
**Prevailing Wage Law White Paper
Review of Public Policy Research**

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Table of Contents

- I. Introduction.....1**
- II. Executive Summary1**
- III. An Accurate Assessment of the Impact of Prevailing Wage on Project Cost Requires a Careful Analysis of Key Variables.....1**
 - A. A Substantial Body of Credible Research Proves Prevailing Wage Policy Has No Real Impact on Total Project Cost1**
 - B. Failure to Properly Consider Relevant Control Factors Yields Flawed Analysis & Inaccurate Results.4**
 - C. The Few Studies Showing Prevailing Wages Impact Project Cost Have Been Discredited Due to Flawed Analysis and/or Improper Methodologies5**
- IV. Project Cost is Not Impacted Because PW Policy Promotes Training, Skill Levels, Productivity & Other Advantages.....7**
 - A. Prevailing Wage Cost is Offset by Increased Efficiency & Productivity.....8**
 - B. Non-Application of PW Policy Does Not Produce Cost Savings Due to Contractor Pricing Practices.....9**
- V. Prevailing Wage Policy Produces Substantial Economic & Public Policy Benefits for the State.....10**
 - A. Prevailing Wages Increase State Tax Revenue & Resident Income.10**
 - B. Prevailing Wages Promote Skill Training & Safety12**
 - C. Prevailing Wages Promote Law Compliance12**
- VI. Conclusion 13**
- Appendix A. Research Studies Supporting Prevailing Wage Laws..... 14**

I. INTRODUCTION

This paper provides a comprehensive review of exhaustive research on the impact of prevailing wage laws (PWLs), which shows—uniformly and consistently—that such laws have no statistically significant impact on construction cost. It also reviews multiple public policy benefits generated for states or local jurisdictions that have adopted these policies.

II. EXECUTIVE SUMMARY

Prevailing wage policies require certain levels of wages and benefits to be paid on public construction. Currently, prevailing wage laws are in place for the federal government, thirty states, and the District of Columbia. Under prevailing wage, mandated rates are generally calculated from the mean or mode of wage figures collected in surveys of employers, in an attempt to make the prevailing wage reflect the wages that workers typically receive in that area. Studies show that prevailing wage policies are effective in promoting the use of local contractors and residents, which, in turn, earn and spend in the local economies.

To date, at least thirty-nine reports – including more than sixteen empirical analyses of actual construction data – by major colleges, academics, and other reputable institutes and researchers have shown that while prevailing wage requirements may increase *hourly labor* costs, they **do not have a real impact on total project cost** (see Appendix A for complete list of studies). In fact, the few studies that purport to show prevailing wages increase project cost have been discredited because they failed to control for critical variables, such as location, project type and inflation. Prevailing wage laws do not increase project costs for several reasons, including the fact that they promote better training, greater skill levels and higher labor productivity.

Moreover, when the *actual net impact* of prevailing wage laws is considered, research shows an *overall positive impact on state finances* since these laws help return substantial tax revenues to the state. Studies also demonstrate PWLs provide a host of other important economic and public policy benefits, including increased apprenticeship and training opportunities in construction for residents and safer workplaces with fewer injuries and workers' compensation claims.

III. AN ACCURATE ASSESSMENT OF THE IMPACT OF PREVAILING WAGE ON PROJECT COST REQUIRES A CAREFUL ANALYSIS OF KEY VARIABLES

A. A Substantial Body of Credible Research Proves Prevailing Wage Policy Has No Real Impact on Total Project Cost

More than sixteen empirical analyses conducted by major universities, academics and other reputable organizations over the last two decades confirm that prevailing wage laws do not increase the overall construction cost of public construction projects.¹ These studies, based on extensive

¹ See Kevin Duncan & Frank Manzo IV, *The Economic, Fiscal, and Social Effects of Kentucky's Prevailing Wage Law*, 9, Prepared for the Ky. State Building and Construction Trades Council (2016), <http://www.faircontracting.org/wp-content/uploads/2016/12/kentucky-report-duncan-and-manzo-2016-final.pdf> (summarizing findings of 17 peer-reviewed studies over the last sixteen years that have examined the issue and

research and analysis comparing prevailing wage projects to non-prevailing wage projects, show that there is no statistically significant difference in project cost.

A key finding from these studies and other research is that it is essential that such studies take into account numerous control variables in order to obtain accurate, reliable results. Developing controls for factors such as project location or inflation, for example, is vital to avoid skewed findings and ensure the analysis yields credible results. The question of whether the application of prevailing wage has any true impact on total and final project cost is considerably more sophisticated than it might appear at first glance.

In order to conduct a proper, accurate analysis of the impact of prevailing wages on total project cost, the main control factors that generally should be considered include the following:

observing 76% have found “that prevailing wages are not associated with increased construction costs.”); Michael P. Kelsay, *The Adverse Economic Impact from Repeal of the Prevailing Wage Law in West Virginia*, Prepared for the Affiliated Construction Trades Foundation (2015), <http://www.faircontracting.org/wp-content/uploads/2015/01/The-Adverse-Economic-Impact-from-Repeal-of-the-PW-Law-in-WV-Dr.-Michael-Kelsay-Full-Report.pdf>; Kevin C. Duncan, *An Analysis of Davis Bacon Prevailing Wage Requirements: Evidence from Highway Resurfacing Projects in Colorado*, Colo. State Univ.-Pueblo (2011), https://www.bctd.org/BCTD/media/Files/Duncan,-Kevin-DB-Study-Highways_1.pdf; Michael P. Kelsay, et al., *The Adverse Economic Impact from Repeal of the Prevailing Wage Law in Missouri*, Univ. of Mo. – Kansas City (2011), <http://cas.umkc.edu/economics/resources/prevailingwagestudy.pdf>; Construction Labor Research Council, *Wages, Productivity and Highway Construction Costs*, Prepared for the Construction Industry Labor-Management Trust (2004); Michael Kelsay, et al., *The Adverse Economic Impact from Repeal of the Prevailing Wage Law in Missouri*, Univ. of Mo. – Kansas City (2004), http://www.faircontracting.org/PDFs/prevailing_wages/The%20Adverse%20Economic%20Impact%20from%20Repeal%20of%20the%20Prevailing%20Wage%20Law%20in%20Missouri.pdf; Hamid Azari-Rad et al., *State Prevailing Wage Laws and School Construction Costs*, 42 *Indus. Rel.* 445 (2003), <http://content.csbs.utah.edu/~philips/soccer2/Publications/Prevailing%20Wages/Cost%20of%20Construction/IR%20Summer%202003.pdf>; Hamid Azari-Rad, et al., *Making Hay When it Rains*, 27 *J. of Educ. Fin.* 997 (2002), http://www.jstor.org/stable/23565174?seq=1#page_scan_tab_contents (free registration required); Peter Philips, *A Comparison of Public School Construction Costs in Three Midwestern States that have Changed their Prevailing Wage Laws in the 1990s: Kentucky, Ohio, and Michigan*, Univ. of Utah (2001), http://www.faircontracting.org/PDFs/prevailing_wages/Public_School%20Peter%20Phillips.pdf; Cihan Bilgony & Peter Philips, *Prevailing Wage Regulations and School Construction Costs: Evidence from British Columbia*, 24 *J. of Educ. Fin.* 415 (2000), http://ohiostatebtc.org/wp-content/uploads/2014/04/PWL_BC_11.pdf; Peter Philips, *Kentucky’s Prevailing Wage Law: Its History, Purpose and Effect*, Univ. of Utah (1999), http://media.wix.com/ugd/6f7032_f6b6724fdc504131aedc456b4fe9757f.pdf; Mark J. Prus, *Prevailing Wage Laws and School Construction Costs: An Analysis of Public School Construction in Maryland and the Mid Atlantic States*, Prepared for the Prince George’s County Council, Md. (1999), http://www.buildri.org/sites/default/files/articles/full_text_prus_maryland.pdf; Howard Wial, *Do Lower Prevailing Wages Reduce Public Construction Costs?*, Keystone Research Center (1999), http://keystoneresearch.org/sites/default/files/krc_prevailwage_costs.pdf; Peter Philips, *Kansas and Prevailing Wage Legislation*, Prepared for the Kansas Senate Labor Relations Committee (1998), http://www.faircontracting.org/PDFs/prevailing_wages/kansas_prevailing_wage.pdf; Peter Philips, *Square Foot Construction Costs for Newly Constructed State and Local Schools, Offices, and Warehouses in Nine Southwestern and Intermountain States: 1992-1994*, Prepared for the Legislative Education Study Committee of the New Mexico State Legislature (1996), http://www.faircontracting.org/PDFs/prevailing_wages/sq_ft_report.pdf; Mark Prus, *The Effect of State Prevailing Wage Laws on Total Construction Costs*, State Univ. of N.Y. at Cortland (1996), http://www.faircontracting.org/PDFs/prevailing_wages/effects_davisbacon.pdf; Peter Philips, et al., *Losing Ground: Lessons from the Repeal of Nine Little Davis-Bacon Acts* (Econ. Dep’t, Univ. of Utah, Working Paper, 1995), http://www.faircontracting.org/PDFs/prevailing_wages/losingground.pdf.

1. Funding source (i.e., public v. private construction)²
2. State of construction (i.e., Pennsylvania, Missouri)³
3. Nature of the construction (i.e., new construction v. renovations)⁴
4. Structure type (i.e., healthcare facility, hotel)⁵
5. Project size (i.e., larger school v. smaller school)⁶
6. Area location (i.e., urban or rural)⁷
7. Seasonal start time (i.e., fall v. spring)⁸
8. Current economic and market conditions⁹
9. Inflation-adjustment¹⁰

A review of available research to date shows these factors significantly affect the comparisons between projects with and without prevailing wage requirements. It is also clear that the most reputable and reliable studies review many years of project data and compare cost information for literally hundreds if not thousands of construction projects.

In brief, the only way to conduct an accurate comparative analysis of prevailing wage impact and avoid spurious, unreliable results, is to: (1) use a serious, professional-level analysis that reviews extensive project data and may require extensive research; and (2) develop a research methodology that controls for the many important factors or variables that can significantly impact project cost findings.¹¹

² Kelsay (2015), *supra* note 1, at 35; Nooshin Mahalia, *Prevailing Wages and Government Contracting Costs*, 2, Econ. Policy Inst. (2008), <http://www.epi.org/page/-/old/briefingpapers/215/bp215.pdf>; Kelsay, et al. (2004), *supra* note 1, at 34; Prus (1996), *supra* note 1, at 5.

³ Prus (1996), *supra* note 1, at 6; Mahalia (2008), *supra* note 2, at 6.

⁴ Philips (2001), *supra* note 1, at 13; Herbert F. Weisberg, *Analysis of Regression and Surveys in Ohio LSC Report on S.B. 102 on Claimed Cost Savings from Exempting School Construction from Prevailing Wage Requirements*, 5, Ohio State Univ. (2002), http://www.ctnewsjunkie.com/upload/2015/OSU_Study.pdf; Prus (1996), *supra* note 1, at 11.

⁵ Kelsay (2015), *supra* note 1, at 36-37; Kelsay, et al. (2004), *supra* note 1, at 34; Prus (1996), *supra* note 1, at 4, 6.

⁶ Weisberg (2002), *supra* note 4, at 5; Peter Philips, *Quality Construction – Strong Communities: The Effect of Prevailing Wage Regulation on the Construction Industry in Iowa*, 22, Univ. of Utah (2006), http://www.faircontracting.org/PDFs/prevailing_wages/PreConstIowa.pdf; Philips (2001), *supra* note 1, at 13; Mahalia (2008), *supra* note 2, at 8; Prus (1996), *supra* note 1, at 6; Prus (1999), *supra* note 1, at 23.

⁷ Kelsay, et al. (2004), *supra* note 1, at 59; Philips (2001), *supra* note 1, at 13; Weisberg (2002), *supra* note 1, at 6; Mahalia (2008), *supra* note 2, at 6; Prus (1999), *supra* note 1, at 23.

⁸ Philips (2006), *supra* note 6, at 24.

