Impact of Prevailing Wage Rate Requirements on The Costs of Affordable Housing In California

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Executive Summary

On January 1, 2004 California implemented new rules requiring that virtually all affordable housing projects built with public support pay workers a specified minimum wage known as the "prevailing wage." These prevailing wage rates are substantially higher than market wages. In response to these changes, affordable housing advocates, developers, and local governments have expressed concern that the prevailing wage requirements will increase costs and reduce the supply of affordable housing units.

In spite of the importance of the prevailing wage issue, relatively little research has been conduced that would allow policy makers to assess the impact of these requirements on both the costs to construct and the supply of affordable housing units. This study seeks to fill this gap in the research by answering three important questions about the prevailing wage requirements:

1. How do prevailing wages compare with market wages?
2. How much will construction and total project costs increase as a result of prevailing wage requirements, and how will the impact of these requirements vary across the state?
3. How many fewer affordable units will be produced as a result of cost increases stemming from prevailing wage requirements?

Our research indicates that prevailing wages are substantially higher than market wages. In fact, California's published prevailing wage rates are about one-third to one-half higher than comparable market wages.

Our regression analysis allowed us to directly compare costs for prevailing wage projects to costs for comparable projects built with market wages. We found that the prevailing wage requirements increased overall project costs by about 11 percent, even while controlling for other factors known to influence costs such as regional variations in construction costs and characteristics of the structures themselves. We further found that the impact from these expanded prevailing wage requirements varies across the state, with some areas expected to experience cost increases of as little as six percent while others will likely experience increases of more than 15 percent.

Finally, we estimate that, as a result of the cost increases stemming from prevailing wage requirements, significantly fewer affordable units would be produced in California each year. Specifically, we estimate that more than 1,400 fewer units would have been subsidized by the California Tax Credit Allocation Committee (TCAC) in 2003 had the new prevailing wage requirements been in effect at the time. There is some anecdotal evidence of undersubscription to the tax credits and tax exemption programs run by the California Debt Limit Allocation Committee (CDLAC) and TCAC. It is unclear whether that is a result of confusion regarding the transition to prevailing wage requirements for residential construction, or the beginning of a longer term trend of even further decreases in the production of government subsidized affordable housing.

Introduction

Prevailing wage legislation requires that construction workers building government-funded projects be paid specified minimum wage rates, typically the rates paid to unionized workers for the relevant trade and region. Both the federal government and the state of California have prevailing wage laws on the books. Proponents of prevailing wages argue that these requirements increase wages and ensure a middle class standard of living for workers, while opponents believe that they needlessly increase costs for publicly funded construction projects.

Recently California expanded the scope of the state's existing prevailing wage legislation, causing many previously exempt categories of publicly financed affordable housing projects to be governed by prevailing wage requirements. This recent legislation has reopened the debate about the economic and public policy consequences of prevailing wage laws.

Although prevailing wage requirements have important, far reaching implications for wages paid, costs incurred, and number of units completed, relatively little research has been conducted that would allow policy makers to assess the impact of these requirements. This report seeks to address several important questions about prevailing wage requirements. First, we discuss the likely effects of prevailing wage requirements on labor markets and affordable housing developers. Second, we identify the wage differential between market wages and prevailing wages. Finally, we analyze the effect of prevailing wages on the costs of building affordable housing units in California and estimate the likely effect on the supply of these units going forward.

Background: Origin of Prevailing Wage Laws

Congress passed the Davis-Bacon Act, the federal prevailing wage law, in 1931. The purpose of this act was to protect the livelihood of workers during the Great Depression from the bidding process for federal construction projects, which encouraged contractors to lower wages in order to win bids. The Davis-Bacon Act applies to all projects over $2,000, and after 1964 required contractors to provide specified fringe benefits as well. The Secretary of the Department of Labor is responsible for determining both the prevailing wage rates and the minimum fringe benefits to be paid.

Following the enactment of the federal law, a number of states passed their own versions of the Davis-Bacon Act. California passed a state prevailing wage law in 1931, the same year as the federal bill. Administered by the Department of Industrial Relations (DIR), the California statute applies to a broader spectrum of publicly funded projects than the federal bill, including demolition work, job site refuse hauling, street and sewer construction, and building maintenance for public utilities.[1]

Recent Changes to California's Prevailing Wage Laws

In 2001 the California legislature passed Senate Bill 975, which expanded the scope of the state's prevailing wage regulations. SB 975 defined the statutory phrase "paid for in whole or part out of public funds"[2] even more broadly to encompass indirect financial assistance. Prior to the passage of SB 975, public entities frequently were able to indirectly fund private projects without requiring contractors to pay local prevailing wages. These indirect funding mechanisms included tax credits, gifts of land, and fee waivers, among others.

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[1] See Theiblot 1995.
[2] See SB 975 Legislative Counsel's Digest.

SB 975 was in part a response to several recent DIR administrative decisions applying prevailing wage requirements to projects receiving indirect funding from public agencies. These decisions were inconsistent with previous DIR decisions exempting such projects from prevailing wage requirements.[3] The apparent change in DIR policy lead to confusion among developers, government sponsors of affordable housing projects, and construction workers alike. The California legislature opted to resolve this ambiguity by requiring all projects built directly or indirectly with public support to use prevailing wages. Affordable housing advocates, developers, and local governments opposed this change, arguing that it would increase costs and reduce the supply of affordable housing.

The California law was amended again in 2002 with Senate Bill 972, which provided limited exemptions for certain types of affordable housing projects but did not fully address the concerns of affordable housing proponents.

Redefining "Public Works"

In addition to increasing the number of affordable housing projects that were required to pay prevailing wages, SB 975 expanded the definition of "public works" from "construction, alteration, demolition, or repair work" [4]to include installation. This change resulted in a larger number of infrastructure projects coming under the jurisdiction of prevailing wage laws.

Redefining "Public Funds"

The original prevailing wage law required prevailing wages for construction projects "paid for in whole or in part out of public funds." The definition of "paid for

[3] SB 975 took effect January 1, 2002. SB 972 took effect January 1, 2003, and subsequently amended some of the provisions of SB 975.
[4] See SB 975 Legislative Counsel's Digest.

with public funds"[5] generally included projects directly funded with public money. This definition excluded government grants, loans, and other indirect forms of government financial assistance to private projects, creating an exemption in the prevailing wage law which allowed a number of projects receiving indirect public financial assistance to avoid prevailing wage requirements. Under SB 975, each of the following types of public financial assistance triggers prevailing wage requirements:

- Money paid on behalf of public agencies directly to public works contractors, subcontractors, or developers.
- Construction work done directly by public agencies.
- Transfer of an asset for less than fair market price.
- Reduction or elimination of fees, costs, rents, insurance, loans, interest rates or other obligations normally required.
- Money to be repaid on a contingent basis.
- Credits against repayment obligations.[6]

Many private redevelopment and affordable housing projects are now required to pay prevailing wages under the broadened definition of what constitutes payment with public funds, as well as most other private projects receiving some public agency assistance.

[5]See SB 975 Legislative Counsel's Digest.
[6] See Goldfarb and Lipman, 2001.

Table 1: Exemptions to Prevailing Wage Requirements

Exemptions Provided by SB 975[1]	
• The sale of land for fair market values.	• If the government reimburses a private developer for normal public costs.
• In some instances, take-out loans to private developers that take place after construction is completed.	• Public subsidies that are de minimis in context of the project.
• Residential projects undertaken independently of public agencies or housing authorities. This allows cities and counties to build public infrastructure (with prevailing wages) for private projects exempt from prevailing wages.	• The government can also construct public infrastructure for other types of private projects, without requiring those private projects to pay prevailing wages, as long as the government "maintains no proprietary interest in the overall project."
• The construction or rehabilitation of affordable housing units for low- or moderate-income individuals with only specific public funds governed by the Health and Safety Code and other private funds.	• Affordable housing projects financed through mortgage revenue bonds, or government low-income housing tax credits. [1]
Exemptions Provided by SB 972[2]	
• Self-help housing where homebuyers participate in at least 500 hours of construction work.	• Financial assistance to individual homeowners.
• Nonprofit work on emergency or transitional housing operated on at least 50% nonpublic funding.	• Rehabilitation or expansion of temporary or transitional homeless housing costing under $25,000.
• Public below market interest rate loans for projects where 40% of units are dedicated for at least twenty years to low income households (below 80% of area median income) where projects do not receive any government grants or non-loan assistance	

[1] See Goldfarb and Lipman, 2001.

[2] See Goldfarb and Lipman, 2002.

How Are Prevailing Wages Calculated?

Prevailing wage rates are determined for each construction trade and region of the state by the Department of Industrial Relations (DIR). In addition, the DIR is responsible for determining separate rates for residential and commercial projects. To determine these prevailing wage rates, the DIR uses a modal method, meaning the prevailing wage is set

to equal the wage paid to the majority, or greatest number, of workers. California's Labor Code states:

> The basic hourly wage rate being paid to a majority of workers engaged in the particular craft, classification, or type of work within the locality and in the nearest labor market area, if a majority of the workers is paid at a single rate. If no single rate is being paid to a majority of the workers, then the single rate being paid to the greatest number of workers, or modal rate, is prevailing.[7]

In practice the prevailing wage rate often equals the wage rate determined by collective bargaining agreements. Indeed, the California's Labor Code explicitly states that these union wage rates are to be considered in setting the prevailing wage:

> The director shall establish an alternative rate, consistent with the methodology for determining the modal rate, by considering the appropriate collective bargaining agreements, federal rates, rates in the nearest labor market area, or other data such as wage survey data.[8]

How Do State and Federal Methodologies Compare?

The state methodology for determining prevailing wages is very similar to the federal process outlined in the Davis-Bacon Act. The federal government also uses a modal method to calculate prevailing wages. And in practice, federal prevailing wage rates are very similar to those determined by the state (see the section "Wage Differential Analysis" below).

If no one wage rate is found to be prevailing (i.e. paid to 51 percent or more of workers), then a weighted average is used. As the Code of Federal Regulations states:

> The prevailing wage shall be the wage paid to the majority (more than 50 percent) of the laborers or mechanics in the classification on similar projects in the area during the period in question. If the same wage is not paid to a majority of those employed in the classification, the prevailing

[7] California Labor Code, Section 1773.9(b)(1).
[8] California Labor Code, Section 1773.9(b)(1).

> wage shall be the average of the wages paid, weighted by the total employed in the classification.[9]

Like the DIR generated prevailing wages, the U.S. Department of Labor often finds negotiated wages to be prevailing. The mode wage rate for a particular trade and region is determined based on a survey of voluntary submissions by contractors. Market wages tend to vary slightly within job classifications, but negotiated wages apply to large numbers of workers, making it more likely that a negotiated wage rate will be the most commonly paid, and thus prevailing. See the Wage Differential Analysis below for an in-depth comparison of wage rates, and Appendices A and B for more information on how prevailing wages are calculated at the state and federal levels.

Implementation Difficulties

Both the state and federal governments determine prevailing wage rates for a number of classifications of construction jobs within two broad categories: residential construction and commercial construction. Residential construction wages are generally lower than those in commercial construction.

The DIR uses the same process to determine prevailing wage rates for both residential and commercial construction. Commercial prevailing wage determinations are blanket determinations for specific localities and worker classifications, and are public information available to all potential bidders. However, unlike federal residential prevailing wage determinations which apply to broad regions, California residential prevailing wage determinations are made on a project-by-project basis and are not made available for public review.

[9] Code of Federal Regulations Title 29, Pt. 1.2.

Potential bidders for residential projects covered by California's prevailing wage law must request prevailing wage determinations from the DIR. These determinations can take up to 90 days or longer to complete. In the absence of a residential wage determination, (the generally higher) commercial prevailing wage rates must be applied. In addition, the implementation of SB 975 has greatly increased the volume of requested residential prevailing wage determinations, which has increased the time it takes for the DIR to complete requests for prevailing wage rate determinations. Because of the difficulty in obtaining residential wage rates from the DIR, many builders report that they must in practice rely on commercial prevailing wage rates for the majority of residential projects.

Our Analysis

This study attempts to identify the cost impact of prevailing wage requirements on government funded construction projects. Specifically, we examine the impact of prevailing wage requirements on the construction of affordable housing units in California, examining the wage differentials between prevailing wages and market wages, the impact of prevailing wage requirements on construction costs, and ultimately, the impact of prevailing wages on the number of affordable units that are produced.

Our first analysis is a wage differential analysis, which examines the difference between prevailing wages and market wages. We also examine the difference between California prevailing wage rates and federal Davis-Bacon wage rates. Finally, we analyze the difference between residential prevailing wage rates and commercial prevailing wage rates.

In addition to the wage rate differential, however, there are a number of additional influences on construction project costs, which may act to mitigate or exacerbate the effects of wage increases on overall project cost increases. To identify the specific impact of prevailing wage requirements on construction costs, we compare a sample of projects built with prevailing wages to a comparable set of projects not subject to prevailing wage requirements. Specifically, we use ordinary least squares (OLS) regression analysis to compare various cost measures of projects that have paid prevailing wages to those that have not. This approach allows us to control for a number of factors, such as regional variations in construction costs, economies of scale associated with building larger projects, and variations in building characteristics (e.g. number of stories, size of units, etc.). Next, we use the results from our wage differential and regression analyses, to estimate the region-by-region effects of prevailing wage requirements. These results are presented in the section entitled "Regional Variation in Prevailing Wage Impact" below.

Finally, we use the estimated cost impact of prevailing wage requirements on construction costs for affordable housing projects to estimate the impact of those requirements on the number of government-funded affordable housing units that will be constructed in the future.

Economic Impact of Prevailing Wages

There are a number of effects prevailing wage requirements may have on the publicly funded construction market, most related in some way to the potential of prevailing wage requirements to raise construction costs. These effects are briefly discussed in the following sections.

Higher Wages for Construction Workers

The most immediate impact of prevailing wage requirements is higher wages for construction workers on government-funded projects. This brings an immediate benefit to construction workers employed on publicly funded projects, but there is the possibility that increased wages may put pressure on the reach of available funding, ultimately decreasing the number of construction workers benefiting from wage increases.

Higher Costs for Developers

Prevailing wage laws will also likely result in higher costs for developers by raising labor and compliance costs. Prevailing wage laws not only mandate wage rates, but it has also been suggested that public construction contracts require work previously done by relatively lower paid laborers to be reassigned to other categories of higher paid workers.[10] It is also possible that increases in wages paid for public works projects will lead to increases in wages negotiated by unions and in the labor market, pushing labor costs up for the entire construction industry.

Lower Employment in the Construction Trades

The payment of prevailing wages at a rate higher than the market rate may serve to attract better workers who are skilled and more productive. Studies have shown a link between unionization, wage increases and increases in productivity.[11] Higher productivity may allow contractors to hire fewer workers, and in particular fewer supervisory positions, as highly trained workers tend to need less assistance and

[10] See Fraundorf., 1984.
[11] See Allen, 1984.

monitoring.[12] This increase in productivity would serve to partially offset the cost increases associated with higher wage rates, but it would also reduce the supply of construction jobs.

Contractors Exiting the Market

Requiring contractors to pay prevailing wages and to comply with the administrative burdens of the prevailing wage laws may act as a disincentive for potential bidders on public works projects. It has been suggested that public agencies are more demanding clients than those from the private sector, further raising costs and discouraging potential bidders.[13] Decreased competition for federal construction projects may lead to fewer and possibly worse options, as well as increased costs for government agencies, and thus taxpayers.

Substitution Effects

One way contractors may act to mitigate the impact of increased wages on construction costs is to "substitute capital or other inputs for labor."[14] Contractors may therefore invest in better equipment to make construction labor more productive, or choose to increase the use of prefabricated components in construction as a way to reduce the amount of construction labor needed for a given project.

Existing Literature

There is a considerable body of academic literature on the impacts of Davis-Bacon prevailing wage requirements. Most of these studies, however, focus on non-

[12] See Allen, 1986.
[13] See Prus, 1996.
[14] Ibid.

residential construction projects, such as schools, hospitals, and other public construction. To quantify the impact of Davis-Bacon on construction costs, these studies used various methods to define control groups. Some studies compared projects within a defined region over time periods with and without prevailing wage requirements. Others compared similar projects in regions with prevailing wages against regions without such requirements. Issues examined included the economic efficiency of such legislation, the impact on wages for construction workers, and their effect on state budgets. None of these studies, however, have focused specifically on California or the prevailing wage requirements of the state.

In spite of these differences, previous studies can provide some insight into the impacts of prevailing wages on construction costs in general. Goldfarb and Morrall reviewed a number of the existing empirical studies on the costs associated with the federal Davis-Bacon requirements and concluded that although the studies to date have been faulty in many respects, there are clear indications that the act is "…unattractive on grounds of economic efficiency alone."[15] Previous work by these same authors estimated substantial cost savings from using mean wage rates rather than modal rates as is currently done.[16]

Specific estimates of the additional costs associated with the use of prevailing wages vary considerably across studies. Thiebolt estimated an increase of about one-half percent for prevailing wage projects.[17] Gould and Bittlingmayer later accounted for

[15] See Goldfarb and Morrall, 1981.
[16] See Goldfarb and Morrall, 1978.
[17] See Thiebolt, 1975.

institutional factors and inflation to estimate an increase of between 4 and 7 percent.[18] Fisher and Sheehan examined bids for government contracts in a rather simplistic analysis and estimated that prevailing wage requirements in Iowa would raise construction costs approximately 1 percent for highways and 3.5 percent for buildings.[19] Prus used data from the F.W. Dodge Company to compare government construction projects across states and found costs for such projects to be 18 percent higher in states with prevailing wage requirements.[20] Fraundorf, et.al. surveyed contractors for 215 randomly selected non-residential rural projects and concluded that costs for prevailing wage projects increased an average of about 26 percent.[21]

While such studies indicate there may be some impact of prevailing wage requirements on construction costs, their findings vary considerably and, as mentioned above, do not look specifically at residential construction for California. A recent working paper by Sarah Dunn, John M. Quigley and Larry A. Rosenthal at the University of California at Berkeley, however, does look specifically at the impact of prevailing wage requirements on the cost of residential construction in California.[22] This study, funded by a grant from the U.S. Department of Housing and Urban Development and by the Berkeley Program on Housing and Urban Policy, examined the effects of recent prevailing wage legislation on the costs of subsidized low-income housing in California. The study examined 205 projects consisting of new dwellings constructed for California Low-Income Housing Tax Credit (LIHTC) housing projects, where the funding applications were filed after January 1, 1997 and were placed in service prior to May

[18] See Gould and Bittlingmayer, 1980.
[19] See Fisher and Sheehan, 1985.
[20] See Prus, 1996.
[21] See Fraundorf et. al., 1984.
[22] See Dunn et. al., 2003.

2002. All of these projects received federal (and some state) tax credits through the California Tax Credit Allocation Committee (TCAC), which administers the federal LIHTC program in California. The authors applied standard econometric techniques to account for differences in building attributes, geography, financing, and developer characteristics, and found that prevailing wage requirements increased construction costs by between 9 and 32 percent. They also estimated that the implementation of such requirements will result in some 2,600 fewer units being built each year from the tax credit program alone.

Wage Differential Analysis

To understand how prevailing wages impact the combined cost of construction projects, it is important to understand the difference between market wages and prevailing wages. We compared wage rates for five job categories on a county-by-county basis: carpenters, electricians, drywall installers, HVAC/sheet metal workers, and plumbers. For each of these trades, data were collected for (1) market wage rates (combined residential and commercial construction), (2) Davis-Bacon federal prevailing wage rates for residential construction, (3) Davis-Bacon federal prevailing wage rates for commercial construction, and (4) California state prevailing wage rates for commercial construction.[23] To calculate aggregate statistics for all of California, two estimates were constructed: (1) an equally-weighted average across all counties and (2) a population-weighted average across all counties, with each county weighted by its 2002 population.

Using the data described above, three analyses were performed. The first analysis compared state commercial prevailing wage rates to average market wage rates, and

[23] As mentioned above, the DIR determines prevailing wage rates for residential construction on a project-by-project basis and does not publish these rates; thus, they were not available to be used for this analysis.

found that for the five trades examined, the commercial prevailing wage rates are, on average, about one-third to one-half more than current market rates. The second analysis compared the same state commercial prevailing wage rates to the comparable federal Davis-Bacon commercial prevailing wage rates and found that these two rates are on average extremely close (within ± 2%). The third analysis compared the federal Davis-Bacon commercial prevailing wage rates to the Davis-Bacon residential prevailing wage rates, and found that the commercial rates were on average 14% to 53% higher.

Data Sources for Wage Differential Analysis

California commercial prevailing wage rates were collected from the California DIR's Division of Labor Statistics and Research. The rates used for this analysis represent simple wages without benefits or overtime pay.[24] See Appendix A for a more detailed description of the methodology used by the DIR to calculate these wages.

Market wage rates used in this analysis are the "Mean Hourly Wage" for 2002, as reported by the California Employment Development Department (EDD). The data are reported for each county, and represent the average wage rate (excluding benefits) for both union and non-union workers. The market wage rate includes both commercial and residential construction workers. The "Mean Hourly Wage" is determined based on a survey of industries and employees, and then a weighted average of those results. See Appendix C for a more detailed description of the methodology used by the EDD to calculate these wages.[25]

[24] The DIR data used in this analysis were downloaded on May 23, 2003 from the DIR website at http://www.dir.ca.gov/DLSR/PWD/index.htm.
[25] The data for this analysis were downloaded on May 5, 2003 from the EDD website at http://www.calmis.ca.gov/htmlfile/subject/occup$.htm.

The population for each county was downloaded from the California Department of Finance website in June 2003.[26] The figures used represent estimates of each county's population in 2002.

