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BUILDING A STRONG MCHENRY How Prevailing Wage Works



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BUILDING A STRONG MCHENRY: HOW PREVAILING WAGE WORKS ILEPI Economic Commentary #10

INTRODUCTION

On June 17, 2014, the McHenry County Board voted against adopting a statutorily mandated prevailing wage. The vote follows a similar decision by the Woodstock City Council, although the city later approved its ordinance at the next council meeting. While the McHenry County Board expressed interest in partnering with other county governments to challenge the prevailing wage determinations of the state Department of Labor, this undertaking would be a waste of government resources. Results from this Economic Commentary find that:

- Labor costs account for just 20.9 percent of total costs on heavy and civil engineering projects in Illinois;
- Payroll costs on workers in heavy and civil engineering construction in McHenry County reflect the wages paid in the regional labor market and the higher cost of living in the Chicago area;
- Median housing costs are 40.0 percent of the typical income for a laborer earning the prevailing wage in McHenry County;
- Public works construction projects require skilled workers who complete more classroom and onthe-job training than the minimum requirements to receive a typical bachelor's degree;
- In Illinois, heavy and civil engineering construction workers are more productive than the average construction worker, producing \$164,294 in value added to the economy per worker;
- Prevailing wage is *not* a union wage, but unionized contractors submitted 92.3 percent of bids on public projects in McHenry County in 2013; and
- In McHenry County, prevailing wages generate \$57.6 million in economic output and support \$2.4 million in state and local tax revenues that otherwise would not occur.

Prevailing wage is necessary to prevent government bodies from undercutting the established labor market, and drives economic development in the county. Prevailing wage is the best deal for McHenry County taxpayers.

LABOR COSTS AS A SHARE OF TOTAL COSTS IN MCHENRY COUNTY

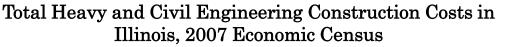
The most recent data from the U.S. Economic Census reveals that labor costs account for just 20.9 percent of total construction costs in heavy and civil engineering in Illinois (Figure 1). Heavy and civil engineering construction is used throughout this study because it includes work on highways, road, bridges, dams, water and sewer lines, and land subdivision- projects which are predominately financed by the public. Payroll costs plus fringe benefits comprised \$3.51 billion (20.9 percent) of the \$16.75 billion in total construction costs on heavy and civil engineering across the state in 2007. Meanwhile, administrative costs were 5.7 percent of total construction costs in the sector. Spending on materials, components, supplies, subcontracts, and energy costs accounted for the bulk of expenses (62.3 percent).

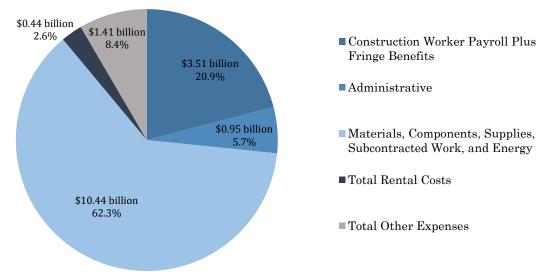
As the argument goes, prevailing wage raises the cost of public works construction However, as will be evident, wages do not equal higher costs, but exploring the myth is worthwhile at the onset. If there were a 10 percent reduction in wages in McHenry County, there would be a 2.1 percent savings in total costs. Put another way, the county would save \$20,900 on a \$1 million project or \$209,000 on a \$10 million project. However, savings would occur *only if there is no relationship between wages paid and work performed.* Of course, this is an implausible assumption: higher wages attract more-experienced and better-skilled career employees who are more productive, which offsets most if not all of the cost savings.

