

ECONOMIC, FISCAL AND SOCIAL IMPACTS OF PREVAILING WAGE IN SAN JOSE, CALIFORNIA

INTRODUCTION

In the city of San Jose and the surrounding metropolitan area, the construction industry carries considerable economic importance, employing more than 30,000 people each year. The NOVA Workforce Investment Board described construction as a foundational occupation, creating the infrastructure necessary for the South Bay region to attract and grow driving industries.¹

In this highly mobile industry, where paychecks depend on the weather and workers are employed only for the length of a construction contract, industry and community have developed tools designed to ensure safety and quality of work and to induce positive economic impacts from major construction projects. One such tool is prevailing wage on public works.

Prevailing wage is an important economic development tool in the state of California. Both the state and the federal government utilize prevailing wage policies which apply to taxpayer-funded public works projects receiving state or federal funds. Many local governments in the state have their own prevailing wage policies covering projects funded by local taxpayers. The City of San Jose's prevailing wage policy was adopted in 1988; its statutory purpose is to ensure equitable and sufficient wages, protect local job opportunities, and stimulate the local economy.

This policy brief examines the economic, fiscal, and social impacts of San Jose's prevailing wage policy by analyzing a hypothetical scenario: how would construction costs, tax revenues, overall economic activity, and other relevant factors change if San Jose's public works projects were *not* built under prevailing wage?

- Over 5 years, estimated increase in countywide economic activity due to prevailing wage for City of San Jose buildings:

\$164 million

- Estimated increase in local jobs: **1,510**

- Estimated increase in local tax revenues:

\$1.9 million

- Increase in local hiring on libraries when prevailing wage applies: **21%**

- Miles driven daily by out-of-town construction workers: **over 1 million**

ABOUT THIS STUDY

This working paper is produced by Working Partnerships USA with funding from the Construction Employers' Association, the Bay Area Chapter of the Sheet Metal and Air Conditioning Contractors' National Association, the Santa Clara Valley Chapter of the National Electrical Contractors Association, and the Northern California Mechanical Contractors Association, collectively representing over 500 construction contractors in the Santa Clara Valley and Northern California. Dr. Kevin Duncan, Professor and Senior Economist at the Healy Center for Business and Economic Research, Colorado State University-Pueblo, carried out the economic impact analysis summarized on pages 3 to 7. Dr. Duncan's complete analysis is provided as Appendix A to this brief.

KEY FINDINGS

Economic Impacts

- **Municipal building projects covered by a prevailing wage policy employ a higher proportion of local contractors and local workers.** Prevailing wage laws therefore help reduce the leakage of local taxpayer dollars by directing public construction expenditures into the local economy.
- If prevailing wage coverage is removed from a municipal building project, **then roughly 6% of the project's value leaks from the Santa Clara County economy.**
- If prevailing wage had not applied to San Jose's 2007-2012 municipal building projects:
 - Total economic activity in the County would have **fallen by \$164 million.**
 - **1,510 fewer local jobs** would have been created in the County.
 - In addition to construction, the economic sectors with the greatest job loss induced by the loss of prevailing wage include **retail and food service (88 jobs)** and **health (57 jobs).**

Fiscal Impacts

- If prevailing wage had not applied to San Jose's 2007-2012 municipal building projects:
 - Reduced local contracting would have produced a **\$1.9 million drop in local property and sales tax revenues** for local governments within Santa Clara County.
 - **The shift of income away from blue-collar construction workers to contractors/owners would result in additional economy-wide impacts.** For every cumulative \$1 million shift upwards in personal income, the net effect is a decrease in county economic activity of \$34,000.
- The preponderance of studies over two decades have **found no impact of prevailing wages on total construction costs.** Rather, prevailing wages are believed to increase labor productivity on a project.
- Prevailing wage is a very low-cost economic development tool relative to other programs intended to create jobs. **The 1,510 additional jobs induced by prevailing wage on San Jose municipal projects are equivalent to the total projected impact of the proposed Major League Soccer stadium.**

Traffic and Environmental Impacts

- In 2008, non-local construction workers employed in Santa Clara County **cumulatively drove over 1 million miles per day to and from work.** If the work done by non-locals was instead performed by locals with shorter commutes, then the estimated savings would be 123,619,000 miles per year.
- If a project is not covered by prevailing wage, then the shift towards a non-local construction workforce induces excess commute miles, resulting in **traffic congestion, less livable neighborhoods, lower social cohesion and increased greenhouse gas emissions.**

Social Impacts

- **Public assistance costs:** A typical non-union construction employee on a non-prevailing wage project without health benefits would be eligible for \$3,665 in public assistance. At prevailing wage, the same worker would earn enough to support his or her family with no public assistance.
- **Higher education:** Prevailing wage also provides for employment of apprentices on public works. If apprenticeship programs could no longer enroll students, then the result would be a loss of about 2,340 full-time student slots. This would be equivalent in scale to shutting down half of San Jose City College.
- **Diversity:** Relative to the total construction workforce in Santa Clara County, joint apprenticeship programs employ 1.4 times more women and 4.7 times more African-Americans.

CASE STUDY: MITCHELL PARK LIBRARY (PALO ALTO) AND GILROY PUBLIC LIBRARY

- **On the Mitchell Park Library in Palo Alto, built without prevailing wage, 11.7% of the total project value went to local contractors.**
- **On the similarly-sized Gilroy Public Library, built with prevailing wage, 71.2% of the total project value went to local contractors.**
- **Economic modeling of these individual projects shows a loss of 22 local jobs if the Gilroy library had not been built under prevailing wage.** The following sections will extend this analysis from a single case study to all municipal building projects in San Jose.

