

A WEAKENED STATE: THE ECONOMIC AND SOCIAL IMPACTS OF REPEAL OF THE PREVAILING WAGE LAW IN ILLINOIS



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Executive Summary

PERPETUAL STATE BUDGET DEFICITS and mounting debt have re-ignited claims that repeal of Illinois' prevailing wage provisions will cut public construction costs and save taxpayers money. Critics of prevailing wage laws (PWLs) assert they inflate the costs of government contracts by compensating labor at levels higher than market wages. Contrary to opponents' claims, findings from this study indicate that Illinois' PWL is associated with a number of positive labor market outcomes for construction workers at costs that are either negligible or fully offset. Additional labor costs associated with the statewide PWL are outweighed by other substantial positive impacts for the state economy and Illinois taxpayers.

This study, conducted by researchers at the University of Illinois at Urbana-Champaign and Michigan State University, serves as the first comprehensive examination of the economic and social impacts of the statewide PWL for public construction projects in Illinois.* This extensive investigation has culminated in five key findings:

1. Prevailing wages do not lead to increases in costs of public construction projects.

In all likelihood, total construction costs would not be greatly affected by repeal of Illinois' PWL due to potential changes in workforce, productivity, and management practices associated with the policy change. Indeed, repeal of Illinois' PWL would likely cost the state money, result in job losses, and reduce construction sector efficiency.

2. Repeal of Illinois' PWL would result in job losses throughout the state, decreased GDP, and millions of dollars in lost tax revenue.

This study forecasts that employment in the construction industry would likely increase should the statewide PWL be repealed. However, any new jobs linked to repeal would be significantly offset by job losses experienced throughout the rest of the economy. These indirect effects of repeal would result in about 3,300 net jobs lost, in a total GDP contraction of more than \$1 billion annually for Illinois, more than \$44 million in lost state and local taxes, and roughly \$116 million in lost federal tax revenue. Within the state, the negative results are comparable for each of the eight regions studied.

3. More construction workers would suffer fatal work-related injuries if Illinois' PWL is repealed and construction workers would lose many of their work-related benefits.

If the prevailing wage were to be repealed in Illinois, it is estimated that an additional seven Illinois construction workers would lose their lives on an annual basis. Extrapolated over the span of a decade, approximately 70 additional Illinois workers would suffer fatal work-related injuries in the construction industry due to the repeal of the state's PWL. It can also be anticipated that employer contributions to both legally-required and fringe benefits for construction workers would dramatically decline.

4. PWLs encourage apprenticeship training in the construction industry.

The data examined in this study strongly affirms the claim that state PWLs are supportive of construction apprenticeship programs. Study findings suggest that state PWLs support the construction training system, a critical component for an industry continually concerned about the availability of sufficiently skilled workers.

5. PWLs do not reduce participation of African-American workers in construction trades.

Finally, this study finds no substantial evidence that state PWLs are harmful to African-American participation in the construction industry. Claims that states with PWLs have reduced African-American participation in construction are based on simplistic analyses which are, at best, descriptive and unconvincing. More advanced work finds no evidence that PWLs act to the detriment of African-American workers.

In summary, prevailing wages for public construction projects in Illinois provide numerous positive economic and social impacts for both construction workers and the state on the whole. This study predicts that repeal of Illinois' PWL would not result in savings for taxpayers or the state or lead to increased employment of African-American construction workers. Rather, repeal of Illinois' PWL would result in job losses throughout the state's economy, increased construction worker fatalities, and declines in valuable social impacts such as construction worker benefits and training opportunities.

* See the Full Report for a detailed explanation of all of the study's key findings.

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An Intro to Prevailing Wage Laws

Prevailing wage laws (PWLs) are among the oldest policies intended to regulate labor markets. Although sometimes passed as stand alone legislation, a PWL has more often been a component of a legislative program to establish minimum or community standards in labor markets. As such, PWLs have been part of an effort to create a framework in which labor markets operate to improve living standards and ensure that economic development is broadly shared.

The fundamental issue addressed by prevailing wage legislation is how labor costs are set on public works projects. Establishing the cost of labor is not an issue for private construction both because no one project comprises a large proportion of the construction market and because private owners can establish parameters for their projects beyond the cost of the project. They can build project quality, timeliness, and other components into their projects and choose among bids to assure that goals are met. Private owners may choose the lowest bidder on a project or they may accept a higher cost bid which they believe will better satisfy their purposes.

The logic of public works contracting is quite different and typically does not follow the market logic of the private sector. Many states and localities have statutes which require them to accept the lowest bid on a project. Unlike private owners, they are largely precluded from allowing for differences in the likely quality of bids or the reputation of the bidder. As such, bidders must bid low to obtain a contract and to structure their bid to minimize costs even if this has adverse effects on project outcomes. Unfortunately, unscrupulous contractors have an incentive to game the designs, basing their bid on a narrow interpretation of the project

while noting flaws that will require changes in the design. Because these changes are negotiated when the project is underway, the contractor is in a good position to extract high prices for the needed improvements. This low-bid system can thus result in final costs which are considerably higher than expected or planned.

Another consequence of low bid requirements is that contractors will try to find the lowest-cost labor which, in an ideal situation, can complete the project so that it meets minimum engineering and quality stan-



dards. The incentive to use the lowest-cost labor sufficient to the task produces two consequences. First, it places a heavy burden on the public body to ensure through inspection that projects are being executed in a fashion which meets minimum standards. Still, even when minimum standards are met, there can be longer-term issues with the low quality of work which result in increased maintenance costs. The second issue is related to the large role which the public sector plays in the construction labor market. Public construction accounts for 20 to 30 percent of the construction market annually.* With such a large proportion of construction bids relying on the low-cost model, there is substantial and continual downward pressure on wages, benefits, and working conditions. Since public construction is such a sizeable share of the construction market, this downward pressure affects compensation and working conditions throughout the construction market.

Wage pressure is particularly acute in construction due to the inherently temporary nature of construction projects and employment. Construction workers are always working themselves out of a job. The need to continually find work makes construction contractors particularly sensitive to competitive pressures— failing to win bids can quickly result in a contractor going under. Similarly, construction workers often find themselves between jobs and without income, making them particularly vulnerable to accepting reduced wages. The downward pressure on wages does not, however, support a sustainable construction sector or labor force. While construction jobs may be short-lived, the skills needed to successfully complete jobs often require years of training and experience. Likewise, while employers with permanent labor forces may find it economically beneficial to support construction training (and provide benefits such as medical coverage, vacation benefits, and retirement benefits), the short-term relationship between construction employers and workers limits employer interest in developing and supporting employees. Moreover, the construction industry tends to underinvest in new technology and techniques because the returns are often not sufficiently immediate to pay off in the short time horizons in construction.

Prevailing wage laws are a partial solution to these problems. By setting compensation on public construction projects at the level of compensation for similar work on private projects, these laws reduce the downward pressure on construction wages and benefits which result from a low-bid system. By reducing the downward pressure on compensation while retaining the low-bid system, PWLs incentivize construction contractors to compete on the basis of efficiency and productivity. In this environment, low bids become the result of a combination of superior management practices, labor, and logistics. Since improved productivity has historically been far more important to economic growth than keeping labor costs low in America, this is a socially beneficial aspect of PWLs.