In addition, according to the *County of McHenry, Illinois Comprehensive Annual Financial Report* (CAFR), actual expenditures on road infrastructure totaled \$24.84 million in 2013 by the county alone (Figure 2). This includes spending from the County Highway Fund, Bridge Fund, Motor Fuel Tax Fund, and County Option Motor Fuel Tax Fund. About one-fifth of this government spending was on overhead Division of Transportation personnel (19.55 percent); 38.9 percent was disbursed for contractor, laborer, and other

contractual services; and the remainder was used to pay for commodities and capital outlay to improve McHenry County's road network. Note that contractors use a significant portion of contractual costs to buy materials and machinery, invest in technologies, compensate management, and improve their profit margins, so labor costs are a component of this 38.9 percent of total expenditures. Therefore, at least at the county level, labor costs for workers who actually earn a prevailing wage are still roughly 20.9 percent.

Figure 1: Labor Costs as a Share of Total Public Works Construction Costs, Illinois, 2007 Economic Census





Source: 2012 Economic Census, United States Census Bureau available at http://www.census.gov/econ/census/.

Figure 2: Horizontal Infrastructure Fund Spending, 2013 McHenry County CAFR

2013	Actual Expenditure	Personnel	Contractual	Commodities	Capital Outlay
Spending by County	\$24,838,076	\$4,855,529	\$9,670,090	\$1,458,140	\$8,854,317
Percentage of Spending	100.00%	19.55%	38.93%	5.87%	35.65%

Source: County of McHenry, Illinois Comprehensive Annual Financial Report for the Fiscal Year Ended November 30, 2013, available at https://www.co.mchenry.il.us/home/showdocument?id=30431.

COUNTY AND INDUSTRY COMPARISONS OF PAYROLL COSTS

The Illinois Prevailing Wage Act establishes local standards in McHenry County's labor market. The law is intended to prevent a government body, such as the McHenry County Board, from using its expansive purchasing power to undercut privately-established wages and benefits in a community. In effect, the law takes labor costs out of the equation for contractors in winning a bid on a public construction project. Instead of lowering costs by using low-skill, low-wage workers, the law forces firms to compete on the basis of productivity, quality, materials costs, technology, management practices and logistics, and profit margins– while paying market wages.

McHenry County Board members have claimed that the Illinois Department of Labor prevailing wage determinations for McHenry are "off because these figures are too high" (MCB Minutes, 2014). Even though the Illinois Department of Labor is already required to determine prevailing wages based on actual certified transcripts of payroll forms from contractors and workers in the county, the Board questioned the process and called for its own wage study (MCB Minutes, 2014).

Take the prevailing wages for laborers as an example. In July 2014, the prevailing wage for a laborer was \$38.00 per hour in base wage and \$23.90 per year in hourly health and pension benefits in McHenry County. At first glance, these rates may seem high, but most construction is seasonal work. Road construction workers, for instance, only have jobs for eight or nine months out of the year and can only log around 1,600 hours of work each year. With 1,600 hours of prevailing wage work, a laborer in McHenry County would earn \$99,840 in total compensation, including \$60,800 in wages, \$38,240 in fringe benefits, and \$800 in training benefits (Figure 3).

McHenry County Prevailing Wage	Hourly Rate	1,600 Annual Hours	Percent of Income
Base Wage	\$38.00	\$60,800	60.90%
Fringe Benefits	\$23.90	\$38,240	38.30%
Training	\$0.50	\$800	0.80%
Total Compensation	\$62.40	\$99,840	100.00%

Figure 3: July 2014 Prevailing Wage Rates of Laborer, McHenry County

Source: "McHenry County Prevailing Wage for July 2014" from the Illinois Department of Labor, available at http://www.illinois.gov/idol/Laws-Rules/CONMED/Rates/14-07Jul/MCHENRY9.htm.

