

END NOT JUSTIFIED BY MEANS

An Analysis of the R. S. Means New Castle County Assessment of the Economic Impact of Adopting Prevailing Wage Laws on New Castle County Government Construction Projects

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September 2003

Executive Summary

In May 2003, R.S. Means Company, Inc. of Massachusetts submitted to New Castle County Government (NCCG) an estimate of how much a county prevailing wage law might cost the county. Such a law would require that workers on county construction projects earn at least the state of Delaware prevailing wage in their construction trade.

Means claims that a county prevailing wage law could increase costs to New Castle County by \$49.5 million in year one and \$309.5 million over the first six years. The methodologies used to generate these eye-popping numbers, however, are fatally flawed.

The Ripple Effect on County Wages. Nearly two-thirds of Means' projected increase in costs results from assuming that the prevailing wage law would create a ripple effect that ramps up the wages of county employees. Wages and benefits for workers in county construction occupations are assumed to increase by 31 percent, roughly the gap between what these workers now earn and state of Delaware construction industry prevailing wage levels. This difference is then assumed to trigger a bump in the wages and benefits of all county employees by the same 31 percent.

These ripple effect assumptions are implausible. They ignore the fact that government construction workers who work full-time, full-year in stable government jobs tend to earn much lower hourly wages than private sector workers on project-based jobs covered by a prevailing wage law. Three real-world examples prove the point.

- In Delaware, unionized construction workers employed by the state government are not paid anywhere near state of Delaware prevailing wage levels, earning only 46 to 67 percent of this level.
- In Philadelphia, city construction employees, while represented by a union, earn only half to three fourths of the city of Philadelphia prevailing wage.
- In Pennsylvania, state government construction workers are paid only 60 to 86 percent of the state prevailing wage and benefit level in the capital city of Harrisburg.

Since Means is wrong to assume that a county prevailing wage law would drive up the wages of New Castle County Government construction workers to the prevailing wage level, it also has no basis for its second assumption -- that a big hike in construction wages would lead to a similar big hike in wages and benefits for all New Castle County workers.

Impact on the Cost of County Capital Construction Projects. The second-largest fraction of Means' projected cost increase -- 35 percent -- results from higher estimated capital construction costs for New Castle County in the future. This cost hike results from assuming that productivity is the same with and without a prevailing wage law. Means then assumes that all construction worker wages and benefits on County contracted projects will jump by the gap between non-union or "open shop" labor costs and state of Delaware prevailing wage levels.

Rather than making an arbitrary and controversial assumption of equal productivity, a preferred methodology for

evaluating the cost impact of prevailing wage is to look at real-world differences in construction costs when a prevailing wage law is and is not in effect. Professor Peter Philips and co-authors have done this exhaustively, documenting that prevailing wage laws make little or no difference to construction costs.

- Across the United States from 1991 to 1999, prevailing wage laws did not have a statistically significant impact on school construction costs. Other factors, especially the unemployment rate, did have a big impact on costs.
- In Michigan in the 1990s, school construction costs did not differ significantly during a period when the prevailing wage law was suspended compared to the before and after periods with the law in effect.

Actual experience also reveals that lack of prevailing wage laws leads to less investment in workforce training, higher injury rates, and to lower wages and benefits. All of these have a negative impact on productivity and on the ultimate cost of construction to the taxpayer.

Even on its own terms, the Means analysis of capital construction costs has errors that inflate estimated cost hikes.

- It assumes there would be a labor cost increase on every project, whereas there would not be at contractors that already pay union scale.
- Some of the future construction projects on which Means assumes labor costs would increase may already be subject to state or federal prevailing wage laws, so that a county law would have no substantial impact on worker compensation on those projects.

In sum, R.S. Means does not justify the end or conclusions of its study -- there is, contra Means, evidence a prevailing wage law to have a major impact on New Castle County up-front costs for construction or county employees. In the long run, a prevailing wage might save the County money over time by improving the quality of construction and hence lowering life-cycle building and sewer costs.