⁹ Philips (2006), *supra* note 6, at 24; Weisberg (2002), *supra* note 4, at 9; Philips (2001), *supra* note 1, at 16; Bilgony & Philips (2000), *supra* note 1, at *8.

¹⁰ Philips (2001), *supra* note 1, at 16; Philips (2006), *supra* note 6, at 24.

¹¹ See, e.g., Kelsay, et al. (2004), at 34.

B. Failure to Properly Consider Relevant Control Factors Yields Flawed Analysis & Inaccurate Results

The comparison of prevailing wage and non-prevailing wage projects that do not control for these factors will produce a flawed analysis. For example, a comparison of publicly-funded/prevailing wage projects with privately-funded/non-prevailing wage projects is inherently flawed because numerous factors other than prevailing wage requirements can make public projects cost more than private projects (i.e., minority or small business contracting rules).¹² Similarly, comparing states that have significantly disparate costs of living rates—such as New York and Alabama—leads to highly inaccurate and misleading results. These two general control variables aptly demonstrate that reliable results are only achieved by comparing commensurate data.

While other control variables require more nuanced analysis, they are equally, if not more important to obtaining reliable data. Area location, for example, can be extremely important because urban construction costs undoubtedly run higher than rural construction costs.¹³ It is also essential to differentiate between structure types due to the average increased costs of certain facilities.¹⁴ Even within general structure categories – such as schools – more nuanced analysis is necessary. Larger schools have higher construction costs per square foot than smaller schools.¹⁵ High schools and elementary schools, for example, may vary in this regard.

Likewise, research shows that new construction projects and general alterations should be analyzed separately since such projects differ substantially in cost.¹⁶ Studies also found seasonal start time relevant because certain projects beginning in the fall were more expensive than projects that begin in the spring.¹⁷ In addition, as with any economic comparison, it is vital to consider market conditions and inflation-adjustment factors.¹⁸ Without inflation adjustments, projects completed during inflationary periods will appear grossly more expensive when compared with other projects.¹⁹ Similarly, projects beginning during different economic cycles will vary

¹² Mahalia (2008), *supra* note 2, at 2.

¹³ Kelsay, et al. (2004), *supra* note 1, at 59; Philips (2001), *supra* note 1, at 13; Weisberg (2002), *supra* note 4, at 6; Prus (1999), *supra* note 1, at 23.

¹⁴ Kelsay, et al. (2004), *supra* note 1, at 34.

¹⁵ Weisberg (2002), *supra* note 4, at 5 Philips (2001), *supra* note 1, at 13; Bilgony & Philips (2000), *supra* note 1, at * 8; Prus (1999), *supra* note 1, at 23.

¹⁶ Philips (2001), *supra* note 1, at 13. This same study even found that school construction projects that included pools varied considerably than those that did not.

¹⁷ Philips (2006), *supra* note 6, at 24.

¹⁸ Philips (2006), *supra* note 6, at 24; Weisberg (2002), *supra* note 4, at 9; Philips (2001), *supra* note 1, at 16; Bilgony & Philips (2000), *supra* note 1, at *9.

¹⁹ Philips (2001), *supra* note 1, at 16.

considerably in cost.²⁰ For example, building during “cost storms” – when the construction market is booming – will inevitably increase project costs.²¹

C. The Few Studies Showing Prevailing Wages Impact Project Cost Have Been Discredited Due to Flawed Analysis and/or Improper Methodologies

As explained here, virtually every study that has shown a purported overall increase in project costs from prevailing wage laws has been subsequently disproved by scrutinizing the research methodology and research analysis techniques employed.²²

For instance, the first major study to purport to show that prevailing wage regulations caused an increase in construction costs was a study by Martha Fraundorf, et al, in the early 1980s, which concluded that prevailing wage projects in rural areas across the country were 26% more expensive than non-prevailing projects.²³ However, the Fraundorf study's analysis and conclusion has been discredited by subsequent research, which concludes that the difference in costs observed by Fraundorf was actually attributable to the cost differential between public and private projects in general, rather than prevailing wage requirements.²⁴

A 1996 study that replicated the Fraundorf model showed that public construction was 32% more expensive than private construction in states *without* prevailing wage laws.²⁵ In fact, government specifications and building design contributed to the higher cost of public construction – not prevailing wage regulation.²⁶ Thus, rather than provide reliable data showing the alleged cost differential on prevailing and non-prevailing wage projects, the Fraundorf study merely

²⁰ Philips (2006), *supra* note 6, at 24; Weisberg (2002), *supra* note 4, at 9; Bilgony & Philips (2000), *supra* note 1, at *8.

²¹ Philips (2006), *supra* note 6, at 24.

²² There is one recent study that controlled for many of the complicating factors described here but still found an overall project increase for prevailing wages. The study looked at low-income housing developments and found that prevailing wages incurred as much as a 37% cost premium. Sarah Dunn, et al., *The Effects of Prevailing Wage Requirements on the Cost of Low-Income Housing*, 59 *Industrial & Labor Rel. Review* No. 1, at 141-57 (2005). However, subsequent researchers have criticized the study's findings as flawed because: (1) it estimated labor's share of total construction costs to be as high as 46% with prevailing wages and projected that share to fall to about 17% if the prevailing wage law is repealed - an unrealistically low figure; (2) the cost of the projects analyzed by the study “may have been influenced by ... other factors such as more exacting Housing and Urban Development (HUD) construction standards”; and (3) the study included projects for which the authors were unable to determine whether the prevailing wage law actually applied. Kevin Duncan & Alex Lantsberg, *How Weakening Wisconsin's Prevailing Wage Policy Would Affect Public Construction Costs and Economic Activity*, 19-20, *Colo. State Univ.-Pueblo and Smart Cities Prevail* (2015), <http://www.faircontracting.org/wp-content/uploads/2015/05/How-Weakening-Wisconsin's-Prevailing-Wage-Policy-Would-Affect-Public-Construction-Costs-and-Economic-Activity2.pdf>.

²³ Martha Fraundorf & Mason Farell, *The Effect of Davis-Bacon Act on Construction in Rural Areas*, 66 *Rev. of Econ. and Statistics* 142 (1984).