Figure 4 displays data on the regional labor market from the U.S. Census Bureau on *payroll costs*- which include all forms of compensation, such as salaries, wages, bonuses, vacation allowances, sick-leave pay, and contributions to qualified pension plans. In 2012, the average payroll cost per employee was \$66,262 for construction workers in McHenry County. Labor costs in heavy and civil engineering construction, on the other hand, were \$102,671 per employee in the county (which aligns with the total compensation in Figure 3). The difference between heavy and civil engineering construction costs and total construction labor costs is *not* the result of the Illinois Prevailing Wage Act. First, the average firm size was much smaller for the overall construction industry (5.3 employees per firm) in McHenry compared to those working in heavy and civil engineering (25.5 employees per firm). Many construction businesses are independent contractors who only perform work on the source, heavy and civil engineering contractors have more employees because they work on the county's largest projects. Larger businesses are also more likely to provide health and retirement benefits to their employees (BLS, 2014).

Second, heavy and civil engineering payroll costs per employee in McHenry County reflect wages paid in the local labor market. McHenry payroll costs are less than the comparable figures in Kane County (\$109,814 per employee), Cook County (\$105,900 per employee), and Walworth County north of the border in Wisconsin (\$114,179 per employee). This is what construction workers on public projects earn in the regional economy- mostly because they are highly skilled and face significant workplace safety risks compared to other industries. Public works construction employees earn more because it is what the market dictates, not because prevailing wages inflate the wage rate (Figure 4).

2012	Entire Construction Industry		Heavy and Civil Engineering Construction			
County	Employees	Payroll Per Employee	Firm Size	Employees	Payroll Per Employee	Firm Size
McHenry, IL	5,235	\$66,262	5.31	1,175	\$102,671	25.54
Lake, IL	8653	\$64,457	4.75	516	\$96,078	7.27
Cook, IL	62,593	\$74,810	6.50	7,187	\$105,900	21.14
Kane, IL	8,155	\$62,563	5.83	995	\$109,814	13.45
All Illinois	180,468	\$64,535	6.43	24,252	\$88,180	17.49
Walworth, WI	1,241	\$64,817	4.11	379	\$114,179	18.05
All Wisconsin	89,001	\$60,555	6.59	12,241	\$105,099	17.87
All Indiana	112,805	\$54,364	8.63	15,073	\$76,655	18.94

Figure 4: Comparison of Payroll Costs to Neighboring Counties and States, 2012 County Business Patterns

Source: 2012 County Business Patterns, United States Census Bureau, available at http://censtats.census.gov/cgi-bin/cbpnaic/cbpsect.pl.

Labor costs are similar in nearby regions outside of Chicagoland (Figure 5). The Illinois average for peremployee payroll costs was \$88,180 in heavy and civil engineering. The reason labor costs are greater in McHenry County (\$102,671 per employee) is that the cost of living is higher up north. While living expenses are 3.1 percent cheaper than the national average in the Champaign area and 14.2 percent cheaper than the national average in Springfield, the cost of living is 16.9 percent more expensive than the national average in the Chicago area, which included McHenry County (Figure 5). Furthermore, comparable payroll costs per employee were actually higher in border-state Wisconsin (\$105,099) but lower in nearby Indiana (\$76,655). However, a lower cost of living is once again the primary reason why labor costs are lower in Indiana. This is evidence that prevailing wages are not artificial or inflated.

Figure 5: Comparison of Cost of Living, 2010 Cost of Living Index for Selected Urban Areas (Composite)

Metropolitan Economy	Cost of Living Compared to National Average	
Chicago area, IL	+16.9%	
Champaign area, IL	-3.1%	
Springfield area, IL	-14.2%	
Milwaukee-Waukesha area, WI	+1.9%	
South Bend area, IN	-8.1%	

Source: 2010 Cost of Living Index– Selected Urban Areas, Annual Average: 2010 (100% composite index used), United States Census Bureau. available at https://www.census.gov/compendia/statab/2012/tables/12s0728.pdf.