Federal Davis-Bacon prevailing wage rates (residential and commercial) are determined by the U.S. Department of Labor. See Appendix B for a more detailed description of the methodology used by the Department of Labor to calculate these wages.[27]

The Davis-Bacon wage rates as downloaded were already divided into residential and commercial wage rates for each trade. When multiple wage rates were given for a specific trade within a county, different rates usually were distinguished by one or more of the following three types of characteristics:

- Geography (e.g., east of the Sierra watershed vs. west of the Sierra watershed)
- Size of project (e.g., total project costs over $25 million vs. under $25 million)
- Type of work or scope of project (e.g., structures up to and including 4 stories vs. those with 5 stories or more)

Whenever more than one wage rate was given in the Davis-Bacon data, care was taken to ensure that the correct rate or rates were used so that valid comparisons could be made with wage rates from the other sources. This usually involved either selecting the single most comparable rate based on the description given, or taking the average of two

[26] See http://www.dof.ca.gov/HTML/DEMOGRAP/E-5text2.htm.
[27] The Davis-Bacon data used for this analysis were downloaded from the GPO-access website (http://www.access.gpo.gov/davisbacon/ca.html) on May 25, 2003.

or more rates. For a complete listing of instances where an average wage rate was calculated, see the notes in Appendix D.

Analysis of Wage Data

The analysis conducted for this study was done to answer the following three questions:

1) How do the published California commercial prevailing wage rates compare to market rates in general, and are there pronounced regional differences in different parts of California?
2) How do Davis-Bacon commercial prevailing wage rates compare to DIR commercial prevailing wage rates?
3) How do Davis-Bacon commercial prevailing wage rates compare to Davis-Bacon residential prevailing wage rates?

As mentioned above, statistics were calculated for each analysis on a county-by-county basis, and then summarized across all counties in two ways: (1) a simple average where each county is weighted equally and (2) a population-weighted average where each county is weighted by its 2002 population. Calculating the population-weighted average provides a more representative estimate to the extent that construction occurs proportionally to the population in a given area.

California Commercial Prevailing Wage Rates vs. Market Wage Rates

This analysis compares the California prevailing wage rates for commercial construction as published by the DIR with the market wage rate as published by the EDD. The comparison is conducted for each of the five trades on a county-by-county basis. The

results of this comparison, as summarized in Table 2 below, indicate that DIR prevailing wage rates are significantly higher than market wage rates, with considerable variation across trades. The DIR commercial prevailing wage rates range from 28% higher for carpenters to 61% higher for HVAC/sheet metal workers when each county is weighted equally, and from 36% for carpenters to 55% for plumbers when each county is weighted by its population. Appendix E presents a more detailed summary of the results of this comparison.

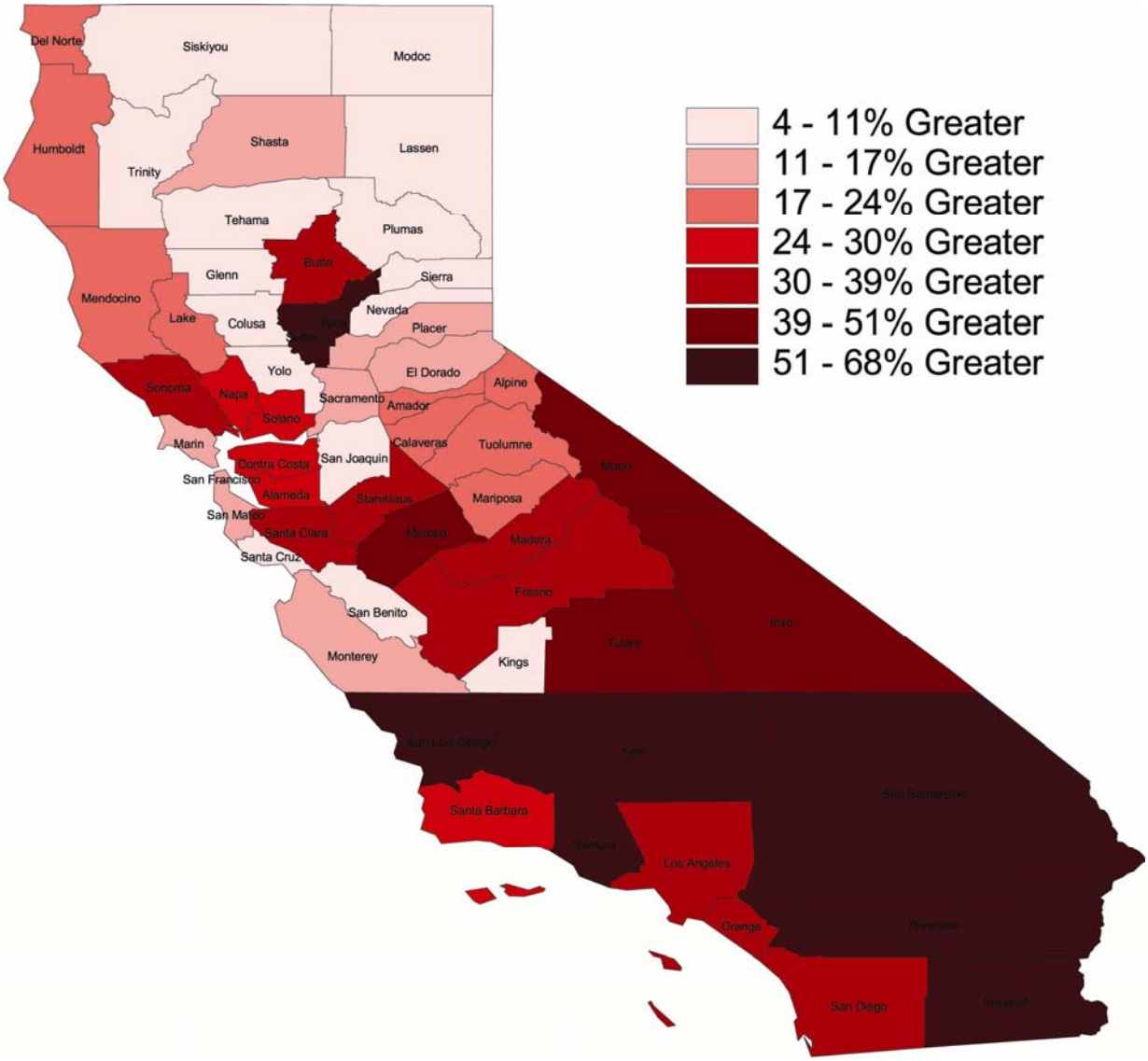
Table 2: California DIR Commercial Prevailing Wage Rates vs. EDD Market Wage Rates (Percent by which DIR prevailing wage rate is greater than EDD market rate)

	Simple Avg.	Population-Weighted Avg.
Carpenter	28%	36%
Drywall Installer	43%	41%
Electrician*	41%	40%
HVAC/Sheet Metal Worker	61%	53%
Plumber	56%	55%

* Yolo County could not be included in the analysis for electricians because the EDD data did not include a market wage rate for electricians for this county.

A county-by-county comparison of DIR commercial prevailing wage rates with EDD market wage rates reveals significant variation, both across trades and among regions of the state. In the vast majority of cases, the DIR commercial prevailing wage rate is higher than the market wage rate (although there are a few counties where the prevailing wage rate is lower than the published market rate for a particular trade). In fact, there are a number of instances where the DIR prevailing wage rate is more than 100% greater than the average market rate, with the greatest difference being 149% (see San Benito County for plumbers).

Figure 1: California Commercial Prevailing Wage Rates vs. Market Rates for Carpenters (Percent by which DIR prevailing wage rate is greater than EDD market rate)



While the variation in wage rates makes it difficult to generalize across counties and trades, Figure 1 above shows a map presenting the difference between commercial prevailing wages and market wages for carpenters in each county in the state. As the map in Figure 1 shows, the largest differential for carpenters generally occurs in the

southeastern (50-60% increase) and central (60-70% increase) counties. In contrast, the northeastern counties and coastal Bay Area counties have in general a much smaller differential (10-20% increase). Note that this analysis applies only to carpenters, and other trades may exhibit different patterns of wage differentials. Appendix E contains similar maps for the other trades examined, and a table with the differential between DIR prevailing wage rates and the EDD market wage rates for each county.

Commercial Prevailing Wage Rates: Davis-Bacon Federal Prevailing Wage Rates vs. DIR State Prevailing Wage Rates

This analysis compares the Davis-Bacon federal prevailing wage rates for commercial construction against the comparable DIR California state prevailing wage rates for commercial construction. Because some of the data series presented in the Davis-Bacon wage rates have not been updated recently, this analysis was conducted in two ways – first using all of the available data regardless of when the wage rate was last updated, and, second, looking only more recent Davis-Bacon data, which for the purposes of this analysis was defined as data that has been updated within the last four years (since June 1, 1999). A summary of the results of this analysis is presented in Table 3 below, with more detailed results for each county given in Appendix F.

Table 3: DIR Commercial Prevailing Wage Rates vs. Davis-Bacon Commercial Rates
(Percent by which DIR prevailing wage rate is greater than Davis-Bacon prevailing wage rate)

	Simple Avg.	Population-Weighted Avg.	Counties/Population Included	
Using All Available Davis-Bacon Data Series:[1]				
Carpenter	3%	2%	All	
Drywall Installer	3%	2%	All	
Electrician	7%	1%	All	
HVAC/Sheet Metal Worker	1%	0%	All	
Plumber	6%	1%	All	
Using Only Recent Davis-Bacon Data Series:[2]				
Carpenter	0%	1%	(52 counties)	(97.9% of Pop.)
Drywall Installer	0%	2%	(53 counties)	(99.0% of Pop.)
Electrician	1%	0%	(53 counties)	(99.0% of Pop.)
HVAC/Sheet Metal Worker	-2%	0%	(53 counties)	(99.0% of Pop.)
Plumber	1%	0%	(53 counties)	(99.0% of Pop.)

Notes:

[1]This analysis was performed using all available Davis-Bacon data series, regardless of the date that data series was last updated. All 58 counties had the necessary data for this analysis.

[2]This analysis was performed using only counties for which Davis-Bacon commercial data series were last updated on 6/1/1999 or later. When this filter is applied, some counties are no longer included in the analysis as shown.

As Table 3 shows, Davis-Bacon commercial prevailing wage rates are quite close to the DIR's commercial prevailing wage rates (between 1 and 7% for the simple average across counties, and between 0 and 2% on a population-weighted basis). When only the recent Davis-Bacon data are used, the differences narrow for the simple average to between 0 and 2%, and remain within that narrow range for the population-weighted average.

Davis-Bacon Federal Prevailing Wage Rates: Residential vs. Commercial Rates

This analysis compares the Davis-Bacon federal prevailing wage rates for commercial construction against the comparable prevailing wage rates for residential

construction. Again, the comparison is conducted for each of the five trades on a county-by-county basis, and the estimates are done both using all of the Davis-Bacon data and then using only the more recent Davis-Bacon data. The results are summarized in Table 4 below, with more detailed county-by-county results presented in Appendix G.

Table 4: Federal Davis-Bacon Prevailing Wage Rates: Commercial vs. Residential
(Percent by which commercial rates are greater than residential rates)

	Simple Avg.	Population-Weighted Avg.	Counties/Population Included	
Using All Available Davis-Bacon Data Series:[1]				
Carpenter	52%	36%	(58 counties)	(100.0% of Pop.)
Drywall Installer	38%	36%	(46 counties)	(96.6% of Pop.)
Electrician	89%	56%	(58 counties)	(100.0% of Pop.)
HVAC/Sheet Metal Worker	64%	19%	(42 counties)	(89.7% of Pop.)
Plumber	85%	39%	(56 counties)	(99.9% of Pop.)
Using Only Recent Davis-Bacon Data Series:[2]				
Carpenter	18%	34%	(37 counties)	(95.7% of Pop.)
Drywall Installer	26%	35%	(35 counties)	(94.8% of Pop.)
Electrician	40%	53%	(34 counties)	(87.9% of Pop.)
HVAC/Sheet Metal Worker	11%	14%	(31 counties)	(87.4% of Pop.)
Plumber	42%	36%	(38 counties)	(96.8% of Pop.)

Notes:

[1]This analysis was performed using all available Davis-Bacon data series, regardless of the date that data series was last updated. Some counties did not have Davis-Bacon residential prevailing wage rates for some trades, and could therefore not be included in the analysis as shown above.

[2]This analysis was performed using only counties for which Davis-Bacon commercial data series were last updated on 6/1/1999 or later. When this filter is applied, more counties are no longer able to be included in the analysis as shown.

As Table 4 shows, the simple average difference between commercial and residential prevailing wage rates ranges from 38% to 89% higher when each county is weighted equally, and from 19% to 56% higher when each county is weighted by its population. When only recent data are included, however, the difference between commercial and residential Davis-Bacon prevailing wage rates decreases considerably for

the simple-average across counties, and decreases somewhat for the population-weighted average. As the table shows, the minimum average difference goes from 19% to 14% for HVAC/sheet metal workers, and the maximum average difference goes from 56% to 53% for electricians. For all five of the trades examined, the population-weighted figures change by fewer than 5 percentage points, indicating that these estimates are quite robust.

Discussion of Wage Differentials

The analyses described above indicate that prevailing wage rates differ considerably from market wage rates, that state and federal commercial prevailing wage rates are nearly identical, and that the Davis-Bacon prevailing wage rates differ considerably between commercial and residential construction. While there is a great deal of variation across counties and among the five construction trades examined, three clear patterns emerge when the data are examined for California as a whole:

1) The current prevailing wage rates for commercial construction as determined by the DIR are considerably higher than the average market wage rates for the same trade. Based on this analysis, the DIR rates are on average about 36% to 55% higher.

2) The current Davis-Bacon commercial prevailing wage rates for federally funded construction projects are very close to the DIR commercial prevailing wage rates for state funded construction projects. For the state as a whole, the two rates are on average within 2% of one another, and, for most trades, identical.

3) The current Davis-Bacon commercial prevailing wage rates are considerably higher than the Davis-Bacon residential prevailing wage rates. When analyzing only the

most recent Davis-Bacon data series, the commercial rates range from 14% to 53% higher than the residential rates, with a median difference of approximately 35%.

Regression Analysis

The wage comparison analysis presented above clearly indicates that prevailing wages are significantly higher than market wage rates. In order to determine the impact of higher wages on the construction costs for affordable housing projects, we compared costs for a sample of affordable housing projects built with prevailing wages to a comparable sample of projects not subject to these requirements.

Any analysis that seeks to identify the effect of one factor on an outcome, in this case the effect of prevailing wages on construction costs, must also take into account a number of other factors that together determine the level of construction costs. We used a method called regression analysis, which shows us the effect of an influencing factor (or independent variable) on an outcome (the dependent variable), while allowing us to control for other possible explanatory factors. The approach we followed closely resembled the methodology of the Dunn, et.al. study. Our analysis, however, is based on a substantially larger sample of projects and incorporates several refinements to the earlier methodology.

Data Sources for Regression Analysis

Our dataset consists of newly constructed multi-family rental-housing projects that received federal Low-Income Housing Tax Credits (LIHTC) from the California Tax Credit Allocation Committee (TCAC).[28] Information was collected on 365 projects with

[28] Many projects also received state tax credits.

applications filed after January 1, 1997, and which were placed in service before December 31, 2003.

Two cost variables were used as outcomes in our analysis. “Construction Cost” includes site preparation, materials and labor, overhead and profits for the contractor, and general requirements. “Total Project Cost” is a broader cost measure, including all costs related to the development and construction of the residential portion of a project, including site preparation and land, architect and engineering costs, financing, and other costs, as well as construction costs.

We employed two methods to test for the impact of the prevailing wage requirements on project costs. In the first, we included a simple variable indicating whether or not prevailing wages were paid. Analysis of this variable indicates the overall cost increase resulting from prevailing wage requirements.

In the second, we constructed a new variable to estimate the percent difference between the market wage rates and the prevailing wage rates, based on our wage differential analysis. For prevailing wage projects we assigned this variable to the value of the average wage difference between market and prevailing wages for that county, and for non prevailing wage projects we assigned this variable to zero. Analysis of this variable allows us to estimate the likely impact on total project costs stemming from a specified increase in wage rates.

We collected data on several variables to help explain variations in construction costs and total project costs. These measures included characteristics of the projects such as the inclusion of elevators, below-structure parking or special facilities, the type of structure, location, number of units, density, and affordability. We grouped projects into

one of nine geographical areas to ascertain regional cost differentials. Our study included dummy variables for the years 1997 to 2002 in order to account for year-specific factors that may influence construction or project costs. A complete list of variables, and further explanation of our regression analysis methodology is included in Appendix H.

Summary Statistics for Variables Used in Regression Analysis

Of the 365 projects, 85 (or 23%) paid prevailing wages to construction workers while 280 paid market wages. The average project had 85 units and was just over 80,000 square feet. Over half of all projects were targeted at large families, and approximately 40 percent were at least half composed of units with three or more bedrooms.

Figure 2: Location of TCAC Affordable Housing Projects used in Regression Analysis by Region

The projects were spread throughout the state. One hundred and twenty three projects were located in Southern California. Ninety-eight, or about one quarter, were located in the Bay Area, and 12 percent in the San Joaquin Valley. The map in Figure 2 above shows the location of all the projects in the sample.

In nominal terms, the average prevailing wage project cost nearly $12.6 million while the average market wage project cost just under $10 million. The average cost per unit was $168,088 for prevailing wage projects and $123,435 for market wage projects. Table 5 shows a comparison of prevailing wage and non prevailing wage projects according to several nominal and real (inflation-adjusted) cost measures. As Table 5 indicates, the prevailing wage projects were more expensive on average when compared with the market wage projects for every measure used, both in real and nominal terms.

Table 5: Various Cost Measures for Prevailing Wage and Non Prevailing Wage Projects

	Prevailing Wage Projects			Non Prevailing Wage Projects		
Cost Measures	Number	Mean	Median	Number	Mean	Median
Project Costs ($Millions)						
Construction Costs - Unadjusted	85	7.381	6.199	280	6.123	5.460
Construction Costs - Constant 1997 Dollars	85	7.027	5.742	280	5.837	5.256
Total Project Costs - Unadjusted	85	12.590	10.594	280	9.953	8.916
Total Project Costs - Constant 1997 Dollars	85	11.972	9.862	280	9.498	8.540
Per-Unit Construction Costs ($)						
Construction Costs - Unadjusted	85	99,678	94,279	280	75,130	71,186
Construction Costs - Constant 1997 Dollars	85	95,206	90,586	280	71,839	68,067
Total Project Costs - Unadjusted	85	168,088	165,429	280	123,435	117,187
Total Project Costs - Constant 1997 Dollars	85	160,361	159,377	280	118,098	110,835

On a regional basis, the difference between prevailing wage projects and non prevailing wage projects varied, although it is difficult to draw definitive conclusions from a regional analysis because some regions had few or no prevailing wage projects to compare. As Table 6 shows, prevailing wage projects were on average more expensive than non prevailing wage projects in every region except for the Northern California

region, although it is difficult to draw any reliable conclusions from this due to the small number of projects being compared.

Table 6: Regional Comparison of Total Project Costs/Unit in Constant 1997 Dollars

	Prevailing Wage Projects			Non-Prevailing Wage Projects		
Region	**Number**	**Mean ($)**	**Median ($)**	**Number**	**Mean ($)**	**Median ($)**
Northern California	2	90,289	90,289	2	111,036	111,036
Northern Sacramento Valley	0	n/a	n/a	5	109,811	109,868
Central Sierra	0	n/a	n/a	2	94,498	94,498
Greater Sacramento	1	108,255	108,255	34	100,103	97,980
Bay Area	52	175,321	179,862	46	130,638	129,950
Central Coast	0	n/a	n/a	18	124,430	129,876
San Joaquin Valley	3	108,941	117,755	38	92,853	90,702
Southern California	23	146,555	152,183	100	125,903	113,287
Southern Border Region	4	131,897	134,632	35	123,886	118,096
OVERALL	**85**	**160,361**	**159,377**	**280**	**118,098**	**110,835**

* Note that due to the limited number of projects in most regions, direct comparisons may be unreliable.

Regression Results

Using our expanded dataset, we first replicated the regression models presented by Dunn et.al.[29] Our results very closely matched those reported in this UCB study. Our analysis showed that projects paying prevailing wages have a total project cost of approximately 11 percent more than those not under prevailing wage requirements when controlling for relevant factors that influence cost. These cost effect results were virtually identical to the results reported by Dunn et.al.

Cost Effects Regression Analysis

We also made several modifications to the Dunn et.al. methodology. First we used a substantially larger dataset, including 365 projects. We also made several adjustments to account for inflation and time-specific factors that may influence construction or project costs. Finally, we built and tested a series of models using the

[29] We replicated these models as closely as possible, however, certain data used by Dunn et.al. was not available for our analysis.

difference between market and prevailing wages as an independent variable (i.e., a factor that influences construction or project costs).

Appendix I shows the results of the four main statistical models we used in our analysis. We found that project costs are affected by project size, developer type, and project type. Projects constructed by nonprofit developers are more expensive, as are projects in the Bay Area. Features such as tenant parking located below the project structure and elevators also contribute to higher costs. All these findings are consistent with our expectations, and with the Dunn et.al. results.

Our analysis suggests that even when other factors are taken into account, projects paying prevailing are more expensive to develop. Our models suggest that projects paying prevailing wages are likely to incur 11.0 percent higher total residential project costs, and 11.8 percent higher residential construction costs.

Regional Variation in Prevailing Wage Impact

Although the TCAC projects used for our analyses were located throughout the state, there were not a sufficient number of prevailing wage projects in many regions to estimate regional differences directly through regression analysis. Indeed, as Figure 2 above illustrates, the prevailing wage projects in our sample were located primarily in the Southern California and San Francisco Bay Area regions. Thus, to estimate the regional variation in the impact of the new prevailing wage requirements, we have applied the coefficient estimate for the average percent wage differential variable (PctDiff_Avg) in Table (see Appendix I) to the average wage differential for each county as determined by our wage differential analysis above. In this way, we are able to estimate the impact of the prevailing wage requirement by county. The results of these calculations are

presented in Table 7 below. As Table 7 shows, the estimated change in total project cost ranges from a low of 6.4% in Mariposa County to a high of 15.3% in Lake County. Table 7 shows how the total residential construction cost varied between prevailing wage and non prevailing wage projects across regions.

