

# The Impact of Service Contract Prevailing Wage Laws in the United States and Illinois

*Effects on the Labor Market Outcomes of Custodial Workers*

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## **Executive Summary**

Prevailing wage laws establish minimum wages for different types of work on government contracts. The main purpose of prevailing wage laws is to level the playing field for local businesses in the competitive bidding process by ensuring that public expenditures reflect and maintain area market standards of compensation, workforce skills, and safety. In the United States, prevailing wage laws are primarily used on public works construction projects. However, the federal government and eight states have prevailing wage laws on service contracts awarded by public agencies.

**Service contract prevailing wage laws ensure that contractors bidding on public contracts maintain local-market wage and benefits rates in the area where the work is to be performed.**

- The McNamara-O’Hara Service Contract Act of 1965 was enacted to prevent the exploitation of vulnerable low-wage service workers.
- California, Connecticut, Illinois, Massachusetts, Montana, New Jersey, New York, and Washington each have prevailing wage laws for services performed on certain state contracts or at public utilities.
- Service contract prevailing wage laws cover a range of service workers, such as food service workers and security guards, but one occupation that is covered across all jurisdictions is custodial workers.

**While existing research has not assessed the impact of prevailing wage laws on service workers, prior analyses of similar labor standards suggest that they can play a vital role in uplifting vulnerable workers.**

- Prevailing wage laws in the construction industry increase earnings, strengthen apprenticeship training, and improve safety outcomes for blue-collar construction workers while maintaining bid competition and stabilizing total project costs.
- Minimum wage laws boost worker incomes while having little to no impact on employment or hours.
- Living wage laws lift incomes, reduce urban poverty, and improve retention rates for service workers while increasing the number of bidders.
- The preponderance of research on prevailing wage, minimum wage, and living wage laws reveals that increases in wages or benefits paid to workers are often offset by improvements in worker productivity, employee retention rates, and business efficiencies that are induced by these policies.

**Utilizing U.S. Census Bureau data from the 2017, 2018, and 2019 *American Community Surveys*, state-level service contract prevailing wage laws are found to:**

- Boost the annual incomes of custodians by between 6 percent and 10 percent.
- Expand employer-provided health insurance coverage to custodians by between 2 percent and 4 percent, reducing reliance on Medicaid and other taxpayer-subsidized plans.
- Promote job stability for custodians, increasing their average hours worked by as much as 6 percent—turning about 4 percent of part-time jobs into full-time jobs.
- Have the largest impacts on Black, Hispanic, and other workers of color—who make up the majority of all custodians in the United States—lifting their annual incomes by 14 percent and increasing their employer-provided health insurance coverage rate by 5 percent.

**Service contract prevailing wages improve labor market outcomes for custodians in Illinois. In Illinois, compared with their counterparts in states without service contract prevailing wages:**

- White custodians earn 13 percent more and 2 percent fewer earn below the federal poverty line.
- Black and African American custodians earn 15 percent more and 3 percent fewer are in poverty.
- Hispanic and Latinx custodians earn 18 percent more and 5 percent fewer are in poverty.

Service contract prevailing wage laws improve labor market outcomes, combat racial inequality, and reduce poverty for custodial workers. Prevailing wage laws can be an effective tool for improving employment conditions and living standards for workers and addressing labor shortages in service sectors of the economy.

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## Introduction

Prevailing wages establish minimum wages for different types of work on government contracts that are based on hourly wages and fringe benefits customarily paid for similar work in the local market. The main purpose of prevailing wages is to protect market standards in the competitive bidding process because public bodies are usually required to award contracts to the lowest bidder. This low-bid model of public procurement gives businesses that want to win a large government contract a financial incentive to lower their bid however possible, including through cutthroat reductions in worker wages, benefits, and training. Prevailing wage laws level the playing field, requiring all businesses competing for government contracts to reflect and maintain area standards of compensation and safety and incentivizing competition based on core competencies. Other goals are to prevent the exploitation of contract and contingent workers, ensuring that they are compensated at commensurate levels for performing the same job ([NJ DLWD, 2021](#)).