The Means Cost Projections

Table 1 reproduces a table from p. 3 of the Means study and shows projected cost increases associated with the proposed prevailing wage law. The increase in costs projected by R.S. Means is driven by lines one, five and six of the table.

- The increases in lines five and six (54 percent of the estimated six-year total increase) result from the assumption by Means that the prevailing wage law would create a ripple effect on the wages and benefits of county construction employees and then on the wages of all county workers.
- The increase in line one results from estimating the hike in capital costs associated with much higher wages and benefits assuming equal productivity before and after the prevailing wage law.
- Line two, debt service increase, accounts for 16 percent of the total cost increase over six years. However, we can apportion this 16 percent among the other factors that drive up costs based on those other factors' share of the total estimated cost increase without debt service. When we do this, we find that almost all of this 16 percent is the indirect result of the County Employee Wage and Fringe Benefit Increases (10 percent) and the Capital Cost Increase (6 percent).
- Lines three and four, including their contribution to debt service costs, are eight tenths of 1 percent of the total cost increase. For that reason, we do not address them in this Briefing Paper. Instead we focus only on the two main methodologies that underlie over 99 percent of the Means projected increase in costs.

	Year 1	Years 1-2	Years 1-3	Years 1-4	Years 1-5	Years 1-6
Capital Cost Increase	\$15,218,225	\$30,436,450	\$45,654,675	\$60,872,900	\$76,091,125	\$91,309,335
Debt Service Increase	\$8,370,024	\$16,740,048	\$25,110,071	\$33,480,095	\$41,850,119	\$50,220,134
Non-capital Projects Costs Increase	\$109,700	\$222,691	\$339,072	\$458,944	\$582,412	\$709,585
Prevailing Wage Enforcement	\$208,131	\$422,506	\$643,312	\$870,742	\$1,104,996	\$1,346,277
County Employees Wage Increase	\$19,298,290	\$39,175,529	\$59,649,085	\$80,736,847	\$102,457,243	\$124,829,250
County Employees Fringe Benefit @32%	\$6,349,137	\$12,888,749	\$19,624,549	\$26,562,423	\$33,708,433	\$41,068,823
	\$49,553,507	\$99,885,973	\$151,020,764	\$202,981,951	\$255,794,328	\$309,483,404

Source: R.S. Means Consulting Services. "New Castle County State of Delaware Final Report" (hereafter referred to as Means Consulting), May 2002, Executive Summary, Page 17.

The Impact of a Prevailing Wage Law on County Wages and Benefits

Page 3 of the Executive Summary of the R.S. Means study states that "Another impact [on cost] is the potential alteration of the NCCG wage structure. NCCG tradesmen work alongside of contractors' personnel. Currently NCCG trades wages are slightly higher than open shop wages. If prevailing wages are adopted, it may be necessary to pay prevailing wages to NCCG tradesmen. This in turn could affect the entire County wage structure." On p. 17 the Executive Summary states that "Currently 191 NCCG tradesmen work side by side with contractors' personnel. If prevailing wages are enacted, the wages of NCCG trades personnel may have to be altered to comply."³ Means further assumes that an increase in wages for workers in construction occupations may also lead to an across-the-board increase in county government employee wages and benefits (see Means Consulting, Executive Summary, p. 17).

Means estimates that the average wage of \$22.05 per hour for all New Castle County government employees will rise by 30.8 percent as a result of the implementation of a prevailing wage law. This 30.8 percent is the difference between the sum of hourly wages and fringe benefits of county government equipment operators (\$23.06 per hour) and the Delaware building construction prevailing wage (including fringes) for light, medium and crane equipment operators (\$30.16 per hour) (Table 2). Means justifies its reliance on the 30.8 percent difference based on the observation that half of the construction workers employed by the county are either Motor Equipment Operators or Maintenance and Construction Workers (which Means considers equivalent to Laborers in the outside construction market). The Laborers prevailing