There are additional economic benefits to a construction market operating under the rules of PWLs. Low-cost labor is typically less skilled than more-expensive labor. A higher-skilled workforce is more likely to build a project to spec or above spec than a lesser-skilled workforce, and requires far less oversight and inspection. The reduced pressure on construction compensation also results in a labor market which is more likely to sustain an effective construction labor force. Finally, the superior skills and higher productivity which result from prevailing wages' incentive for firms to train workers, largely, if not entirely, offsets the increased labor costs associated with the policy.



2.

Prevailing Wages and Construction Project Costs

The preponderance of previous research on prevailing wages and their impact on total construction costs indicates that prevailing wage laws (PWLs) do not have a noticeable effect on the cost to government of public construction projects.[†] A forecast of anticipated savings in total construction costs from repealing Illinois' PWL can be estimated by multiplying estimated drops in construction worker earnings by the share of total costs attributed to labor on Illinois construction projects. Assuming that employee compensation will fall by between 3.40 percent and 7.51 percent, and that labor costs account for 30 percent of total costs, repeal could save contractors an estimated 1.02 percent to 2.25 percent on each project.^{††} This estimate, however, admittedly falls in the “first generation” camp of research, in both the equation and range of estimates. Simple approximation does not account for a number of variables, such as additional hours worked by any new, lower-skilled hires, negative productivity changes and alterations in the management practices of contractors who win bids— all of which can raise total construction costs and offset any savings. Accordingly, it is likely that, for Illinois, total construction costs would not be greatly affected by repeal of the prevailing wage.

3.

Economic Impacts of Prevailing Wage in Illinois

In 2011, construction sectors employed 5.2 million workers in the United States, representing roughly 4.6 percent of total national employment.¹ Approximately 180,000 Illinois workers were employed in construction jobs in 2011, accounting for about 3.6 percent of total state employment.² The construction industry in Illinois was valued at \$21.3 billion in 2012, or roughly 3 percent of the state's total Gross Domestic Product (GDP).³ Upwards of 29,000 firms are engaged in construction work in Illinois.⁴

Statewide Employment and GDP Impacts

Application of standard earnings and elasticity estimates to measure economic impacts provides a forecast of anticipated employment and output changes should Illinois repeal its prevailing wage law (PWL).^{†††} These middle-of-the-road estimates predict a 5.46 percent reduction in construction workers' wages and a 2.18 percent increase in construction worker employment. Table 1 displays the results of applying these effects to the statewide economic impact model.

* The 20 to 30% are rough but reasonably accurate limits on the proportion of construction spending accounted for by public funds. For example, in June 2013, public construction accounted for 29.5% of construction spending in the construction spending series of the Bureau of the Census (see <http://www.census.gov/construction/c30/prexcel.html>). In contrast, in June, 2006, near the peak of the upswing residential construction boom, public construction accounted for 22.5% of all construction.

[†] See Chapter 3 in the Full Report for a comprehensive review of previous studies that examine the impact of PWL on construction costs.
^{††} See Chapter 4 “Study Inputs and Estimates” section in the Full Report for description of how employee compensation is calculated.
^{†††} See Chapter 4 in the Full Report for detailed description of the methodology of this economic impact analysis including study assumptions, inputs, and estimates.

Table 1: Direct, Indirect, and Induced Effects on Employment, Earnings, and GDP for Illinois if PWL is Repealed, Middle-of-the-Road Estimates, 2013

Impact Type	Change in Jobs	Change in Worker Earnings	Effect on Illinois' GDP
Direct Effect	332	-\$364.9 million	-\$541.4 million
Indirect Effect	-1,070	-\$61.2 million	-\$174.4 million
Induced Effect	-2,539	-\$120.0 million	-\$357.1 million
Total Effect	-3,277	-\$546.0 million	-\$1,072.9 million

Source: Result of authors' insertion of middle-of-the-road employment and earnings estimates (Table 1) into IMPLAN's industry change feature, which estimates industry spending patterns through Type SAM multipliers. The Labor Education Program utilizes IMPLAN (IM-pacts for PLANning) Version 3.0.17.2, Minnesota IMPLAN Group, Inc., © 2011.

The direct impact of this wage reduction and corresponding increase in employment estimates that approximately 332 new construction jobs will be created across the state should the PWL be repealed. However, any increase in employment is dramatically offset by losses in other jobs both related to construction work and in the larger economy. This model assumes that repeal of the PWL would increase competition from non-Illinois construction firms and lower the percentage of work conducted by Illinois firms by 1.85 percent. Using the middle-of-the-road earnings and elasticity estimates, a decrease in work performed by Illinois firms would result in the loss of over 1,000 jobs indirectly related to construction projects. Of even greater importance are the expected job losses tied to the 5.46 percent reduction in construction workers' income. Table 2 examines the top 20 sectors of the Illinois economy that would likely experience job losses should construction workers have their wages reduced.

Table 2: Top 20 Sectors Experiencing Job Losses in Illinois if PWL is Repealed, Middle-of-the-Road Estimates, 2013

Rank	Sector	Direct	Indirect	Induced	Total Jobs Lost
	Total	332	-1,070	-2,539	-3,277
1	Food services & drinking places		-26	-253	-280
2	Architectural, engineering, & related services		-181	-8	-189
3	Retail Stores - General merchandise		-60	-98	-158
4	Offices of physicians, dentists, & related practitioners		0	-147	-147
5	Private hospitals		0	-147	-147
6	Retail Stores - Food & beverage		-54	-89	-144
7	Wholesale trade businesses		-45	-97	-142
8	Real estate establishments		-20	-97	-117
9	Employment services		-50	-44	-94
10	Nursing & residential care facilities		0	-91	-91
11	Retail Stores - Motor vehicle & parts		-27	-53	-80
12	Retail Stores - Clothing & clothing accessories		-26	-46	-72
13	Transport by truck		-42	-26	-68
14	Retail Stores - Direct & electronic sales		-21	-47	-67
15	Retail Stores - Miscellaneous		-25	-42	-66
16	Individual & family services		0	-64	-64
17	Securities, commodity contracts, investments, etc.		-14	-46	-59
18	Services to buildings & dwellings		-27	-32	-59
19	Retail Stores - Health & personal care		-22	-36	-58
20	Civic, social, professional, & similar organizations		-16	-35	-51

Source: Result of authors' insertion of middle-of-the-road employment and earnings estimates (Table 1) into IMPLAN's industry change feature, which estimates industry spending patterns through Type SAM multipliers. The Labor Education Program utilizes IMPLAN (IM-pacts for PLANning) Version 3.0.17.2, Minnesota IMPLAN Group, Inc., © 2011.

The top three sectors that would experience the greatest job losses should the PWL be repealed in Illinois are: food services and drinking places; architectural, engineering, and related services; and retail stores. Decreases in architectural and engineering jobs can be attributed to the anticipated influx of out-of-state contractors who are more likely to subcontract work to firms outside of Illinois. Job losses in retail work are related to both indirect and induced impacts, as out-of-state firms will likely purchase some tools, equipment, and materials outside of Illinois, and construction workers with reduced incomes will have less disposable income to spend in retail stores. Reduced wages for construction workers will also result in job losses for employees of restaurants and drinking places.