Two recent library projects in Santa Clara County provide a paired case study of the impacts of prevailing wage.

The Gilroy Public Library and the Mitchell Park Library and Community Center (in Palo Alto) are about the same size and were bid just six weeks apart. However, the Gilroy library was built under a prevailing wage policy, while the Palo Alto library was not.

The Gilroy project, at 53,000 square feet, has a contract value of about \$17 million and a square foot cost of \$326. The Palo Alto project, at 56,332 square feet, has a contract value of about \$24 million and a square foot cost of \$430. Consequently, there is no obvious support for the hypothesis that prevailing wages increase project costs.

The case studies do suggest that prevailing wage increased local contracting. In Gilroy, 18 of 33 listed subcontractors and the general contractor were based in Santa Clara County, totaling 71.2% of the total project value which went to local contractors. In Palo Alto, only one of the 33 listed subcontractors was based in Santa Clara County, totaling 11.7% of the total project value which went to local contractors.

For the purposes of this case study, an economic impact analysis using the IMPLAN modeling

tool was run on the Gilroy and Mitchell Park libraries. The Gilroy analysis evaluates the impact of the counterfactual scenario in which the library was not built under a prevailing wage policy. The Palo Alto analysis evaluates the impact of the counterfactual scenario in which the library was built under a prevailing wage policy.

If the Gilroy Public Library had been built without prevailing wage, the total economic impact would be a \$2.4 million decrease in local economic activity and the loss of 22 local jobs, including 17 direct construction jobs and 5 indirect jobs in retail, services, and other sectors attributable to lost spending from local construction workers. Fiscal impact would be a net decline of \$27,500 in sales and property tax revenues for local governments within the county.

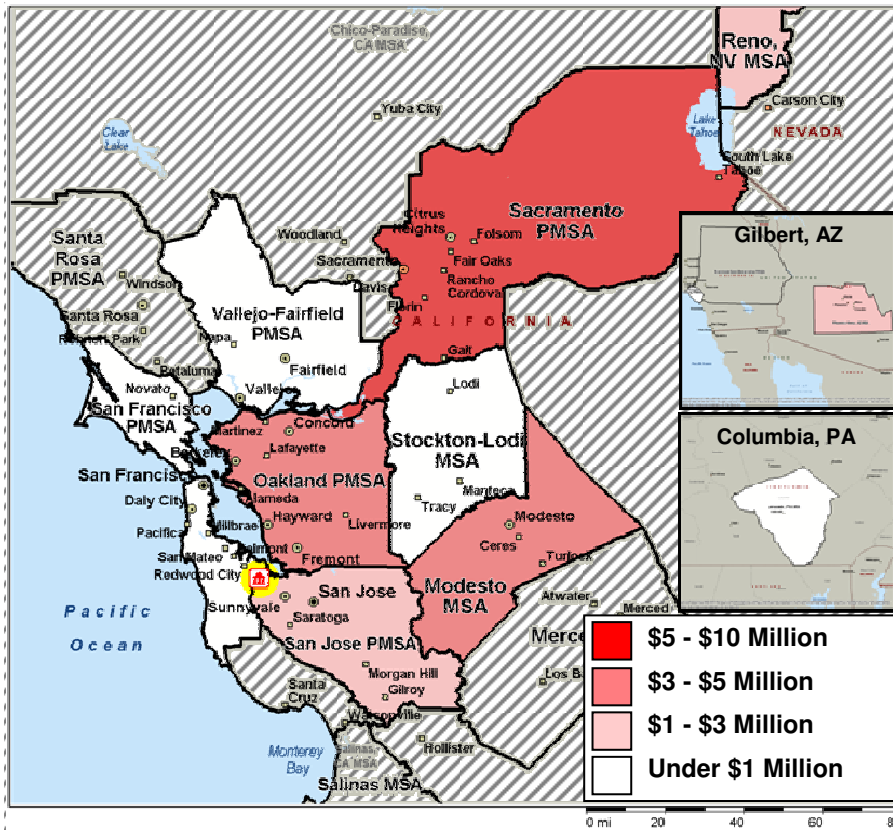
In the reverse scenario, if the Mitchell Park Library had been built with prevailing wage, the total economic impact would be a \$3.3 million increase in local economic activity and 31 more local jobs, with a fiscal impact of \$38,800 additional tax revenues.

The maps on the following page show the dispersion of subcontractor work for the two projects.

Where Does the Money Go?

Geographic Dispersion of Local Funds Spent for Library Construction

Dispersion of Funds from Palo Alto Library (W/Out Prevailing Wage)



Percent of local funds going to local contractors: 11.8%

Dispersion of Funds from Gilroy Library (With Prevailing Wage)