²⁴ Prus (1996), *supra* note 1.

²⁵ *Id.* at 8.

²⁶ *Id.*

proves that any research analyzing the effect of prevailing wage requirements must control for the inherent cost differential between public and private projects.

In addition, a 1999 study finding an increase in overall construction costs due to prevailing wage regulations failed to consider the appropriate control variables.²⁷ Performed by the Mackinac Center for Public Policy, the study estimated a 10% increase in total construction costs from increased labor costs on prevailing wage jobs.²⁸ A 2001 study identified numerous problems with the Mackinac Center's research design, including its use of a 30-month-long time period, a seasonal adjustment that did not reflect construction industry patterns, and employment adjustments based on unseasonably warm weather on the end points of the data.²⁹ Unsurprisingly, the 2001 study could not replicate the Mackinac Center's results in other states.³⁰

Similarly, a 2013 Anderson Economic Group, LLC analysis of Michigan's prevailing wage law, which claimed that repealing the state's prevailing wage law would save \$225 million in annual educational capital outlays, was subsequently refuted by a University of Utah white paper due to its use of inaccurate assumptions and failure to account for numerous variables.³¹ For example, the study overestimated labor's share of construction costs (assuming labor costs are 30% of total capital outlays), misconstrued "total capital outlays" for "payments to contractors," and did not account for reduced worker productivity and construction quality due to an increase in use of unskilled labor.³²

In contrast to the flawed research that showed prevailing wages increase overall project costs, those studies that more accurately account for complicating factors have confirmed that factors other than the wage rate are typically to blame for any observed cost differences. For example, one study that examined the impact of prevailing wage laws in Kentucky, Michigan, and Ohio, found that urban schools cost 10.5% more than rural schools and that breaking ground on a

²⁷ Richard Vedder, *Michigan's Prevailing Wage Law and its Effects on Government Spending and Construction Employment*, Mackinac Center for Public Policy (1999).

²⁸ *Id.* at 14.

²⁹ Peter Philips, *Four Biases and a Funeral: Dr. Vedder's Faulty Experiment Linking Michigan's Prevailing Wage Law to Construction Employment*, Univ. of Utah (2001), http://www.faircontracting.org/PDFs/prevailing_wages/fourbias.pdf.

³⁰ *Id.* at 3.

³¹ See Peter Philips, *Mr. Rosaen's Magical Thinking: A Short Evaluation of Alex Rosaen's 2013 Prevailing Wage Methodology* (Dep't of Econ., Univ. of Utah, Working Paper No. 2013-12, 2013), http://economics.utah.edu/research/publications/2013_12.pdf (critiquing Alex L. Rosaen, *The Impact of Michigan's Prevailing Wage Law on Education Construction Expenditures*, Anderson Economic Group, LLC (2013)).

³² *Id.* at 2-3. In 2015, the Anderson Economic Group issued a revised study with updates to its methodology, in light of the University of Utah critique, and found that prevailing wages result in \$127 million in added educational construction costs. See Alex L. Rosaen & Traci Taylor, *The Impact of Michigan's Prevailing Wage Law on Education Construction Expenditures*, 13, A10, Anderson Economic Group, LLC (2015), <http://www.andersoneconomicgroup.com/Portals/0/upload/AEG%20Prevailing%20Wage%20Update%2009-17-2015.pdf>. However, the updated study acknowledges it does not consider variables such as the characteristics of individual education projects or "changes in worker productivity, material costs, or labor share that may occur in the absence of a prevailing wage." See *id.* at A1.

project in the fall added 10% to total costs compared to breaking ground in the spring.³³ Sound research results require that factors like these are accounted for in analyses of prevailing wage's impacts on construction projects.³⁴

A study of school construction in British Columbia underscores the need to control for a variety of factors.³⁵ The study examined a six-year period before and after the adoption of a prevailing wage law. The research found that, without introducing any controls, prevailing wage caused a 16% increase in construction costs.³⁶ However, once controls for the business cycle, building type, number and size of contractors, regional differences, and time trends were introduced, there was *no statistically significant increase* in construction costs.³⁷ As the Fraundorf and Mackinac Center research illustrates, studies finding that prevailing wage requirements increase public construction costs routinely ignore these and other key controls.

A key methodological flaw observed in research purporting to show overall project cost increases from prevailing wage requirements, which is illustrated by the Mackinac Center and Anderson Economic Group studies discussed above, is the assumption that any increase in labor costs will directly lead to a commensurate increase in overall project costs. However, as discussed in Section IV below, although prevailing wage laws do increase wage costs, these costs are mitigated by the beneficial consequences produced by increasing workers' wages.

IV. PROJECT COST IS NOT IMPACTED BECAUSE PW POLICY PROMOTES TRAINING, SKILL LEVELS, PRODUCTIVITY & OTHER ADVANTAGES

Several factors mitigate any cost-increasing effect that prevailing wage requirements might have. These factors include: (1) increased worker productivity resulting from prevailing wage that leads to more efficient project completion and fewer worker hours, and (2) effective contractor practices that eliminate any savings associated with non-prevailing wage projects.

At the outset, it is important to realize that, because labor costs generally make up a relatively small portion of overall construction costs, an increase in labor costs does not produce the same percent increase in the overall contract price. Average labor costs represent a low and declining percentage of construction costs – making up on average less than 25% of construction costs.³⁸ This means that if, for example, the prevailing wage rate is 10% higher than the non-

³³ Philips (2001), *supra* note 1, at 13.

³⁴ See, e.g., J.W. Creswell, *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*, 53, Sage Publications (2013) (explaining that proper research design requires appropriate control variables to determine a causal relationship).

³⁵ Bilgony & Philips (2000), *supra* note 1.

³⁶ *Id.* at *14.

³⁷ *Id.* at *14-15.