It is predicted that repeal of the PWL in Illinois would also lead to declines in the value of production for all industries, or the GDP for Illinois (shown as "Effect on Illinois' GDP" on Table 1). In this model, GDP is based on annual production estimates for the year of the dataset, are adjusted to 2013 estimates, and are in producer prices. For manufacturers, this would be sales plus or minus change in inventory. For service sectors, production is equivalent to sales. For retail and wholesale trade, productive output equals gross margin, not gross sales. With the middle-of-the-road earnings and elasticity estimates, repeal of Illinois' PWL contracts GDP by more than \$1.07 billion.

Tax Impacts

Job losses and reduced wages will result in negative tax impacts for local governments, the State of Illinois, and the federal government. Table 3 shows a breakdown of different state and local tax impacts for the middle-of-the-road estimate of 5.46 percent reduction in construction workers' income and a 2.18 percent increase in construction worker employment. If Illinois' PWL is repealed, the anticipated total state and local tax impact would be a \$44.35 million loss in government revenue. As reported in Table 4, it is expected that repeal would also lead to almost \$115.8 million in lost federal tax revenue.

Table 3: State and Local Tax Impacts for Illinois if PWL is Repealed, Middle-of-the-Road Estimate, 2013

Tax Description	Change in Tax Revenue
Total State and Local Taxes and Fees	-\$44.35 million
Personal Tax: Income Tax	-\$7.31 million
Personal Tax: Fines and Fees	-\$2.46 million
Personal Tax: Motor Vehicle Licenses	-\$0.86 million
Personal Tax: Property Taxes	-\$0.30 million
Personal Tax: Other Taxes	-\$0.14 million
Social Insurance Tax: Employee Contribution	-\$0.63 million
Social Insurance Tax: Employer Contribution	-\$1.12 million
Business Tax: Sales Tax	-\$12.90 million
Business Tax: Property Tax	-\$14.29 million
Business Tax: Motor Vehicle Licenses	-\$0.39 million
Business Tax: Corporate Profits Tax	-\$1.53 million
Business Tax: Other Taxes and Fees	-\$2.35 million
Dividends	-\$0.05 million

Source: Result of authors' insertion of middle-of-the-road employment and earnings estimates (Table 1) into IMPLAN's industry change feature, which estimates industry spending patterns through Type SAM multipliers. The Labor Education Program utilizes IMPLAN (IM-pacts for PLANning) Version 3.0.17.2, Minnesota IMPLAN Group, Inc., © 2011.

Table 4: Federal Tax Impacts for Illinois if PWL is Repealed, Middle-of-the-Road Estimate, 2013	
Tax Description	Change in Tax Revenue
Total Federal Tax	-\$115.79 million
Personal Tax: Income Tax	-\$40.49 million
Social Insurance Tax: Employee Contribution	-\$24.28 million
Social Insurance Tax: Employer Contribution	-\$40.18 million
Business Tax: Excise Taxes	-\$2.15 million
Business Tax: Other Duties and Fees	-\$0.91 million
Business Tax: Corporate Profits Tax	No change

Source: Result of authors' insertion of middle-of-the-road employment and earnings estimates (Table 1) into IMPLAN's industry change feature, which estimates industry spending patterns through Type SAM multipliers. The Labor Education Program utilizes IMPLAN (Impacts for PLANning) Version 3.0.17.2, Minnesota IMPLAN Group, Inc., © 2011.

Regional Impacts

In addition to the statewide analysis, this study examines economic impacts for eight Illinois regions focused on the cities of Carbondale, Champaign-Urbana, Chicago, Peoria-Bloomington, the Quad Cities, Rockford, Springfield-Decatur, and St. Louis. Table 5 displays the results of applying the middle-of-the-road inputs of a 5.46 percent reduction in construction workers' wages and 2.18 percent increase in construction employment to each region. The effects, sorted by area, are presented as total (direct plus indirect plus induced) impacts on employment, labor income, and output.

Table 5: Effects to Employment, Earnings, and GDP for Illinois Regions if PWL is Repealed, Middle-of-the-Road Estimates, 2013			
Middle-of-the-Road Estimates, 2013	Change in Jobs	Change in Worker Earnings	Effect on Regional GDP
Chicago Six County	-2,060	-\$372.6 million	-\$658.4 million
Springfield Four County	-66	-\$13.4 million	-\$26.6 million
Quad Cities Three County	-24	-\$5.5 million	-\$13.5 million
Rockford Two County	-54	-\$8.4 million	-\$21.1 million
St. Louis Two County	-130	-\$22.0 million	-\$51.1 million
Carbondale Two County	-17	-\$2.9 million	-\$8.2 million
Champaign Three County	-33	-\$5.1 million	-\$13.4 million
Peoria Five County	-107	-\$17.0 million	-\$39.2 million

Source: Result of authors' insertion of middle-of-the-road employment and earnings estimates (Table 1) into IMPLAN's industry change feature, which estimates industry spending patterns through Type SAM multipliers. The Labor Education Program utilizes IMPLAN (Impacts for PLANning) Version 3.0.17.2, Minnesota IMPLAN Group, Inc., © 2011.

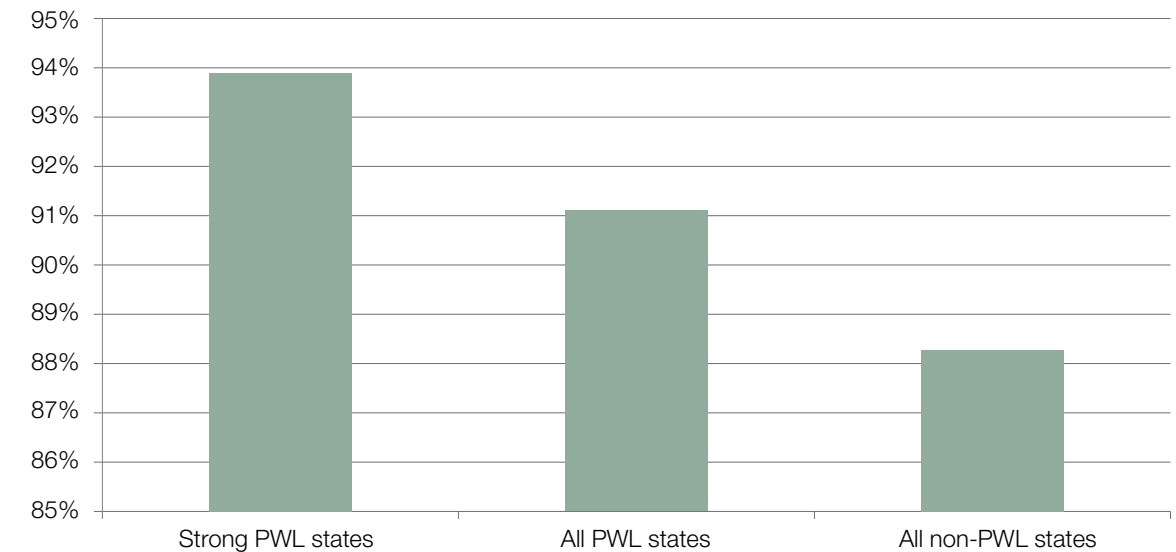
In-state Contractor Impacts

As discussed above, PWLs tend to discourage use of out-of-state contractors, since in-state contractors have an increased probability of being awarded contracts for publicly funded construction projects.⁵ A comparison of the experiences of states with strong PWLs, all states with PWLs, and states with no PWLs, confirms this assessment. Data collected for the 2007 Economic Census reveals that, a median of 93.9 percent of all construction work was performed by in-state contractors in states with strong PWLs (California, Illinois, Massachusetts, Michigan, Minnesota, Missouri, New Jersey, New York, Ohio, Rhode Island, Washington, Wisconsin, and West Virginia) (Figure 1).^{*} Inclusion of states with average and weak PWLs to this group lowers