Occupation	New Castle County Government Employees			Delaware Prevailing Wage (Building Construction)	Percent Difference: Delaware State Prevailing Wages Plus Fringes vs. NCCG Wages Plus Fringes
	Wages	Fringe Benefits (at 28.3%)	Wage plus Fringe Benefits	Wage plus Fringe Benefits	
Laborer*	\$14.75	\$4.17	\$18.92	\$25.30	33.7%
Electrician	\$19.27	\$5.45	\$24.72	\$39.80	61.0%
Equip Operator (Light, Medium, Crane & Shovel)	\$17.97	\$5.09	\$23.05	\$30.16	30.8%

*Means Consulting states that the NCCG job classification of Maintenance and Construction Worker is equivalent to a Laborer in the outside construction industry. We accept this equivalence in the table for purposes of comparing wages and benefits.
Source: Means Consulting, Analysis, Page 4.

wage is also roughly 30 percent (33.7 percent to be exact) above the county government compensation for the county occupation Means considers equivalent to Laborers.

The next step in the Means analysis is to assess the impact of a 30.8 percent increase in wages on the annual County wage bill. To do this Means takes the current average wage for New Castle County Employees (\$22.05) and multiplies it by the total number of workers (1,461) to get \$32,215 per hour in total wages for all employees. Then Means increases the average wage by 30.8 percent to \$28.84 and again calculates the total hourly wage bill, which now equals \$42,137. The difference between the two numbers (\$9,922) represents the extra costs per hour associated with the increased wage for all

	Current Status	Increase by 30.8%	Difference and Total Cost Impact
Total Employees	1461		
Average Wage	\$22.05	\$28.84	\$6.63
Total Wage Bill Per One Hour for 1461 Employees	\$32,215*	\$42,137*	\$9,922
Total Benefits (@ 32.9%)	\$10,598.75	\$13,863.17	\$3,264.42
Average Labor Hours Per Employee	1,945		
Total Annual Increase In Wages			\$19,298,290
Total Annual Increase In Benefits			\$6,349,137

* Following Means we rounded this result
Source: Means Consulting, Executive Summary, Page 17, and Analysis, Page 4.

County employees. To get the annual increase in wages Means multiplies this difference by the average labor hours per employee (1945) to get \$19,298,290 in additional costs. The same method generates the estimate that annual employee benefit costs would increase \$6,349,137 as shown in Table 3.

Public Construction Employees and the Private Construction Industry: Distinct Labor Market Segments. In stark contrast to government employment, the private construction labor market is very sensitive to both economic and seasonal trends. This translates into an unemployment rate among construction workers, as illustrated in Table 4, that is roughly twice the rate of the overall labor market. To avoid unstable project-based employment, public sector construction workers accept lower wages and benefits per hour than available in the outside labor market. Along with these lower wages and benefits come the security and full-time, full-year employment of government employment.

Even if the overall construction labor market has some impact on the wages of construction workers on the county payroll, moreover, the county's own capital projects are only a small fraction of overall construction demand in New Castle County. Thus, a change in wages and benefits on some county building projects seems unlikely to have a significant impact on the overall market for construction.

In sum, there is no basis for the extreme assumption Means makes that county workers in construction occupations must be paid at prevailing wage and benefit levels once a county prevailing wage law goes into effect.

Three Empirical Tests. To further explore the plausibility of the Means ripple effect assumption we subject it to a real-world test. The assumption that a prevailing wage law will raise the wages of construction occupations employed by the same unit of government can be tested by comparing the wages and benefits of construction workers employed by the State of Delaware with current Delaware State prevailing wages. It can also be tested by comparing the wages of construction workers employed by the city of Philadelphia with the prevailing wages set under the city prevailing wage law. For good measure, we also examine a third, closely related case: the wages of construction occupations in the state of Pennsylvania, which is concentrated in Dauphin County, with the Dauphin County prevailing wage under the state prevailing wage law.