Percent of local funds going to local contractors: 71.2%

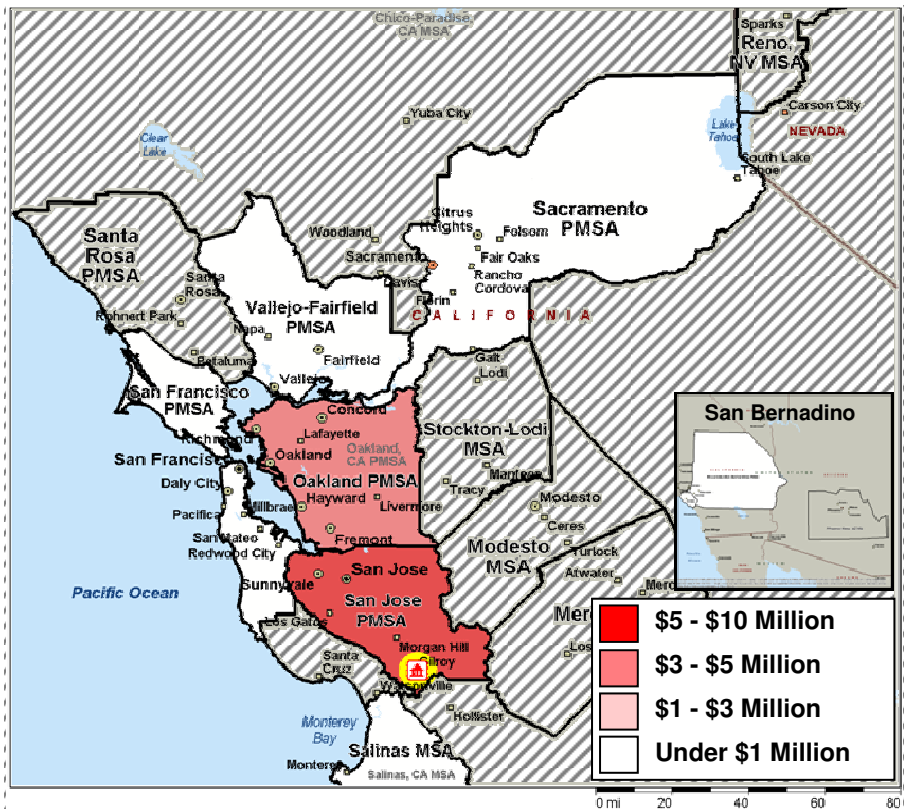


Figure 1. Maps prepared by Scott Littlehale.

IMPACTS OF PREVAILING WAGE IN THE SAN JOSE METRO REGION

Moving from case studies to a region-wide perspective, the remainder of this brief focuses on the economic, social, and fiscal impacts of prevailing wage in the San Jose metropolitan region.

The impact analysis includes the following components:

- **Construction Costs**
- **Economic and Fiscal Impact Analysis**
- **Relative Importance to Economic Development**
- **The Bigger Picture**
- **Public Assistance Costs**
- **Education and Training Opportunities**
- **Workforce Diversity**
- **Traffic and Environmental Impacts**

CONSTRUCTION COSTS

- **The preponderance of research shows no significant impact of prevailing wage on total construction costs.**

Standard economic theory suggests that as wages rise, less labor will be used on a project, either through an increase in labor productivity (via a higher-skilled or more motivated workforce) or through greater use of labor-saving equipment. Prevailing wage policy can thus be expected to affect the entire construction cost of a project, not solely the hourly labor cost.

Studies which examine the effect of prevailing wage on total construction costs, using the statistical method of regression analysis, have overwhelmingly found no significant cost effect of prevailing wage. Multiple studies using different data sets, project types, and different statistical tests have nearly all produced the same result: prevailing wage laws are not associated with higher construction costs.²

A recent study of five South Bay and Peninsula cities³ compared public works projects in cities with and without prevailing wage laws. The study failed to find any effect of prevailing wage on the total number of bidders, bids by union or non-union contractors, or on the likelihood of non-union contractors submitting the winning bid.

Furthermore, it found no impact of prevailing wage law on the difference between the winning (low) bid and either the median bid or the engineer's initial estimate. These findings strongly suggest that cities with prevailing wage laws did not experience less competitive bidding or inflated bid prices compared to cities without prevailing wage.

ECONOMIC AND FISCAL IMPACT ANALYSIS

- **Roughly 6% of the value of a library or similar project leaks from the Santa Clara County economy if projects are not completed under prevailing wage policies.**
- **If the City of San Jose's major municipal buildings from 2007-2012 were not built under prevailing wage, then major economic impacts would include reduction in total economic activity of \$164 million, net loss of 1,510 local jobs, and loss in local property and sales tax revenues of \$1.9 million.**
- **In addition to construction, the economic sectors with the greatest job loss induced by the loss of prevailing wage include retail and food service (88 jobs) and health (57 jobs). Residential property values would also decline due to reduced economic activity.**

Moving from case studies to a region-wide perspective, this study analyzes the economic impacts of prevailing wage by modeling an alternative scenario: what would have happened in recent years if no San Jose municipal prevailing wage had been in place?

The economic impact analysis performed for this study uses the IMPLAN software and local data to estimate the effect of municipal prevailing wage laws on the local economy. IMPLAN provides sophisticated modeling which is widely used in economic impact analysis; for example, it is used by the federal Bureau of Economic Analysis, several departments of the State of California, the San Jose Convention and Visitors Bureau, and the Santa Clara Valley Transportation Authority. For this study specifically, IMPLAN was used to estimate the impact of a change in labor income on the level of economic activity, employment, and local taxes within Santa Clara County.

Examining the 16 library projects built between 2003 and 2009, with total costs in 2010 dollars of about \$177 million, the IMPLAN model provides a total net economic impact of –\$11,017,000, that is, a reduction in economic activity of more than \$11 million. The net employment impact is a loss of 103 local jobs.

The economic impact represents about 6% of these projects' combined value. This provides a rule of thumb: about 6% of the value of a library or similar project leaks from the Santa Clara County economy if projects are not completed under prevailing wage policies.