* See "Prevailing Wages and Worker Fatalities" section for a discussion of the differences between strong, average and weak PWLs.

the median percentage of construction work performed by in-state contractors to 91.1 percent. In states with no PWLs, a median of 88.3 percent of construction work was completed by in-state contractors.

Figure 1: Percentage of Construction Work Performed by In-State Contractors, Medians



Source: 2007 Economic Census of the United States for the Construction Industry for all states excluding Alaska, Hawaii, and Washington, DC. The Economic Census profiles U.S. national and local economies every five years, and is carried out by the U.S. Census Bureau and the U.S. Department of Commerce. Medians are used due to outlier states (Nevertheless, the average for strong PWL states is 91.0 percent and for non-PWL states is 89.2 percent).



4.

Worker Health, Safety, and Benefits Impacts

Worker Health & Safety

The Occupational Safety & Health Administration (OSHA) classifies construction as a high hazard injury comprising a wide range of activities involving building, alteration, and/or repair. On-the-job injuries, illnesses, and fatalities produce a costly impact on the construction industry in the United States. The negative consequences of occupational injuries and illness affect not only construction workers and their families, but also their employers, taxpayers, and the economy in general. While direct costs of injuries and illnesses include medical payments and lost wage replacements, many indirect costs can also be associated with worker injuries on construction sites. Some important, and often very expensive, indirect costs include: loss of productivity, production delays, damaged equipment and the costs of replacing or repairing the equipment, lawsuits, and increased workers compensation expenses.⁶



Work-related Injuries and Illnesses

The BLS Survey of Occupational Injuries and Illnesses (SOII) provides state-level data for nonfatal cases of work-related injuries and illnesses that are recorded by employers under the OSHA's record-keeping guidelines. A 2009 report conducted for Congress by the Government Accountability Office (GAO) found that many employers did not report workplace injuries and illnesses because they did not want to increase workers' compensation costs and also feared that it might negatively impact their chances of winning contracts.⁷ Workers, on the other hand, often did not report job-related injuries for fear of being disciplined or even terminated. In total, the GAO found that data from OSHA did not include up to two-thirds of all workplace injuries and illnesses. In addition, 53 percent of health practitioners reported experiencing pressure from companies to downplay injuries or illnesses and 47 percent reported experiencing this pressure from workers.

The underreporting of occupational injuries and illnesses suggests that a comparison of the experiences of states with prevailing wage laws (PWLs) and those without would potentially be unreliable. Despite these valid concerns, some earlier studies have predicted that the repeal of prevailing wage regulations leads to increased worker injuries and illnesses in construction sectors.⁸ An examination of the experiences of the nine states that repealed their PWLs between 1979 and 1985 revealed that workplace injuries for construction workers increased 15 percent post-repeal.⁹

Work-related Fatalities

Fatality rates, as opposed to worker injuries and illnesses, provide a more accurate assessment of comparative experiences on the state level. Simply stated, deaths of workers on the job are difficult to conceal. Fatal injury rates depict the risk of incurring a fatal occupational injury and can be used to compare risk among different worker groups. Data for fatal cases of work-related injuries are available for all U.S. states and ter-

ritories from the Bureau of Labor Statistics (BLS) Census of Fatal Occupational Injuries (CFOI)¹⁰. A comparison between construction worker fatality rates in states with PWLs and those working in states with no PWL shows that the absence of regulation tends to correlate with increased fatalities in the construction sector.

Prevailing Wages and Worker Fatalities

States with PWLs maintained an average fatal work-related injury rate of 10.82 deaths per 100,000 full-time construction workers for the period 2008-2010. In comparison, states with no statewide prevailing wage requirements experienced an average fatal injury rate of 12.12 deaths per 100,000 workers during the same time frame. While this difference in average rates is not statistically significant due to the small number of observations, the discrepancy does suggest that states with PWLs suffer fewer work-related casualties in the construction sector than states with no regulations.

The difference in fatality rates is even more pronounced when states are divided into classifications based on the “strength” of their local laws.* Table 6 displays the division of prevailing wage states into strong, average, and weak categories. Additionally, Table 6 includes states that never had PWLs and those that had PWLs which were later repealed. Illinois’ PWL is considered a strong law.

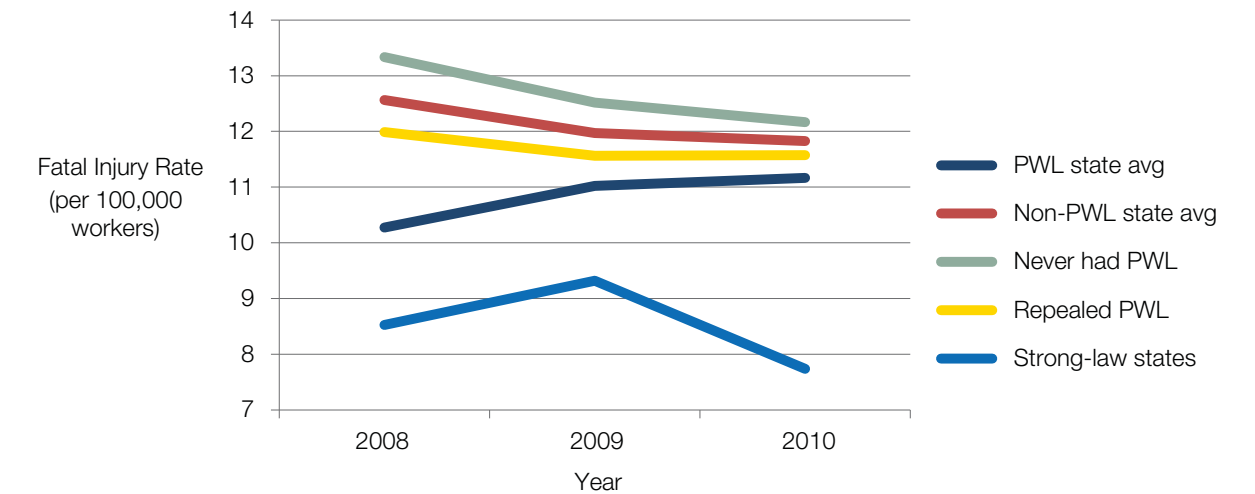
Strong PWL	Average PWL	Weak PWL	PWL repealed (with year of repeal)	Never had PWL
California	Alaska	Kentucky	Alabama (1980)	Georgia
Hawaii	Arkansas	Maine	Arizona (1984)	Iowa
Illinois	Connecticut	Maryland	Colorado (1985)	Mississippi
Massachusetts	Delaware	Nebraska	Florida (1979)	North Carolina
Minnesota	Indiana	Tennessee	Idaho (1985)	North Dakota
Missouri	Montana	Texas	Kansas (1987)	South Carolina
New Jersey	Nevada		Louisiana (1988)	South Dakota
New York	New Mexico		New Hampshire (1985)	Vermont
Rhode Island	Ohio		Oklahoma (1995)	Virginia
Washington	Oregon		Utah (1981)	
West Virginia	Pennsylvania			
Wisconsin	Wyoming			
Michigan				

Source: See Appendix A in Full Report; Thiebolt (1995).