In the 1930s, the United States enacted labor standards for blue-collar workers on contracts awarded by the federal government. The Davis-Bacon Act of 1931 established minimum wage standards for construction workers on federal and federally-assisted construction projects ([Whittaker, 2007](#)). As of September 2021, 28 states and the District of Columbia have prevailing wage standards on taxpayer-funded construction projects ([Stepick & Manzo, 2021](#)). The Walsh-Healey Public Contracts Act of 1936 was also enacted to eradicate sweatshop conditions, end child labor, and establish a minimum wage floor and overtime benefits for manufacturing workers producing goods for the federal government ([Whittaker, 2007](#)). Workers in service occupations, however, were not covered by similar standards until the 1960s.

In 1965, U.S. Department of Labor Solicitor Charles Donahue testified that, since the federal government was required to award contracts to the lowest bidder and labor costs are the largest portion of total costs in service contracts like janitorial cleaning, the lack of a wage floor caused “wage rates to spiral downward” ([Whittaker, 2007](#)). The pressure for employers to pay the lowest wage possible, he said, created a situation in which “everyone loses—the employee, the government, the responsible contractor—that is, everyone except the fly-by-night operator who is eager to profit from the undercompensated toil of his workers” ([Whittaker, 2007](#)). Additionally, Robert Connerton, General Counsel of the Laborers’ International Union of North America, testified that “service employees were primarily the poor and unwanted of this Earth—the disadvantaged, the minorities working in manual unskilled and semi-skilled occupations, at abominable wages, without any fringe benefits, without any seniority rights or job security, without any voice whatsoever in their destiny, pressed down by this vicious system of low-wage competition” ([Perkins, 1971](#)). To address these concerns and rectify the “old-fashioned sweatshop conditions,” the McNamara-O’Hara Service Contract Act of 1965 was passed “without debate” by Congress, leveling the playing field for contractors bidding on federally funded service contracts by requiring that bids include local-market minimum wage and fringe benefits rates “commensurate with those being paid workers performing similar tasks in their locality” ([Perkins, 1975](#); [Whittaker, 2007](#)).

The Service Contract Act (SCA), which applies to federal contracts costing \$2,500 or more, was thus enacted to prevent the exploitation of low-wage workers, such as custodial workers and food preparation workers. The SCA, however, was amended in 1972 and 1976 to expand coverage, improve administrative efficiency, ensure enforcement, and promote stability in the service industry. In 1972, Congress amended the SCA to ensure equal pay for equal work by preventing contractors from undercutting the wage and benefits levels that existing employees had won through collective bargaining ([Walter & Christman, 2021](#)). In 1976, Congress amended the act to further clarify which workers were covered under the law ([Whittaker, 2007](#)).