This initial analysis of libraries examined only a small subset of the City of San Jose's public works. To better illustrate the impact of the City of San Jose's prevailing wage policy on the Santa Clara economy, municipal building projects from the city's 2007-2012 Capital Improvement Program (CIP) budget are used.⁴

Table 1 shows detailed results of the economic analysis on the 2007-2012 CIP projects. Major impacts *if* these projects had not been built under prevailing wage policy include:

- Reduction in total economic activity of \$164 million, or about 0.1% of county GDP.
- Net loss of 1,510 jobs in Santa Clara County, or about 0.2% of total county employment. This includes a direct impact of 1,155 fewer construction jobs and indirect impacts of 355 fewer jobs in other sectors.
- Total loss in local property and sales tax revenues of \$1.9 million.
- Decrease in sales taxes collected by the City of San Jose of \$181,000.

Table 1: Impact on the Santa Clara County Economy If San Jose's 2007-2012 Capital Improvement Projects Were Built Without Prevailing Wage.

Includes only the impact from municipal building projects, comprising 60% of the total CIP.

Sources: IMPLAN, Quarterly Census of Employment and Wages.

Economic Impact Category	Economic Impact (2010 dollars)
Direct Income Decrease in the County:	–\$106,897,000
Induced Decrease in Spending in the County:	–\$56,621,000
Combined Economic Impact:	–\$163,518,000
Direct Job Loss:	–1,155 Construction Jobs
Secondary Job Loss:	–355 Local Retail and Service Sector Jobs
Total Employment Decrease:	–1,510 Jobs in the County
County Property Tax Revenue Decrease:	–\$1,483,000
County Sales Tax Revenue Decrease:	–\$421,000
Total County Tax Revenue Decrease:	–\$1,904,000
Reduction in City of San Jose Sales Tax Revenue:	–\$181,000

The economic impact of repealing the prevailing wage standard would be spread across the local economy, with industries not directly related to construction experiencing substantial induced impacts:

- The reduction in economic activity would decrease home values in the county.
- The health care sector in the county would experience a decrease in revenue of

approximately \$8.9 million and a decrease in employment of about 57 workers.

- The broad food service and retail sectors would experience a decrease in revenue of approximately \$6.7 million and an employment decrease of about 88 workers.

Additional impacts to specific industries within Santa Clara County are shown in Table 2.

Table 2: Impact on Industry-Level Revenue and Employment Source: IMPLAN

Santa Clara County Industry	Revenue Loss by Industry	Job Loss by Industry
Total	-\$56,621,017	-355
Imputed rental activity for owner-occupied dwellings [indicates reduction in home values]	-\$8,877,570	n/a
Real estate establishments	-\$4,119,799	-23
Private hospitals	-\$3,914,528	-19
Offices of physicians & dentists	-\$3,405,486	-23
Food services and drinking places	-\$2,963,211	-42
Wholesale trade businesses	-\$2,560,573	-8
Non-depository credit intermediation and related institutions	-\$1,584,886	-2
Monetary authorities and depository credit institutions	-\$1,544,013	-5
Telecommunications	-\$1,388,240	-3
Private junior colleges, colleges, universities	-\$1,366,550	-11
Legal services	-\$1,043,742	-4
Retail Stores - Food and beverage	-\$1,018,925	-13
Electric power generation- transmission	-\$913,723	-1
Medical and diagnostic labs and outpatient analysis	-\$888,802	-5
Other state and local government enterprises	-\$817,404	-3
Insurance carriers	-\$786,213	-2
Retail Nonstores - Direct and electronics	-\$770,220	-4
Securities, commodity contracts, investments	-\$764,162	-9
Nursing and residential care facilities	-\$688,578	-10
Retail Stores - General merchandise	-\$637,519	-10
Retail Stores - Motor vehicle and parts	-\$536,467	-6
Retail Stores - Clothing and clothing accessories	-\$528,399	-8
Services to buildings and dwellings	-\$491,450	-7
Religious organizations	-\$467,923	-3
Data processing, hosting, ISP, web search providers	-\$449,606	-1
Amusement parks, arcades, and gambling industries	-\$446,390	-4
Funds, trusts, and other financial vehicles	-\$440,862	-1
Automotive repair and maintenance, except car sales	-\$403,455	-4
Other personal services	-\$374,769	-1
Retail Stores - Health and personal care	-\$368,636	-5

RELATIVE IMPORTANCE TO ECONOMIC DEVELOPMENT

- **Had prevailing wage not applied to San Jose’s 2007-2012 municipal building projects, 1,510 fewer local jobs would have been created in the County, representing a 0.2% reduction in total employment.**
- **The jobs induced by prevailing wage on these projects are equivalent to 80% of all local jobs at Adobe Systems, or to the total jobs that would be induced by the proposed Major League Soccer Stadium sought by San Jose.**
- **The shift of income away from blue-collar construction workers to contractors/owners would result in additional economy-wide impacts.** For every cumulative \$1 million shift upwards in personal income, county economic activity decreases by \$34,000.

As discussed in the previous section, the absence of prevailing wage coverage for municipal building projects from the City of San Jose’s 2007-2012 Capital Improvement Program (CIP) budget would result in a net economic impact of 1,510 fewer jobs. This would produce a decline in total Santa Clara County employment of approximately 0.2%.

