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This study forecasts that employment in the construction industry would likely increase should the statewide PWL be repealed.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 More construction workers would suffer fatal work-related injuries if Illinois' PWL is repealed and construction workers would lose many of their work-related benefits.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.

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Introduction

THIS STUDY SERVES AS THE FIRST COMPREHENSIVE EXAMINATION of the economic and social impacts of the statewide prevailing wage law (PWL) for public construction projects in Illinois. Previous studies have measured impacts in other states after PWLs were repealed. This paper seeks to forecast anticipated impacts should Illinois' law be repealed.

Chapter 1 presents a history of PWLs and the logic of setting wage levels for public works projects. This section includes discussion of the federal Davis-Bacon Act, state PWLs and subsequent repeals, and the history of Illinois' PWL.

Chapter 2 provides a comprehensive overview of existing literature on the economic and social impacts of PWLs and repeal of PWLs.

Chapter 3 looks at the impacts of PWLs on construction project costs. This section includes a review of the studies that claims that PWLs lead to increases in construction costs, as well as studies that find PWLs do not result in increased costs. The chapter concludes with predictions for construction cost increases in Illinois should PWL be repealed.

Chapter 4 outlines the methodology for the study's economic impact analysis. Analyses were performed to estimate the impacts associated with repeal of PWLs on the State of Illinois and eight of its economic regions. The study areas are described in this section, as well as the study's assumptions and discussion of the estimates used to determine changes in earnings and employment.

Chapter 5 presents the study's economic impact analysis for the State of Illinois and the eight regions. The forecasted impacts include: changes in construction industry employment; changes in employment in industries directly related to the construction industry; changes in employment due to alterations in consumer spending; changes in construction worker income; changes in economic output for the State of Illinois; and anticipated impacts on local, state, and federal tax revenues. This section also includes forecasted impacts on employment of in-state versus out-of-state contractors for public works projects.

Chapter 6 examines occupational health and safety and worker benefits impacts associated with repeal of PWLs and presents a prediction of estimated increases in annual construction worker fatalities should Illinois' PWL be repealed. Also contained in this chapter is an analysis of the relationship between union density and PWLs and employee misclassification and other aspects of fraud and repeal of PWLs.

The final chapter looks at the impact PWLs have on the supply of apprenticeship training programs in the construction industry. Additionally, this section contains discussion of the relationship between PWLs and employment of African-American construction workers.

1. History of Prevailing Wage Laws

Introduction

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 standards. 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

* 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.

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.

The First Federal Legislation

Although not referred to as a PWL, the federal Eight Hour Day Act of 1868 had provisions which acted to provide a prevailing wage for federal workers and the employees of federal contractors. The act established an eight hour day and also required that pay remain the same despite the reduction in hours. Debate over the law was remarkably modern in tone. The purpose of the law was both to improve the conditions of workers and to set national labor standards which would guide employers and the labor market away from obtaining greater output simply by extracting more hours out of their workers. Instead, improving productivity within an established workday through innovation and training would become the primary means by which output would be increased. Those fervently opposed to the law argued that it would increase the costs of public work by about 25 percent, a figure which remains widely cited by opponents today.[1] Although implementation of the law was imperfect and it was often evaded by federal contractors, the Eight Hour Day Act stands as both the beginning of prevailing wage legislation in the United States and a reminder that the issues surrounding these laws have not changed greatly in the last 150 years.

Early State Legislation

The period between the Civil War and World War I was one of unprecedented economic expansion and instability in the United States. The nation's Gross Domestic Product (GDP) grew from $93 billion to $504 billion in inflation-adjusted dollars even while the country experienced thirteen recessions over the half century.[2] This rapid growth, which reflected the fast pace of industrialization in America, was accompanied by social dislocation and, in the terms of the day, "labor problems." Discussions of labor problems included, among other topics, child labor, industrial health and safety, low wages, extended hours, the nonexistence of a social safety net, a lack of support for unemployed workers and their families during the frequent downturns in the

economy, and labor unions. These issues were taken up by the populist, labor, and progressive movements which pressed for a variety of reforms from the 1880s forward.

Efforts to use the police powers of the state to improve working conditions and economic conditions were greatly limited by the doctrine of freedom of contract. Under this doctrine, individuals and employers were at liberty to make any employment agreement they found satisfactory without restriction by law except where that contract directly affected the public interest. This doctrine was most clearly set forth in the Supreme Court's decision in *Lochner v. New York* (1905), which held that the State of New York did not establish a sufficient public interest in regulating the hours of bakers for the public interest to overcome individuals' freedom of contract. The main exceptions to the rule of freedom of contract were regulations of working conditions for women and children, who were not viewed as able to make rational decisions for their own good; regulations directly related to public safety, such as limitations on the hours of work of streetcar workers; and regulations related to the expenditure of public monies, such as public works. The early passage of PWLs, relative to many other state labor market regulations, reflects the legal limitations on the reach of such regulation.

Passage of the first statewide PWL by Kansas in 1891 was the upshot of a broad effort to reform labor markets and increase the working class' share of the state's economic development. Passage of the PWL was part of an effort by Populists and the Kansas State Federation of Labor to end child labor, limit hours of work on public projects, regulate safety conditions in factories and mines, and extend to women both voting rights and equal pay. Accordingly, prevailing wage requirements for public employees and workers on public works projects were passed in combination with eight-hour workday legislation. Oklahoma (1908), Idaho (1911), Arizona (1912), New Jersey (1913) and Massachusetts (1914) all followed Kansas' lead, passing prevailing wage legislation in the six years prior to World War I. Nebraska was the only state to pass a prevailing wage law in the 1920s. Similar to the movement in Kansas, PWLs were prominent features of broad reforms which also included workers compensation legislation, women's suffrage laws, and unemployment insurance laws for these states.

The Federal Davis-Bacon Act of 1931

Efforts to pass a federal prevailing wage law began in 1927 when Congressman Robert L. Bacon (R-NY) introduced a bill requiring that local prevailing wage standards be applied to federally-financed construction. Between 1927 and 1931, Representative Bacon introduced variations on the bill on thirteen occasions. In 1931, the Hoover administration requested that Congress reconsider the legislation. Senator James Davis (R-PA), a former Secretary of Labor, sponsored the bill in the Senate; it passed both houses, and was signed into law on March 3, 1931.[3]

The original law lacked both a means for determining the local prevailing wages and an enforcement mechanism. Although the Secretary of Labor was granted the authority to determine prevailing wages, this power was initially exercised *after* the workforce was hired on to a project, placing contractors in a position in which they were bidding a project prior to knowing the mandated wage. There were also evasion issues with construction firms fragmenting contracts such that they fell below the initial $5,000 threshold for application of the Act and with employers demanding kickbacks from employees on prevailing wage projects. These issues were resolved by President Hoover in Executive Order 5778 (1932), which improved the enforcement of the Act.

The Davis-Bacon Act has been substantially amended since its passage. The Copeland Anti-Kickback Act of 1934 established criminal penalties for inducing a worker to give up compensation which he is entitled to under the Act. It also established the requirement for filing a weekly certified payroll to the public body in charge of the public project. In 1935, Senator Walsh (D-MA) sponsored amendments which established the requirement for *pre-determination* of prevailing wages, disbarment of contractors who "disregarded their obligations to employees and subcontractors," explicit coverage for painting and decoration work, and a reduction in the threshold for application of the Act to $2,000. In 1964, the Act was amended to cover both cash wages and fringe benefits. In a separate administrative act that year, Secretary of Labor Willard Wirtz created the Wage Appeals Board to hear cases associated with administration of the Act.

In August 1981, Secretary of Labor Raymond Donovan proposed changes in the administration of the Davis-Bacon Act. The most important of these was the replacement of "the 30 percent rule" with "the 50 percent rule" as the standard in 1982. Under the 30 percent rule, if 30 percent of a key job classification in a survey was paid a given wage, that wage was considered "prevailing." Thirty percent was an exact criterion: wages comprising the 30 percent had to be identical. If no single wage comprised 30 percent of the surveyed wages, the prevailing wage was set at the weighted average of surveyed wages for the key job classification.

The 50 percent rule made it less likely that the model wage would prevail and more likely that the prevailing wage would be the weighted average of surveyed wages.

Although the Act allows the President to suspend the prevailing wage, this power has only been exercised three times since 1931: for a month during Richard Nixon's first term, for three states suffering hurricane damage during George H.W. Bush's presidency, and for parts of Florida, Alabama, Mississippi and Louisiana in 2005 as part of George W. Bush's response to Hurricane Katrina. The latter two suspensions each lasted for less than five months.

Discussions about revising the surveys and requirements of the Davis-Bacon Act occur with some regularity in the federal government, but there have been no proposals to revise the Act or its administration since 1982.

