The Impact of Prevailing Wage Laws On Labor Costs for Capital Construction Projects

J. Michael Jones
Office of State Budget Director
Governor's Office for Policy Research
Commonwealth of Kentucky
Frankfort, Kentucky 40601

February 7, 2006

The Impact of Prevailing Wage Laws on Labor Costs for Capital Construction Projects
February 7, 2006

J. Michael Jones
Office of State Budget Director
Governor's Office for Policy Research

Executive Summary

Prevailing wage requirements result in a significant increase in construction costs for public projects. As compared to the wage estimates of the Bureau of Labor Statistics, the Commonwealth of Kentucky is over-paying for the labor component of public construction projects by a statewide average of seventeen percent (17%). As proposed in the 2006-2008 Executive Budget, the elimination of prevailing wage requirements would result in a projected savings of over thirty-nine million dollars ($39,000,000).

Background

During the Great Depression, Congress passed the Davis-Bacon Act mandating that contractors pay "prevailing" wages on federally funded construction projects. Kentucky first passed a prevailing wage act in 1940. In 1982, the prevailing wage law in Kentucky was modified to raise the project cost threshold from $250 to $250,000, with an inflation adjustment to be applied each year to the threshold project cost. Additionally, school and local government projects were exempted from the prevailing wage requirements. In 1996, the reforms made in 1982 were reversed, including the elimination of the inflation adjustment. Under current Kentucky law, state and local construction projects that cost more than $250,000 are covered by the prevailing wage requirements. In theory, the term "prevailing" wage would seem to be synonymous with "average" wage; in practice it is not.

Current prevailing wages in the Commonwealth are eighteen to thirty percent (18-30%) higher than the current average wage for the same construction labor (Clark, 2005). Much of the disparity is the result of the methodology employed to determine prevailing

wages. The wages are set based on information submitted by contractors and labor representatives as evidence in prevailing wage hearings. Typically, the wage evidence submitted is over-representative of union wages. While unionized non-residential construction workers account for less than twenty-five percent (25%) of the non-residential construction workforce, over eighty percent (80%) of the wages submitted for purposes of establishing the prevailing wage are for union represented workers. As a result, prevailing wage determinations are approximately equal to local union labor rates in more than sixty percent (60%) of the localities (LRC, 2001).

Methodology

The Office of State Budget Director's analysis of the potential cost savings of removing the prevailing wage requirements began with the collection of the current prevailing wage rates in the Commonwealth. The wage rates for each occupation and subcategory of occupation were collected for each county. The resulting matrix of wages, by county, was compared to the Bureau of Labor Statistics (BLS) estimates of the average wage for the same occupation, in the respective county.

The BLS estimates used are the Occupational Employment Statistics (OES), based on semiannual mail surveys measuring occupational employment and wage rates for wage and salary workers in non-farm establishments in the United States. OES estimates are constructed from a sample of 1.2 million establishments. The OES survey provides occupational wage estimates statewide and for standard metropolitan statistical areas (SMSAs). For those counties that are part of an SMSA, the estimates for the SMSA were given preference.

To ensure fair use of the BLS estimates two issues with the data were addressed. First, the SMSAs cover areas that differ from the corresponding prevailing wage localities. For example, the Louisville SMSA covers Clark and Floyd counties in Indiana as well as Jefferson County in Kentucky. The wage estimates are for the area as a whole and do not reflect inter- or intra-county differences. This fact is not viewed as a statistically significant issue. The geographical area is not large enough to prevent normal worker mobility from equalizing wages that are significantly different from the average of the SMSA.

Secondly, the wage estimates provided by the BLS include both residential and commercial workers in each category. To the extent that residential workers of a given occupation are paid less than commercial workers, the wage differential will be overestimated. To help minimize any overstatement of the differential between prevailing wage rates and the average wage for a given occupation, only "building" prevailing wage rates were used. Prevailing wage rates for "heavy" and "highway" jobs were also excluded, as these rates tend to be significantly more than the wages paid for building projects.

Across the prevailing wage literature, the most common measurement of savings is the difference between prevailing wage rates and the simple average of wage rates in an area. To avoid overestimation of the potential savings that results from using the simple average, this analysis weights average wages by the actual distribution of labor utilization. For example, the data suggests that the potential cost savings in the employment of glaziers (glass setters) is approximately 21.5%. However, in a typical project, only 1% of wages are paid to glaziers. The weighted approach more accurately captures the potential savings of eliminating the prevailing wage requirements on state construction projects.