Housing costs are an example of high living expenses in McHenry County (Figure 6). In the past year, the median price of homes that were sold in McHenry County was \$184,010 (Zillow). Data from the U.S. Census Bureau show that median monthly homeowner costs in McHenry County were \$2,028 per month in 2012. The median monthly costs ("selected monthly owner costs") include payments for mortgages, real estate taxes, insurance, and utilities and fuels. Compared with the income from wages that a typical laborer earns, the median cost to own a home would exhaust 40.0 percent of a worker's take-home income. It is worth noting that most government agencies consider housing affordable only if costs are less than 30 percent of household income. Therefore, prevailing wage does not even support purchasing a home in McHenry County without a second job or without having a spouse or roommate who also works.

Figure 6: Comparison of Payroll Costs to Industries in McHenry County, 2012 County Business Patterns

2012 McHenry County Industry	Monthly	Annual
Laborer Income from Wages (Figure 3)	\$5,067	\$60,800
Median Monthly Homeowner Costs	\$2,028	\$24,336
Homeowner Costs as Share of Income from Wages	40.03%	40.03%

Source: Selected Monthly Owner Costs from "Selected Housing Characteristics" from the 2012 American Community Survey, 5 year estimates, available at http://factfinder2.census.gov; "McHenry County Prevailing Wage for July 2014" from the Illinois Department of Labor, available at http://www.illinois.gov/idol/Laws-Rules/CONMED/Rates/14-07Jul/MCHENRY9.htm.

Finally, the cost of labor for public works construction employees is comparable to other industries which require high-skilled workers performing risky or unpleasant work in McHenry County (Figure 7). In 2012, payroll costs were \$130,814 per employee in the mining, quarrying, and oil and gas extraction industry, \$85,015 per employee in engineering services, and \$71,295 per employee in waste management and remediation services. Again, payroll costs for heavy and civil engineering construction are not unusual in the McHenry County labor market.

Figure 7: Comparison	of Pavroll Costs to	o Industries in McHenry	v County, 2012 Count	v Business Patterns
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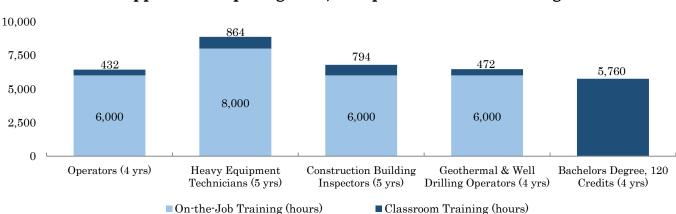
2012 McHenry County Industry	Employees	Payroll Per Employee
Mining, Quarrying, and Oil and Gas Extraction	43	\$130,814
Heavy and Civil Engineering Construction	1,175	\$102,671
Engineering Services	456	\$85,015
Medical Equipment and Supplies Manufacturing	988	\$83,479
Waste Management and Remediation Services	285	\$71,295

Source: 2012 County Business Patterns, United States Census Bureau, available at http://censtats.census.gov/cgi-bin/cbpnaic/cbpsect.pl.

WORKER PRODUCTIVITY AND VALUE ADDED TO THE ECONOMY

Public works construction is not low-skilled work. Building high-quality infrastructure that is safe and durable for the public requires an experienced, educated workforce. Accordingly, many workers in heavy and civil engineering construction go through rigorous registered apprenticeship programs. These programs provide thousands of hours of classroom and on-the-job training to boost workers' skills. The apprenticeship programs sponsored jointly by the International Union of Operating Engineers Local 150 and signatory contractors, for example, require at least 6,432 total hours of training over at least four years, including a minimum of 6,000 hours of on-the-job training (Figure 8). Heavy equipment technicians complete an even longer program: apprentices must log 8,000 hours of on-the-job training and 864 hours in the classroom over five years. By contrast, it is worth noting that the typical 120-credit hour bachelor's degree requires just 5,760 hours of classroom training over four years and generally does not require any development of hard skills through on-the-job training.