**FIGURE 1: EIGHT STATES, PLUS THE DISTRICT OF COLUMBIA, WITH SERVICE CONTRACT PREVAILING WAGE LAWS**

State	Description of Prevailing Wage Coverage
McNamara-O’Hara Service Contract Act (District of Columbia)	Furnishing services through the use of service employees, including contracts for laundry and dry cleaning, for custodial or janitorial service, for guard service, for food service, and for miscellaneous housekeeping services ( <a href="#">WHD, 2009</a> )
California	Janitors and custodial staff at public utilities ( <a href="#">Justia, 2020</a> ), service workers at school districts must earn wages and benefits that “are at the industry’s level and do not undercut school district pay rates” ( <a href="#">FindLaw, 2019a</a> ), workers on state personal service contracts must earn wages that “are at the industry’s level and do not significantly undercut state pay rates” ( <a href="#">CLI, 2021a</a> ), and prevailing wages apply to all work ordered under job order contracts by community college districts and school districts ( <a href="#">CLI, 2021b</a> ; <a href="#">FindLaw, 2019b</a> )*
Connecticut	Certain service workers, including custodians, cleaning, maintenance, or related service workers ( <a href="#">CT DOL, 1999</a> )
Illinois	Janitorial cleaning, window cleaning, food services, security services, and printing services performed on state contracts ( <a href="#">IDOL, 2021</a> )
Massachusetts	School bus transportation, waste and recycling disposal, janitorial services for state buildings, office moving services, and certain employees of housing authorities ( <a href="#">MA DLS, 2021</a> )
Montana	Custodial or security services for publicly owned buildings and facilities, including custodians and cleaners ( <a href="#">MT DLI, 2021</a> )
New Jersey	State building service workers, including custodians, window cleaners, security guards, and similar work ( <a href="#">NJ DLWD, 2021</a> ) as well as airports and train terminal building service workers as of 2021 ( <a href="#">NJ, 2021</a> )
New York	Building service workers, including security guards, doormen, building cleaners, handymen, custodians, gardeners, groundskeepers, elevator operators, window cleaners, garbage collectors, and fossil fuel transportation workers ( <a href="#">FindLaw, 2021</a> ) as well as airport workers as of 2021 ( <a href="#">NY State Senate, 2020</a> )
Washington	Building service maintenance, defined as janitors, waxers, shampooers, and window washers ( <a href="#">WA State Legislature, 2003</a> )
<p>*In California, contracts costing more than \$100,000 at the University of California system require contractors to pay employees of “Covered Services” (e.g., cleaning, custodial, janitorial, food, laundry, groundskeeping, building maintenance, transportation and parking, and security services) “wages and benefits of equivalent value to those provided to bargaining unit employees performing the same or similar work at the location where the work is being performed” (<a href="#">UC System, 2021</a>).</p> <p>**Maryland does not have a state-level prevailing wage law for service contracts but does have a living wage law that is applicable to service contractors (<a href="#">MD DOL, 2021</a>). While prevailing wages typically vary based on local markets (usually by county), Maryland has just two living wages for service contracts—one for populous “Tier 1” jurisdictions that include Baltimore City and Anne Arundel, Baltimore, Howard, Montgomery, and Prince George’s Counties and one for all other “Tier 2” jurisdictions.</p> <p>***Alaska does not have a service sector prevailing wage but does set wage rates for some workers, such as custodians, who may be needed to perform work at remote construction sites (<a href="#">AK DLWD, 2020</a>).</p>	

Source(s): Individual links reported in the table.

In addition to the McNamara-O’Hara SCA on federal contracts, eight states have service contract prevailing wage laws in their procurement codes (Figure 1). These may be referred to as “mini-SCAs.” The eight states are California, Connecticut, Illinois, Massachusetts, Montana, New Jersey, New York, and Washington. Seven of the eight states apply prevailing wages to services performed at state or publicly-owned buildings. California applies prevailing wages for service workers at public utilities, at local school districts, and at personal service contracts awarded by the state. The University of California system also requires that contractors pay their employees “wages and benefits of equivalent value to those provided to bargaining

unit employees performing the same or similar work at the location where the work is being performed” on service contracts exceeding \$100,000 ([UC System, 2021](#)). In response to the COVID-19 pandemic, New York and New Jersey also expanded the scope of their laws to include service workers in contracts awarded by airports. Additionally, service contracts entered into by District of Columbia agencies are covered by the McNamara-O’Hara SCA.<sup>1</sup> The service workers who earn prevailing wage and benefits rates range from security guards to window cleaners to doormen. However, the one occupation that is covered across all jurisdictions is janitors and custodial workers, hereafter referred to as custodians. Custodians work physically demanding jobs that have been on the frontlines of the COVID-19 pandemic and which are often at risk during economic downturns ([Gould & Kassa, 2021](#); [Charpentier, 2021](#)).

While the McNamara-O’Hara Service Contract Act has been in effect for over five decades and eight states plus the District of Columbia have service contract prevailing wage laws, little research has been conducted showing the effect of service contract prevailing wage laws on the labor market outcomes of directly-affected workers. This report, conducted jointly by the Illinois Economic Policy Institute (ILEPI) and Project for Middle Class Renewal (PMCR) at the University of Illinois at Urbana-Champaign, fills that void in the economic research, assessing the impact of state-level service contract prevailing wage laws on the annual incomes, health insurance coverage rates, and employment outcomes of custodians—the occupation covered in all “mini-SCAs.” The report assesses pertinent background research on prevailing wage, living wage, and minimum wage laws before discussing the data and methodology utilized. Labor market outcomes are subsequently assessed. A concluding section recaps key findings.

