollo Alliance.  
Adams Information

THE CONSTRUCTION INDUSTRY HAS THE HIGHEST CONCENTRATION OF CONTINGENT WORKERS...AND THE LOWEST RATE OF EMPLOYER-PROVIDED HEALTH COVERAGE AMONG CALIFORNIA'S NON-FARM INDUSTRIES.

## THE TRUTH ABOUT CONSTRUCTION

The construction industry in California has two faces: the first is a high-road industry with family-sustaining wages, healthcare and pension benefits, safe working conditions, career stability and opportunity for advancement. The other is a low-road industry with low pay, no benefits, dangerous conditions and frequent periods of unemployment.

According to a study by the Construction Industry Institute, both contractors and workers report the same issues with recruitment and retention: unsafe job sites, insufficient wages and benefits, impermanency of employment, poor working conditions and poor treatment of employees.<sup>8</sup>

### Construction is Hazardous

In 2007, the construction industry nationally accounted for 20% of workplace deaths and 10% of all workplace injuries and illnesses.<sup>9</sup> California, Texas and Florida account for more than 25% of all non-fatal construction injuries and illnesses resulting in lost work days nationally.<sup>10</sup>

The total cost of death and injury in the U.S. construction industry is estimated at nearly \$13 billion (in 2002 dollars).<sup>11</sup> On average, when a construction worker dies, the overall loss is estimated to be \$4 million and a non-fatal injury that results in lost workdays costs approximately \$42,000.<sup>12</sup>

### Construction Jobs are Low-Wage, Temporary and Lack Benefits

In 2005, more than 120,000 construction workers in California were in occupations that paid less than \$30,000 per year based on the weekly wage.<sup>13</sup> In addition, many construction workers are not employed year-round, resulting in a much lower actual annual income.

Typically on construction projects, a worker's skill set may be needed only during certain phases, resulting in lay-offs, unemployment and loss of benefits. The construction industry has the highest concentration of contingent workers – defined as workers who do not have an implicit or explicit contract for on-going employment – of any non-farm industry in California.<sup>14</sup> Contingent workers are twice as likely as permanent workers to report household or family income less than \$27,000 a year and are much less likely to have employment-based healthcare or pensions.<sup>15</sup> The lower a worker's educational attainment, the higher the incidence of contingent work.

In 2005, at the height of the building boom, the construction industry had the lowest rate of employer-provided health coverage among California's non-farm industries – only 35%.<sup>16</sup> The construction industry accounted for 15% of the state's chronically uninsured, with only 7.3% of the workforce.<sup>17</sup> More than a quarter (27%) of construction workers were uninsured for the entire year while more than 40% were uninsured at least part of the year.<sup>18</sup>

<sup>8</sup> Construction Industry Institute. 2000. *Attracting and Maintaining a Skilled Workforce*. Research Summary 135-1.

<sup>9</sup> Occupational Injuries and Illnesses: Industry Data and Census of Fatal Occupational Injuries, 2007. Source: Bureau of Labor Statistics.

<sup>10</sup> Samuel W. Meyer and Stephen M. Pegula. 2004. *Injuries, Illnesses, and Fatalities in Construction, 2004*. <http://www.bls.gov/opub/cwc/print/sh20060619ar01p1.htm>

<sup>11</sup> CWPR- The Center for Construction Research and Training. 2007. *The Construction Chart Book*, 4th ed. Sect. 48.

<http://www.cwpr.com/pdfs/CB%204th%20Edition/Fourth%20Edition%20Construction%20Chart%20Book%20final.pdf>

<sup>12</sup> CWPR, op cit.

<sup>13</sup> Weekly wages and monthly employment for Construction Industry in 2005. Source: California Employment Development Department, Labor Market Information Division. Quarterly Census of Employment and Wages (QCEW).

<sup>14</sup> California Employment Education Department. 2006. *Contingent Workers Bolster California Work Force*. <http://www.labormarketinfo.edd.ca.gov/article.asp?ARTICLEID=626>

<sup>15</sup> Contingent and Alternative Employment Arrangements, February 2005. Source: U.S. Bureau of Labor Statistics. <http://www.bls.gov/news.release/History/conemp.txt>

<sup>16</sup> BLS, op cit.

<sup>17</sup> Center on Policy Initiatives (CPI). 2009. *Construction: Working Without a Healthcare Net*. [http://www.onlinecpi.org/downloads/ConstructionReport\\_webversion.pdf](http://www.onlinecpi.org/downloads/ConstructionReport_webversion.pdf)

<sup>18</sup> CPI, op cit.

## REGISTERED APPRENTICESHIP: THE BASICS

Apprenticeship is a combination of on-the-job training and related instruction in which workers learn the practical and theoretical aspects of a highly skilled occupation.<sup>19</sup> The apprentice works side-by-side with a journeyworker to attain demonstrable competency in the craft.<sup>20</sup> Apprenticeships are time-intensive and require high standards of performance.

Oversight of registered programs is provided directly by the U.S. Department of Labor for 25 states and through state-approved agencies in the other 25 states.<sup>21</sup>

### How Apprenticeship Differs From Other Training

The strict legislative regulation over apprenticeship programs creates a unique immersion training system and sets it apart from others, such as paid internships. The apprentice and the program sponsor sign an apprenticeship agreement, which contains

the terms and conditions of the employment and training of the apprentice.<sup>22</sup> Included in the agreement is the graduated wage scale to be paid to the apprentice throughout the program, the required hours and skills learned in on-the-job training and related technical instruction and performance standards.<sup>23</sup>

A registered apprenticeship program must meet government-mandated standards of quality and quantity of instruction.<sup>24</sup> Further, the sponsor must provide adequate and safe equipment and facilities, and safety training for apprentices on the job and in related instruction. Most apprenticeship programs require 3-5 years of training with between 2,000 and 8,000 hours of on-the-job training and 144 hours of related technical instruction.<sup>25</sup> Advancement depends on the apprentice's work record and progress in related instruction.<sup>26</sup>

An apprenticeship graduate has completed a specified minimum number of on-the-job training hours and related technical instruction hours, and has demonstrated competency in the skills and knowledge necessary for work at the highest standards.<sup>27</sup> Each program evaluates apprentices regularly, usually every 6 or 12 months, with both on-the-job performance assessments and written exams. Wage increases and continuation in the program depend on successful demonstration of competency.<sup>28</sup>

Apprentices emerge from the programs proficient in safety and environmental laws and regulations, first aid and CPR, mathematics,

drafting, blueprint reading and other sciences connected with the trade.<sup>29</sup> Often included is training in diversity, sexual harassment, personal development, environmental remediation and jobsite management.<sup>30</sup>

#### Definitions

##### Competency:

The attainment of manual, mechanical or technical skills and knowledge, as specified by an occupational standard and demonstrated by an appropriate written and hands-on proficiency measurement.

##### Journeyworker:

A worker who has attained a level of skill, abilities and competencies recognized within an industry as having mastered the skills and competencies required for the occupation.

##### On-the-Job Training (OJT):

An outline of the work processes in which the apprentice will receive supervised work experience and training on the job, and the allocation of the approximate time to be spent in each major process.

##### Related Technical Instruction (RTI):

An organized and systematic form of instruction designed to provide the apprentice with knowledge of the theoretical and technical subjects related to his/her trade.

Source: Code of Federal Regulations, 29 CFR 29 "Labor Standards for the Registration of Apprenticeship Programs."

<sup>19</sup> U.S. Department of Labor. *Apprenticeship*. <http://www.dol.gov/dol/topic/training/apprenticeship.htm>

<sup>20</sup> California Apprenticeship Coordinators Association. *Apprenticeship: Pathways to Success*. <http://www.calapprenticeship.org/>

<sup>21</sup> Lerman, Robert, Lauren Eyster and Kate Chambers. 2009. *The Benefits and Challenges of Registered Apprenticeship: The Sponsors' Perspective*. The Urban Institute on Labor, Human Services and Population. [http://www.urban.org/UploadedPDF/411907\\_registered\\_apprenticeship.pdf](http://www.urban.org/UploadedPDF/411907_registered_apprenticeship.pdf)

<sup>22</sup> 29 CFR 29 "Labor Standards for the Registration of Apprenticeship Programs." Code of Federal Regulations.

<sup>23</sup> 29 CFR 29, op cit.

<sup>24</sup> 29 CFR 29, op cit.

<sup>25</sup> U.S. Department of Labor. *Apprenticeship FAQs*. <http://www.doleta.gov/OA/faqs.cfm>

<sup>26</sup> California Apprenticeship Coordinators Association. *Apprenticeship: Pathways to Success*. <http://www.calapprenticeship.org/>

<sup>27</sup> U.S. Department of Labor, Employment and Training Administration. *At-a-glance: Three Approaches to Apprenticeship Completion*. [http://www.doleta.gov/OA/pdf/Three\\_Approaches\\_Apprenticeship\\_Program\\_Completion.pdf](http://www.doleta.gov/OA/pdf/Three_Approaches_Apprenticeship_Program_Completion.pdf)

<sup>28</sup> U.S. Department of Labor, Employment and Training Administration. *At-a-glance: Three Approaches to Apprenticeship Completion*. [http://www.doleta.gov/OA/pdf/Three\\_Approaches\\_Apprenticeship\\_Program\\_Completion.pdf](http://www.doleta.gov/OA/pdf/Three_Approaches_Apprenticeship_Program_Completion.pdf)

<sup>29</sup> California Department of Industrial Relations, Division of Apprenticeship Standards. *Minimum Industry Training Criteria*. <http://www.dir.ca.gov/DAS/mitc.htm>

<sup>30</sup> California Department of Industrial Relations, Division of Apprenticeship Standards, op cit.

**TABLE 1:**  
**Apprenticeship Program Requirements for Selected Crafts**  
*Top 10 crafts sorted by total number of apprentices graduated from programs*

Craft	Years	On-the-job hours	Classroom hours/year
Carpentry	4	4,800	144
Electrician, Residential	3	4,800	160
Commercial/Industrial	5	8,000	160
Plumbing	4	7,200	200
Operating Engineer	4	6,000	144
Sheetmetal	4	6,500	160
Laborer	2	3,000	216
Painting & Decoration	3.5	7,000	114
Roofers	3.5	4,000	144
Plumbing	4	7,200	200
Air conditioning & refrigeration	5	7,500	216
Carpet, Linoleum & Soft Tile	4	6,400	160

Source: California Department of Industrial Relations, Division of Apprenticeship Standards. Minimum Industry Training Criteria. <http://www.dir.ca.gov/DAS/mitc.htm>

## THE VALUE OF APPRENTICESHIPS

Apprenticeship programs benefit the entire community by providing good wages, health insurance and career stability for disadvantaged community residents. The stringent training also helps ensure high quality public works projects and cost containment by decreasing turnover, workplace accidents and lost productivity.

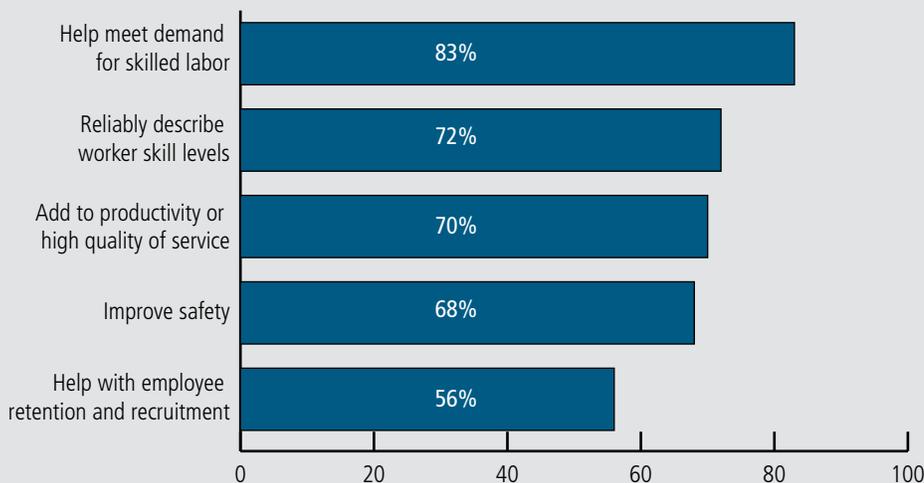
### The Value for Industry

Apprenticeship programs provide skilled workers trained to employer specifications, and lead to reduced turnover, improved

on-the-job safety and higher quality results, according to a study commissioned by the U.S. Department of Labor.<sup>31</sup>

The value of apprenticeship training is extolled by the Construction Users Roundtable (CURT), comprised of some of the largest companies in the U.S., including Boeing, Procter & Gamble, General Electric, and the U.S. Army Corps of Engineers. CURT recommends that end users or owners require the contractors working for them to commit to training programs as a prequalification for doing business.<sup>32</sup>

**FIGURE 1: PROGRAM SPONSORS REPORT THAT APPRENTICESHIPS:**



Source: Lerman, Robert, Lauren Eyster and Kate Chambers. 2009. *The Benefits and Challenges of Registered Apprenticeship: The Sponsors' Perspective*. The Urban Institute on Labor, Human Services and Population.

<sup>31</sup> Lerman, Robert, Lauren Eyster and Kate Chambers. 2009. *The Benefits and Challenges of Registered Apprenticeship: The Sponsors' Perspective*. The Urban Institute on Labor, Human Services and Population. [http://www.urban.org/UploadedPDF/411907\\_registered\\_apprenticeship.pdf](http://www.urban.org/UploadedPDF/411907_registered_apprenticeship.pdf)

<sup>32</sup> Construction Users Roundtable. 2004. *Confronting the Skilled Workforce Challenge*. White Paper 401.

APPRENTICESHIPS LEAD TO CAREERS WITH HIGHER AVERAGE WAGES AND PROMOTE JOB STABILITY THROUGH SKILL CERTIFICATION AND PORTABILITY

**The Value for Workers**

Most apprenticeship programs provide good jobs from the beginning, with fair wages, family healthcare benefits, a pension plan, paid sick days, a safe work environment and employment stability. Program completion secures these advantages for an entire career.

**Wages and Career Stability**

Apprenticeships lead to careers with higher average wages and promote job stability through skill certification and portability. Apprentice wages start out as a percentage of the journeyworker hourly rate, significantly higher than minimum wage, and increase regularly as competency is demonstrated.<sup>33</sup>

As Table 2 demonstrates, apprentices in San Diego County begin at a basic hourly rate equal to more than \$28,000 per year. Program graduates make a basic hourly wage equating to nearly \$60,000 annually.

Moreover, a certificate of completion signifies attainment of nationally and globally recognized skills.<sup>34</sup> With the portability of credentials a worker can move between projects and employers with a documented set of skills on their resume, thereby facilitating the hiring process and ensuring the correct pay rate commensurate with skill level.

Many apprenticeship programs have formal agreements with 2- and 4-year colleges and universities which offer credits for the education received.<sup>35</sup> A worker can use accumulated credits to pursue a college degree later in life, facilitating transition to another career, if desired.

**TABLE 2:**

**Apprenticeship Basic Hourly Wage Increase Schedule, San Diego County, California, Q1 2009\***

*Wage increases dependent upon successful completion of training segments*

Years in Program	Part of year (1/2)	Carpenter, Commercial	Electrician, Inside Wireman	Plumber, Pipefitter, Steamfitter
		Wage level per 600 on-the-job training hours	Wage level per 800 on-the-job training hours	Wage level per 1,600 on-the-job training hours
1	1st	\$14.54	\$14.54	\$16.65
	2nd	\$16.15	\$15.99	
2	1st	\$19.38	\$17.45	\$19.97
	2nd	\$21.00	\$18.90	
3	1st	\$22.61	\$20.36	\$23.30
	2nd	\$24.23	\$21.81	
4	1st	\$25.84	\$23.99	\$26.63
	2nd	\$29.07	\$25.45	
5	1st	—	\$28.35	\$29.96
	2nd	—	\$29.81	

\*Source: California Department of Industrial Relations, Division of Apprenticeship Standards, Public Works Apprentice Wage Sheets. <http://www.dir.ca.gov/DAS/PWAppWage/PWAppWageList.asp>

<sup>33</sup> California Department of Industrial Relations data for end of 2008. *Apprentice wage determinations* <http://www.dir.ca.gov/DAS/PWAppWage/wage/08237400pdf?VarWageId=08237400> and *Prevailing Wage determinations* <http://www.dir.ca.gov/dlsr/PWD/Determinations%5CSanDiego%5CSD-023-102-4.pdf>

<sup>34</sup> U.S. Department of Labor. *Registered Apprenticeship: A Solution to the Skills Shortage*. [http://www.doleta.gov/atels\\_bat/pdf/fsfront.pdf](http://www.doleta.gov/atels_bat/pdf/fsfront.pdf)

<sup>35</sup> California Department of Industrial Relations, Department of Apprenticeship Standards. *Educators home page*. <http://www.dir.ca.gov/das/educators.htm>  
Adams Information

## PAYING PREVAILING WAGE STRENGTHENS FAMILIES

California and many other states require that contractors pay Prevailing Wage on public projects, but cities can selectively opt out. For example, the City of San Diego requires prevailing wage only on projects worth more than \$10 million, and the City of Vista recently voted to abandon prevailing wage completely.<sup>38</sup> Prevailing wage requirements invest in communities by providing good wages and benefits, and protect taxpayers from the hidden costs of supporting the uninsured and the working poor.<sup>39</sup>

In California, the Department of Industrial Relations reviews the wages and compensation paid to workers in the local area and sets the local prevailing wage at the level most commonly paid to workers in each classification.<sup>40</sup> Prevailing wage is also required for apprentices.<sup>41</sup>

As Table 3 illustrates, prevailing wage creates middle-class jobs by determining the amount of employer contributions to worker benefit funds, including health insurance, pension, holidays and vacation, and training.

Prevailing wage requirements:

- Do **not** increase cost, because workers who earn more are more productive. Also, workers are safer, lowering worker's compensation costs.<sup>42</sup>
- Increase rates of health coverage and self-sufficient retirement through pensions.<sup>43</sup>
- Improve worker safety by encouraging better training and use and retention of experienced workers.<sup>44</sup>
- Encourage minority participation in apprenticeship programs, creating pathways out of poverty for local workers.<sup>45</sup> States with prevailing wage laws have nearly 20% more minorities in construction apprenticeships than states that do not require prevailing wage.<sup>46</sup>

### Definition: Prevailing Wage

Contractors bidding on construction built with public subsidy must compensate all workers on the project equally, based on their occupational classification.<sup>36</sup> Federal prevailing wage was created in 1931 by the Davis-Bacon Act, "specifically to protect communities and workers from the economic disruption caused by competition arising from non-local contractors coming into an area and obtaining federal construction contracts by underbidding local wage levels."<sup>37</sup>

### Healthcare and Pension Benefits

Many apprenticeship programs give workers access to health coverage and pension benefits, and when the program sponsor is part of a multiemployer trust, workers have benefits portability between jobs.<sup>47</sup> Without that structure, the frequent job changes in construction can result in loss of health insurance and pensions, which generally are accessed through employers in the United States.

Multiemployer plans are created through collective bargaining. With this structure, 83% of unionized construction workers had job-based health coverage compared to only 48% in the nonunion sector of the industry in 2005.<sup>48</sup> Unionized workers are also 23% to 54% more likely to be in employer-provided pension plans.<sup>49</sup>

<sup>36</sup> California State Labor Code, Div. 2, Part 7. Chp. 1, Sec. 1771.

<sup>37</sup> U.S. Department of Labor. 2002. *Prevailing Wage Resource Book, 11/2002*. <http://www.wdol.gov/docs/WRB2002.pdf>

<sup>38</sup> Tenbroeck, Craig. Vista: Unions seek to overturn prevailing wage ruling. *North County Times*. June 30, 2009. and City of San Diego Council Resolution R-298185. A Resolution rescinding Resolution No. R-251555; and authorizing the advertisement of certain public works municipal affair projects as subject to state prevailing wage requirements. Adopted July 14, 2003.

<sup>39</sup> Fiscal Policy Institute. 2006. *The Economic Development Benefits of Prevailing Wage*. <http://www.fiscalpolicy.org/FPI%20Prevailing%20Wage%20Brief%20May%202006.pdf>

<sup>40</sup> California State Labor Code, Div. 2, Part 7. Chp. 1, Sec. 1773.

<sup>41</sup> California State Labor Code, op cit., Sect. 1777.5(b).

<sup>42</sup> Mahalia, Nooshin. 2008. *Prevailing Wages and Government Contracting Costs: A Review of the Research*. Economic Policy Institute (EPI), Briefing Paper 215. <http://www.epi.org/publications/entry/bp215/>

<sup>43</sup> Petersen, Jeffery S. 2000. Health Care and Pension Benefits for Construction Workers: The Role of Prevailing Wage Laws. *Industrial Relations*. Vol. 39, No. 2.

<sup>44</sup> National Alliance for Fair Contracting (NAFC). 2003. *In Defense of Prevailing Wage Laws: Studies and Reports by The Experts*. [http://www.lecet.org/Clearinghouse\\_Public/LECET/NAFC/in\\_defense\\_of\\_prevailing\\_wage\\_laws.pdf](http://www.lecet.org/Clearinghouse_Public/LECET/NAFC/in_defense_of_prevailing_wage_laws.pdf)

<sup>45</sup> NAFC, op cit.

<sup>46</sup> Phillips, Peter Ph.D. 1999. *Kentucky's Prevailing Wage Law: It's History, Purpose and Effect*. University of Utah.

<sup>47</sup> Phillips, op cit.

<sup>48</sup> CWPR- The Center for Construction Research and Training. 2007. *The Construction Chart Book*. 4th ed. Sect. 26. <http://www.cpwpr.com/pdfs/CB%204th%20Edition/Fourth%20Edition%20Construction%20Chart%20Book%20final.pdf>

<sup>49</sup> Mishel, Lawrence and Matthew Walters. 2003. *How unions help all workers*. Economic Policy Institute (EPI). Briefing paper #143. [http://www.epi.org/publications/entry/briefingpapers\\_bp143/](http://www.epi.org/publications/entry/briefingpapers_bp143/)

**Table 3**  
**Prevailing Wage: Hourly Wage & Employer Contributions for Selected San Diego County Apprentices**  
*Year Two of Program*

	Basic Hourly Wage	Employer Contributions					Total Hourly Wages
		Health & Welfare	Pension	Vacation/Holiday	Training	Other	
Carpenter	\$21.00	\$3.95	\$2.91	\$3.30	\$0.42	- 0 -	\$31.58
Electrician, Inside Wireman	\$18.90	\$5.12	\$2.83	- 0 -	\$0.56	\$0.16	\$27.57
Plumber/Pipefitter/Steamfitter	\$19.97	\$6.02	\$0.31	\$1.79	\$0.32	\$0.39	\$28.80
Operating Engineer	\$28.55	\$7.95	\$5.05	\$2.82	\$0.56	\$0.17	\$45.19
Sheet Metal	\$19.33	\$3.42	\$2.63	- 0 -	\$0.68	\$0.46	\$26.52
Laborer	\$19.01	\$4.26	\$0.39	\$2.62	\$0.64	\$0.30	\$27.22
Painter	\$14.21	\$4.60	\$0.15	\$0.30	\$0.34	\$0.67	\$20.27
Roofer	\$16.02	\$4.76	\$1.62	- 0 -	\$0.10	\$0.20	\$22.70
Heating, Ventilation & Air Conditioning**	\$19.62	\$6.38	\$1.13	- 0 -	\$0.70	\$0.25	\$28.08
Carpet	\$20.01	\$6.00	\$0.94	\$0.23	\$0.45	\$0.15	\$27.78

\*Source: California Department of Industrial Relations, Division of Apprenticeship Standards, Public Works Apprentice Wage Sheets. Q1 2009  
<http://www.dir.ca.gov/DAS/PWAppWage/PWAppWageList.asp>

\*\*Los Angeles and Orange counties

A SURVEY OF 8,000 CONSTRUCTION LABORERS IN WASHINGTON FOUND THAT HEALTH AND SAFETY TRAINING DECREASED THE LIKELIHOOD OF WORKERS' COMPENSATION CLAIMS BY 12%.