Figure 8: Public Works Construction Skills Requirement Compared to Typical Bachelor's Degree

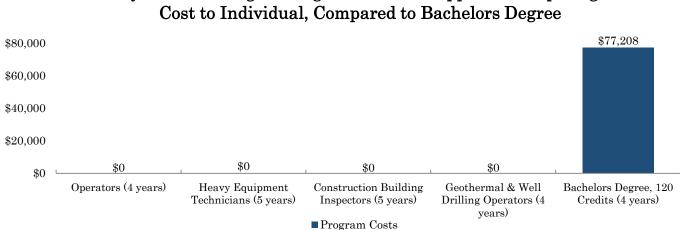


Hours Required by Heavy and Civil Engineering Construction Apprenticeship Programs, Compared to Bachelor's Degree

Source: International Union of Operating Engineers (IUOE) Local 150, which has membership in McHenry County. Requirements generously provided by Martin Turek, M.S., Assistant Coordinator-Safety Administrator. Typical bachelor's degree assumes 120 credit-hours required to graduate, such as in the University of Illinois College of Liberal Arts and Sciences (LAS): http://www.las.illinois.edu/students/requirements/minimum. The hours estimate assumes classroom time of three hours per class per week, five classes per semester, 16 weeks per semester, and two semesters each year over four years.

Additionally, apprenticeship programs are operationally funded by contractors and supported by prevailing wages (Figure 9). The total out-of-pocket program cost for apprentices is \$0. Expenses are covered by employers through a cents-per-hour contribution to apprenticeship programs. By contrast, the cost of attendance at the University of Illinois at Urbana-Champaign (excluding room and board) will total \$77,208 over the next four years for new enrollees this school year (Figure 9). Prevailing wages, therefore, support "the largest privately financed system of higher education in the country" (Philips, 2014).

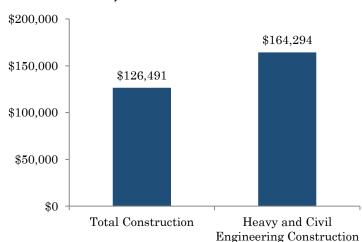
Figure 9: Public Works Construction Training Program Costs Compared to Typical Bachelor's Degree



Heavy and Civil Engineering Construction Apprenticeship Program Cost to Individual. Compared to Bachelors Degree

Finally, public works construction workers are extremely productive in Illinois. Figure 10 provides statelevel data on the value added to the economy by workers in the entire construction industry and in the heavy and civil engineering sectors. "Value added"— which measures worker productivity over one year— is the total amount of business revenues generated minus the costs for materials, components, supplies, fuels, and subcontracted work. While value added in the entire Illinois construction industry was \$126,491 per worker in 2007, workers in heavy and civil engineering construction each contributed \$164,294 to Illinois' GDP on average (29.9 percent more). Together, the high-skill requirement and elevated productivity levels are the main reasons why wages are higher for public works construction employees compared to other blue-collar construction workers (Figure 10). It is worth noting, however, that the \$164,294 contribution to the economy per worker exceeds the \$102,671 payroll cost per worker from Figure 4.

Figure 10: Worker Productivity, Entire Industry vs. Public Works Construction, 2007 Economic Census



Value Added Per Worker in Illinois, 2007 Economic Census

Source: Typical bachelor's degree program costs from the University of Illinois College of Liberal Arts and Sciences (LAS) for enrollees in Summer 2014, Fall 2014, and Spring 2015: http://www.osfa.illinois.edu/cost/undergrad/res_1415.html. Costs include tuition, fees, books and supplies, and other expenses but not room and board

Source: 2012 Economic Census, United States Census Bureau available at http://www.census.gov/econ/census/.

ADDRESSING THE UNION WAGE MYTH

The prevailing wage is a living wage determined by private actors in the local labor market. Arriving at a prevailing wage is the result of the majority of contractors and employees entering into private contracts. The rate is determined based on certified payrolls submitted by employers and workers. While employees are sometimes represented by a labor union, the prevailing wage is *not* necessarily a union wage.