³⁸ See Frank Manzo IV, et al., *The Impact of Prevailing Wage Laws on Military Veterans: An Economic and Labor Market Analysis*, 9, Prepared for VoteVets.org (2016), http://b3cdn.net/votevets/62350ae9afd6c4c714_0jm6bsc5b.pdf; see also Philips (1999), *supra* note 1, at 51; Mahalia (2008), *supra* note 2, at 2.

prevailing wage rate, the absolute maximum effect that an increase in wages could have on overall contract price would be 2.5%, if all other factors remained equal.³⁹

As research shows, however, this small potential increase in contract price does not generally come to fruition because all other factors do not remain equal with a prevailing wage construction system – instead, prevailing wages correlate with cost-saving factors that offset increased wage costs. These cost-saving factors include increased productivity that prevailing wage systems encourage through higher wages and better training as well as contractor practices that prevent a state without prevailing wages to receive any actual wage savings.

A. Prevailing Wage Cost is Offset by Increased Efficiency & Productivity

A major reason that studies show no difference between contract prices in prevailing wage and non-prevailing wage systems is that increased labor costs in prevailing wage regimes are offset by the increased productivity of the better-paid and better-trained workforce.

It is a basic principle that workers with more skill and training will complete jobs in less time than untrained, ill-equipped workers. Higher wages in prevailing wage states attract these higher skilled workers. As far back as 1979, the Bureau of Labor Statistics published a study of aggregated school construction costs, finding that total labor costs were the same in the South and the Northeast, despite the fact that hourly wages were 50% higher in the Northeast.⁴⁰ Prevailing wage states also have much higher enrollment in construction training programs and a higher degree of trainees who complete their programs.⁴¹ These more highly trained workers are more productive and better able to complete projects quickly and efficiently.

For example, one study found that the average value added per worker in states with prevailing wage laws was 13-15% higher than in those without prevailing wage laws.⁴² This difference in percentage of value added (13-15%) directly corresponded to the difference between wages paid to the workers in prevailing wage states and those paid to workers in the non-prevailing wage states.⁴³

One recent study that compared construction costs in six states found that there was no statistical difference in average square foot costs across all types of construction (school and other non-residential structures) between prevailing wage and non-prevailing wage states over the eight-

³⁹ Mahalia (2008), *supra* note 2, at 2.

⁴⁰ Philips (1996), *supra* note 1, at 4.

⁴¹ See Philips (1998), *supra* note 1, at 40; see also Frank Manzo IV, et al., *Common Sense Construction: The Economic Impacts of Indiana's Common Construction Wage*, 23, Midwest Econ. Policy Institute, Univ. of Ill. at Urbana-Champaign and Smart Cities Prevail (2014) <http://illinoisepi.org/countrysidenonprofit/wp-content/uploads/2014/07/Common-Sense-Construction-CCW-Report-FINAL1.pdf> (observing that states with PWLs have nearly double the amount of construction apprentices than non-prevailing wage law states).

⁴² Philips (2006), *supra* note 6, at 3.

⁴³ *Id.* at 7.

year study period.⁴⁴ It also found that in West Virginia, the state that was the primary subject of the study, university school construction costs were actually \$58.52 lower on a per square foot basis than in the non-PWL states – a statistically significant difference.⁴⁵ Another study that analyzed a cross-section of government construction projects in nine states – five of which had prevailing wage laws and four of which did not – found that the average square foot construction cost for schools was often *lower* in the states with prevailing wage laws. Specifically, elementary schools cost \$6 less per square foot and middle schools and high schools both cost \$11 less per square foot in the states with prevailing wage laws.⁴⁶

In Utah, after the state’s prevailing wage requirement was repealed in 1981, cost overruns tripled – perhaps due to a switch to a lower-paid, less well-trained workforce.⁴⁷ Data on cost overruns is difficult to obtain – most studies on contract price use the accepted bid price. It is possible that other studies would show that non-prevailing wage projects are even more costly if they were to factor in cost overruns.

B. Non-Application of PW Policy Does Not Produce Cost Savings Due to Contractor Pricing Practices

Other reasons that prevailing wage does not have any cost impact on state construction costs have to do with contractors’ practices. Contractors might absorb higher labor costs in prevailing wage areas or replace other items with lower-cost substitutions to lower their bids.⁴⁸ On the flip side, under a non-prevailing wage system, contractors might keep profits from lower labor costs for themselves and not pass the savings on to the government. Studies show when contractors have lower construction worker wage and benefit costs, their profits are higher.⁴⁹ In addition, reductions in labor costs are offset by a major rise in materials use and costs.⁵⁰

Non-prevailing wage contractors may also already pay wages that are the same as or more than the prevailing wage. In fact, studies show that a switch from prevailing to non-prevailing wage has no impact on contractors’ bids for public construction.⁵¹

⁴⁴ Kelsay (2015), *supra* note 1, at 32-33. Prevailing wage states considered in the study included Maryland, Ohio (excluding elementary and secondary school construction), Pennsylvania and West Virginia. Non-prevailing wages states considered included North Carolina, Ohio (elementary and secondary school construction) and Virginia.

⁴⁵ *Id.* at 50.

⁴⁶ Philips (1996), *supra* note 1, at 1.

⁴⁷ Dale Belman & Paula B. Voos, *Prevailing Wage Laws in Construction: The Costs of Repeal to Wisconsin*, 12, The Institute for Wisconsin’s Future (1995), http://www.faircontracting.org/PDFs/prevailing_wages/PrevailingWage%20Laws%20in%20Construction_%20Cost%20of%20Repeal%20to%20Wisconsin.pdf; Philips, et al. (1995), *supra* note 1, at 13.

⁴⁸ Mahalia (2008), *supra* note 2, at 2-3.

⁴⁹ See Duncan & Lantsberg (2015), *supra* note 22, at 23.

⁵⁰ *Id.*

⁵¹ See Armand Thieblot, *The Davis-Bacon Act, State “Little Davis-Bacon” Acts, the Walsh-Healey Act, and the Service Contract Act*, Wharton School, Univ. of Penn. (1986) (examining re-bid prices during a 34-day suspension of

V. PREVAILING WAGE POLICY PRODUCES SUBSTANTIAL ECONOMIC & PUBLIC POLICY BENEFITS FOR THE STATE

While studies have shown that prevailing wages rarely if ever lead to any statistically significant increase in construction costs, many studies do show that prevailing wage laws produce a host of desirable economic and social benefits for the state. These include: increased income to state residents, increased tax revenue for the state, a trained and efficient workforce, and a more honest and upstanding base of contractors.