**Worker Safety**

Safety training is highly effective in preventing workplace accidents and injuries, which saves money. A survey of 8,000 construction laborers in Washington found that health and safety training decreased the likelihood of workers' compensation claims by 12%. Among workers ages 16-24, there were 42% fewer claims.<sup>52</sup>

Apprenticeships in the building trades provide certified and coordinated instruction in building and earthquake codes, environmental laws and safety, including hazardous materials handling and remediation.<sup>53</sup> Minimum apprenticeship training for all crafts must include safety instruction provided on-the-job and in the classroom.<sup>54</sup> In California, most crafts require first aid, CPR, tools and materials safety.<sup>55</sup>

**Definition:**  
**Multiemployer trust**

A benefits plan that covers the workers of two or more unrelated companies in accordance with a collective bargaining agreement.<sup>50</sup> In industries where seasonal or irregular employment and high labor mobility are common, like construction, few workers would qualify under a single company's plan due to eligibility requirements.<sup>51</sup>

<sup>50</sup> Employment Benefit Research Institute (EBRI). 2009. *Fundamentals of Employee Benefit Programs*. 6th ed. <http://www.ebri.org/publications/books/index.cfm?fa=fundamentals>

<sup>51</sup> EBRI, op cit.

<sup>52</sup> Xiuwen Dong, Pamela Entzel, Yuring Men, Risanna Chowdury, and Scott Schneider. 2004.. Effects of Safety and Health Training on Work-related Injury Among Construction Laborers. *Journal of Occupational & Environmental Medicine*. 46(12), pp. 1222-1228.

<sup>53</sup> California Department of Industrial Relations, Department of Apprenticeship Standards. *Minimum Industry Training Criteria*. <http://www.dir.ca.gov/das/mitc.htm>

<sup>54</sup> 29 CFR 29 "Labor Standards for the Registration of Apprenticeship Programs." Code of Federal Regulations.

<sup>55</sup> California Department of Industrial Relations, Department of Apprenticeship Standards. *Minimum Industry Training Criteria*. <http://www.dir.ca.gov/das/mitc.htm>

## APPRENTICESHIPS SUCCEED BECAUSE LABOR AND MANAGEMENT WORK TOGETHER

Due to the resources required to adequately train workers, the structure of sponsorship plays an important role in the success of the program. Apprenticeship programs can be sponsored by a single employer, a group of employers or a group of employers in cooperation with labor. Sponsors plan the training, review apprentice progress, maintain the records of appropriate progress and pay for the program.<sup>56</sup> The total cost can be \$40,000 to \$200,000 per apprentice, depending on the trade and length of apprenticeship.

The sponsor must have the ability to hire and train apprentices in a real work environment. If the sponsors don't provide steady work, the apprentices have fewer opportunities to earn wages and thereby remain in the program.

### The Vast Majority of California's Apprenticeship Programs are Joint Labor-Management

**Table 4:  
Advantages of joint labor-management apprenticeship programs**

California State Certified Apprentice Programs	Number of Programs		Number of Graduates (Individuals) 2002 - 2007	
	Joint Labor-Mgmt	Unilateral Mgmt	Joint Labor-Mgmt	Unilateral Mgmt
Asbestos Workers	2	none	186	none
Boilermakers	1	none	62	none
Bricklayer	3	2	110	16
Carpentry	25	3	4,449	337
Carpet, Linoleum & Soft Tile	2	1	330	2
Cement Masons	3	none	520	none
Drywall / Lather	9	2	1,904	none
Electrical & Electronic	29	9	4,362	1,110
Elevator	2	none	617	none
Engineer	4	3	2,026	13
Glazier & Glass Workers	6	none	437	none
Heating, Ventilation & Air Conditioning	8	2	532	246
Iron & Steel Workers	8	none	2,116	none
Laborers	8	2	1,540	56
Lineman	1	2	324	37
Millwright	2	none	185	none
Painting & Decorating	5	4	1,033	66
Plasterers	4	none	294	none
Plumbing	29	6	2,769	306
Roofers	7	2	618	115
Sheet Metal	9	2	1,654	114
Surveyor	2	none	482	none
Tile Layer/Setter	8	none	976	none
<b>Total</b>	<b>177</b>	<b>40</b>	<b>27,526</b>	<b>2,418</b>
<b>Percentage</b>	<b>82%</b>	<b>18%</b>	<b>92%</b>	<b>8%</b>

Joint labor-management (joint) programs sponsor the majority of apprenticeship programs offered in California and graduate the vast majority of apprentices. The sponsorship structure, meaning whether the sponsor is joint or unilateral management, is a key component to the strength of a program. Cooperation and a shared commitment to training unite employers and workers to create the success of joint programs.

In California, 217 registered programs train apprentices in 23 trades. Joint labor-management programs provide 82% of those programs and offer training in all trades. In 10 trades, only joint programs are offered.

**Definitions:**

**Sponsor**

Any person, association, committee, or organization operating an apprenticeship program and in whose name the program is (or is to be) registered or approved.

**Joint labor-management (joint)**

Composed of an equal number of representatives of the employer(s) and of the employees represented by a bona fide collective bargaining agent(s)

**Unilateral**

An apprenticeship program sponsor without a bona fide collective bargaining agent.

*Source: Code of Federal Regulations, 29 CFR 29 "Labor Standards for the Registration of Apprenticeship Programs."*

Source: California Department of Industrial Relations, Division of Apprenticeship Standards dataset. April 2009.

<sup>56</sup> 29 CFR 29 "Labor Standards for the Registration of Apprenticeship Programs." Code of Federal Regulations. Adams Information

## Joint Programs Have More Graduates and Higher Completion Rates

Ninety-two percent (92%) of California's nearly 30,000 apprenticeship graduates in 2002-2007 were from joint labor-management programs (Figure 2). Since program completion is what secures middle-class career wages and benefits, the ability of apprentices to succeed is vital.

Completion rates in joint programs are higher because they are more established and better funded, according a Government Accountability Office report.<sup>57</sup> Joint apprenticeship training trusts are funded through collective bargaining, meaning that member workers agree to have a small part of their paycheck deposited by the employer into the trust.

**Definition:**

**Completion rate**

The percentage of an apprenticeship cohort who receive a certificate of apprenticeship completion within one year of the projected completion date.

Joint labor-management programs use a multi-employer structure, with several signatory contractors, to keep apprentices fully employed

to fulfill their on-the-job training hours. Joint programs generally take responsibility for placing apprentices with employers, rather than requiring the apprentices to look for work and experience intermittent unemployment. Through local chapter affiliation and portability agreements, apprentices in joint programs keep their benefits and are more likely to find work in other areas with another local.<sup>58</sup>

Ninety-five percent (95%) of women and 92% of people of color graduating from apprenticeship programs are in joint labor-management programs (Figure 3 and Figure 4).<sup>59</sup>

Joint labor-management sponsored apprenticeship programs have a significantly higher completion rate (49%) than unilateral programs (33%) across the board. In many of the largest trades, the joint program completion rates are 20-30% higher than unilateral programs (Figure 5, Page 12).<sup>60</sup>

## BARRIERS TO PROGRAM COMPLETION

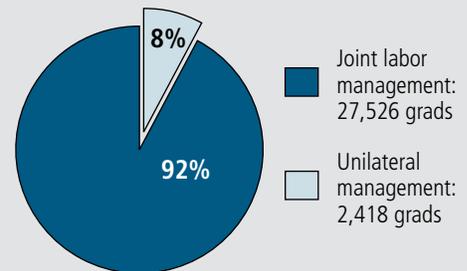
Program sponsorship has two main challenges: failure to complete the program and the loss of a trained worker to another employer, or "poaching."<sup>61</sup> These problems increase the cost of training and threaten continuation of the programs.

### Dropouts

Apprenticeship programs are rigorous. It is full-time, physically

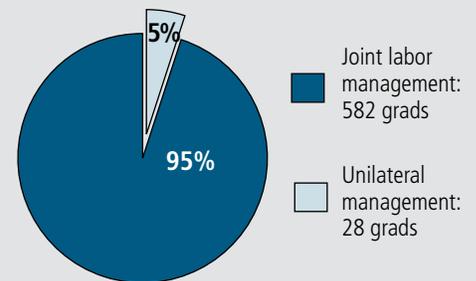
**FIGURE 2: TOTAL GRADUATION**

California Construction Apprenticeship Programs Individual Completions by All Persons 2002-2007



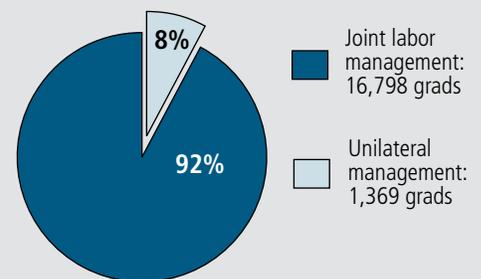
**FIGURE 3: WOMEN GRADUATES**

Apprenticeship Program Completions by Women in California, 2003-2008 (Individuals)



**FIGURE 4: MINORITY GRADUATES**

Apprenticeship Program Completions by Minorities in California, 2003-2008 (Individuals)



Source for above figures: California Department of Industrial Relations, Division of Apprenticeship Standards dataset. April 2009.

<sup>57</sup> Government Accountability Office (GAO). 2005. *Registered Apprenticeship Programs: Labor Can Better Use Data to Target Oversight*. Report to Congressional Requesters. <http://www.gao.gov/new.items/d05886.pdf>

<sup>58</sup> GAO, op cit.

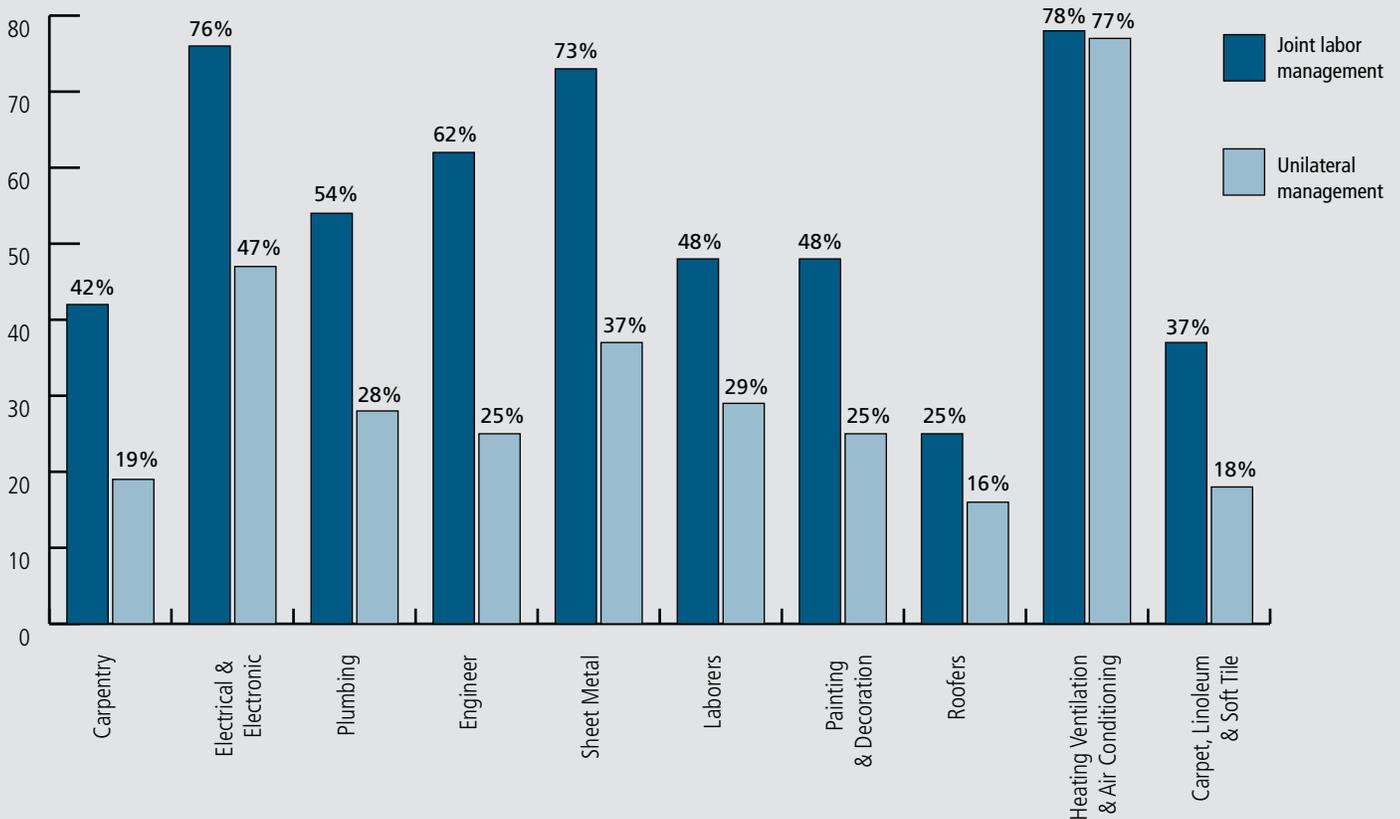
<sup>59</sup> Apprenticeship dataset received from the California Department of Industrial Relations, Division of Apprenticeship Standards, April 2009.

<sup>60</sup> Apprenticeship dataset, op cit.

<sup>61</sup> Lerman, Robert, Lauren Eyster and Kate Chambers. 2009. *The Benefits and Challenges of Registered Apprenticeship: The Sponsors' Perspective*. The Urban Institute on Labor, Human Services and Population. [http://www.urban.org/UploadedPDF/411907\\_registered\\_apprenticeship.pdf](http://www.urban.org/UploadedPDF/411907_registered_apprenticeship.pdf)  
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FIGURE 5: CALIFORNIA CONSTRUCTION APPRENTICESHIP PROGRAMS COMPLETION RATE BY CRAFT, 2002-2007

Top 10 crafts by number of graduates. Completion rate weighted average



Source: California Department of Industrial Relations, Division of Apprenticeship Standards dataset, April 09

Methodology: Most data used in this report come from the California Department of Industrial Relations, Division of Apprenticeship Standards. One dataset listed individual program completions by sponsor for gender and ethnicity and was received at the end of March 2009. The other dataset listed program completions by sponsor for all persons and was received mid-April 2009. Weighted averages were created by multiplying total intake of apprentices for each sponsor for 2002-2007 by average completion rate after the 1st year. The results for each sponsored program within each trade were added together. This total was then divided by total average annual intake rate to find the weighted average for each trade by type of sponsor.

demanding work, with classroom instruction and studying after work or on weekends. It can be difficult to juggle time commitments or manage the stress of constant training challenges and evaluations. An apprentice needs both personal commitment and a support system to be successful. This is even more critical if the apprentice comes from an at-risk background.

Social service or support programs within the community can help apprentices succeed by providing needed additional services, such as substance abuse or mental health counseling, childcare, or small loans for reliable transportation. Using assessments and case management to assist apprentices in identifying personal barriers to success and then connecting them to support services can address many of the reasons for dropping out.<sup>62</sup>

**The most commonly cited reasons for non-completion of a program were:<sup>63</sup>**

- 36% – personal reasons (family needs, mental health or substance abuse problems, physical illness or legal issues).
- 32% – performance problems on the job or in the classroom.
- 30% – gained craft certificate or took another job before completion.

<sup>62</sup> The Apollo Alliance, et al. 2008. *Green-Collar Jobs in America's Cities: Building Pathways Out of Poverty and Careers in the Clean Energy Economy*. <http://apolloalliance.org/downloads/greencollarjobs.pdf>

<sup>63</sup> Lerman, Robert, Lauren Eyster and Kate Chambers. 2009. *The Benefits and Challenges of Registered Apprenticeship: The Sponsors' Perspective*. The Urban Institute on Labor, Human Services and Population. [http://www.urban.org/UploadedPDF/411907\\_registered\\_apprenticeship.pdf](http://www.urban.org/UploadedPDF/411907_registered_apprenticeship.pdf)  
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## WORKER STORY: Iron Woman

"I was working in retail and was tired of it. I wanted a career and something that would keep me outside, healthy and happy," says 28-year old ironworker Mariko Preston. "I began training in ironworking in New Orleans but was looking to get out. Katrina helped with that."

Following Hurricane Katrina, Preston was evacuated by the American Red Cross to San Diego. She approached the staff at Ironworkers Local 229, she remembers. "They said OK. Show us what you got."

Five years later, Preston is a journey-level iron worker with comprehensive welding certifications and on-the-job experience in welding for infrastructure like highways, bridges and dams and for skyscrapers.

A 5'3" African-American woman, Preston says, "I work smarter, not harder. Being a woman in the trades, it's hard enough, especially as an ironworker, to go out on the job and think you are going to get paid as much as the next guy. When I'm in the union, I know that they have to treat me fairly, and we are all going to get paid the same."

And Preston credits her joint labor-management apprenticeship with teaching her more in a few years than she ever would have learned as a nonunion worker.



## Poaching

The loss of a trained worker to another employer, known as "poaching," can lead to underinvestment in an employer's workforce.<sup>64</sup> In order to maximize profits in the short-term, some contractors may choose to hire others' apprentices or journeyworkers rather than make the long-term investment to sponsor their own training programs.<sup>65</sup>

The focus on selecting the lowest bidder for construction projects can exacerbate "poaching." When bidding, contractors may cut training costs to reduce total overhead as much as possible and win the work. This fierce pressure to contain labor costs and undercut the competition encourages employers to poach workers from other contractors rather than incur the costs of training.<sup>66</sup>

Joint labor-management programs report less concern with dropouts and "poaching."<sup>67</sup> Steady work, higher wages and health insurance may resolve many of the personal reasons for dropping out of a program. A steady paycheck at a family-sustaining level may allow workers to pay for childcare or other assistance, while health insurance provides treatment for physical illness, substance abuse or mental health issues.

Joint programs pool their training costs and resources, creating a "fair playing field" among union contractors, thereby negating the disincentive to provide training and the incentive to poach.<sup>68</sup>

<sup>64</sup> Organization for Economic Co-operation and Development (OCED). 1994. *The OECD Jobs Study: Facts, Analysis, Strategies*. <http://www.oecd.org/dataoecd/42/51/1941679.pdf>

<sup>65</sup> Kotler, Fred. 2009. *Project Labor Agreements in New York State: In the Public Interest*. Cornell University Industrial and Labor Relations School, Cornell University.

<sup>66</sup> Kotler, op cit.

<sup>67</sup> Lerman, Robert, Lauren Eyster and Kate Chambers. 2009. *The Benefits and Challenges of Registered Apprenticeship: The Sponsors' Perspective*. The Urban Institute on Labor, Human Services and Population. [http://www.urban.org/UploadedPDF/411907\\_registered\\_apprenticeship.pdf](http://www.urban.org/UploadedPDF/411907_registered_apprenticeship.pdf)

<sup>68</sup> Kotler, Fred. 2009. *Project Labor Agreements in New York State: In the Public Interest*. Cornell University Industrial and Labor Relations School, Cornell University.

## NECESSARY POLICIES TO SUPPORT APPRENTICESHIP PROGRAMS

The success of apprenticeship programs in creating middle-class careers depends on supportive public policies. Effective policy options include funding the programs and support services, requiring contractors to pay prevailing wage and hire apprentices on more projects, and enacting responsible contracting standards.

**Definition:**

**Responsible contracting policies**

Prohibit public contracting with employers who violate workplace, tax or other laws. They can also provide a mechanism to favor employers who provide good jobs – good wages and benefits, a safe workplace – and comply with workforce standards.<sup>69</sup>

### Career Ladders - Pathways out of Poverty

A career ladder or pathway out of poverty is a succession of training and support systems that prepare workers for a series of jobs with increasing skill requirements and compensation, providing a bridge from unemployment or dead-end jobs into middle-class careers.<sup>70</sup> Career ladders focus on community members who traditionally face multiple

barriers to employment – low-income, people of color, women, unemployed, homeless, ex-offender, returning veterans or those lacking a high school diploma or GED.

A comprehensive career pathway links job seekers, employers, community organizations, educational institutions and the workforce development system, creating “wrap-around” services.<sup>71</sup> Apprenticeship is a key step.