Following the logic that Means applies in its analysis, construction workers employed by the state of Delaware should be compensated at rates comparable to current state of Delaware prevailing wages plus benefits for those occupations. As reported in Table 5, despite the presence of a prevailing wage law, full-time employees of the state of Delaware earn wages and benefits which range from 46 to 62 percent of the compensation of the same occupations employed on projects covered by the Delaware state prevailing wage law. Despite the state prevailing wage law and the absence of a New Castle County prevailing wage law, state construction occupation wages plus benefits are actually substantially lower than New Castle County Government employee construction wages plus benefits – between 62 and 87 percent of NCCG construction occupation wages plus benefits.

While the majority of employees of the Delaware state government are union members, wages and benefits are not a subject of collective bargaining. R.S. Means might argue this could lead to a smaller ripple effect than when there is bargaining over wages and benefits.

To consider this possibility, we look at our two additional cases. The first is directly analogous to the proposed situation in New Castle County. It considers the wages of employees in a county (Philadelphia, which also happens to be a city) that has both a county prevailing wage and collective bargaining over the wages and benefits of county (i.e., city) employees, including construction occupations. The construction occupations employed full time by the city of Philadelphia are represented by District Council 33 of the American Federation of State, County and Municipal Employees (AFSCME). As reported in Table 6, the hourly wages⁴ of Philadelphia municipal employees in construction occupations are on average 62 percent of Philadelphia's current prevailing wages for those same occupations.

In our third and final case, we examine the wages and benefits of employees of the state of Pennsylvania for whom wages

Table 4. U.S. Unemployment Rate in Construction Market Compared to the Labor Market as a Whole

Year	Overall	Construction	Ratio
1991	6.8	15.5	2.3
1992	7.5	16.8	2.2
1993	6.9	14.4	2.1
1994	6.1	11.8	1.9
1995	5.6	11.5	2.1
1996	5.4	10.1	1.9
1997	4.9	9.0	1.8
1998	4.5	7.5	1.7
1999	4.2	7.0	1.7
2000	4.0	6.4	1.6
2001	4.8	7.3	1.5
2002	5.8	9.3	1.6
Average	5.5	10.6	1.9

Source: Bureau of Labor Statistics, <http://www.bls.gov/iag/iag.construction.htm>

Table 5. Hourly Construction Compensation in Delaware: Delaware State (and New Castle County) Construction Employees Earn Far Below State and Federal Prevailing Wage					
			Prevailing Wage		
			Delaware		Federal
			March 15, 2002		Sept. 28, 2001
Class Title	New Castle County Employees*	State Employees† (Midpoint)	Building Construction††	Heavy Construction§	Prevailing Wage§§
Carpenter		\$18.85	\$35.02	\$35.02	\$35.02
Electrician	\$24.72	\$18.85	\$39.80	\$39.80	\$39.59
Inside Foreman Electrician		\$23.09	\$40.30	\$40.30	\$40.09
Laborer	\$18.92	\$11.74	\$25.30	\$25.30	\$25.30
Painter		\$17.61	\$29.26	\$30.92	\$28.51
Equipment Operator, Oilers		\$14.38 ^{¶¶}	\$24.13	\$27.63	\$28.20
Equipment Operator, Light Equipment	\$23.05	\$16.46 ^{¶¶}	\$30.16	\$34.54	\$28.94
Equipment Operator, Medium Equipment	\$23.05	\$18.85 ^{¶¶}	\$30.16	\$34.54	\$31.88
Equipment Operator, Crane or Shovel	\$23.05	\$20.17 ^{¶¶}	\$30.16	\$34.54	\$34.54
As Percent of Federal Prevailing Wage			State Employee Wage as Percent of New Castle County Employee Wage		
	New Castle County Employees	State Employees (Midpoint)			
Carpenter		54			
Electrician	62	48	76		
Inside Foreman Electrician		58			
Laborer	75	46	62		
Painter		62			
Equipment Operator, Oilers		51			
Equipment Operator, Light Equipment	80	57	71		
Equipment Operator, Medium Equipment	72	59	82		
Equipment Operator, Crane or Shovel	67	58	87		
Sources for Table 5					
*Means Consulting, Analysis, p. 4.					
†Delaware State Government Employee wages were calculated as follows. The state of Delaware reports the midpoint of annual earnings for each of the states 26 pay grades (http://www.delawarepersonnel.com/class/pg/375.htm). According to Linda McCloskey of the Delaware State Personnel Office (SPO), the State uses a standard percent mark-up on wages to calculate "Other Employment Costs," which includes health, pension, etc. For FY 04 the Other Employment Costs is 20.57 percent. After adding annual benefits to the annual salary of each pay grade, the state then converts annual figures to hourly rates by dividing by 1,950 hours (37.5 hours* 52 weeks). KRC used information posted by the SPO at http://www.delawarepersonnel.com/search/class_occ.asp?page=Classes&ID=15 to identify all of the construction occupations and their corresponding pay grades currently employed by the State of Delaware.					
††Means Consulting, Findings, Figure 2.					
§Means Consulting,, Findings, Figure 3.					
§§Means Consulting, Findings, Figure 4.					
¶¶The State of Delaware Personnel Office lists four classifications of equipment operators (I,II,III,IV) which we allocated to the four categories of equipment operators (oilers, light equipment, medium equipment, crane or shovel) listed in Means Consulting.					

