

Health Care and Pension Benefits for Construction Workers: The Role of Prevailing Wage Laws

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This article examines the affect of state prevailing wage laws (PWLs) on the amount and mix of wages and benefits paid to construction workers. PWLs require contractors who win bids on state-financed construction projects to pay compensation rates equivalent to those prevailing in local construction markets. During 1982–1992, 6 states repealed their PWLs, 9 states who never had a PWL did not enact one, and 32 states kept their PWLs. Data from the Form 5500 series, the Census of Construction Industries, the Current Employment Statistics, and the Current Population Survey are combined to evaluate the effects of PWL repeals on compensation. When comparing the experiences of different states, PWLs enhance both wages and benefits, with the largest 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.

Introduction

Currently, 30 states and the federal government have prevailing wage laws (PWLs).¹ PWLs require contractors on publicly financed

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¹The federal law is also referred to as the Davis-Bacon Act, and state laws referred to as “little Davis-Bacon acts.” The Davis-Bacon Act was passed in 1931. By 1975, 41 states had “little Davis-Bacon acts.” The intent of the passage of these laws was to create stability in local construction markets to foster the growth of a middle class of construction workers.

construction projects to provide wages and benefits at levels equivalent to those prevailing in the local market. The federal PWL governs public works projects financed with federal government dollars, whereas state PWLs govern projects financed with state government dollars. The state laws are under state control, and states can set their own rules for how prevailing wages and benefits are calculated.²

The Republican agenda for the 1994–1998 congressional terms included the repeal of both the federal and state PWLs. While many economists had been criticizing PWLs for decades, the new Republican-controlled House and Senate following the 1994 election meant the votes were finally in place to make repeal of the federal law seem imminent. While the first attempts at repeal have been unsuccessful, the continued Republican control of the Congress in the 1998 election means that repeal of the federal law is likely to resurface as an issue of contention. At the state level, the debate over whether to repeal or modify state PWLs ran parallel to the federal law debate. The only successful repeals were in Oklahoma, where the law was declared unconstitutional, and Michigan, where the law was preempted by ERISA.³ Legislatures in California, Kentucky, Ohio, and Pennsylvania are currently debating whether to repeal or modify their laws.

In this article I examine the effect of PWL repeals between 1982 and 1992 on the total compensation package to construction workers. During this time period, 6 states repealed their law, 9 states who never had a law did not enact one, and 32 states kept their law.⁴ Several studies exist that examine the effect of repeals on construction costs; however, little is known about the impact such repeals are likely to have on the availability of important employee benefits such as health insurance and pension coverage for construction workers. Articles on construction costs by O'Connell (1986), Goldfarb (1984), Metzger and Goldfarb (1983), and Reynolds (1982) are primarily theoretical, viewing PWLs as inefficient by inducing labor market distortion. These studies claim that PWLs transfer rents to construction unions at the expense of the nonunion sector,

²The federal law has a "fifty-percent modal switching" rule for the calculation of prevailing rates. This means that if 50 percent or more of the workers in an area earn the same amount, then that modal rate becomes the prevailing rate. If less than 50 percent do not earn a single amount, then the prevailing rate is calculated as the mean of all rates. The same holds true for benefit calculations; however, if there is not a prevailing modal rate, then all the zero observations are thrown out in the mean calculation.

³Michigan's PWL was preempted by the Employee Retirement Income Security Act (ERISA) in 1995. However, a recent Supreme Court ruling on ERISA preemption reinstated the Michigan law. Oklahoma's law was declared an unconstitutional delegation of state power to the federal government because federal prevailing rates were being used on state financed projects.

⁴Florida, Utah, and Alabama repealed their laws prior to 1982.

minority construction workers and minority contractors, and taxpayers. Empirical studies by Thieblot (1996) and Fraundorf et al. (1986) estimate that prevailing wage legislation increases construction costs by \$4 billion per year and 26 percent, respectively. Allen (1983) finds cost increases ranging from \$41 to \$224 million per year due to incorrect calculations of prevailing rates. Philips (1996) and Philips et al. (1996) claim that governments will not recapture the decrease in construction costs due to lost income taxes, cost overruns, and increased workplace injuries and deaths.

I find that state PWLs increased compensation to construction workers during 1982–1992. The largest percentage increase in compensation came from employer contributions to pension plans. The primary reason why pensions are significantly influenced is market failure in the delivery of benefits to construction workers. The construction labor market is composed of an itinerant labor force that is employed by small contractors. High worker turnover and lack of economies of scale create a situation where employers lack incentives to provide health care and pensions to their employees. It also appears that construction workers prefer wages to benefit income. In the forthcoming sections I will examine compensation in the construction industry, how PWLs influence the magnitude of wage and benefit payments, and how PWLs affect the mix of compensation.

Compensation in the Construction Industry

The construction industry is primarily composed of small employers (<100 employees) who employ an itinerant work force. It is not uncommon for a construction worker to work for 100 different employers during his or her career. The construction industry is also characterized by cyclic and seasonal employment, which causes the demand for labor to be influenced by the local business cycle and weather conditions (Ghilarducci et al., 1995).