State Prevailing Wage Acts Since the Davis-Bacon Act

The passage of the Davis-Bacon Act in 1931 gave new impetus to the passage of state prevailing wage legislation. Since 1931, 33 new states passed their own laws. These laws vary considerably in strength and scope, such as in the minimum project size covered by the law, in the method used to determine the prevailing wage, the type of construction work which is covered, and the breath of the coverage. Table A in this study's Appendix reproduces Theiblot's 1995 analysis of the characteristics of state prevailing wage laws.

There has been a trend toward the repeal of PWLs since Florida first repealed its law in 1979. States which have repealed their laws or had their law voided by courts include: Florida, Louisiana, Alabama, Colorado, Kansas, Utah, Idaho, Arizona, New Hampshire and Oklahoma. States which have never had a state-level PWL include: Vermont, Georgia, Mississippi, North Carolina, North Dakota, South Carolina, South Dakota, Utah, Iowa and Virginia.

For reference, Table B in the Appendix presents the 2013 dollar threshold amounts for contract coverage under state PWLs, as of January 2013.

The Illinois Prevailing Wage Act

In 1941, the Illinois Prevailing Wage Act was codified into law. The law, modeled off the federal Davis-Bacon Act, requires contractors and subcontractors to pay workers on public works projects no less than the prevailing rate of wages for similar work in the county where the work is to be carried out. The Act is enforced by the Illinois Department of Labor Prevailing Wage Division, which employs investigators, mediators, conciliators, and attorneys. The Illinois law also requires that "certified payrolls" be submitted each month by contractors and subcontractors to the public body in charge of the public project. In Illinois, the law applies to all laborers, workers, mechanics, and those who transport materials and equipment in public works construction projects. Recent amendments to the law now require that maintenance and repair work in a public building are also subject to the prevailing wage of the locality.[4] Finally, a 2009 amendment to the Act requires that all projects financed even *in part* with bonds, grants, and loans of the public purse be required to pay the prevailing wage. Interestingly, those private firms who receive tax credits or economic development assistance through such mechanisms as tax increment financing (TIF), enterprise zones, and the like are not required to pay employees the prevailing wage.[5]

For illustrative purposes, Table C in the Appendix provides Prevailing Wage rates for specific jobs in three Illinois counties (Cook, Sangamon, and Champaign) as of mid-summer 2013.

2. Review of Previous Prevailing Wage Studies

Introduction

A REVIEW OF PREVAILING WAGE LITERATURE reveals mostly conclusive scholarly research. Papers on this topic range in methodological approach, but common results tend to show that prevailing wages are associated with positive labor market outcomes for workers at costs that are either negligible or fully offset. PWLs are typically found to be worth the additional cost, providing substantial benefits to states. Indeed, many papers find that repeal of a statewide PWL would cost the state money and reduce construction sector efficiency. The following broad review of associated literature over the past 20 years presents, in chronological order, the most influential studies on prevailing wage effects. In Chapter 3, studies associated with the increase, if any, in construction costs caused by prevailing wage statutes are exclusively reviewed.

Influential Studies by Chronology

In 1993, Azari, Yeagle, and Philips used a standard regression analysis to conclude that the repeal of Utah's PWL lowered the construction earnings premium by 2 percentage points, led to a decline in union membership, and decreased the rate of apprenticeship training for construction workers to historical lows in the state. These impacts could theoretically lower the quality of construction by providing a disincentive, in reduced wages, for the highest-skilled workers to seek employment in the industry. The absence of prevailing wage laws also lowers the overall skill level of workers due to the decrease in training.[6]

Two years later, in 1995, Philips and Yeagle partnered with two additional colleagues to further investigate lessons from the repeal of PWL in nine states from 1979 to 1988. The authors analyzed states just before and just after repeal while controlling for a general downward trend in real construction earnings, unemployment rate variation, and regional wage differences. The results show that repeal lowered construction worker earnings by $1,477 per year (in 1994 dollars), reduced training by 40 percent, led to a contraction in minority share of the workforce, and caused workplace injuries to rise by 15 percent. Ultimately, the authors estimated that a repeal of the federal Davis-Bacon Act would have caused federal income tax revenues to fall by between $1 billion and $2 billion in 1994 and would lead to 76,000 additional injuries at work each year, raising the costs of workers' compensation.[7]

Later that year, Belman and Voos conducted a review of the earliest prevailing wage literature to understand the effect of repeal in Wisconsin on the state. The results, using assumptions by previous researchers, indicated that Wisconsin would lose $123 million dollars in construction income (in 1995 dollars) and $11.6 million in sales and income tax revenues. The authors warned that the costs of lower construction quality, less contractor stability, higher incidence of construction-related injuries, and increased workers' compensation claims may negatively affect the public budget. This study increased interest in, and laid the foundation for, future economic impact analyses on the effect of prevailing wage laws in individual states.[8]

As a response to the former 1995 study by Philips and his fellow researchers, Thieblot (1996) critiqued assumptions believed to be flawed. Thieblot noted that, after repeal, average wages actually did not fall, though he failed to control for any factors or trends and it is unclear whether he adjusted for inflation. He also challenged Philips et al.'s injury assumptions, noting that large and small firms have lower injury rates than mid-sized firms, although it is ambiguous why this concern should affect the average injury rate nationwide. Overall, Thieblot contends that repeal of the Davis-Bacon Act would save the federal government as much as $1.8 billion per year.[9] Thieblot (1999) also published a later article contending that African-American employment is lower in construction as a whole than in other sectors but far lower on average in states where there is a PWL.

While influential in some circles, Thieblot's work suffers from severe deficiencies. No advanced analysis was utilized in the report; instead, only simple comparisons were used, and no mention was made of other industries in which African-American workers were employed in states with PWLs or whether state-specific factors had anything to do with the industry in which a minority individual worked.[10]

Employing a much more rigorous methodology, Prus (1999) analyzed public school construction projects in Mid-Atlantic States, finding that there is no statistically discernible difference in costs to the state from PWLs. Prus accounted for a range of important factors, including project size, project type, materials used, and population density. He also found that most construction work in prevailing wage states is done by local contractors, with less than 10 percent of all school projects that are valued above $750,000 won by out-of-state bidders.[11]

Not only does prevailing wage money stay in-state and contribute to the local economy by the consumer spending of construction workers, Peterson (2000) concluded that workers in states with individual laws earned higher wages and better health and pension benefits than those in non-prevailing wage states. Peterson's state-level analysis yielded a 15 percent decrease in wages and 53 percent decrease in benefits, on average, for states that repealed PWLs, with wages steadily declining over five years and benefits precipitously falling starting three years after repeal and beyond. Prevailing wages, he concluded, incentivize workers "to accept a larger percentage of their total compensation in the form of benefits."[12]

In 2001, Kessler and Katz found that state PWLs have small but statistically significant effects on construction workers. Using a complex yet sound approach which controls for trends in construction and non-construction labor markets over time, the authors found that repealing the statute leads to small decreases in the relative wages of construction workers, borne primarily by union and Caucasian workers, presumably because lower-skilled workers entered the market and worked on more projects. Repeal, the authors note, reduced construction unionization by 1.5 percentage points and lowered the union wage premium by 11.2 percentage points after five years.[13]

Incorporating a literature review of the studies prior to 2006, Jordan and fellow researchers (2006) sought to estimate the effect of having a PWL in Minnesota. The study found that a repeal or weakening of the PWL would have cost the state between $38 million and $178 million in tax revenues in 2006, accompanied by an increase in injury rates, an increase in project cost overruns, and a decline in construction worker earnings in Minnesota.[14]

While the Jordan et al. report used generally-accepted results from "the preponderance of available studies," an updated 2011 paper on the PWL in Missouri employed an economic impact analysis, providing original, prospective estimates of the effect that repeal would have on Illinois' southwest neighbor. Authors Kelsay, Sturgeon, and Pinkham provided many conclusions both from their own analysis and from a general review of previous studies. Among them, they estimated that the repeal of the prevailing wage statute would cost Missouri residents between $300 million and $452 million each year and the state government between $24 million and $36 million in lost sales and income tax revenues. The authors further asserted that the PWL raises the percentage of women in apprenticeship programs, provides a better compensation package for construction workers, keeps injury rates low, and increases productivity– outcomes which result in added efficiency in the construction sector.[15]

3. Impacts of Prevailing Wages on Construction Project Costs

Introduction

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. This section investigates the estimated increase in construction project costs, if any, associated with Illinois' PWL.