and benefits are a subject of collective bargaining and where there is also a state prevailing wage.⁵ As reported in Table 7, total hourly compensation for Pennsylvania state employees averages 72 percent of Dauphin county prevailing wages.

Based on our analysis, there is no sound theoretical or empirical evidence to support the roughly \$25 million increase in annual wage and benefit costs for New Castle County Government employees that Means links to a proposed county prevailing wage law in one year alone.

Table 6. Philadelphia City Employee Construction Workers Earn Below City Prevailing Wage			
Occupation	City of Philadelphia Prevailing Wage (Building Construction)	Midpoint of City Employee Pay Scale*	City Employee Wage as Percent of City Prevailing Wage
Carpenter†	\$29.25	\$18.37	0.63
Electrician††	\$36.38	\$20.15	0.55
Laborer§	\$20.37	\$14.99	0.74
Painter§§	\$27.98	\$18.37	0.66
Plumber	\$34.65	\$19.05	0.55
Average			0.62

Source: City of Philadelphia Prevailing Wages effective June 9, 2003 were obtained from Issac Simpkins, Director of Fair Labor Standards. Job classifications and hourly wages for City of Philadelphia Government Employees were obtained from <http://www.phila.gov/personnel/specs/index.html>.

*We were only able to obtain information on hourly wages from the City of Philadelphia and thus the data presented in this table are for hourly wages excluding fringe benefits.

†The city government maintains two classifications of non-supervisory carpenters, while there is only one classification of non-supervisory carpenter reported on the city prevailing wage scale. For the analysis above we averaged the wages of the city's two classes of carpenters (Carpenter 1 and Carpenter 2) and compared that result to the prevailing rate for Carpenters.

††The city government maintains two classifications of non-supervisory electrician while there is only one classification of non-supervisory electrician reported on the city's prevailing wage scale. For the analysis above we averaged the city's two classes of electricians (Electrician and Industrial Electrician) and compared that result to the prevailing rate for Electricians.

§The city government maintains two classifications of non-supervisory laborer while there are seven non-supervisory laborer classifications reported under the city's prevailing wage scale. For the analysis above we averaged the city's two classes of laborers (Laborer and Semiskilled Laborer) and compared that result to the average of the seven classifications of laborers reported under the city's prevailing wage scale.

§§The city government maintains two classifications of non-supervisory painter while there are three classifications of non-supervisory painter listed under the city's prevailing wage scale. For the analysis above we averaged the city's two classes of painters (Painter 1 and Painter 2) and compared that result to the average of the three classifications of painter reported under the city's prevailing wage scale.