### Recruitment and Case Management

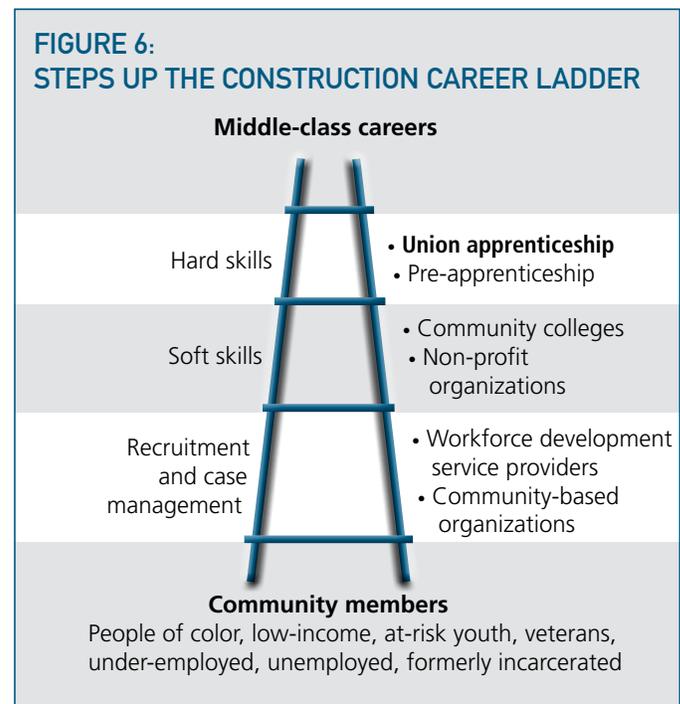
Community-based organizations and workforce development providers help connect community members with career pathway programs. They provide skills assessments, identify participant needs and coordinate support services. Some community members need case management assistance along the entire pathway out of poverty. Case management assistance is often necessary for ex-offenders or youth, those with a history of substance abuse, or to help low-income people remain qualified for assistance until they become stably employed.<sup>72</sup>

### Soft Skills

Nonprofit organizations and community colleges provide soft skills, including job hunting skills, workplace etiquette, communication skills, conflict management, as well as assistance with obtaining a driver’s license or GED.<sup>73</sup>

### Hard Skills

Nonprofit organizations, labor unions and employers provide the actual on-the-job skills training for careers through pre-apprenticeship and apprenticeship programs.<sup>74</sup>



Adapted from The Apollo Alliance, et al. 2008. *Green-Collar Jobs in America's Cities: Building Pathways Out of Poverty and Careers in the Clean Energy Economy.*

<sup>69</sup> Sonn, Paul K. and Tsedeye Gebreselassie. 2009. The Road to Responsible Contracting: Lessons from States and Cities for Ensuring That Federal Contracting Delivers Good Jobs and Quality Services. National Employment Law Project (NELP). [http://nelp.3cdn.net/fd1c66786fb98867e7\\_1dm6brs8l.pdf](http://nelp.3cdn.net/fd1c66786fb98867e7_1dm6brs8l.pdf)

<sup>70</sup> Mitnik, Pablo and Matthew Zeidenberg. 2007. *From Bad to Good Jobs? An Analysis of the Prospects for Career Ladders in the Service Industries.* Center on Wisconsin Strategy (COWS). [http://www.cows.org/about\\_publications\\_detail.asp?id=399\\_](http://www.cows.org/about_publications_detail.asp?id=399_) and The Apollo Alliance, et al. 2008. *Green-Collar Jobs in America's Cities: Building Pathways Out of Poverty and Careers in the Clean Energy Economy.* <http://apolloalliance.org/downloads/greencollarjobs.pdf>

<sup>71</sup> The Apollo Alliance, et al. 2008. *Green-Collar Jobs in America's Cities: Building Pathways Out of Poverty and Careers in the Clean Energy Economy.* <http://apolloalliance.org/downloads/greencollarjobs.pdf>

<sup>72</sup> The Apollo Alliance, et al, op cit.

<sup>73</sup> The Apollo Alliance, et al, op cit.

<sup>74</sup> The Apollo Alliance, et al, op cit.

**Careers**

Graduates of apprenticeship programs become journeyworkers.

With increasing experience and continuing education, many later become foremen, supervisors or contractors.

**Definition:**

**Pre-apprenticeship**

A program that provides contextualized training in the basic skills used in the building trades and prepares students for entrance into an apprenticeship program. Many programs train on smaller and less complex construction projects, such as a model structure on the program site, or in residential weatherization of community homes.

None of this is cheap. Providing the diverse services necessary for moving an at-risk community member to self-sufficiency requires resources. Some funds come from government programs and others through nonprofit or charitable organizations.

Regardless, programs like these need both policy and financial support, especially in today's economy.

**Local Hire Requirements**

On-the-job training is the main component of the apprenticeship system. Each apprentice must stay fully employed to complete their program on time. Therefore, a shortage of jobs limits the availability of apprenticeships for community residents.

Local hire policies provide local jobs and also incentivize the creation of career ladders by moving community members into apprenticeship programs and into middle-class careers. Local hire policies require that a certain number of journeyworkers and apprentices who are residents of the local area to be employed on development projects. Many local hire policies also require a set participation rate by "at-risk" residents or living in poverty. Local hire is a concrete mechanism to ensure that the investment of public funds into the community helps low-income residents.<sup>75</sup>

A successful example of local hire policies in action, the City of Los Angeles implemented local hire after an audit of the 1996 City Hall renovation project showed that less than 2% of project work hours were performed by local residents.<sup>79</sup> The City's Department of Public Works now requires that 30-40% of project hours be performed by City residents. Because of that policy, \$41.5 million has been reinvested in the City through the estimated wages and benefits paid to 2,600 local residents and 2,300 apprentices employed on nine Public Works projects.<sup>80</sup>

**CASE STUDY: Los Angeles Unified School District "We Build"**

Since 1999, the Los Angeles Unified School District (LAUSD) has strived to use local district residents to perform at least 50% of total hours worked on bond projects. The local-hire policies cover over \$27.1 billion dollars of bond funds, the largest school construction project in the nation. Through diligent, innovative administration and community partnerships, 33% or 19,509 local residents have been employed on LAUSD projects, as of March 2009.<sup>75</sup>

Due to the size and scope of the bond projects, LAUSD has created an internal department to facilitate local hire and community partnerships, called We Build. We Build connects community members with pre-apprenticeship training through both the LAUSD Division of Adult and Career Education Training Centers and the nonprofit Century Community Training Program. Completion of the pre-apprenticeship program places workers in a competitive position to enter union apprenticeship programs and be employed by contractors working on bond construction projects.<sup>76</sup>

The Century Community Training Program is one example of an organization providing "wrap around" services. Trainees receive hands-on experience building on-site model structures where they learn the basics of several trades, including concrete pouring, residential plumbing and electrical systems, reinforcing iron setup and basic framing. Daily physical agility and endurance-building exercises help prepare trainees for the physical demands of construction. Classroom instruction includes shop math, written test-taking, blueprint reading and OSHA 10-hour safety certification. Trainees also receive case management services and job placement assistance, with 85% of graduates entering union apprenticeship programs.<sup>77</sup>

<sup>75</sup> Los Angeles Unified School District. *We Build*. <http://www.laschools.org/contractor/webuild/> and "We Build" Program Update & UCLA Labor Center Study Summary. Facilities Committee Report. March 5, 2009. Received from We Build program upon request.

<sup>76</sup> Los Angeles Unified School District. *We Build*. <http://www.laschools.org/contractor/webuild/>

<sup>77</sup> Information from the Century Community Training Program website. <http://www.centurycommunitytraining.org/>

<sup>78</sup> Kathleen Mulligan-Hansel, PhD. 2008. *Making Development Work for Local Residents: Local Hire Programs and Implementation Strategies that Serve Low-Income Communities*. Partnership for Working Families. <http://www.communitybenefits.org/downloads/Making%20Development%20Work%20for%20Local%20Residents.pdf>

<sup>79</sup> City of Los Angeles Bureau of Contract Administration, Project labor agreement documents posted online. [http://bca.lacity.org/index.cfm?next\\_body=local\\_hiring.cfm](http://bca.lacity.org/index.cfm?next_body=local_hiring.cfm)

<sup>80</sup> Manny Perez, 2009. *Local Hire in the City of Los Angeles*. City of Los Angeles, Department of Public Works, Bureau of Contract Administration. Presentation to the San Diego Unified School Board, January 2009. Adams Information

## Good Jobs in the Green Economy

The green economy is large and growing rapidly. According to the American Solar Energy Society, renewable energy and energy efficiency generated \$970 billion in revenues and 8.5 million jobs in 2006.<sup>81</sup> By 2030, ASES estimates that 1 in 4 U.S. workers will have jobs involving renewable energy or energy efficiency.<sup>82</sup>

With that much of our economy at stake, policy decisions are needed today to ensure high-road, middle-class careers for the future. Increasing numbers of state and local governments and agencies are addressing climate change through requiring buildings to be certified “green” and to increase use of renewable energy. The City of Los Angeles, for example, does both. All new buildings over 50,000 square feet must be LEED certified, City buildings over 7,500 square feet must be retrofit to LEED Silver standards and the Los Angeles Department of Water and Power has an aggressive solar incentive program.<sup>83</sup>

Achieving maximum energy efficiency requires a “whole-building” approach and correct construction and installation.<sup>84</sup> Industry analysts recommend certification of contractors as a means to ensuring proper installation.<sup>85</sup>

Apprenticeship training already incorporates green skills and provides the workforce certified in these skills. Together with a strong foundation in skills of the trades, apprenticeship graduates already are well prepared for most green economy jobs.

For example, solar electric systems require electrical training and licensing, and solar water systems require training in plumbing.<sup>86</sup> Apprentices in the United Association of Journeymen and Apprentices of the Plumbing and Pipefitting Industry (UA) learn how to be green plumbers.<sup>87</sup> In the 32-hour, LEED-approved course, apprentices receive training in water conservation technologies such as gray, recycled and wastewater treatment; solar hot water systems; reducing the energy consumption of heating and cooling appliances, and performing energy and water audits.

### Weatherization Pre-Apprenticeships

For the last 32 years, the Department of Energy Weatherization Assistance Program (WAP) has helped low-income families permanently reduce their energy bills by making their homes more energy efficient.<sup>88</sup> Basic construction skills are used to address comprehensive energy usage, water consumption and related health and safety improvements. Weatherization workers seal leaks, replace or repair windows, add insulation and repair duct work, upgrade heating and ventilation appliances, and install water-saving devices, among other tasks.<sup>89</sup>

Since weatherization uses the same basic skills as many of the construction crafts, it is a perfect fit for pre-apprenticeship programs. Community-based organizations and the Laborer’s International Union of North America (LIUNA) are creating programs to train community members in weatherization as a pathway into apprenticeships and out of poverty.<sup>90</sup> Moreover, the American Recovery and Reinvestment Act (ARRA) includes commitments to weatherizing 1 million homes and requires payment of federal prevailing wage to workers.<sup>91</sup> Combining ARRA funds for the WAP program with pre-apprenticeship programs will provide good jobs at an early stage of the pathway out of poverty.



The Green Training Trailer is a mobile classroom that travels nationwide teaching union apprentices the latest in green technologies in the plumbing, heating and mechanical trades.

### Definition:

#### Leadership in Energy and Environmental Design (LEED):

A green building certification system providing third-party verification that a building or community was designed and built using strategies aimed at improving performance and stewardship of resources and sensitivity to their impacts.<sup>92</sup>

<sup>81</sup> Bedzec, Roger. 2007. *Renewable Energy and Energy Efficiency: Economic Drivers for the 21st Century*. American Solar Energy Society (ASES). <http://www.ases.org/images/stories/ASES-JobsReport-Final.pdf>

<sup>82</sup> Bedzec, op cit.

<sup>83</sup> City of Los Angeles, *EnvironmentLA. New Green Building Program*. <http://www.lacity.org/ead/environmentla/greenbuilding/newgreenbuilding.htm> and City of Los Angeles. *Green Retrofit and Workforce Program Ordinance*. Administrative Code, Div. 7, Chp. 3, Art. 5.

<sup>84</sup> U.S. Department of Energy, Energy Efficiency and Renewable Energy. Building Technologies Program. *Commercial Buildings*. [http://www1.eere.energy.gov/buildings/commercial/whole\\_building\\_approach.html](http://www1.eere.energy.gov/buildings/commercial/whole_building_approach.html) and U.S. and Green Building Council. *LEED Rating Systems*. <http://www.usgbc.org/displaypage.aspx?CMSPageID=222>

<sup>85</sup> Choi Granade, Hannah, et al. 2009. *Unlocking Energy Efficiency in the U.S. Economy*. McKinsey and Company. [http://www.mckinsey.com/client-service/electricpower/naturalgas/US\\_energy\\_efficiency/](http://www.mckinsey.com/client-service/electricpower/naturalgas/US_energy_efficiency/)

<sup>86</sup> Op Cit. and Pollin, Robert, Heidi Garrett-Peltier, James Heintz and Helen Scharber. 2008. *Green Recovery: A Program to Create Good Jobs and Start Rebuilding a Low-Carbon Economy*. Center for American Progress (CAP) and Political Economy Research Institute (PERI). [http://www.americanprogress.org/issues/2008/09/pdf/green\\_recovery.pdf](http://www.americanprogress.org/issues/2008/09/pdf/green_recovery.pdf)

<sup>87</sup> GreenPlumbers, USA. *Green Plumbers Course Information*. <http://www.greenplumbersusa.com/training-accreditation/course-information/#climatecare>  
Adams Information

## WORKER STORY: From Apprentice to Contractor

Electrical contractor Andre Johnson credits his apprenticeship training as the most valuable factor in his growing business success. "In the apprenticeship, I learned about all aspects of the electrical trade – from residential to commercial, from tenant improvements to motor controls."

Johnson, 38, spent time in San Diego during his service in the Air Force during the first Gulf War, and knew this was where he wanted to plant roots. He later returned to San Diego to raise his family and work in the electrical industry.

Johnson began his electrical apprenticeship with IBEW in 1995. After completing the program, he worked as a journey-level electrician and then progressed to foreman with San Diego-based Robinson Electric. Gaining experience and business acumen along the way, he then started Johnson Electric in the summer of 2006.

Johnson now employs local electricians and apprentices, and provides health care and retirement benefits, proving that a small business can provide family-sustaining careers and succeed.

"It is important to employ apprentices and make sure they are mentored and supported and learn all the aspects of the trade, so they can take their careers in whatever direction they want to go," Johnson said.

"It is not easy to start your company, but I did it," he said. "Now, young apprentices see me, and see that they could own a company one day, too."



## SUMMARY

Completion of apprenticeship programs creates household self-sufficiency rather than a reliance on taxpayer-supported services. Construction workers are also consumers and taxpayers, so their wages and benefits are reinvested in the community as bills and mortgages are paid, local shops are patronized and workers have the time and health to participate in church, schools and other civic associations. Creating more local jobs for apprentices is the key to a strong local community. Rebuilding the economy means creating and supporting high-road, good jobs through policies that train and reward workers for their productivity.

## RECOMMENDATIONS

1. State and federal "related technical instruction" funding for apprenticeship programs should increase, and funding should be provided for pre-apprenticeship and support services programs.
2. Projects receiving government subsidy should employ apprentices from registered programs at the highest allowed ratio for all trades.
3. Projects receiving government subsidy should utilize local hire policies that target low-income and/or disadvantaged workers through quality state-certified apprenticeship programs with a proven history of graduating apprentices.
4. Public contracting should give preference to responsible contractors and apprenticeship programs that provide health-care and pension benefits and OSHA safety training certifications.
5. Public contracting should utilize policies that reduce reliance on public assistance and that provide economic benefits to the community.

<sup>88</sup> U.S. Department of Energy, Energy Efficiency and Renewable Energy. *Weatherization Assistance Program*. <http://apps1.eere.energy.gov/weatherization/>

<sup>89</sup> U.S. Department of Energy, Energy Efficiency and Renewable Energy. *Weatherization Assistance Program Technical Assistance Center. Core Competencies Document*. <http://www.waptac.org/sp.asp?id=1818>

<sup>90</sup> Laborer's International Union of North America. *LIUNA Builds America*. <http://www.liunabuildsamerica.org/weatherize> and *MAAC Project. Green Career Opportunities*. <http://www.maacproject.org/Weatherization%20Trainee%20Program>

<sup>91</sup> Recovery.gov. *The Act*. <http://www.recovery.gov/?q=content/act> and U.S. Department of Energy, Energy Efficiency and Renewable Energy. *Weatherization Assistance Program*. <http://apps1.eere.energy.gov/weatherization/>

<sup>92</sup> U.S. Green Building Council. Intro – *What LEED Is*. <http://www.usgbc.org/DisplayPage.aspx?CMSPageID=1988>  
Adams Information

APPENDIX: WORK DESCRIPTIONS AND ENROLLMENT REQUIREMENTS FOR SOUTHERN CALIFORNIA JOINT LABOR-MANAGEMENT APPRENTICESHIP PROGRAM OCCUPATIONS

TRADE	DESCRIPTION OF WORK	REQUIREMENTS
<b>Allied Workers</b>	Applying thermal insulation to pipes, ducts, boilers, vessels, etc., throughout the commercial and industrial industries.	Min. 18 yrs. old, H.S. diploma or GED, certified copy of birth certificate, CA ID, & SS card. Must pass math, English, & physical.
<b>Boilermakers</b>	Build & repair boilers, tanks, pipelines & refineries	Min. 18 yrs old, H.S. diploma or GED. Drug test.
<b>Bricklayers/ Stonemasons</b>	Build with masonry materials, bricks, blocks, stone, & marble.	Min. 18 yrs. old, CA ID & SS card. Drug test.
<b>Carpenters</b>	Erect wood framework in buildings, build forms for concrete, CA erect partitions, studs, joists, & rafters.	Min. 17 yrs. old w/ parental consent, good physical condition, & mechanical aptitude necessary. Also, CA ID & SS card. Drug test.
<b>Carpenter - Acoustic Installer</b>	Installs a variety of factory produced systems & construction material in commercial buildings & public structures.	Same as for Carpenter listed above. Drug test.
<b>Cement Mason</b>	Finishes concrete surfaces of floors, walls, streets, driveways, sidewalks, curbs, & gutters & sets forms & screens for all of the above. Assists in preparation & grading for pouring & removal of old concrete. Operates troweling machines & grinders.	Min. 18 yrs. old, H.S. diploma or GED, good physical condition, CA ID, & SS card. Drug test.
<b>Drywall Finisher</b>	Prepares drywall surfaces for painting. Individual must sand, prepare, tape, & do touch-up using hand applied operations or machine applied systems.	Min. 17 yrs. old w/ parental consent, CA ID, & SS card. Must have good physical condition & no fear of heights. Drug test.
<b>Drywall Lather</b>	Erects wood or metal framing, fastens metal studs, metal lath, & drywall with tie wires, screws, nails, clips, & staples. Work is mostly indoors & in high places.	Same as for Finisher above and needs to have good mechanical aptitude. Drug test.
<b>Electrical</b>	Apprentices perform all aspects of electrical/ telecommunication wire tasks in commercial, industrial, & residential construction.	Min. 18 yrs. old, H.S. diploma or GED, CA ID, SS card, & good physical condition. Must show proof of successful completion of 1 yr. of H.S. algebra or 1 semester college algebra & provide sealed transcripts. Must have reliable transportation. Math & aptitude exam given and drug test.
<b>Elevator Constructors</b>	Install & maintain elevators.	Min. 18 yrs. Old. H.S. diploma or GED. Aptitude test & personal interview.
<b>Floor Covering</b>	Apprentices learn to prepare sub-flooring & install new, resilient flooring & carpet installation.	Min. 18 yrs. old, CA ID, SS card & good physical condition. Drug test.
<b>Glazing</b>	Requires the use of hand tools, electric drills, electric metal saws, & glass polishing equipment. Also requires blueprint reading, layout work, handling, cutting, & processing glass of all sizes. Work is at various heights on ladders & scaffolds.	Min. 18 yrs. old, H.S. diploma or GED, Calif. ID, SS card, & good physical condition. Applicants should not have blood clotting issues. Drug test.
<b>Ironworker</b>	Apprentices are employed in four related segments of the trade: Structural Ironworker, Reinforcing Ironworker, Ornamental Ironworker, or Riggers & Machine Movers.	Min. 18 yrs. old, H.S. diploma or GED, CA. ID, SS card, & good physical condition. Must have own reliable transportation. Drug test.
<b>Laborers</b>	Support service for concrete, asphalt, landscape, pipelines, masonry & mining.	Min. standard evaluation & good physical condition. Drug test.

TRADE	DESCRIPTION OF WORK	REQUIREMENTS
<b>Landscape &amp; Irrigation Fitters</b>	Apprentices acquire proficiency in layout, installation, and testing of irrigation systems. Also requires use of hand tools, power tools, and construction equipment related to the trade.	Min. 18 yrs. old, H.S. diploma or GED and good physical condition. Drug test.
<b>Millwright:</b>	Apprentices install & perform maintenance on machinery in factories & on precision work in nuclear power plants.	Min. 18 yrs. old, good physical condition, and mechanical aptitude necessary. Drug test and physical exam.
<b>Operating Engineer:</b>	Apprentices are heavy equipment operators & mechanics for major projects using rock, gravel, sand, or dredging operations.	Min. 18 yrs. old, H.S. diploma or GED, and strong physical condition. Must pass 3 part test: verbal, mechanical & math skills. Drug test.
<b>Painter</b>	Apprentices prepare surfaces & apply paint working on floors, walls, ceilings, & equipment in & outside of buildings. Paint is usually applied via brushes, spray guns, or rollers.	Min. 17 yrs. old w/ parental consent, and good physical condition. Transportation required. Drug test.
<b>Pile Driver</b>	Apprentices work in the early states of construction by driving metal, concrete, or wood pilings into the earth for base foundation.	Min. 17 yrs. old w/ parental consent, good physical condition, and mechanical aptitude necessary. Drug test.
<b>Plasterer</b>	Apprentices gain knowledge, skills, & techniques required for the plastering industry. Skills include: applications of scratch & brown coats, finish coats, as well as maintenance & operation of equipment, machine applied plaster & acoustic materials.	Min. 17 yrs. old w/ parental consent, functional reading writing, and math skills required. Also, must not have fear of heights or hard physical labor. Drug test.
<b>Plaster Tender</b>	Tending plasterers in all aspects of interior & exterior plaster, fireproofing & EIFS applications, scaffold building, pump & mixer operation of forklifts & other mechanical equipment.	Min. 18 yrs. Must have a CA drivers license, SS card & reliable transportation. Physical agility, oral interview & drug test.
<b>Plumber &amp; Pipefitter</b>	Apprentices learn all aspects of plumbing and pipefitting for commercial, industrial, and residential construction.	Min. 18 yrs. old, H.S. diploma or GED w/ sealed transcripts, valid photo ID, and birth certificate. Must pass aptitude test at community college & drug test.
<b>Roofers</b>	Installation of all types of roofing including slate, tile, & composition. Also includes waterproofing.	Min. 18 yrs. old, valid photo ID, ss card, and ability to lift 100 lbs. Functional reading, writing, and math skills needed. Drug test.
<b>Sheet metal</b>	Apprentices lay out, cut, form, fabricate, assemble, & install sheet metal items. This trade works from blueprints, lays out the work, cuts and forms the metal, then welds, bolts, rivets, and solders as required.	Min. 18 yrs. old, H.S. diploma or GED, and good physical condition. Must pass community college math test & drug test.
<b>Surveyor</b>	Surveyors use advanced math to determine the proper location of property lines and various field & construction survey work. Measure elevations & distances for preparation of maps showing land surfaces, boundaries, & legal descriptions of property.	Min. 18 yrs. old, H.S. diploma or GED, strong algebra and geometry skills, and good physical condition. Must pass algebra & geometry test & drug test.
<b>Teamster</b>	Driving rock trucks, water trucks, flatbeds, semi tractor trailer & dump trucks.	Min. 18 yrs. for warehouse/commerical vehicle. Min. 20 yrs. for a class A or B license driving position. Drug test.
<b>Tile Setters</b>	Preparation and installation of tile.	Min. 18 yrs.

A black and white photograph of construction workers on a job site. In the foreground, a worker in a white hard hat and a dark jacket with a light-colored stripe is using a long-handled tool to level a circular area of concrete. Other workers in hard hats and work clothes are visible in the background, some using brooms to finish the concrete surface. The ground is covered in a layer of wet concrete with visible broom marks.