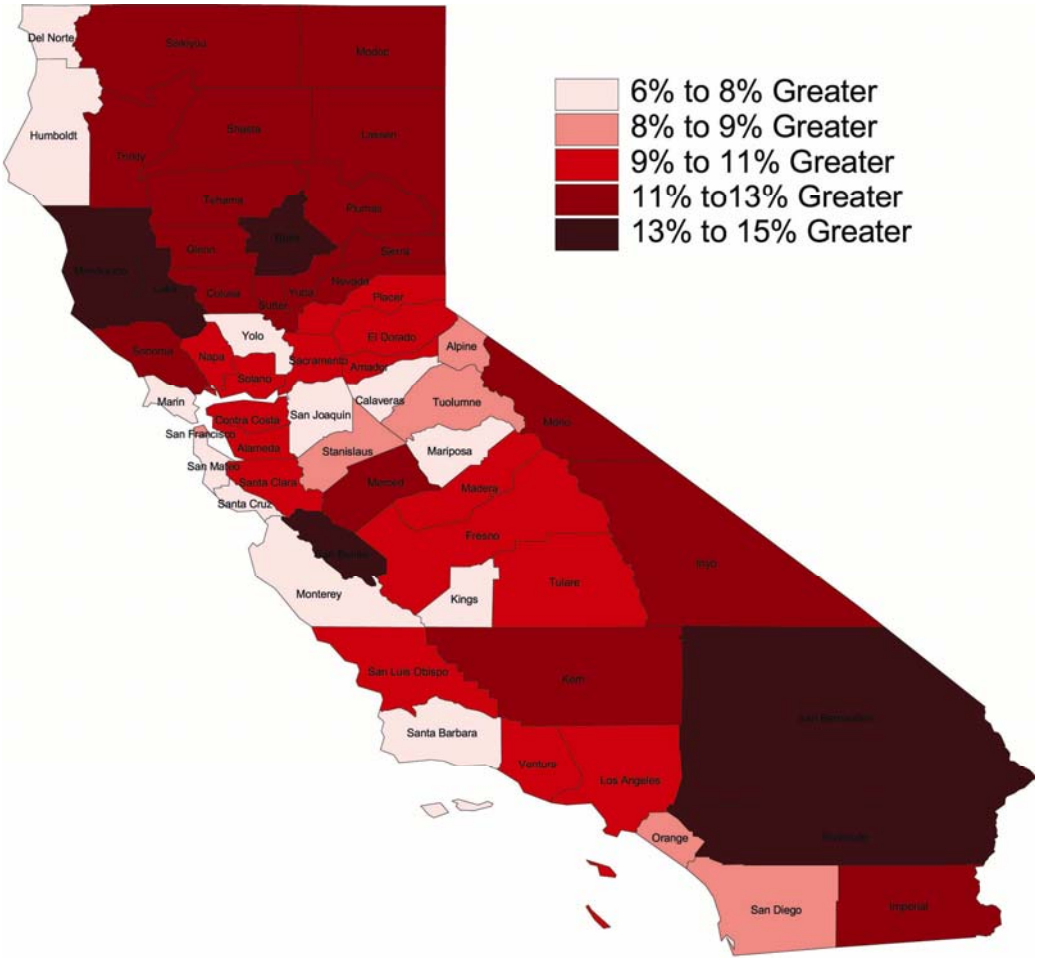
Table 7: Estimation of Regional Variation in Prevailing Wage Impact on Total Project Cost

County	Avg. Pct Wage Difference	Total Project Cost: Coefficient from Regression Analysis	Estimated Change: Total Project Cost
ALAMEDA	45%	0.2366	10.7%
ALPINE	39%	0.2366	9.2%
AMADOR	43%	0.2366	10.3%
BUTTE	58%	0.2366	13.8%
CALAVERAS	36%	0.2366	8.5%
COLUSA	55%	0.2366	13.1%
CONTRA COSTA	45%	0.2366	10.7%
DEL NORTE	33%	0.2366	7.8%
EL DORADO	41%	0.2366	9.7%
FRESNO	42%	0.2366	9.9%
GLENN	55%	0.2366	13.1%
HUMBOLDT	33%	0.2366	7.8%
IMPERIAL	56%	0.2366	13.2%
INYO	49%	0.2366	11.7%
KERN	53%	0.2366	12.5%
KINGS	31%	0.2366	7.2%
LAKE	65%	0.2366	15.3%
LASSEN	55%	0.2366	13.1%
LOS ANGELES	48%	0.2366	11.3%
MADERA	42%	0.2366	9.9%
MARIN	30%	0.2366	7.1%
MARIPOSA	27%	0.2366	6.4%
MENDOCINO	65%	0.2366	15.3%
MERCED	50%	0.2366	11.9%
MODOC	49%	0.2366	11.7%
MONO	49%	0.2366	11.7%
MONTEREY	29%	0.2366	6.9%
NAPA	48%	0.2366	11.3%
NEVADA	56%	0.2366	13.3%
ORANGE	40%	0.2366	9.4%
PLACER	41%	0.2366	9.7%
PLUMAS	55%	0.2366	13.1%
RIVERSIDE	58%	0.2366	13.7%
SACRAMENTO	42%	0.2366	10.0%
SAN BENITO	64%	0.2366	15.2%
SAN BERNARDINO	59%	0.2366	14.0%
SAN DIEGO	38%	0.2366	9.0%
SAN FRANCISCO	38%	0.2366	9.0%
SAN JOAQUIN	31%	0.2366	7.4%
SAN LUIS OBISPO	41%	0.2366	9.6%
SAN MATEO	35%	0.2366	8.4%
SANTA BARBARA	34%	0.2366	8.0%
SANTA CLARA	43%	0.2366	10.1%
SANTA CRUZ	32%	0.2366	7.5%
SHASTA	55%	0.2366	13.0%

County	Avg. Pct Wage Difference	Total Project Cost: Coefficient from Regression Analysis	Estimated Change: Total Project Cost
SIERRA	55%	0.2366	13.1%
SISKIYOU	49%	0.2366	11.7%
SOLANO	48%	0.2366	11.3%
SONOMA	55%	0.2366	13.0%
STANISLAUS	39%	0.2366	9.2%
SUTTER	52%	0.2366	12.3%
TEHAMA	55%	0.2366	13.1%
TRINITY	55%	0.2366	13.1%
TULARE	45%	0.2366	10.6%
TUOLUMNE	36%	0.2366	8.6%
VENTURA	46%	0.2366	10.8%
YOLO	32%	0.2366	7.5%
YUBA	52%	0.2366	12.3%

To illustrate how the estimated change in total project cost varies by region, we have also constructed a map that plots these values for each county. This map is

Figure 3: Estimated Change in Total Project Cost by County



presented in Figure 3 above. As Figure 3 shows, the regional differences, while not extreme, do indicate that different parts of California will be affected differently by the new prevailing wage requirements.

Discussion of Regression Results

Our regression results confirm earlier studies and what has long been suspected: prevailing wage requirements increase the costs of building affordable housing. Those cost increases can be expected to have a significant impact on the long-term funding and availability of affordable housing. The goal of government subsidies for affordable housing construction is to increase the availability of affordable housing, yet the increased costs associated with prevailing wages may serve instead as a greater disincentive. Increased costs, without matching increases in public subsidy funding, will most likely lead to fewer low-income housing units being constructed in California.

Reduction in Number of Affordable Units

Increasing the costs of producing affordable housing is expected to lead to a decrease in the number of low-income housing units produced. Using the estimated total project cost increase from our regression analyses, we can estimate the reduction in affordable units produced. In 2003 TCAC funded 18,779 low-income housing units.[30] This number includes both newly constructed and rehabilitated units.[31]

Based on our dataset, we estimate that 23% of TCAC funded projects were required to pay prevailing wages. Thus in 2003, we estimate that 4,338 units were subject to prevailing wage requirements, and 14,441 were not. Had these additional units been

[30] TCAC Annual Report, 2003. This number includes units funded through both the 9% competitive tax credit program, and the 4% tax-exempt bond financed program.
[31] In estimating the number of reduced units, we are assuming that the cost impact of prevailing wages on new construction will be the same on rehabilitation projects.

subject to prevailing wage requirements, total project costs would have increased by 11 percent. Without funding increases, this would have caused a reduction in the number of units that were produced. We estimate that had prevailing wage requirements been in effect for all TCAC funded units in 2003, 1,431 fewer units would have been built. Going forward, we estimate that these same economic forces will act to reduce the number of affordable units produced each year.

Conclusion

While many public works projects have been subject to prevailing wage requirements since 1931, the expansions to the law provided by SB 975 will impact additional construction sectors. In particular, attention has been focused on affordable housing programs which now fall under the umbrella of prevailing wage laws. Available evidence strongly indicates that prevailing wage requirements increase labor costs and ultimately overall project costs for publicly funded construction projects.

The conclusion based on existing evidence is clear: requiring prevailing wages for construction of affordable housing in California will significantly increase construction costs and ultimately reduce the number of units produced unless additional resources are made available. Specifically, our analysis indicates that prevailing wages are approximately one-third to one-half higher than comparable market wages. Furthermore, our comparison of prevailing wage projects to market wage projects reveals that these higher wages increase overall project costs by nearly 11 percent. Because affordable housing developers often piece together funding from multiple small sources, even an 11 percent construction cost increase could prevent projects from being built at all. Finally, we estimate that the requirement that virtually all affordable projects be built with

prevailing wages will reduce the number of units produced by approximately 1,400 annually.

Public agencies funding construction projects must accommodate higher project costs in their funding priorities. If they wish to continue funding the same number of projects with the same level of aid impact, larger budget allocations will be needed. Due to the current expectation of ongoing budget deficits at the state and federal levels, it is unclear whether additional funding will be available to maintain the number of publicly funded construction projects.

Alternatives to increased budgets include reducing the number of projects funded by public agencies or reducing per-project funding. Reducing per-project funding may place a large burden on private contractors who receive less funding but face higher labor costs. This may decrease the relative attractiveness of public funding for certain projects.

Initial examinations of the first funding rounds by CDLAC and TCAC, two top government sources of funding for affordable housing units, suggest there may be undersubscription to their tax credit and tax-exempt bond programs. While this is not unheard of in the history of those programs, it is unclear whether this is short-term economic dislocation resulting from confusion created by the introduction of prevailing wage requirements, or evidence of the beginning of ongoing reductions in publicly subsidized affordable housing.

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Appendices

Appendix A: California Prevailing Wages

1. Prevailing Wage Definitions

A. Prevailing Wage Project Definition: California Labor Code Section 1771

Except for public works projects of one thousand dollars ($1,000) or less, not less than the general prevailing rate of per diem wages for work of a similar character in the locality in which the public work is performed, and not less than the general prevailing rate of per diem wages for holiday and overtime work fixed as provided in this chapter, shall be paid to all workers employed on public works.

Available at: http://www.leginfo.ca.gov/cgi-bin/displaycode?section=lab&group=01001-02000&file=1770-1780

B. Commercial/Residential Project Definitions

Commercial Project Definition: All non-residential construction projects including new work, additions, alterations, reconstruction and repairs. This includes residential projects over four stories.

> Residential Project Definition: Projects consisting of single-family homes and apartments up to and including four stories are subject to payment of prevailing wages when paid for in whole or in part out of public funds, including federally funded or assisted residential projects controlled or carried out by an awarding body.

From the DIR's Prevailing Wage FAQs at http://workitout.ca.gov/faq.asp?id=143.

2. DIR methodology for calculating commercial prevailing wage rates

The prevailing wage is the wage paid to the majority, or mode, of workers.

A. The Director of the Department of Industrial Relations:

1. Ascertains the wage rates established by collective bargaining agreements, and wages for federal public works.
2. If this is not the prevailing wage in the locality, then more information is gathered from labor organizations and employers.

3. If this cannot be determined, then the director will establish an alternative rate, based on the methodology of finding the mode.
4. Wage rates change per collective bargaining agreement terms.

B. California Labor Code Section 1773.9

1773.9. (a) The Director of Industrial Relations shall use the methodology set forth in subdivision (b) to determine the general prevailing rate of per diem wages in the locality in which the public work is to be performed.

(b) The general prevailing rate of per diem wages includes all of the following:

(1) The basic hourly wage rate being paid to a majority of workers engaged in the particular craft, classification, or type of work within the locality and in the nearest labor market area, if a majority of the workers is paid at a single rate. If no single rate is being paid to a majority of the workers, then the single rate being paid to the greatest number of workers, or modal rate, is prevailing. If a modal rate cannot be determined, then the director shall establish an alternative rate, consistent with the methodology for determining the modal rate, by considering the appropriate collective bargaining agreements, federal rates, rates in the nearest labor market area, or other data such as wage survey data.

(2) Other employer payments included in per diem wages pursuant to Section 1773.1 and as included as part of the total hourly wage rate from which the basic hourly wage rate was derived. In the event the total hourly wage rate does not include any employer payments, the director shall establish a prevailing employer payment rate by the same procedure set forth in paragraph (1).

(3) The rate for holiday and overtime work shall be those rates specified in the collective bargaining agreement when the basic hourly rate is based on a collective bargaining agreement rate. In the event the basic hourly rate is not based on a collective bargaining agreement, the rate for holidays and overtime work, if any, included with the prevailing basic hourly rate of pay shall be prevailing.

(c) If the director determines that the general prevailing rate of per diem wages is the rate established by a collective bargaining agreement, and that the collective bargaining agreement contains definite and predetermined changes during its term that will affect the rate adopted, the director shall incorporate those changes into the determination. Predetermined changes that are rescinded prior to their effective date shall not be enforced.

Available at: http://www.leginfo.ca.gov/cgi-bin/displaycode?section=lab&group=01001-02000&file=1770-1780

Appendix B: Federal Prevailing Wages

1. Prevailing Wage Definitions

A. Prevailing Wage Project Definition: Government Printing Office Davis-Bacon Reference Material

Each contract over $2,000 to which the United States or the District of Columbia is a party for the construction, alteration, or repair of public buildings or public works shall contain a clause setting forth the minimum wages to be paid to various classes of laborers and mechanics employed under the contract. Under the provisions of the Act, contractors or their subcontractors are to pay workers employed directly upon the site of the work no less than the locally prevailing wages and fringe benefits paid on projects of a similar character.

Available at: http://www.access.gpo.gov/davisbacon/referencemat.html

B. Commercial/Residential Project Definitions

Commercial Project Determination:

1. Building construction generally is the construction of sheltered enclosures with walk-in access for the purpose of housing persons, machinery, equipment, or supplies.

2. Highway projects include the construction, alteration or repair of roads, streets, highways, runways, taxiways, alleys, trails, paths, parking areas, and other similar projects not incidental to building or heavy construction.

3. Heavy construction is not a homogeneous classification. Because of this catch-all nature, projects within the heavy classification may sometimes be distinguished on the basis of their particular project characteristics, and separate schedules issued. For example, separate schedules may be issued for dredging projects, water and sewer line projects, dams, major bridges, and flood control projects.

Residential Project Determination: Residential projects for Davis-Bacon purposes are those involving the construction, alteration, or repair of single-family houses or apartment buildings of no more than four (4) stories in height. This includes all incidental items such as site work, parking areas, utilities, streets and sidewalks.

Available at: http://www.labor.gov/esa/programs/dbra/docs/memo-131.pdf.

2. U.S. Department of Labor methodology for calculating Davis-Bacon prevailing wage rates

The prevailing wage is the wage paid to the majority of workers, or the weighted average wage.

A. The Administrator of the Wage and Hour Division of the Department of Labor:

1. Collects voluntary submissions of wage information in a 'survey.'
2. This data may include collective bargaining agreements, state and local prevailing wage rates, wage rates from contracting agencies, and wage rates on recent projects. It may not include wages paid on federally funded projects.
3. Union rates will be used if they are found to be prevailing (51%). Otherwise, a weighted average will be taken and used. Wage rate listings indicate the source of wage rate, survey or which particular union's rates.
4. New 'surveys' are conducted every three years to update information, with a staggered schedule.

B. Code of Federal Regulations 29 CFR 1.3 - Obtaining and compiling wage rate information. (Source: Davis-Bacon and Related Acts)

For the purpose of making wage determinations, the Administrator will conduct a continuing program for the obtaining and compiling of wage rate information.

(a) The Administrator will encourage the voluntary submission of wage rate data by contractors, contractors' associations, labor organizations, public officials and other interested parties, reflecting wage rates paid to laborers and mechanics on various types of construction in the area. The Administrator may also obtain data from agencies on wage rates paid on construction projects under their jurisdiction. The information submitted should reflect not only the wage rates paid a particular classification in an area, but also the type or types of construction on which such rate or rates are paid, and whether or

not such rates were paid on Federal or federally assisted projects subject to Davis-Bacon prevailing wage requirements.

(b) The following types of information may be considered in making wage rate determinations:

(1) Statements showing wage rates paid on projects. Such statements should include the names and addresses of contractors, including subcontractors, the locations, approximate costs, dates of construction and types of projects, whether or not the projects are Federal or federally assisted projects subject to Davis-Bacon prevailing wage requirements, the number of workers employed in each classification on each project, and the respective wage rates paid such workers.

(2) Signed collective bargaining agreements. The Administrator may request the parties to an agreement to submit statements certifying to its scope and application.

(3) Wage rates determined for public construction by State and local officials pursuant to State and local prevailing wage legislation.

(4) In making wage rate determinations pursuant to 23 U.S.C. 113, the highway department of the State in which a project in the Federal-Aid highway system is to be performed shall be consulted. Before making a determination of wage rates for such a project the Administrator shall give due regard to the information thus obtained.

(5) Wage rate data submitted to the Department of Labor by contracting agencies pursuant to 29 CFR 5.5(a)(1)(ii).

(6) Any other information pertinent to the determination of prevailing wage rates.

(c) The Administrator may initially obtain or supplement such information obtained on a voluntary basis by such means, including the holding of hearings, and from any sources determined to be necessary. All information of the types described in

Sec. 1.3(b) of this part, pertinent to the determination of the wages prevailing at the time of issuance of the wage determination, will be evaluated in the light of

Sec. 1.2(a) of this part.

(d) In compiling wage rate data for building and residential wage determinations, the Administrator will not use data from Federal or federally assisted projects subject to Davis-Bacon prevailing wage requirements unless it is determined that there is insufficient wage data to determine the prevailing wages in the absence of such data. Data from Federal or federally assisted projects will be used in compiling wage rate data for heavy and highway wage determinations.

Available at: http://www.labor.gov/esa/whd/contracts/dbra.htm.

Appendix C: EDD methodology for calculating market wage rates

The "Mean Hourly Wage" is the estimated total wages for an occupation divided by its weighted survey employment.

The EDD conducts their Occupational Employment Statistics Survey:

1. Establishments are asked to report how many workers they employ in a given occupation in each of several wage ranges.
2. Wages reported are averaged, weighted by survey employment.

For more information see

http://www.calmis.ca.gov/file/occup$/oeswages/oestechnotes.htm.

Appendix D: Additional Notes –

The following notes apply to all of the analyses associated with the comparison of various Federal Davis-Bacon prevailing wage rates and California (DIR) prevailing wage rates, as well as market wage rates, for various types of construction occupations.

Listing of Sources Used:

1. Federal Davis-Bacon prevailing wage rates:

Residential and commercial prevailing wage rates are determined for each California county by the U.S. Department of Labor and are made available on the federal government's GPO-Access website at http://www.access.gpo.gov/davisbacon/ca.html. The rates used here were downloaded from this site on 5/25/2003.

2. California (DIR) prevailing wage rates:

Commercial prevailing wage rates are made available by the California Department of Industrial Relations (DIR) Division of Labor Statistics and Research. The rates used here were downloaded from their website at http://www.dir.ca.gov/DLSR/PWD/index.htm on 5/23/2003.

3. Population statistics:

Source: California Department of Finance, 2002 figures, taken from http://www.dof.ca.gov/HTML/DEMOGRAP/E-5text2.htm.

4. Market Mean wage rates (EDD):

Market wage rates used are the "Mean Hourly Wage" for 2002, as reported by the California Employment Development Department (EDD). Note that these wage rates include both commercial and residential construction. The information was

downloaded from the EDD website at

http://www.calmis.ca.gov/htmlfile/subject/occup$.htm (downloaded on 5/5/2003).

Notes on Specific Davis-Bacon Wage Rates Used:

Whenever possible, the most appropriate Davis-Bacon wage rate was used, based on the description given. Such determinations were usually based on one or more of the following types of descriptions:

1. The type of work performed (e.g., light commercial, industrial, work on certain types of structures, etc.)

2. The size of the project for which the work is performed (e.g., projects with a total value above or below a certain dollar figure, etc.)

3. The geographic location where the work is performed.

When these types of descriptions were given, the rate most consistent with other available sources was selected if it could be determined, in order to ensure consistent comparisons across counties for a given type of construction occupation for commercial or residential construction. If a single rate could not be determined, the simple average of all the potentially appropriate rates was used. See the attached table for a listing of all specific instances where an average of various given rates was used instead of a single rate.