Studies Reporting an Increase in Construction Costs

Three studies are most often cited to argue that prevailing wage regulations raise construction project costs. In 1989, the State of Maryland's Department of Fiscal Services conducted a review of the state's law. The researchers used a regression model of 20 school projects to find that the PWL increased construction costs by between 5 percent and 15 percent in metropolitan areas.[16] Later, in 1994, researchers found that rural projects subject to the Davis-Bacon Act (all of which were public), were 26.1 percent more costly on average than private projects.[17] Finally, a 2008 study by the Beacon Hill Institute for Public Policy Research concluded that the wage determinations set by the Department of Labor were not truly reflective of prevailing wages in local areas but were instead "on average 13 percent higher than market rates." This miscalculation, the authors asserted, yielded a 9.91 percent cost increase, or $8.6 billion in additional annual costs nationwide.[18]

For each study, however, later critical analysis revealed inadequacies in research design which marginalized the results. The first study by the Maryland government agency suffered from a small sample size and lack of controls which bring the statistical significance of the authors' conclusions into serious question. The second study assigned the entire total cost increase to prevailing wage regulations, failing to parse out the effects of being *public sector* projects. Public sector projects, it was noted, are typically larger in size, serve different purposes, and require different materials and inputs. Thus, public projects are *expected* to cost more; the authors' estimates are likely conflated. Finally, the latter study was found to have attributed supposedly mismeasured wage differences to unrepresentative surveys which biased the researchers' estimates.[19]

Studies Reporting No Increase in Construction Costs

A 2011 study by Duncan did a superb job studying papers on PWLs and construction costs. In his review of the literature, Duncan divided the papers on total construction costs into three generations of research. "First generation" studies focused purely on wage comparisons, and tended to suggest that Davis-Bacon requirements increased construction costs by between 1.5 percent and 3.0 percent, although they ignored changes

in labor hours, productivity, labor-capital substitution, and the like. “Second generation” studies, which are elaborated on in the following paragraphs, used regression analyses to estimate the effect on total costs, and largely fail to find a significant prevailing wage cost effect. Third generation studies, such as Duncan’s, apply very complex models to analyze effects. Duncan’s study is then touched upon prior to Illinois predictions.[20]

The “second generation” papers can broadly be broken down into two categories: those which analyzed the broader construction industry in the mid- to late-1990s and those which focus on public school construction projects in the early 2000s. Philips et al. (1995) found that significant cost overruns and an increase in the usage of expensive change orders offset any cost reductions in Utah after the state repealed its PWL.[21] Using data on 7,854 nonresidential construction projects in the United States, Prus (1996) estimated that public projects are about 30 percent more expensive than private projects in all states, regardless of prevailing wage regulations. Although the output suggested that public nonresidential construction is 5.1 percent more expensive in prevailing wage states, the results were not statistically different from zero.[22] Finally, upon examination of projects for the two-year period from 1996 to 1998 when Pennsylvania altered its calculation to lower its prevailing wages, Wial (1999) found no measureable impact on the costs of construction in the state.[23] These early studies show that a removal or weakening of the prevailing wage may not be the best way to save money for the taxpayers. Rather, savings are “more likely to come from investments in worker training.”[24]

The early 2000s saw a string of influential studies which focused on a specific type of construction, public school projects, to analyze the effects of PWLs on total construction costs. This method has the advantage that it further controls for a factor, like project type, which may influence construction costs. The studies were published respectively in 2000, 2001, and 2002, and placed emphasis on public school construction costs. They all accounted for important factors that may influence construction costs, such as the business cycle, type of school building, firm size, urban or rural location, time of year the project was built, regional effects, and time trends. The areas of interest in each study, by chronology, included British Columbia, three Midwestern states (Kentucky, Ohio, and Michigan), and 4,974 newly-built schools across the United States. Though not statistically significant, suggestive estimates of the effect of prevailing wages on total costs ranged from 1.9 percent cheaper (for high schools) to 1.8 percent more costly (for all schools). In the end, each of these studies concluded that there was no impact of PWLs on construction costs.[25]

Duncan’s third technique was very statistically advanced. His analysis accounted for worker efficiency, changes in crew mix, substitution of equipment for labor, project type, year, number of bidders on a project, and terrain type. When holding these factors constant, a federal prevailing wage project does not statistically cost more than state non-prevailing wage costs. Duncan further evaluated Economic Census of Construction data and found that only 25 to 30 percent of total construction costs are due to labor costs.[26] Marginal increases in worker wages from prevailing wage rates thus have only small impacts on total costs, especially if worker productivity is augmented and if contractors are incentivized to hire more skilled labor, provide workers with more advanced equipment, and compete over better management.

Predictions for Illinois

A back-of-the-envelope 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.

* See Chapter 4 “Study Inputs and Estimates” section for description of how employee compensation is calculated.

4 Methodology of the Economic Impact Analysis

Introduction

ECONOMIC IMPACT ANALYSES ARE COMMONLY USED by policymakers and economic development experts to evaluate the impact of a policy or activity on the regional economy. The approach helps researchers determine impacts to everyone who either benefits or loses as a result of the policy, beyond just those who are *directly* affected. In effect, the analysis parses out the impact of the policy on the entire economy from what would have otherwise occurred in the absence of the policy.

The primary method to perform a regional economic impact analysis is to utilize an input-output (IO) model. An IO model accounts for the interrelationship between industries in a regional economy, essentially following a dollar as it cycles through the economy until it is spent elsewhere. For ease of understanding, consider a consumer at a grocery store who spends $100 on household goods. Part of that $100 revenue to the store will be used to pay employees, part will be used by ownership to buy more goods to sell to consumers, and part may be used to improve the store, such as by renovating a section of the building. That $100 is spread out through the economy, as the recipient employee spends the new income, the earnings of the suppliers go to pay food manufacturers, and the construction firm contracted to improve the store buys material for the project. The $100, disseminated throughout the economy, gets further spent by the employees and owners of the first round of spending. Over time, that $100 may have supported, for instance, another $50 or more worth of economic activity.

IO quantifies this recurring inter-industry spending in the form of multipliers. Industry multipliers estimate by how much an extra dollar spent on a project will add to the regional economy. In their simplest form, industry multipliers are multiplied by the amount of spending to produce a total effect on economic output. An industry multiplier of 1.5, for example, means that spending $1 million on project will generate $1.5 million worth of new economic activity, or $500,000 added to the economy, all else equal. Multipliers thus simplify private supply chain operations, industry-to-industry spending, and the consumer demand of workers into a simple number.

Through multipliers, IO analyses provide estimates to policymakers on the effect of a change in policy on economic output, incomes, employment, and tax revenues. This study uses IMPLAN, an input-output modeling software, to measure these outcomes. IMPLAN, short for Impacts for Planning, captures all the industry and institutional transactions in a region as a flow of money from purchasers to producers, while also factoring in business and household taxes.

Importantly, IMPLAN adheres to traditional economic impact analysis and itemizes results by direct, indirect, and induced impacts. *Direct impacts* measure the effect on the spending of the affected industry as a result of a policy. In the case of this study, direct impacts occur when prevailing wages are repealed. On the one hand, construction worker wages fall, so the effect on per-worker income is negative; on the other, firms may be able to employ more workers, so total income may rise. *Indirect impacts* measure the effects of inter-industry purchases by firms which receive direct expenditures from the construction industry, such as businesses which supply construction firms with machinery and building materials. Lastly, *induced impacts* measure the additional consumer spending by those who are employed as a result of the direct and indirect impacts.

Study Area and Assumptions

This study performs input-output analyses to estimate the impact of repealing prevailing wage laws (PWLs) on the State of Illinois and eight of its economic regions. The eight economic regions are clusters of contiguous counties and roughly (though not precisely) correspond to the state’s Core Based Statistical Areas,

as determined by the United States Census Bureau. The eight regions of analysis center on the cities of Carbondale, Champaign-Urbana, Chicago, Peoria-Bloomington, the Quad Cities, Rockford, Springfield-Decatur, and St. Louis.

Below is a list of the counties included in each region:

1. Carbondale: Jackson and Williamson
2. Champaign-Urbana: Champaign, Piatt, and Ford
3. Chicago: Cook, DuPage, Lake, Will, Kane, and McHenry
4. Peoria-Bloomington: McLean, Peoria, Woodford, Tazewell, and Stark
5. Quad Cities: Rock Island, Henry, and Mercer
6. Rockford: Winnebago and Boone
7. Springfield-Decatur: Macon, Sangamon, Menard, and Logan
8. St. Louis: Madison and St. Clair

In predicting the economic impacts of repealing prevailing wages in local economies in Illinois, it is necessary to acknowledge that not all expenditures by construction firms in Illinois are actually spent in the state. Unfortunately, many economic impact studies overstate the effects of a policy change simply by assuming that 100 percent of all new revenue generated from a policy is spent in the region. While the majority of construction spending does in fact occur within-state, some contractors from other states win bids and travel to Illinois to complete projects. Additionally, the materials, machinery, and supplies necessary to build may be purchased from out-of-state firms. Of course, out-of-state contractors who come to Illinois for a project may also buy materials locally, and their workers will consume goods and services in the Illinois economy, offsetting some of the money which leaks out of the economy. To fully address the concern of purchases from external states, this study incorporates findings from the 2007 Economic Census, which reports that 93.22 percent of all construction work done in Illinois is performed by Illinois firms. A statewide "local purchasing percentage" of 93.22 percent is thus used, suggesting that 93.22 percent of all money spent on construction is recycled back into the Illinois economy.