# CONSTRUCTION APPRENTICESHIP PROGRAMS

CAREER TRAINING FOR CALIFORNIA'S RECOVERY

SEPTEMBER 2009

**Center on Policy Initiatives**  
3727 Camino del Rio South,  
Suite 100  
San Diego, CA 92108  
619.584.5744  
[www.onlineCPI.org](http://www.onlineCPI.org)

The Center on Policy Initiatives is a nonprofit research and advocacy organization formed in 1997 to address issues affecting working people. Through research, advocacy, public education and coalition-building, CPI promotes policy solutions that guarantee access to quality healthcare, ensure development meets community needs, and combat economic inequality.



# STUDIES OF THE EFFECTS OF PREVAILING WAGE LAWS

**Prevailing Wages and Government Contract Costs: A Review of the Research**, Nooshin Mahalia, Economic Policy Institute, 2008

**Findings:** A growing body of economic studies finds that prevailing wage regulations do not increase government contracting costs. These studies also show that prevailing wage laws provide social benefits from higher wages and better workplace safety, increase government revenues, and elevate worker skills in the construction industry.

**Link:** <http://www.epi.org/publications/entry/bp215>

**Quality Construction – Strong Communities: The Effect of Prevailing Wage on the Construction Industry in Iowa**, Peter Philips, Professor of Economics, University of Utah, 2006

**Findings:** Prevailing wage regulations increase training, productivity and wages. Prevailing wages do not raise costs. Prevailing wage regulations encourage quality construction. In the 31 prevailing wage law states, there is a higher rate of apprenticeship training. Without prevailing wage requirements, nonunion contractors cut their bids by jettisoning training costs. After Kansas' repeal, apprenticeship training fell 38 percent.

**Link:** [www.illinoisprevailingwagecouncil.org/?page\\_id=24](http://www.illinoisprevailingwagecouncil.org/?page_id=24)

**Lessons for post-Katrina Reconstruction**, Peter Philips, Professor of Economics, University of Utah, 2005

**Findings:** In the case of the Northridge earthquake, there were two benefits from hiring more skilled workers within Davis-Bacon rules. First, their higher productivity per hour largely offsets any difference in labor cost per hour. Second, they can finish the rebuilding more quickly. It is penny-wise and pound-foolish to suspend the act for Gulf Coast reconstruction.

**Link:** [www.epi.org/publications/entry/bp166/](http://www.epi.org/publications/entry/bp166/)

**Wages, Productivity and Highway Construction Costs, Updated Analysis**, Construction Labor Research Council, 2004

**Findings:** A study of highways built from 1994 through 2002 showed that when workers' skills and productivity justify higher wage rates, highways can be built at a lower cost per mile than when lower skilled workers are employed. High wage states showed a \$30,000 per mile *savings* in construction costs compared to low-wage states.

**Link:** [www.buildri.org/contentmgr/showdetails.php/id/2004](http://www.buildri.org/contentmgr/showdetails.php/id/2004)

**The Adverse Economic Impact from Repeal of the Prevailing Wage Law in Missouri**, Michael Kelsay, L. Randall Way, Kelly D. Pinkham, Department of Economics, University of Missouri, Kansas City, 2004

**Findings:** The repeal of the prevailing wage law would cost the residents of Missouri and their families between \$294.4 million and \$356.0 million annually in lost income. The repeal of the prevailing wage law would cost the State of Missouri between \$5.7 million and \$6.9 million in lost sales tax collections annually. The repeal of the prevailing wage law would cost the State of Missouri between \$17.7 and \$21.4 million annually in lost income tax revenue.

**Link:** [www.smacna.org/legislative/missouri.pdf](http://www.smacna.org/legislative/missouri.pdf)

**Four Biases and a Funeral, Michigan's Prevailing Wage Law**, Peter Philips, Professor of Economics, University of Utah, 2001

**Findings:** When you eliminate prevailing wages, you eliminate training; you cut capital investment; you cut wages, and the labor force becomes younger, less experienced, less formally educated and more reliant on non-citizens. In the 1980s, Colorado, Idaho, New Hampshire, Kansas and Louisiana all lost construction jobs after repealing prevailing wage.

**Link:** [www.faircontracting.org/NAFCnewsite/prevailingwage/new/fourbias.pdf](http://www.faircontracting.org/NAFCnewsite/prevailingwage/new/fourbias.pdf)

**Do Higher Wages Raise Labor Costs?** Bob Gasperow, Construction Labor Research Council, 2001

**Findings:** A 14-year study of highway construction found that because of the payment of prevailing wages, more skilled workers achieved a cost *savings* of \$123,000 per mile. Skills and productivity, not wage rates, are what finally determine actual costs. There is no basis to the claim that lower wage rates result in lower construction costs.

**Link:** [www.faircontracting.org/NAFCnewsite/prevailingwage/new/wagesproductivity.pdf](http://www.faircontracting.org/NAFCnewsite/prevailingwage/new/wagesproductivity.pdf)

**Kentucky's Prevailing Wage Law, Its History, Purpose and Effect**, Peter Philips, Ph.D., Professor of Economics, University of Utah, 1999

**Findings:** High wage rates, if they induce higher labor productivity, can actually reduce labor costs as a percent of total costs. Low wage rates, if they mean a loss of skills, can result in higher labor costs as a percent of total costs. A study of 6,000 school construction projects in the 1990s found no relationship between prevailing wages and higher costs.

**Link:** [www.prevailingwage.org/pdf/kentuckyprewage.pdf](http://www.prevailingwage.org/pdf/kentuckyprewage.pdf)

**The Effect of State Prevailing Wage Laws on Total Construction Costs**, Mark Prus, Department of Economics, SUNY, Cortland, 1996

**Findings:** There is no measurable cost difference between similar structures as a result of prevailing wage requirements. Consequently, reforming or repealing these laws will not lead to the kinds of substantial savings promised by proponents of repeal. Prevailing wage attracts workers with more experience and training, increased productivity offsets the costs of higher wages.

**Link:** [www.faircontracting.org/NAFCnewsite/prevailingwage/new/effects\\_davisbacon.pdf](http://www.faircontracting.org/NAFCnewsite/prevailingwage/new/effects_davisbacon.pdf)

**Prevailing Wage Laws and the California Economy**, Michael Reich, Professor, Institute of Industrial Relations, University of California, Berkeley, 1996

**Findings:** Reducing prevailing wages, as the Wilson Administration proposed, would have greater harmful effects in California than in other states, would lower tax revenues, reduce productivity, reduce worker training and job safety, and slow California's economic growth. Reducing prevailing wages would cut sales and income tax revenue to the state by a combined \$800 million

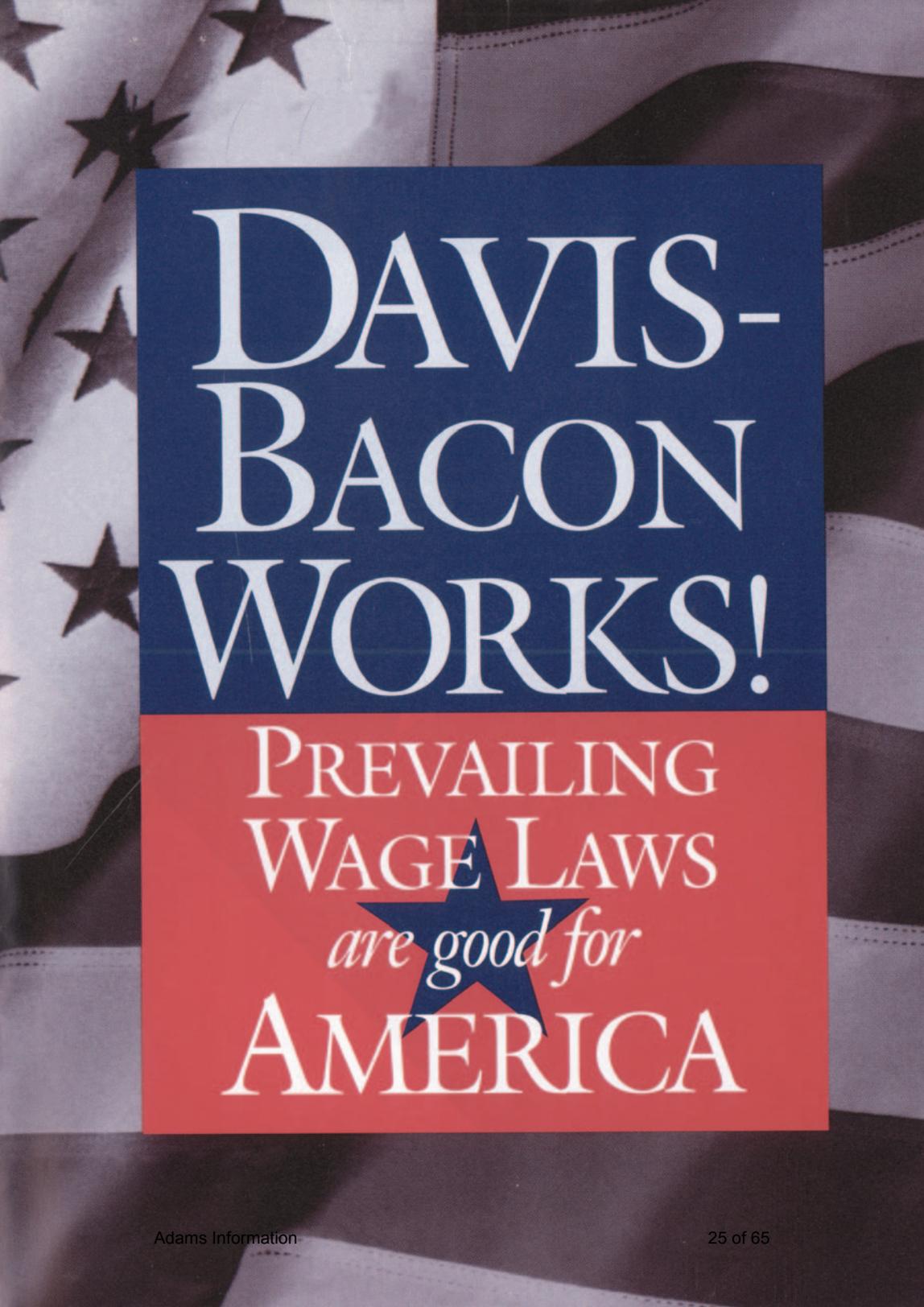
**Link:** [www.buildingc3.com/doc.asp?id=170](http://www.buildingc3.com/doc.asp?id=170)

**Losing Ground: Lessons from the Repeal of Nine "Little Davis-Bacon" Acts**

Peter Philips, Garth Mangum, Norm Waitzman, Anne Yeagle, University of Utah, 1995

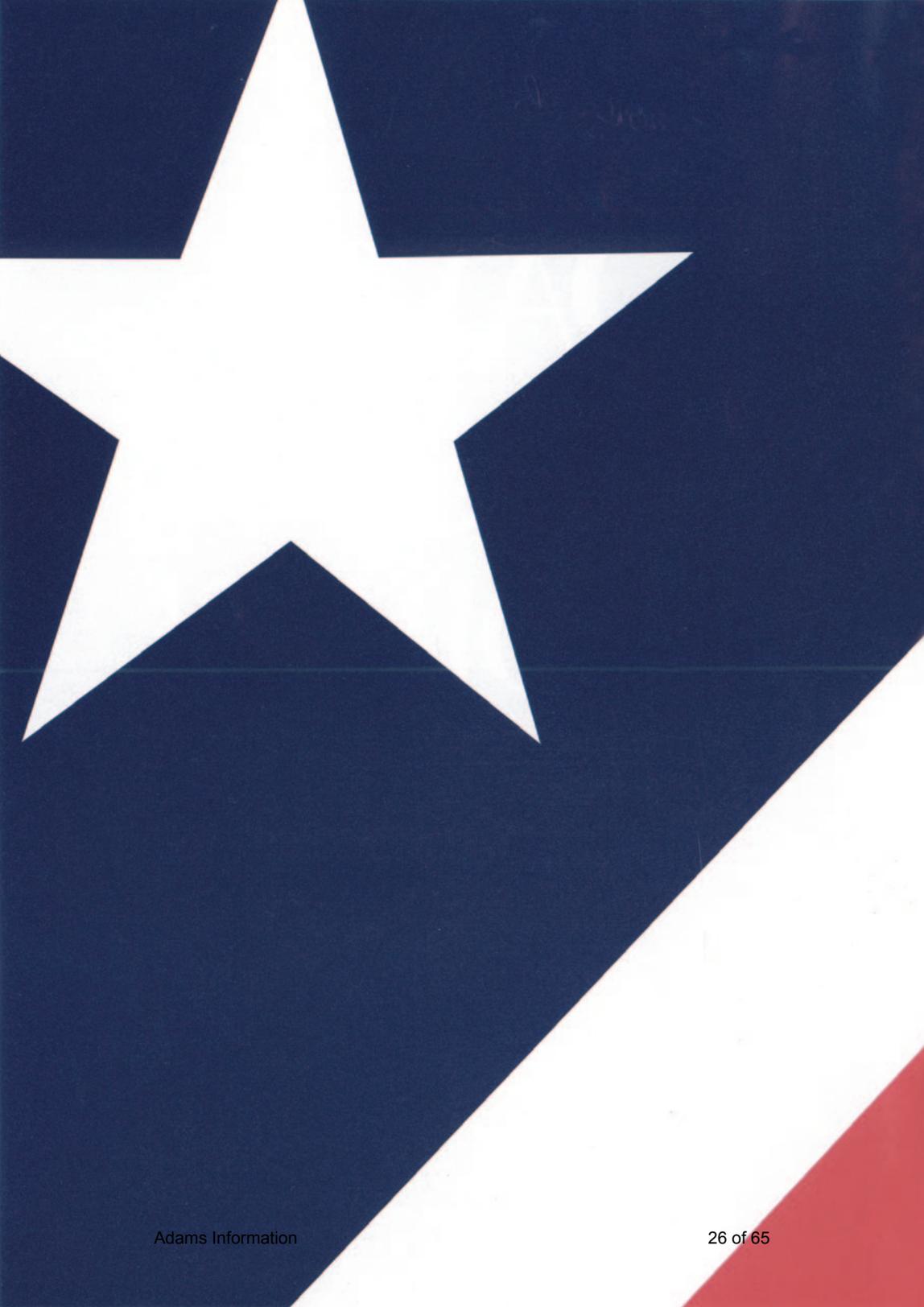
**Findings:** The repeal of prevailing wage laws resulted in lower wages for all construction workers. This caused the government to lose substantial tax revenues. Cost overruns are a hidden cost of repealing prevailing wage laws. Example: Utah's construction workers lost \$58 million in income after prevailing wage was repealed, resulting in a *tax revenue loss to the state of \$8.2 million*. If the federal Davis-Bacon Act were repealed, income tax collections would fall by at least \$1 billion per year in real terms every year for the foreseeable future. This is because construction wage levels would decline across all states and – based on the experience of the nine repeal states – construction employment levels would not rise enough to offset this revenue loss.

**Link:** [www.faircontracting.org/NAFCnewsite/prevailingwage/new/losingground.pdf](http://www.faircontracting.org/NAFCnewsite/prevailingwage/new/losingground.pdf)

The background of the entire page is a close-up, slightly blurred image of the American flag, showing the stars and stripes. The stars are in the upper left, and the stripes run horizontally across the rest of the image. A dark blue rectangular box is positioned in the upper half, and a red rectangular box is in the lower half, both containing white text.

# DAVIS- BACON WORKS!

PREVAILING  
WAGE LAWS  
*are good for*  
AMERICA



## DAVIS-BACON *builds success*

When the Northridge earthquake rocked southern California in early 1994, it had a devastating impact on the state's economy and infrastructure. One of the busiest roadways, the Santa Monica Freeway, partially collapsed. However, within record time—only 76 days after the shattering quake—the crippled freeway was reopened to traffic.

How did this happen? An experienced contractor working for the State of California called on a highly skilled workforce to rebuild the Santa Monica Freeway **ahead of schedule and under budget.**

What does this have to do with prevailing wages through the Davis-Bacon Act? **Everything!** The contractor, government project managers, and economists agree ... prevailing wage laws were vital to this success story. The contractor was able to bid the job knowing he could draw from a pool of well-trained workers to get the job done.

By helping to maintain a decent standard of living for union and nonunion workers alike, **Davis-Bacon promotes greater productivity, cost-effective construction, quality infrastructure, and a stable economy for American communities.**

Quality construction depends on well-trained construction workers. Workers experienced in their crafts and in health and safety procedures are less likely to make mistakes and, hence, are more productive.

So too, in the wake of the Oklahoma City bombing, skilled construction workers were called to the site immediately to clear away rubble and search for victims in the federal building. Because they knew what they were doing, these workers caused no further damage and were not injured doing hazardous rescue work.

It shouldn't take a disaster for us to recognize the benefits of the Davis-Bacon Act. These benefits are all around us—from our schools and hospitals to our highways and waste water treatment plants. Such well-constructed projects, often taken for granted, result in part from Davis-Bacon's protection of prevailing wages and labor standards nationwide.

Here's another success story. When it came time to drill 37 oil wells in Louisiana's Paul J. Rainey Sanctuary, building trades construction workers earning prevailing wages completed the job without harming surrounding wildlife—geese,

# Who says Davis- Bacon Works?

**“Retaining the Davis-Bacon Act and our prevailing wage laws is critical to the public-private partnership which has worked so well in developing our public infrastructure... We can all rest a little easier knowing that the next time the earth moves, we still have the skilled contractors and construction workers needed to get the job done.”**

MAYOR RICHARD J. RIORDAN,  
LOS ANGELES

# WE DO!

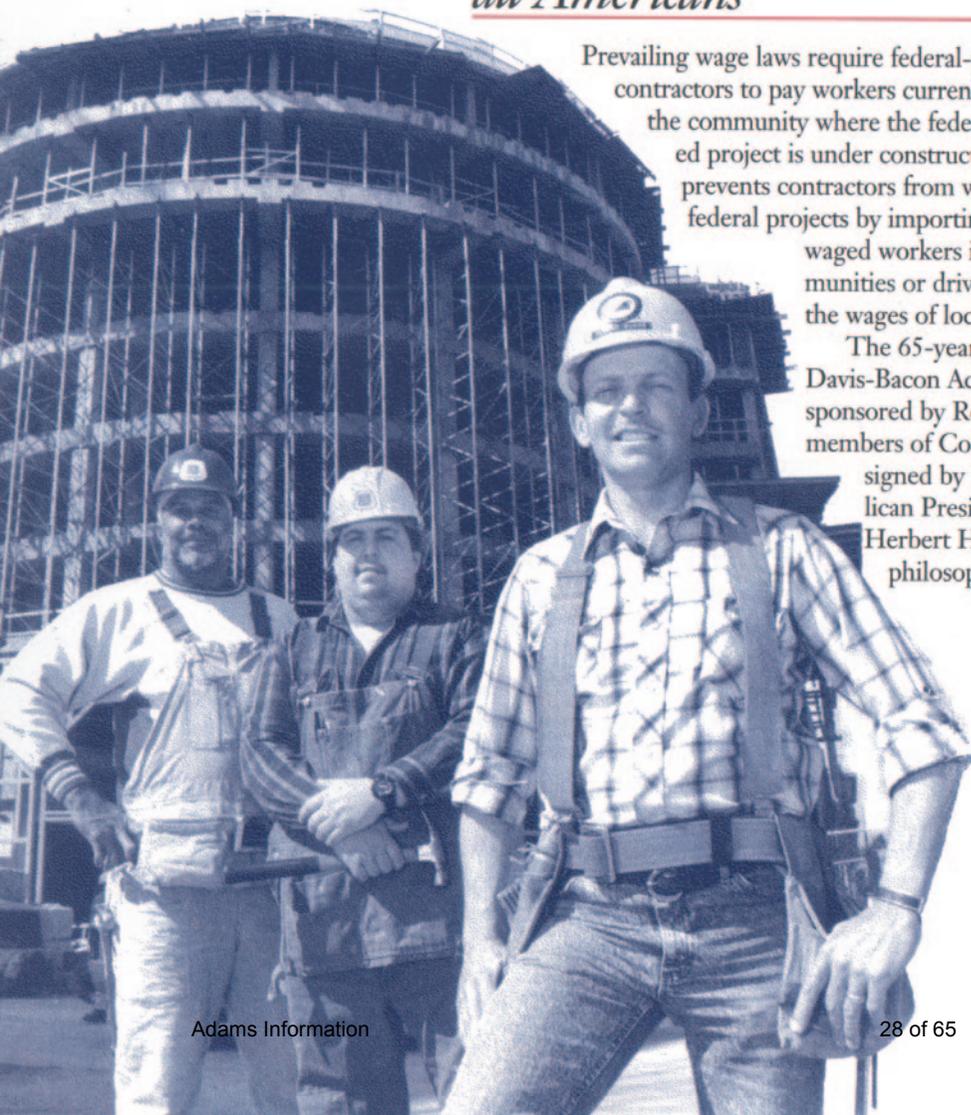
ducks, deer, and fish—in the 26,000-acre refuge. It was critical that the work not disturb the ecological tranquility of the National Audubon-run sanctuary. It was just as important to produce jobs for nearby communities. Because of the prevailing wage laws, the best possible workers got the job. And it worked! The oil wells and sanctuary complex just celebrated 55 years as a tribute to skilled construction workers protected by Davis-Bacon.

**DAVIS-BACON** *is important to  
all Americans*

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Prevailing wage laws require federal-project contractors to pay workers current rates in the community where the federally funded project is under construction. This prevents contractors from winning federal projects by importing lower-waged workers into communities or driving down the wages of local workers.

The 65-year-old Davis-Bacon Act was sponsored by Republican members of Congress and signed by Republican President Herbert Hoover. Its philosophy—to



prevent the federal government's monopolistic power from eroding the living standards of millions of Americans—is as valid today as it was when the law was enacted in 1931. In other words, it keeps big government and big business from undercutting local contractors, local workers, and local economies.

Most important, as “the Bill of Rights for the American worker,” **Davis-Bacon guarantees an honest day's pay for an honest day's work**—and this is what the American dream is all about!

## **HOW** *Davis-Bacon works!*

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Local conditions are the touchstone of prevailing wage laws. On each project subject to Davis-Bacon, just as government estimators establish expected local prices for materials and equipment, they also advise contractors about local wage and benefit norms. Contractors submit their bids, knowing their competitors must also pay at least these minimum wage and benefit levels.

Davis-Bacon uses the existing private construction market as a yardstick for setting wages and benefits. It requires that federal contractors live up to these standards and play by local economic rules.

### **PREVAILING WAGE LAWS**

## *make public-policy sense*

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At the state level, “little Davis-Bacon” prevailing wage laws do the same: They save state governments money, advance free-market principles, and protect local labor markets from harmful effects of large-scale government-funded construction.

New economic research from the State University of New York-Cortland compares the costs of state-financed construction in states with and without prevailing wage laws. Their findings reveal that **prevailing wage laws don't inflate the cost of public construction.**

According to a 1991 Minnesota study, “Prevailing wage laws serve an invaluable public purpose by ensuring that government does not become a party to such destabilizing practices” as paying lower than prevailing wages and hiring many out-of-state workers.