Appendix D: Additional Notes - Table of Instances where Average Davis-Bacon Rate was Calculated and Used

The following determinations represent all instances when a single Davis-Bacon wage rate was not used, but an average of various given rates was instead used:

	County	Trade	Residential/ Commercial	Rate Used	Notes
1.	ALAMEDA	HVAC	COMMERCIAL	$34.56	Rate used represents the average of two rates given: "Work on projects with an HVAC contract price of $270,000 equipped with packaged units or a unitary system; Also, tenant completion work extending from an existing trunk line or an existing water or air loop to registers and/or diffusers; also, remodel or add-on contracts on existing facilities providing the contract price is $165,000 or less; Also, architectural sheet metal contracts of $100,000 or less; Also, pre-engineered and pre-manufactured siding" ($31.71) and "All Other Work ($37.40)
2.	AMADOR	PLUMBER	COMMERCIAL	$20.88	Rate represents average of two rates given: "(northern half)" ($19.72) and "(southern half)" ($22.03)
3.	AMADOR	PLUMBER	RESIDENTIAL	$20.88	Rate represents average of two rates given: "(northern half)" ($19.72) and "(southern half)" ($22.03)
4.	CONTRA COSTA	HVAC	COMMERCIAL	$34.56	Rate used represents the average of two rates given: "Work on projects with an HVAC contract price of $270,000 equipped with packaged units or a unitary system; Also, tenant completion work extending from an existing trunk line or an existing water or air loop to registers and/or diffusers; also, remodel or add-on contracts on existing facilities providing the contract price is $165,000 or less; Also, architectural sheet metal contracts of $100,000 or less; Also, pre-engineered and pre-manufactured siding" ($31.71) and "All Other Work ($37.40)
5.	EL DORADO	ELECTRICIAN	RESIDENTIAL	$26.16	Rate used represents the average of two rates given: "Work on single family homes and apartments up to and including 3 stories" ($20.10) and "All other residential work" ($32.21). Note also this is only for west of Main Sierra Mountains watershed.
6.	EL DORADO	PLUMBER	COMMERCIAL	$25.45	Rate represents average of three rates given: "Lake Tahoe Area only" ($23.95); "Excluding Lake Tahoe area (Light Commercial Work)" ($21.43); and "Excluding Lake Tahoe area (All Other Work)" ($30.97)
7.	EL DORADO	PLUMBER	RESIDENTIAL	$19.04	Rate represents average of two rates given: "(Lake Tahoe basin only)" ($16.65) and "(Does not include Lake Tahoe area)" ($21.43)
8.	FRESNO	ELECTRICIAN	RESIDENTIAL	$17.80	Rate used represents the average of two rates given: "Construction, alteration, and/or repair of all units built solely for family residence, including mobile homes, single family residence, triplexes, quadruplexes and walkup garden type apartments or walkup condominiums not to exceed two stories" ($10.00) and "All Other Work" ($25.60)
9.	IMPERIAL	ELECTRICIAN	RESIDENTIAL	$19.41	Rate used represents the average of two rates: "Work on single family homes, duplexes, condominiums and apartments that do not exceed three (3) stories" ($14.61) and "All other residential construction: Electrical subcontracts of $500,000 or less" ($24.21).
10.	KERN	HVAC	COMMERCIAL	$27.09	Rate used represents the average of two rates given: "Work on all commercial HVAC for creature comfort and computers clean rooms, architectural metals, metal roofing and lagging, over insulation (East of Hwy #395 from Red Mountain to the Inyo County)" ($28.99) and "Work on all new construction and remodel work except commercial buildings less than ten thousand (10,000) square feet (excluding that portion east of Highway 395)" ($25.18)

Appendix D: Additional Notes - Table of Instances where Average Davis-Bacon Rate was Calculated and Used

	County	Trade	Residential/ Commercial	Rate Used	Notes
11.	KERN	PLUMBER	COMMERCIAL	$25.34	Rate represents average of three rates given: "Encompasses the far eastern side of Kern County, which includes Edwards Air Force Base, Rosamond, Boron, China Lake Naval Weapons Center and RidgecresT" ($27.67); "Encompasses all the central valley: Bakersfield, Lamont, Arvin, Frazier Park, Taft, Shafter, Wasco, McFarland and Deleano" ($22.67); and "Encompasses Kernville, Tehachapi, Lake Isabella, Mohave, Monolith and Weldon" ($25.67)
12.	KERN	PLUMBER	RESIDENTIAL	$25.34	Rate represents average of three rates given: "Encompasses the far eastern side of Kern County, which includes Edwards Air Force Base, Rosamond, Boron, China Lake Naval Weapons Center and RidgecresT" ($27.67); "Encompasses all the central valley: Bakersfield, Lamont, Arvin, Frazier Park, Taft, Shafter, Wasco, McFarland and Deleano" ($22.67); and "Encompasses Kernville, Tehachapi, Lake Isabella, Mohave, Monolith and Weldon" ($25.67)
13.	LOS ANGELES	HVAC	COMMERCIAL	$29.40	Rate used represents the average of three rates given: (1) "SOUTH OF A STRAIGHT LINE DRAWN BETWEEN GORMAN AND BIG PINES, CALIFORNIA; EXCLUDING THE AREA SOUTH OF IMPERIAL HIGHWAY EAST OF THE LOS ANGELES RIVER, EXCLUDING THE CITIES OF LONG BEACH, CLAREMONT AND POMONA, AND EXCLUDING THE ISLAND OF CATALINA: Work on all new construction and remodel work except residential buildings and commercial buildings less than five thousand (5,000) square feet" ($30.60); (2) "SOUTH OF IMPERIAL HWY. TO THE CITY OF LONG BEACH AND THE CITIES OF PONOMA AND CLAREMONT: Work on all commercial HVAC for creature comfort and computers clean rooms, architectural metals, metal roofing and lagging over insulation" ($28.60); and (3) "AREA SOUTH OF IMPERIAL HIGHLY AND EAST OF THE 710 FREEWAY INCLUDING THE ENTIRE CITIES OF CLAREMONT, LONG BEACH AND POMONA: Work on all commercial HVAC for creature comfort and computer clean rooms, architectural metals, metal roofing and lagging, over insulation" ($28.99).
14.	LOS ANGELES	HVAC	RESIDENTIAL	$26.58	Rate used represents the average of two rates given: LOS ANGELES COUNTY (south of a straight line drawn between Gorman and Big Pines, including the area south of Imperial Highway to the city limits of Long Beach, including the cities of Long Beach, Claremont, and Pomona, and the Island of Catalina): Installation and repair on all general sheet metal, heating and air conditioning, metal fireplace, and solar systems on single family dwellings, multiple family dwellings tract homes and apartment buildings individually conditioned by separate and independent units or systems ($24.17) and "All Other Work" ($28.99)
15.	MADERA	ELECTRICIAN	RESIDENTIAL	$17.80	Rate used represents the average of two rates given: "Construction, alteration, and/or repair of all units built solely for family residence, including mobile homes, single family residence, triplexes, quadruplexes and walkup garden type apartments or walkup condominiums not to exceed two stories" ($10.00) and "All Other Work" ($25.60)

	County	Trade	Residential/ Commercial	Rate Used	Notes
16.	MERCED	ELECTRICIAN	RESIDENTIAL	$23.26	Rate used represents the average of two rates given: "Applies to construction, alteration, and/or repair of all units built solely for family residence, including mobile homes, single family residence, duplexes, triplexes, quadruplexes, condominiums apartmentsup to and including three (3) stories" ($18.50) and "All Other Residential Construction" ($28.02)
17.	NAPA	PLUMBER	RESIDENTIAL	$29.90	Rate represents average of two rates given: "Work performed on single family residential units, condominiums, townhouses, apartment houses and mobile homes for which the total plumbing bid does not exceed $250,000; or Any residential project bid in phases shall not qualify unless the total project is less than $250,000 for the Plumbing bid and $250,000 for the heating and cooling bid" ($25.90) and "All other work" ($33.90)
18.	NEVADA	ELECTRICIAN	RESIDENTIAL	$26.16	Rate used represents the average of two rates given: "Work on single family homes and apartments up to and including 3 stories" ($20.10) and "All other residential work" ($32.21)
19.	NEVADA	PLUMBER	COMMERCIAL	$25.45	Rate represents average of three rates given: "Lake Tahoe Area only" ($23.95); "Excluding Lake Tahoe area (Light Commercial Work)" ($21.43); and "Excluding Lake Tahoe area (All Other Work)" ($30.97)
20.	NEVADA	PLUMBER	RESIDENTIAL	$19.04	Rate represents average of two rates given: "(Lake Tahoe basin only)" ($16.65) and "(Does not include Lake Tahoe area)" ($21.43)
21.	ORANGE	HVAC	RESIDENTIAL	$26.58	Rate used represents the average of two rates given: Installation and repair on all general sheet metal, heating and air conditioning, metal fireplace, and solar systems on single family dwellings, multiple family dwellings tract homes and apartment buildings individually conditioned by separate and independent units or systems ($24.17) and "All Other Work" ($28.99)
22.	PLACER	ELECTRICIAN	RESIDENTIAL	$26.16	Rate used represents the average of two rates given: "Work on single family homes and apartments up to and including 3 stories" ($20.10) and "All other residential work" ($32.21). Note also this is only for west of Main Sierra Mountains watershed.
23.	PLACER	PLUMBER	COMMERCIAL	$25.45	Rate represents average of three rates given: "Lake Tahoe Area only" ($23.95); "Excluding Lake Tahoe area (Light Commercial Work)" ($21.43); and "Excluding Lake Tahoe area (All Other Work)" ($30.97)
24.	PLACER	PLUMBER	RESIDENTIAL	$19.04	Rate represents average of two rates given: "(Lake Tahoe basin only)" ($16.65) and "(Does not include Lake Tahoe area)" ($21.43)
25.	RIVERSIDE	HVAC	RESIDENTIAL	$26.58	Rate used represents the average of two rates given: Installation and repair on all general sheet metal, heating and air conditioning, metal fireplace, and solar systems on single family dwellings, multiple family dwellings tract homes and apartment buildings individually conditioned by separate and independent units or systems ($24.17) and "All Other Work" ($28.99)
26.	SACRAMENTO	ELECTRICIAN	RESIDENTIAL	$26.16	Rate used represents the average of two rates given: "Work on single family homes and apartments up to and including 3 stories" ($20.10) and "All other residential work" ($32.21).

Appendix D: Additional Notes - Table of Instances where Average Davis-Bacon Rate was Calculated and Used

	County	Trade	Residential/ Commercial	Rate Used	Notes
27.	SAN BERNARDINO	ELECTRICIAN	RESIDENTIAL	$23.11	Rate used represents the average of two rates given: "All single family dwellings and multi-family dwellings not exceeding eight units and/or two stories" ($16.00) and "All other residential work" ($27.25).
28.	SAN BERNARDINO	HVAC	RESIDENTIAL	$26.58	Rate used represents the average of two rates given: Installation and repair on all general sheet metal, heating and air conditioning, metal fireplace, and solar systems on single family dwellings, multiple family dwellings tract homes and apartment buildings individually conditioned by separate and independent units or systems ($24.17) and "All Other Work" ($28.99)
29.	SAN BERNARDINO	PLUMBER	COMMERCIAL	$31.46	Rate represents average of three rates given: "Fort Irwin Army Base, Marine Corps Logistic Base at Nebo, Marine Corps Logistic Base at Yermo and Twenty-Nine Palms Marine Base" ($33.31); "George Air Force Base" ($32.06); and "Remainder of County" ($29.81).
30.	SAN DIEGO	ELECTRICIAN	RESIDENTIAL	$23.61	Rate used represents the average of two rates given: "Work on family residences, single family homes duplexes, condominiums, apartments that do not exceed three (3) stories" ($17.00) and "All other residential and building construction" ($30.21).
31.	SAN DIEGO	HVAC	COMMERCIAL	$26.90	Rate represents average of two rates given: Camp Pendleton ($27.90) and "Remainder of County" ($25.90).
32.	SAN DIEGO	HVAC	RESIDENTIAL	$17.83	(Camp Pendleton and Remainder of County)
33.	SAN DIEGO	PLUMBER	COMMERCIAL	$30.94	Rate represents average of two rates given: "Camp Pendleton" ($32.06) and "Remainder of County" ($29.81)
34.	SAN FRANCISCO	ELECTRICIAN	RESIDENTIAL	$36.44	Rate used represents the average of two rates given: "Work on residential wood frame remodel and repair in all wood-constructed buildings not to exceed 24 living units; and new wood frame single structure 1 or 2 family houses, or on all wood-constructed buildings not to exceed 20 living units under 1 roof excluding projects or tracts containing more than 2 houses, or more than 1 building" ($27.33) and "All other work" ($45.55).
35.	SAN MATEO	HVAC	COMMERCIAL	$36.83	Rate represents average of two rates given: "Work with an HVAC contract price of $270,000 equipped with packaged units or a unitary system; Also, tenant completion work extending from an existing trunk line or air loop to registers and/or diffusers; Also, remodel or add-on contracts on existing facilities providing the contract price is $165,000 or less; Also, architectural sheet metal contracts of $100,000 or less; Also, pre-engineered and pre-manufactured siding" ($35.10) and "All Other Work" ($38.55).
36.	SANTA BARBARA	ELECTRICIAN	RESIDENTIAL	$19.49	Rate used represents the average of two rates given: "Vendenberg Air Force Base" ($21.36) and "(Excluding Vendenberg Air Force Base)" ($17.61).
37.	SANTA BARBARA	PLUMBER	COMMERCIAL	$30.49	Rate represents average of two rates given: "Vandenburg Air Force Base" ($32.06) and "Remainder of County" ($28.92)

	County	Trade	Residential/ Commercial	Rate Used	Notes
38.	SANTA CLARA	HVAC	COMMERCIAL	$37.65	Rate represents average of two rates given: "Work with an HVAC contract price of $270,000 equipped with packaged units or a unitary system; Also, tenant completion work extending from an existing trunk line or air loop to registers and/or diffusers; Also, remodel or add-on contracts on existing facilities providing the contract price is $165,000 or less; Also, architectural sheet metal contracts of $100,000 or less; Also pre-engineered and pre-manufactured siding" ($36.54) and "All Other Work" ($38.75)
39.	SOLANO	PLUMBER	RESIDENTIAL	$29.90	Rate represents average of two rates given: "Work performed on single family residential units, condominiums, townhouses, apartment houses and mobile homes for which the total plumbing bid does not exceed $250,000; or Any residential project bid in phases shall not qualify unless the total project is less than $250,000 for the Plumbing bid and $250,000 for the heating and cooling bid" ($25.90) and "All other work" ($33.90)
40.	STANISLAUS	ELECTRICIAN	RESIDENTIAL	$23.26	Rate used represents the average of two rates given: "Applies to construction, alteration, and/or repair of all units built solely for family residence, including mobile homes, single family residence, duplexes, triplexes, quadruplexes, condominiums apartments up to and including three (3) stories" ($18.50) and "All Other Residential Construction" ($28.02)
41.	SUTTER	ELECTRICIAN	RESIDENTIAL	$26.16	Rate used represents the average of two rates given: "Work on single family homes and apartments up to and including 3 stories" ($20.10) and "All other residential work" ($32.21).
42.	TULARE	ELECTRICIAN	RESIDENTIAL	$17.80	Rate used represents the average of two rates given: "Construction, alteration, and/or repair of all units built solely for family residence, including mobile homes, single family residence, triplexes, quadruplexes and walkup garden type apartments or walkup condominiums not to exceed two stories" ($10.00) and "All Other Work" ($25.60)
43.	YOLO	ELECTRICIAN	RESIDENTIAL	$26.16	Rate used represents the average of two rates given: "Work on single family homes and apartments up to and including 3 stories" ($20.10) and "All other residential work" ($32.21).
44.	YUBA	ELECTRICIAN	RESIDENTIAL	$26.16	Rate used represents the average of two rates given: "Work on single family homes and apartments up to and including 3 stories" ($20.10) and "All other residential work" ($32.21).

Appendix E: Comparison of Commercial Prevailing Wage Rates with Mean Market Rates (Combined Residential and Commercial Construction)

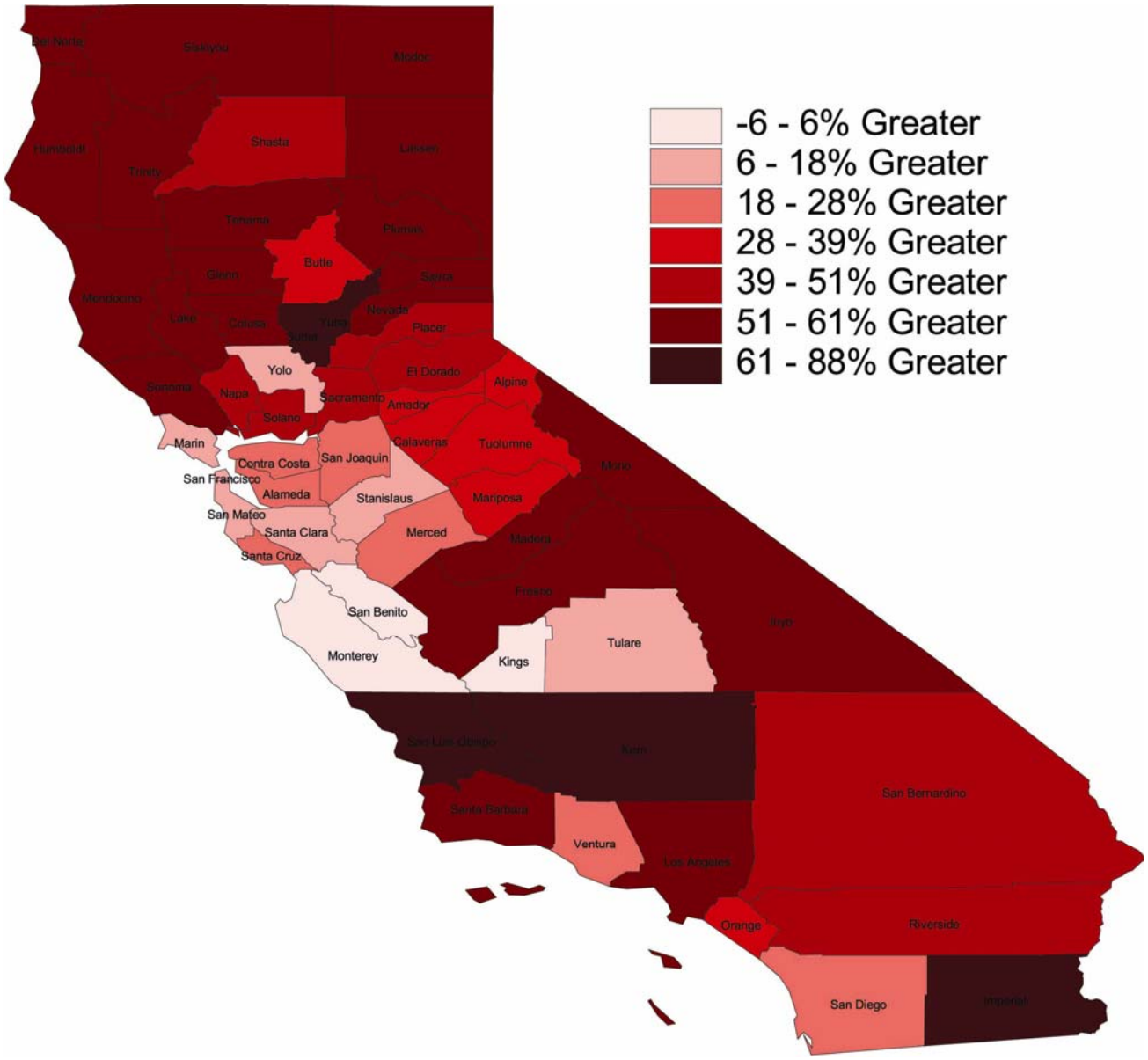
		Carpenter			Drywall Installer			Electrician			HVAC/Sheet Metal Worker			Plumber		
County	Population	DIR Commercial PW Rate	EDD Mean Market Wage Rate	Percent by which DIR rate is Greater	DIR Commercial PW Rate	EDD Mean Market Wage Rate	Percent by which DIR rate is Greater	DIR Commercial PW Rate	EDD Mean Market Wage Rate	Percent by which DIR rate is Greater	DIR Commercial PW Rate	EDD Mean Market Wage Rate	Percent by which DIR rate is Greater	DIR Commercial PW Rate	EDD Mean Market Wage Rate	Percent by which DIR rate is Greater
ALAMEDA	1,484,698	$29.75	$23.07	29%	$29.75	$23.37	27%	$37.00	$31.71	17%	$36.59	$17.02	115%	$35.51	$25.71	38%
ALPINE	1,210	$23.27	$18.86	23%	$23.77	$18.01	32%	$32.21	$24.76	30%	$27.37	$16.52	66%	$29.29	$20.35	44%
AMADOR	36,049	$23.27	$18.86	23%	$23.77	$18.01	32%	$32.21	$24.76	30%	$31.05	$16.52	88%	$29.29	$20.35	44%
BUTTE	207,310	$23.27	$16.73	39%	$23.77	$17.29	37%	$32.21	$20.20	59%	$31.05	$17.33	79%	$28.79	$16.25	77%
CALAVERAS	41,820	$23.27	$18.86	23%	$23.77	$18.01	32%	$28.19	$24.76	14%	$27.37	$16.52	66%	$29.29	$20.35	44%
COLUSA	19,341	$23.27	$21.11	10%	$23.77	$15.08	58%	$32.21	$18.32	76%	$31.05	$16.91	84%	$28.79	$19.18	50%
CONTRA COSTA	980,870	$29.75	$23.07	29%	$29.75	$23.37	27%	$37.51	$31.71	18%	$36.59	$17.02	115%	$35.21	$25.71	37%
DEL NORTE	27,694	$23.27	$18.84	24%	$23.77	$14.75	61%	$26.12	$23.96	9%	$21.92	$20.48	7%	$30.93	$18.74	65%
EL DORADO	163,649	$23.27	$20.57	13%	$23.77	$16.48	44%	$32.21	$21.85	47%	$31.05	$21.33	46%	$29.40	$19.12	54%
FRESNO	827,310	$23.27	$17.43	34%	$23.77	$15.48	54%	$27.10	$18.14	49%	$24.80	$19.20	29%	$28.79	$19.96	44%
GLENN	26,747	$23.27	$21.11	10%	$23.77	$15.08	58%	$32.21	$18.32	76%	$31.05	$16.91	84%	$28.79	$19.18	50%
HUMBOLDT	127,305	$23.27	$18.84	24%	$23.77	$14.75	61%	$26.12	$23.96	9%	$21.92	$20.48	7%	$30.93	$18.74	65%
IMPERIAL	150,217	$29.00	$18.33	58%	$29.00	$15.76	84%	$29.00	$21.77	33%	$25.90	$20.25	28%	$29.81	$16.88	77%
INYO	18,242	$28.43	$18.86	51%	$29.00	$18.01	61%	$36.35	$24.76	47%	$24.76	$16.52	50%	$28.17	$20.35	38%
KERN	688,875	$28.43	$17.40	63%	$29.00	$16.20	79%	$28.84	$20.80	39%	$24.76	$19.89	24%	$28.17	$17.72	59%
KINGS	133,553	$23.27	$22.26	5%	$23.77	$23.24	2%	$27.10	$21.02	29%	$24.80	$15.55	59%	$28.79	$18.29	57%
LAKE	60,519	$23.27	$18.84	24%	$23.77	$14.75	61%	$32.13	$23.96	34%	$38.05	$20.48	86%	$41.00	$18.74	119%
LASSEN	34,237	$23.27	$21.11	10%	$23.77	$15.08	58%	$32.21	$18.32	76%	$31.05	$16.91	84%	$28.79	$19.18	50%
LOS ANGELES	9,817,419	$29.00	$21.04	38%	$29.00	$18.63	56%	$30.45	$20.22	51%	$29.41	$20.58	43%	$29.81	$19.69	51%
MADERA	130,373	$23.27	$17.43	34%	$23.77	$15.48	54%	$27.10	$18.14	49%	$24.80	$19.20	29%	$28.79	$19.96	44%
MARIN	248,490	$29.75	$26.63	12%	$29.75	$26.24	13%	$32.13	$30.78	4%	$38.05	$21.17	80%	$41.00	$28.95	42%
MARIPOSA	17,087	$23.27	$18.86	23%	$23.77	$18.01	32%	$32.02	$24.76	29%	$17.57	$16.52	6%	$29.29	$20.35	44%
MENDOCINO	87,552	$23.27	$18.84	24%	$23.77	$14.75	61%	$32.13	$23.96	34%	$38.05	$20.48	86%	$41.00	$18.74	119%
MERCED	219,554	$23.27	$16.27	43%	$23.77	$19.32	23%	$29.02	$20.68	40%	$28.18	$15.72	79%	$29.29	$17.74	65%
MODOC	9,353	$23.27	$21.11	10%	$23.77	$15.08	58%	$26.66	$18.32	46%	$31.05	$16.91	84%	$28.79	$19.18	50%
MONO	13,247	$28.43	$18.86	51%	$29.00	$18.01	61%	$36.35	$24.76	47%	$24.76	$16.52	50%	$28.17	$20.35	38%
MONTEREY	409,608	$24.62	$21.61	14%	$24.62	$26.06	-6%	$33.01	$24.28	36%	$30.78	$22.44	37%	$31.89	$19.44	64%
NAPA	128,132	$29.75	$22.93	30%	$29.75	$19.72	51%	$33.65	$34.86	-3%	$38.05	$20.01	90%	$33.90	$19.67	72%
NEVADA	94,980	$23.27	$21.11	10%	$23.77	$15.08	58%	$32.21	$18.32	76%	$31.05	$16.91	84%	$29.40	$19.18	53%