## **Background Research on Prevailing Wage, Living Wage, and Minimum Wage Laws**

To date, very little research has been conducted assessing the impact of prevailing wage laws on service workers. One survey of about 68,000 field interviewers for the 2012 National Survey on Drug Use and Health who were paid federal Service Contract Act (SCA) prevailing wages in 2012 but not in 2011 found that worker attitudes, the rate of work completion, and worker retention rates were not affected by the implementation of prevailing wage rates ([Wang et al., 2013](#)). Another 1983 study contended that SCA prevailing wages increase the Federal Reserve System’s costs of transporting money and clearing checks for financial institutions. The author compared SCA prevailing wage rates to “Area Wage Survey” data compiled by the Bureau of Labor Statistics and concluded that the SCA increases the cost of armored transportation service by 17 percent ([Sniderman, 1983](#)). However, this back-of-the-envelope “wage differential” approach to calculating the cost impact of prevailing wage laws has been thoroughly discredited by economists because it suffers from significant methodological defects ([Duncan & Ormiston, 2017](#); [Duncan, 2016](#)).

Despite the general lack of research on service contract prevailing wage laws, there are related areas of research. Studies on the economic, social, and cost impacts of prevailing wage laws in the construction industry may be the most analogous. Furthermore, given that service contract prevailing wage laws are local minimum wages based on area standards, it may be useful to understand the general consensus on volumes of research around the effects of minimum wage laws. Finally, there is a relatively large body of empirical research on living wage laws for service contracts.

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<sup>1</sup> Additionally, many cities and counties have enacted local service contract prevailing wages. Bergen County, New Jersey; Hudson County, New Jersey; Jersey City, New Jersey; New York City, New York; Philadelphia, Pennsylvania; and Pittsburgh, Pennsylvania have all enacted prevailing wages for certain service workers. Note that, with the exception of Philadelphia and Pennsylvania, workers on state contracts in these jurisdictions are also covered by state-level prevailing wage laws ([Walter et al., 2020](#)).

### **Prevailing Wage Laws for Blue-Collar Construction Workers**

Economic research on the effects of prevailing wage laws has focused on their application to blue-collar workers on taxpayer-funded construction projects. The impacts of the federal Davis-Bacon Act, state prevailing wage laws, and local prevailing wage ordinances have all been studied in this area (e.g., [Duncan et al., 2017](#); [Duncan & Ormiston, 2017](#); [Kelsay, 2016](#)). The research finds that, by leveling the playing field for contractors and ensuring that public expenditures reflect and maintain area standards of compensation and craftsmanship, prevailing wage laws accomplish the goal of protecting work for local businesses in the competitive low-bid procurement model. Road construction projects that pay federal Davis-Bacon prevailing wages are 8 percent more likely to be awarded to in-state contractors ([Manzo, 2021](#)). Nationally, states with prevailing wage laws have 2 percent more of the total value of construction work completed by in-state contractors, according to data from the *Economic Census of Construction* ([Census, 2012](#)). Impacts are even larger in certain areas. As examples, local contractors account for a 10 percent higher market share when prevailing wages are paid on public school projects in Minnesota, in-state contractors account for 12 percent higher market share on highway projects in Oregon due to the state's prevailing wage law, and county-resident businesses account for 16 percent higher market share when prevailing wages are paid on library construction projects in Santa Clara County, California ([Manzo & Duncan, 2018a](#); [Stepick & Manzo, 2021](#); [Duncan, 2011](#)).

There is a significant disparity in the wages paid to blue-collar construction workers between states with prevailing wage laws and states without prevailing wage laws ([Philips, 2014](#)). One economic analysis found that prevailing wage laws statistically increase blue-collar construction worker earnings by as much as 16 percent per year and expand health insurance coverage by as much as 10 percent ([Manzo et al., 2016](#)). Conversely, peer-reviewed research has found that repeal of prevailing wage laws results in a 2 percent to 4 percent decrease in blue-collar construction incomes and an 11 percent to 16 percent decrease in voluntary fringe benefits ([Fenn et al., 2018](#)).