Who says  
Davis-  
Bacon

**“A**nd it's not enough to have a job, that's only part of the fight. Once you have a job, then you have to be paid a decent standard of living in order to provide for your family... And it's always been my belief that in neighborhoods that are strongest, people are making a decent living. In neighborhoods that are weakest, people are not making a decent living. And so it shouldn't be difficult for us to say that people ought to be paid adequately.”

MAYOR WELLINGTON WEBB,  
DENVER

WE DO!

# Who says Davis- Bacon Works?

“I haven’t built my company and my reputation using low-wage, unskilled workers. We come in ahead of schedule and under budget because we use the best skilled workers and run the job with a talented management team. That kind of operation doesn’t come cheap, but investing in skills is what brings the overall cost of construction down.”

C.C. MYERS, PRESIDENT  
C.C. MYERS INC.,  
A CONSTRUCTION COMPANY  
RANCHO CORDOVA, CALIF.

Without prevailing wage laws, there would be increased instability in the construction labor market, fiercer competition for work from out-of-state workers and contractors, and a lower standard of living for workers and their families, according to a similar 1988 economic-impact study.

## PREVAILING WAGE LAWS: *a profitable community investment*

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An analysis of the economic effects of prevailing wages shows that the law in San Bernardino, Calif., generates benefits to the community 24 times the amount spent on the actual construction project. That’s because workers spend part of their income in local shops and restaurants and pay local taxes, which are recirculated throughout the local economy. The law also establishes an upwardly mobile track for minority workers to advance into higher-paying jobs.

The study emphasizes that construction workers who don’t receive health and other benefits become “net users of public service” during periods of unemployment, while the worker who enjoys these benefits becomes “a net contributor.” Davis-Bacon immunizes employees from the need to seek benefits from social programs and helps them contribute to the community’s ability to furnish social programs to the needy.

## ISN’T *prevailing wage* THE SAME AS UNION WAGE?

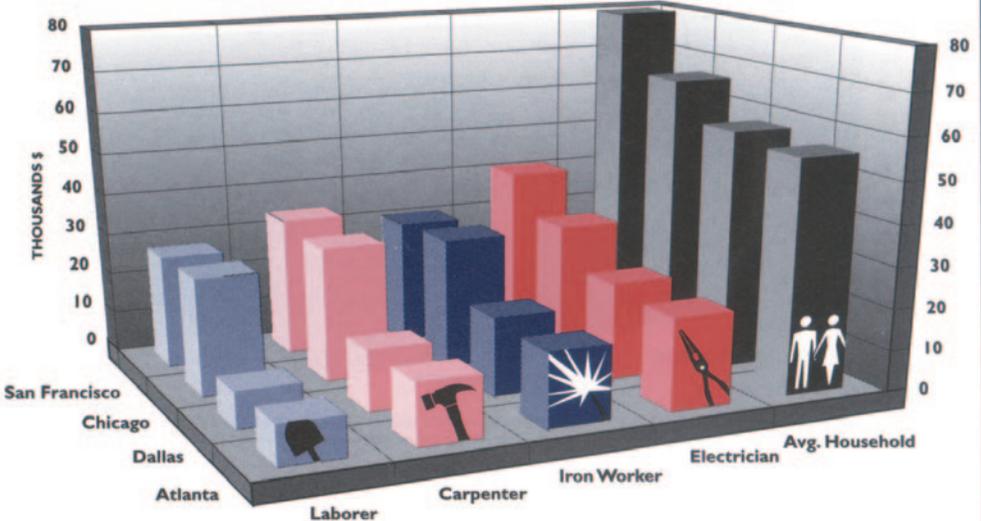
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Absolutely not! The U.S. Department of Labor determines the prevailing wage rate for each job classification required for a construction project by surveying current wages and fringe benefits paid in the locality. According to Labor Department figures, nonunion scales accounted for 71 percent of wage determinations issued in 1994.

The Congressional Budget Office (CBO) has found wage determinations are **not biased** in favor of union wage levels. CBO reported in 1983 that union rates tend to be issued for geographic areas and types of construction that are heavily unionized, and nonunion rates are used where nonunion construction work is dominant.

# ANNUAL INCOMES

DB Rates for Heavy Construction



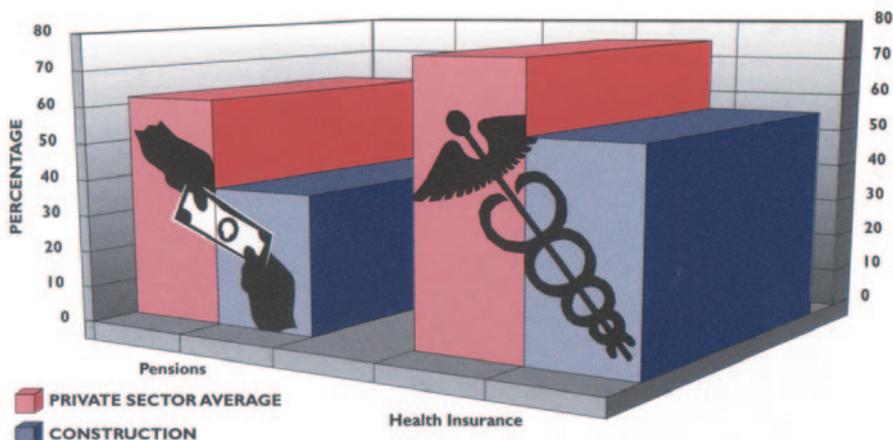
SOURCE: WOODS & POOLE ECONOMICS; DEPARTMENT OF LABOR

This chart represents average annual incomes of workers in four cities. The workers, employed on federal heavy-construction projects, received Davis-Bacon wages effective November 1994. The incomes assume each worker was employed for 35 weeks (reflecting 1994's average duration of 17 weeks unemployment for construction workers) and 40.4 hours per week (the 1994 industry average). Alongside is the average household income for each metro area.

Two important factors stand out. First, wages are higher in San Francisco and Chicago than in lower-cost Dallas and Atlanta. Second, in none of these cities do Davis-Bacon incomes approach average household incomes.

In 1994, the poverty line for a family of four was \$15,141. Even in a good year like 1994, families of carpenters and laborers would have struggled to avoid poverty if they suffered the average duration of unemployment in the industry.

## BENEFITS



SOURCE: WIARTROWSKI, MONTHLY LABOR REVIEW, JUNE 1995, AND EMPLOYEE BENEFITS RESEARCH INSTITUTE, SPECIAL REPORT NO. 153.

### DAVIS-BACON *protects benefits!*

Construction workers are among the few groups of employees hired to work themselves out of a job. They are twice as likely to be laid off as other workers. This is due to business-cycle fluctuations, weather changes, and completion of different phases of projects.

A good benefits package is essential to surviving the inevitable ups and downs of construction life. Unfortunately, construction workers are much less likely to have health insurance and pension coverage than other workers. In 1993, only 37 percent of construction workers' employers sponsored pension plans, compared to 64 percent of private-sector workers in other industries. And only 55 percent of construction workers enjoyed employer-provided health insurance, compared to 74 percent of all private-sector workers.

Davis-Bacon plays a key role in providing stable benefits, including health insurance, pensions, life and disability insurance, and vacation and holiday pay. In many cases, these benefits are offered through multiemployer plans, which enable workers to retain coverage when they change employers.

## DAVIS-BACON *stimulates training*

By fostering training and lifelong career incentives, Davis-Bacon encourages skilled workers to stay in construction. This helps the industry and construction owners. They can depend on a stable pool of well-trained, experienced workers.

One way Davis-Bacon helps achieve this is by letting contractors pay less than prevailing wages to those employees enrolled in *bona fide* apprenticeship training programs. This exception to prevailing wage requirements is a powerful incentive for contractors to support well-structured training programs for new workers.

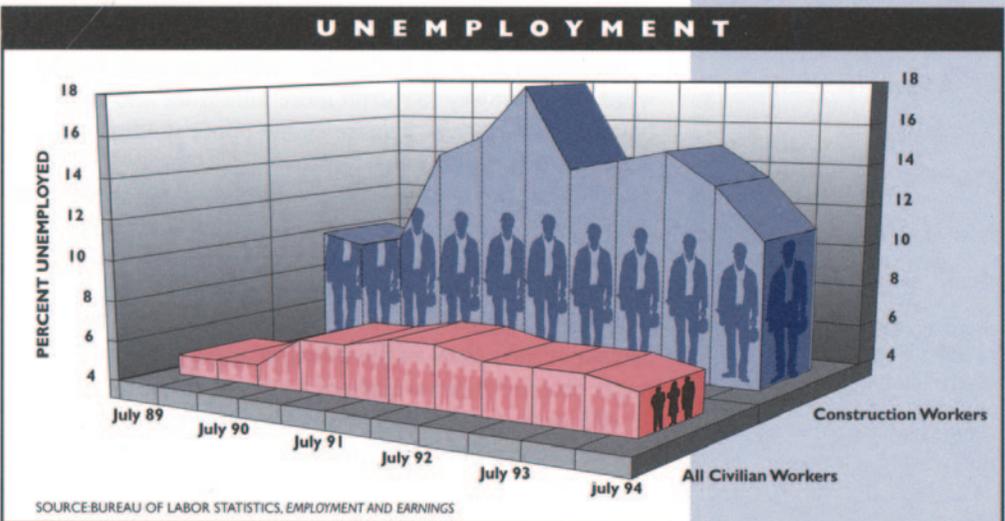
By stabilizing the construction industry, Davis-Bacon acts as a bulwark against the harmful erosion of qualified construction contractors and workers. In recent years, many skilled construction workers have left the industry before retiring because of stagnant wages, inadequate benefits, and myriad inconveniences of construction life.

Without Davis-Bacon, apprenticeship programs would decline and skilled workers would continue to leave the industry. In states where prevailing wage laws have been repealed, apprenticeship and training levels are expected to drop by 40 percent. For example, in Utah, apprenticeship graduation rates plummeted from 95 to 15 percent. That state now faces a shortage of adequately trained construction workers.

# Who says Davis- Bacon

**"Bechtel has worked on a number of projects where the Davis-Bacon Act applies, and because it stabilizes terms and conditions for a contractor's work force, we consider it worth preserving."**

ROBERT D. COUSE  
PRESIDENT  
BECHTEL CONSTRUCTION  
COMPANY



# Who says Davis- Bacon Works?

**"Elimination of the Davis-Bacon Act which stabilizes wages would only serve to exacerbate the current problem of skill shortages in the construction industry... Low wages would be further depressed by unscrupulous contractors in a mad scramble to underbid each other in order to win public contracts - to the detriment of all."**

RONALD J. BECHT  
EXECUTIVE DIRECTOR  
NORTHERN CALIFORNIA  
DRYWALL CONTRACTORS  
ASSOCIATION  
SARATOGA, CALIFORNIA

## DAVIS-BACON *advances minority opportunities!*

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Today, thanks to Davis-Bacon, African Americans, Native Americans, Hispanics, and women workers earn fair wages working on federal projects. In 1990, minority participation in apprenticeship programs was 22.5 percent nationally, higher in several trades, with operating engineers at 32 percent minority enrollment, roofers at 38 percent, and cement masons at 48 percent. Minorities are heavily employed in the union sector where their graduation rate is higher than in non-union apprenticeship programs.

The Congressional Black Congress recently underscored Davis-Bacon's contributions in a letter to ABC's news magazine, "20/20":

*"We believe that Davis-Bacon has been instrumental in bridging the wage gap for historically disadvantaged sectors of society. In the face of decaying social and economic opportunities, this measure provides women and minorities with an important tool to achieving greater parity with their mainstream counterparts. The Davis-Bacon Act has made a valuable contribution to instituting protective equity and stability to American workers everywhere."*

Real equal opportunity depends on access to training and career development opportunities. Some Davis-Bacon critics complain that keeping up labor standards reduces economic opportunities for unskilled workers willing to work for any wage. The best way to recruit more minorities into construction jobs is to increase apprenticeship opportunities, not to cut wages and skilled jobs.

Without Davis-Bacon, the proportion of minorities trained in construction apprenticeship programs would decline substantially. In states that repealed their prevailing wage laws, minority participation in registered apprenticeship programs dropped from 19 to 13 percent—or from 107 to 85 percent of their share of the overall state population—and wages dropped by an average of 5 percent across the board.

Minority and female workers have entered the construction industry in increasing numbers over the past 15 years. As newest members of the industry, they are particularly

vulnerable to the wage-cutting practices Davis-Bacon aims to ban. Repeal would hit minorities doubly hard because access to training opportunities would be reduced severely.

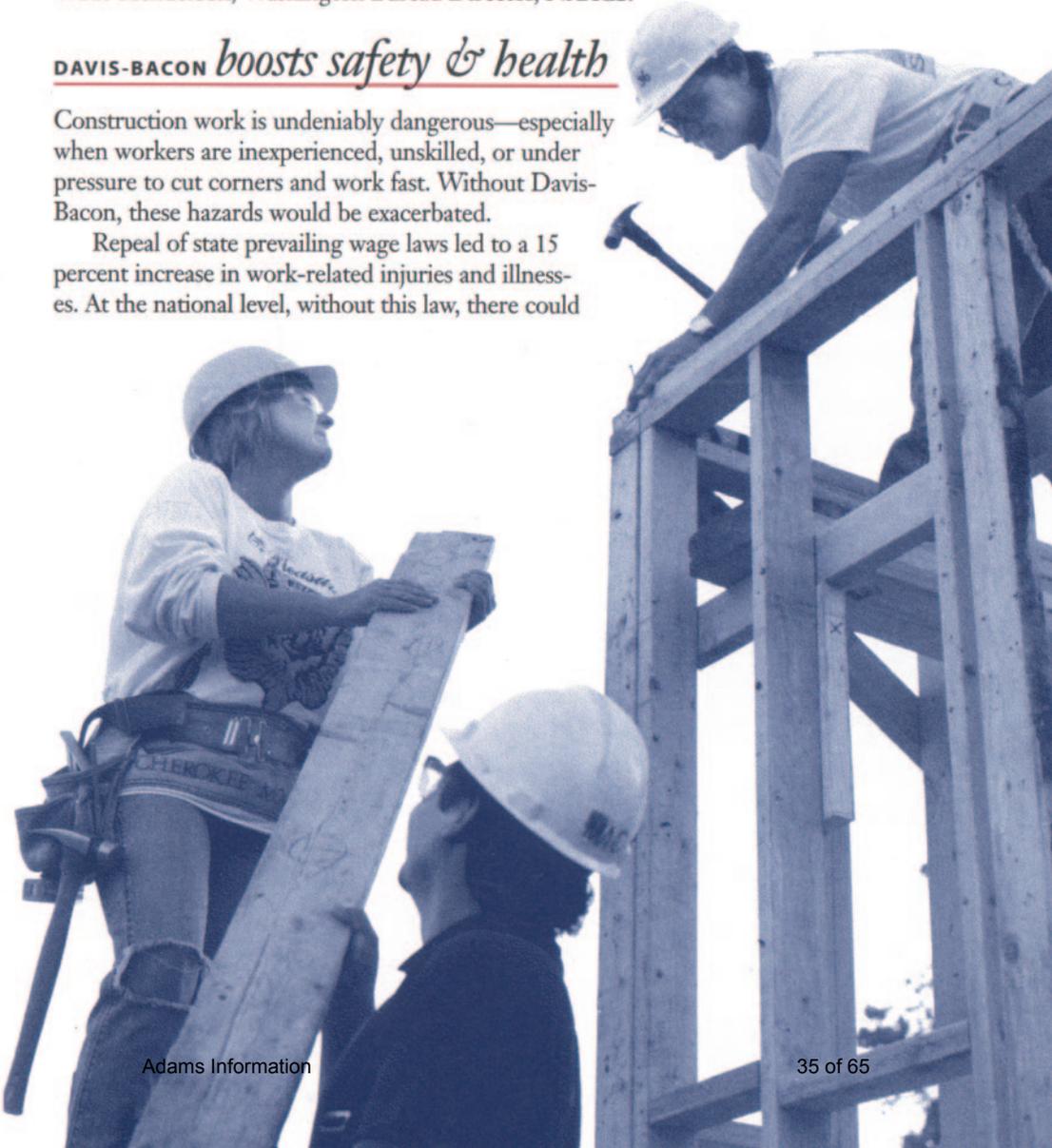
*“Many who profess concern about Davis-Bacon’s impact on black workers shed crocodile tears. This is part of a full-scale assault on many of the civil rights and worker-protection initiatives.”—*

Wade Henderson, Washington Bureau Director, NAACP.

### **DAVIS-BACON** *boosts safety & health*

Construction work is undeniably dangerous—especially when workers are inexperienced, unskilled, or under pressure to cut corners and work fast. Without Davis-Bacon, these hazards would be exacerbated.

Repeal of state prevailing wage laws led to a 15 percent increase in work-related injuries and illnesses. At the national level, without this law, there could



# Who says Davis- Bacon Works?

**"The Davis-Bacon Act ensures that we are bidding on a basis that will allow the use of skilled labor. To think that merely reducing the cost of labor will provide a cheaper product is ludicrous."**

THOMAS H. PARKINSON  
PRESIDENT  
BURRIS CONSTRUCTION  
MOUNT LAUREL, NEW JERSEY

be an additional 76,000 new workplace injuries each year, including 30,000 more serious injuries resulting in missed days of work after accidents. This means reduced earnings, a lower quality of life, and costly, long-term health care.

Workers' compensation costs would increase by \$3 billion per year, of which \$300 million would be passed on the federal government as increased public works' costs and ultimately on to you, the taxpayer.

Skilled, trained, and dedicated workers hired at prevailing wages are trained to work safely. And better project safety and quality work mean fewer risks of environmental and health disasters. By preventing shoddy, unsafe work, our society saves money on environmental and economic clean-up costs.

## **DAVIS-BACON** *enhances productivity!*

There is a strong link between fair wages and high productivity. The reverse is also true. Without Davis-Bacon, construction would revert to a low-wage, low-technology industry.

A recent study used Federal Highway Administration data to compare the average construction costs of bridges and highways in two groups of states. Higher-wage states built highways for 11 percent less than lower-wage states. States that paid workers the least ended up with roads **more expensive** by \$125,000 for every mile built. This is because higher-wage states built more highways in fewer hours of labor. Increased productivity of better-paid workers made up for the cost. As wages are bid down, so are productivity levels.

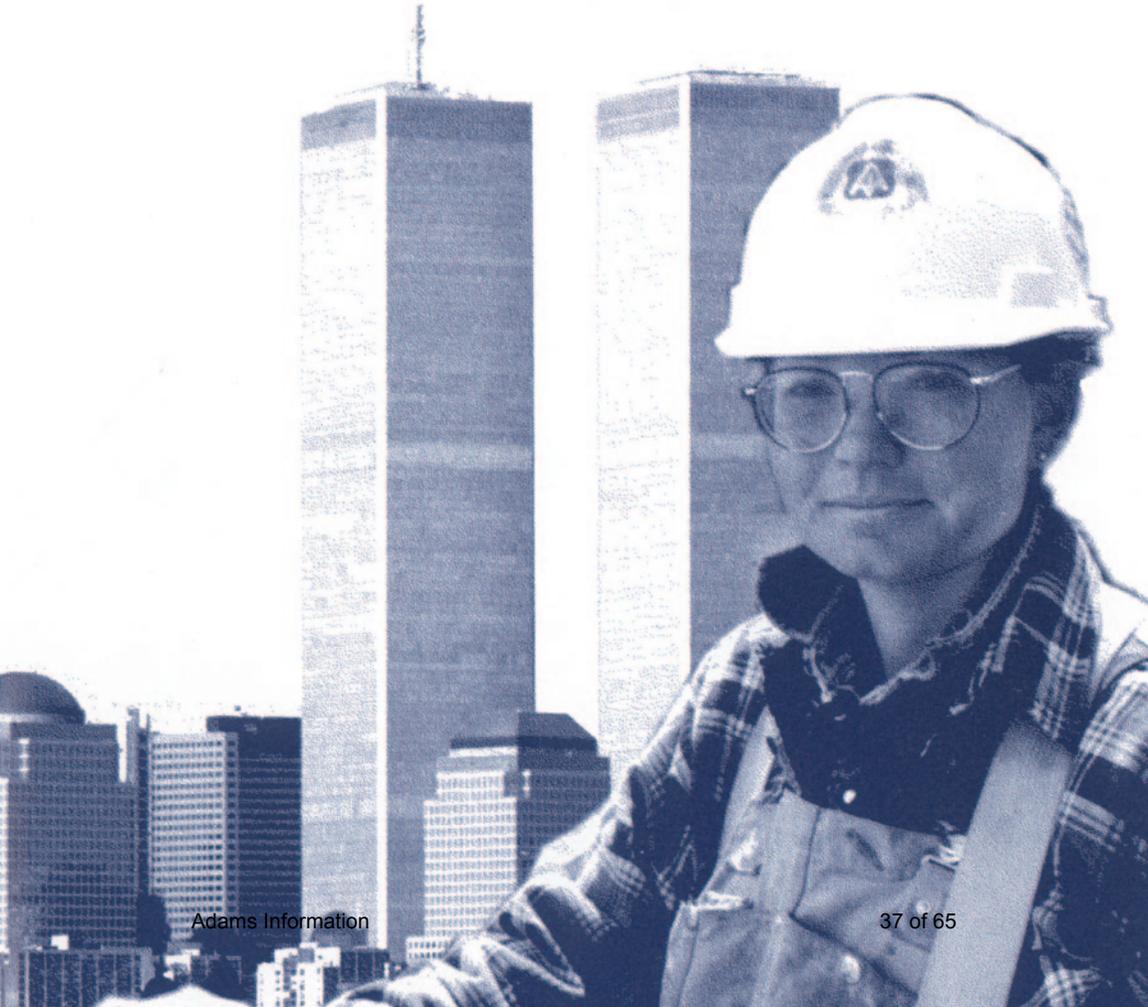
Utah's repeal of Davis-Bacon has led to massive increases in cost overruns and expensive change orders: state-financed road cost overruns tripled over the following decade because of low-ball bidding practices.