County	Population	Carpenter			Drywall Installer			Electrician			HVAC/Sheet Metal Worker			Plumber		
		DIR Commercial PW Rate	EDD Mean Market Wage Rate	Percent by which DIR rate is Greater	DIR Commercial PW Rate	EDD Mean Market Wage Rate	Percent by which DIR rate is Greater	DIR Commercial PW Rate	EDD Mean Market Wage Rate	Percent by which DIR rate is Greater	DIR Commercial PW Rate	EDD Mean Market Wage Rate	Percent by which DIR rate is Greater	DIR Commercial PW Rate	EDD Mean Market Wage Rate	Percent by which DIR rate is Greater
ORANGE	2,930,488	$29.00	$21.55	35%	$29.00	$20.85	39%	$31.10	$23.46	33%	$29.41	$21.40	37%	$29.81	$19.29	55%
PLACER	265,683	$23.27	$20.57	13%	$23.77	$16.48	44%	$32.21	$21.85	47%	$31.05	$21.33	46%	$29.40	$19.12	54%
PLUMAS	20,964	$23.27	$21.11	10%	$23.77	$15.08	58%	$32.21	$18.32	76%	$31.05	$16.91	84%	$28.79	$19.18	50%
RIVERSIDE	1,645,319	$29.00	$18.17	60%	$29.00	$19.49	49%	$28.58	$22.01	30%	$29.41	$18.05	63%	$29.81	$15.84	88%
SACRAMENTO	1,280,920	$23.27	$20.57	13%	$23.77	$16.48	44%	$32.21	$21.85	47%	$31.05	$21.33	46%	$30.97	$19.12	62%
SAN BENITO	55,618	$24.62	$22.26	11%	$24.62	$23.24	6%	$33.01	$21.02	57%	$30.78	$15.55	98%	$45.51	$18.29	149%
SAN BERNARDINO	1,788,479	$29.00	$18.17	60%	$29.00	$19.49	49%	$28.35	$22.01	29%	$30.60	$18.05	70%	$29.81	$15.84	88%
SAN DIEGO	2,908,505	$24.60	$17.87	38%	$22.05	$17.84	24%	$29.00	$20.72	40%	$25.90	$18.63	39%	$29.81	$20.00	49%
SAN FRANCISCO	789,062	$29.75	$26.63	12%	$29.75	$26.24	13%	$45.55	$30.78	48%	$37.05	$21.17	75%	$41.00	$28.95	42%
SAN JOAQUIN	596,907	$23.27	$20.92	11%	$23.77	$18.85	26%	$28.19	$22.26	27%	$27.37	$17.90	53%	$29.29	$21.00	39%
SAN LUIS OBISPO	253,043	$29.00	$17.23	68%	$29.00	$16.76	73%	$27.25	$23.58	16%	$27.28	$26.10	5%	$29.81	$21.00	42%
SAN MATEO	714,414	$29.75	$26.63	12%	$29.75	$26.24	13%	$42.37	$30.78	38%	$37.74	$21.17	78%	$39.40	$28.95	36%
SANTA BARBARA	406,176	$29.00	$22.70	28%	$29.00	$18.48	57%	$30.81	$23.96	29%	$27.28	$20.50	33%	$29.81	$24.22	23%
SANTA CLARA	1,716,755	$29.75	$21.86	36%	$29.75	$26.65	12%	$42.57	$27.34	56%	$37.94	$24.83	53%	$45.51	$28.85	58%
SANTA CRUZ	258,398	$24.62	$23.49	5%	$24.62	$19.88	24%	$33.01	$27.85	19%	$32.32	$20.64	57%	$31.89	$20.70	54%
SHASTA	169,277	$23.27	$19.84	17%	$23.77	$16.69	42%	$32.21	$17.29	86%	$31.05	$20.93	48%	$28.79	$16.00	80%
SIERRA	3,522	$23.27	$21.11	10%	$23.77	$15.08	58%	$32.21	$18.32	76%	$31.05	$16.91	84%	$28.79	$19.18	50%
SISKIYOU	44,329	$23.27	$21.11	10%	$23.77	$15.08	58%	$26.66	$18.32	46%	$31.05	$16.91	84%	$28.79	$19.18	50%
SOLANO	405,642	$29.75	$22.93	30%	$29.75	$19.72	51%	$33.65	$34.86	-3%	$38.05	$20.01	90%	$33.90	$19.67	72%
SONOMA	468,583	$29.75	$22.02	35%	$29.75	$18.74	59%	$32.13	$23.37	37%	$38.05	$20.75	83%	$41.00	$25.57	60%
STANISLAUS	469,969	$23.27	$17.32	34%	$23.77	$20.08	18%	$29.02	$20.07	45%	$28.18	$20.26	39%	$29.29	$18.52	58%
SUTTER	81,561	$23.27	$14.59	59%	$23.77	$12.63	88%	$32.21	$23.90	35%	$31.05	$19.40	60%	$28.79	$24.41	18%
TEHAMA	56,911	$23.27	$21.11	10%	$23.77	$15.08	58%	$32.21	$18.32	76%	$31.05	$16.91	84%	$28.79	$19.18	50%
TRINITY	13,059	$23.27	$21.11	10%	$23.77	$15.08	58%	$32.21	$18.32	76%	$31.05	$16.91	84%	$28.79	$19.18	50%
TULARE	378,477	$23.27	$16.14	44%	$23.77	$20.90	14%	$27.10	$16.86	61%	$28.52	$18.91	51%	$28.79	$18.69	54%
TUOLUMNE	55,859	$23.27	$18.86	23%	$23.77	$18.01	32%	$29.02	$24.76	17%	$27.37	$16.52	66%	$29.29	$20.35	44%
VENTURA	778,423	$29.00	$17.76	63%	$29.00	$22.59	28%	$32.60	$23.01	42%	$27.28	$21.19	29%	$29.81	$17.85	67%
YOLO	176,280	$23.27	$22.45	4%	$23.77	$21.74	9%	$32.21	N/A	N/A	$31.05	$18.58	67%	$30.97	$21.18	46%
YUBA	61,763	$23.27	$14.59	59%	$23.77	$12.63	88%	$32.21	$23.90	35%	$31.05	$19.40	60%	$28.79	$24.41	18%
Simple Average:				**28%**			**43%**			**41%**			**61%**			**56%**
Population Weighted Avg:				**36%**			**41%**			**40%**			**53%**			**55%**

Sources: see Appendix D.

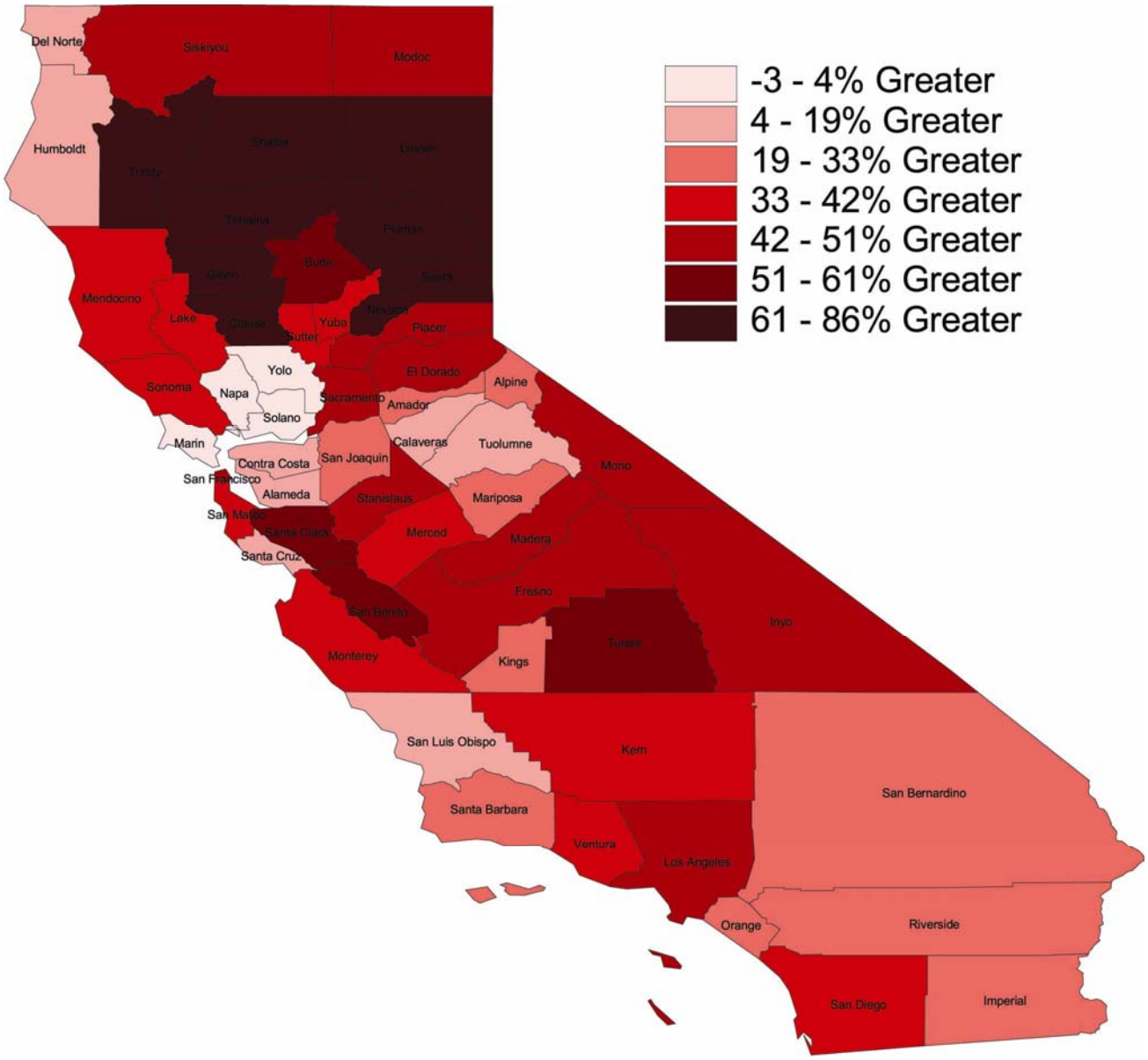
Appendix E:

Figure 1. California DIR Commercial Prevailing Wage Rates vs. EDD Market Rates for Drywall Installers
(Percent by which DIR prevailing wage is greater than EDD market rate)



Appendix E:

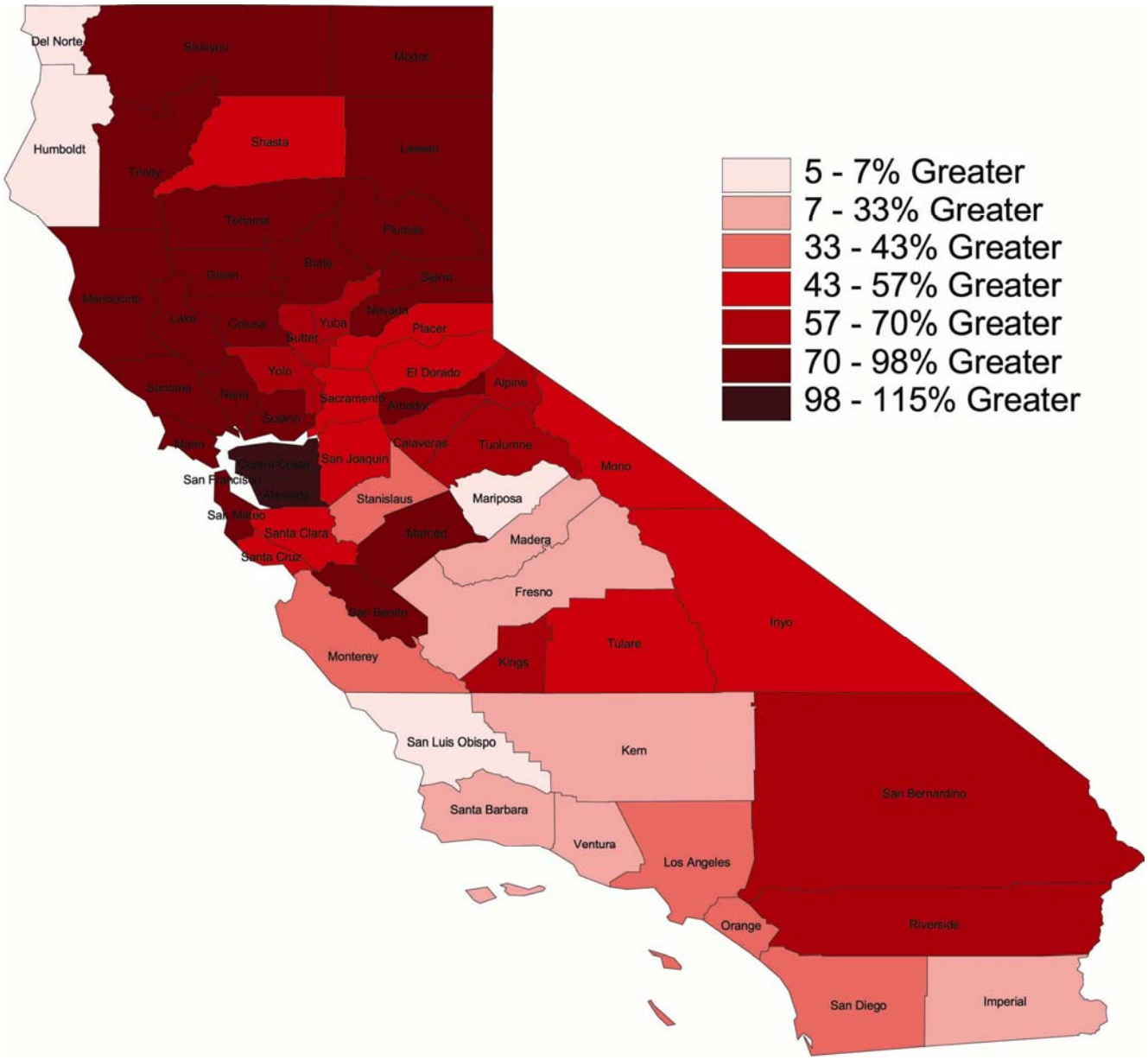
Figure 2. California DIR Commercial Prevailing Wage Rates vs. EDD Market Rates for Electricians
(Percent by which DIR prevailing wage is greater than EDD market rate)



Appendix E:

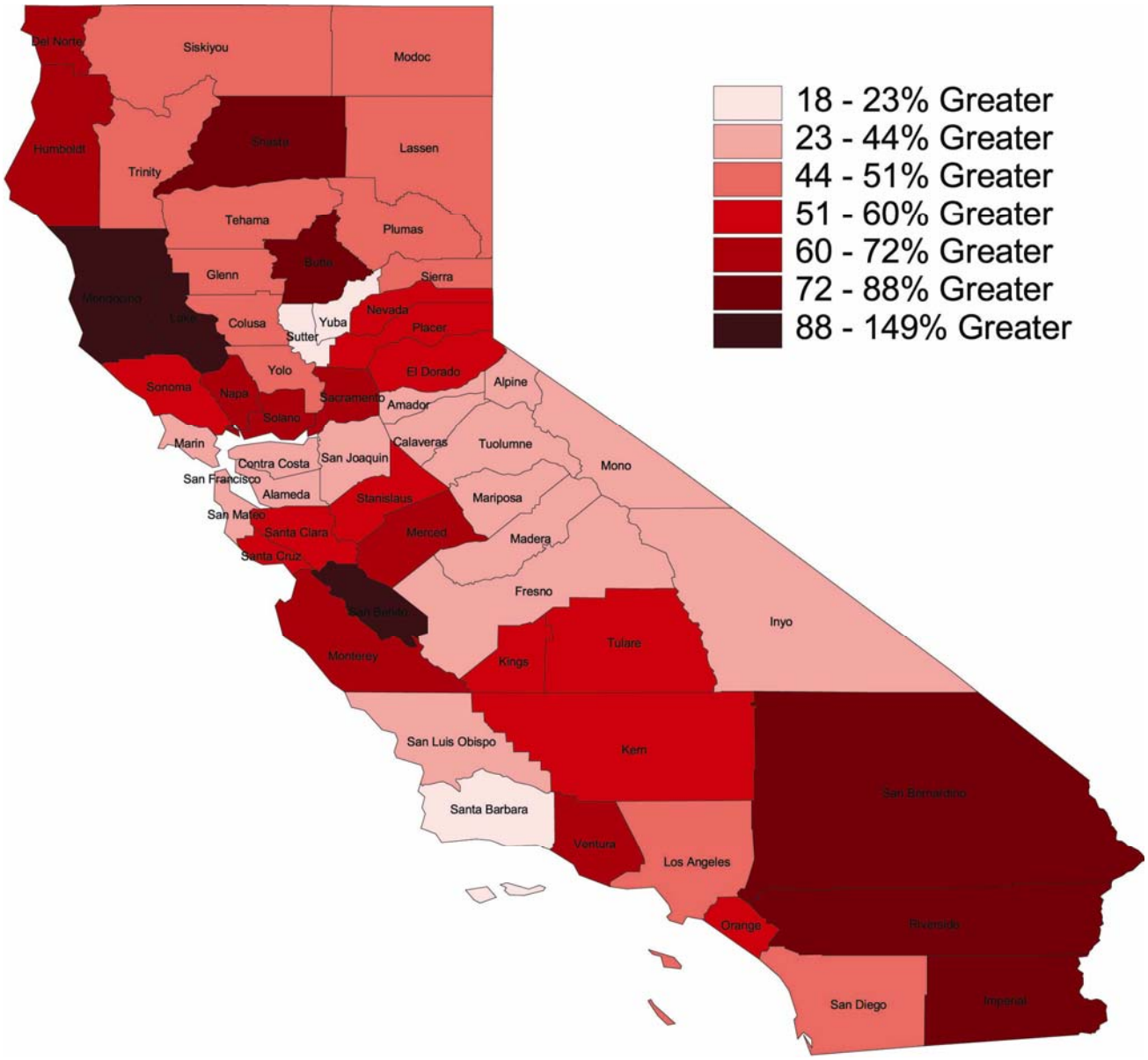
Figure 3. California DIR Commercial Prevailing Wage Rates vs. EDD Market Rates for HVAC/Sheet Metal Worker

(Percent by which DIR prevailing wage is greater than EDD market rate)



Appendix E:

Figure 4. California DIR Commercial Prevailing Wage Rates vs. EDD Market Rates for Plumbers
(Percent by which DIR prevailing wage is greater than EDD market rate)



Appendix F:

Table 1. Comparison of Davis-Bacon Commercial Prevailing Wage Rates with DIR Commercial Prevailing Wage Rates
(Includes all Available Davis-Bacon Rates Regardless of Date of Last Update)