Figure 2 shows average incidence rates of fatal injuries from 2008-2010 across all construction sectors for states with PWLs and states with no PWLs, as well as states with strong PWLs, states that never had PWLs, and states that had PWLs that were later repealed. During this time period, states with strong PWLs maintained an average of 8.53 fatal work-related injuries per 100,000 full-time workers in construction sectors. In stark contrast, states that never had PWLs on the books experienced an average of 12.67 work-related construction fatalities during these same years. The second-highest average incidence rate of fatal construction work-related injuries occurred in states with no PWLs (12.12), followed by states that had repealed their PWLs (11.71). The difference between strong law and states without a PWL is statistically significant. As has been previously stated, states with PWLs possessed an average incidence rate of fatal injuries in construction sectors of 10.82 from 2008-2010.

* Prevailing wage laws have been assigned points in relation to four distinct categories: 1) threshold contract amounts, 2) types of contracts covered, 3) setting of prevailing wage rates, and 4) breadth of work and workers covered. Other miscellaneous factors were also used to assess the laws such as enforcement requirements, compliance requirements, penalties for violations, etc. (Thiebolt, 1995).

Figure 2: Incidence Rates of Fatal Injuries in Construction Sectors, PWL and Non-PWL States, 2008-20



Source: “State Occupational Injuries, Illnesses, and Fatalities,” U.S. Department of Labor, Bureau of Labor Statistics for the years 2008 to 2010. Strength of PWL is subject to definitions found in Table A of the Appendix.

Predictions for Illinois

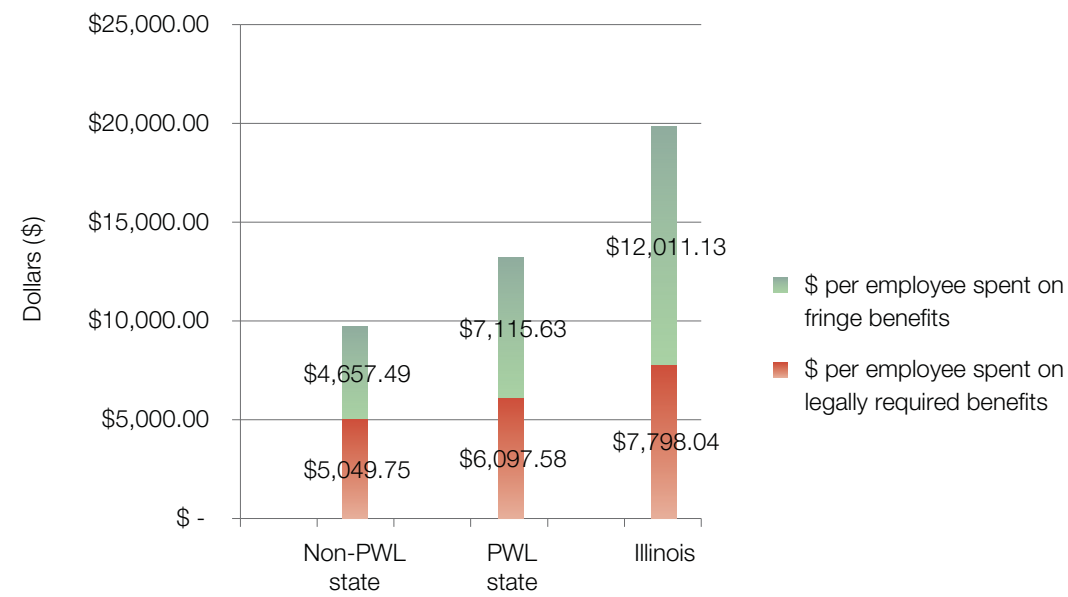
A forecast of anticipated work-related fatalities for Illinois construction workers should the PWL be repealed can be estimated by comparing Illinois fatality rates and fatality rates in states that have repealed their laws. The average incidence rate of fatal injuries from 2008-2010 for construction workers in Illinois was 9.4 deaths per 100,000 workers. Thirty-two construction workers were killed on the job in Illinois in 2008, 27 workers died in 2009, and another 27 were killed in 2010. If prevailing wage were to be repealed in Illinois, it could be estimated that an additional seven Illinois construction workers would lose their lives on an annual basis.¹¹ This estimate assumes that construction industry production would be similar to levels experienced from 2008-2010. Extrapolated over the span of a decade, approximately 70 additional Illinois workers would suffer fatal work-related injuries in construction sectors due to the repeal of PWLs. Since this assumes long-term production similar to that seen in the Great Recession when output was down, this is likely a conservative estimate of the increase in fatalities.

Benefits

Benefits provided to workers in addition to their salaries can be split into two main categories: legally-required benefits and fringe benefits. Legally-required benefits include expenditures made by employers for Social Security and Medicare contributions, unemployment insurance, worker’s compensation, and state temporary disability payments. In contrast, fringe benefits are voluntary expenditures made by employers for items such as life insurance premiums, pension plans, medical insurance premiums, welfare plans, and other union negotiated benefits.

The Economic Census provides state-level data on the dollar amounts spent by employers on both legally required benefits and fringe benefits in the construction industry. In 2007, the most recent year in which an Economic Census was conducted, employers in construction sectors spent roughly \$5,050 per employee on legally-required benefits in states with no PWLs. In comparison, states with PWLs spent over one thousand dollars or 17.2 percent more per employee on legally-required benefits during this same time period.¹² The difference in spending is even more pronounced when comparing dollars spent on fringe benefits or voluntary expenditures by employers in construction. Firms spent an average of \$4,657 per employee on fringe benefits in states with no PWLs in 2007. In this same year, construction employers spent approximately \$7,116 per worker on fringe benefits in states with PWLs. The disparity in these experiences is displayed in Figure 3.

Figure 3: Dollars Spent Per Employee in Construction Sectors, United States, 2007



Source: 2007 Economic Census of the United States for the Construction Industry. The U.S. Census Bureau and the U.S. Department of Commerce conduct the Economic Census.