DAVIS-BACON IS *fair to all Americans!*

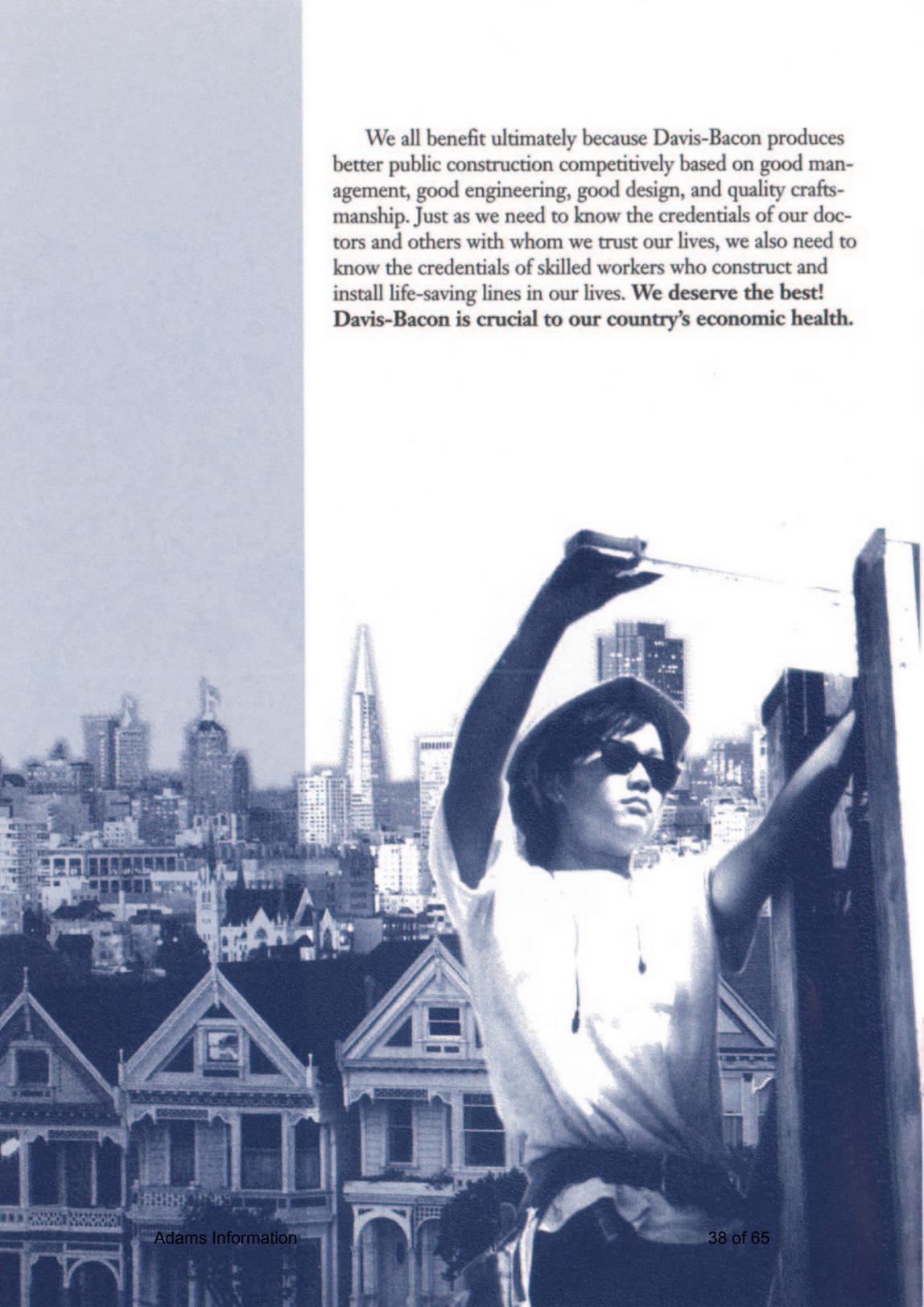
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Construction contractors and workers—both union and nonunion—benefit especially from Davis-Bacon. But so do **you**, the American taxpayer!

Without Davis-Bacon, all of us would pay more. Why? Because we would not be able to predict the dependability of construction products. In addition, workers would lose income and benefits coverage, contractors would pay higher workers' compensation premiums, construction costs would rise, and taxpayers would end up paying higher insurance costs through cost shifting to private insurance and increased state funds for hospitals. And communities would lose buying power and tax bases.



We all benefit ultimately because Davis-Bacon produces better public construction competitively based on good management, good engineering, good design, and quality craftsmanship. Just as we need to know the credentials of our doctors and others with whom we trust our lives, we also need to know the credentials of skilled workers who construct and install life-saving lines in our lives. **We deserve the best!** **Davis-Bacon is crucial to our country's economic health.**





# DAVIS- BACON WORKS!

If you would care to receive additional information on this or any other subject pertaining to the Building and Construction Trades Department, AFL-CIO, please call the Legislative Department at 202-347-1461.

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# Prevailing wages and government contracting costs: A review of the research

By [Nooshin Mahalia](#),  
July 3, 2008

July 8, 2008 | EPI Briefing Paper #215

Prevailing wages and government contracting costs  
A review of the research

by [Nooshin Mahalia](#)

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Executive summary

For over a hundred years, many state and local governments have required that companies that want to contract for public works must pay their workers a wage that reflects wages commonly received in the area. The federal government adopted its own prevailing wage requirement with the Davis-Bacon Act of 1931. At the heart of these laws is the conviction that government, as a major buyer in the construction sector, should not act to drive down wages. Indeed, the civic-minded reformers who initially pushed for prevailing wage laws believed that the government ought to use its buying power to enhance the welfare of workers and their families.

Critics of prevailing wage laws argue that they inflate government contract costs. But a growing body of economic studies finds that prevailing wage regulations do not increase government contracting costs. Some of these studies use a cross-sectional approach, which compares costs of contracts subject to a prevailing wage with costs of contracts that are not during a common time period, and others use a time-series approach, which examine whether contract costs have changed with the adoption or repeal of a prevailing wage requirement. These studies also show that prevailing wage laws provide social benefits from higher wages and better workplace safety, increase government revenues, and elevate worker skills in the construction industry.

The issue, however, remains contentious. The current research counters the findings of a set of (mostly earlier) studies that relied on hypothetical models. The model works like this: the authors calculate a wage increase attributable to the prevailing wage regulation and then, assuming that the entire wage increase is passed through to the government in higher contract costs, calculate the higher contract costs. The wage increase calculation in these studies is typically flawed, but the most notable problem is the unquestioned assumption that higher wages lead to higher contract costs. Obviously, a study that presumes, without examination, that higher wages lead to higher contract costs tells us little about whether that is in fact the case. There are many reasons why higher wages do not necessarily lead to higher contract costs, and the findings of current research suggest that other factors erase much or all of the hypothetical additional costs the earlier models assume.

Although a few recent studies have adopted this “wage differential approach,” most modern literature has favored econometric approaches to compare situations where prevailing wages are applied and where they are not. These studies, more sophisticated in analytical terms, have found no statistical relationship between prevailing wage laws and contract costs, with only two exceptions. The first exception was a national study by Fraundorf et al. (1984) of construction costs in rural areas. The authors found sizable cost differences between government contracts that were subject to federal prevailing wage rules and private contracts that were not. As the first of the econometric studies, Fraundorf continues to be among the most commonly cited in the literature. But subsequent studies discovered that the authors left out a key variable—differences between public and private building design specifications—that would have controlled for the difference in public versus private construction costs. Once these differences are accounted for, later studies do not replicate the Fraundorf conclusion and find no impact of prevailing wages on contract costs.

The second exception in the modern econometric literature is a study of low-income housing construction in California. The study found that affordable housing construction projects subject to prevailing wage laws were substantially more expensive for the government than projects that were not. Because this study is relatively new, scholars have not yet explored the reasons why the findings contradict the rest of the econometric literature. If labor-intensiveness, skill, and material-saving technologies are sufficiently different in the construction of subsidized housing than in the construction of public buildings or highways, then it is possible that prevailing wage regulations would affect this sector differently. However, the study’s findings seem implausible, since the cost estimates of the preferred model exceed possible savings in labor costs. Because scholars have not yet replicated the study, it is unclear if the findings relate to idiosyncrasies in the data and methodology, or to the peculiarities of subsidized housing construction.

With these exceptions, the modern econometric literature finds no cost impact on public construction associated with the implementation of prevailing wage regulations. The literature suggests a number of possible reasons for the absence of a link between prevailing wage laws and overall contract costs.

- Prevailing wage regulations do not, in all cases, increase wages. Public contractors may pay at prevailing wage rates without the regulation.
- Average labor costs, including benefits and payroll taxes, are roughly one-quarter of construction costs. Thus, even if a prevailing wage regulation raised wages by 10%, the impact on contract costs would be less than 2.5%. Thus, even if there is an increase in contract costs it is likely to be small—to the point of being undetectable.
- Improved productivity can offset higher wages. Better-skilled workers attracted by the higher wage might complete the job in less time, or firms looking to reduce their higher labor costs might utilize labor-saving technologies.
- Higher wage costs might be offset through “factor substitution,” i.e., the substitution of more expensive labor with, say, less-expensive materials. As a practical matter, this point assumes that workers are roughly of the same skill level. But it shows that worker wages are only one of the avenues contractors can use to win project bids.
- Contractors might absorb the higher wage costs and pay for them out of their profits rather than pass them on to the government.

Some recent studies have expanded the analysis of prevailing wage regulations to determine whether they have indirect costs or benefits for the economy and society. These studies have found that prevailing wage laws can enhance state tax revenues, industry income, and non-wage benefits for workers; lower future maintenance and repair costs; reduce occupational injuries and fatalities; and increase the pool of skilled construction workers—to the benefit of both the public and the construction industry.

At this point in the evolution of the literature on the effect of prevailing wage regulations on government contract costs, the weight of the evidence is strongly on the side that there is no adverse impact. Almost all of the studies that have found otherwise use hypothetical models that fail to empirically address the question at hand. Moreover, the studies that have incorporated the full benefits of higher wages in public construction suggest that there are, in fact, substantial, calculable, positive benefits of prevailing wage laws.

## Introduction

Prevailing wage laws require that contractors on public works projects pay their workers at least the locally prevailing wages and fringe benefits paid on similar projects in the area. Kansas was the first state to adopt a prevailing wage law, in 1891, as part of a broad-based effort by the Republican legislature to confront the social costs of 10-12 hour workdays, child labor, and downward wage pressure (Phillips 1998). New York followed suit in 1894, Oklahoma in 1909, Idaho in 1911, Massachusetts in 1914, and New Jersey in 1923. The first and most significant of the federal laws establishing the prevailing wage rule was the 1931 Davis-Bacon Act,<sup>1</sup> which requires payment of wages “prevailing” in a local area to workers on federally financed construction projects worth at least \$2,000.<sup>2</sup> Davis-Bacon gained bipartisan support during the Great Depression, when unscrupulous contractors won bids based on low pay for workers (Gujarati 1967) and then delivered shoddy workmanship. It is named for its two Republican co-sponsors and was signed by President Herbert Hoover.

Under Davis-Bacon, the prevailing rate is the rate paid to at least 50% of workers in a construction occupation for a local area. If there is no single rate for at least 50% of workers in that occupation, then the prevailing wage is the average rate paid in the area for that occupation. States, counties, and cities have adopted their own prevailing wage legislation, and policies vary widely. Prevailing wages in states and localities might be set as the local union wage rate, the average wage for construction occupations in the area, or a combination of the two.

Thirty-two states and the District of Columbia currently have prevailing wage laws. Nine states had laws but repealed them, starting with Florida (1979) and Alabama (1980) (Kelsay et al. 2004; Phillips et al. 1995).<sup>3</sup> Repeals have relied on arguments that prevailing wage rates increase costs on public construction contracts (Phillips 1998), and assertions that repeal will save 15-25% on construction costs are commonly echoed in the news media. These claims, however, do not stand up to serious examination of the relationship between prevailing wage laws and government contract costs.

A growing body of economic analysis finds that prevailing wage regulations do not inflate the costs of government construction contracts. A simple premise underlies the hypothesis that prevailing wages raise costs: the laws result in higher wage costs for contractors, and contractors pass these costs on to the government. Although this seems like a plausible outcome, there are many reasons why the costs to the government might be the same regardless of the wage differences. For example:

- Contractors might pay the wages required under prevailing wage laws even if the law does not require it.
- Labor costs are not the dominant costs in government construction contracts. Even including benefits and payroll taxes, labor costs are roughly 20-30% of construction contracts, according to the Census of Construction (Phillips 1998).<sup>4</sup> Thus, for example, if labor costs are 25% of total costs and prevailing wage rules raise wages by 10%, the impact on contract costs would be no more than 2.5%. Thus, even if there is an increase in contract costs, it is likely to be small—to the point of being undetectable in some instances and/or by some studies.
- Higher wages might be offset by a rise in productivity. Prevailing wages can attract better-skilled, more productive workers, or firms may rely on higher managerial productivity or invest in labor-saving technologies to offset higher labor costs (Phillips 1996).
- Higher wage costs might also be offset through “factor substitution,” i.e., substituting more expensive labor with, say, cheaper materials.<sup>5</sup>
- Contractors not subject to prevailing wage laws might retain the money they save in wages as higher profits rather than passing the savings on to the government. Alternatively, contractors paying prevailing wages might absorb the higher wage costs, paying for them out of their profits rather than passing them on.<sup>6</sup>

As with any economic analysis examining the impact of a policy on an economic outcome, the challenge is to isolate the impact of the policy from all of the other factors that might influence the outcome. Take, for example, a study that compares the costs of two sets of construction contracts, one set subject to prevailing wage rules and one set not. The difference in the costs of these contracts is influenced by many factors other than the prevailing wage. If, for example, more of the contracts subject to the prevailing wage happen to be for taller buildings, or are completed during a building boom when construction costs are higher, or use more expensive building materials, those contracts might be more expensive for reasons unrelated to prevailing wage regulations. The studies described below take a variety of approaches to this challenge—ranging from ignoring it to using sophisticated econometric techniques to control for the differences. As scholars have engaged in this work over the years they have learned from their predecessors and refined their techniques for identifying the factors that influence contract costs and improving ways to account for them.

The approaches researchers have taken to study this question fall into three main categories:

- The wage differential approach. Compare wage levels in contracts subject to prevailing wage laws with wage levels in contracts not subject to the laws, and assume that all additional wage costs are passed through to the government by contractors.<sup>7</sup>
- Cross-sectional analysis. Compare contracts subject to the prevailing wage and contracts not subject to the prevailing wage in the same time period. Typically these studies compare the costs of government contracts in states and other jurisdictions with prevailing wage laws with contracts in places without prevailing wage laws. Some studies, however, compare public and

private contracts. In addition, in some jurisdictions, some public contracts are subject to prevailing wage laws and some aren't. For example, a local school construction contract might be subject to prevailing wage requirements if the state funds over half the cost but not subject to the requirement if the state pays less than half. Some studies have used these situations to compare the costs of public contracts within the same jurisdiction.

- Time series analysis. Compare government contract costs in time periods with a prevailing wage requirement and costs in time periods without one.

The wage differential approach to evaluating the impact of prevailing wage laws

The wage differential approach consists essentially of two steps. First, researchers examine the relationship between prevailing wage regulation and wage rates. Are wages higher on contracts subject to prevailing wage rules? Second, the higher wages that are calculated are then presumed to be passed through to the government in higher contract costs.

In 1979 the General Accounting Office (today the Government Accountability Office, or GAO) used the wage differential approach in studying a sample of 30 federal projects subject to Davis-Bacon, estimated to value about \$25.9 million (GAO 1979). The GAO concluded that, due to incorrect procedures used by the Department of Labor, wages paid were actually higher than prevailing wage levels in 12 of the projects. Wages on the other 18 projects were lower than the prevailing rate. For the 12 projects set at higher rates, wages were about 36.8% above the prevailing wage rate.<sup>8</sup> The higher prevailing wage rate was presumed to have been passed through in higher contract costs, driving up total construction costs by an average of 3.4% and raising federal construction costs by \$228 million to \$513 million annually.

The Mackinac Center for Public Policy (Vedder 1999) employed a wage differential approach to calculate costs of prevailing wages on Michigan government construction. The author used a sample of wages paid in the Detroit area suburbs to calculate a 40% difference between market and prevailing rates, a premium that would, hypothetically, drive up construction costs in Michigan by 10%.<sup>9</sup> Applying this 10% to state construction costs and non-construction capital outlays resulted in an estimate of \$275 million in additional costs due to state prevailing wages.

Keller and Hartman (2001) attributed a 17% wage difference between public and private construction contracts to the state prevailing wage law. The authors compared a mean hourly rate of \$17 for school construction projects that paid prevailing wages and \$14.13 for private sector projects.<sup>10</sup> The authors calculated a 2.25% increase in construction costs by applying the wage and benefit differences to the sample of total project costs, and then used simple accounting to conclude that prevailing wages cost the state an additional \$66.8 million over a six-year period.

A study by the Beacon Hill Institute found that the Department of Labor's Wage and Hour Division (WHD) incorrectly set hourly wages too high for nine major construction occupations. The authors compared average wages paid under the Davis-Bacon Act with wages for those occupations reported in the Bureau of Labor Statistics Occupational Employment Survey. The WHD set hourly wages an average of \$4.43, or 22%, above BLS average wages.<sup>11</sup> If these wage differences were applied to federal construction, government costs would increase by 9.9%. The authors estimate

these differences to raise government construction costs by \$8.6 billion per year (Glassman et al. 2008).<sup>12</sup>

The Center for Government Research (CGR) estimated that prevailing wage laws increase total construction contract costs by 36% in New York State's metropolitan regions.<sup>13</sup> CGR arrived at this estimate by comparing prevailing wage rates with the market rates of construction occupations. Prevailing wage data collected from the Department of Labor were compared with median wages of construction occupations in seven metropolitan areas in New York and outside the state.<sup>14</sup> The authors then compared labor costs to total construction using a prototype project, or an imaginary model of average construction costs, and applied the markup rates to total construction costs.<sup>15</sup> They concluded that prevailing wages raise total costs of a typical construction project in the New York metropolitan areas by about 36% (CGR 2008).

Wage differential studies are prone to two primary areas of criticism. The first is the way in which some of them calculate the additional wages resulting from prevailing wage regulations. The GAO and Beacon Hill studies' results are based on contracts in which, the authors assert, prevailing wages were miscalculated. But miscalculation of wages under prevailing wage laws is an implementation problem that does not reflect the merits of the laws themselves. Further, with regard to the GAO study, the Department of Labor and other critics argued in congressional testimony that the GAO's methodology was fraught with poor scholarship. Why did the agency exclude the 18 projects for which prevailing wages were set too low? The inclusion of these projects might have offered an entirely different picture of the net impact of the Davis-Bacon law. GAO also acknowledged that its sample of projects was too small for its calculations to have statistical validity. Mackinac (Vedder 1999) assumed that a wage differential in the Detroit suburbs would be the same in the rest of the state, but did not test this assumption.

The second and more fundamental criticism of these studies is how they allocate the higher wages they estimate to contract costs. These studies assume, rather than empirically examine, the relationship between higher wages and construction costs. In contrast to the other methodological approaches discussed in this review, the wage differential studies do not rely on natural experiments to compare costs of contracts subject to and not subject to prevailing wage regulations. As a result, they are unable to control for other factors that influence construction costs. As outlined above, there are several reasons why higher wages might not be passed through and, thus, assuming that they are is not a safe assumption. The flawed assumptions of the wage differential approach, and the inability to control for other cost influences, limit its ability to determine with much validity whether prevailing wage laws raise government contracting costs.

#### Cross-sectional analysis

The existence of prevailing wage laws in some jurisdictions but not others and the fact that in some jurisdictions some public contracts are subject to the regulations but others are not create an opportunity for a natural experiment to study the impact of prevailing wage legislation on government construction costs. The cross-sectional approach used in the studies described here use econometric techniques to compare costs of construction when it is subject to prevailing wage

rules with the costs when it is not. This method reduces the need to control for time effects and seasonality concerns within the construction industry, although it is necessary to control for regional differences.

In the first econometric cross-sectional study of prevailing wage laws and government construction costs, Fraundorf et al. (1984) collected a sample of construction data from rural counties across the country.<sup>16</sup> They employed a multivariate regression model to compare costs of public construction contracts subject to federal prevailing wage regulation with costs of private construction contracts that were not. The model included controls for a range of factors: regional variation, project size, and building type. The results showed that public construction was an average of 26.1% more expensive than private construction. The authors acknowledged that this estimate seemed high. It was unlikely that prevailing wage laws would generate such a dramatic increase in contract costs, since labor costs at the time averaged 30% of total construction costs. However, they were unable to explain the discrepancy.

Prus (1996) replicated the Fraundorf model but was better able to isolate the effects of prevailing wages from other influences on construction costs. Rather than compare federal projects with private construction, he compared costs of public and private projects in states where prevailing wage laws existed and places where they did not. He found that, even in non-prevailing wage states, government construction was 32% more expensive than private. This finding suggested that the earlier Fraundorf study had measured price differences between public and private construction attributable to causes other than prevailing wages. Controlling for construction cost differences between states, Prus did not find a statistically significant difference in construction costs in states with prevailing wage laws and those without.

In a study of construction costs in the Intermountain and Southwest regions, Phillips (1996) compared construction cost data in five states with prevailing wage laws with four states without prevailing wage laws.<sup>17</sup> He found that costs were lower in the states with prevailing wage laws than in the states in the sample without them. The author attributed this finding to higher productivity among workers in states with prevailing wage laws.

Phillips (1998) conducted a study of school construction costs in the Great Plains states. New school construction data by school type showed that costs were not statistically different in states with prevailing wage laws than in states without them.

Prus (1999) examined both public and private school construction across the mid-Atlantic states with and without prevailing wage laws and across counties in Maryland with and without the laws. The study found that public schools cost more than private, irrespective of prevailing wage laws. In addition to this distinction, Prus identified region, the distinction between new and renovated buildings, building type, building material, and building size as important predictors of construction cost differences, but he found no evidence of an impact of prevailing wage laws.

Azari-Rad et al. (2002; 2003) used a national sample of school construction data to test whether public schools built under prevailing wages cost more than public schools that were not. The studies found that building type, project size, seasonal start times, and whether the school was a

private or public building had a significant impact on contract costs. Azari-Rad et al. (2002) found that high schools cost 4.6% more than elementary and middle schools. Azari-Rad et al. (2003) noted that public contract costs were 15.5% higher than private contracts in its sample of new school construction between 1991 and 1999. But controlling for construction costs among states, this study found that construction costs were not statistically different in states with or without prevailing wage regulations.

After Fraundorf, only one cross-sectional study has found prevailing wage regulations to be associated with higher government contract costs. A study by Dunn et al. (2005) concluded that prevailing wage rates in California raised public costs of low-income residential projects anywhere between 9% and 37%.<sup>18</sup> In California, some public housing construction is exempt from the prevailing wage statute, so the researchers were able to compare construction costs between projects that were subject to prevailing wage regulation and projects that were not. The researchers used two different models. One model reported prevailing wages leading to an increase in contract costs of 9-11%. The results of the researchers' preferred model, which used voter data, salary data, and union information as instrumental variables across the California region, found that prevailing wage laws raised construction contract costs by as much as 19-37%.

Phillips (2006) found that states with prevailing wage laws had higher productivity, with about 13% to 15% more value-added per worker. The 31 states with prevailing wage laws had higher rates of construction training programs, and trainees were more likely to complete their programs compared to states without prevailing wage laws. This study suggested that productivity was a key reason why other studies could not find higher contract costs from prevailing wage laws.

The weight of the evidence from the cross-sectional studies is that prevailing wage regulations do not impact construction costs. All but two studies found that prevailing wages do not raise costs of government construction and, of those two, the findings from Fraundorf were not replicated when the model was improved, most notably by controlling for differences between public and private construction (other than prevailing wages). Researchers have speculated that the factors causing higher public costs include different building design specifications (Fraundorf 1984; Prus 1996); Azari-Rad et al. (2002) suggested higher public costs might arise from spikes in demand created by government decisions to develop multiple projects. These spikes, referred to as "cost storms," were an example of government's power to affect market conditions in the construction industry through large capital investments.