With family-sustaining incomes, prevailing wage laws reduce poverty and keep construction workers off government assistance programs. Prevailing wage laws reduce the number of construction workers living below poverty by 30 percent and reduce racial income inequality in construction by between 7 percent and 53 percent ([Manzo et al., 2016](#); [Manzo et al., 2018](#)). They also ensure that construction workers can afford to live in the communities where they are building roads, schools, and other public infrastructure, increasing the homeownership rate of Black and African American construction workers by 8 percent and the homeownership rate of White construction workers by 3 percent ([Manzo et al., 2020a](#)). Furthermore, workers in states with prevailing wage laws contribute more in income taxes and property taxes while receiving less in government assistance programs, such as Supplemental Nutrition Assistance Program (SNAP) food stamps and Earned Income Tax Credit (EITC) benefits—improving public budgets ([Manzo et al., 2016](#); [Manzo et al., 2020a](#)). Finally, minimum benefits standards included in prevailing wage rates, such as paid sick leave, reduce absenteeism and the spread of illnesses like influenza and COVID-19, improving productivity and saving contractors money ([Stearns & White, 2018](#); [Hill, 2013](#); [Asfaw et al., 2017](#)).

Prevailing wage laws have been found to promote the hiring, development, and retention of skilled workers by encouraging investment in apprenticeship programs. Prevailing wage rates in the construction industry often include a “cents-per-hour” contribution into workforce training institutions. As a result, apprenticeship training is up to 8 percent higher in states with prevailing wage laws, boosting worksite productivity by at least 14 percent and reducing serious injuries by 13 percent ([Bilginsoy, 2003](#); [Philips, 2014](#); [Li et al., 2019](#)).

The economic consensus is that prevailing wage laws have no impact on total construction costs ([Duncan & Ormiston, 2017](#)). Of the 18 peer-reviewed studies on the impact of prevailing wage standards on the cost to

construct schools, highways, and municipal buildings conducted between 2000 and 2020, 15 find that prevailing wage laws have no effect on taxpayer costs (83 percent) (Stepick & Manzo, 2021). Prevailing wage laws do not increase project costs for four main reasons. First, labor costs are a low share of total costs in the construction industry—approximately 18 percent in the United States (Census, 2017). Second, peer-reviewed research indicates that, when wages rise in construction, contractors respond by utilizing more capital equipment and by hiring skilled workers to replace their less-productive counterparts (Balistreri et al., 2003; Blankenau & Cassou, 2011). Third, contractors have also been found to respond to higher wages by reducing expenditures on materials, fuels, and rental equipment and by accepting marginally lower profit margins (Duncan & Lantsberg, 2015). Fourth, overall bid competition on public works projects is unaffected by whether or not those projects are covered by prevailing wages (Stepick & Manzo, 2021; Onsarigo et al., 2020; Duncan & Waddoups, 2020; Manzo et al., 2020b; Manzo & Duncan, 2018b; Duncan, 2015; Kim et al., 2012). Bid competition is an important determinant of total costs. In fact, a recent study finds that “the cost-reducing effect of increased bid competition is stronger on projects covered by the prevailing wage policy” (Onsarigo et al., 2020). Since labor costs are a small portion of overall costs, productivity enhancements, contractor adjustments, and sustained bid competition offset any effect of prevailing wage laws.

### ***Minimum Wage Floors for Low-Wage Workers***

The preponderance of the economic research is nearly unanimous in concluding that minimum wage hikes are associated with higher incomes for workers and better overall outcomes for communities, without significant consequences for jobs or prices. Recent research of 138 state-level minimum wage changes between 1979 and 2016 found that the number of low-wage jobs remained unchanged over five years following the hikes but that average worker wages increased (Cengiz et al., 2019). Similarly, a study of 51 minimum wage events in low-wage areas in the United States between 2005 and 2017 found positive wage effects but did not detect adverse effects on employment or hours (Godøy & Reich, 2019). Another analysis found that 37 of 41 peer-reviewed studies (90 percent) conclude that a higher minimum wage is associated with higher wages (Belman & Wolfson, 2014). In general, a 10 percent increase in the minimum wage tends to boost average incomes by between 1 percent and 2 percent, with larger wage gains for directly-affected workers (Cengiz et al., 2021; Belman & Wolfson, 2014; Dube et al., 2011; Reich et al., 2017). Previous studies have also found little to no impact of minimum wage laws on employment or hours (Cengiz et al., 2021; Gopalan et al., 2018). A meta-analysis of 64 studies found that a 10 percent increase in the minimum wage is associated with a small 0.2 percent to 0.6 percent drop in employment or hours (Belman & Wolfson, 2014).