"Local purchasing percentages" are intuitively smaller for county regions than for states. A construction firm in Peoria may have a higher propensity to bid on and win jobs in Chicago or Rockford or Springfield than a firm from Lincoln, Nebraska. Moreover, workers of a Peoria company may actually reside and spend most of their money in a place like Rockford. A dollar bill that originally is spent in Peoria but then ends up in Chicago lowers the "local purchasing percentage" of Peoria but does not affect the figure for the State of Illinois. It is only after the dollar ends up in Indiana that the state's percentage decreases from 100 percent. Accordingly, this study adjusts downward the regional "local purchasing percentages" by regional economic diversity, proximity to a state border, and household income.[27]

It should be noted that, in states without a PWL, a lower share of all construction activity is performed by in-state contractors than states with strong PWLs. The average share of the work done by in-state firms in states without PWLs is 89.17 percent, 1.85 percentage points lower than the 91.03 percent average for states with strong PWLs such as Illinois. One academic study suggested that "prevailing wage laws do discourage the use of out-of-state contractors" after finding that being an out-of-state contractor lowered a firm's probability of being awarded a school construction project by about 5.15 percent.[28] The present study assumes that, should Illinois repeal its PWL, out-of-state contractors would have an increased chance of winning a bid, and the state and regional "local purchasing percentages" would drop uniformly by 1.85 percentage points, the difference between a strong law and no law. For Illinois, the new "local purchasing percentage" would be 91.37 percent.

Study Inputs and Estimates

Economic theory suggests that worker wages should be expected to fall upon repeal of a PWL, as long as prevailing wages are set at rates higher than they would be in an unregulated market setting. One influential study by the University of Missouri– Kansas City (UMKC) Department of Economics estimated that construction worker earnings would fall by 3.40 percent if a PWL was abolished.[29] A "naïve" upper-bound estimate of a 7.51 percent drop in wages was determined by an advanced analysis of the percentage increase of a PWL on real wage and salary income, holding constant construction industry and other individual demographic, educational, and work characteristics.[30] These two estimates allow for sensitivity analysis in this study and serve as boundaries. A middle-of-the-road estimate of a 5.46 percent decrease in wages is used throughout this report for all regions. This 5.46 percent fall in worker earnings is the average of the two bounds (3.40 and 7.51 percent), and is on the order of the 5.10 percent drop approximated in another oft-cited academic report.[31]

As a result of the reduction in average construction worker wages, it is probable that the construction industry will employ more workers. That is, since firms now face relatively lower labor costs, they respond by hiring new employees. Still, labor costs are just 24.6 percent of total construction costs, so the reduction in per-worker income would not be expected to stimulate large-scale increases in hiring.[32]

To arrive at an estimated increase in construction employment, this study utilizes relevant estimates of the "elasticity of labor demand," which is a ratio of the expected change in employment to a percentage change in wages. As an example, an elasticity of -0.5 means that a -1.0 percent change in wages would be associated with a 0.5 percent increase in employment. The more negative the elasticity, the more willing firms will be to hire workers as wages fall. Additionally, elasticities for higher-skilled labor tend to be smaller than for low-skilled labor, because fewer workers are able to do the job efficiently and one worker is not easily replaced by another. Given the high-skilled nature of construction work, its labor-intensiveness, and the inability of firms to outsource construction work, elasticities of labor demand for construction workers are expected to be close to zero.

This study primarily uses an elasticity estimate of -0.40, with bounds of -0.20 and -0.60 for conservative and extreme bound. The -0.20 lower-bound stems from the elasticity used in the influential UMKC study on repealing a prevailing law.[33] The -0.60 upper-limit is derived from estimates of comparable occupations of highly-skilled workers who are at the same time not necessarily white-collar or highly-educated, such as the German manufacturing workforce (-0.69)[34] and registered nurses here in America (between -0.65 and -0.59).[35] The -0.40 elasticity is the midpoint between the two bounds, and is consistent with a 1983 approximation of the elasticity for American mining and construction (-0.36),[36] a 2004 estimate for the construction industry in Tunisia (-0.40),[37] and the upper-bound reported in the 2011 UMKC study on repealing prevailing wages in Missouri (-0.44).[38]

The estimates of drops in construction worker earnings as a result of repealing Illinois' prevailing wage law and the estimates of labor demand elasticities combine to form a three-by-three matrix of predicted impacts on employment (Table 1). Repeal of the prevailing wage law in Illinois is only expected to have a small impact on construction employment, on the order of a 0.68 percent to 4.51 percent increase in the number of workers. This report primarily uses the middle-of-the-road 2.18 percent increase in employment for all the regions.

Table 1: Matrix of Estimated Change in Construction Employment for Illinois if PWL is Repealed Change in Earnings

		Change in Earnings		
		-3.40% wages	*-5.46% wages*	*-7.51% wages*
Elasticity Estimate	*-0.20*	+0.68% employment	+1.36% employment	+2.04% employment
	-0.40	+1.09% employment	+2.18% employment	+3.27% employment
	-0.60	+1.50% employment	+3.00% employment	+4.51% employment

*Predicted changes in employment are the product of the change in wages multiplied by the elasticity of labor demand in each cell. Please see the text above for sources associated with the assumed range of changes in earnings and range of elasticities.

Finally, this study makes one last significant assumption. The first-order effect of repealing prevailing wages in Illinois is a reduction in worker wages. Subsequently, a portion of the fall in total labor costs is used by firms to hire a small amount of new employees. This study conservatively assumes that the remainder of the change in total worker earnings which is *not used* to hire new workers is a transfer of income directly to

owners. Other studies have erroneously assumed that this loss in worker income disappears entirely from the regional economy.[39] But the money goes somewhere. A decrease in labor costs, holding total revenues constant, increases firm profit, therefore raising proprietor income. It is fair to say that repealing prevailing wages in Illinois would at least partially be, in effect, a redistribution of wealth from construction workers to the owners of construction firms.

5. Economic Impacts of Prevailing Wage in Illinois

Introduction

IN 2011, CONSTRUCTION SECTORS EMPLOYED 5.2 MILLION workers in the United States, representing roughly 4.6 percent of total national employment.[40] Approximately 180,000 Illinois workers were employed in construction jobs in 2011, accounting for about 3.6 percent of total state employment.[41] 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).[42] Upwards of 29,000 firms are engaged in construction work in Illinois.[43]

Statewide Employment and GDP Impacts

As discussed in the previous section, application of middle-of-the-road 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). The 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 2 displays the results of applying these effects to the statewide economic impact model.

Table 2: Direct, Indirect, and Induced Effects on Employment, Earnings, Total Value Added, and GDP for Illinois if PWL is Repealed, Middle-of-the-Road Estimates, 2013

Impact Type	Change in Jobs	Change in Worker Earnings	Total Value Added*	Effect on Illinois' GDP
Direct Effect	332	-$364.9 million	-$393.0 million	-$541.4 million
Indirect Effect	-1,070	-$61.2 million	-$94.5 million	-$174.4 million
Induced Effect	-2,539	-$120.0 million	-$213.3 million	-$357.1 million
Total Effect	-3,277	-$546.0 million	-$700.8 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 (IMpacts 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

* Total Value Added represents the difference between an industry's or an establishments total output and the cost of its intermediate inputs. It equals gross output (sales or receipts and other operating income, plus inventory change) minus intermediate inputs (consumption of goods and services purchased from other industries or imported). Value added consists of compensation of employees, taxes on production and imports less subsidies (formerly indirect business taxes and nontax payments), and gross operating surplus (formerly "other value added"). (Bureau of Economic Analysis)

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 3 examines the top 20 sectors of the Illinois economy that would likely experience job losses should construction workers have their wages reduced.

Table 3: 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 (IMpacts 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 2). 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.

Table 4 displays a comparison of employment and output effects for all nine combinations of earnings and elasticity estimates.* It is important to note that only one estimate produces positive total employment effects, a net creation of 1,713 jobs. Analyses of the model using the other eight estimates result in total job losses ranging between roughly 1,000 and 6,500 jobs statewide. The effects of all nine estimates result in losses of total output in excess of $1 billion. Accordingly, it can be surmised that even with a 7.51 percent decrease in construction workers' wages and a 4.51 percent increase in employment for construction sectors, the overall impact on the Illinois economy would still be a loss $1.07 billion.