Dunn et al. (2005) is the only study other than Fraundorf to employ modern econometric techniques that show cost effects of prevailing wage laws. Why this one study contradicts the general econometric literature is not yet known.<sup>19</sup> It is possible that low-income subsidized housing construction might require less skill, lower costs of materials, and a larger share of labor in total cost compared to overall government construction. Labor-intensiveness, skill, and material-saving technologies involved in affordable housing construction might be sufficiently different from those used in other public building and road construction that the operation of prevailing wage regulations works differently in this sector. If this is the case, then prevailing wage regulations might operate differently in the affordable housing sector, which is a small share

of government construction relative to construction on highways, schools, and infrastructure. However, the biggest weakness of the study is that a 19-37% difference in prevailing wage and non-prevailing wage contracts is implausible. Assuming that labor comprises a 25% share of total construction costs, a savings of that magnitude would seem highly unlikely. The Dunn study's unique findings might also be due to idiosyncrasies in the data used or methodology employed that may emerge as scholars attempt to replicate this result.

If these results are replicated, then the Dunn study may raise questions about prevailing wages in subsidized housing construction. However, it does not represent the rest of the current literature, which has shown that prevailing wage laws have no effect on contract costs.

#### Time series analysis

Another approach is to compare construction costs before and after the passage or repeal of a prevailing wage law. These studies generally account for time trends in the construction industry.

Thieblot (1986) used the opportunity of President Nixon's suspension of the Davis-Bacon Act in March 1971 to conduct such a before-and-after comparison. He examined federal construction projects that were re-bid during the 34-day suspension and compared the new bids to those originally submitted. Thieblot initially estimated the re-bids to have resulted in savings on federal construction costs of less than 1% but, once controls for inflation were factored in, the differences in the re-bids suggested a savings of 4.74%. Thieblot acknowledged the possibility of biased results because full disclosures of the original bids were made publicly available before the re-bid process; thus, bidders may just as likely have been responding to what they saw in their competitors' bids as to the rescission of the prevailing wage rule.<sup>20</sup> It was unclear if Thieblot's analysis measured the contractors' ability to use information to their advantage, or if the experiment captured the effects of the suspension of the Davis-Bacon Act.<sup>21</sup> In effect, this study could not overcome the problem of controlling for the knowledge bidders had about their competitors' prior bids on the outcome of contract costs.

In a study of new school construction in British Columbia, researchers looked at six years of contract costs before and after the adoption of a prevailing wage law in 1992. Bilginsoy and Philips (2000) found that, without introducing any controls, prevailing wages correlated with 16% higher construction costs. Once the authors controlled for the business cycle, type of building, the number and size of the contractors, regional differences, and time trends, they found no statistically significant increase in construction costs. This indicated that the cost differences were explained by numerous factors other than the prevailing wage legislation.

Phillips (2001a) used a sample of 391 new school construction projects for a pooled cross-sectional time series approach to examine cost effects of prevailing wages in Kentucky, Michigan, and Ohio.<sup>22</sup> He noted that urban schools cost 10.5% more than rural schools in the three-state region and that breaking ground in the fall added 10% to the total cost compared to projects started in the spring; such a (perhaps unexpected) finding highlights the importance of proper controls in these analyses. The study found no statistically significant increase in construction costs associated with prevailing wage laws.

In summary, with the exception of the 1986 Thieblot study, which faced a critical methodological challenge, time-series studies generally find that prevailing wage laws do not increase construction costs.

Do prevailing wage laws have societal costs or benefits?

Recent case studies of prevailing wage legislation have analyzed not just costs to government, but also the wider costs or benefits to society. Some of these studies have shown that prevailing wage laws protect a state's economy, and that claims of government savings from the repeal of the legislation would pale in comparison to losses in revenues and income. These studies demonstrate implicit threats to the overall state economy, since income losses could lead to reduced consumer spending. Other studies show that prevailing wage laws discourage unscrupulous contractors who compete by hiring low-skilled labor, cheating on payroll taxes, or risking safety concerns at construction sites.

Belman and Voos (1995) concluded that the losses in income and state revenues from repeal of Wisconsin's prevailing wage law would far outweigh potential cost savings from lower wages. The study found that the proposed repeal resulted in \$123 million of income loss in construction and a net fiscal loss to the government of \$6.8 million after accounting for decreased contract costs and declines in tax revenue. Kelsay et al. (2004) calculated potential economic losses of between \$318 million and \$384 million with the repeal of the prevailing wage law in Missouri. This estimate included \$294 million to \$356 million in lost income, \$5.7 million to \$6.9 million in lost sales taxes, and \$17 million to \$21 million in lost income taxes. The authors calculated these figures based on low- to high-range annual earnings losses of \$1,010 and \$1,218 per construction worker.

Prevailing wage laws have been shown to have generally positive effects on the construction industry by expanding the pool of construction workers trained through apprenticeship programs. Studies have shown that apprenticeship training programs are fewer in states without prevailing wage laws. In Utah, state apprenticeships plummeted 40% following the 1981 repeal of prevailing wage laws (Philips et al. 1995). In Kansas, apprenticeships dropped 38% after the 1987 repeal. As part of the Kansas study, Philips (1998) conducted a cross-state examination of construction apprenticeships in prevailing wage and non-prevailing wage states. Apprentices were in decline nationwide, but the number of apprenticeships in states with prevailing wages declined 27%, compared to 53% in non-prevailing wage states.

Researchers have also examined occupational injuries and prevailing wage legislation. One study showed that construction-related fatality rates were 25% lower among workers in states with prevailing wage laws. Fatality rates were even lower in states where prevailing wages were strongly enforced (Philips 2006). Azari-Rad et al. (2005) found that, between 1976 and 1999, states with prevailing wage laws experienced lower injury rates.<sup>23</sup> This was consistent with the hypothesis that injury rates are lower in states regulated by prevailing wage laws because the regulation encourages training and retention of experienced workers.

Prevailing wage laws have also been shown to protect the bottom line of a state's construction budget. In the decade following the 1981 repeal of prevailing wages in Utah, cost overruns tripled,

and Phillips et al. (1995) attributed the trend in part to a rise in change orders reflecting a shift to a low-skilled workforce and lower productivity. Data limitations have hindered further study of the question of cost overruns; most studies of contract costs use data from F.W. Dodge on the accepted bid prices,<sup>24</sup> but these data do not capture change orders associated with cost-overruns (Azari-Rad et al. 2002).

The absence of prevailing-wage-certified payrolls also appears to attract bidders who are tempted to evade their obligations to make payments for worker's compensation, Social Security, and unemployment insurance (Phillips 2006).

## Conclusion

An overwhelming preponderance of the literature shows that prevailing wage regulations have no effect one way or the other on the cost to government of contracted public works projects. And as studies of the question become more and more sophisticated, this finding becomes stronger, and is reinforced with evidence that prevailing wage laws also help to reduce occupational injuries and fatalities, increase the pool of skilled construction workers, and actually enhance state tax revenues.

## Endnotes

1. The two other major federal laws are the Walsh-Healey Government Contracts Act of 1936, which covered employers that manufacture or supply materials to the federal government, and the Service Contract Act of 1965, which affects suppliers of personal and business services.
2. Congress extended the definition of "prevailing wage" in 1964 to include fringe benefits.
3. The others are Arizona, Colorado, Idaho, Kansas, Louisiana, New Hampshire, and Utah. Oklahoma's law was invalidated by the courts in 1995.
4. Note that the total cost of construction contracts in this calculation excludes land acquisition, architectural design, or management fees.
5. Factor substitution assumes a homogenous labor pool, or similar skill sets among workers.
6. Belman and Voos cite an unpublished 1990 study for the Arizona District Council of Carpenters. The authors of the report found that, of the \$271,000 to \$350,000 saved in wages and benefits, only \$100,000 was passed on to the contracting agency.
7. Armand Thieblot discussed the wage differential approach in the book, *Prevailing Wage Legislation: The Davis-Bacon Act, State "Little Davis-Bacon Acts," the Walsh Healey Act and the Service Contract Act*, University of Pennsylvania, Wharton School, 1986, p. 94.
8. Wage levels on the 12 projects ranged from 5% to 123% higher than the prevailing rate.
9. Labor costs were assumed to be about 25% of total construction.
10. Benefits under prevailing wages paid \$6.28 compared to \$4.67 in the private sector.

11. Wages were weighted according to the number of workers in the occupation and by metropolitan area.
12. This calculation assumes that labor comprises 50% of total construction costs. This determination was made following conversations with construction contractors. The authors do not state whether this estimate excludes profits or other items for contractors.
13. Prepared for the New York Economic Development Council.
14. Median wages were provided by the Bureau of Labor Statistics Occupational Employment Survey.
15. The authors state that productivity, cost of materials, and the labor share of construction costs would remain constant for purposes of the analysis.
16. The authors collected construction cost data from in-person interviews with contractors across the country, and selected a representative sample of 215 private and public nonresidential construction projects started in 1977 and 1978.
17. The states included in the study were New Mexico, Utah, Texas, Oklahoma, Wyoming, Nevada, Arizona, Colorado, and Idaho.
18. This range included results from variations on two different econometric models. The ordinary least squares model included two variations of the dependent variable, one with a restricted definition of construction costs that included only site preparation and building construction, and one that included all costs, such as site preparation, architect and design fees, and engineering management fees. These same dependent variables were tested in the instrumental variables model.
19. The authors have not yet made their data available.
20. As Thieblot wrote: "A disclaimer to this estimate is necessary, however, because the bid-rebid process was not pure. In addition to the time difference problem, all of the original bids were disclosed before rebids were made, which points to the high probability that some gamesmanship was at work in the process, independent of the prevailing wage rate elimination" (p. 105). Steve Allen (1983) noted Thieblot's results were not an accurate measure of federal contract cost savings (pp. 716-7).
21. Steve Allen (1983) noted Thieblot's results were not an accurate measure of federal contract cost savings (pp.716-17).
22. All three states had prevailing wage laws for school construction during some portions of the 1991-2000 study period.
23. Injury data were obtained from the Bureau of Labor Statistics, Survey of Occupational Injuries and Illnesses, 1976-99.

24. F.W. Dodge bid price data exclude management costs, architectural fees, and land acquisition.

Annotated bibliography

**Allen, Steve. 1983. "Much Ado About Davis-Bacon: A Critical Review and New Evidence." *Journal of Law and Economics*. Vol. 26, No. 3, pp. 707-36.**

Allen argues the Wage and Hour Division's wage determinations under the Davis-Bacon Act could affect construction costs, although the costs associated with errors in wage determinations may be lower than previously reported. Enforcement of prevailing wage laws could also affect total costs. Total construction costs would also be affected by factor substitution, although it's difficult to know the precise pattern as wages change.

**Azari-Rad, Hamid, Peter Philips, and Mark Prus. 2002. "Making Hay When It Rains: The Effect Prevailing Wage Regulations, Scale Economies, Seasonal, Cyclical and Local Business Patterns Have on School Construction Costs." *Journal of Education Finance*. Vol. 23, pp. 997-1012.**

In response to anecdotal evidence that school construction costs grew more rapidly than costs in the overall construction market, the authors examine the role of prevailing wage laws and inflationary pressures in school construction. In the model, dummy variables were used to identify public and private schools and the presence of prevailing wage laws. The results showed no significant cost differences in school construction projects related to prevailing wage laws. However, the decision by school districts to build numbers of schools at once creates "cost storms," overwhelming the local construction market by stimulating demand. The implications show that construction costs are strongly related to school district decisions on the size of the school, since economies of scale exist, but at some point the benefits will be offset by the market-crowding conditions associated with the demand for a large-scale project. Other findings showed significant cost effects for the business cycle and economies of scale. For example, the economies of scale statistic showed a 91% increase in cost every time the size of the school doubles.

**Azari-Rad, Hamid, Peter Philips, and Mark Prus. 2003. "State Prevailing Wage Laws and School Construction Costs." *Industrial Relations*. Vol. 42, No. 3, pp. 445-47.**

This 50-state study of school construction from 1991 to 1999 shows that prevailing wage laws have no significant effect on school construction costs. The models included controls for business cycle, building size, school type, the season in which the project broke ground, and public vs. private funding. Controlling for other effects on construction costs, there was no statistically significant increase associated with prevailing wage regulations. The findings showed economies of scale, and that doubling the size of a school raised costs by 93%. New high schools were 5-8% more expensive, possibly because of the increased complexity of science labs, language centers, and recreational specifications. Public schools cost 15.5% more than private schools, independent of prevailing wage regulations. The results counter claims that taxpayers could build additional schools at less cost by repealing prevailing wage laws.

**Azari-Rad, Hamid, Peter Philips, and Mark Prus. 2005. *The Economics of Prevailing Wage Laws*. Burlington, Vt.: Ashgate Publishers.**

This book presents empirical evidence on the effects of prevailing wage laws on government costs and examines whether the laws have broader social costs or benefits. Experts on prevailing wages in the construction industry contributed chapters on construction costs, retention of a skilled workforce, occupational safety in the construction industry, pensions and benefits, and the impact of the repeal of prevailing wage laws on demand for public assistance.

**Belman, Dale, and Paula Voos. 1995. *Prevailing Wage Laws in Construction: The Costs of Repeal to Wisconsin*. Milwaukee: Institute for Wisconsin's Future.**

Belman and Voos found that the direct costs of repealing prevailing wage regulations outweighed the presumed savings in Wisconsin. The state would be faced with a net revenue loss of \$6.8 million annually. The calculation includes a loss of \$11.6 million in sales and income tax revenues and a full transfer to the state of the presumed savings of \$4.8 million. The authors question whether the savings would fully transfer to the government, however, citing evidence that contractors would pocket more than two-thirds of the savings. The authors note that net effects didn't include projected costs to society and harm to the construction industry, such as reduced productivity, the transition to a low-skilled workforce, a rise in occupational injuries, and cutbacks in consumer spending. An estimated 100,000 construction workers and their families would also be expected to lose about \$123 million in income across the state.

**Bilginsoy, Cihan, and Peter Philips. 2000. "Prevailing Wage Regulations and School Construction Costs: Evidence From British Columbia." *Journal of Education Finance*. Vol. 24, pp. 415-32.**

Bilginsoy and Philips conducted a six-year analysis of the British Columbia prevailing wage law, established March 30, 1992. Half of the sample of 54 new public school construction projects commenced before the law went into effect, and half began afterward. When all controls were excluded from the model, prevailing wages appeared to raise construction costs by 16%. However, the results show no statistically significant increase in costs once business cycle, type of building, the number and size of the contractors, regional dummy variables, and time trends are factored in.

**Center for Government Research. 2008. *Prevailing Wage in New York State: The Impact on Project Cost and Competitiveness*. Prepared for the New York State Economic Development Council. Rochester, N.Y.: Center for Government Research.**

The Center for Government Research (CGR) estimated that prevailing wage laws raised construction costs by 36% in New York's metro regions. However, the study did not empirically test whether the increase was related to prevailing wage regulations. CGR assumes that the wage differences fully transfer in government costs. The model compared prevailing wage rates with the market rates of construction occupations in several metropolitan areas in New York and several others across the country. The study then compared labor costs to total construction costs using a

prototype project, or a model created to mimic typical construction costs. It then applied the markup rates to total construction costs. The calculation assumed that productivity, material costs, and the labor share of construction remained constant.

**Department of Fiscal Services. 1989. *Maryland's Prevailing Wage Law: A Study of Costs and Effects*. Annapolis, Md.: Department of Fiscal Services.**

Maryland's prevailing wage laws were estimated to raise costs of state building construction 5-15% in metropolitan areas. At the time, public school construction projects were subject to state prevailing wage laws if the state funded at least 75% of the costs. The sample included 20 new and renovated school construction projects in 1987 and 1988, 14 of which were built under prevailing wage laws. Using a multiple regression model, DFS estimated prevailing wages increased costs by \$11 per square foot, or about 15%. But this first statewide study of prevailing wage laws and construction costs in Maryland was later found to have methodological problems regarding a small sample size and the lack of controls for new and renovated projects (see Prus 1999).

**Dunn, Sarah, John Quigley, and Larry Rosenthal. 2005. "The Effects of Prevailing Wage Requirements on the Cost of Low-Income Housing." *Industrial & Labor Relations Review*. Vol. 59, No. 1, pp. 141-57.**

In a study of prevailing wage laws and construction costs in the low-income housing sector, the authors used econometric approaches to measure the effect of prevailing wage laws on final project costs across California. The sample of 205 subsidized housing projects undertaken from 1997 to 2002 included a control group of 30 projects that were not subject to prevailing wage laws. Construction data were collected on projects approved and completed over a five-year period through May 1, 2002. Prevailing wage rates were paid on 175 of the 205 new public housing projects, although there was no attempt made to specify whether projects paid federal, state, or local prevailing wages. In California, some public housing construction was exempt from the statute, so prevailing wages were not paid on 30 of the projects. In the model preferred by the authors, instrumental variables (IV) were used to control for endogenous factors that affected prevailing wage laws across regions. The information for this variable was extracted from voter registration information, union membership, homeownership, age, and income data. The authors reasoned that political influences and economic conditions were likely to affect whether a region adopted prevailing wage legislation. The IV model showed that prevailing wage laws raised costs of low-income residential projects 19-37%. The ordinary least squares model showed that prevailing wages raised contract costs 9-11%. The conclusion reports the range of results, rather than a confidence interval on the preferred model.

**Fraudorf, Martha, and Mason Farell. 1984. "The Effect of Davis-Bacon Act on Construction in Rural Areas." *Review of Economics and Statistics*. Vol. 142, No. 6.**

In the first econometric study of prevailing wages and federal construction costs, the authors used construction data they had collected in 1977 and 1978 from in-person interviews with contractors working on 215 new non-residential buildings in rural areas across the country. About half (113)

of the projects were federally funded and built under the Davis-Bacon Act, and the remainder (102) were private construction projects. The results showed that public projects—all of which were subject to the Davis-Bacon Act—were generally 26.1% more expensive than private construction. At the time, labor costs (including wages, benefits, and payroll taxes) comprised no more than 30% of total costs. The authors acknowledged that the estimate of 26.1% was high. Subsequent research (Prus 1996) determined that the authors had inadvertently excluded a key variable controlling for public versus private projects. Consequently, they had captured the differences between public and private costs, but were not able to isolate the effects of prevailing wage laws.

**General Accounting Office. 1979. *The Davis-Bacon Act Should Be Repealed*. Washington, D.C.: GAO.**

This study has been widely cited as evidence against prevailing wage laws, despite later criticisms over its methodology. The GAO argued that the Davis-Bacon Act should be repealed because it was inefficient and unnecessary and raised federal government costs by several hundred million dollars a year. In a sample of surveys collected on 30 federal projects, wages paid were higher than the prevailing rates in 12 of the projects, and lower in others. The GAO targeted the projects with higher wage rates to show a 3.4% increase in total construction costs, which would raise federal construction costs by \$228 million to \$513 million annually. The study based its findings on simple accounting to show hypothetical savings from the repeal of the Davis-Bacon Act, but it was not able to establish a causal link between prevailing wage laws and government costs. The GAO acknowledged that the sample size was insufficient to calculate construction costs with any statistical validity. However, it stated that the random nature of the sample was representative of federal construction.

**Glassman, Sarah, Michael Head, David Tuerck, and Pal Backman. 2008. *The Federal Davis-Bacon Act: The Prevailing Mismeasure of Wages*. Boston, Mass.: Beacon Hill Institute for Public Policy Research, Suffolk University.**

This paper argues that the Davis-Bacon Act should be repealed on grounds that the wage determinations set by the Department of Labor (DOL) do not reflect the true wage prevailing in a local area. Prevailing wage rates set by the DOL were on average 13% higher than market rates, i.e., the average wages reported for construction occupations by the Bureau of Labor Statistics Occupational Employment Survey. This difference was then applied to the federal budget to estimate a 9.91% cost increase, or \$8.6 billion annually. The authors attributed the wage differences to unrepresentative surveys and measurements that resulted in an upward bias in wage estimates.

**Gujarati, D.N. 1967. "The Economics of the Davis-Bacon Act." *Journal of Business*. Vol. 40, No. 3, pp. 303-16.**

Gujarati's examination of prevailing wages across metropolitan and non-metropolitan counties found that prevailing wages are often set as the union wage for occupations in the construction industry. The author based this finding on 372 wage determinations from 300 counties from 1960

to 1961. The implication of the findings was that the Davis-Bacon Act inflates total contract costs because it favors union contractors who pay higher wages to workers. This study does not reflect the current decision-making process at the Department of Labor, nor does it reflect the present composition of unions in the construction industry.

**Keller, Edward, and William Hartman. 2001. "Prevailing Wage Rates: Effects on School Construction Costs, Levels of Taxation and State Reimbursements. *Journal of Education Finance*. Vol. 27, pp. 713-28.**

The authors showed that prevailing wage rates were an average of 17% higher in the public sector compared to wages in the private sector in Pennsylvania, and suggested that higher wages would result in sizeable cost burdens to the state. The average wage difference of \$2.87, and the difference in benefits of \$1.62, or 21.5% combined, would result in a total cost increase of \$75 million in school construction. The study uses a sample of school construction projects from 1992 to 1997 in which school districts covered 89% of the cost and the state covered the rest. This study examines the differences between wages paid on public and private construction contracts. It does not empirically observe how these costs would be passed through, but it assumes that lower wage costs would mean lower government costs.

**Kelsay, Michael, Randall Wray, and Kelly Pinkham, 2004. *The Adverse Economic Impact From the Repeal of the Prevailing Wage Law in Missouri*. Working Paper, Department of Economics, University of Missouri.**

An input-output analysis using RIMS II multipliers estimated total economic losses of between \$318 million and \$384 million annually from proposed repeals of prevailing wage laws. The breakdown included \$294-356 million in lost income, \$5.7-6.9 million in lost sales tax collections, and \$17.7-21.4 million in lost income taxes. The low and high numbers were based on estimated annual income losses of \$1,010-\$1,218 per construction worker. Additionally, the authors calculated societal impacts of better pay and benefit packages for workers under prevailing wage laws. The impacts for states without prevailing wage laws include the entry of smaller, less-experienced construction firms into the construction market; higher rates of employee turnover raised the risk that firms might hire unskilled workers more prone to injuries.

**Kersey, Paul. 2007. *The Effects of Michigan's Prevailing Wage Law*. Midland, Mich.: Mackinac Center for Public Policy.**

This report updates the previous Mackinac study but did not address the various criticisms over methodology. The author takes the BLS median and adjusted wages for construction occupations and estimates that 10% of Michigan's construction funding could have been saved if the state's prevailing wage law were repealed.