A union wage only prevails if the majority of workers in a particular job classification are paid that rate. Still, data from the Current Population Survey show that it is understandable if a union wage prevails in McHenry County (Figure 11). In 2013, the unionization rate for the private construction *industry* was 37.8 percent in the entire state. The construction industry, however, includes occupations such as contractor CEOs, lawyers, architects, accountants, and office assistants— jobs which are not covered under the Illinois Prevailing Wage Act. To observe blue-collar construction worker union membership, it is better to analyze data on construction *occupations*, as defined by the U.S. Bureau of Labor Statistics. Construction occupations include (but are not limited to): carpenters, plumbers, pipefitters, painters, boilermakers, operating engineers, and laborers. In 2013, the unionization rate of workers in these jobs was 48.6 percent in the entire state of Illinois. In McHenry County, the construction unionization rate exceeds 50 percent.

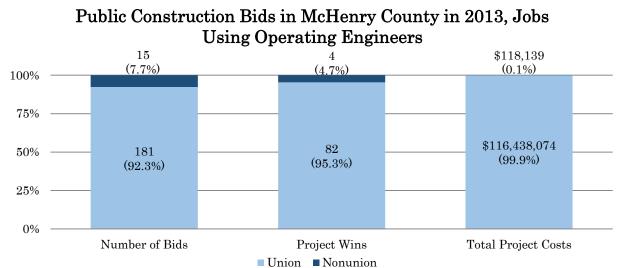
Figure 11: Unionization of Workers in Construction Industry and in "Construction Occupations," Current Population Survey, 2013

Illinois in 2013	Unionization Rate	CPS Observations
Construction Industry	37.81%	222
Construction Occupations	48.63%	171

Source: Author's analysis of the Current Population Survey – Outgoing Rotation Group (CPS-ORG) for 2013, United States Census Bureau and Bureau of Labor Statistics of the United States Department of Labor. Data obtained from the Center for Economic and Policy Research, available at http://ceprdata.org. Estimates are weighted to match the actual Illinois population. Note that the estimates rely on small sample sizes and should be interpreted only as general parameters.

Additionally, nonunion contractors are not bidding on public projects in McHenry County (Figure 12). In 2013, there were 86 lettings on public projects that involved work performed by operating engineers. These projects were awarded by the county (26.7 percent), by townships and cities in the county (48.8 percent), by the state (16.3 percent), and by school boards (8.1 percent). The total value of the projects was \$116.56 million over the year.

Figure 12: Market Share of Public Projects Using Operating Engineers in McHenry County, Union vs. Nonunion Contractors 2013



Source: Author's analysis of internal data generously provided by the Indiana, Illinois, Iowa Foundation for Fair Contracting (III FFC), which operates in McHenry County. The III FFC dataset is limited to only projects that employ operating engineers.

On these 86 projects, nonunion contractors only submitted 15 total bids (7.7 percent) compared to 181 bids made by unionized firms (92.3 percent). As a result, nonunion contractors only won 4.7 percent of all project lettings across McHenry County in 2013. Nonunion contractors, however, are only bidding on small-scale public projects: the total project cost of awarded bids was \$118,139 for nonunion contractors (0.1 percent) compared to \$116.44 million for unionized contractors (99.9 percent). Simply put, with a market share of 99.9 percent, it makes sense if a union wage prevails in McHenry County. In addition, if nonunion contractors could outperform a union contractor's workforce, a nonunion firm would appear as the apparent low bidder far more often than 4.7 percent of the time (Figure 12).

THE BENEFITS OF PREVAILING WAGE TO MCHENRY COUNTY

An overwhelming majority of research on prevailing wages has concluded that a state prevailing wage law has no statistical impact on the overall cost of public construction projects (Philips et al., 1995; Prus, 1996; Wial, 1999; Bilginsoy & Philips, 2000; Philips, 2001; Azari-Rad et al., 2002; Duncan, 2011). By paying a living wage, prevailing wage encourages skilled workers to enter the construction industry, increases worker training and productivity, and reduces workplace injury and illnesses. These effects lead to workers who complete jobs on-budget and on-time, offsetting any increases in labor costs (Philips, 2014).