		Carpenter			Drywall Installer			Electrician			HVAC/Sheet Metal Worker			Plumber		
County	Population	Davis-Bacon Commercial PW Rate	DIR Commercial PW Rate	Percent by which DIR rate is Greater	Davis-Bacon Commercial PW Rate	DIR Commercial PW Rate	Percent by which DIR rate is Greater	Davis-Bacon Commercial PW Rate	DIR Commercial PW Rate	Percent by which DIR rate is Greater	Davis-Bacon Commercial PW Rate	DIR Commercial PW Rate	Percent by which DIR rate is Greater	Davis-Bacon Commercial PW Rate	DIR Commercial PW Rate	Percent by which DIR rate is Greater
ALAMEDA	1,484,698	$29.75	$29.75	0%	$29.75	$29.75	0%	$37.00	$37.00	0%	$34.56	$36.59	6%	$35.51	$35.51	0%
ALPINE	1,210	$23.27	$23.27	0%	$23.77	$23.77	0%	$32.21	$32.21	0%	$27.37	$27.37	0%	$29.29	$29.29	0%
AMADOR	36,049	$18.58	$23.27	25%	$18.14	$23.77	31%	$16.30	$32.21	98%	$18.37	$31.05	69%	$20.88	$29.29	40%
BUTTE	207,310	$23.27	$23.27	0%	$23.77	$23.77	0%	$32.21	$32.21	0%	$31.55	$31.05	-2%	$28.79	$28.79	0%
CALAVERAS	41,820	$23.27	$23.27	0%	$23.77	$23.77	0%	$28.19	$28.19	0%	$27.37	$27.37	0%	$29.29	$29.29	0%
COLUSA	19,341	$23.27	$23.27	0%	$23.77	$23.77	0%	$32.21	$32.21	0%	$31.55	$31.05	-2%	$28.79	$28.79	0%
CONTRA COSTA	980,870	$29.75	$29.75	0%	$29.75	$29.75	0%	$37.51	$37.51	0%	$34.56	$36.59	6%	$35.21	$35.21	0%
DEL NORTE	27,694	$19.08	$23.27	22%	$19.08	$23.77	25%	$17.41	$26.12	50%	$18.65	$21.92	18%	$16.47	$30.93	88%
EL DORADO	163,649	$23.27	$23.27	0%	$23.77	$23.77	0%	$32.21	$32.21	0%	$31.55	$31.05	-2%	$25.45	$29.40	16%
FRESNO	827,310	$23.27	$23.27	0%	$23.77	$23.77	0%	$27.10	$27.10	0%	$28.52	$24.80	-13%	$28.79	$28.79	0%
GLENN	26,747	$23.27	$23.27	0%	$23.77	$23.77	0%	$32.21	$32.21	0%	$31.55	$31.05	-2%	$29.29	$28.79	-2%
HUMBOLDT	127,305	$19.08	$23.27	22%	$19.08	$23.77	25%	$17.41	$26.12	50%	$18.65	$21.92	18%	$16.47	$30.93	88%
IMPERIAL	150,217	$29.00	$29.00	0%	$29.00	$29.00	0%	$30.21	$29.00	-4%	$25.90	$25.90	0%	$29.81	$29.81	0%
INYO	18,242	$28.43	$28.43	0%	$29.00	$29.00	0%	$35.25	$36.35	3%	$28.99	$24.76	-15%	$27.67	$28.17	2%
KERN	688,875	$28.43	$28.43	0%	$29.00	$29.00	0%	$29.34	$28.84	-2%	$27.09	$24.76	-9%	$25.34	$28.17	11%
KINGS	133,553	$23.27	$23.27	0%	$23.77	$23.77	0%	$27.10	$27.10	0%	$28.52	$24.80	-13%	$28.79	$28.79	0%
LAKE	60,519	$19.08	$23.27	22%	$19.08	$23.77	25%	$17.41	$32.13	85%	$27.17	$38.05	40%	$29.84	$41.00	37%
LASSEN	34,237	$23.27	$23.27	0%	$23.77	$23.77	0%	$32.21	$32.21	0%	$31.55	$31.05	-2%	$29.29	$28.79	-2%
LOS ANGELES	9,817,419	$29.00	$29.00	0%	$29.00	$29.00	0%	$29.70	$30.45	3%	$29.40	$29.41	0%	$29.81	$29.81	0%
MADERA	130,373	$23.27	$23.27	0%	$23.77	$23.77	0%	$27.10	$27.10	0%	$28.52	$24.80	-13%	$28.79	$28.79	0%
MARIN	248,490	$29.75	$29.75	0%	$29.75	$29.75	0%	$32.13	$32.13	0%	$38.86	$38.05	-2%	$36.05	$41.00	14%
MARIPOSA	17,087	$23.27	$23.27	0%	$23.77	$23.77	0%	$29.17	$32.02	10%	$28.18	$17.57	-38%	$29.29	$29.29	0%
MENDOCINO	87,552	$19.08	$23.27	22%	$19.08	$23.77	25%	$17.41	$32.13	85%	$27.17	$38.05	40%	$29.84	$41.00	37%
MERCED	219,554	$23.27	$23.27	0%	$23.77	$23.77	0%	$29.17	$29.02	-1%	$28.18	$28.18	0%	$29.29	$29.29	0%
MODOC	9,353	$23.27	$23.27	0%	$23.77	$23.77	0%	$26.26	$26.66	2%	$31.55	$31.05	-2%	$28.79	$28.79	0%
MONO	13,247	$28.43	$28.43	0%	$29.00	$29.00	0%	$35.25	$36.35	3%	$28.99	$24.76	-15%	$27.67	$28.17	2%
MONTEREY	409,608	$24.62	$24.62	0%	$24.62	$24.62	0%	$32.01	$33.01	3%	$31.41	$30.78	-2%	$31.89	$31.89	0%
NAPA	128,132	$29.75	$29.75	0%	$29.75	$29.75	0%	$30.65	$33.65	10%	$38.86	$38.05	-2%	$33.90	$33.90	0%
NEVADA	94,980	$23.27	$23.27	0%	$23.77	$23.77	0%	$32.21	$32.21	0%	$31.55	$31.05	-2%	$25.45	$29.40	16%

Table 1 Continued

		Carpenter	Drywall Installer	Electrician	HVAC/Sheet Metal Worker	Plumber

County	Population	Davis-Bacon Commercial PW Rate	DIR Commercial PW Rate	Percent by which DIR rate is Greater	Davis-Bacon Commercial PW Rate	DIR Commercial PW Rate	Percent by which DIR rate is Greater	Davis-Bacon Commercial PW Rate	DIR Commercial PW Rate	Percent by which DIR rate is Greater	Davis-Bacon Commercial PW Rate	DIR Commercial PW Rate	Percent by which DIR rate is Greater	Davis-Bacon Commercial PW Rate	DIR Commercial PW Rate	Percent by which DIR rate is Greater
ORANGE	2,930,488	$29.00	$29.00	0%	$29.00	$29.00	0%	$31.85	$31.10	-2%	$28.99	$29.41	1%	$29.81	$29.81	0%
PLACER	265,683	$23.27	$23.27	0%	$23.77	$23.77	0%	$32.21	$32.21	0%	$31.55	$31.05	-2%	$25.45	$29.40	16%
PLUMAS	20,964	$23.27	$23.27	0%	$23.77	$23.77	0%	$32.21	$32.21	0%	$31.55	$31.05	-2%	$28.79	$28.79	0%
RIVERSIDE	1,645,319	$29.00	$29.00	0%	$29.00	$29.00	0%	$29.23	$28.58	-2%	$29.41	$29.41	0%	$29.81	$29.81	0%
SACRAMENTO	1,280,920	$23.27	$23.27	0%	$23.77	$23.77	0%	$32.21	$32.21	0%	$31.55	$31.05	-2%	$30.97	$30.97	0%
SAN BENITO	55,618	$24.62	$24.62	0%	$24.62	$24.62	0%	$32.01	$33.01	3%	$31.41	$30.78	-2%	$45.51	$45.51	0%
SAN BERNARDINO	1,788,479	$29.00	$29.00	0%	$29.00	$29.00	0%	$28.25	$28.35	0%	$29.41	$30.60	4%	$31.46	$29.81	-5%
SAN DIEGO	2,908,505	$22.90	$24.60	7%	$18.55	$22.05	19%	$30.21	$29.00	-4%	$26.90	$25.90	-4%	$30.94	$29.81	-4%
SAN FRANCISCO	789,062	$29.75	$29.75	0%	$29.75	$29.75	0%	$45.55	$45.55	0%	$37.09	$37.05	0%	$41.00	$41.00	0%
SAN JOAQUIN	596,907	$23.27	$23.27	0%	$23.77	$23.77	0%	$28.19	$28.19	0%	$27.37	$27.37	0%	$29.29	$29.29	0%
SAN LUIS OBISPO	253,043	$29.00	$29.00	0%	$29.00	$29.00	0%	$27.25	$27.25	0%	$27.28	$27.28	0%	$29.81	$29.81	0%
SAN MATEO	714,414	$29.75	$29.75	0%	$29.75	$29.75	0%	$42.37	$42.37	0%	$36.83	$37.74	2%	$40.65	$39.40	-3%
SANTA BARBARA	406,176	$29.00	$29.00	0%	$29.00	$29.00	0%	$30.83	$30.81	0%	$27.28	$27.28	0%	$30.49	$29.81	-2%
SANTA CLARA	1,716,755	$29.75	$29.75	0%	$29.75	$29.75	0%	$42.57	$42.57	0%	$37.65	$37.94	1%	$45.51	$45.51	0%
SANTA CRUZ	258,398	$24.62	$24.62	0%	$24.62	$24.62	0%	$32.01	$33.01	3%	$32.95	$32.32	-2%	$31.89	$31.89	0%
SHASTA	169,277	$23.27	$23.27	0%	$23.77	$23.77	0%	$32.21	$32.21	0%	$31.55	$31.05	-2%	$28.79	$28.79	0%
SIERRA	3,522	$23.27	$23.27	0%	$23.77	$23.77	0%	$32.21	$32.21	0%	$31.55	$31.05	-2%	$28.79	$28.79	0%
SISKIYOU	44,329	$23.27	$23.27	0%	$23.77	$23.77	0%	$26.26	$26.66	2%	$31.55	$31.05	-2%	$28.79	$28.79	0%
SOLANO	405,642	$29.75	$29.75	0%	$29.75	$29.75	0%	$30.65	$33.65	10%	$38.86	$38.05	-2%	$33.90	$33.90	0%
SONOMA	468,583	$29.75	$29.75	0%	$29.75	$29.75	0%	$32.13	$32.13	0%	$38.86	$38.05	-2%	$36.05	$41.00	14%
STANISLAUS	469,969	$23.27	$23.27	0%	$23.77	$23.77	0%	$29.17	$29.02	-1%	$28.18	$28.18	0%	$29.29	$29.29	0%
SUTTER	81,561	$23.27	$23.27	0%	$23.77	$23.77	0%	$32.21	$32.21	0%	$31.55	$31.05	-2%	$28.79	$28.79	0%
TEHAMA	56,911	$23.27	$23.27	0%	$23.77	$23.77	0%	$32.21	$32.21	0%	$31.55	$31.05	-2%	$29.29	$28.79	-2%
TRINITY	13,059	$23.27	$23.27	0%	$23.77	$23.77	0%	$32.21	$32.21	0%	$22.34	$31.05	39%	$28.79	$28.79	0%
TULARE	378,477	$13.36	$23.27	74%	$23.77	$23.77	0%	$27.10	$27.10	0%	$28.52	$28.52	0%	$28.79	$28.79	0%
TUOLUMNE	55,859	$23.27	$23.27	0%	$23.77	$23.77	0%	$29.17	$29.02	-1%	$28.18	$27.37	-3%	$29.29	$29.29	0%
VENTURA	778,423	$29.00	$29.00	0%	$29.00	$29.00	0%	$31.60	$32.60	3%	$27.28	$27.28	0%	$29.81	$29.81	0%
YOLO	176,280	$23.27	$23.27	0%	$23.77	$23.77	0%	$32.21	$32.21	0%	$31.55	$31.05	-2%	$30.97	$30.97	0%
YUBA	61,763	$23.27	$23.27	0%	$23.77	$23.77	0%	$32.21	$32.21	0%	$31.55	$31.05	-2%	$28.79	$28.79	0%
Simple Average:			**(58 counties)**	**3%**		**(58 counties)**	**3%**		**(58 counties)**	**7%**		**(58 counties)**	**1%**		**(58 counties)**	**6%**
Population Weighted Avg:			**(100.0% of Pop.)**	**2%**		**(100.0% of Pop.)**	**2%**		**(100.0% of Pop.)**	**1%**		**(100.0% of Pop.)**	**0%**		**(100.0% of Pop.)**	**1%**

Sources: see Appendix D.

Appendix F:

Table 2. Comparison of Davis-Bacon Commercial Prevailing Wage Rates with DIR Commercial Prevailing Wage Rates
(Includes Only Recent Davis-Bacon Rates, or Those Updated Since June 1, 1999)

		Carpenter			Drywall Installer			Electrician			HVAC/Sheet Metal Worker			Plumber		
County	Population	Davis-Bacon Commercial PW Rate	DIR Commercial PW Rate	Percent by which DIR rate is Greater	Davis-Bacon Commercial PW Rate	DIR Commercial PW Rate	Percent by which DIR rate is Greater	Davis-Bacon Commercial PW Rate	DIR Commercial PW Rate	Percent by which DIR rate is Greater	Davis-Bacon Commercial PW Rate	DIR Commercial PW Rate	Percent by which DIR rate is Greater	Davis-Bacon Commercial PW Rate	DIR Commercial PW Rate	Percent by which DIR rate is Greater
ALAMEDA	1,484,698	$29.75	$29.75	0%	$29.75	$29.75	0%	$37.00	$37.00	0%	$34.56	$36.59	6%	$35.51	$35.51	0%
ALPINE	1,210	$23.27	$23.27	0%	$23.77	$23.77	0%	$32.21	$32.21	0%	$27.37	$27.37	0%	$29.29	$29.29	0%
AMADOR	36,049	(Jul-85) N/A	$23.27	N/A	(Jul-85) N/A	$23.77	N/A	(Jul-85) N/A	$32.21	N/A	(Jul-85) N/A	$31.05	N/A	(Jul-85) N/A	$29.29	N/A
BUTTE	207,310	$23.27	$23.27	0%	$23.77	$23.77	0%	$32.21	$32.21	0%	$31.55	$31.05	-2%	$28.79	$28.79	0%
CALAVERAS	41,820	$23.27	$23.27	0%	$23.77	$23.77	0%	$28.19	$28.19	0%	$27.37	$27.37	0%	$29.29	$29.29	0%
COLUSA	19,341	$23.27	$23.27	0%	$23.77	$23.77	0%	$32.21	$32.21	0%	$31.55	$31.05	-2%	$28.79	$28.79	0%
CONTRA COSTA	980,870	$29.75	$29.75	0%	$29.75	$29.75	0%	$37.51	$37.51	0%	$34.56	$36.59	6%	$35.21	$35.21	0%
DEL NORTE	27,694	(Jun-86) N/A	$23.27	N/A	(Jun-86) N/A	$23.77	N/A	(Jun-86) N/A	$26.12	N/A	(Jun-86) N/A	$21.92	N/A	(Jun-86) N/A	$30.93	N/A
EL DORADO	163,649	$23.27	$23.27	0%	$23.77	$23.77	0%	$32.21	$32.21	0%	$31.55	$31.05	-2%	$25.45	$29.40	16%
FRESNO	827,310	$23.27	$23.27	0%	$23.77	$23.77	0%	$27.10	$27.10	0%	$28.52	$24.80	-13%	$28.79	$28.79	0%
GLENN	26,747	$23.27	$23.27	0%	$23.77	$23.77	0%	$32.21	$32.21	0%	$31.55	$31.05	-2%	$29.29	$28.79	-2%
HUMBOLDT	127,305	(Jun-86) N/A	$23.27	N/A	(Jun-86) N/A	$23.77	N/A	(Jun-86) N/A	$26.12	N/A	(Jun-86) N/A	$21.92	N/A	(Jun-86) N/A	$30.93	N/A
IMPERIAL	150,217	$29.00	$29.00	0%	$29.00	$29.00	0%	$30.21	$29.00	-4%	$25.90	$25.90	0%	$29.81	$29.81	0%
INYO	18,242	$28.43	$28.43	0%	$29.00	$29.00	0%	$35.25	$36.35	3%	$28.99	$24.76	-15%	$27.67	$28.17	2%
KERN	688,875	$28.43	$28.43	0%	$29.00	$29.00	0%	$29.34	$28.84	-2%	$27.09	$24.76	-9%	$25.34	$28.17	11%
KINGS	133,553	$23.27	$23.27	0%	$23.77	$23.77	0%	$27.10	$27.10	0%	$28.52	$24.80	-13%	$28.79	$28.79	0%
LAKE	60,519	(Jun-86) N/A	$23.27	N/A	(Jun-86) N/A	$23.77	N/A	(Jun-86) N/A	$32.13	N/A	(Jun-86) N/A	$38.05	N/A	(Jun-86) N/A	$41.00	N/A
LASSEN	34,237	$23.27	$23.27	0%	$23.77	$23.77	0%	$32.21	$32.21	0%	$31.55	$31.05	-2%	$29.29	$28.79	-2%
LOS ANGELES	9,817,419	$29.00	$29.00	0%	$29.00	$29.00	0%	$29.70	$30.45	3%	$29.40	$29.41	0%	$29.81	$29.81	0%
MADERA	130,373	$23.27	$23.27	0%	$23.77	$23.77	0%	$27.10	$27.10	0%	$28.52	$24.80	-13%	$28.79	$28.79	0%
MARIN	248,490	$29.75	$29.75	0%	$29.75	$29.75	0%	$32.13	$32.13	0%	$38.86	$38.05	-2%	$36.05	$41.00	14%
MARIPOSA	17,087	$23.27	$23.27	0%	$23.77	$23.77	0%	$29.17	$32.02	10%	$28.18	$17.57	-38%	$29.29	$29.29	0%
MENDOCINO	87,552	(Jun-86) N/A	$23.27	N/A	(Jun-86) N/A	$23.77	N/A	(Jun-86) N/A	$32.13	N/A	(Jun-86) N/A	$38.05	N/A	(Jun-86) N/A	$41.00	N/A
MERCED	219,554	$23.27	$23.27	0%	$23.77	$23.77	0%	$29.17	$29.02	-1%	$28.18	$28.18	0%	$29.29	$29.29	0%
MODOC	9,353	$23.27	$23.27	0%	$23.77	$23.77	0%	$26.26	$26.66	2%	$31.55	$31.05	-2%	$28.79	$28.79	0%
MONO	13,247	$28.43	$28.43	0%	$29.00	$29.00	0%	$35.25	$36.35	3%	$28.99	$24.76	-15%	$27.67	$28.17	2%
MONTEREY	409,608	$24.62	$24.62	0%	$24.62	$24.62	0%	$32.01	$33.01	3%	$31.41	$30.78	-2%	$31.89	$31.89	0%
NAPA	128,132	$29.75	$29.75	0%	$29.75	$29.75	0%	$30.65	$33.65	10%	$38.86	$38.05	-2%	$33.90	$33.90	0%
NEVADA	94,980	$23.27	$23.27	0%	$23.77	$23.77	0%	$32.21	$32.21	0%	$31.55	$31.05	-2%	$25.45	$29.40	16%

County	Population	Carpenter			Drywall Installer			Electrician			HVAC/Sheet Metal Worker			Plumber		
		Davis-Bacon Commercial PW Rate	DIR Commercial PW Rate	Percent by which DIR rate is Greater	Davis-Bacon Commercial PW Rate	DIR Commercial PW Rate	Percent by which DIR rate is Greater	Davis-Bacon Commercial PW Rate	DIR Commercial PW Rate	Percent by which DIR rate is Greater	Davis-Bacon Commercial PW Rate	DIR Commercial PW Rate	Percent by which DIR rate is Greater	Davis-Bacon Commercial PW Rate	DIR Commercial PW Rate	Percent by which DIR rate is Greater
ORANGE	2,930,488	$29.00	$29.00	0%	$29.00	$29.00	0%	$31.85	$31.10	-2%	$28.99	$29.41	1%	$29.81	$29.81	0%
PLACER	265,683	$23.27	$23.27	0%	$23.77	$23.77	0%	$32.21	$32.21	0%	$31.55	$31.05	-2%	$25.45	$29.40	16%
PLUMAS	20,964	$23.27	$23.27	0%	$23.77	$23.77	0%	$32.21	$32.21	0%	$31.55	$31.05	-2%	$28.79	$28.79	0%
RIVERSIDE	1,645,319	$29.00	$29.00	0%	$29.00	$29.00	0%	$29.23	$28.58	-2%	$29.41	$29.41	0%	$29.81	$29.81	0%
SACRAMENTO	1,280,920	$23.27	$23.27	0%	$23.77	$23.77	0%	$32.21	$32.21	0%	$31.55	$31.05	-2%	$30.97	$30.97	0%
SAN BENITO	55,618	$24.62	$24.62	0%	$24.62	$24.62	0%	$32.01	$33.01	3%	$31.41	$30.78	-2%	$45.51	$45.51	0%
SAN BERNARDINO	1,788,479	$29.00	$29.00	0%	$29.00	$29.00	0%	$28.25	$28.35	0%	$29.41	$30.60	4%	$31.46	$29.81	-5%
SAN DIEGO	2,908,505	$22.90	$24.60	7%	$18.55	$22.05	19%	$30.21	$29.00	-4%	$26.90	$25.90	-4%	$30.94	$29.81	-4%
SAN FRANCISCO	789,062	$29.75	$29.75	0%	$29.75	$29.75	0%	$45.55	$45.55	0%	$37.09	$37.05	0%	$41.00	$41.00	0%
SAN JOAQUIN	596,907	$23.27	$23.27	0%	$23.77	$23.77	0%	$28.19	$28.19	0%	$27.37	$27.37	0%	$29.29	$29.29	0%
SAN LUIS OBISPO	253,043	$29.00	$29.00	0%	$29.00	$29.00	0%	$27.25	$27.25	0%	$27.28	$27.28	0%	$29.81	$29.81	0%
SAN MATEO	714,414	$29.75	$29.75	0%	$29.75	$29.75	0%	$42.37	$42.37	0%	$36.83	$37.74	2%	$40.65	$39.40	-3%
SANTA BARBARA	406,176	$29.00	$29.00	0%	$29.00	$29.00	0%	$30.83	$30.81	0%	$27.28	$27.28	0%	$30.49	$29.81	-2%
SANTA CLARA	1,716,755	$29.75	$29.75	0%	$29.75	$29.75	0%	$42.57	$42.57	0%	$37.65	$37.94	1%	$45.51	$45.51	0%
SANTA CRUZ	258,398	$24.62	$24.62	0%	$24.62	$24.62	0%	$32.01	$33.01	3%	$32.95	$32.32	-2%	$31.89	$31.89	0%
SHASTA	169,277	$23.27	$23.27	0%	$23.77	$23.77	0%	$32.21	$32.21	0%	$31.55	$31.05	-2%	$28.79	$28.79	0%
SIERRA	3,522	$23.27	$23.27	0%	$23.77	$23.77	0%	$32.21	$32.21	0%	$31.55	$31.05	-2%	$28.79	$28.79	0%
SISKIYOU	44,329	$23.27	$23.27	0%	$23.77	$23.77	0%	$26.26	$26.66	2%	$31.55	$31.05	-2%	$28.79	$28.79	0%
SOLANO	405,642	$29.75	$29.75	0%	$29.75	$29.75	0%	$30.65	$33.65	10%	$38.86	$38.05	-2%	$33.90	$33.90	0%
SONOMA	468,583	$29.75	$29.75	0%	$29.75	$29.75	0%	$32.13	$32.13	0%	$38.86	$38.05	-2%	$36.05	$41.00	14%
STANISLAUS	469,969	$23.27	$23.27	0%	$23.77	$23.77	0%	$29.17	$29.02	-1%	$28.18	$28.18	0%	$29.29	$29.29	0%
SUTTER	81,561	$23.27	$23.27	0%	$23.77	$23.77	0%	$32.21	$32.21	0%	$31.55	$31.05	-2%	$28.79	$28.79	0%
TEHAMA	56,911	$23.27	$23.27	0%	$23.77	$23.77	0%	$32.21	$32.21	0%	$31.55	$31.05	-2%	$29.29	$28.79	-2%
TRINITY	13,059	$23.27	$23.27	0%	$23.77	$23.77	0%	$32.21	$32.21	0%	$22.34	$31.05	39%	$28.79	$28.79	0%
TULARE	378,477	(Oct-84) N/A	$23.27	N/A	$23.77	$23.77	0%	$27.10	$27.10	0%	$28.52	$28.52	0%	$28.79	$28.79	0%
TUOLUMNE	55,859	$23.27	$23.27	0%	$23.77	$23.77	0%	$29.17	$29.02	-1%	$28.18	$27.37	-3%	$29.29	$29.29	0%
VENTURA	778,423	$29.00	$29.00	0%	$29.00	$29.00	0%	$31.60	$32.60	3%	$27.28	$27.28	0%	$29.81	$29.81	0%
YOLO	176,280	$23.27	$23.27	0%	$23.77	$23.77	0%	$32.21	$32.21	0%	$31.55	$31.05	-2%	$30.97	$30.97	0%
YUBA	61,763	$23.27	$23.27	0%	$23.77	$23.77	0%	$32.21	$32.21	0%	$31.55	$31.05	-2%	$28.79	$28.79	0%
Simple Average:			**(52 counties)**	**0%**		**(53 counties)**	**0%**		**(53 counties)**	**1%**		**(53 counties)**	**-2%**		**(53 counties)**	**1%**
Population Weighted Avg:			**(97.9% of Pop.)**	**1%**		**(99.0% of Pop.)**	**2%**		**(99.0% of Pop.)**	**0%**		**(99.0% of Pop.)**	**0%**		**(99.0% of Pop.)**	**0%**

Sources: see Appendix D. Also, the filtered Davis-Bacon data above is denoted with an "N/A" and the date on which the data series were last updated.