**Kessler, Daniel, and Lawrence Katz. 2001. "Prevailing Wage Laws and Construction Markets." *Industrial and Labor Review*. Vol. 54, No. 2, pp. 259-74.**

The authors examine the time trends of the repeal of state prevailing wage laws on union and race characteristics in construction labor markets. Kessler and Katz use Census and Current Population

Survey data and a fixed-effects econometric approach to analyze wages and unionization rates over time. The model compares relative wages for blue-collar construction and non-construction workers in repeal and non-repeal states over a 24-year period. The overall effect of prevailing wage laws on construction labor costs is small (2-4%), although this varies widely across groups. This calculation was based on a 10% estimated decline in union worker incomes. Because union members account for one-quarter of all construction workers, the total impact on labor costs was 2-4%. The results suggest the repeal of prevailing wage laws negatively affects union and white workers, while it may benefit black construction workers. This study is limited to an analysis of wages and does not include total construction costs in the empirical model.

**Philips, Peter, Garth Magnum, Norm Waitzman, and Anne Yeagle. 1995. "Losing Ground: Lessons From the Repeal of Nine Little Davis-Bacon Acts." Working Paper, Department of Economics, University of Utah.**

The repeal of prevailing wage laws was found to reduce worker earnings, cut worker training programs, increase occupational injuries, and increase cost overruns. These findings were based on an examination of the effects of prevailing wage laws in nine states that had repealed the legislation, nine other states that never had the legislation, and 32 states with prevailing wage laws. In the nine states that had repealed prevailing wage laws, worker earnings declined \$1,477 a year, a drop that would result in substantial losses in income and sales tax revenues to the state. Controlling for downward trends in construction training, state employment rates, and regional differences in training availability, states that repealed prevailing wage laws reduced construction training by 40%. In the case of Utah, declines in training produced a substantial shift to low-skilled workers, declining productivity, and a tripling in cost overruns compared to the previous decade. Occupational injuries rose 15% in states that had repealed the legislation. Worker injuries were responsible for lost workdays and higher government costs for worker's compensation.

**Philips, Peter. 1996. *Square Foot Construction Costs for Newly Constructed State and Local Schools, Offices, and Warehouses in Nine Southwestern and Intermountain States: 1992-1994*. Prepared for the Legislative Education Study Committee of the New Mexico State Legislature.**

This study demonstrated that square foot construction could be less expensive in prevailing wage states compared to states without prevailing wage laws. The study took a cross-section of government construction projects across the Intermountain and Southwestern states, five of which had prevailing wage laws and four of which did not. The states were New Mexico, Utah, Texas, Oklahoma, Wyoming, Nevada, Arizona, Colorado, and Idaho. The data were disaggregated based on building type: offices, warehouses, elementary schools, middle schools, and high schools. Once the data were disaggregated by building type, the average square foot construction costs were shown to be \$6 less in the sample of states with prevailing wages laws. The results show that productivity may have played a major role in construction cost outcomes and that it can offset potential wage increases. Philips noted a 1979 BLS study of aggregated school construction costs that showed total labor costs were the same in the South and Northeast, although hourly

wages were 50% higher in the Northeast. Productivity could explain why a higher hourly wage on school construction in the Northeast did not result in higher total labor costs. However, total labor costs were the same in the South and Northeast, despite the hourly wage differences.

**Philips, Peter. 1998. *Kansas and Prevailing Wage Legislation*. Report prepared for the Kansas Senate Labor Relations Committee.**

In this case study, school construction costs, worker wages, and other societal costs were examined before and after the 1987 repeal of prevailing wage laws in Kansas and compared with other Great Plains states. Philips used statistical methods to compare mean and median costs of new schools in Kansas and surrounding states from July 1991 to June 1997. Of 365 new elementary schools in the Great Plains states with prevailing wage laws, construction costs were not statistically different from zero controlling for other cost factors. Average construction earnings fell faster in Kansas and other surrounding states without prevailing wage laws after the 1987 repeal. After the repeal, real worker earnings fell 11% in Kansas and in surrounding states without prevailing wage laws, compared to a 2% decline in states with prevailing wage laws. The loss of earnings would have resulted in lost tax revenues to the state.

Collective bargaining in construction declined after the state's repeal, and this decline affected worker training, pay and benefits, occupational injuries, and lost time from work. Apprenticeship training programs declined in Kansas and surrounding states without prevailing wage laws from 1973 to 1990. In Kansas, apprenticeships slid 38%, from an annual average of 861 in the 1970s to an average of 530 in the first four years after the law was repealed. In the sample of states with prevailing wage laws, apprenticeships declined an average of 27% during the period, compared to a decline of 53% in states without prevailing wages.

Occupational injuries rose 19% in Kansas after the repeal of prevailing wage laws, or from 11 to 13 injuries per 100 construction workers. Philips compared the number of injury cases per worker from 1976 to 1991 using the Bureau of Labor Statistics industry survey of occupational injury and illness. Total injuries rose 26%, from 11 to 14 per 100 construction workers, and serious injuries rose 14%, from 4.7 to 5.3 injuries per 100 construction workers in states without prevailing wage laws. Annual average employer contributions toward pensions and health insurance in Kansas fell 17% after the repeal of prevailing wage laws, according to data obtained from the U.S. Department of Labor for the years 1982-86 and 1987-92. Philips attributes this drop to the shift away from collective bargaining following the repeal in Kansas.

**Philips, Peter. 1999. *Kentucky's Prevailing Wage Law: Its History, Purpose, and Effect*. Working Paper, Economics Department, University of Utah.**

Prevailing wage laws in Kentucky provided a unique sample because some projects were exempt from the law until it was reinstated in 1996. Kentucky did not repeal its law, but it exempted school construction from the statute. In 1982, schools and some city projects were exempt from the 1940 prevailing wage statute. It also exempted city, county, and regional governments from construction projects paid for with less than 50% of state funds. In 1996, it expanded its law to include public schools and most local and county construction projects. The study was in response

to charges that prevailing wages discriminate against minority workers and arguments that the legislation reduced the number of entry-level jobs. Philips used statistical methods to analyze the relationship between prevailing wage laws and the racial composition of the construction industry. The results showed no measurable relationship between unemployment rates by race in construction and state prevailing wage laws.

**Philips, Peter. 2001a. *A Comparison of Public School Construction Costs in Three Midwestern States That Have Changed Their Prevailing Wage Laws in the 1990s: Kentucky, Ohio, and Michigan*. Working Paper, Economics Department, University of Utah.**

This study takes advantage of a natural experiment with the judicial suspension of the prevailing wage law in Michigan (1995-97), the adoption of prevailing wages for school construction in Kentucky (1996), and the repeal of prevailing wages for school construction in Ohio (1997). About half of the 391 new schools in the sample were built under prevailing wage legislation in those three states from 1991 to 2000. The study accounted for the problem of building costs climbing faster than inflation during the 1990s, and included controls for rising construction costs for new public schools in all three states from 1991 to 2000. The results showed that prevailing wage regulations did not raise construction costs with any statistical significance.

Other findings showed that urban schools cost 10.5% more than rural schools, controlling for other factors such as building size. Ohio schools cost 12.6% less than schools in Michigan; Kentucky schools cost 14.6% less. The decision over when to break ground was shown to affect total cost: projects started in the fall added 10% to total costs compared to projects that broke ground in the spring.

**Philips, Peter. 2001b. *Four Biases and a Funeral: Dr. Vedder's Faulty Experiment Linking Michigan's Prevailing Wage Law to Construction Employment*. Economics Department, University of Utah.**

Examining a study by the Mackinac Center for Public Policy, Philips discovered that the data and structure of the methodology led to internal and external validity problems. Four primary biases were produced by the Mackinac research design, including the fact that results did not hold in other states. The biases were listed as the selection of 30-month-long time periods, a seasonal adjustment that did not reflect construction industry patterns, employment adjustments based on unseasonably warm weather on the end points of the data, and the inability to replicate the results in other states. Mackinac's hypothesis that employment increases after the repeal of prevailing wage laws and declines after their adoption was upheld in the case of Michigan, but Philips attributes this to pure luck. Contrary to Mackinac's findings, looking beyond Michigan employment actually declined in states that repealed prevailing wages. It also declined in Oklahoma, where the law was judicially annulled, and in Ohio, where school construction was exempt from prevailing wages. The states that repealed prevailing wage laws were Louisiana, Kansas, Colorado, New Hampshire, and Idaho. In Kentucky, where the law was applied to schools in July 1996, employment increased.

**Philips, Peter. 2006. *Construction: The Effect of Prevailing Wage Regulations on the Construction Industry in Iowa*. Working Paper, Economics Department, University of Utah.**

Productivity was found to play a major role in explaining why less expensive labor does not always result in lower government construction costs in the absence of prevailing wage laws. Using 2002 Census of Construction data, Philips compared average annual incomes of construction workers and the value-added per construction worker by state. Workers in states with prevailing wage laws earned more income, but they also had higher productivity. In prevailing wage states, construction workers earned an average of 15% more in wages and about 25% more in Social Security, unemployment insurance, and worker's compensation. States with prevailing wage laws showed 13-15% more value-added per worker compared to states without the legislation. The result showed that prevailing wage laws raised productivity, possibly by inducing better management of projects, higher training standards, and more capital investment.

Prevailing wage laws also promoted collective bargaining activities that encouraged apprenticeship programs necessary to improve workmanship and expand the pool of skilled workers. On the other hand, states without prevailing wage laws faced higher costs of maintenance and repair and had transitioned to a low-wage, low-skill workforce. Non-prevailing wage states created an environment where contractors would cut corners on safety, training, and payroll regulations in an attempt to offer lower bids. In Iowa, an estimated 2,500 workers were misclassified as independent subcontractors in order to save on payrolls. The misclassification of workers deprives the state of worker compensation and unemployment insurance payments, and allows the contractor to dodge health insurance, pension, and Social Security contributions.

**Prus, Mark. 1996. *The Effect of State Prevailing Wage Laws on Total Construction Costs*. Working Paper, Southern University of New York, Cortland.**

Prus replicated the Fraundorf model and discovered that the study did not control for cost differences between public and private construction. Prus used multivariate analysis to compare construction costs in states with prevailing wage laws, rather than compare federal-level construction projects that were subject to the Davis-Bacon Act with private construction contracts. The data were obtained on offices, hospitals, schools, garages, and warehouses. Controls were included for building material, building type, and building height, and a dummy variable was used to mark new or renovated construction. The results showed that public construction was 32% more expensive than private construction in states without prevailing wage laws. Controlling for differences between public and private construction, there were no statistically significant cost effects related to prevailing wage laws. This study demonstrated that the Fraundorf study had captured the cost difference of public-private construction rather than the effects of prevailing wages. Prus attributes the cost differences to government specifications and building design.

**Prus, Mark. 1999. *Prevailing Wage Laws and School Construction Costs: An Analysis of Public School Construction in Maryland and the Mid-Atlantic States*. Prepared for the Prince George's County Council, Maryland.**

Most of the schools built during the 1990s in Maryland were not subject to the state's prevailing wage laws, in effect since 1969. While the legislation covered most state-funded public school construction in the 1980s, changes in the formula and allocation of prevailing wage determinations in 1989 excluded most school construction from the prevailing wage requirements. The statute required the payment of prevailing wages for public construction projects that received 50% or more funding from the state, and for public school construction that received at least 75% from the state. The law was later changed to reduce the threshold for school construction to at least 50% funding from the state. In Maryland, Allegany County and Baltimore City had enacted prevailing wage laws for school construction and public works. The presence of prevailing wage laws in some places in Maryland and the region, but not others, allowed Prus to empirically examine the effects on government construction costs.

First, Prus replicated the methodology of a Maryland Department of Fiscal Services study and discovered that the authors had excluded controls to differentiate between new and renovated projects (see Department of Fiscal Services 1989). If this control were included, then the results did not show statistically significant increases in costs. The DFS model had overestimated costs because it included site preparation in the definition of cost and did not control for regional differences. The author noted that the most expensive school in the sample was built without prevailing wages.

In a separate experiment, Prus examined contract costs of schools built in Maryland with and without prevailing wage laws. The results showed no statistically significant effect on costs. The model included controls for building materials, types of school, a marker for new or renovated project, a marker for public or private school, and the height of the building. Public schools were 40.6% more expensive than private schools regardless of prevailing wages, and economies of scale were evident. High schools were 33% more expensive than elementary schools. The results also show a doubling in the building size would raise costs by 68%.

A cross-state experiment compared square foot construction costs in Maryland and other mid-Atlantic states. Although construction costs appeared to be higher in prevailing wage states based on descriptive data, a linear regression model showed that the differences were related to regional factors. Prus concludes these considerable cost differences exist because school construction in the South was less expensive than in the northern states of the mid-Atlantic region. In addition to regional differences, building type and specifications also impacted total construction costs. Schools in the sample of prevailing wage states appeared to be 25% more expensive, until the data were disaggregated by school type. Elementary schools were cheaper while middle and high schools were more expensive in prevailing wage states. Costs of construction of public schools in states without prevailing wage laws were 11.3% higher per square foot than costs for private schools. Prus compared square foot construction costs by school type in prevailing wage and non-prevailing wage states. Using linear regression, he compared construction costs controlling for building type, size, and private vs. public schools. Controlling for other factors, prevailing wage laws were shown to have no statistically significant effect on costs.

**Thieblot, Armand. 1986. *The Davis-Bacon Act, State "Little Davis-Bacon" Acts, the Walsh-Healey Act, and the Service Contract Act.* Philadelphia: Wharton School, University of Pennsylvania.**

Thieblot conducted a time-series analysis of contract costs before and after President Nixon's temporary suspension of the Davis-Bacon Act. The author examined new bids submitted by contractors during the 34-day suspension in February and March 1971. The construction contracts that were re-bid were not yet awarded. The re-bids were estimated to save less than 1%, or about \$240 million a year on all federal construction contracts, compared to bids that were originally submitted. The inflation-adjusted estimate showed a 4.74%, or about \$1.1 billion, difference in the original and new bids. Thieblot acknowledged that results might be biased because full disclosures of the bids were given before the re-bid process and he was unable to control for contractors altering their bids in an attempt to game the system: "A disclaimer to this estimate is necessary, however, because the bid-rebid process was not pure. In addition to the time difference problem, all of the original bids were disclosed before rebids were made, which points to the high probability that some gamesmanship was at work in the process, independent of the prevailing wage rate elimination." It was unclear if Thieblot's analysis measured the contractors' ability to use information to their advantage, or if the experiment captured the effects of the suspension of the Davis-Bacon Act.

**Vedder, Richard. 1999. *Michigan's Prevailing Wage Law and Its Effects on Government Spending and Construction Employment.* Midland, Mich.: Mackinac Center for Public Policy.**

This study assumes prevailing wage laws impose additional costs on the state and lower construction employment in Michigan. The study's methodology relied on simple descriptive statistics and was criticized for numerous shortcomings. The results showed construction jobs grew by 11,000, or 13%, after the prevailing wage law was repealed, but critics cited methodological issues to refute this claim (see Philips 2001b). Using a series of hypothetical calculations and a finding that showed prevailing wage rates were 10% higher in the Detroit area, the study also estimated that prevailing wage laws raised construction costs by \$275 million: "If labor costs were 25 percent of the total value of a construction contract, and if average labor costs per hour were increased 40 percent by prevailing wage laws, this would drive up total construction by 10 percent....Assuming a 10-percent differential...the state of Michigan could have saved about \$251 million by eliminating prevailing wage provisions." The study did not provide evidence that the wage difference in the Detroit area was representative of the rest of the state. It also did not provide any empirical support to show differences in wage rates would be passed through as government costs. Rather, it allocated wage differences to government costs without controlling for any other factors.

About Economic Policy Institute

The Economic Policy Institute is a nonprofit, nonpartisan think tank that seeks to broaden the public debate about strategies to achieve a prosperous and fair economy. The Institute stresses

real world analysis and a concern for the living standards of working people, and it makes its findings accessible to the general public, the media, and policy makers. EPI's books, studies, and popular education materials address important economic issues, analyze pressing problems facing the U.S. economy, and propose new policies.

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#### About Author

Nooshin Mahalia joined the Economic Policy Institute in 2007. Prior to joining the Economic Analysis and Research Network at EPI, she worked at the Economic Development Institute and previously for news organizations in the metropolitan Atlanta area. Her areas of interest include regional economic development and technology policy.

*State Building & Construction Trades Council of California, AFL-CIO*

# BUILDING TRADES BULLETIN

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August 19, 2009

## *Breakthrough in Vista Prevailing Wage Case!*

# Supreme Court Grants Review of Building Trades' Petition

By a unanimous 7-0 vote, the California Supreme Court today agreed to hear the SBCTC's petition in our lawsuit against the City of Vista, on the question of whether charter cities can exempt contractors on their projects from state law requiring contractors on public work to pay prevailing wages.

The decision to grant review is great news for the building trades because the Supreme Court grants review of only a small fraction of the thousands of petitions it receives each year. Now the Supreme Court will consider the SBCTC's argument that prevailing wages must be paid on all public works projects in California.

SBCTC filed the lawsuit in 2007 after the Vista City Council passed an ordinance declaring that city construction projects are exempt from state law requiring that contractors must pay prevailing wages and hire apprentices on public works projects. The SBCTC's lawsuit contends that charter cities may not exempt contractors from the state prevailing wage laws because the payment of prevailing wages and employment of apprentices are matters of statewide concern, not purely local matters. Among other things, the payment of substandard wages in one city can drive down pay scales, depress the economy, and worsen workers' quality of life across an entire region. The SBCTC pointed out that the 1932 precedent allowing contractors in charter cities to avoid the prevailing wage law is based on outdated caselaw that has since been overruled.

The City of Vista prevailed in the trial court and before a sharply divided court of appeal, where a dissenting justice quoted SBCTC President Bob Balgenorth at length in explaining why the prevailing wage law addresses matters of more than just local concern. The Supreme Court has now unanimously agreed to consider reversing those decisions. Attorneys will file briefs and then the court will hear oral arguments before ruling. A decision is likely to be issued in 12 to 18 months.

**ATTACHMENT #3**

**UPDATED CHARTER REVIEW COMMISSION TIMELINE:**

<b>Topic</b>	8/18	9/01	9/15	10/06	10/20	11/03	11/17	12/01	12/15	1/05	01/21*	2/02	2/18	3/2	3/16	4/6	Status				
<i>Consent Items Sects. 101-105 , 301, 404, 405, 603, 604, &amp; 606</i>	<b>X</b>		Town Hall Meeting on Sections 300,302, 304, 305, 306, 309, 310, 311, & 800 – Elected City Officials					Town Hall Meeting – Section 612 – Measure C			Town Hall Meeting – Prevailing Wage				Potential Town Hall Meeting on Overall Charter		S				
<i>Section 200 – Council-Administrator Form of Government</i>							<b>X</b>														S
<i>Section 300, Elective Offices Discussion on Elected Mayor</i>					<b>X</b>	<b>X</b>						<b>X</b>									S
<i>Section 302 Council Compensation -</i>					<b>X</b>	<b>X</b>															R
<i>Section 303 - Meetings Possible set by Ordinance or Resolutions</i>		<b>X</b>																			S
<i>Section 304 Subsection (b) Council control of all legal business of the city</i>					<b>X</b>	<b>X</b>															S
<i>Section 305-306– Mayor’s Role – Review and discuss adding language on Mayor’s Rotation</i>					<b>X</b>	<b>X</b>															S
<i>Section 307 Non-Interference with Administration</i>									<b>X</b>												S
<i>Section 308 – Bonds -Compliance with State Law</i>		<b>X</b>																			D
<i>Section 309 City Attorney - Discuss Making Appointed</i>					<b>X</b>	<b>X</b>						<b>X</b>									S
<i>Section 310 City Clerk - Discuss Making Appointed Format for Maintaining Records</i>					<b>X</b>	<b>X</b>						<b>X</b>									S
<i>Section 311 – City Treasurer - Discuss Making Appointed Qualifications</i>					<b>X</b>	<b>X</b>						<b>X</b>									S
<i>Section 312- Vacancies – Moral Turpitude</i>		<b>X</b>															S				

**Charter Review Timeline**

<b>Topic</b>	8/18	9/01	9/15	10/06	10/20	11/03	11/17	12/01	12/15	1/05	01/21*	2/02	2/18	3/2	3/16	4/6	Status			
Section 313 - Conflict of Interest – Nepotism- See Municipal Code and Adm. Reg. 411		X	Town Hall Meeting on Sections 300, 302, 304, 305, 306, 309, 310, 311, & 800 – Elected City Officials					Town Hall Meeting – Section 612 – Measure C			Town Hall Meeting – Contracts & Prevailing Wage						S			
Section 400 – 404 City - Administrator /Asst. City Adm. Change/Update Titles - Hire/Fire Dept. Heads							X													S
Sections 500-503 – Ordinances, Resolutions, Publication, Legal Notices - Second Reading of Ordinances		X																		S
Sections 600-602 -City Budget - Change in Fiscal Year Submission to Council 30 not 60 days		X																		S
Sections 605 - City Budget - Allow Capital Projects to be Carried forward from one FY to the Next		X																		S
Section 607(b) 2 - Retirement Tax													X							D
Section <del>607</del> , 608, 610, 611- Taxes Update to conform with State Law		X																		S
Section 609 – Estate Transfer Tax - Possible Elimination		X																		S
Section 612 – Measure C - Possibly Increase and Index Dollar Amount												X								R
Sections 613-614 – Contracts • Increase/Eliminate Dollar Amount & Possibly Index to CPI • Financial Viability of Bidders • Prevailing Wage Discussion															X					ED
Section 615- City Franchises		X																		S
Section 616- Independent Audit - Higher Level Audit		X																		S

**Charter Review Timeline**

<b>Topic</b>	8/18	9/01	9/15	10/06	10/20	11/03	11/17	12/01	12/15	1/05	01/21*	2/02	2/18	3/2	3/16	4/6	Status			
Section 617 – Infrastructure (c) Update Board Name			Town Hall Meeting					Town Hall Meeting			Town Hall Meeting	X					D			
Article 7- Elections - Campaign Finance Reform						X						X								S
Section 800- Transitions – Review after Election Sections					X	X														S
Section 801 – Definitions Possibly Eliminate Subsection (e) – Masculine includes Feminine		X																		S
Section 802 – Charter Violations Discuss eliminating dollar amount & setting fines by ordinance/reso		X																		S
Section 803- Property Rights Policy Question		X																		S
Proposed Miscellaneous Additions to the City Charter													X							ED
Review of Language																	X			ED
Voter Approval of a Major General Plan Amendment										X							Q			
<b>Unresolved Items</b>													X				R			

<b>LEGEND</b>	
<b>X</b>	<b>Recommended Date for Discussion</b>
<b>C</b>	<b>Completed</b>
<b>D</b>	<b>Discussion Needed</b>
<b>ED</b>	<b>Extended Discussion Needed</b>
<b>PH</b>	<b>Public Hearing</b>
<b>Q</b>	<b>No Substantive Issue – Possibly Quick Decision</b>
<b>R</b>	<b>Reconsider</b>
<b>S</b>	<b>Straw Vote Taken</b>