Table 4: A Comparison of Employment and GDP Effects in Illinois if PWL is Repealed for All Nine Combinations of Earnings and Elasticity Estimates, 2013

Combination (Earnings, Jobs)	Direct Change in Jobs	Indirect & Induced Change in Jobs	Total Change in Jobs	Effect on Illinois' GDP
(-3.40%, 0.68%)	-2,879	-3,606	-6,475	-$1,070.6 million
(-3.40%, 1.09%)	-2,001	-3,587	-5,589	-$1,069.3 million
(-3.40%, 1.50%)	-1,124	-3,579	-4,702	-$1,067.9 million
(-5.46%, 1.36%)	-1,423	-3,626	-5,049	-$1,075.6 million
(-5.46%, 2.18%)	332	-3,610	-3,277	-$1,072.9 million
(-5.46%, 3.00%)	1,550	-3,593	-2,043	-$1,070.2 million
(-7.51%, 2.04%)	33	-3,657	-3,624	-$1,080.6 million
(-7.51%, 3.27%)	2,666	-3,633	-966	-$1,076.7 million
(-7.51%, 4.51%)	5,321	-3,608	1,713	-$1,072.7 million

Source: Result of authors' insertion of all combinations of 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.

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 5 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 6, it is expected that repeal would also lead to almost $115.8 million in lost federal tax revenue.

* See Table 1: Matrix of Estimated Change in Construction Employment for Illinois if PWL is Repealed, for the complete matrix of changes in earnings and elasticity estimates.

Table 5: 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 (IMpacts for PLANning) Version 3.0.17.2, Minnesota IMPLAN Group, Inc., © 2011.

Table 5: 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

As noted earlier, the eight Illinois regions on which this study focuses center on the cities of Carbondale, Champaign-Urbana, Chicago, Peoria-Bloomington, the Quad Cities, Rockford, Springfield-Decatur, and St. Louis. Table 6 provides basic economic information for each of these regions. The Chicagoland area, which employs 68.0 percent of all Illinois workers, maintains the highest average household income of all regions in Illinois ($129,090), followed by the Peoria-Bloomington county cluster. Chicago is also the most diverse area of the state in terms of industry employment; the least diverse regions, as might be expected, are those where there exists a significant public university and/or government presence. For completion, estimated "local purchasing percentages" are also noted.

Table 6: Descriptive Statistics of Study Regions, IMPLAN Estimates, 2013

Region	Area Employment	Average Household Income	Employment Diversity	Local Purchasing Percentage*
Chicago Six County	4,955,950	$129,090	74%	86.7%
Springfield Four County	231,250	$98,340	66%	83.0%
Quad Cities Three County	117,620	$94,080	72%	87.6%
Rockford Two County	182,280	$89,800	73%	91.5%
St. Louis Two County	256,870	$92,910	71%	86.5%
Carbondale Two County	69,910	$76,580	65%	82.7%
Champaign Three County	130,740	$83,360	66%	84.9%
Peoria Five County	325,210	$106,860	71%	89.3%
State of Illinois	7,284,360	$114,430	75%	93.2%

Source: 2012 Estimates from IMPLAN (IMpacts for PLANning) Version 3.0.17.2, Minnesota IMPLAN Group, Inc., © 2011.

Table 7 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 direct and total (direct plus indirect plus induced) impacts on construction employment, labor income, and output.

Table 7: Direct and Net Effects to Employment, Earnings, and GDP for Illinois Regions if PWL is Repealed, Middle-of-the-Road Estimates, 2013

Region	Impact Type	Change in Jobs	Change in Worker Earnings	Effect on Regional GDP
Chicago Six County	Direct Effect	27	-259.2 million	-347.1 million
	Total Effect	-2,060	-372.6 million	-658.4 million
Springfield Four County	Direct Effect	7	-10.5 million	-17.8 million
	Total Effect	-66	-13.4 million	-26.6 million

* See Chapter 4 "Study Area and Assumptions" section for description of how local purchasing percentages are calculated.

Quad Cities Three County	Direct Effect	11	-4.1 million	-9.3 million
	Total Effect	-24	-5.5 million	-13.5 million
Rockford Two County	Direct Effect	14	-5.9 million	-13.1 million
	Total Effect	-54	-8.4 million	-21.1 million
St. Louis Two County	Direct Effect	22	-16.3 million	-31.3 million
	Total Effect	-130	-22.0 million	-51.1 million
Carbondale Two County	Direct Effect	7	-2.1 million	-5.5 million
	Total Effect	-17	-2.9 million	-8.2 million
Champaign Three County	Direct Effect	8	-3.7 million	-8.4 million
	Total Effect	-33	-5.1 million	-13.4 million
Peoria Five County	Direct Effect	11	-12.0 million	-24.9 million
	Total Effect	-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.

The direct impact of the estimated wage drop and employment increase if Illinois were to repeal PWL is a small, positive employment effect for all regions. As might be expected, the largest direct employment effect is projected to be in Chicagoland (a mere 27 new construction jobs). Relative to the size of the construction employment base in the region, however, the effect on Chicagoland is negligible. The economic impact analysis predicts that outside contractors will flood the market in the area, with any employment gains being experienced by construction firms in Indiana, Wisconsin, other states, and to some extent from rural Illinois. Since the transfer of income to both owners and outside firms lowers consumer demand in the local economy, the total drag on the Chicago economy would be a $658.4 million drop in GDP and a 2,060 net reduction in total employment.

The results are quite similar across each of the other regions. For the Springfield area, the 7-worker increase is not enough to offset the drop in total earnings, as 71 non-construction jobs are lost, for a 66 net decrease in total employment and a $26.6 million loss in output. For the Quad Cities, the estimated increase in the number of construction workers is just 11 new jobs, but the $4.0 million direct loss in labor income means that 33 jobs in the rest of the economy and $13.5 million are lost. The Rockford, St. Louis, Champaign, and Peoria regions would respectively see a 14, 22, 8, and 11 construction job increase but noticeable net declines in overall employment (-54, -130, -33, and -107 respectively). Accordingly, the regional GDPs of these regions would shrink by between $13.4 million and $51.1 million. The Carbondale area, with a slight 7-job gain in the construction industry and just 17 net job loss, would see the smallest effects, though the predicted $8.2 million decline in output is quite large for the area. It should be noted that this analysis assumes that wages will fall uniformly by 5.46 percent across all regions (Table 7).

As in the statewide analysis, job losses and reduced wages yield negative tax impacts for each region. Table 8 reports impacts on both federal and state and local tax revenues for the middle-of-the-road estimate of a 5.46 percent reduction in construction workers' income and a 2.18 percent increase in construction worker employment. If the PWL is repealed in Illinois, the state and Chicagoland governments would together lose $27.3 million in revenue. Additionally, from this single region the federal government would see a $76.8 million loss in tax revenue. Once again, the results for the seven other Illinois regions are comparable. It is anticipated that state and local tax revenues would decline by between a few hundred thousand dollars and about $2 million for each of the Springfield-Decatur, Quad Cities, Rockford, St. Louis, Carbondale, Champaign-Urbana, Peoria-Bloomington regions. For the areas outside of Chicago, the decline in federal tax revenues ranges from a $1.2 million loss for the Champaign-Urbana and Quad Cities regions up to a $5.2 million reduction from the Illinois counties near St. Louis, Missouri (Table 8).

Table 8: Tax Impacts for Illinois Regions if PWL is Repealed, Middle-of-the-Road Estimates, 2013

Region	Level of Government	Income and Social Insurance Taxes	Sales and Property Taxes	Change in Tax Revenue
Chicago Six County	State and Local *Federal*	-$6.04 million *-$73.82 million*	-$16.12 million	-$27.34 million *-$76.75 million*
Springfield Four County	State and Local *Federal*	-$0.25 million *-$2.36 million*	-$0.60 million	-$1.01 million *-$2.40 million*
Quad Cities Three County	State and Local *Federal*	-$0.07 million *-$1.24 million*	-$0.30 million	-$0.44 million *-$1.17 million*
Rockford Two County	State and Local *Federal*	-$0.13 million *-$2.02 million*	-$0.55 million	-$0.81 million *-$2.02 million*
St. Louis Two County	State and Local *Federal*	-$0.37 million *-$5.58 million*	-$1.19 million	-$1.88 million *-$5.23 million*
Carbondale Two County	State and Local *Federal*	-$0.06 million *-$0.64 million*	-$0.20 million	-$0.31 million *-$0.65 million*
Champaign Three County	State and Local *Federal*	-$0.11 million *-$1.16 million*	-$0.34 million	-$0.54 million *-$1.15 million*
Peoria Five County	State and Local *Federal*	-$0.25 million *-$3.90 million*	-$0.94 million	-$1.44 million *-$3.82 million*