Transaction costs are created in the construction labor market because of the short-lived relationship between employers and employees. These transaction costs can lower the value of deferred benefits for the individual and reduce employer incentives to provide benefits. The tradeoff between wages and benefits is determined primarily by the preferences of employees and the relative costs of benefits to employers (Smith and Ehrenberg, 1983). Employees who face an unstable labor market are more likely to demand compensation packages weighted heavily toward wages that help resolve their immediate cash-flow needs. Despite the needs of their families for health insurance, the need for retirement income, and the tax advantages of pensions and health benefits, construction workers may

forgo this deferred compensation due to concerns about future employment. Compensation packages weighted heavily toward wages are also consistent with the incentive strategies of construction employers. Important incentives for employers to provide health and pension benefits, and potentially increasing their labor costs due to administrative duties associated with these programs, are maintaining a healthy work force and encouraging worker loyalty to the employer (Mitchell, 1982; Kaufman, 1994). Construction unions and union employers have an incentive to provide benefits for these reasons, since their relationship is ongoing. However, the nonunion sector of the construction industry is not characterized by an ongoing relationship except in the case of the few very large employers; therefore, the aforementioned incentives are absent.

Benefit payments to union construction workers are substantially higher than those to nonunion workers. In 1992, health, welfare, and pension plans in the construction industry paid \$13.2 billion in benefits to active construction workers and retirees.⁵ The benefits per worker for union construction amounted to \$12,798 (\$11.6 billion in benefits to 906,191 workers), whereas the benefits per worker for nonunion construction amounted to \$434 (\$1.6 billion to 3,623,582 workers). Thus, while unionized construction workers account for 20 percent of the construction work force, unionized benefit programs account for 88 percent of all benefit payments in the industry.

The institutions that provide the mechanism for benefit payments to union construction workers are multiemployer jointly trustee benefit funds. Pursuant to these jointly trustee plans, construction employers usually pay a set rate per hour per type of worker they employ to a designated trust fund. In highly unionized areas, the funds are established on a local level, whereas in areas of low unionization, the funds are administered on a statewide, multistate, or even nationwide level. Thus employer contributions are pooled by craft, and the final authority for deciding how the money is distributed to the participants resides in the hands of the union and employer trustees of a particular craft.⁶ These funds must be governed by an equal number of employer and union trustees, and different funds are established for health care and pensions. The ongoing nature of these funds lowers transaction costs for providing benefits to construction workers.

⁵ Author's calculation from the Form 5500 series.

⁶ Even though the trustees are the final authority for making decisions, they must employ independent third-party professional firms to advise whether their decisions are financially sound and in the best interest of the plan participants. Jointly trustee funds hire actuaries, money managers, and auditors to see that they are in compliance with the laws governing their decision-making process.

The standards for maintaining benefits in unionized programs allow nonunion employers to free ride on union plans. Many union health care plans have provisions where workers can “bank” their hours so that their health care coverage remains even though they are not working a union job (Ringen et al., 1995). Also, union pension funds, which are primarily defined-benefit plans, tend to have low yearly hourly requirements toward a credited vested year. Usually, a multiemployer defined-benefit pension plan will have a requirement of 1000 reported hours to earn a year of credited service (Ghilarducci et al., 1995). Thus a construction worker could work half-time in the nonunion sector and still receive a credited year of service in a union pension plan. The fact that union workers can work part-time and still qualify for full benefits shows that unions value these programs to a great extent. The rules for qualifying for benefits recognize that construction work can be sporadic, and thus the number of hours is set rather low to assist workers in being able to qualify and maintain benefits. The low number of qualifying hours also protects older employees who may not want to work full-time later in their careers. Unions sometimes pay more attention to the needs of older workers at the expense of younger workers (Freeman and Medoff, 1984), and the low requirements for hours worked may subsidize benefits for older workers. However, this system of qualifying for benefits allows the nonunion sector to free ride on union benefit programs. Since union workers can work part-time on nonunion jobs and still receive health and pension benefits, nonunion employers have another reason not to provide them.

The higher wages earned by union construction workers also influence benefit payments because of an increased ability to afford insurance, larger savings, and tax incentives. Unionized construction workers, compared with nonunion workers, are likely to have more savings because of higher wage rates, and this provides more security during periods of unemployment. Thus union workers may be more willing to accept benefit payments because of less urgency related to cash constraints. Also, union workers are in higher tax brackets, which provides an incentive to receive compensation in the form of benefits.

Estimates of the rates of health and pension coverage for construction workers range from 55 to 65 percent for health and 30 percent for pension (Silverman et al., 1995; Wiatrowski, 1995). These rates are substantially lower than the rest of the employed population, where the health care coverage rate is 82 percent and the pension coverage rate is approximately 50 percent. However, in the case of the construction industry, saying that a worker is “covered” may be a meaningless term. The high rate of worker turnover results in breaks in service that may cancel the

employer's requirement to pay benefits. For example, in 1992, 14 percent of nonunion benefit plans that reported covering construction workers did not report any benefit payments.⁷ Thus I have chosen to use a benefits per worker calculation in the empirical section. The benefits per worker calculation shows what an average worker in the industry can expect to receive in nonwage compensation if he or she works for a variety of employers. Since it is common for construction workers to work for multiple employers during a year and it is common for construction workers to work for both union and nonunion employers during the year; the benefits per worker calculation will summarize the average nonwage compensation to construction workers.