Minimum wage hikes have small or negligible effects on employment for many reasons. First, there is evidence that a higher minimum wage reduces worker turnover, as employers become more diligent in their hiring practices (Schmitt, 2013; Dube et al., 2011; Reich et al., 2017). This produces a net savings for employers. Turnover costs can also reduce worker productivity, with 63 percent of the productivity losses occurring prior to the departing worker’s exit (Kuhn & Yu, 2019). An analysis of 11 case studies found that the “typical cost of turnover for positions earning less than \$30,000 annually is 16 percent of an employee’s annual salary” (Boushey & Glynn, 2012). Turnover reductions can help low-wage industries absorb labor cost increases associated with hikes in the minimum wage (Pollin & Wicks-Lim, 2015). Employers may also make efficiency improvements, compress wages by delaying or limiting bonuses for higher-skilled workers, or absorb higher labor costs through lower profits (Schmitt, 2013). Employers could also pass on increased labor costs to consumers in the form of higher prices. However, a 10 percent increase in the minimum wage is only associated with a 0.4 percent to 0.6 percent increase in restaurant food prices (MacDonald & Nilsson, 2016; Allegretto & Reich, 2016). In Seattle, there has been no evidence of a change in supermarket food prices following enactment of the local minimum wage ordinance (Buszkiewicz et al., 2019).

Even in the federal government, the cost impact of a minimum wage hike is minimal. For example, the nonpartisan Congressional Budget Office (CBO) recently found that a \$15 minimum wage for federal contractors working on services and construction contracts for the Department of Defense would cost about \$760 million per year over five years (CBO, 2021). However, the Department of Defense budget is \$715 billion for fiscal year 2022 (DOD, 2021). As a result, the \$15 minimum wage for contractors would represent just a 0.1 percent increase in total costs to the Department of Defense—without considering offsetting effects on worker turnover or productivity.

### ***Living Wage Laws for Service Contracts***

A living wage law establishes a minimum wage based on the income necessary for a worker to meet basic needs, such as food, shelter, and transportation. Living wage laws may aim to accomplish a “family wage” that ensures workers can support dependents or to provide a rate of income sufficient for workers to stay off government assistance programs, such as Supplemental Nutrition Assistance Program (SNAP) food stamps or the Earned Income Tax Credit (EITC). Consequently, most living wages are higher than statutory minimum wage rates.

Similar to the minimum wage research, living wage laws have been found to boost worker incomes and reduce worker poverty with no or mixed effects on employment and business growth. Living wage laws have the largest positive impacts on the earnings of low-income workers and Black or African American workers (Thompson & Chapman, 2006; Niedt et al., 1999). Four studies conducted by David Neumark and Scott Adams found that city living wage ordinances increase earnings for low-wage workers and reduce urban poverty by modest amounts (Adams & Neumark, 2005; Neumark & Adams, 2003; Neumark, 2002; Neumark & Adams, 2000). A contemporaneous study of employment trends before and after 120 cities enacted living wage laws found that negative overall employment growth was rare (Buss & Romeo, 2006). Additionally, research using the *National Establishment Time Series* dataset found that city-level living wage laws have no significant impact on employment or establishment growth among directly-affected contractors (Lester, 2011).

Economic research reveals that living wage laws improve worker retention rates. In San Francisco, a living wage policy doubled wages for homecare workers within five years and improved the annual worker retention rate by 35 percent while a living wage program for service contract workers at the San Francisco International Airport led to pay increases for more than 9,700 workers and reduced worker turnover by as much as 60 percent (Fairris et al., 2015; Reich et al., 2013). Los Angeles’ living wage ordinance raised wages, led to a two-day increase in paid days off, and produced a 32 percent to 35 percent decrease in worker turnover (Fairris et al., 2015; Fairris, 2003).