A. Prevailing Wages Increase State Tax Revenue & Resident Income

The most prominent benefit that prevailing wages produce for a state is increasing state tax revenues due to residents' higher income and subsequent consumption. One reason why prevailing wage policies boost state tax revenue and local economies is that they prevent leakages of contracts to out-of-state contractors. As noted in one recent study, in states with weak or no PWLs, out-of-state contractors are responsible for completing about two percent more of the total value of construction than in states with strong or average policies.⁵²

The benefit of prevailing wages is most effectively illustrated by the research that quantifies the economic effects of the loss of a prevailing wage law. For example, one study of nine states found that following repeal of prevailing wage laws, worker earnings declined an average of \$1,477 a year.⁵³ Many other studies have examined the probable effect that a repeal of prevailing wage laws and a corresponding decline in workers' earnings would have on state tax revenue.⁵⁴

federal Davis-Bacon Act in 1971 and finding that re-bids saved less than 1% a year); *see also* Philips, et al. (1995), *supra* note 1; Duncan & Lantsberg (2015), *supra* note 22, at 17 (observing that when contractors switch from state to federally funded projects that have prevailing wage requirements, bid prices are not higher).

⁵² Frank Manzo, IV, et al., *The Economic, Fiscal, and Social Impacts of State Prevailing Wage Laws: Choosing Between the High Road and the Low Road in the Construction Industry*, vii, Ill. Econ. Policy Inst., Smart Cities Prevail (2016), <http://www.smartcitiesprevail.org/wp-content/uploads/2016/02/PW-national-impact-study-FINAL2.9.16.pdf>.

⁵³ *See* Philips, et al. (1995), *supra* note 1, at 6.

⁵⁴ *See e.g.*, Duncan & Lantsberg (2015), *supra* note 22, at 31 (finding that weakening Wisconsin's prevailing wage law would reduce state and local tax revenue by nearly \$40 million on an annual basis); Kelsay (2015), *supra* note 1, at 61 (finding repeal of West Virginia's PWL would cost residents and their families between \$51.3 and \$77.3 million in lost income annually and cost the State of West Virginia between \$1.43 and \$2.15 million in sales tax revenues and another \$3.08 to \$4.64 million in income tax revenues); Peter Philips, *Kentucky's Prevailing Wage Law: An Economic Impact Analysis*, 38-40, Prepared for the Ky. State Building and Construction Trades (2014), <http://www.faircontracting.org/wp-content/uploads/2014/02/Kentucky-Report-2014-Philips.pdf> (finding repeal of Kentucky's prevailing wage law could reduce state earnings by \$125 to \$252 million and result in a decrease in state tax income and sales tax revenues of between \$10 and \$20 million annually); Manzo, et al. (2014), *supra* note 41, at 13-14 (finding that if Indiana repealed its Common Construction Wage law, Indiana workers' incomes would drop by about \$246 million and state and local governments can expect to lose \$21 million in annual revenues).

A University of Missouri study found that, if prevailing wage laws were repealed, state residents and their families would lose between \$294.4 million and \$356 million annually in income. Consequently, the state of Missouri would lose between \$17.7 and \$21.4 million annually in income tax revenue and between \$5.7 and 6.9 million in sales tax revenue annually.⁵⁵

Another study in Wisconsin estimated that construction workers and their families would lose \$123 million in annual income if prevailing wage laws were repealed.⁵⁶ Even if Wisconsin saved what the authors estimated would be a maximum of \$4.8 million from the repeal of prevailing wage laws, it would experience an annual net loss of \$6.8 million as a result of \$11.6 million in lost sales and income tax revenue caused by the reduced incomes of construction workers.⁵⁷ Following the repeal of Kansas's prevailing wage law, while construction costs remained the same, controlling for other factors, Kansas and its neighboring non-prevailing wage states did experience a decline of 11% in workers' earnings, compared to a 2% decline in earnings in prevailing wage states.⁵⁸

Beyond a decrease in tax revenue, the repeal of prevailing wage laws would also burden the state with increased claims for public assistance. For example, one study that evaluated the social impacts of prevailing wage laws observed that if states with weak or no prevailing wages enacted or strengthened their PWL's, the amount of construction workers living in poverty would decrease by 30 percent.⁵⁹ In addition, it is more likely that construction workers in states with an effective PWL would be covered by health insurance.⁶⁰ Further, the amount of construction workers in strong or average PWL states receiving food stamp assistance is 55 percent lower than states with weak or no PWLs.⁶¹

Another study conducted in San Jose found that a non-union construction worker on a non-prevailing wage project without health benefits would be eligible for between \$916 and \$8,032 per year in public assistance, while a worker earning prevailing wage with health benefits would earn enough to support a family without public assistance.⁶² The authors also found that if the city's major municipal buildings had not been built under prevailing wage, the state would have

⁵⁵ Kelsay, et al. (2004), *supra* note 1, at 3.

⁵⁶ Belman & Voos (1995), *supra* note 47, at 10.

⁵⁷ *Id.* at 3.

⁵⁸ Philips (1998), *supra* note 1, at 40.

⁵⁹ Frank Manzo, IV, et al., *supra* note 52, at 21-22.

⁶⁰ *Id.* at 25 ("An effective state prevailing wage law increases the probability that a construction worker is covered by health insurance in the past month by between 8.0 and 9.8 percentage points").

⁶¹ *Id.* at 27.