The Effect of PWLs on Compensation

The influence of PWLs on compensation depends on several factors. One of the most important factors is the manner in which prevailing rates are calculated. Calculation methods have been a subject of great debate on two issues: (1) how the data are collected and (2) identifying the central tendency of a distribution. The method by which data are collected and a prevailing rate is calculated (either the mean, median, or mode) can make a law potent or impotent. Thieblaut (1995) has developed a ranking system where he categorizes states as having either a strong, average, or weak PWL. His ranking system is based on how closely prevailing wage rates mirror union wage rates. California, for example, is considered a "strong" law state because the prevailing rate is usually the same as the union rate. This occurs because California uses a modal calculation for its prevailing rates and is relatively highly unionized in the construction industry. Since collectively bargained wages are uniform, whereas non-union wages are not, the union rate tends to prevail as the mode. This example highlights the fact that each state's law will not have the same affect on compensation.

States are not uniform in how they require construction employers to pay the prevailing rate of benefits. In some states with PWLs, employers have the choice of either making payments to a benefit program of their choice or putting the money in the employee's check. This is the most common method for how prevailing rates can be paid. Other states do not let employers supplement the worker's paycheck and require that payments go to a benefit fund of the employer's choice. Finally, some states

⁷ Author's calculation using the 1992 Form 5500s, Pension and Welfare Benefits Administration, Department of Labor, Washington, D.C.

require employers to make fixed payments to several benefit categories: health, pension, training, etc. In all cases it is mandated that employers pay benefits at the prevailing rate. Thus the rate of benefit payments is fixed for both union and nonunion contractors.

A construction contractor who wins a bid on a project covered by prevailing wage legislation has an incentive to start benefit programs. Health care and pension contributions are tax-free, whereas wages have payroll taxes attached to them. Therefore, by establishing benefit programs, employers can reduce their labor costs. Construction employers who do not currently provide benefits are more likely to choose defined-contribution pension plans [such as 401(k)'s] over health care plans because of the low startup and administrative costs associated with these programs. Once these plans are established, there could be spillover effects in private construction projects. Employers could be successful in convincing employees to accept pension contributions due to the tax advantages for both parties, and 401(k) plans are totally portable, which meets the needs of itinerant workers. Construction workers also can access their 401(k) contributions during long stretches of unemployment, although the negative tax effects probably discourage this behavior.

Most construction projects are not subject to prevailing wage legislation. In 1992, private construction was 72 percent of construction spending nationwide, whereas federal government spending was 7 percent and state government spending was 21 percent.⁸ The percentage of construction spending that was covered by prevailing wage legislation (all federal spending plus state government spending in states with laws) was 17 percent in 1982 and 20 percent in 1992. Thus, during the time period of this study, approximately one-fifth of all construction spending had fixed compensation rates. As the mix of construction activity shifts toward public construction spending, wages and benefits could increase, since prevailing rates most likely will be in effect.

The preceding two sections have theoretically outlined how compensation to construction workers is influenced. In summary, compensation appears to be affected by the interaction of the supply and demand for labor, unions, prevailing wage legislation, and the type of construction spending. The influence of these different factors will now be tested empirically.

⁸ 1992 Census of Construction, Bureau of the Census.

Data and Methods

Four data sets are used in this study: the Form 5500 series, the Census of Construction Industries, the Current Employment Statistics, and the Current Population Survey. Form 5500s are annual reports filed with the Internal Revenue Service by all corporations or multiemployer associations who provide benefits to 100 or more participants. The data are made available to the public through the Pension and Welfare Benefits Administration of the Department of Labor. The Form 5500 began in 1976 following passage of the Employee Retirement Income Security Act (ERISA); however, the data are only currently available to the public beginning in 1982.⁹ The Census of Construction Industries (CCI) is conducted every 5 years as part of the Census Bureau's Economic Censuses program. The CCI covers all employer establishments primarily engaged in construction, as defined in the 1987 *Standard Industrial Classification (SIC) Manual*, and has been conducted in 1977, 1982, 1987, and 1992. The Current Employment Statistics (CES) come from surveys conducted by state employment security agencies, and the data are compiled by the Bureau of Labor Statistics. The survey provides employment and earnings estimates based on payroll records of business establishments. The Current Population Survey (CPS) is a monthly survey of about 50,000 households conducted by the Bureau of the Census for the Bureau of Labor Statistics.