Finally, the research on the cost of living wage laws generally aligns with the effects of prevailing wage laws on total costs and the influence of minimum wage laws on consumer prices in finding little to no negative impact. One study found that Maryland’s state living wage law for service contracts increased the number of bidders by 27 percent while increasing costs to the state by between 7 percent and 19 percent, but other studies of city-level living wage laws are more mixed (Rubenstein, 2008). For example, living wages encouraged more bid competition in Boston and New Haven, reducing municipal costs by between 7 percent in Boston and by 11 percent in New Haven while increasing costs by a modest 1 percent in San Francisco (Brenner, 2004). Additionally, a survey of 20 cities found that costs attributed to living wage laws tended to amount to 0.1 percent of the overall municipal budget (Thompson & Chapman, 2006). These findings suggest that the cost impact of living wage laws may be partially or fully offset by improvements in worker retention.

## **Data, Methodology, and Workers Employed as Custodial Workers**

This report uses 2017, 2018, and 2019 data from the *American Community Survey*. Conducted by the U.S. Census Bureau, the *American Community Survey* is an annual survey of approximately one percent of the U.S. population. Note that the U.S. Census Bureau did not release 2020 *American Community Survey* data due to the impacts of the COVID-19 pandemic. Specifically, people with lower incomes, lower levels of educational attainment, and lower homeownership rates—characteristics which are more likely to be attributed to workers in custodial occupations—were considerably less likely to respond to the survey in 2020 than in previous years, leading the U.S. Census Bureau to determine that the 2020 data did not meet its “Statistical Data Quality Standards” (Census, 2021). Consequently, this report only uses data through 2019. The information is made publicly available from the Integrated Public Use Microdata Series (IPUMS-USA) dataset provided by the Minnesota Population Center at the University of Minnesota (Ruggles et al., 2021).

U.S. Supreme Court Justice Louis Brandeis persuasively reasoned that the 50 states serve as “laboratories of democracy,” with different laws and public policies producing outcomes that could be tested to assess their effectiveness (*New State Ice Co. v. Liebmann*, 1932). Currently, eight states have service contract prevailing wage laws and 42 states do not. Service contracts entered into by District of Columbia agencies are covered by the federal McNamara-O’Hara Service Contract Act. This report exploits that variation across states to analyze the effect of state-level service contract prevailing wage laws on the incomes, poverty rates, health insurance coverage rates, and employment outcomes of custodians in the United States. As a result, this report includes, but does not singularly focus on, the influence of the McNamara-O’Hara Service Contract Act.

This report utilizes a statistical technique called “regressions.” Regressions are used to parse out the unique impact that certain variables—such as a state-level service contract prevailing wage law—have on market outcomes. For example, a regression describes how much a variable is responsible for raising or lowering worker incomes, after accounting for other observable factors. However, states with service contract prevailing wage laws may have similar economic dynamics and public policies that result in higher wages for all workers—not just those in occupations that are directly impacted by a service contract prevailing wage law. Illinois, for instance, has prevailing wages for janitorial cleaning, but it also has a prevailing wage law for blue-collar construction workers, a minimum wage that is higher than the federal minimum wage, and strong collective bargaining laws (Dickson Quesada et al., 2013; Economic Policy Institute, 2021; Manzo & Bruno, 2021a). These public policies tend to lift earnings for all workers, including custodians. Accordingly, an “interaction term” is used to account for general differences in labor market outcomes in states, like Illinois, with service contract prevailing wages laws compared with those without these laws. This allows for an assessment of the impact of service contract prevailing wage laws specifically on directly-affected service workers. “Probit” regressions, with average marginal effects, are also used to determine the average effect of service contract prevailing wage laws on the probabilities of custodians living in poverty, having health insurance coverage, and working full time as well as on the probability that any given worker will be employed as a custodian at all.