The invoices from a representative sample of previous state construction projects were obtained. The projects were selected to best represent the type of projects the Commonwealth will undertake in the future, especially those projects that support educational attainment and economic development. Projects included regional technology centers, classroom buildings, and postsecondary educational centers. The project invoices provide both the overall labor component of the construction project as well as the rate of utilization of each occupation covered by prevailing wage rates. The estimates were compared to information from the BLS and information provided by construction firms in the Commonwealth and were found to be statistically similar to regional estimates.

Findings

The results were as follows: statewide there is an average savings of 17.1% on the labor share of state construction projects in the absence of a prevailing wage. The county-specific results ranged from 6.4% in Logan County to as much as 40.8% in Mason County. (See Exhibit A for the results for all counties.) Given that labor represents an average of

approximately 38% of the total cost of construction, the elimination of the prevailing wage requirement would result in savings of 6.65% of project costs, on average.

The overwhelming conclusion in the economics literature is that prevailing wage laws increase construction costs[1]. The analysis performed by the Office of State Budget Director shows that a ***conservative*** estimate of the potential cost savings for the Commonwealth would be a statewide average of 17.1% of the labor cost of construction projects.

The specific, county level results were utilized in the projected cost savings of eliminating prevailing wage requirements for state public projects in the 2006-2008 Executive Budget. (See Exhibit B for a complete list of projects.) The projected savings were only applied to the construction portion of a project's cost and not applied to architectural, survey, or related expenses. The elimination of prevailing wage requirements would result in a projected savings of over thirty-nine million dollars ($39,000,000).

It would not be appropriate to assume savings due to an elimination of the prevailing wage requirements for every project in the 2006-2008 Executive Budget. Projects that involve Federal funds or grants are subject to Federal prevailing wage requirements and would be unaffected by elimination of the state prevailing wage. Additionally, the projects involving information technology utilize a significantly smaller proportion of labor than typical state projects. Accordingly, no estimates of savings due to elimination of prevailing wage requirements were included. (See Exhibit C for a listing of projects that were excluded from the analysis.)

1. Examples include:
Theiblot, Armand J. "A New Evaluation of Impacts of Prevailing Wage Law Repeal." *Journal of Labor Research* 17 (1996): 297-322.

_____. "A New Evaluation of Impacts of Prevailing Wage Law Repeal." *Journal of Labor Research* 17 (1996):297-322.

Kessler, Daniel P. and Lawrence F. Katz. "Prevailing Wage Laws and Construction Labor Markets." *Industrial and Labor Relations Review* 54 (2001): 259-272

Wilson, Ginny et al. "An analysis of Kentucky's Prevailing Wage Laws and Procedures." Kentucky Legislative Research Commission, Research Report No. 304, December 2001.

Clark, Mike. "The Effects of Prevailing Wage Laws: A Comparison of Individual Workers' Wages Earned on and off Prevailing Wage Construction Projects" *Journal of Labor Research* 26 (2005).

There are, however, numerous factors that were not included in the analysis but would lead to greater estimates of cost savings:

- The prevailing wage law also mandates a required level of fringe benefits for each occupation. This requirement can be satisfied by providing equivalent levels of fringe benefits, increasing the hourly wage rate by the fringe amount, or a combination of the two. For union employees and less transient workers, the fringe amount is often satisfied by the fringe benefits provided by the employer. However, in many cases, the worker simply receives the fringe benefit as an addition to the hourly wage rate. Because there is no data available on which to base a valid assumption on this point, no additions were made for the fringe benefit requirements for each occupation. In common practice, however, many employees will receive an hourly wage in excess of the prevailing wage requirement due to at least a partial addition of the fringe benefit amount.

- The prevailing wage requirements do not allow for the use of "helpers." All individuals assigned to an occupation receive the prevailing wage regardless of experience or level of training. In common practice, an experienced worker will often have employees that will provide apprenticeship labor as they obtain on-the-job training. No adjustments are made in this analysis for the fact that these common practices would be expected to continue to occur on projects in the absence of a prevailing wage requirement, resulting in a lower wage bill for the same construction tasks.