While small in the context of the entire regional economy, this loss of 1,510 jobs is equivalent to:

- Losing 40% of all local jobs at Applied Materials.⁵
- Losing 80% of local jobs at Adobe Systems.⁶
- The total projected economic impact of a proposed Major League Soccer stadium in San Jose.⁷
- Three times the local jobs projected at SunPower Corporation, to which the City of San Jose recently offered a \$2.5 million incentive package.⁸

For the purpose of evaluating return on investment of taxpayer dollars, the economic development effects of local prevailing wage policy can be compared to the standard “economic multiplier” impacts of public spending. Economic multipliers show the “ripple effects” in the economy resulting from increased output in a particular industry. For state and local government enterprises in California,

economic multipliers indicate that inducing 1,510 jobs in the state would require increased public sector output of \$105,604,000.⁹

In addition to the effects included in the economic and fiscal impact analysis, the elimination of prevailing wage is also likely to reduce wages for the construction workforce employed on the job.

The labor income thus reduced would then shift to another production factor, which (since the cost of materials is typically fixed) would likely be income for the contractor/owner. This reduction in wages and shift in income is difficult to quantify at the local level, and therefore was not included in the economic impact analysis.

An illustrative analysis of an upward shift of \$1,000 in household income - again using the IMPLAN model for Santa Clara County - provides insight into the potential effects. If income decreases by \$1,000 for a household earning \$75,000 to \$100,000, and simultaneously increases by \$1,000 for a household earning above \$150,000, the net effect is a decrease in county economic activity of \$34.

Generalized, this result indicates that for any upward shift in income between these two brackets, total economic activity will decline by 3.4% of the amount shifted.

THE BIGGER PICTURE: IMPACTS OF ALL PREVAILING WAGE POLICIES

- **A conservative estimate suggests that all prevailing wage policies in effect within the county from 2008 to 2010 had a cumulative impact of \$75 million in additional economic activity.**

The preceding analysis examined only projects built by the City of San Jose. Yet nearly all public works within Santa Clara County – with the exception of City of Palo Alto-funded projects – are built under local, state, or federal prevailing wage policies.

To estimate the cumulative impacts of all prevailing wage policies on the county economy, we obtained total public building construction expenditures in Santa Clara County for 2008 to 2010. This includes all federal, state, or local government building projects, but does not include non-building public works such as roads and sewers. Palo Alto projects were subtracted from this total, resulting in \$1,244,428,000 in public building projects built from 2008-10 which were covered by prevailing wage.

Applying the “6% rule” derived from the preceding analysis of library projects – that is, roughly 6% of the value of a library or similar project leaks from the Santa Clara County economy if projects are not completed under prevailing wage policies – this data suggests that

Santa Clara County economic activity was increased by \$74,666,000 from 2008-2010 because of federal, state, county, and city prevailing wage regulations on municipal buildings.

This estimate is highly conservative because it is based only on public building projects, omitting the impact associated with other public works construction such as roads, sewers, and other infrastructure-related projects (which are outside the scope of this study).

The estimates are also conservative because the 6% rule was derived from the repeal of a city prevailing wage policy, assuming that federal and state policies remain in effect. If prevailing wage regulations were removed at all levels, then it is likely that the impact would exceed 6%. With complete repeal of prevailing wage standards, the structure of the regional construction labor market would change as construction worker income falls and workers move from the Bay Area to locations with lower costs of living.

PUBLIC ASSISTANCE COSTS

- **A typical non-union construction employee on a non-prevailing wage project without health benefits would be eligible for \$916 to \$8,032 in public assistance for his or her family.** At prevailing wage with health benefits, the same worker would earn enough to support his or her family with no public assistance.

In high-cost Silicon Valley, workers with low wages and no health coverage face particular challenges in supporting their families. Inadequate compensation not only impacts individual workers; it also places an additional burden on the region’s safety net services and thereby on the greater public.

In a hidden subsidy for industries paying substandard wages, the region’s taxpayers provide state- or county-sponsored children’s health coverage, low-income tax credits, and free or reduced school lunches to low-wage workers in order to make ends meet for themselves and their families.