Variables

1. *Benefits.* Benefit funds (health and pension) were included in the study on the basis of those who listed SIC codes of 1500 to 1799 as their business code on Form 5500. SIC codes in the 1500s refer to general building contractors and operative builders, the 1600s refer to heavy construction contractors, and the 1700s refer to specialty contractors. The employer contributions to these funds were then summed by state and divided by the total number of construction workers in the state to obtain the benefits per worker variable.
2. *Construction spending.* The CCI provides construction expenditures by state broken down by public (federal and state government) and private spending. The CCI was used for the total

⁹The year of the earliest repeal was Florida in 1979; however, since the Form 5500s could only be obtained back to 1982, this year was chosen as the starting point of the study.

construction spending variable and the percentage of spending that is publicly financed. Since the CCI is only conducted every 5 years, a moving average was applied to obtain observations in the missing years.

3. *Employment, earnings, and unionization.* Employment and wage data are taken from the CES, whereas unionization rates are from the CPS.¹⁰ Wage data from the CES are the total wages earned annually, not wage rates.
4. *State and time controls.* Dummy variables were constructed for each state and year in the study.

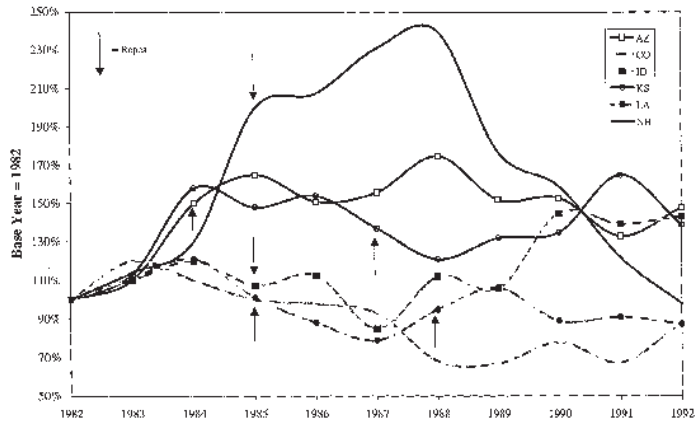
Data analysis. Nine states have repealed their PWLs (LA, 1988; KS, 1987; CO, 1985; ID, 1985; NH, 1985; AZ, 1984; UT, 1981; AL, 1980; and FL, 1979), nine states (ND, SD, IA, VA, NC, SC, GE, MS, and VT) have never had a PWL, and the remaining states have PWLs.¹¹ These repeals represent an opportunity to estimate the effect of PWLs on compensation to construction workers by comparing the repeal states with the states that kept their laws and those which never had laws. Florida, Utah, and Alabama are excluded from this study because they repealed their PWLs prior to 1982. Alaska, Kentucky, Montana, Wyoming, Iowa, and the District of Columbia also were excluded due to significant missing values for wage and benefit data. This leaves 42 states in the study: 28 that kept their law, 8 that never had a law, and 6 that repealed existing laws.

The repeal of a PWL is not a random event; thus there are likely to be numerous unobserved phenomena that can lead to a state's decision to repeal. On examination of employment data in states that repealed their laws, it appears that construction activity did not influence the decision. Figure 1 shows the change in employment in states that repealed their laws during 1982–1992. There is no consistent trend in the change in employment and the repeal of a law. Arizona and New Hampshire had increasing employment trends when they repealed. Colorado and Idaho, both of which repealed their laws in 1985, were at the same level of employment as 1982. Louisiana was beginning to rebound from falling employment when it repealed its law in 1988. Only Kansas had a discernible downward trend in employment before it repealed its law. Thus, since construction spending does not appear to influence a state's decision to remove its law, most likely political factors influence repeals. To

¹⁰ Unionization data from the CPS were provided by Barry Hirsch. Refer to Hirsch and Macpherson (1994) for how the data are compiled.

¹¹ Kentucky repealed its law in 1982 with regard to construction by municipalities and school districts.

FIGURE 1
Change in employment in states that repealed PWL



control for these unobserved factors, state-level fixed effects were included in the regression estimates.

The first estimation of the effect of PWLs on compensation to construction workers compares the states that kept their laws and the states that repealed them. The second estimation compares states that never had a PWL with the states that repealed their PWLs. This model specification was chosen to avoid comparing the states that kept their PWLs with states that never had a PWL, which should give a better estimate of the effect of repeals. All the variables used in the estimations are state aggregates by year for 1982–1992. The continuous variables were deflated by the consumer price index and logged to normalize their distribution. Estimates were obtained for total compensation, wages, total benefits, pension benefits, and health care benefits. In each of the estimates, the compensation variable was divided by the number of construction workers in a state. The explanatory variables in all the estimates are the presence of a PWL, the rate of unionization, total construction spending, the percentage of construction that is publicly financed, year dummies to control for the effects of time, and state dummies. Spending and employment are nearly perfectly collinear; thus employment levels are excluded as a variable in the regression estimates. The regression equation is specified following Cutler and Gruber (1996) and is in the form

$$\log(\text{COMPENS}_{ij}/\text{CONWKRS}_{ij}) = \alpha + \beta_1 \text{LAW}_{ij} + \beta_2 \% \text{UNION}_{ij} + \beta_3 \log(\text{CONSPEND}_{ij}) + \beta_4 \% \text{PUBLIC}_{ij} + \beta_5 \text{YEAR}_j + \beta_6 \text{STATE}_i + E_{ij} \quad (1)$$

where

COMPENS = total compensation, wages, benefits, pension benefits, or health care benefits