Appendix G:

Table 1. Comparison of Davis-Bacon Commercial Prevailing Wage Rates with Davis-Bacon Residential Prevailing Wage Rates
(Includes all Available Davis-Bacon Rates Regardless of Date of Last Update)

		Carpenter			Drywall Installer			Electrician			HVAC/Sheet Metal Worker			Plumber		
County	Population	Davis-Bacon Residential PW Rate	Davis-Bacon Commercial PW Rate	Pct by which Commercial Rate is Greater	Davis-Bacon Residential PW Rate	Davis-Bacon Commercial PW Rate	Pct by which Commercial Rate is Greater	Davis-Bacon Residential PW Rate	Davis-Bacon Commercial PW Rate	Pct by which Commercial Rate is Greater	Davis-Bacon Residential PW Rate	Davis-Bacon Commercial PW Rate	Pct by which Commercial Rate is Greater	Davis-Bacon Residential PW Rate	Davis-Bacon Commercial PW Rate	Pct by which Commercial Rate is Greater
ALAMEDA	1,484,698	$28.40	$29.75	5%	$29.00	$29.75	3%	$31.94	$37.00	16%	$30.83	$34.56	12%	$35.51	$35.51	0%
ALPINE	1,210	$13.00	$23.27	79%	N/A	$23.77	N/A	$12.67	$32.21	154%	N/A	$27.37	N/A	$10.25	$29.29	186%
AMADOR	36,049	$18.58	$18.58	0%	$18.14	$18.14	0%	$16.30	$16.30	0%	$18.37	$18.37	0%	$20.88	$20.88	0%
BUTTE	207,310	$9.63	$23.27	142%	$9.77	$23.77	143%	$9.00	$32.21	258%	$13.68	$31.55	131%	$14.00	$28.79	106%
CALAVERAS	41,820	$22.17	$23.27	5%	$23.52	$23.77	1%	$28.19	$28.19	0%	$20.53	$27.37	33%	$31.59	$29.29	-7%
COLUSA	19,341	$11.30	$23.27	106%	$16.33	$23.77	46%	$9.89	$32.21	226%	N/A	$31.55	N/A	N/A	$28.79	N/A
CONTRA COSTA	980,870	$28.40	$29.75	5%	$29.00	$29.75	3%	$35.01	$37.51	7%	$30.83	$34.56	12%	$27.41	$35.21	28%
DEL NORTE	27,694	$19.08	$19.08	0%	$19.08	$19.08	0%	$17.41	$17.41	0%	$18.65	$18.65	0%	$16.47	$16.47	0%
EL DORADO	163,649	$22.17	$23.27	5%	$23.52	$23.77	1%	$26.16	$32.21	23%	$28.99	$31.55	9%	$19.04	$25.45	34%
FRESNO	827,310	$21.24	$23.27	10%	$15.00	$23.77	58%	$17.80	$27.10	52%	N/A	$28.52	N/A	$11.50	$28.79	150%
GLENN	26,747	$11.30	$23.27	106%	$16.33	$23.77	46%	$9.89	$32.21	226%	N/A	$31.55	N/A	N/A	$29.29	N/A
HUMBOLDT	127,305	$19.08	$19.08	0%	$19.08	$19.08	0%	$17.41	$17.41	0%	N/A	$18.65	N/A	$16.47	$16.47	0%
IMPERIAL	150,217	$18.79	$29.00	54%	$19.00	$29.00	53%	$19.41	$30.21	56%	$25.41	$25.90	2%	$24.31	$29.81	23%
INYO	18,242	$13.00	$28.43	119%	$15.00	$29.00	93%	$12.67	$35.25	178%	N/A	$28.99	N/A	$10.00	$27.67	177%
KERN	688,875	$21.24	$28.43	34%	$15.00	$29.00	93%	$29.34	$29.34	0%	N/A	$27.09	N/A	$25.34	$25.34	0%
KINGS	133,553	$6.38	$23.27	265%	N/A	$23.77	N/A	$7.73	$27.10	251%	$9.00	$28.52	217%	$8.25	$28.79	249%
LAKE	60,519	$7.76	$19.08	146%	$7.47	$19.08	155%	$7.47	$17.41	133%	$6.32	$27.17	330%	$7.47	$29.84	299%
LASSEN	34,237	$9.86	$23.27	136%	N/A	$23.77	N/A	$6.68	$32.21	382%	$7.76	$31.55	307%	$9.00	$29.29	225%
LOS ANGELES	9,817,419	$18.79	$29.00	54%	$19.00	$29.00	53%	$16.15	$29.70	84%	$26.58	$29.40	11%	$24.31	$29.81	23%
MADERA	130,373	$21.24	$23.27	10%	$15.00	$23.77	58%	$17.80	$27.10	52%	N/A	$28.52	N/A	$11.50	$28.79	150%
MARIN	248,490	$28.40	$29.75	5%	$29.00	$29.75	3%	$20.95	$32.13	53%	$31.30	$38.86	24%	$27.38	$36.05	32%
MARIPOSA	17,087	$22.17	$23.27	5%	$23.52	$23.77	1%	$19.00	$29.17	54%	$28.18	$28.18	0%	$31.59	$29.29	-7%
MENDOCINO	87,552	$7.76	$19.08	146%	$7.47	$19.08	155%	$7.47	$17.41	133%	$6.32	$27.17	330%	$7.47	$29.84	299%
MERCED	219,554	$21.24	$23.27	10%	$15.00	$23.77	58%	$23.26	$29.17	25%	N/A	$28.18	N/A	$11.50	$29.29	155%
MODOC	9,353	$9.86	$23.27	136%	N/A	$23.77	N/A	$6.68	$26.26	293%	$7.76	$31.55	307%	$9.00	$28.79	220%
MONO	13,247	$13.00	$28.43	119%	$15.00	$29.00	93%	$12.67	$35.25	178%	N/A	$28.99	N/A	$10.00	$27.67	177%
MONTEREY	409,608	$23.52	$24.62	5%	N/A	$24.62	N/A	$17.42	$32.01	84%	$31.41	$31.41	0%	$31.59	$31.89	1%
NAPA	128,132	$28.40	$29.75	5%	$29.00	$29.75	3%	$18.50	$30.65	66%	$31.30	$38.86	24%	$29.90	$33.90	13%
NEVADA	94,980	$22.17	$23.27	5%	$23.52	$23.77	1%	$26.16	$32.21	23%	$28.99	$31.55	9%	$19.04	$25.45	34%

Table 1 Continued

County	Population	Carpenter			Drywall Installer			Electrician			HVAC/Sheet Metal Worker			Plumber		
		Davis-Bacon Residential PW Rate	Davis-Bacon Commercial PW Rate	Pct by which Commercial Rate is Greater	Davis-Bacon Residential PW Rate	Davis-Bacon Commercial PW Rate	Pct by which Commercial Rate is Greater	Davis-Bacon Residential PW Rate	Davis-Bacon Commercial PW Rate	Pct by which Commercial Rate is Greater	Davis-Bacon Residential PW Rate	Davis-Bacon Commercial PW Rate	Pct by which Commercial Rate is Greater	Davis-Bacon Residential PW Rate	Davis-Bacon Commercial PW Rate	Pct by which Commercial Rate is Greater
ORANGE	2,930,488	$18.79	$29.00	54%	$19.00	$29.00	53%	$20.00	$31.85	59%	$26.58	$28.99	9%	$24.31	$29.81	23%
PLACER	265,683	$22.17	$23.27	5%	$23.52	$23.77	1%	$26.16	$32.21	23%	$28.99	$31.55	9%	$19.04	$25.45	34%
PLUMAS	20,964	$11.57	$23.27	101%	N/A	$23.77	N/A	$9.00	$32.21	258%	N/A	$31.55	N/A	$14.00	$28.79	106%
RIVERSIDE	1,645,319	$18.79	$29.00	54%	$19.00	$29.00	53%	$17.00	$29.23	72%	$26.58	$29.41	11%	$24.31	$29.81	23%
SACRAMENTO	1,280,920	$22.17	$23.27	5%	$23.52	$23.77	1%	$26.16	$32.21	23%	$28.99	$31.55	9%	$21.43	$30.97	45%
SAN BENITO	55,618	$23.52	$24.62	5%	N/A	$24.62	N/A	$17.42	$32.01	84%	$31.41	$31.41	0%	$25.87	$45.51	76%
SAN BERNARDINO	1,788,479	$18.79	$29.00	54%	$19.00	$29.00	53%	$23.11	$28.25	22%	$26.58	$29.41	11%	$24.31	$31.46	29%
SAN DIEGO	2,908,505	$18.32	$22.90	25%	$19.00	$18.55	-2%	$23.61	$30.21	28%	$17.83	$26.90	51%	$24.31	$30.94	27%
SAN FRANCISCO	789,062	$28.40	$29.75	5%	$29.00	$29.75	3%	$36.44	$45.55	25%	$33.94	$37.09	9%	$27.38	$41.00	50%
SAN JOAQUIN	596,907	$21.24	$23.27	10%	$15.00	$23.77	58%	$28.19	$28.19	0%	N/A	$27.37	N/A	$11.50	$29.29	155%
SAN LUIS OBISPO	253,043	$18.79	$29.00	54%	$19.00	$29.00	53%	$17.60	$27.25	55%	$27.28	$27.28	0%	$24.31	$29.81	23%
SAN MATEO	714,414	$28.40	$29.75	5%	$29.00	$29.75	3%	$42.37	$42.37	0%	$33.14	$36.83	11%	$40.65	$40.65	0%
SANTA BARBARA	406,176	$18.79	$29.00	54%	$19.00	$29.00	53%	$19.49	$30.83	58%	$27.28	$27.28	0%	$24.31	$30.49	25%
SANTA CLARA	1,716,755	$28.40	$29.75	5%	$29.00	$29.75	3%	$23.49	$42.57	81%	$34.12	$37.65	10%	$25.87	$45.51	76%
SANTA CRUZ	258,398	$23.52	$24.62	5%	N/A	$24.62	N/A	$17.42	$32.01	84%	$32.95	$32.95	0%	$31.59	$31.89	1%
SHASTA	169,277	$9.91	$23.27	135%	N/A	$23.77	N/A	$11.00	$32.21	193%	$9.11	$31.55	246%	$10.00	$28.79	188%
SIERRA	3,522	$8.50	$23.27	174%	$12.00	$23.77	98%	$10.00	$32.21	222%	$9.00	$31.55	251%	$7.00	$28.79	311%
SISKIYOU	44,329	$9.91	$23.27	135%	N/A	$23.77	N/A	$11.00	$26.26	139%	$9.11	$31.55	246%	$10.00	$28.79	188%
SOLANO	405,642	$28.40	$29.75	5%	$29.00	$29.75	3%	$18.50	$30.65	66%	$31.30	$38.86	24%	$29.90	$33.90	13%
SONOMA	468,583	$28.40	$29.75	5%	$29.00	$29.75	3%	$20.95	$32.13	53%	$31.30	$38.86	24%	$27.38	$36.05	32%
STANISLAUS	469,969	$21.24	$23.27	10%	$15.00	$23.77	58%	$23.26	$29.17	25%	N/A	$28.18	N/A	$11.50	$29.29	155%
SUTTER	81,561	$22.17	$23.27	5%	$23.52	$23.77	1%	$26.16	$32.21	23%	$28.99	$31.55	9%	$31.59	$28.79	-9%
TEHAMA	56,911	$8.56	$23.27	172%	N/A	$23.77	N/A	$10.12	$32.21	218%	N/A	$31.55	N/A	$9.67	$29.29	203%
TRINITY	13,059	$8.56	$23.27	172%	N/A	$23.77	N/A	$10.12	$32.21	218%	N/A	$22.34	N/A	$9.67	$28.79	198%
TULARE	378,477	$21.24	$13.36	-37%	$15.00	$23.77	58%	$17.80	$27.10	52%	N/A	$28.52	N/A	$11.50	$28.79	150%
TUOLUMNE	55,859	$22.17	$23.27	5%	$23.52	$23.77	1%	$19.00	$29.17	54%	$28.18	$28.18	0%	$31.59	$29.29	-7%
VENTURA	778,423	$18.79	$29.00	54%	$19.00	$29.00	53%	$31.60	$31.60	0%	$27.28	$27.28	0%	$24.31	$29.81	23%
YOLO	176,280	$22.17	$23.27	5%	$23.52	$23.77	1%	$26.16	$32.21	23%	$28.99	$31.55	9%	$21.43	$30.97	45%
YUBA	61,763	$22.17	$23.27	5%	$23.52	$23.77	1%	$26.16	$32.21	23%	$28.99	$31.55	9%	$31.59	$28.79	-9%
Simple Average:			**(58 counties)**	**52%**		**(46 counties)**	**38%**		**(58 counties)**	**89%**		**(42 counties)**	**64%**		**(56 counties)**	**85%**
Population Weighted Avg:			**(100.0% of Pop.)**	**36%**		**(96.6% of Pop.)**	**36%**		**(100.0% of Pop.)**	**56%**		**(89.7% of Pop.)**	**19%**		**(99.9% of Pop.)**	**39%**

Sources: see Appendix D.

Appendix G:

Table 2. Comparison of Davis-Bacon Commercial Prevailing Wage Rates with Davis-Bacon Residential Prevailing Wage Rates (Includes Only Recent Davis-Bacon Rates, or Those Updated Since June 1, 1999)

		Carpenter			Drywall Installer			Electrician			HVAC/Sheet Metal Worker			Plumber		
County	Population	Davis-Bacon Residential PW Rate	Davis-Bacon Commercial PW Rate	Pct by which Commercial Rate is Greater	Davis-Bacon Residential PW Rate	Davis-Bacon Commercial PW Rate	Pct by which Commercial Rate is Greater	Davis-Bacon Residential PW Rate	Davis-Bacon Commercial PW Rate	Pct by which Commercial Rate is Greater	Davis-Bacon Residential PW Rate	Davis-Bacon Commercial PW Rate	Pct by which Commercial Rate is Greater	Davis-Bacon Residential PW Rate	Davis-Bacon Commercial PW Rate	Pct by which Commercial Rate is Greater
ALAMEDA	1,484,698	$28.40	$29.75	5%	$29.00	$29.75	3%	$31.94	$37.00	16%	$30.83	$34.56	12%	$35.51	$35.51	0%
ALPINE	1,210	(Jul-80) N/A	$23.27	N/A	N/A	$23.77	N/A	(Jul-80) N/A	$32.21	N/A	N/A	$27.37	N/A	(Jul-80) N/A	$29.29	N/A
AMADOR	36,049	(Jul-85) N/A	(Jul-85) N/A	N/A	(Jul-85) N/A	(Jul-85) N/A	N/A	(Jul-85) N/A	(Jul-85) N/A	N/A	(Jul-85) N/A	(Jul-85) N/A	N/A	(Jan-97) N/A	(Jul-85) N/A	N/A
BUTTE	207,310	(Jan-88) N/A	$23.27	N/A	(Jan-88) N/A	$23.77	N/A	(Jan-88) N/A	$32.21	N/A	(Jan-88) N/A	$31.55	N/A	(Jan-88) N/A	$28.79	N/A
CALAVERAS	41,820	$22.17	$23.27	5%	$23.52	$23.77	1%	$28.19	$28.19	0%	$20.53	$27.37	33%	$31.59	$29.29	-7%
COLUSA	19,341	(Jan-82) N/A	$23.27	N/A	(Jan-82) N/A	$23.77	N/A	(Jan-82) N/A	$32.21	N/A	N/A	$31.55	N/A	N/A	$28.79	N/A
CONTRA COSTA	980,870	$28.40	$29.75	5%	$29.00	$29.75	3%	$35.01	$37.51	7%	$30.83	$34.56	12%	$27.41	$35.21	28%
DEL NORTE	27,694	(Jun-86) N/A	(Jun-86) N/A	N/A	(Jun-86) N/A	(Jun-86) N/A	N/A	(Jun-86) N/A	(Jun-86) N/A	N/A	(Jun-86) N/A	(Jun-86) N/A	N/A	(Jun-86) N/A	(Jun-86) N/A	N/A
EL DORADO	163,649	$22.17	$23.27	5%	$23.52	$23.77	1%	$26.16	$32.21	23%	$28.99	$31.55	9%	$19.04	$25.45	34%
FRESNO	827,310	$21.24	$23.27	10%	$15.00	$23.77	58%	(Jun-98) N/A	$27.10	N/A	N/A	$28.52	N/A	$11.50	$28.79	150%
GLENN	26,747	(Jan-82) N/A	$23.27	N/A	(Jan-82) N/A	$23.77	N/A	(Jan-82) N/A	$32.21	N/A	N/A	$31.55	N/A	N/A	$29.29	N/A
HUMBOLDT	127,305	(Jun-86) N/A	(Jun-86) N/A	N/A	(Jun-86) N/A	(Jun-86) N/A	N/A	(Jun-86) N/A	(Jun-86) N/A	N/A	N/A	(Jun-86) N/A	N/A	(Jun-86) N/A	(Jun-86) N/A	N/A
IMPERIAL	150,217	$18.79	$29.00	54%	$19.00	$29.00	53%	$19.41	$30.21	56%	$25.41	$25.90	2%	$24.31	$29.81	23%
INYO	18,242	(Sep-82) N/A	$28.43	N/A	(Sep-82) N/A	$29.00	N/A	(Sep-82) N/A	$35.25	N/A	N/A	$28.99	N/A	(Sep-82) N/A	$27.67	N/A
KERN	688,875	$21.24	$28.43	34%	$15.00	$29.00	93%	$29.34	$29.34	0%	N/A	$27.09	N/A	$25.34	$25.34	0%
KINGS	133,553	(Nov-82) N/A	$23.27	N/A	N/A	$23.77	N/A	(Nov-82) N/A	$27.10	N/A	(Nov-82) N/A	$28.52	N/A	(Nov-82) N/A	$28.79	N/A
LAKE	60,519	(Jan-78) N/A	(Jun-86) N/A	N/A	(Jan-78) N/A	(Jun-86) N/A	N/A	(Jan-78) N/A	(Jun-86) N/A	N/A	(Jan-78) N/A	(Jun-86) N/A	N/A	(Jan-78) N/A	(Jun-86) N/A	N/A
LASSEN	34,237	(Apr-86) N/A	$23.27	N/A	N/A	$23.77	N/A	(Apr-86) N/A	$32.21	N/A	(Apr-86) N/A	$31.55	N/A	(Apr-86) N/A	$29.29	N/A
LOS ANGELES	9,817,419	$18.79	$29.00	54%	$19.00	$29.00	53%	$16.15	$29.70	84%	$26.58	$29.40	11%	$24.31	$29.81	23%
MADERA	130,373	$21.24	$23.27	10%	$15.00	$23.77	58%	(Jun-98) N/A	$27.10	N/A	N/A	$28.52	N/A	$11.50	$28.79	150%
MARIN	248,490	$28.40	$29.75	5%	$29.00	$29.75	3%	$20.95	$32.13	53%	$31.30	$38.86	24%	$27.38	$36.05	32%
MARIPOSA	17,087	$22.17	$23.27	5%	$23.52	$23.77	1%	$19.00	$29.17	54%	$28.18	$28.18	0%	$31.59	$29.29	-7%
MENDOCINO	87,552	(Jan-78) N/A	(Jun-86) N/A	N/A	(Jan-78) N/A	(Jun-86) N/A	N/A	(Jan-78) N/A	(Jun-86) N/A	N/A	(Jan-78) N/A	(Jun-86) N/A	N/A	(Jan-78) N/A	(Jun-86) N/A	N/A
MERCED	219,554	$21.24	$23.27	10%	$15.00	$23.77	58%	$23.26	$29.17	25%	N/A	$28.18	N/A	$11.50	$29.29	155%
MODOC	9,353	(Apr-86) N/A	$23.27	N/A	N/A	$23.77	N/A	(Apr-86) N/A	$26.26	N/A	(Apr-86) N/A	$31.55	N/A	(Apr-86) N/A	$28.79	N/A
MONO	13,247	(Sep-82) N/A	$28.43	N/A	(Sep-82) N/A	$29.00	N/A	(Sep-82) N/A	$35.25	N/A	N/A	$28.99	N/A	(Sep-82) N/A	$27.67	N/A
MONTEREY	409,608	$23.52	$24.62	5%	N/A	$24.62	N/A	$17.42	$32.01	84%	$31.41	$31.41	0%	$31.59	$31.89	1%
NAPA	128,132	$28.40	$29.75	5%	$29.00	$29.75	3%	$18.50	$30.65	66%	$31.30	$38.86	24%	$29.90	$33.90	13%
NEVADA	94,980	$22.17	$23.27	5%	$23.52	$23.77	1%	$26.16	$32.21	23%	$28.99	$31.55	9%	$19.04	$25.45	34%