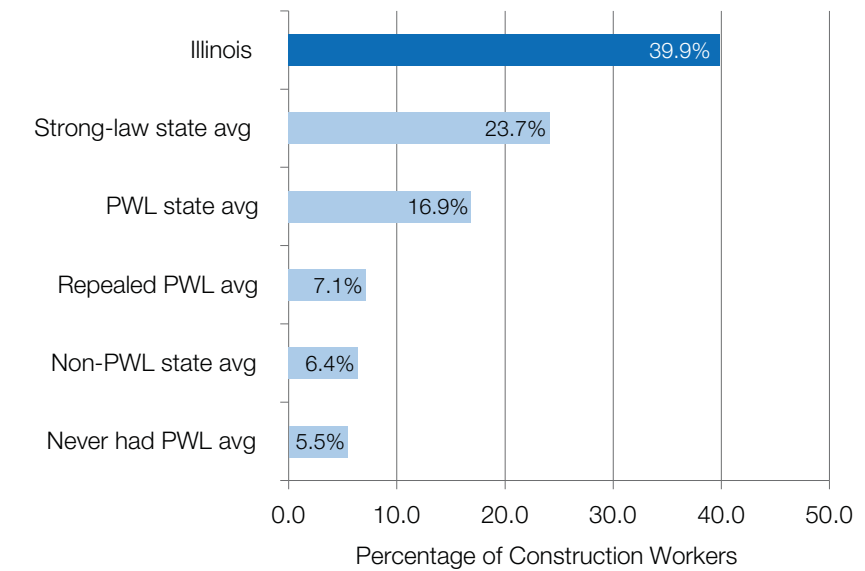
As with the comparisons of work-related fatalities in states with strong PWLs and states that do not have any such regulation, the practices of Illinois employers in construction sectors are significantly different than those of construction employers in states with no PWLs. In Illinois, employers in the construction industry spent roughly \$7,798 per employee on legally-required benefits and \$12,011 per employee on fringe benefits as of the 2007 Economic Census. These amounts represent over 50 percent of what construction employers spent on legally required benefits and more than 150 percent of employer spending on fringe benefits or voluntary expenditures in states with no PWLs.

Union Density

States that have PWLs tend to have higher levels of union membership, coverage, and density in construction sectors when compared to states with no PWLs (Figure 4).¹³ In 2012, an average of 16.9 percent of construction workers were covered by collective bargaining agreements in states that maintain PWLs. In states that have strong PWLs, an average of 23.7 percent of construction workers were covered by collective bargaining agreements.* Illinois maintained the highest percentage of construction workers covered by union agreements during this time period, with 39.9 percent of employees working under collectively bargained contracts. Nationally, approximately 15.1 percent of construction workers were covered by collective bargaining agreements in 2012.

* See "Prevailing Wages and Worker Fatalities" section above for a discussion of the differences between strong, average and weak PWLs.

Figure 4: Percentage of Workers Covered by Collective Bargaining Agreements in Construction Sectors, PWL and Non-PWL States, 2012



Source: "Union Membership and Coverage Database from the Current Population Survey." Barry T. Hirsch and David A. Macpherson, 2012.

In contrast, only 6.4 percent of construction workers in states with no PWLs were covered by collective bargaining agreements in 2012. A closer examination of this data reveals that among states that never had PWLs, only 5.5 percent of construction workers had collective bargaining coverage, while in states that repealed their PWLs, 7.1 percent of construction workers had union coverage last year. This is consistent with findings from other studies that examined labor market impacts post-repeal of PWLs.¹⁴ These reports show that repeal of PWLs tends to lead to declines in union membership, among other measurable economic and social impacts.

Employee Misclassification And The Prevailing Wage

Employee and wage misclassification occurs when employers (1) treat employees as independent contractors, (2) classify employees working in one trade as working in a different trade, or (3) either fail to report or misreport employee wages. Employers misclassify employees and wages to reduce or evade payroll taxes and mandated benefits such as unemployment insurance, workers compensation, federal and state income taxes, Social Security and Medicare taxes, and payment of prevailing wages.

Misclassification is a particularly serious problem in construction. Current research suggests that up to one-third of all construction employees are misclassified in reports to state unemployment insurance agencies. The following section begins with an overview of the current research on misclassification in construction and concludes with implications for the prevailing wage.

The Extent and Costs of Misclassification of Employees and Wages

Carre and Wilson of the Center for Social Policy at the University of Massachusetts– Boston pioneered the methods used in contemporary studies of misclassification in their 2004 study.¹⁵ Using records from the Massachusetts Unemployment Insurance Agency, their analysis of records for the construction industry showed that between 14 percent and 24 percent of industry employers classified employees as independent contractors and that between 5 percent and 11 percent of construction employees in Massachusetts were misclassified between 2001 and 2003. Misclassification is expensive for both the employees and the State of Massachusetts. Between \$1.0 and \$3.9 million in unemployment insurance taxes were not levied, between \$91 and \$152 million in income tax revenue was lost, and \$7 million in workers compensation premiums was

lost due to misclassification between 2001 and 2003. The misclassification of employees is also expensive for employees, as they do not receive either unemployment insurance payments when they are out of work or payments for injuries from the workers compensation system.

Subsequent studies of Maine,¹⁶ Michigan,¹⁷ New York,¹⁸ Texas,¹⁹ California,²⁰ Washington,²¹ Minnesota,²² Ohio,²³ Florida,²⁴ and Illinois²⁵ have found very similar issues with misclassification and its effect on both employee exposure to income risk if they are unemployed or injured and effects on local, state, and federal revenue. Using state unemployment insurance records from 2001 to 2005, the Illinois study found that 17.8 percent of the state's employers had misclassified employees as independent contractors and that the misclassification rate was rising over the period of the study.²⁶ On average, 7.5 percent of Illinois employees were misclassified; that percentage rose from 5.5 percent in 2001 and to 8.5 percent in 2005. The state unemployment insurance system lost an average of \$39.2 million dollars annually, with losses in construction totaling \$2.0 million each year alone. Misclassification reduced state income tax revenue by between \$125 and \$208 million each year, with the reduction from construction falling between \$10.4 and \$14.8 million annually. Twenty-three million dollars to \$35 million in workers compensation premiums were not paid by the construction industry.

Misclassification of employees throughout the economy, and particularly in construction, creates a real and substantial burden on employees and taxpayers. The burden on employees is the exposure to income risk when they become unemployed and risks to their health and income when they are injured on the job. The burden to society is both the reduction in tax revenues and the tendency of workers without unemployment insurance to rely on governmental support. A third burden in construction is the disadvantage that scrupulous firms which play by the rules and pay a fair share of payroll taxes face relative to firms which, by evading these payments, are able to offer services at lower prices.

Misclassification and Other Aspects of Fraud under the Davis-Bacon Act

Research in this area has focused on misclassification in the unemployment insurance and the workers compensation systems. None of the research specifically addresses issues of misclassification and fraud on prevailing wage projects. As a result, the foundation for this discussion is less empirically based than is ideal.