CONWKRS = total construction workers

LAW = dummy variable indicating the presence of a prevailing wage law

%UNION = percentage of unionized construction workers

CONSPEND = total construction spending

%PUBLIC = percentage of construction spending that is publicly financed

YEAR = dummy variable for the year

STATE = dummy variable for the state

and *i* refers to state and *j* to year, and *E* is the error term. An ordinary least squares (OLS) regression estimate is obtained from Equation (1).

A second regression equation (Equation 2) was specified to evaluate the effects of time following a PWL repeal. Dummy variables (labeled *REPEAL*_{1...7}) to control for the number of years since a state repealed its PWL were constructed to replace the *LAW* variable in Equation (1). The specification for Equation (2) is

$$\begin{aligned} \log(\text{COMPENS}_{ij}/\text{CONWKRS}_{ij}) = & \alpha + \beta_1\text{REPEAL1}_{ij} + \beta_2\text{REPEAL2}_{ij} + \\ & \beta_3\text{REPEAL3}_{ij} + \beta_4\text{REPEAL4}_{ij} + \beta_5\text{REPEAL5}_{ij} + \beta_6\text{REPEAL6}_{ij} + \\ & \beta_7\text{REPEAL7}_{ij} + \beta_2\%UNION_{ij} + \beta_3 \log(\text{CONSPEND}_{ij}) + \beta_4\%PUBLIC_{ij} + \\ & \beta_5\text{YEAR}_j + \beta_6\text{STATE}_i + E_{ij} \end{aligned} \quad (2)$$

Again, an OLS estimate is obtained. The coefficients on the *REPEAL* variables in Equation (2) will estimate the yearly marginal changes in compensation following repeal. These coefficients may provide insights into how employers and employees make decisions about the mix of compensation between wages and benefits following the repeal of a PWL.

Results

Table 1 compares the mean wages and benefits in states that kept their PWLs, states that never had a PWL, and states that repealed their PWLs from 1982 to 1992. On average, construction workers in states that kept their PWLs had 20 percent higher compensation packages than workers in states that never had laws. Also, these compensation packages were weighted more toward benefits in the states that kept their laws. Compensation levels held steady in states that kept their PWLs, and there was an 11 percent increase in compensation in states that never had a

TABLE 1
COMPARISON OF AVERAGE WAGES, BENEFITS, AND THE WAGE/BENEFIT MIX IN STATES
WITH AND WITHOUT PREVAILING WAGE LAWS, 1982-1992

	States that Kept PWL (28 States)			States that Never Had PWL (8 States)			States that Repealed PWL (6 States)		
	1982-1983	1991-1992	% change	1982-1983	1991-1992	% change	1982-1983	1991-1992	% change
Average total compensation	\$35,180 (6,317)	\$35,238 (6,622)	0.0%	\$27,533 (10,467)	\$30,435 (4,619)	10.5%	\$35,156 (3,323)	\$29,326 (4,414)	-16.6%***
Average wages	33,092 (5,340)	32,474 (5,267)	-1.8	27,180 (10,391)	29,971 (4,619)	10.3	33,900 (3,444)	28,741 (4,315)	-15.2%**
Average total benefits	2,087 (1,474)	2,763 (1,696)	3.2*	353 (523)	465 (438)	31.7	1,255 (1,444)	584 (391)	-53.4
Average pension benefits	1,105 (646)	1,160 (759)	5.0	208 (493)	174 (157)	-16.3	672 (626)	224 (167)	-66.7*
Average health care benefits	1,072 (880)	1,602 (1,007)	49.4%**	145 (157)	289 (329)	99.3	583 (829)	360 (253)	-38.2
Percentage of compensation in wages	94.1%	92.2%	-1.9*	98.7%	98.5%	-0.2	96.4%	98.0%	1.6
Number of observations	56	56		16	16		12	12	

NOTE: All dollar figures are in 1994 dollars. Standard deviations are in parenthesis. Statistical significance in the difference between the means is indicated by ** = 0.01 and * = 0.05.

PWL. The mix of wages and benefits shifted toward benefits in states that kept their PWLs, with pension benefits holding steady and health benefits increasing in the early 1990s. In states that never had PWLs, the wage-benefit mix held steady, while pension and health benefits increased; however, the difference was not statistically significant. Construction workers in states that repealed their PWLs experienced decreases in wages and benefits after repeals. Wages declined by 15 percent and benefits declined by 53 percent, with pension benefits falling more sharply than health care benefits. In addition, the wage-benefit mix shifted toward wages following repeal.