Prevailing wage builds local middle-class jobs. Studies show prevailing wage laws encourage the use of local, in-state contractors. Out-of-state contractors are 5 percent less likely to win bids on public construction projects due to prevailing wage laws, and repeal of prevailing wage leads to 6 percent of a project's total value leaking out of the county economy (Prus, 1999; Working Partnerships USA, 2011). The preponderance of research also finds that state prevailing wage laws– requiring market rates be paid–increase worker incomes by between 2 and 8 percent but increase productivity by 14 to 33 percent (Kessler & Katz, 2001; Kelsay et al., 2004; Philips, 2014;). Any higher costs associated with requiring that market rates be paid is offset by increased productivity and better infrastructure quality.

Prevailing wage drives economic development. The economy benefits substantially from well-paid, highlyskilled, and healthy construction workers who complete jobs right the first time. Higher worker wages lifts consumer demand and increases spending at local businesses such as grocery stores, restaurants and bars, and professional and management services offices. As a result, prevailing wage stimulates job creation and generates \$1.1 billion in economic output in Illinois (Dickson Quesada et al., 2013).

Prevailing wage is the best deal for taxpayers. Prevailing wage laws promote worker training, which reduces errors and minimizes the chances of footing taxpayers with another bill to reconstruct low-quality infrastructure that does not last. Additionally, by fostering a strong middle class and enhancing economic development, prevailing wage generates millions of dollars in state and local tax revenues through increased consumer spending and reduced reliance on government assistance (Manzo & Carroll, 2014). In fact, prevailing wage supports \$44.4 million in state and local tax revenues each year in Illinois (Dickson Quesada et al., 2013).

Figure 13 presents an economic impact analysis of prevailing wage on McHenry County using IMPLAN, an input-output modeling software. The model incorporates assumptions and inputs used in the recent Illinois study on the economic and social impact of the state's prevailing wage law (Dickson Quesada et al., 2013). The economic impact analysis finds that prevailing wages stimulate the local economy through increased consumer spending. In fact, prevailing wages generate \$57.6 million in economic output in the region annually and also support \$2.4 million in state and local tax revenues each year in the county. In summary, the prevailing wage for public construction projects delivers positive economic outcomes for McHenry County (Figure 13).

Figure 13: Economic Impact of Prevailing Wage on Employment, Earnings, Economic Output, and Tax Revenues in McHenry County, 2013

Economic Impact Analysis of Prevailing Wage on McHenry County, IL, 2013			
Region	Economic Output (GDP)	State and Local Tax Revenues	
McHenry County	\$57.6 million	\$2.4 million	
Chicagoland Area	\$658.4 million	\$27.3 million	
Illinois	\$1,072.9 million	\$44.4 million	

Source: Author's analysis of prevailing wage using inputs and assumptions from A Weakened State: The Economic and Social Impacts of Repeal of the Prevailing Wage Law in Illinois by Dickson Quesada et al. (2013). The analyses used IMPLAN Version 3.0.17.2, Minnesota IMPLAN Group, Inc. © 2011.

CONCLUSION

The McHenry County Board should adopt its prevailing wage ordinance. Prevailing wage determinations are based on certified payroll records from contractors and employees. They reflect the levels of compensation privately agreed upon by contractors and employees in the local labor market, which in turn are the result of the high skill level and high productivity of McHenry County's construction workforce. Prevailing wage is necessary to prevent government bodies from undercutting the market. Prevailing wage is the best deal for McHenry County taxpayers.