Table 2 Continued

County	Population	Carpenter			Drywall Installer			Electrician			HVAC/Sheet Metal Worker			Plumber		
		Davis-Bacon Residential PW Rate	Davis-Bacon Commercial PW Rate	Pct by which Commercial Rate is Greater	Davis-Bacon Residential PW Rate	Davis-Bacon Commercial PW Rate	Pct by which Commercial Rate is Greater	Davis-Bacon Residential PW Rate	Davis-Bacon Commercial PW Rate	Pct by which Commercial Rate is Greater	Davis-Bacon Residential PW Rate	Davis-Bacon Commercial PW Rate	Pct by which Commercial Rate is Greater	Davis-Bacon Residential PW Rate	Davis-Bacon Commercial PW Rate	Pct by which Commercial Rate is Greater
ORANGE	2,930,488	$18.79	$29.00	54%	$19.00	$29.00	53%	$20.00	$31.85	59%	$26.58	$28.99	9%	$24.31	$29.81	23%
PLACER	265,683	$22.17	$23.27	5%	$23.52	$23.77	1%	$26.16	$32.21	23%	$28.99	$31.55	9%	$19.04	$25.45	34%
PLUMAS	20,964	(Apr-86) N/A	$23.27	N/A	N/A	$23.77	N/A	(Apr-86) N/A	$32.21	N/A	N/A	$31.55	N/A	(Apr-86) N/A	$28.79	N/A
RIVERSIDE	1,645,319	$18.79	$29.00	54%	$19.00	$29.00	53%	$17.00	$29.23	72%	$26.58	$29.41	11%	$24.31	$29.81	23%
SACRAMENTO	1,280,920	$22.17	$23.27	5%	$23.52	$23.77	1%	$26.16	$32.21	23%	$28.99	$31.55	9%	$21.43	$30.97	45%
SAN BENITO	55,618	$23.52	$24.62	5%	N/A	$24.62	N/A	$17.42	$32.01	84%	$31.41	$31.41	0%	$25.87	$45.51	76%
SAN BERNARDINO	1,788,479	$18.79	$29.00	54%	$19.00	$29.00	53%	(Jun-98) N/A	$28.25	N/A	$26.58	$29.41	11%	$24.31	$31.46	29%
SAN DIEGO	2,908,505	$18.32	$22.90	25%	$19.00	$18.55	-2%	$23.61	$30.21	28%	$17.83	$26.90	51%	$24.31	$30.94	27%
SAN FRANCISCO	789,062	$28.40	$29.75	5%	$29.00	$29.75	3%	$36.44	$45.55	25%	$33.94	$37.09	9%	$27.38	$41.00	50%
SAN JOAQUIN	596,907	$21.24	$23.27	10%	$15.00	$23.77	58%	$28.19	$28.19	0%	N/A	$27.37	N/A	$11.50	$29.29	155%
SAN LUIS OBISPO	253,043	$18.79	$29.00	54%	$19.00	$29.00	53%	$17.60	$27.25	55%	$27.28	$27.28	0%	$24.31	$29.81	23%
SAN MATEO	714,414	$28.40	$29.75	5%	$29.00	$29.75	3%	$42.37	$42.37	0%	$33.14	$36.83	11%	$40.65	$40.65	0%
SANTA BARBARA	406,176	$18.79	$29.00	54%	$19.00	$29.00	53%	$19.49	$30.83	58%	$27.28	$27.28	0%	$24.31	$30.49	25%
SANTA CLARA	1,716,755	$28.40	$29.75	5%	$29.00	$29.75	3%	$23.49	$42.57	81%	$34.12	$37.65	10%	$25.87	$45.51	76%
SANTA CRUZ	258,398	$23.52	$24.62	5%	N/A	$24.62	N/A	$17.42	$32.01	84%	$32.95	$32.95	0%	$31.59	$31.89	1%
SHASTA	169,277	(Mar-86) N/A	$23.27	N/A	N/A	$23.77	N/A	(Mar-86) N/A	$32.21	N/A	(Mar-86) N/A	$31.55	N/A	(Mar-86) N/A	$28.79	N/A
SIERRA	3,522	(Jan-82) N/A	$23.27	N/A	(Jan-82) N/A	$23.77	N/A	(Jan-82) N/A	$32.21	N/A	(Jan-82) N/A	$31.55	N/A	(Jan-82) N/A	$28.79	N/A
SISKIYOU	44,329	(Mar-86) N/A	$23.27	N/A	N/A	$23.77	N/A	(Mar-86) N/A	$26.26	N/A	(Mar-86) N/A	$31.55	N/A	(Mar-86) N/A	$28.79	N/A
SOLANO	405,642	$28.40	$29.75	5%	$29.00	$29.75	3%	$18.50	$30.65	66%	$31.30	$38.86	24%	$29.90	$33.90	13%
SONOMA	468,583	$28.40	$29.75	5%	$29.00	$29.75	3%	$20.95	$32.13	53%	$31.30	$38.86	24%	$27.38	$36.05	32%
STANISLAUS	469,969	$21.24	$23.27	10%	$15.00	$23.77	58%	$23.26	$29.17	25%	N/A	$28.18	N/A	$11.50	$29.29	155%
SUTTER	81,561	$22.17	$23.27	5%	$23.52	$23.77	1%	$26.16	$32.21	23%	$28.99	$31.55	9%	$31.59	$28.79	-9%
TEHAMA	56,911	(Apr-86) N/A	$23.27	N/A	N/A	$23.77	N/A	(Apr-86) N/A	$32.21	N/A	N/A	$31.55	N/A	(Apr-86) N/A	$29.29	N/A
TRINITY	13,059	(Apr-86) N/A	$23.27	N/A	N/A	$23.77	N/A	(Apr-86) N/A	$32.21	N/A	N/A	$22.34	N/A	(Apr-86) N/A	$28.79	N/A
TULARE	378,477	$21.24	(Oct-84) N/A	N/A	$15.00	$23.77	58%	(Jun-98) N/A	$27.10	N/A	N/A	$28.52	N/A	$11.50	$28.79	150%
TUOLUMNE	55,859	$22.17	$23.27	5%	$23.52	$23.77	1%	$19.00	$29.17	54%	$28.18	$28.18	0%	$31.59	$29.29	-7%
VENTURA	778,423	$18.79	$29.00	54%	$19.00	$29.00	53%	$31.60	$31.60	0%	$27.28	$27.28	0%	$24.31	$29.81	23%
YOLO	176,280	$22.17	$23.27	5%	$23.52	$23.77	1%	$26.16	$32.21	23%	$28.99	$31.55	9%	$21.43	$30.97	45%
YUBA	61,763	$22.17	$23.27	5%	$23.52	$23.77	1%	$26.16	$32.21	23%	$28.99	$31.55	9%	$31.59	$28.79	-9%
Simple Average:			**(37 counties)**	**18%**		**(35 counties)**	**26%**		**(34 counties)**	**40%**		**(31 counties)**	**11%**		**(38 counties)**	**42%**
Population Weighted Avg:			**(95.7% of Pop.)**	**34%**		**(94.8% of Pop.)**	**35%**		**(87.9% of Pop.)**	**53%**		**(87.4% of Pop.)**	**14%**		**(96.8% of Pop.)**	**36%**

Sources: see Appendix D. Also, the filtered Davis-Bacon data above is denoted with an "N/A" and the date on which the data series were last updated.

Appendix H: Regression Analysis Methods

In order to isolate the impact of the prevailing wage requirement on project cost, we needed to control for all factors that may influence costs for residential construction projects. To do this we used a series of regression models and controlled for such relevant factors as regional variation in construction costs, economies of scale associated with building larger projects, and specific characteristics of the buildings themselves. The approach we followed closely resembled the methodology of the Dunn, et.al. study. Our analysis, however, is based on a substantially larger sample of projects and incorporates several refinements to the earlier methodology.

Data Sources for Regression Analysis

Our dataset consists of newly constructed multi-family housing projects that received federal Low-Income Housing Tax Credits (LIHTC) from the California Tax Credit Allocation Committee (TCAC).[32] Information was collected on projects with applications filed after January 1, 1997, and which were placed in service before December 31, 2003.

Only rental housing projects are eligible to compete for the limited number of federal and state low-income housing tax credits allocated by TCAC. All projects must use one of two federal set-aside requirements; either 40 percent of units reserved for households earning 60 percent or less of the area median income or 20 percent of units reserved for households earning 50 percent or less of the area median income. Often projects reserve a greater number of units for low-income tenants, as it makes the project

[32] Many projects also received state tax credits.

more competitive in obtaining tax credits (only the affordable housing units are eligible for tax credits). Low-income units must remain so for fifteen years under federal law.

From the TCAC database covering the application years of 1997-2003, we obtained a list of 375 new construction projects that had been placed in service as of December 31, 2003. Data were collected for 365 projects; the remaining projects were either missing relevant portions of their application file, were rehabilitation projects mislabeled as new construction projects, or were in use by TCAC staff and thus unavailable. The final dataset includes information from the TCAC electronic database, from TCAC paper files, and from telephone interviews. The telephone interviews were used to determine whether or not prevailing wages had been paid during project construction; cost measures and other variables were collected from the electronic and paper files. A construction cost index from the Engineering News Record (sponsored by McGraw-Hill Construction) was used to deflate the cost measures to 1997 levels.

Two cost variables were used in our analysis. “Construction Cost” includes site preparation, materials and labor, overhead and profits for the contractor, and general requirements. “Total Project Cost” is a broader cost measure, including all costs related to the development and construction of the residential portion of a project, including site preparation and land, architect and engineering costs, financing, and other costs, as well as construction costs.

We employed two methods to test for the impact of the prevailing wage requirements on project costs. In the first, we included a simple dummy variable indicating whether or not prevailing wages were paid. Analysis of this variable indicates the overall cost increase resulting from prevailing wage requirements.

In the second, we constructed a new variable to estimate the percent difference between the market wage rates and the prevailing wage rates, based on our wage differential analysis. We took the average difference between market and prevailing wages (collected from the EDD and the DIR) for the five construction trades analyzed, and matched those average wage differentials to projects by county. For prevailing wage projects we assigned this variable to the value of the wage differential for that county, and for non prevailing wage projects we assigned this variable to zero. Thus, this variable was used to approximate the percent by which the wages paid on a particular project were above the market wage rate in that area, assuming that prevailing wage projects paid the higher prevailing wage rates and non prevailing wage projects paid the local market rates for construction labor. Analysis of this variable allows us to estimate the likely impact on total project costs stemming from a specified increase in wage rates. This measure was then used to estimate likely region-by-region cost increases stemming from implementation of prevailing wage requirements.

We collected data on several variables to help explain variations in construction costs and total project costs. These measures included characteristics of the projects such as the inclusion of elevators, below-structure parking or special facilities, the type of structure, location, number of units, density, and affordability. We grouped projects into one of nine geographical areas to ascertain regional cost differentials. Our study included dummy variables for the years 1997 to 2002 in order to account for year-specific factors that may influence construction or project costs. A complete list of variables is included in Table 1.

Table 1: Variable Descriptions and Summary Statistics

Variable Name	Description	Mean	StDev
PW_Project	One if prevailing wages were paid as a result of federal, state or local requirements, else 0	0.233	0.423
TotUnits	Number of units in project	85.566	58.149
UnitsPerAcre	Number of units per acre	34.328	41.487
SqFeet	Total interior square footage	80,003	55,103
ParkingBelow	One if project contains parking beneath the structure, else 0	0.207	0.406
Bldg3Stories	One if project contains buildings with three or more stories, else 0	0.141	0.349
Elevator	One if project contains at least one elevator, else 0	0.356	0.480
ThreeBedrooms	One if 50 percent or more units have 3 or more bedrooms, else 0	0.403	0.491
SpecialNeeds	One if project contains special needs facilities, else 0	0.039	0.193
Island	One if project is on an island, else 0	0.003	0.052
Bond	One if project is eligible for tax-exempt bond finance	0.408	0.492
Affordability	Fraction of units in project that meet affordability guidelines	0.928	0.156
EnvMitigation	One if project required substantial environmental mitigation, else 0	0.051	0.221
Infill	One if development is an inner city infill site, else 0	0.177	0.382
Year			
YR1997	One if project applied for credits in 1997, else 0	0.208	0.407
YR1998	One if project applied for credits in 1998, else 0	0.197	0.398
YR1999	One if project applied for credits in 1999, else 0	0.208	0.407
YR2000	One if project applied for credits in 2000, else 0	0.200	0.401
YR2001	One if project applied for credits in 2001, else 0	0.134	0.341
YR2002	One if project applied for credits in 2002, else 0	0.038	0.192
YR2003	One if project applied for credits in 2003, else 0	0.014	0.116
Type of Developer			
DevNonProfit	One if developer is a joint venture, else 0	0.447	0.498
DevProfit	One if developer is a for-profit organization, else 0	0.156	0.363
DevJV	One if developer is a non-profit organization, else 0	0.394	0.489
Targeting			
Nontargeted	One if units are not targeted to a specific population, else 0	0.088	0.283
SRO	One if units are single room occupancy, else 0	0.022	0.147
Senior	One if units are targeted to seniors, else 0	0.263	0.441
Needs	One if units are targeted to special needs populations, else 0	0.063	0.243
Family	One if units are targeted to large families, else 0	0.559	0.497
Type of Building			
Townhouse	One if project is a townhouse, else 0	0.025	0.156
Coop	One if project is a cooperative, else 0	0.003	0.053
TwoStories	One if project has two or more stories, else 0	0.564	0.497
SingleFam	One if project is single family detached, else 0	0.000	0.000
GardenApt	One if project is garden apartments, else 0	0.406	0.492
Geographic Regions			
Northern_California	One if project is in one of the following counties: Del Norte, Humboldt, Lake, Lassen, Mendocino, Modoc, Nevada, Plumas, Sierra, Siskiyou, Trinity; else 0.	0.011	0.104

Variable Name	Description	Mean	StDev
Northern_Sacramento_Valley	One if project is in one of the following counties: Butte, Colusa, Glenn, Shasta, Tehama; else 0.	0.014	0.116
Central_Sierra	One if project is in one of the following counties: Alpine, Amador, Calaveras, Inyo, Mariposa, Mono, Tuolumne; else 0.	0.005	0.074
Greater_Sacramento	One if project is in one of the following counties: El Dorado, Placer, Sacramento, Sutter, Yolo, Yuba; else 0.	0.096	0.295
Bay_Area	One if project is in one of the following counties: Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Santa Cruz, Solano, Sonoma; otherwise 0.	0.268	0.444
Central_Coast	One if project is in one of the following counties: Monterey, San Benito, San Luis Obispo, Santa Barbara; otherwise 0.	0.049	0.217
San_Joaquin_Valley	One if project is in one of the following counties: Fresno, Kern, Kings, Madera, Merced, San Joaquin, Stanislaus, Tulare; otherwise 0.	0.112	0.316
Southern_California	One if project is in one of the following counties: Los Angeles, Orange, Riverside, San Bernardino, Ventura; otherwise 0.	0.337	0.473
Southern_Border_Region	One if project is in one of the following counties: Imperial, San Diego; otherwise 0.	0.107	0.309

Appendix I: Regression Analysis and Results

Although we followed their basic approach, we did make several modifications to the Dunn et.al. methodology. First we used a substantially larger dataset, including 365 projects. We also made several adjustments to account for inflation and time-specific factors that may influence construction or project costs. Specifically, we adjusted the cost variables to account for inflation in construction costs by using a construction cost index published by McGraw Hill. We also included dummy variables for the year in which the application was submitted to the TCAC in order to account for year-specific factors that may influence construction costs. These factors could include surpluses or shortages in raw materials, regulatory or statutory changes, or one-time events such as elections or unusual weather conditions. Finally, we built and tested a series of models using the difference between market and prevailing wages as an independent variable (i.e., a factor that influences construction or project costs.)

Table 1 shows the results of the four main statistical models we used in our analysis. For the results given, the dependent variables were the logarithm of either residential construction cost or total project cost, in constant 1997 dollars. Two sets of regression equations were used: one with the simple prevailing wage dummy variable (PW_Project) and one with the average percent wage differential (PctDiff_Avg) described above.

Table 1: Regression Results Using Prevailing Wage Dummy Variable

Variable from Regression	Construction Cost Model w/ PW Dummy Coeff	(T-Stat)	Total Project Cost Model W/ PW Dummy Coeff	(T-Stat)	Construction Cost Model w/ Pct Wage Diff Coeff	(T-Stat)	Total Project Cost Model w/ Pct Wage Diff Coeff	(T-Stat)
Rsquared	0.933		0.913		0.933		0.913	
AdjRSquared	0.926		0.904		0.926		0.904	
Intercept	9.547	26.271	10.186	24.600	9.549	26.185	10.188	24.546
PW_Project	0.118	4.095	0.110	3.346				
PctDiff_Avg					0.254	3.809	0.237	3.115
log_units	0.728	16.164	0.692	13.487	0.726	16.068	0.690	13.422
log_UnitsPerAcre	(0.051)	(2.304)	(0.045)	(1.798)	(0.049)	(2.223)	(0.044)	(1.734)
log_SqFeet	0.229	5.340	0.216	4.425	0.231	5.355	0.218	4.441
ParkingBelow	0.146	3.753	0.089	2.004	0.147	3.750	0.089	2.008
Bldg3Stories	0.074	1.778	(0.022)	(0.471)	0.075	1.794	(0.021)	(0.451)
Elevator	0.033	1.084	0.112	3.208	0.033	1.065	0.112	3.185
ThreeBedrooms	0.031	1.047	(0.033)	(0.969)	0.030	0.996	(0.034)	(1.006)
SpecialNeeds	0.115	1.747	0.052	0.698	0.116	1.757	0.053	0.709
Island	0.770	4.166	0.553	2.624	0.771	4.154	0.553	2.619
Bond	(0.170)	(6.745)	(0.110)	(3.806)	(0.170)	(6.690)	(0.109)	(3.771)
EnvMitigation	0.112	2.358	0.089	1.637	0.111	2.328	0.088	1.615
Infill	0.113	3.291	0.047	1.199	0.111	3.213	0.045	1.144
Developer Type (excluded: DevProfit)								
DevNonProfit	0.121	3.725	0.158	4.283	0.123	3.772	0.160	4.323
DevJV	0.037	1.124	0.071	1.914	0.036	1.115	0.071	1.905
Targeting (excluded: SRO)								
Nontargeted	0.319	3.857	0.202	2.138	0.322	3.874	0.204	2.158
Senior	0.136	1.934	0.010	0.131	0.135	1.918	0.010	0.123
Needs	0.188	2.103	0.141	1.389	0.188	2.101	0.142	1.390
Family	0.308	3.967	0.254	2.873	0.310	3.973	0.256	2.882
Year Dummies (excluded: Yr2003)								
Yr1997	(0.221)	(1.196)	(0.130)	(0.620)	(0.223)	(1.204)	(0.133)	(0.629)
Yr1998	(0.152)	(0.824)	(0.033)	(0.157)	(0.153)	(0.828)	(0.034)	(0.162)
Yr1999	(0.149)	(0.810)	(0.079)	(0.377)	(0.151)	(0.814)	(0.080)	(0.381)
Yr2000	(0.093)	(0.503)	0.026	0.126	(0.095)	(0.516)	0.024	0.114
Yr2001	(0.017)	(0.093)	0.076	0.362	(0.018)	(0.100)	0.074	0.355
Yr2002	(0.018)	(0.093)	0.111	0.499	(0.022)	(0.113)	0.107	0.481
Regions (excluded: Northern_California)								
Northern_Sacramento_Valley	(0.025)	(0.197)	0.148	1.027	(0.041)	(0.323)	0.133	0.923
Central_Sierra	0.110	0.681	0.112	0.607	0.094	0.581	0.097	0.526
Greater_Sacramento	0.111	1.098	0.194	1.683	0.096	0.947	0.180	1.561
Bay_Area	0.336	3.519	0.484	4.442	0.326	3.398	0.474	4.342
Central_Coast	0.073	0.701	0.241	2.038	0.056	0.542	0.226	1.910
San_Joaquin_Valley	(0.045)	(0.451)	(0.005)	(0.045)	(0.060)	(0.597)	(0.019)	(0.166)
Southern_California	0.191	1.959	0.276	2.478	0.174	1.780	0.260	2.334
Southern_Border_Region	0.118	1.201	0.264	2.350	0.104	1.050	0.250	2.229

As shown in Table 1, our models include an intercept term, 19 project descriptors, six year variables, and eight geographical identifiers. We found that project costs are

affected by project size, developer type, and project type. Projects constructed by nonprofit developers are more expensive, as are projects in the Bay Area. Features such as tenant parking located below the project structure and elevators also contribute to higher costs. All these findings are consistent with our expectations, and with the Dunn et.al. results.

Our analysis suggests that even when other factors are taken into account, projects paying prevailing wages to construction workers are more expensive to develop. Our models suggest that projects paying prevailing wages are likely to incur 11.0 percent higher total residential project costs, and 11.8 percent higher residential construction costs. The average wage differential variable resulted in coefficients between 0.237 and 0.254. When the coefficients are multiplied by the average wage differentials (prevailing wages are on average approximately 45 percent higher than market wages), the effect of prevailing wages on project costs is again about 11 percent, reinforcing the robustness of our findings.