⁶² Working Partnerships USA. *Economic, Fiscal and Social Impacts of Prevailing Wage in San Jose, California*, 9 (2011), http://wpusa.org/5-13-11%20prevailing_wage_brief.pdf.

experienced net losses of: 1,510 jobs, \$164 million in total economic activity, and \$1.9 million in local property and sales tax revenues in addition to the increased demands for public assistance.⁶³

B. Prevailing Wages Promote Skill Training & Safety

Prevailing wage laws promote apprentice programs, which are important training grounds for state residents and encourage safety to the benefit of society in general. Several studies have found that state apprenticeship rates declined dramatically following the repeal of prevailing wage laws.⁶⁴ The increased training of construction workers in prevailing wage states impacts site safety as well as project cost. When contractors are forced to reduce labor costs, workers are pressured to work faster and take more chances on the job.⁶⁵

In fact, between 1976 and 1999, states with prevailing wage laws saw lower injury rates than states without prevailing wage laws, likely as a result of prevailing wage's effect on training and retention of experienced workers.⁶⁶ In Kansas, after the repeal of prevailing wage laws, occupational injuries rose by 19 percent.⁶⁷ As another example, plumbers and pipefitters surveyed nationally saw an average of 15% more serious injuries in the year following repeal of prevailing wage laws.⁶⁸ Construction workers in states without prevailing wages report 12 percent more disabilities than workers in states with prevailing wage laws.⁶⁹ The demonstrated rise in jobsite injuries correlated with the repeal of prevailing wage laws would likely increase workers' compensation expenses in those states without prevailing wages and could drive that percentage higher.

C. Prevailing Wages Promote Law Compliance

Prevailing wage laws create an atmosphere of regulation that draws attention to the classification and compensation of workers. Absent this regulation, subcontractors may more easily misclassify workers as independent subcontractors, even though they work directly for the contractor and had no involvement in the bid. States without prevailing wages show greater instances of misclassified subcontractors. As a result of this misclassification, the state loses

⁶³ *Id.* at 1.

⁶⁴ Mahalia (2008), *supra* note 2, at 8 (noting a 40% drop in Utah apprenticeships following its 1981 repeal of prevailing wage and 38% decrease in apprenticeships in Kansas following its 1987 repeal of prevailing wage).

⁶⁵ Belman & Voos (1995), *supra* note 47, at 3.

⁶⁶ Hamid Azari-Rad et al., *The Economics of Prevailing Wage Laws*, Ashgate Publishers (2005).

⁶⁷ Philips (1998), *supra* note 1, at 41.

⁶⁸ Belman & Voos (1995), *supra* note 47, at 3.

⁶⁹ Philips (2014), *supra* note 54, at 29.

employer contributions for payroll taxes, including workers compensation premiums, social security, and unemployment insurance.⁷⁰

In states with prevailing wage regulations, contractors also pay about 56% more into health insurance and pension contributions than contractors in non-prevailing wage states.⁷¹ This means that workers in non-prevailing wage states enter retirement in poorer health and with less accumulated savings than workers in prevailing wage states. These circumstances burden the state as the workers age and turn to state programs for assistance.

VI. CONCLUSION

As the research shows, not only does prevailing wage have no impact on construction costs for states, but it may, in fact, produce an overall benefit to the state in revenue and other benefits that accompany a trained and efficient workforce. The studies are almost unanimous in support of these conclusions and those that are in disagreement have been disproven through proper use of analytical factors and controls.

⁷⁰ Peter Philips, *Report on the Prevailing Wage Law of Nevada: Its History, Cost and Effects*, 6, Univ. of Utah (2001), <http://www.faircontracting.org/wp-content/uploads/2014/10/Report-on-the-Prevailing-Wage-Law-of-Nevada-Its-History-Cost-and-Effects.pdf> (executive summary only).

⁷¹ Philips (2014), *supra* note 54, at 25.

Appendix A. Research Studies Supporting Prevailing Wage Laws

Links to Studies Included Where Available

1. Kevin Duncan & Frank Manzo IV, *The Economic, Fiscal, and Social Effects of Kentucky's Prevailing Wage Law*, Prepared for the Ky. State Building and Construction Trades Council (2016), <http://www.faircontracting.org/wp-content/uploads/2016/12/kentucky-report-duncan-and-manzo-2016-final.pdf>.
2. Kevin Duncan, et al., *Towards the High Road in the New Hampshire Construction Industry: The Impact of a State Prevailing Wage Law*, The Keystone Research Center (2016), http://www.faircontracting.org/wp-content/uploads/2012/08/KRC_NH_Prevailing_Wage.pdf.
3. Frank Manzo IV, et al., *The Impact of Prevailing Wage Laws on Military Veterans: An Economic and Labor Market Analysis*, Prepared for VoteVets.org (2016), http://b3cdn.net/votevets/62350ae9afd6c4c714_0jm6bsc5b.pdf.
4. Frank Manzo, IV, et al., *The Economic, Fiscal, and Social Impacts of State Prevailing Wage Laws: Choosing Between the High Road and the Low Road in the Construction Industry*, Ill. Econ. Policy Inst. and Smart Cities Prevail (2016), <http://www.smartcitiesprevail.org/wp-content/uploads/2016/02/PW-national-impact-study-FINAL2.9.16.pdf>.
5. Kevin Duncan, et al., *The Cost of Repealing Michigan's Prevailing Wage Policy: Impacts on Total Construction Costs and Economic Activity*, Smart Cities Prevail and Midwest Econ. Policy Institute (2015), <http://illinoisepi.org/countrysidenonprofit/wp-content/uploads/2014/06/The-Cost-of-Repealing-Michigans-PWL-FINAL.pdf>.
6. Kevin Duncan & Alex Lantsberg, *How Weakening Wisconsin's Prevailing Wage Policy Would Affect Public Construction Costs and Economic Activity*, Colo. State Univ. – Pueblo and Smart Cities Prevail (2015), <http://www.faircontracting.org/wp-content/uploads/2015/05/How-Weakening-Wisconsin's-Prevailing-Wage-Policy-Would-Affect-Public-Construction-Costs-and-Economic-Activity2.pdf>.
7. Kevin Duncan & Alex Lantsberg, *Building the Golden State: The Economic Impacts of California's Prevailing Wage Policy*, Smart Cities Prevail (2015), <http://www.smartcitiesprevail.org/wp-content/uploads/2015/04/SCP-Building-the-Golden-State.pdf>.
8. Michael P. Kelsay, *The Adverse Economic Impact from Repeal of the Prevailing Wage Law in West Virginia*, Prepared for the Affiliated Construction Trades Foundation (2015), <http://www.faircontracting.org/wp-content/uploads/2015/01/The-Adverse-Economic-Impact-from-Repeal-of-the-PW-Law-in-WV-Dr.-Michael-Kelsay-Full-Report.pdf>.
9. Peter Philips, *Wisconsin's Prevailing-Wage Law: An Economic Impact Analysis*, Univ. of Utah (2015), http://www.wisconsincontractorcoalition.com/application/files/9914/2889/7832/Wisconsin_Report_April_2015.pdf.