REFERENCES

- Azari-Rad, Hamid, Peter Philips, and Mark Prus. (2002). "Making Hay When It Rains: The Effect Prevailing Wage Regulations, Scale Economies, Seasonal, Cyclcical, and Local Business Patterns Have on School Construction Costs." *Journal of Education Finance*, 27. Spring 2002.
- Bilginsoy, Cihan and Peter Philips. (2000). "Prevailing Wage Regulations and School Construction Costs: Evidence from British Columbia." *Journal of Education Finance*, 25(3). Winter 2000.
- Bureau of Labor Statistics (BLS). (2014). "Employee Benefits in the United States news release text." United States Department of Labor. Released Friday, July 25, 2014.
- County of McHenry, Illinois Comprehensive Annual Financial Report. For the Fiscal Year Ended November 30, 2013. Prepared by Pamela Palmer, County Auditor.
- Dickson Quesada, Alison, Frank Manzo IV, Dale Belman, and Robert Bruno. (2013). "A Weakened State: The Economic and Social Impacts of Repeal of the Prevailing Wage Law in Illinois." Labor Education Program, School of Labor and Employment Relations, University of Illinois at Urbana-Champaign.
- Duncan, Kevin. (2011). "An Analysis of Davis-Bacon Prevailing Wage Requirements: Evidence from Highway Resurfacing Projects in Colorado." Healy Center for Business and Economic Research, Hasan School of Business, Colorado State University- Pueblo.
- Jordan, Lisa, Robert Bruno, Phil Schrader, and Tony Sindone. (2006). "An Evaluation of Prevailing Wage in Minnesota: Implementation, Comparability and Outcomes." Brevard College.
- Kelsay, Michael, James Sturgeon, and Kelly Pinkham. (2011). "The Adverse Economic Impact from Repeal of the Prevailing Wage Law in Missouri." Department of Economics, University of Missouri- Kansas City (Updated version).
- Kessler, Daniel and Lawrence Katz. (2001). "Prevailing Wage Laws and Construction Labor Markets." *Industrial* and Labor Relations Review, 54(2). January 2001.

- Manzo IV, Frank and LeNee Carroll. (2014). "Self-Sufficient Construction Workers: Why Prevailing Wage Laws are the Best Deal for Taxpayers." Midwest Economic Policy Institute and Building Strong Communities.
- Manzo IV, Frank, Robert Bruno, and Scott Littlehale. (2014). "Common Sense Construction: The Economic Impacts of Indiana's Common Construction Wage." Midwest Economic Policy Institute; Labor Education Program, School of Labor and Employment Relations, University of Illinois at Urbana-Champaign; and Smart Cities Prevail.

McHenry County Board Minutes (MCB Minutes). (2014). "Minutes – June 17, 2014." McHenry County Board.

- Peterson, Jeffrey. (2000). "Health Care and Pension Benefits for Construction Workers: The Role of Prevailing Wage Laws." *Industrial Relations*, 39. April 2000.
- Philips, Peter. (2001). "A Comparison of Public School Construction Costs: In Three Midwestern States that Have Changed Their Prevailing Wage Laws in the 1990s." Economics Department, University of Utah.
- Philips, Peter. (2014). "Kentucky's Prevailing Wage Law: An Economic Impact Analysis." Economics Department, University of Utah.
- Philips, Peter, Garth Mangum, Norm Waitzman, and Anne Yeagle. (1995). "Losing Ground: Lessons from the Repeal of Nine 'Little Davis-Bacon' Acts." Economics Department, University of Utah.
- Prus, Mark. (1996). "The Effect of State Prevailing Wage Laws on Total Construction Costs." Department of Economics, State University of New York- Cortland.
- Wial, Howard. (1999). "Do Lower Prevailing Wages Reduce Public Construction Costs?" Keystone Research Center and Rutgers University.
- Working Partnership USA. (2011). "Economic, Fiscal and Social Impacts of Prevailing Wage in San Jose, California." Economic Policy Brief.
- Zillow. (2014). "McHenry County Home Prices & Values." Zillow.com, at http://www.zillow.com/mchenry-countyil/home-values/.