- Workers are often improperly classified. For example, a laborer will often be classified as the type of worker that utilizes the materials that they are moving, preparing for use on the job site, or cleaning up. A worker unloading conduit from a delivery truck could potentially receive the hourly rate of an electrician rather than that of a laborer. In the absence of prevailing wage requirements, such misclassification would be eliminated or greatly reduced.

- The prevailing wage requirement artificially raises the price of labor, resulting in a distortion of the capital-labor input allocations used by construction firms on prevailing wage projects. Firms substitute away from the relatively more expensive labor and utilize a greater level of capital equipment. In the absence of a prevailing wage, the construction firms would be expected to utilize the profit-maximizing level of capital. The result would be a lowering of capital costs as well as labor costs.

- For many small firms, the administrative costs of compliance with the prevailing wage requirements make bidding on public projects unfeasible. These firms often find it necessary to hire additional administrative staff, or payroll managers, and increase their use of professional, accounting and legal counsel. The result is a less competitive market for public construction. The elimination of prevailing wage requirements will result in a more competitive marketplace and the resulting increased competition will limit excess profits in the public construction marketplace.

- The prevailing wage law further distorts the construction market if the prevailing wage eliminates a comparative advantage enjoyed by a particular firm in an unfettered market. Without prevailing wage laws, such a contractor may have been the low bidder for a construction project. The prevailing wage laws prevent the more-efficient contractor from being awarded the contract, thus increasing construction costs. The elimination of prevailing wage requirements would be expected to allow such firms to compete, further reducing construction costs.

Exhibit A
Estimated Savings by County from Repeal of Prevailing Wage Laws

County	Labor Savings	Project Savings	County	Labor Savings	Project Savings
Adair	-9.24%	-3.60%	Edmonson*	-17.10%	-6.65%
Allen*	-17.10%	-6.65%	Elliott	-28.10%	-10.94%
Anderson	-18.66%	-7.26%	Estill*	-17.10%	-6.65%
Ballard	-22.67%	-8.82%	Fayette	-17.27%	-6.72%
Barren*	-17.10%	-6.65%	Fleming	-28.01%	-10.90%
Bath	-16.75%	-6.52%	Floyd*	-17.10%	-6.65%
Bell*	-17.10%	-6.65%	Franklin	-18.91%	-7.36%
Boone	-19.30%	-7.51%	Fulton	-22.35%	-8.70%
Bourbon	-13.55%	-5.27%	Gallatin	-18.15%	-7.06%
Boyd	-25.20%	-9.81%	Garrard	-9.40%	-3.66%
Boyle	-12.87%	-5.01%	Grant	-8.48%	-3.30%
Bracken	-27.29%	-10.62%	Graves	-22.35%	-8.70%
Breathitt*	-17.10%	-6.65%	Grayson	-19.79%	-7.70%
Breckinridge	-19.79%	-7.70%	Green*	-17.10%	-6.65%
Bullitt	-19.10%	-7.43%	Greenup	-35.65%	-13.87%
Butler	-13.91%	-5.41%	Hancock	-19.79%	-7.70%
Caldwell	-26.41%	-10.28%	Hardin	-22.98%	-8.94%
Calloway	-21.86%	-8.51%	Harlan*	-17.10%	-6.65%
Campbell	-20.46%	-7.96%	Harrison	-16.75%	-6.52%
Carlisle	-22.35%	-8.70%	Hart	-19.79%	-7.70%
Carroll	-25.16%	-9.79%	Henderson	-14.59%	-5.68%
Carter	-34.28%	-13.34%	Henry	-25.16%	-9.79%
Casey	-9.24%	-3.60%	Hickman	-22.35%	-8.70%
Christian	-15.64%	-6.09%	Hopkins	-22.33%	-8.69%
Clark	-13.55%	-5.27%	Jackson*	-17.10%	-6.65%
Clay	-11.22%	-4.37%	Jefferson	-16.91%	-6.58%
Clinton*	-17.10%	-6.65%	Jessamine	-8.96%	-3.49%
Crittenden	-28.05%	-10.92%	Johnson*	-17.10%	-6.65%
Cumberland*	-17.10%	-6.65%	Kenton	-19.30%	-7.51%
Daviess	-9.43%	-3.67%	Knott*	-17.10%	-6.65%

* Note: Counties for which OES data is incomplete or there are a lack of observations are assumed to result in the statewide average.