There are two issues related to payroll fraud on prevailing wage projects. First, considering employee misclassification, the issues on prevailing wage work are the underpayment of employee wages and benefits. As with misclassification on other work, misclassification can occur by either classifying employees as independent contractors or as working in jobs in lower-wage trades. Because there is not specific research on misclassification in relation to prevailing wage work, it is unknown whether misclassification is more or less common on prevailing wage work than throughout the entire industry. There is reason to suspect, however, that misclassification may be less prevalent in prevailing wage work, since the requirement to file certified payroll documents makes an employer's classification of employees considerably more transparent than for non-prevailing wage work. Fraud on prevailing wage work also carries penalties beyond those typically associated with misclassification, raising the costs of being caught.

The second form of payroll fraud on prevailing wage projects is the underpayment of benefits required by PWLs. Wage payments in PWLs are relatively straightforward, but benefit payments can be more complex because they are not immediately visible to employees and it is relatively easy to mischaracterize benefit payments.

PWLs typically require that any benefits paid on a prevailing wage project go toward funding benefits which are used during the period of the project. Payments for medical insurance, for instance, cannot be used to offset insurance for coverage before or after the project. Similarly, pension payments associated with prevailing wage work cannot be used to offset employer payments into a pension fund outside of the period of the project. Despite these requirements, it is not uncommon for employers to use required medical and pension contributions to offset their annual pension and medical costs.

Issues of misclassification and underpayment of prevailing wage benefits are almost entirely a problem associated with nonunion employers. Because a union member's trade is determined by his or her union affiliation, signatory employers have little latitude for misclassification. Likewise, the structure of union benefit programs provides little to no ability of an employer to cheat a worker out of his or her contractual benefit.*

* The most common form of misclassification in unionized construction is misclassification of wage payments. This occurs when employers and employees classify regular wage payments, such as overtime, travel expenses, and other categories as not subject to taxation. While not common, this does occur and typically reflects an agreement between employers and employees, both of whom benefit by concealing income from income taxation, unemployment, workers compensation payments, and other payments linked to wages.



Apprenticeship Program Impacts

Prevailing Wages And Apprenticeship Training

Trades work in construction requires skills which take time, classroom and supervised work experience to acquire. There are many providers of such training, including the U.S. military, community colleges, and private companies. Apprenticeship programs are one of the most important sources for skills training in construction. Apprenticeships, programs by trade which provide a mixture of classroom training and supervised work experience, last between three and five years (between 6,000 and 10,000 hours). Movement through the apprenticeship system and qualification as a journeyman requires the passage of tests, a demonstrated mastery of skills, the attendance of classes, and an accumulation of work experience.

The Davis-Bacon Act supports apprenticeship training by including employer contributions to employee training as part of the prevailing wage. In addition individuals registered in an approved apprenticeship program can be paid an apprentice wage, between 50 percent and 90 percent of the journeyman wage. This encourages the use of apprentices on construction projects, as they are less expensive than journey workers.

The central issue in this analysis is whether state PWLs effectively support apprenticeship training in construction. Phillips et al. (1995) finds that the repeal of state PWL in Utah resulted in a large decline in the number of apprenticeship programs and apprentices in that state.²⁷ The approach of this paper is to examine apprenticeship ratios for the states with and without apprenticeship programs which participate in the RAPIDS system.

Table 7: Comparison of Apprenticeship Shares by Presence of State PWL, 1991-2011

	Mean	Weighted Mean	Minimum	Median	Maximum
State With PWL	16.8%	14.4%	1.9%	14.4%	16.4%
State Without PWL	8.9%	7.7%	7.2%	8.4%	35.7%

Source: "Registered Apprenticeship Partners Information Management Data System," U.S. Department of Labor, Office of Apprenticeship Training data for the years 1999 to 2011.

Table 7 provides summary statistics on apprenticeship shares, the percentage of the number of apprentices to the number of individuals in the construction labor force by the presence or absence of a state PWL. On a proportional basis, there are nearly twice as many apprenticeships in states with PWLs as in those without such laws. The mean percentage for states with prevailing wage laws is 16.8 percent while the mean percentage for those without such laws is 8.9 percent. Adjusting these shares for the relative levels of employment in each state makes little difference; the percentage for states with prevailing wage laws is 14.4 percent relative to 7.7 percent for states lacking prevailing wage laws. The median for the states are 14.4 percent and 8.4 percent respectively. Apprentice shares in prevailing wage states are then 1.7 to 1.9 times those of non-prevailing wage states. Statistical tests for the difference in the percentages between the prevailing and non-prevailing wage states strongly reject the hypothesis that the apprentice percentages are no greater in the prevailing wage states.²⁸

This data strongly supports the view that state PWLs are supportive of construction apprenticeship programs. This approach does not investigate the causal linkages beyond the obvious requirement that employers put money aside for construction training and the financial incentive to use apprentices. Nevertheless, these telling results suggest that, in an industry which is continually concerned about the availability of sufficiently skilled workers, state PWLs support the construction training system.



Apprenticeship Training and Minority Outcomes

A common argument against prevailing wages is that prevailing wage laws exclude African-Americans from employment in the construction industry. Initially developed by Thieblot (1975),²⁹ this argument has been taken up by other authors and organizations opposed to PWLs.³⁰

The economic logic behind the charge of discrimination is based on the premise that African-Americans are less skilled in construction work than other groups, possibly due to limited access to construction training programs. Since the prevailing wage is theoretically above the wage at which lower-skilled workers can profitably be employed, those workers end up being excluded from employment on prevailing wage projects. This, consequently, reduces the employment opportunities of African-American workers. The premise of this theory is open to challenge, particularly in the present day when access to training is legally protected.

An alternative explanation for a situation in which PWLs indirectly exclude African-Americans from the construction labor force is that, by setting an above-market wage, the prevailing wage attracts a larger pool of workers to the projects. Employers with a “taste for discrimination” can then choose the workers they want and exclude African-Americans.

A review of the current evidence finds that claims that PWLs indirectly discriminate against non-white workers are founded on weak and incomplete analyses which, if corrected, do not support the position. Vedder and Galloway (1995) find that federal and state prevailing wage laws were associated with a reduced proportion of African-Americans in the construction labor force and higher African-American unemployment.³¹ The analysis, however, is merely descriptive and fails to control for other factors which may influence the results, and is thus of limited value in assessing the causal relationship between PWLs and African-American employment in construction. Thieblot (1999) improves on the analysis of Vedder and Galloway by adjusting 1990 Census data on the proportion of African-Americans in the construction labor force for the racial composition of the employed labor force of the state.³² He reports that, in states without prevailing wage laws, the proportion of African-Americans in the construction labor force is closer to the share of African-Americans employed in the rest of the state, suggesting that prevailing wages discriminate against hiring African-American workers. Thieblot, however, does not use statistical tests to determine if his numbers are meaningfully different or allow for other factors to influence the outcome. A note by Azari-Rad and Philips (2003) suggests that when the states without PWLs are divided by those in the South and those outside of the South, there is no evidence that African-American participation in the construction labor force differs between prevailing wage states and non-prevailing wage states outside of the South.³³ Thieblot’s results, they conclude, are actually an outcome of the disproportionate influence of Southern states with large African-American populations and without PWLs.