Table 2 presents the regression estimates of the effect of PWLs on compensation. PWLs appear to positively influence wages and benefits, with the greatest impact on pension benefits. Equation (1) estimates that PWLs raised total compensation, wages, benefits, and pension benefits by 12, 11, 61, and 105 percent, respectively, when comparing states that kept their PWLs with those which repealed them.¹² Equation (1) also estimates that PWLs raised total compensation by 14 percent, wages by 15 percent, and pension benefits by 104 percent when comparing states that never had a PWL with those which repealed them. The coefficients on the unionization variable show that as unionization increases, there is likely to be a corresponding increase in wages and possibly an increase in pension benefits. Finally, increases in construction spending led to increases in wages when comparing states that kept their laws with those which repealed them.

The cut in benefits estimated in Table 2 does not happen immediately. Table 3 presents estimates of the marginal (year to year) changes in total compensation, wages, and benefits in states that repealed their PWLs. When comparing states that repealed with states that kept their laws, the regression estimates show that wages exhibit a steady decline from the first year after a repeal until the fifth year. Pension benefits, however, do not show any decline until 3 years after a repeal. The decline in pensions then continues for the remaining years of the analysis. The reasons for the differential declines in wages and pensions will be discussed in the following section. The coefficients for years 6 and 7 reflect the experience of Arizona, Colorado, Idaho, and New Hampshire, since they removed their laws prior to 1986.

¹² Since the coefficients are logged differentials, the percentage differentials are given by $(\exp \beta - 1) \times 100$.

TABLE 2
ESTIMATION OF THE EFFECT OF PREVAILING WAGE LEGISLATION ON TOTAL COMPENSATION, WAGES, AND BENEFITS TO CONSTRUCTION WORKERS IN THE UNITED STATES, 1982–1992

Independent Variables	Dependent Variable (All Variables Are Divided by the Number of Construction Workers and Then Logged)									
	Total Compensation		Wages		Total Benefits		Pension Benefits		Health Care Benefits	
	Kept and Repeal States	Never Had and Repeal States	Kept and Repeal States	Never Had and Repeal States	Kept and Repeal States	Never Had and Repeal States	Kept and Repeal States	Never Had and Repeal States	Kept and Repeal States	Never Had and Repeal States
1. Presence of a P-W law (dummy variable)	0.114*** [0.03] (3.76)	0.137** [0.04] (3.05)	0.101*** [0.03] (3.35)	0.138** [0.04] (3.04)	0.478*** [0.08] (5.68)	0.427 [0.30] (1.44)	0.720*** [0.12] (5.99)	0.715* [0.35] (2.03)	-0.212 [0.22] (-0.94)	0.005 [0.44] (0.01)
2. Unionization rate in construction industry	0.413** [0.14] (2.92)	1.126*** [0.32] (3.55)	0.388** [0.14] (2.75)	1.100*** [0.32] (3.44)	0.343 [0.39] (0.88)	2.049 [2.10] (0.98)	1.038 [0.56] (1.86)	7.138** [2.49] (2.87)	-1.422 [1.05] (-1.35)	-4.554 [3.13] (-1.45)
3. Total construction spending	0.191** [0.07] (2.78)	0.194 [0.12] (1.57)	0.192** [0.07] (2.82)	0.232 [0.13] (1.85)	-0.205 [0.19] (-1.08)	-0.303 [0.82] (-0.37)	0.151 [0.27] (-0.56)	-0.465 [-0.48] (0.63)	-0.764 [0.51] (-1.49)	-1.504 [1.22] (-1.23)
4. Percentage of construction spending that is public	0.211 [0.33] (0.64)	-0.082 [0.56] (-0.15)	0.166 [0.33] (0.50)	0.051 [0.57] (0.09)	-2.637** [0.92] (-2.86)	-5.319 [3.72] (-1.43)	0.261 [1.32] (0.20)	-2.244 [4.42] (-0.51)	-12.19*** [2.48] (-4.92)	-12.94* [5.57] (-2.32)
Adjusted r^2	0.72	0.52	0.66	0.51	0.93	0.68	0.88	0.57	0.81	0.67
F value	21.78	7.22	16.58	6.83	112.62	12.96	57.17	8.60	34.38	12.49
Prob > F	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
Number of observations	374	154	374	154	374	154	374	154	374	154

NOTES: Standard errors are in brackets, and t statistics are in parenthesis. Statistical significance is indicated by **** = 0.0001, *** = 0.001, ** = 0.01, * = 0.05. The other variables that were included in the regressions but not reported in the tables are (1) dummy variables for the years 1982–1991 (1992 is the reference year) and (2) dummy variables for each state in the analysis (excluding a reference state).