Exhibit A (cont.)
Estimated Savings by County from Repeal of Prevailing Wage Laws

County	Labor Savings	Project Savings	County	Labor Savings	Project Savings
Knox	-13.11%	-5.10%	Nicholas	-14.81%	-5.76%
Larue	-19.79%	-7.70%	Ohio	-19.43%	-7.56%
Laurel*	-17.10%	-6.65%	Oldham	-15.50%	-6.03%
Lawrence	-28.10%	-10.94%	Owen	-15.72%	-6.12%
Lee	-11.22%	-4.37%	Owsley	-6.65%	-2.59%
Leslie*	-17.10%	-6.65%	Pendleton	-14.09%	-5.48%
Letcher*	-17.10%	-6.65%	Perry*	-17.10%	-6.65%
Lewis	-40.58%	-15.79%	Pike*	-17.10%	-6.65%
Lincoln*	-17.10%	-6.65%	Powell*	-17.10%	-6.65%
Livingston	-23.38%	-9.10%	Pulaski	-9.24%	-3.60%
Logan	-6.40%	-2.49%	Robertson	-22.40%	-8.72%
Lyon	-22.57%	-8.78%	Rockcastle*	-17.10%	-6.65%
Madison*	-17.10%	-6.65%	Rowan	-27.74%	-10.80%
Magoffin	-11.22%	-4.37%	Russell	-9.06%	-3.53%
Marion	-23.41%	-9.11%	Scott	-14.62%	-5.69%
Marshall	-22.35%	-8.70%	Shelby	-23.13%	-9.00%
Martin*	-17.10%	-6.65%	Simpson*	-17.10%	-6.65%
Mason	-40.83%	-15.89%	Spencer	-19.52%	-7.60%
McCracken	-22.35%	-8.70%	Taylor	-18.76%	-7.30%
McCreary*	-17.10%	-6.65%	Todd	-12.61%	-4.91%
McLean	-19.32%	-7.52%	Trigg	-18.07%	-7.03%
Meade	-19.79%	-7.70%	Trimble	-21.44%	-8.34%
Menifee*	-17.10%	-6.65%	Union	-22.94%	-8.93%
Mercer	-11.74%	-4.57%	Warren	-13.55%	-5.27%
Metcalfe*	-17.10%	-6.65%	Washington	-22.50%	-8.76%
Monroe*	-17.10%	-6.65%	Wayne*	-17.10%	-6.65%
Montgomery	-14.81%	-5.76%	Webster	-22.94%	-8.93%
Morgan	-13.36%	-5.20%	Whitley*	-17.10%	-6.65%
Muhlenberg	-19.43%	-7.56%	Wolfe	-6.65%	-2.59%
Nelson	-20.51%	-7.98%	Woodford	-14.76%	-5.74%

* Note: Counties for which OES data is incomplete or there are a lack of observations are assumed to result in the statewide average

Exhibit B
Estimated Project Savings from Repeal of Prevailing Wage Laws
2006-2008 Executive Budget