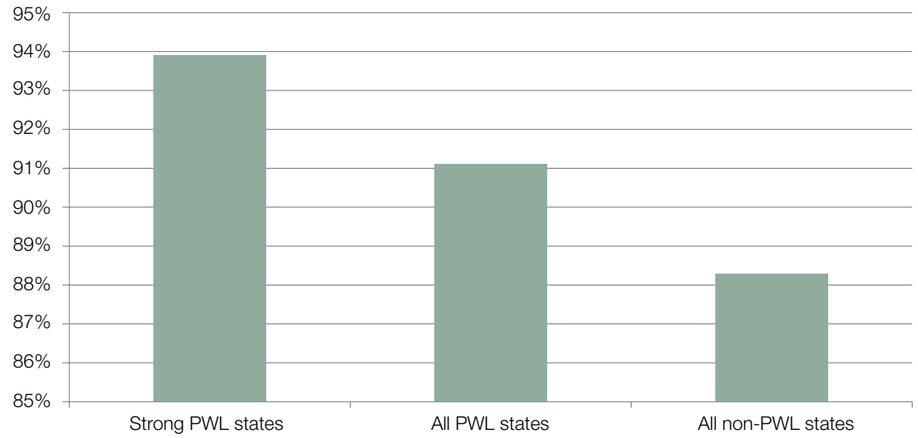
Source: Result of authors' insertion of middle-of-the-road employment and earnings estimates (Table 1) into IMPLAN's industry change feature, which estimates industry spending patterns through Type SAM multipliers. The Labor Education Program utilizes IMPLAN (IMpacts for PLANning) Version 3.0.17.2, Minnesota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

In-state Contractor Impacts

As discussed in Chapter 4, 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.[44] 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 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.

* See Chapter 6 "Prevailing Wages and Worker Fatalities" section for a discussion of the differences between strong, average and weak PWLs.

Figure 1: Percentage of Construction Work Performed by In-State Contractors, Medians, 2007



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).

6. 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. These activities expose construction workers to a multitude of serious workplace hazards including falling from rooftops, ladders, and scaffolding, unguarded machinery, being struck by heavy construction equipment, electrocutions, burns from chemicals or equipment, lifting and carrying heavy materials, harmful fumes and odors, and exposure to dangerous materials like silica dust, and asbestos.[45] Almost three-fifths of all construction production workers work on roofs, scaffolds, ladders, and bridges at least once a month, while occupations like drywall installers and ironworkers must maintain balance while working on these surfaces. Falls cause one of every three construction worker deaths.[46] Some construction occupations such as carpenters, elevator installers, power-line installers, and heating and air conditioning mechanics are exposed to hazardous conditions and equipment almost daily. Roughly half of all workers in construction production occupations are likely to be exposed to hazardous tools and machinery on a weekly basis.

In 2011, construction laborers comprised the highest proportion of injuries and illnesses in private industry, accounting for 6 percent of a total of 908,310 injury and illness cases. In total, roughly 71,600 nonfatal work-related injuries and illnesses involving days away from work were reported for construction workers in 2011. The injury incidence rate for laborers in 2011, 353 cases per 10,000 full-time workers, was more than three times greater than the rate for all private industry workers.[47]

There were 721 construction-related work fatalities in 2011, accounting for a 7 percent decline in fatalities since the previous year. Overall, fatal construction injuries have decreased almost 42 percent since 2006. The decrease in the past five years can be mainly attributed to the decline in construction employment during the economic recession. Despite the decline in *total* fatal injuries, construction still amassed the second highest number of fatal injuries of any industry in 2011, next to transportation and warehousing.[48]

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.[49]

Federal law through OSHA mandates that all workers, including construction workers, are entitled to safe and healthful workplaces. It is the obligation of the Department of Labor (DOL) to track the safety and health of the nation's workplaces and ensure that employers take steps to reduce workers' risks of injuries, illnesses, and death on the job. Accordingly, accurate workplace injury and fatality data are vital for comprehension of the characteristics and prevalence of occupational safety and health problems.[50]

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 recordkeeping 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' com-

pensation costs and also feared that it might negatively impact their chances of winning contracts.[51] 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.[52] 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.[53]

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 territories from the Bureau of Labor Statistics (BLS) Census of Fatal Occupational Injuries (CFOI)[54]. 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. Table 9 shows the fatality rates in construction for all states excluding Alaska, Hawaii, and Washington, DC for 2008-2010.

Table 9: Fatality Rates in Construction, United States, 2008-2010

Prevailing Wage State*	2008	2009	2010	Average
California	5.4	6.1	5.2	5.57
Washington	7.7	4.6	5.2	5.83
Wisconsin	3.7	8.4	6.4	6.17
Minnesota	7.8	6.6	6.7	7.03
New York	8.3	5.4	7.5	7.07
Nevada	9.7	5.4	8.3	7.80
Ohio	8.0	10.5	8.1	8.87
Massachusetts	9.7	8.7	8.7	9.03
Maryland	8.8	8.7	9.8	9.10
Illinois	8.8	9.5	9.9	9.4
Kentucky	13.4	7.6	8.0	9.67
New Jersey	10.1	12.7	7.4	10.07
Pennsylvania	11.2	7.7	12.8	10.57
Indiana	10.9	11.3	10.7	10.97
Michigan	12.5	8.2	13.1	11.27
New Mexico	8.0	12.1	17.1	12.40
Missouri	11.8	21.8	6.9	13.50
Texas	13.1	16.7	10.7	13.50
Tennessee	12.5	10.9	19.0	14.13
West Virginia	11.9	13.2	26.2	17.10
Nebraska	15.2	27.6	14.6	19.13
Arkansas	17.5	18.8	23.3	19.87
Average	10.27	11.02	11.16	10.82

No Prevailing Wage State†	2008	2009	2010	Average
Arizona	7.3	4.5	6.4	6.07
Virginia	9.2	8.0	5.9	7.70
Florida	8.9	7.5	7.7	8.03
North Carolina	9.7	7.4	9.8	8.97
Colorado	10.2	10.5	6.9	9.20
Georgia	9.8	8.6	9.5	9.30
Alabama	9.6	7.7	12.6	9.97
Utah	14.2	10.5	7.4	10.70
South Carolina	10.3	15.5	10.0	11.93
Kansas	13.9	15.6	14.9	14.80
Oklahoma	12.5	9.0	24.8	15.43
Mississippi	18.8	14.6	23.3	18.90
Iowa	22.2	21.0	14.5	19.23
Louisiana	19.3	27.2	11.9	19.47
Average	12.56	11.97	11.83	12.12

Source: "State Occupational Injuries, Illnesses, and Fatalities," U.S. Department of Labor, Bureau of Labor Statistics for the years 2008 to 2010.
* Historical data is not reported or is incomplete for Connecticut, Delaware, Maine, Montana, Oregon, Rhode Island, Vermont, and Wyoming.
† Historical data is not reported or is incomplete for Idaho, New Hampshire, North Dakota, and South Dakota.

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 causalities 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 10 displays the division of prevailing wage states into *strong, average,* and *weak* categories. Additionally, Table 10 includes states that never had PWLs and those that had PWLs which were later repealed. Illinois' PWL is considered a *strong* law.

Table 10: Classification of PWL States and Non-PWL States

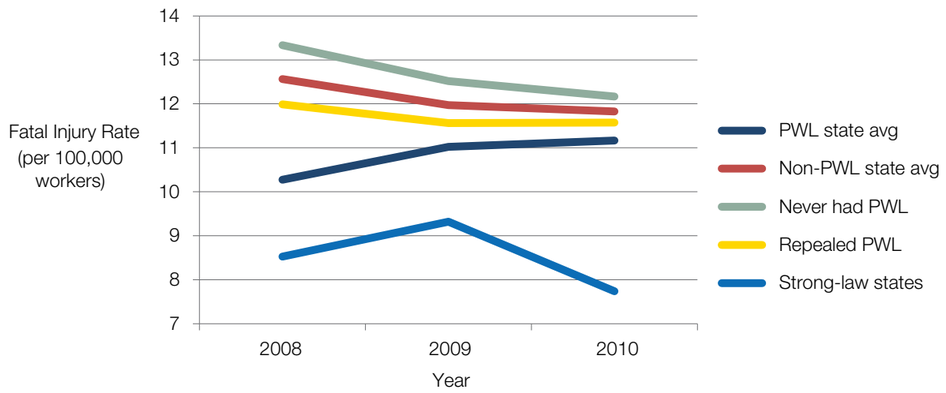
Strong PWL	Average PWL	Weak PWL	PWL repealed (with year of repeal)	Never had PWL
California	Alaska	Kentucky	Alabama (1980)	Georgia
Hawaii	Arkansas	Maine	Arizona (1984)	Iowa
Illinois	Connecticut	Maryland	Colorado (1985)	Mississippi
Massachusetts	Delaware	Nebraska	Florida (1979)	North Carolina
Minnesota	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: Please see Table A in the Appendix; 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, 2008-2010



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.[55] 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.