Table 7. State of Pennsylvania Construction Workers Earn Below State Prevailing Wage Levels			
	Dauphin County Prevailing Wage (Building Construction)	State of Pennsylvania Government Employees Average Total Compensation	Government Employee Compensation as a Percent of Dauphin County Prevailing Wage
Carpenter	\$28.56	\$22.11	0.77
Electrician	\$34.03	\$21.94	0.64
Laborer			
Painter*	\$27.36	\$23.53	0.86
Plumber	\$36.82	\$22.10	0.60
Average			0.72

Source: Dauphin County prevailing wages and benefits (Building Construction) can be found at http://www.dli.state.pa.us/landi/li_apps/projectView.asp?i=10822. The prevailing rates reported above were effective 05/01/2003 (except for electricians, whose rate was effective 06/01/2003). Average wage and fringe benefits by occupation for State of Pennsylvania Government Employees were obtained by telephone from Greg Mathews of the State of Pennsylvania Department of Human Resources 09/16/03.

*The State of Pennsylvania has only one classification of painter while the prevailing wage scale for Dauphin County includes three classifications of painter. For the analysis above we compared Pennsylvania State Government painters to the average of the prevailing rates for Dauphin County's three classifications of painters (Painter 1, 2 & 3).

The Impact of a Prevailing Wage Law on New Castle County Capital Project Costs

The second-largest fraction of the projected increase in costs over six years – 35 percent including debt service (30 percent without debt service) -- results from an increase in the cost of county construction projects. Means generated cost estimates for county capital construction projects by first assuming that productivity is the same with and without a prevailing wage law. This assumption is justified with the conclusory sentence (on p. 1 and also on p. 13 of the Executive Summary): “We believe...that there is no substantiated evidence that productivity is impacted negatively in non-prevailing wage situations.” While the Means study makes this assumption, it also acknowledges and provides (incomplete) references to studies that support a different assumption about productivity. It does not attempt an academic evaluation of the competing studies.

With its assumption of equal productivity, Means Consulting then proceeds through an accounting analysis summarized on page 2 of the Methodology Section. The essential steps are to:

- obtain current state of Delaware prevailing wages for New Castle County;
- research and estimate open shop wages and benefits in New Castle County;
- research and estimate contractor mark-ups on prevailing wages;
- research and estimate contractor mark-ups on open shop wages;
- apply the marked-up prevailing and open shop wages to recent NCCG projects (two building and four sewer projects);
- estimate cost differences on the recent NCCG based on the difference between marked-up prevailing and open shop wages;
- apply an average cost increase for building projects (14 percent) and sewer projects (19 percent) to Capital projects planned by NCCG through 2008.

One problem internal to the R.S. Means accounting methodology concerns the fact that current county projects are in some cases performed by unionized contractors who already pay very close to (and sometimes above) prevailing wage and benefit levels. If, for example, half of current county construction projects are ordinarily performed by unionized contractors, should we reduce by half the estimated impact on county construction costs of paying prevailing wages and benefits? A recent academic study that contains a less flawed accounting analysis of how much prevailing wages and benefits – assuming equal productivity – would drive up school construction costs found an average project cost increase of 2.25 percent, less than one fifth and one seventh of the Means estimated increase for buildings and sewer projects.⁶ A further problem with the Means cost projections is that some of the projects on which wages and benefits are assumed to go up may already be subject to state or federal prevailing wage laws, in which case a county prevailing wage law would have essentially no effect.

Even with a more accurate measure of what contractors, on average, would pay absent prevailing wage, an accounting analysis overestimates actual costs of prevailing wage laws. On projects that would have been won by open shop contractors with no prevailing wage law, for example, unionized contractors would now win some jobs. These contractors' compensation would not rise and their now successful bids would be closer to the “no prevailing wage law” bid than the R.S. Means or other accounting methodologies suggest. A further complication is the fact that open shop contractors who win bids with a prevailing wage law in place may reward their most skilled and experienced workers with placement on public jobs that pay better. Having more of the best workers on public jobs would have a direct productivity benefit to the public sector. It could also have a more subtle productivity benefit for the industry as a whole because more of the “core” workers in merit shop contractors would stay with the industry. A final problem with the Means accounting analysis is that some of the future projects on which Means assumes labor costs would escalate may already be subject to the state or federal prevailing wage law.