Recent work by Belman and Philips (2005) and by Belman, Ormiston, and Petty (2013) finds no evidence of a relationship between the presence of state PWLs and African-American participation in construction employment.³⁴ Applying contemporary methods to the 1994 Current Population Survey, Belman and Philips find that there is a simple negative relationship between the presence of a state PWL and the proportion of African-Americans in the construction labor force. When the proportion of African-Americans in the state’s non-construction labor force is accounted for, this relationship vanishes entirely. Further controlling for individual characteristics such as age, gender, residence in a metropolitan area, marital status, educational attainment, union membership, and the proportion of construction workers represented by a union does not alter this result. The finding of a negative relationship between the presence of PWLs and lower African-American employment in construction is then an artifact of the lack of PWLs in states with large African-American populations.



Belman, Ormiston, and Petty's preliminary estimates update and broaden prior work. The authors consider the effect of PWLs in 1995 and 2006 on the racial composition of the construction industry and on the distribution of African-Americans across industries. The 1995 estimates for the effect of PWLs on African-American employment in construction are similar to those reported in Philips and Belman (2005). The 2006 estimates suggest that even the simple correlation between prevailing wage and African-American employment in construction is becoming smaller in magnitude and statistically weaker over time. Preliminary estimates of the effect of PWLs on the distribution of African-Americans across construction employment, other blue collar employment, service employment, white collar employment, unemployment, and outside of the labor force finds that PWLs in fact increase the proportion of African-Americans in construction.

Despite considerable allegations, there is no substantial evidence that PWLs are harmful to African-American participation in the construction industry. Claims that states with PWLs have reduced African-American participation in construction are based on simplistic analyses which are, at best, descriptive and unconvincing. More advanced work finds no evidence that PWLs act to the detriment of African-Americans.



7.

Conclusion

Findings from this study indicate that Illinois' prevailing wage law (PWL) is associated with positive labor market outcomes for construction workers at costs that are either negligible or fully offset. Additional labor costs associated with the statewide PWL are outweighed by other substantial positive impacts for the state economy and Illinois taxpayers. In all likelihood, total construction costs would not be greatly affected by repeal of the PWL due to potential changes in workforce, productivity, and management practices associated with the policy change. Indeed, repeal of Illinois' PWL would likely cost the state money, result in job losses, and reduce construction sector efficiency.



This study forecasts that employment in the construction industry would likely increase should the statewide PWL be repealed. However, any new jobs linked to repeal would be significantly offset by job losses experienced throughout the rest of the economy. These indirect effects of repeal would result in about 3,300 net jobs lost, in a total GDP contraction of more than \$1 billion annually for Illinois, more than \$44 million in lost state and local taxes, and roughly \$116 million in lost federal tax revenue. Within the state, the negative results are comparable for each of the eight regions studied.

If the prevailing wage were to be repealed in Illinois, it is estimated that an additional seven Illinois construction workers would lose their lives on an annual basis. Extrapolated over the span of a decade, approximately 70 additional Illinois workers would suffer fatal work-related injuries in the construction industry due to the repeal of the state's PWL. It can also be anticipated that employer contributions to both legally-required and fringe benefits for construction workers would dramatically decline.

Additionally, the data examined in this study strongly affirms the claim that state PWLs are supportive of construction apprenticeship programs. Study findings suggest that state PWLs support the construction training system, a critical component for an industry continually concerned about the availability of sufficiently skilled workers.

Finally, this study finds no substantial evidence that state PWLs are harmful to African-American participation in the construction industry. Claims that states with PWLs have reduced African-American participation in construction are based on simplistic analyses which are, at best, descriptive and unconvincing. More advanced work finds no evidence that PWLs act to the detriment of African-American workers.

In summary, prevailing wages for public construction projects in Illinois provide numerous positive economic and social impacts for both construction workers and the state on the whole. This study predicts that repeal of Illinois' PWL would not result in savings for taxpayers or the state or lead to increased employment of African-American construction workers. Rather, repeal of Illinois' PWL would result in job losses throughout the state's economy, increased construction worker fatalities, and declines in valuable social impacts such as construction worker benefits and training opportunities.

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² U.S. Census Bureau. 2011 County Business Patterns (NAICS). Illinois. Major Industry. <http://censtats.census.gov/cgi-bin/cbpnaic/cbpsect.pl> (Accessed January 2013).

³ U.S. Department of Commerce, Bureau of Economic Analysis. Regional Data, GDP & Personal Income. <http://www.bea.gov/iTable/iTable.cfm?reqid=70&step=1&isuri=1&acrdrn=1#reqid=70&step=10&isuri=1&7007=2012&7093=Levels&7090=70&7035=-1&7036=-1&7001=1200&7002=1&7003=200&7004=NAICS&7005=-1&7006=17000>. (Accessed July 2013).

⁴ U.S. Census Bureau. 2010 Statistics of U.S. Businesses. U.S. & States, Totals. www.census.gov/econ/sub/. (Accessed July 2013).

⁵ Prus (1999).

⁶ Kelsay (2004).

⁷ *Ibid.*

⁸ See Philips (1995), Belman and Voos (1995), Jordan and Bruno (2006).

⁹ Philips (1995).

¹⁰ U.S. Department of Labor, Bureau of Labor Statistics. State Occupational Injuries, Illnesses, and Fatalities. http://www.bls.gov/iif/state_archive.htm#IL. (Accessed May 2013).

¹¹ **Fatal injury rate computation** (CFOI) - The rate represents the number of fatal occupational injuries per 100,000 full-time equivalent workers and was calculated as:
 $(N/EH) \times 200,000,000$ where
N = number of fatal work injuries
EH = total hours worked by all employees during the calendar year
200,000,000 = base for 100,000 equivalent full-time workers (working 40 hours per week, 50 weeks per year)
EH = HW x E where
E = state employment
HW = average annual number of hours for each employee at the national level

¹² 2007 Economic Census. Construction: Detailed statistics for establishments, by state, 2007. http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN_2007_US_23A1&prodType=table. (Accessed May 2013).

¹³ Hirsch, Barry T. and David A. Macpherson, "Union Membership and Coverage Database from the Current Population Survey." www.unionstats.com. (Accessed May 2013).

¹⁴ See Azari, Yeagle, and Philips (1993).

¹⁵ Carre and Wilson (2004).

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¹⁷ Belman and Block (2009).

¹⁸ Donahue, Lamare, and Kotler (2007).

¹⁹ Workers Defense Project (2013).

²⁰ Neuhauser and Donovan (2007).

²¹ Brown, Harris, Callen, and Byington, (2007).

²² Nobles (2007).

²³ Cordray (2009).

²⁴ Coble and Hinze (2001).

²⁵ Kelsay, Sturgeon, and Pinkham (2006).

²⁶ *Ibid.*

²⁷ Phillips et al. (1995).

²⁸ The p-value for the basic and heteroskedasticity consistent tests is better than 0.3%. ($p < 0.003$).

²⁹ Thieblot (1975).

³⁰ Belman and Philips (2005).

³¹ Vedder and Gallaway (1995).

³² Thieblot (1999).

³³ Azari-Rad and Philips (2003).

³⁴ Belman, Ormiston and Petty (2013).

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