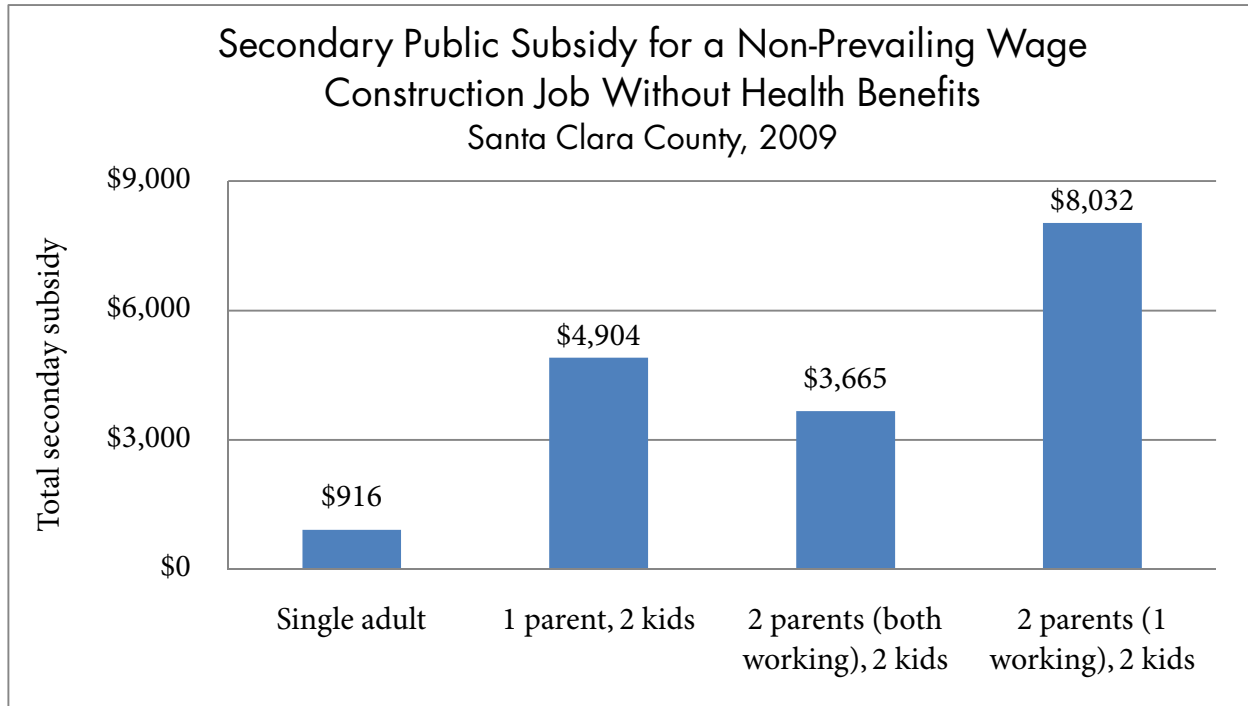


Figure 2. Source: Government Transfers to Low-Wage Workers Calculator

Taxpayers subsidize employers through public assistance programs only if those employers are not paying a livable wage with health benefits. To approximate compensation on prevailing wage projects versus non-prevailing wage projects, the model uses average weekly wages for Santa Clara County construction workers covered or not covered by a union contract. We also modeled the presence or absence of affordable family health coverage, using the simplifying assumption that workers on prevailing wage projects have comprehensive job-based family health insurance, while those on non-prevailing wage projects do not.

The hypothesized reduction in wages, combined with a loss of health coverage, would incur a secondary subsidy from taxpayers totaling

between \$916 and \$8,032 annually per worker affected, with the midrange subsidy estimated at \$3,665 annually per worker affected.

With this secondary subsidy propping up inadequate pay, the majority of responsible employers who do pay livable wages find themselves at a competitive disadvantage.

Furthermore, the burden of the invisible public subsidy for low-wage work threatens the region's social safety net. Emergency rooms, community clinics, and hospitals such as Valley Medical Center are hard-pressed to maintain adequate health services as the number of uninsured workers has grown to more than one-fifth of Silicon Valley's workforce.¹⁰

EDUCATION AND TRAINING OPPORTUNITIES

- **In the past twenty years, 14,104 County residents have been educated through apprenticeship programs.** These privately funded industry training centers provide motivated students with no-cost education and paid on-the-job experience.
- **Because they provide placement opportunities for apprentices, prevailing wage projects are critical to sustaining the apprenticeship system.**
- **If apprenticeship programs could no longer enroll students, it would be equivalent to cutting enrollment at San Jose City College in half.**

Apprenticeship is a form of post-secondary education that combines classroom and hands-on training with paid on-the-job training. Apprenticeship programs require an intensive, long-term commitment from the student; the training period is three to five years and typically requires successful completion of a curriculum of 400 to 800 classroom hours combined with 3,000 to 8,000 hours of on-the-job training, where apprentices work side by side with experienced workers to learn the skills required for a trade.

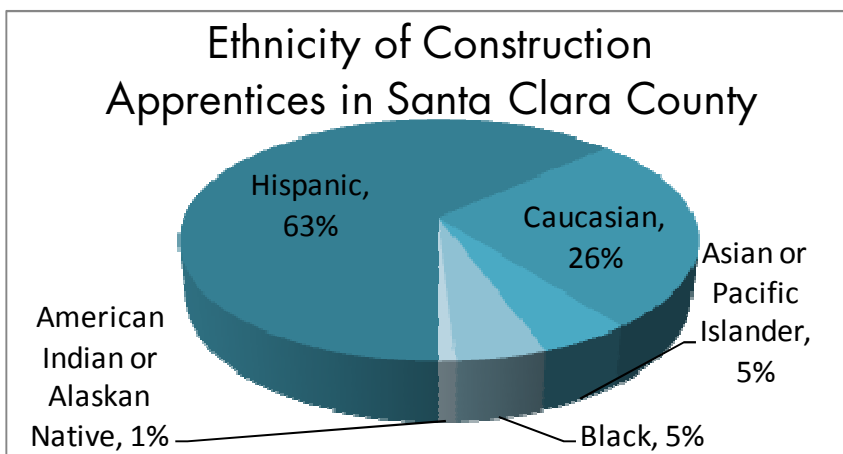
Joint labor-management apprenticeships (which represent 92% of all apprenticeship graduates in California) are free to the student and offer full-time paid work experience with a living wage and healthcare coverage, making them a key pathway for students with limited financial means who are seeking a lifelong, family-supporting career.¹¹

Joint apprenticeships are paid for and overseen by a training trust fund, which is funded by a small hourly contribution made by all journey-level workers in the trade who are union members or work for a participating employer. The State of California Department of Apprenticeship Standards has oversight authority over all registered apprenticeship programs in the state.

The registered apprenticeship system is the primary source of highly trained workers for the California construction industry. From 1990 to

the present, 14,104 Santa Clara County residents participated in apprenticeship programs.

With an average annual enrollment of 2,339 students, apprenticeship programs in Santa Clara County educate approximately half as many full-time equivalent students annually as Mission College (4,423 FTE students in 2008) or San Jose City College (4,457 FTE students in 2008). Privately funded apprenticeships thus fill a significant gap in the educational system.