TABLE 3

ESTIMATION OF THE EFFECT OF TIME SINCE PREVAILING WAGE REPEAL ON TOTAL COMPENSATION, WAGES, AND BENEFITS TO CONSTRUCTION WORKERS IN THE UNITED STATES, 1982–1992

Independent Variables	Dependent Variable (All Variables Are Divided by the Number of Construction Workers and Then Logged)									
	Total Compensation		Wages		Total Benefits		Pension Benefits		Health Care Benefits	
	Kept and Repeal States	Never Had and Repeal States	Kept and Repeal States	Never Had and Repeal States	Kept and Repeal States	Never Had and Repeal States	Kept and Repeal States	Never Had and Repeal States	Kept and Repeal States	Never Had and Repeal States
1. One year since P-W law repeal	-0.104* [0.05] (-2.19)	-0.104 [0.06] (-1.61)	-0.105* [0.04] (-2.24)	-0.111 [0.07] (-1.69)	-0.201 [0.13] (-1.56)	-0.065 [0.43] (-0.15)	-0.268 [0.19] (-1.44)	-0.141 [0.52] (-0.27)	0.160 [0.35] (0.45)	0.078 [0.65] (0.12)
2. Two years since P-W law repeal	-0.050 [0.05] (-1.06)	-0.081 [0.07] (-1.23)	-0.049 [0.05] (-1.03)	-0.085 [0.06] (-1.28)	-0.348** [0.13] (-2.67)	-0.316 [0.44] (-0.72)	-0.371 [0.19] (-1.97)	-0.46 [0.53] (-0.88)	0.074 [0.36] (0.21)	0.112 [0.66] (0.17)
3. Three years since P-W law repeal	-0.113* [0.05] (-2.37)	-0.125 [0.07] (-1.87)	-0.100* [0.05] (-2.12)	-0.123 [0.07] (-1.82)	-0.715**** [0.13] (-5.52)	-0.671 [0.45] (-1.51)	-1.064**** [0.19] (-5.67)	-0.900 [0.53] (-1.68)	-0.271 [0.36] (-0.76)	-0.536 [0.67] (-0.80)
4. Four years since P-W law repeal	-0.122* [0.05] (-2.56)	-0.135* [0.07] (-1.99)	-0.105* [0.05] (-2.23)	-0.130 [0.07] (-1.90)	-0.488*** [0.13] (-3.77)	-0.500 [0.45] (-0.50)	-0.615** [0.19] (-3.27)	-0.518 [0.54] (-0.96)	0.461 [0.35] (1.30)	0.098 [0.68] (0.14)
5. Five years since P-W law repeal	-0.201**** [0.05] (-3.85)	-0.261*** [0.07] (-3.49)	-0.185*** [0.05] (-3.57)	-0.256*** [0.08] (-3.38)	-0.578**** [0.14] (-4.07)	-0.610 [0.50] (-1.22)	-0.564** [0.21] (-2.74)	-0.480 [0.59] (-0.80)	-0.200 [0.39] (-0.52)	-0.637 [0.75] (-0.85)
6. Six years since P-W law repeal	-0.068 [0.06] (-1.16)	-0.140 [0.09] (-1.63)	-0.038 [0.06] (-0.66)	-0.126 [0.09] (-1.46)	-0.618**** [0.16] (-3.87)	-0.877 [0.57] (-1.54)	-0.874*** [0.23] (-3.78)	-0.895 [0.68] (-1.31)	0.663 [0.44] (1.51)	-0.040 [0.86] (-0.05)
7. Seven years since P-W law repeal	-0.048 [0.06] (-0.83)	-0.125 [0.08] (-1.50)	-0.014 [0.06] (-0.24)	-0.109 [0.08] (-1.29)	-0.614**** [0.16] (-3.86)	-0.955 [0.56] (-1.71)	-0.788*** [0.23] (-3.41)	-0.991 [0.67] (-1.48)	0.614 [0.44] (1.40)	-0.037 [0.94] (-0.04)
Adjusted r^2	0.72	0.52	0.66	0.50	0.94	0.67	0.88	0.55	0.81	0.66
F value (entire model)	19.51	6.02	14.92	5.65	104.45	10.50	51.57	6.77	30.64	9.92
Prob > F	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001
F value (vars. 1–7)	3.04	2.04	2.73	1.92	7.61	0.80	6.67	0.68	1.037	0.24
Prob > F	.0042	.0557	.0091	.0720	.0001	0.5972	.0001	.6891	.4048	.9733
Number of observations	374	154	374	154	374	154	374	154	374	154

NOTES: Standard errors are in brackets, and t statistics are in parenthesis. Statistical significance is indicated by **** = 0.0001, *** = 0.001, ** = 0.01, * = 0.05. The other variables that were included in the regressions but not reported in the tables are (1) unionization rate in the construction industry, (2) total construction spending, (3) percentage of construction spending that is public, (4) dummy variables for the years 1982–1991 (1992 is the reference year), and (5) dummy variables for each state in the analysis (excluding a reference state).

Discussion and Conclusions

The data suggest that during 1982–1992, compensation to construction workers was affected by the presence of PWLs, union density, and construction activity. Wages and benefits were influenced differently by these factors, whereas PWLs had the greatest effect on pension benefits.

The regression estimates in Table 2 show that pension benefits were increased more than wages due to PWLs. This result is probably explained by employer costs for benefits. Construction employers in PWL states likely favored placing their required benefit payments into pension funds rather than paying excess payroll taxes by placing the money in the workers' checks. They probably chose pensions over health due to the availability of low-administrative-cost defined-contribution programs (Kruse, 1995). These plans are easy to administer and have relatively low startup costs.