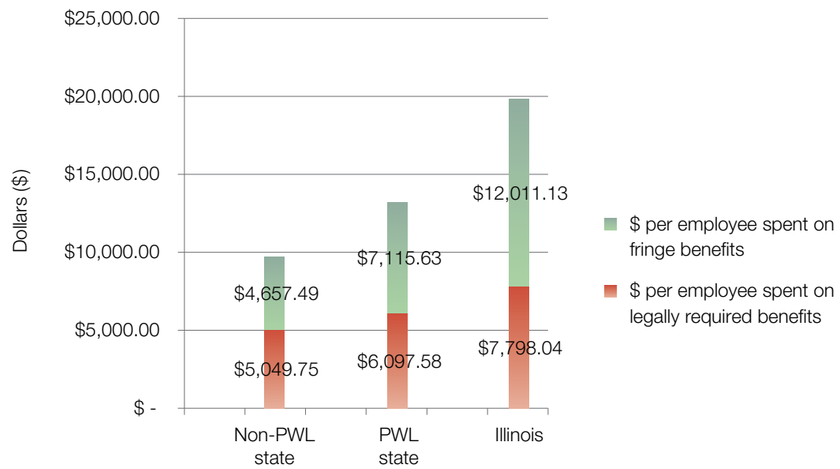
Nationally, approximately 57 percent of private industry construction workers participated in an employer-sponsored health care plan in 2012.[56] 79 percent of construction workers belonging to a union in 2011 participated in their employer-sponsored health care plans compared to 50 percent of non-union construction workers.* During this same time period, 46 percent of private industry construction workers participated in retirement benefits plans.[57] Eighty-five percent of union construction workers in private industry participated in employer-sponsored retirement benefits plans in 2012, as compared to 45 percent of non-union construction workers.†

* Health care is a collective term for the following benefits: medical, dental, and vision care benefits, as well as outpatient prescription drug coverage. If workers participate in at least one of these benefits, they are considered as participating in health care.

† Retirement benefits include defined benefit pension plans and defined contribution retirement plans. Workers are considered as participating if they are participating in at least one of these plan types.

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.[58] 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 is 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. These amounts represent over one-third of what construction employers spend on legally-required benefits and over 60 percent of employer spending on fringe benefits or voluntary expenditures in states with no PWLs.

This analysis is in line with findings from a 2000 study by Peterson that looked at the role of PWLs and provision of health care and pension benefits for construction workers.[59] The author found that construction workers in states that repealed their PWLs experienced a 53 decrease in benefits on average, with pension benefits falling more sharply than health care benefits. These compensation decreases do not occur instantly. When comparing states that repealed with states that kept their laws, wages exhibit a steady decline from the first year to the fifth year but pension benefits do not decline until three years after repeal. In conclusion, Petersen found, "when comparing the experiences of different states, PWLs enhance both wages and benefits, with the larger percentage increase going toward employer pension contributions. PWLs appear to create an incentive for both employers to pay and workers to accept a larger percentage of their total compensation in the form of benefits."[60]

* See Chapter 6 "Prevailing Wages and Worker Fatalities" section for a discussion of the differences between strong, average and weak

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).[61] 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.

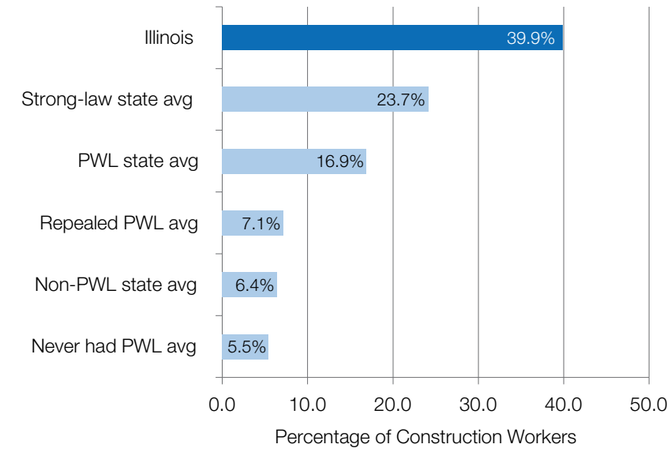


Figure 4: Percentage of Workers Covered by Collective Bargaining Agreements in Construction Sectors, PWL and Non-PWL States, 2012

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.[62] 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. 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,[64] Michigan,[65] New York,[66] Texas,[67] California,[68] Washington,[69] Minnesota,[70] Ohio,[71] Florida,[72] and Illinois[73] 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.[74] 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.

7. 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 Office of Apprenticeship Training (OATLES) of the U.S. Department of Labor oversees the apprenticeship system. OATLES certifies and monitors apprenticeship programs to assure the appropriateness of training plans and adequacy of execution. OATLES also keeps records on programs and indentured apprentices except where state apprenticeship programs keep these records. Twenty-five states run their own apprenticeship systems. The other 25 states have programs overseen by OATLES. The OATLES Registered Apprenticeship Partners Information Management Data System (RAPIDS) is used in this study to investigate the relationship between the presence of state prevailing wage laws and the percentage of a state's labor force that is enrolled in apprenticeship programs. Because 19 states use their own data system rather than RAPIDS, the analysis is limited to 31 states.*

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 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.[75] 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 11: 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 11 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

* The states which do not use the RAPIDS data system are Connecticut, the District of Columbia, Hawaii, Kansas, Massachusetts, Maryland, Maine, Minnesota, North Carolina, New Mexico, New York, Oregon, Rhode Island, Virginia, Vermont, Washington, and Wisconsin.

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.[76]

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),[77] this argument has been taken up by other authors and organizations opposed to PWLs.[78]

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 chose 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.[79] 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.[80] 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.[81] 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.[82] 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.

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.

APPENDEX

TABLE A

State	Strength of Law	Full Rating	Threshold Contract Amounts	Contracts Covered	Breath of Work Covered	Setting Prevailing Wage	Other Factors
Alabama	no law	0	0	0	0	0	0
Alaska	average	11	2	2	3	4	0
Arizona	no law	0	0	0	0	0	0
Arkansas	average	10	0	2	3	3	0
California	strong	16	2	3	3	5	3
Colorado	no law	0	0	0	0	0	0
Connecticut	average	8	0	0	2	6	0
Delaware	average	7	0	2	0	3	2
Florida	no law	0	0	0	0	0	0
Georgia	no law	0	0	0	0	0	0
Idaho	no law	0	0	0	0	0	0
Hawaii	strong	15	2	2	2	6	3
Illinois	strong	12	2	2	2	6	0
Indiana	strong	10	2	2	1	6	0
Iowa	no law	0	0	0	0	0	0
Kansas	no law	0	0	0	0	0	0
Kentucky	weak	3	0	2	0	3	-2
Louisiana	no law	0	0	0	0	0	0
Maine	weak	3	1	0	0	2	0
Maryland	weak	4	0	0	0	4	0
Massachusetts	strong	17	1	3	4	8	0
Michigan	no law	0	0	0	0	0	0
Minnesota	strong	14	1	2	5	6	0
Mississippi	no law	0	0	0	0	0	0
Missouri	strong	12	2	2	1	6	1
Montana	weak	6	1	2	0	2	1
Nebraska	weak	2	0	0	0	2	2
Nevada	average	11	1	3	1	6	0

TABLE A continued

New Hampshire	no law	0	0	0	0	0	0
New Jersey	strong	16	2	3	2	8	1
New Mexico	average	9	1	3	1	4	0
New York	strong	16	2	3	2	8	1
North Carolina	no law	0	0	0	0	0	0
North Dakota	no law	0	0	0	0	0	0
Ohio	strong	14	1	2	2	8	1
Oklahoma	weak	2	0	0	-1	3	-1
Oregon	average	11	1	2	1	6	1
Pennsylvania	average	10	1	2	1	6	0
Rhode Island	strong	12	1	2	3	6	0
South Carolina	no law	0	0	0	0	0	0
South Dakota	no law	0	0	0	0	0	0
Tennessee	weak	2	1	0	0	1	0
Texas	weak	6	2	2	0	2	0
Utah	no law	0	0	0	0	0	0
Vermont	no law	0	0	0	0	0	0
Virginia	no law	0	0	0	0	0	0
Washington	strong	14	2	2	4	6	0
West Virginia	average	11	2	3	3	6	0
Wisconsin	average	11	0	2	3	5	1
Wyoming	average	8	1	3	0	4	0

Key to Table A:

Red Type: Never Had Law	
Blue Type: Repealed as of 1995	
Strength of Law:	
No Law:	0
Weak Law:	2 – 6
Average Law:	7 – 11
Strong Law:	12 or more
Threshold Contract Amounts:	
<= $2,000	2
$2000-$50,000	1
>$50,000	0

Breadth of Work:	
Only State	0
State and Local	1
State Pre-empts Federal & the wage is higher	2
Setting Prevailing Wage:	
Simple average	1
Median of Survey	2
50% or simple average	3
50% or Commission survey	4
Modal Rate	5
Commission or Director Determines	6
Not less than CB; 30%	8

TABLE B

Dollar Threshold Amounts for Contract Coverage Under State Prevailing Wage Laws	
States with PWLs	Amount
Alaska	$25,000
Arkansas	$75,000
California	$1,000
Connecticut	$400,000 for new construction $100,000 for remodeling
Delaware	$100,000 for new construction $15,000 for alteration, repair, renovation, rehabilitation, demolition, or reconstruction
Hawaii	$2,000
Illinois	No threshold
Indiana	$350,000
Kentucky	$250,000
Maine	$50,000
Maryland	$500,000
Massachusetts	No threshold
Michigan	No threshold
Minnesota	$25,000 where more than one trade is involved $2,500 where a single trade is involved
Missouri	No threshold
Montana	$25,000
Nebraska	No threshold
Nevada	$100,000
New Jersey	$2,000 $14,187 $50,000 – aggregate cost for maintenance and repair
New Mexico	$60,000
New York	No threshold
Ohio	$200,000 for new construction $78,258 for new road, street, alley, sewer, ditch, and bridge construction $60,000 for remodeling $23,447 for new road, street, alley, sewer, ditch, and bridge remodeling
Oregon	$50,000
Pennsylvania	$25,000
Rhode Island	$1,000
Tennessee	$50,000
Texas	No threshold
Vermont	$100,000
Washington	No threshold, except for state college/university construction ($25,000)
West Virginia	No threshold, except for projects of the West Virginia Infrastructure and Jobs Development Council ($50,000).
Wisconsin	$100,000 where a multiple-trade project of public works is involved $234,000 where a multiple-trade project of public works by a private contractor for a city or village with a population of less than 2,500 or a “town” $48,000 where a single trade project of public works is involved
Wyoming	$25,000

Source: U.S. Department of Labor Wage and Hour Division (January 2013). “Table of Dollar Threshold for Contract Coverage Under State Prevailing Wage Laws,” accessed August 2013 at http://www.dol.gov/whd/state/dollar.htm.

Table C: Prevailing Wages for Cook, Sangamon, and Champaign Counties for August 2013, select occupations

	Cook County			Sangamon County			Champaign County		
Trade Name	**Wage**	**Health**	**Pension**	**Wage**	**Health**	**Pension**	**Wage**	**Health**	**Pension**
Electrician	$43.00	$12.83	$14.27	$34.22	$6.11	$8.62	$36.41	$5.35	$7.74
Laborer- Highway	$37.00	$13.38	$9.52	$28.47	$6.30	$10.76	$29.65	$5.75	$9.79
Machinist	$43.92	$6.76	$8.95	$43.92	$6.76	$8.95	$43.55	$6.13	$8.95
Operating Engineer-Highway 1	$44.30	$16.60	$11.05	$37.60	$10.05	$8.10	$36.15	$6.80	$8.40
Painter	$40.00	$9.75	$11.10	$28.58	$5.25	$9.83	$33.56	$6.60	$4.42
Piledriver- Highway	$42.52	$13.29	$12.75	$30.86	$7.70	$13.99	$34.35	$7.45	$9.25
Pipefitter	$46.00	$9.00	$15.85	$40.02	$7.00	$7.75	$37.68	$7.00	$10.61
Plumber	$45.00	$12.53	$10.06	$40.02	$7.00	$7.75	$37.68	$7.00	$10.61
Roofer	$38.95	$8.28	$9.19	$27.90	$8.60	$6.75	$28.75	$9.15	$8.40

Source: Illinois Department of Labor, Laws and Rules (August 2013). "Prevailing Wage Rates by County for August 2013," accessed August 2013, at http://www.illinois.gov/idol/Laws-Rules/CONMED/Pages/Rates.aspx.

ENDNOTES

[1] See Philips, P. *Quality Construction – Strong Communities: The Effect of Prevailing Wage Regulation on the Construction Industry in Iowa*, pg. 5, http://www.faircontracting.org/PDFs/prevailing_wages/PreConstIowa.pdf

[2] The National Bureau of Economic Research. US Business Cycle Expansions and Contractions. http://www.nber.org/cycles.html. (Accessed June 2013).

[3] This section draws on Davis-Bacon: The Act and the Literature, Congressional Research Service Report for Congress 94-908, updated November 13, 2007

[4] Wessels Sherman Law Firm. "What's the Illinois Prevailing Wage Act?" http://www.w-p.com/CM/Articles/Whats-the-Illinois-Prevailing-Wage-Act.asp. (Accessed July 2013).

[5] SmithAmundsen Law Firm. "Labor & Employment Law Alerts: Governor Quinn Signs Union Backed Bill Which Expands Illinois' Prevailing Wage Law." http://www.salawus.com/Newsletters/Labor/Page486. (Accessed July 2013).

[6] Azari et al. (1993).

[7] Philips et al. (1995).

[8] Belman & Voos (1995).

[9] Thieblot (1996).

[10] Thieblot (1999).

[11] Prus (1999).

[12] Peterson (2000).

[13] Kessler & Katz (2001).

[14] Jordan et al. (2006).

[15] Kelsay et al. (2011).

[16] Maryland Department of Fiscal Services (1989).

[17] Fraundorf & Farell (1994).

[18] Glassman et al. (2008).

[19] Mahalia (2008).

[20] Duncan (2011).

[21] Philips et al. (1995).

[22] Prus (1996).

[23] Wial (1999).

[24] *Ibid.*

[25] Bilginsoy & Philips 2000; Philips 2001; Azari-Rad et al. (2002).

[26] Duncan (2011).

[27] First, the more diverse a region, the higher the likelihood that inter-industry spending occurs *within* the region. IMPLAN provides the Shannon-Weaver Diversity Index, a measure based on employment. An index of 1.0 indicates total economic diversity with workers evenly spread across industries, while a value of 0.0 would indicate a company-town-like reliance on only one industry for employment. The State of Illinois is intuitively more diverse than any of its encompassing regions. Second, the closer a region is to the state's borders, the more likely money is to flow out of the state. Finally, the higher the average household income for a region, the less likely money is to be spent in the local economy. This is because poorer consumers save less since they must spend a higher percentage of their incomes to support a family than richer consumers and because the wealthy are more likely to travel. The equation utilized to determine regional "local purchasing percentages" was thus:

$$LPP = 93.22 \frac{Diversity\ Index_{Region}}{Diversity\ Index_{State}} - 4.0Border_{Touch} - 2.0Border_{Near} - 1.0HouseholdIncome_{\%\ Above\ State}$$

For example, the Springfield-Decatur region lies in central Illinois, and its borders are not touching or near neighboring states. The region's average household income of $98,344 is 14.1% *less* than the state average and its diversity index is 0.654 compared to the state's 0.749. Accordingly, the "local purchasing percentage" for the region was 83.01 percent. Recall that the estimate for the statewide purchasing percentage was 93.22 percent.

[28] Prus (1999).

[29] Kelsay, Sturgeon, and Pinkham (2011).

[30] Simple OLS regression results of the natural log of real wage and salary income on an indicator variable for having a prevailing wage law were determined using IPUMS-USA census microdata for the year 2005 to the year 2011. In total, there were 11,327,871 observations of individuals across America in all industries. The full robust regression model included dummy variables for the construction industry and Illinois while also controlling for age, gender, race/ethnicity, level of educational attainment, veteran status, immigrant status, and usual hours worked per week. The R^2 was 0.48. For the full regression output, contact the Labor Education Program. *Source*: Steven Ruggles, J. Trent Alexander, Katie Genadek, Ronald Goeken, Matthew B. Schroeder, and Matthew Sobek. Integrated Public Use Microdata Series: Version 5.0 [Machine-readable database]. Minneapolis: University of Minnesota, 2010.

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[37] Haous and Yagoubi (2004).

[38] Kelsay, Sturgeon, and Pinkham (2011).

[39] *Ibid.* This influential study has assumed that all lost labor income fully disappears from the economy.

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[48] *Ibid.*

[49] Kelsay (2004).

[50] GAO (2009).

[51] *Ibid.*

[52] See Philips (1995), Belman and Voos (1995), Jordan and Bruno (2006).

[53] Philips (1995).

[54] 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).

[55] **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) x 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

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