The San Jose prevailing wage policy, like state prevailing wage, requires contractors to employ apprentices in specified ratios on covered projects. These public works projects provide critical paid work experience for apprentices

Studies which have examined the relationship between prevailing wage and workforce training show that states with prevailing wage laws have more apprentice training slots, higher rates of apprentice completion, and better training outcomes for ethnic/racial minorities than do states without prevailing wage laws.¹²

If prevailing wage were eliminated, then opportunities for apprentices on public works projects would likely decline substantially.

Prevailing wage is therefore critical to sustaining the apprenticeship system.

WORKFORCE DIVERSITY

- **Relative to the total construction workforce in Santa Clara County, joint apprenticeship programs employ 1.4 times more women and 4.7 times more African-Americans.**

Women and minorities, particularly African-Americans, have historically been underrepresented in the United States construction industry. Joint apprenticeship programs in California typically enroll a higher proportion of women and underrepresented minorities than are employed in the industry at large, making them a valuable pipeline for increasing these populations' access to construction careers.

at large to employ an African-American.

Examining the data by gender, women comprised just 1.7% of construction industry workers, yet made up 2.4% of enrollments in joint apprenticeship programs. Joint apprenticeships were therefore 1.4 times more likely than the industry at large to employ a woman.

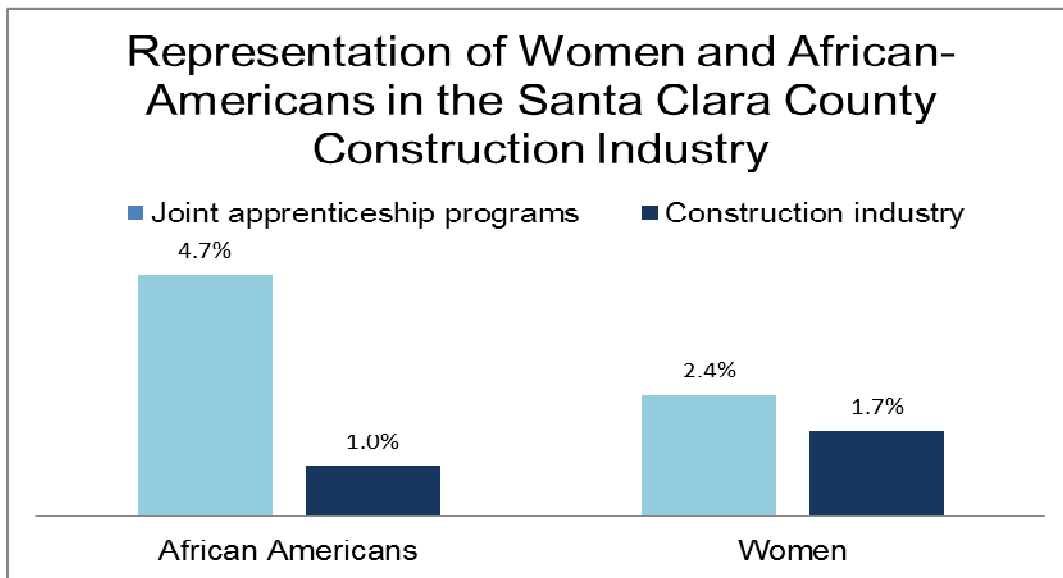


Figure 4. Data represents residents of Santa Clara County. “Construction industry” includes residents employed in non-supervisory construction occupations.

Source: DAS and ACS 2006-2008

An analysis of joint apprenticeship program enrollments in Santa Clara County compared with construction industry employment from 2006-2008 shows that 126 African-Americans residing in Santa Clara County enrolled in joint apprenticeship programs during this period, making up 4.7% of all enrollments. Among all residents employed in non-supervisory construction occupations, African-Americans made up just 1.0%. Joint apprenticeships were therefore 4.7 times more likely than the industry

While these numbers are still low, they indicate that the pipeline of workers currently being trained through apprenticeship programs, if they remain employed in construction, will diversify the industry relative to its current state.

If prevailing wage projects did not provide placement for apprentices, the opportunity to access construction careers for women, African Americans and other underrepresented groups could be considerably reduced.

TRAFFIC AND ENVIRONMENTAL IMPACTS

- **In 2008, non-local construction workers employed in Santa Clara County cumulatively drove over 1 million miles per day to and from work.** If this work were instead performed by locals with shorter commutes, then the estimated savings would be 123,619,000 miles per year.
- **If a project is not covered by prevailing wage, then the shift towards a non-local construction workforce induces excess commute miles, resulting in traffic congestion, less livable neighborhoods, lower social cohesion, and increased greenhouse gas emissions.**

In addition to economic impacts, importation of a non-local workforce creates traffic and environmental impacts caused by longer commutes. Analysis of construction workers in non-supervisory occupations (Blue-Collar Construction Workers) employed in Santa Clara County from 2006-2008 shows that 66% lived within the county. Of the remainder, 10% lived in the Central Valley, 6.4% in Alameda County, 4.9% on the Central Coast, and the remainder scattered throughout the state.¹³

Estimating commute times based on county of residence, in 2008, non-local Blue-Collar Construction Workers (BCCWs) employed in the county drove an estimated 1,084,000 commute miles daily.