The results of the regression estimates presented in Table 3 suggest that workers probably would have preferred higher wages over increased pension contributions. When the states that repealed their PWLs are compared with states that kept their laws, we see a downward trend in wages and pension benefits in the states that repealed their laws. However, the fall in pensions is significantly higher than the decline in wages. When a PWL is removed and employers no longer have any mandates for benefits, they appear to shift the compensation mix toward wages. Since employer costs to provide pensions have not changed, this is most likely due to employee preferences for wage compensation. If employees were indifferent between wages and benefits, they should fall at the same rate once the restrictive influence of the law is removed.

The fall in benefits is probably also explained by nonunion penetration into public works projects following repeals. Union employers will be locked into a collectively bargained rate of benefits, whereas nonunion employers can end benefits payments. This will put nonunion contractors in a competitive advantage to win bids due to decreased labor costs. This affects benefits in two ways. First, nonunion contractors will gain market share, and their benefit payments are substantially lower than the union sector. Second, as union employers lose public works contracts, they may be forced into negotiations to demand that fringe benefit payments be reduced substantially. The result would be that workers on both public and private jobs will see a reduction in health and retirement benefits. The results in Table 3 support this explanation. On examination of the coefficients, we see the magnitude of the decline escalate after the first 2 years following repeal. Collective-bargaining agreements typically last 3 years in the construction industry; thus the downward effect of renegotiations on

benefits should occur around the third year following repeal.¹³ The downward movement of benefits continues through the seventh year following repeal, which could be evidence that union contractors seek further concessions from unions on benefits after the first round of renegotiations.

The fact that PWLs strengthened retirement savings during 1982–1992 but did not affect health care benefits could have importance with regard to the current debate on medical savings accounts (MSAs). The Republican Congress would like to extend the availability of MSAs, and should their views become law, then construction employers would have another benefits vehicle that is easy to establish and administer. For the same reason that employers want to put money into defined-contribution pension funds (reduced payroll taxes), they will want to contribute to MSAs. Prevailing wage legislation could thus increase the availability of health care benefits to construction workers.

Wage increases due to prevailing wage legislation are primarily explained by taking wages out of competition. PWLs are supposed to measure the market rate of wages in an area and fix them at that level. These laws were enacted to protect local construction markets from the potential disruption of public works projects. For example, if a multiyear public works project (such as the building of a dam and reservoir) was to take place in a high-wage area, construction contractors could recruit construction crews from low-wage areas to do the work. The political strength of unions also could be affecting wages by pushing legislatures to adopt calculation methods that push prevailing rates toward the collectively bargained rate.

While I find decreasing wage and benefit income related to repeals of PWLs, it is difficult to quantify whether falling compensation to construction workers constitutes a net benefit or net cost to taxpayers. Future research on this issue is needed once quantitative methods are developed to estimate the actual costs and benefits of PWLs. With regard to the cost side of the equation, as I note earlier, economists continue to be divided as to how much PWLs cost, with some claiming nothing and others making estimates of approximately 20 percent. Thus the fact that I find compensation increases related to PWLs does not necessarily mean that I find construction cost increases. Increased wages, for example, could be offset by productivity due to increased capital-labor ratios and the attraction of higher-skilled labor due to the wage premium.

¹³ Some contractors will, of course, be renegotiating their collective-bargaining agreements in the first and second years following repeal. However, all contracts should be renegotiated by the third year, which could explain why the third year following repeal is the first year that shows up as statistically significant.

With regard to the benefits side of the equation, the “benefits” of PWLs for construction workers are higher wages and pensions. Quantifying whether these individual benefits translate into societal benefits is problematic. Potential societal benefits of increased wages are found in the intent for initially passing the laws. PWLs were passed originally to help create a middle class of construction workers by eliminating the possibility that state governments, or the federal government, would reduce wages in a local area to lower construction costs. The government has always been a major purchaser of construction services and thus had the ability to bid wages down. According to the policymakers advocating PWLs, the societal benefit of wage stabilization—by fixing wages at local prevailing rates—would be to lessen geographic job seeking, which could encourage construction workers to purchase homes and have families (Philips et al., 1996). The potential societal benefit of employer-provided pensions is to reduce future poverty among elderly persons. Also, there should be less of a need for income transfers from the young to the elderly through Social Security. However, the research question of whether a current dollar of employer-provided pensions translates into a future societal benefit of greater than a dollar has yet to be answered.

In summary, the findings of this study of the shift of the compensation mix away from benefits and toward wages following repeal of a PWL suggests that construction workers have a strong preference for wages. Thus construction workers could potentially not be saving enough for retirement and not purchasing an adequate amount of health insurance. It appears that this group of workers does not seem willing to take advantage of the preferential tax treatment of these employee benefits. If the experience of the states who repealed their PWLs during 1982–1992 is an indication of what would currently happen to a state repealing its PWL, a repeal would cause wages and benefits to decline, with pension benefits taking the largest fall.

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