10. Frank Manzo, IV, et al., *Common Sense Construction: The Economic Impacts of Indiana's Common Construction Wage*, Midwest Econ. Policy Institute, Univ. of Ill. at Urbana-Champaign and Smart Cities Prevail (2014), <http://illinoisepi.org/countrysidenonprofit/wp-content/uploads/2014/07/Common-Sense-Construction-CCW-Report-FINAL1.pdf>.
11. Frank Manzo IV, *Building a Strong McHenry: How Prevailing Wage Works*, Ill. Econ. Policy Institute (2014), <http://illinoisepi.org/countrysidenonprofit/wp-content/themes/12/docs/McHenry%20County%20Prevailing%20Wage%20Economic%20Commentary.pdf>.
12. Peter Philips, *Kentucky's Prevailing Wage Law: An Economic Impact Analysis*, Prepared for the Ky. State Building and Construction Trades (2014), <http://www.faircontracting.org/wp-content/uploads/2014/02/Kentucky-Report-2014-Philips.pdf>.
13. Alison Dickson Quesada, et al., *A Weakened State: The Economic and Social Impacts of the Prevailing Wage Law in Illinois*, Univ. of Ill. at Urbana-Champaign (2013), http://illinoisepi.org/countrysidenonprofit/wp-content/uploads/2013/10/PWL_full-report_ltr-format.pdf.
14. Peter Philips, *Mr. Rosaen's Magical Thinking: A Short Evaluation of Alex Rosaen's 2013 Prevailing Wage Methodology* (Dep't of Econ., Univ. of Utah, Working Paper No. 2013-12, 2013), http://economics.utah.edu/research/publications/2013_12.pdf.
15. Kevin C. Duncan, *An Analysis of Davis Bacon Prevailing Wage Requirements: Evidence from Highway Resurfacing Projects in Colorado*, Colo. State Univ. – Pueblo (2011), https://www.bctd.org/BCTD/media/Files/Duncan,-Kevin-DB-Study-Highways_1.pdf.
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17. Working Partnerships USA, *Economic, Fiscal and Social Impacts of Prevailing Wage in San Jose, California*, (2011), http://wpusa.org/5-13-11%20prevailing_wage_brief.pdf.
18. Nooshin Mahalia, *Prevailing Wages and Government Contracting Costs*, Econ. Policy Inst. (2008), <http://www.epi.org/page/-/old/briefingpapers/215/bp215.pdf>.
19. Construction Labor Research Council, *Analysis of Kentucky Governor's Study "The Impact of Prevailing Wage Laws on Labor Costs for Capital Construction Projects"*, Prepared for the National Alliance for Fair Contracting (2006), http://lecet.org/Legislative/prevailing_wage/KY%20Study%20Analysis.pdf.
20. Peter Philips, *Quality Construction – Strong Communities: The Effect of Prevailing Wage Regulation on the Construction Industry in Iowa*, Univ. of Utah (2006), http://www.faircontracting.org/PDFs/prevailing_wages/PreConstIowa.pdf.

21. Construction Labor Research Council, *Wages, Productivity and Highway Construction Costs*, Prepared for the Construction Industry Labor-Management Trust (2004).
22. Michael Kelsay, et al., *The Adverse Economic Impact from Repeal of the Prevailing Wage Law in Missouri*, Univ. of Mo. – Kansas City (2004), http://www.faircontracting.org/PDFs/prevailing_wages/The%20Adverse%20Economic%20Impact%20from%20Repeal%20of%20the%20Prevailing%20Wage%20Law%20in%20Missouri.pdf.
23. Hamid Azari-Rad et al., *State Prevailing Wage Laws and School Construction Costs*, 42 *Indus. Rel.* 445 (2003), <http://content.csbs.utah.edu/~philips/soccer2/Publications/Prevailing%20Wages/Cost%20of%20Construction/IR%20Summer%202003.pdf>.
24. National Alliance for Fair Contracting, *In Defense of Prevailing Wage Laws: Studies and Reports by the Experts* (2003), http://www2.lecet.org/mura/clearinghouse/assets/PDF/in_defense_of_prevailing_wage_laws.pdf.
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26. Herbert F. Weisberg, *Analysis of Regression and Surveys in Ohio LSC Report on S.B. 102 on Claimed Cost Savings from Exempting School Construction from Prevailing Wage Requirements*, Ohio State Univ. (2002), http://www.ctnewsjunkie.com/upload/2015/OSU_Study.pdf.
27. Peter Philips, *Report on the Prevailing Wage Law of Nevada: Its History, Cost and Effects*, Univ. of Utah (2001), <http://www.faircontracting.org/wp-content/uploads/2014/10/Report-on-the-Prevailing-Wage-Law-of-Nevada-Its-History-Cost-and-Effects.pdf>.
28. Peter Philips, *A Comparison of Public School Construction Costs in Three Midwestern States that have Changed their Prevailing Wage Laws in the 1990s: Kentucky, Ohio, and Michigan*, Univ. of Utah (2001), http://www.faircontracting.org/PDFs/prevailing_wages/Public_School%20Peter%20Phillips.pdf.
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32. Mark J. Prus, *Prevailing Wage Laws and School Construction Costs: An Analysis of Public School Construction in Maryland and the Mid Atlantic States*, Prepared for the Prince George's County Council, Md. (1999), http://www.buildri.org/sites/default/files/articles/full_text_prus_maryland.pdf.
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39. Steven Allen, et al., *Rebuttal to Congressional Budget Office Cost Estimates of Davis-Bacon Repeal* (1993), <http://www.faircontracting.org/wp-content/uploads/2012/11/CBO-ESTIMATE-ON-DAVIS-BACON-REPEAL.pdf>.