The limitations in the above paragraph point to the more basic reality that the core accounting methodology assumption -- that all else remains equal with a prevailing wage law in place except that wages go up – is simply untenable. In light of this reality, an accounting methodology amounts to circular reasoning, with the conclusion that costs will increase built into the assumptions made

Instead of using an accounting approach based on a controversial and dubious assumption, we can look at actual experience with prevailing wage laws. Fortunately, a growing body of research exists that take advantage of “natural experiments” associated with variation at the state level in whether prevailing wage laws exist or not. This research examines differences in public construction costs either in jurisdictions (e.g., states) with and without prevailing wage laws or in jurisdictions which establish, repeal, or suspend prevailing wage laws. The Means study references some of this literature but not the most recent and statistically rigorous sources. Nor does it attempt an evaluation of this research.

An article published in the *Journal of Education Finance* in spring 2002 explored the dependence of school construction costs across the U.S. from mid-1991 to mid-1999 on factors such as the state of the economy (measured by the level of unemployment), the size of the school, the season, and the existence of a prevailing wage law.⁷ The analysis found that public school construction costs

- rose 22 percent when the unemployment rate declined by half,
- fell 2.5 percent for bids accepted in the spring compared to bids accepted in the fall,
- fell by 4.7 percent with a doubling of school size, and
- **did not go up or down a statistically significant amount based on the presence of a prevailing wage law.**

An earlier article in the *Journal of Education Finance* explored the impact of the establishment of prevailing wages established in British Columbia at about 90 percent of the collectively bargained wage. In statistical specifications that control for a wide range of variables that potentially impact school construction costs, there is no statistically significant change in construction costs following establishment of the B.C. prevailing wage.⁸

In Michigan in the 1990s, school construction costs did not differ significantly during a period when the prevailing wage law was suspended compared to the period before and after this with the law in effect.⁹

In 1999, the Keystone Research Center examined changes in public school construction bids during a period in which Pennsylvania’s prevailing wages were lowered, especially in rural areas.¹⁰ We found no association between the number of prevailing wages now set below the collectively bargained rate and reductions (or smaller increases) in per square foot school construction bids. If anything, construction bids appeared to go up more where prevailing wages were lowered more.

While research finds that state prevailing wage laws do not significantly raise construction costs, these laws do lead to more investment in workforce training, lower injury rates, and to higher wages and benefits.¹¹ One hypothesis is therefore that prevailing wage laws tend, over time, to lead to a more skilled and experienced workforce, with workers less likely to leave the industry when they have decent benefits. This compensates for higher per hour wage and benefit costs.

The Means study itself notes on p. 17 of the Executive Summary that workforce skill may help reduce costs. “Generally the presence of training programs helps ensure a skilled workforce. So to the extent that training exists for both open shop and prevailing contractors R.S. Means contends that trained workers are equally productive.” It is well documented, in fact, that joint labor-management apprenticeship programs account for over 80 percent of construction industry apprenticeship training overall and in many crafts.¹² Therefore the extent to which training takes place on the open shop versus the union side of the industry is very clear – to a much lesser extent. This, as R.S. Means implies, makes it plausible that open shop contractors are less productive.

Conclusion

While this briefing paper has focused on the Means study, it is worth stepping back to recognize the nature of the construction industry and the basic purpose of prevailing wage laws in that light. The construction industry consists of large numbers of relatively small firms which perform project-based work. The strength of ties between workers and firms are weaker than in most other industries. These features make construction employers reluctant to invest in training

(why pay for someone who may soon work for someone else?). They can also contribute to unsustainably low bids which, in turn, lower wages and benefits to levels that make it difficult to attract and keep skilled workers and managers in the industry.