Agency	Project Title	Project Cost with Prevailing Wage	Construction Costs	Labor Cost Savings %	Construction Costs Savings %	Project Cost without Prevailing Wage	Project Cost Savings
Commonwealth Office of Technology	Data Center Readiness	$1,400,000	$1,250,000	-18.910%	-7.361%	$1,317,000	$83,000
Corrections	Renovate Lonnie Watson Building-Ky Correctional Inst for Women	$1,697,000	$1,005,000	-23.134%	-9.003%	$1,607,000	$90,000
Council on Postsecondary Education	Capital Renewal & Maintenance Pool	$13,926,500	$13,926,500	-17.096%	-6.653%	$13,000,000	$926,500
Eastern Kentucky University	New Student Housing	$10,520,000	$8,416,000	-17.100%	-6.653%	$9,961,000	$559,000
Eastern Kentucky University	EKU-UK Dairy Research Project (Meadowbrook Farm)	$5,300,000	$2,700,000	-17.100%	-6.653%	$5,121,000	$179,000
Finance and Administration Cabinet	Renovate Ky State Office Building	$13,600,000	$12,240,000	-18.915%	-7.361%	$12,699,000	$901,000
Horse Park Commission	New Indoor Arena	$36,500,000	$25,000,000	-17.270%	-6.721%	$34,820,000	$1,680,000
Kentucky Community and Technical College System	Emerging Technology Center. West Ky Community & Technical College	$16,518,000	$12,025,000	-22.346%	-8.696%	$15,473,000	$1,045,000
Kentucky Community and Technical College System	Advanced Manufacturing Technology Facility-Gateway Community & Tech. College	$28,000,000	$18,550,000	-19.300%	-7.511%	$26,607,000	$1,393,000
Kentucky Community and Technical College System	Allied Health/Technology Education Building -Laurel Campus of Somerset CC	$13,815,000	$9,250,000	-17.096%	-6.653%	$13,200,000	$615,000
Kentucky State Fair Board	Replace Pavilion Roof	$1,250,000	$950,000	-16.913%	-6.582%	$1,188,000	$62,000
Kentucky State University	Renovate Hathaway Hall Phase III	$4,920,000	$2,897,000	-18.915%	-7.361%	$4,707,000	$213,000
Mental Health and Mental Retardation Services	Oakwood Mental Retardation Facility-Replace Chillers, Heating & Cooling Lines	$2,131,000	$1,800,000	-17.096%	-6.653%	$2,012,000	$119,000
Murray State University	New Residential College	$13,077,000	$11,418,200	-21.860%	-8.507%	$12,106,000	$971,000
Northern Kentucky University	Renovate Old Science Building	$15,000,000	$10,155,000	-20.460%	-7.962%	$14,192,000	$808,000
University of Kentucky	Patient Care Facility Phase II - Hospital*	$450,000,000	$310,700,000	-17.270%	-6.721%	$430,000,000	$20,000,000
University of Kentucky	Biological/Pharmaceutical Complex - Phase II	$79,892,000	$58,399,000	-17.269%	-6.721%	$75,968,000	$3,924,000
University of Louisville	Health Sciences Center Research Facility-Phase IV	$69,680,000	$55,970,000	-16.913%	-6.582%	$65,997,000	$3,683,000
Western Kentucky University	Renovate Academic/Athletic #2 Complex	$25,500,000	$25,500,000	-13.550%	-5.272%	$24,156,000	$1,344,000
Western Kentucky University	Renovate Science Campus Phase III	$7,000,000	$5,700,000	-13.550%	-5.272%	$6,700,000	$300,000
Western Kentucky University	Construct Materials Characterization/ICSET Phase II	$4,500,000	$3,600,000	-13.550%	-5.272%	$4,311,000	$189,000
Total	**Total - Projects with No Prevailing Wage Requirement**	**$814,226,500**				**$775,142,000**	**$39,084,500**

Exhibit C
Projects Not Applicable to Prevailing Wage Cost Savings
2006-2008 Executive Budget

AGENCY	Project Title	Project Amount	Reason for Not Applying Prevailing Wage Factor
Ky. Infrastructure Authority	KIA Fund A - Federally Assisted Wastewater Program-Matching Funds	$4,000,000	Federal Funds Involved
Ky. Infrastructure Authority	KIA Fund F - Drinking Water Revolving Loan Program-Matching Funds	$4,000,000	Federal Funds Involved
Economic Development Cabinet	Construct Center for Health, Education and Research	$15,000,000	Federal Funds Involved
Economic Development Cabinet	Construct Center for Predictive Medicine	$13,000,000	Federal Funds Involved
Morehead State University	Community Economic Grant Program	$5,000,000	Grants
University of Louisville	High Tech Investment-Construction Pool	$20,000,000	Grants/Loans
Governor's Office for Local Development	Economic Development Bond Pool	$10,000,000	Grants/Loans
Department of Education	P-16 Education IT Integration Initiative	$16,100,000	Information Technology project
Department of Education	Knowledge Management Portal	$6,250,000	Information Technology project
Department of Education	On-Line Assessment	$15,000,000	Information Technology project
Health and Family Services Cabinet	TWIST Re-Write-Phase II	$3,134,000	Information Technology project
Revenue Department	Implement a Comprehensive Tax System	$23,250,000	Information Technology project