The average non-local construction worker had a round-trip commute of 105 miles, compared with an average daily commute of 37 miles for BCCWs living in Santa Clara County. With an

average of 43 weeks of work per year for BCCWs¹⁴, the non-local construction workforce in 2008 accounted for a total of 191,218,000 Vehicle Miles of Travel (VMT). If the work done by non-local commuters was instead performed by local residents, then the estimated savings in annual VMT (after subtracting the average in-county commute) would be 123,619,000 miles.¹⁵

Excessive commute distances generate traffic congestion, impact neighborhood livability, and pollute the air. Nationally, the San Jose area ranks as the 6th most congested commute shed, averaging 53 hours – or more than 2 full days – of traffic delay per driver in 2007. This congestion cost the South Bay an estimated \$1 billion in lost productivity and wasted fuel.¹⁶

Commute times and traffic congestion have significant impacts on livability and community cohesion. Long commutes limit the amount of time that workers have available to spend at

Table 3: Top 10 Counties of Residence for Non-Local Construction Workers Employed in Santa Clara County

Top 10 Counties	Round-trip Distance to Santa Clara County (miles)
1. Alameda	72
2. Santa Cruz	84
3. Merced	202
4 San Joaquin	163
5. San Mateo	70
6. Contra Costa	113
7. Stanislaus	191
8. San Francisco	89
9. Monterey	125
10. Solano	189

home and in their communities, reducing civic participation and straining families. Local residents are affected indirectly as increased highway congestion generated by commuters forces locals to spend more time in traffic.

Finally, miles travelled by passenger vehicles are a major driver of climate change; in fact, they are the single largest CO₂ emitter in California. In addition to accounting for 27% of the state's greenhouse gas emissions, vehicle emissions produce smog and other pollutants that affect residents' health.¹⁷ California's historic Global Warming Solutions Act of 2006 (AB32) committed the state to reduce its total greenhouse gas emissions to 1990 levels by 2020

and to 80% below 1990 levels by 2050 – a goal that can only be reached if vehicle-produced emissions are greatly reduced. California voters recently affirmed their support of this goal by decisively rejecting a Nov. 2010 ballot measure attempting to suspend AB32.

The imperative to reduce Vehicle Miles of Travel is further emphasized by SB 375, passed in 2008, which requires regions throughout the state to take greenhouse gas emissions into account in their land use planning. Santa Clara County faces considerable challenges to meeting this goal. Total VMT in Santa Clara County rose by 41% between 1990 and 2000 and are expected to double by 2030.¹⁸

REFERENCES

¹ Jenny Reid Austin et al, *Silicon Valley Roots* (2006). Sunnyvale, CA: NOVA Workforce Board.

² See Appendix A for a review of existing literature on construction costs and prevailing wage.

³ JaeWhan Kim, Kuo-Liang Chang and Peter Philips, "The Effect of Prevailing Wage Regulations on Contractor Bid Participation and Behavior: A Comparison of Palo Alto, California with Four Nearby Prevailing Wage Municipalities". Article, Refereed Journal, submitted, Nov. 30, 2010.

⁴ Other types of capital improvement projects such as parks, water, sewers, roads, and airport taxiways are not included in this analysis because they may differ significantly in subcontracting patterns from municipal buildings. This analysis provides a conservative estimate of impacts because not all capital improvement projects are included.

⁵ As of June 2009, Applied Materials had 3,988 full-time equivalent employees in greater Silicon Valley. Source: Silicon Valley/San Jose Business Journal Book of Lists, Vol. 27, No. 36, Dec. 25, 2009, p. 114.

⁶ As of June 2009, Adobe Systems had 1,850 full-time equivalent employees in San Jose. Source: Ibid, p. 112.

⁷ SportsEconomics LLC, "Market Assessment and Economic Impact Analysis for Proposed Soccer Stadium in the City of San Jose (A Secondary Study)." Prepared for City of San Jose, February 8, 2008.

⁸ See http://www.sjeconomy.com/publications/pressreleases/sunpower_11_16_10.pdf, Subsidy package is subject to approval of the San Jose City Council.

⁹ RIMS II Multipliers for the state of California, July 2002 Release, Bureau of Economic Analysis.

¹⁰ American Community Survey 2009.

¹¹ Corinne Wilson, *Construction Apprenticeship Programs* (2009). San Diego: Center on Policy Initiatives.

<http://onlinecpi.org/downloads/Construction%20Apprenticeship%20Programs%20report.pdf>

¹² Peter Philips and Cihan Bilginsoy, "Impact of Prevailing Wages on the Economy and Communities of Connecticut." (2010) University of Utah.

¹³ Analysis of Blue-Collar Construction Workers (BCCWs) performed by Alex Lantsberg with data drawn from ACS 2006-2008. This data covers the entire construction industry, including residential, commercial, and public sectors. While the data source used does not differentiate between these sectors, it is likely that large commercial or public jobs attract a higher proportion of non-local workers than does the residential sector.

¹⁴ ACS 2006-08, accessed via DataFERRETT.

¹⁵ Using BCCW dataset described above, commute distances between counties were estimated with Google Maps. Workers residing more than 200 miles from Santa Clara County are excluded on the assumption that they are unlikely to commute daily. Means of transportation to work is estimated using the 2009 American Community Survey Workplace Geography dataset. Commute distance within Santa Clara County estimated using 2005 MTC data adjusted for BCCWs using the ACS travel time to work variable.

¹⁶ Shrank, David and Lomax, Tim. "2009 Urban Mobility Report." Texas Transportation Institute. July 2009.

¹⁷ California Air Resources Board, "California Greenhouse Gas Inventory for 2000-2008", updated May 12, 2010.

¹⁸ Metropolitan Transportation Commission Projections.