Prevailing wage laws are one mechanism that can help to contain destructive tendencies in which construction firms compete by paying poorly, off-loading health and retirement benefit costs to other employers and society as a whole, and accepting higher injury rates. They are one element in moving the industry down a “high road” path that includes more investment in training, an older and more experienced workforce, family sustaining wages and benefits, and greater safety.¹³

In light of the flaws in the Means study and the body of other evidence on prevailing wage laws and construction costs, New Castle County can be confident that a prevailing wage law would not impose substantial additional costs on the county. In addition, the County has an opportunity to make a contribution to pushing the regional construction industry toward “constructive” as opposed to “destructive” competition. A prevailing wage law for New Castle County would be common sense good public policy.

End Notes

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² The Keystone Research Center, a non-partisan think tank, conducts economic and public policy research. KRC is a non-profit organization as described in section 501(c)(3) of the Internal Revenue Code.

³ Source: R.S. Means Consulting Services. “New Castle County State of Delaware Final Report” (hereafter referred to as Means Consulting), May 2002. Executive Summary, p. 17.

⁴ Data limitations constrain our analysis to hourly wages.

⁵ Pennsylvania’s state prevailing wage law is set at the county level. We compare the wages of state government employees with the current prevailing wages for construction workers in Dauphin County, in which the capital city of Harrisburg, and the highest concentration of state government construction occupations, are located.

⁶ This academic accounting study compared prevailing wages and benefits on 25 public jobs with “wage data that were representative of private sector construction projects” in comparable geographic locations, as opposed to the “open shop” rates used by the Means report. This more defensible approach revealed that prevailing wages and benefits ranged from 2.7 percent to 38.4 percent above “representative” private rates. Total project cost with these higher rates – based again on an accounting analysis – ranged from 0.35 percent more to 7.29 percent more, with the average of 2.25 percent reported in the text. See Edward C. Keller and William T. Hartman, “Prevailing Wage Rates: The Effects on School Construction Costs, Levels of Taxation, and State Reimbursements,” *Journal of Education Finance* 27(Fall 2001): 713-728.

⁷ Hamid Azari-Rad, Peter Philipps, and Mark Prus, “Making Hay When It Rains: The Effect Prevailing Wage Regulations, Scale Economies, Seasonal, Cyclical and Local Business Patterns Have on School Construction Costs,” *Journal of Education Finance* 27 (Spring 2002): 997-1012.

⁸ Cihan Bilginsoy and Peter Philipps, “Prevailing Wage Regulations and School Construction Costs: Evidence from British Columbia,” *Journal of Education Finance* 25(3) (Winter 2000): 415-31.

⁹ For information on the Michigan case, see Peter Philipps, *Prevailing Wage Rules and Regulations*, a Power Point presentation and accompanying articles distributed in conjunction with a presentation in Delaware in May 2003.

¹⁰ Howard Wial, *Do Lower Prevailing Wages Reduce Public Construction Costs?* (Harrisburg: Keystone Research Center, 1999).

¹¹ On benefits, see especially Jeffrey S. Petersen, “Health Care and Pension Benefits for Construction Workers: The Role of Prevailing Wage Laws,” *Industrial Relations* 39(2): 246-264, April 2000. More generally, see Peter Philipps, Report on the *Prevailing Wage Law of Nevada: Its History, Cost, and Effects*, Department of Economics, University of Utah, unpublished manuscript, no date.

¹² In neighboring Pennsylvania, data through 2001 show that joint labor-management programs account for over four out of five construction apprentices and a much higher share of male minority and female apprentices. See David H. Bradley and Stephen A. Herzenberg, *Construction Apprenticeship and Training in Pennsylvania* (Harrisburg: Keystone Research Center, November 2002).

¹³ For evidence that each of these variables characterizes the union side of the construction industry more than the non-union, see Philipps, *Prevailing Wage Rules and Regulations*, May 2003.