This report often concentrates on blue-collar workers without bachelor’s or more advanced college degrees (Figure 2). While 35 percent of all workers in the United States in 2017, 2018, and 2019 had bachelor’s, master’s, professional, or doctoral degrees, workers employed as custodians tend to be those without four-year college degrees. Among all custodians, only 6 percent had at least a bachelor’s degree. Looking at this specific, yet large, group of workers without bachelor’s degrees allows for an accurate understanding of the impact of a public policy that directly affects custodians.

**FIGURE 2: SHARE OF WORKERS WITH BACHELOR’S DEGREES OR MORE BY STATE PREVAILING WAGE STATUS, 2017-2019**

Share of Workers with Bachelor's Degrees or More		
Geography	All Workers	Custodians Only
<b>United States</b>	<b>35.2%</b>	<b>5.9%</b>
States with Service Contract Prevailing Wage Laws	39.8%	6.0%
States without Service Contract Prevailing Wage Laws	33.1%	5.9%

Source(s): Authors’ analysis of 2017, 2018, and 2019 data from the American Community Survey (1-Year Estimates) by the U.S. Census Bureau (Ruggles et al., 2021).

This report also explores outcomes for Black or African American, Hispanic or Latinx, and other non-White racial and ethnic groups (Figure 3). In the full U.S. workforce, 62 percent of workers are White (non-Hispanic or Latinx) and 38 percent are not. By contrast, 53 percent of all custodians are Black, Hispanic, and People of Color. About two-thirds of all custodians are Black or African American, Hispanic or Latinx, or from another non-White racial or ethnic group in states with service contract prevailing wage laws (65 percent) and about half are in states without the policy (48 percent). Since these individuals are disproportionately represented in custodial service and cleaning occupations, it is important to evaluate whether service contract prevailing wage laws have differential impacts by racial and ethnic background.

**FIGURE 3: SHARE OF WORKERS WHO ARE NON-WHITE BY STATE PREVAILING WAGE STATUS, 2017-2019**

Share of Workers who are Black, Hispanic, and From Other Non-White Groups		
Geography	All Workers	Custodians Only
<b>United States</b>	<b>37.9%</b>	<b>53.3%</b>
States with Service Contract Prevailing Wage Laws	46.6%	64.8%
States without Service Contract Prevailing Wage Laws	33.9%	48.1%

Source(s): Authors’ analysis of 2017, 2018, and 2019 data from the American Community Survey (1-Year Estimates) by the U.S. Census Bureau (Ruggles et al., 2021).

There are limitations to this report. First, the *American Community Survey* is based on household survey responses rather than administrative payroll records, so there may be potential for human error. Second, there are concerns associated with all regression models, such as lurking and unobserved variables. Finally, the analyses yield *average* effects for the custodial service workforce in states with service contract prevailing wage laws. Only a portion of these custodians work for firms with these types of contracts with state agencies. Because they are average effects for the entire workforce, the results include impacts on directly-affected custodians as well as spillover effects for other custodians in the local labor market.

## Service Contract Prevailing Wages Boost Incomes for Custodians

Workers employed as custodians earn significantly more in states that have service contract prevailing wage laws than their peers in states without the policy (Figure 4). According to data from the *American Community Survey*, custodians in the eight states that have service contract prevailing wage laws plus the District of Columbia earn about \$30,000 annually. Those in states without the laws have incomes of about \$24,800 per year. Custodians thus earn 21 percent more in states with service contract prevailing wage laws. Impacts are even larger for custodians who are Black or African American, Latinx or Hispanic, or from another non-White group. While White custodians in states with service contract prevailing wages have 20 percent higher incomes than their White counterparts in states without the policy, the difference is 26 percent higher incomes for People of Color employed as custodians. In particular, Black or African American custodians earn 39 percent higher incomes in states with service contract prevailing wage laws (about \$31,400 annually) than

their counterparts in states without the policy (about \$22,600 annually). Finally, only 10 percent of custodians in states with service contract prevailing wage laws live in households that earn less than the federal poverty line, compared to more than 12 percent in states without the policy—a difference of 2 percent.

**FIGURE 4: WAGE AND SALARY INCOME OF CUSTODIANS BY STATE PREVAILING WAGE STATUS AND RACE, 2017-2019**

Average Inflation-Adjusted Annual Income from Wages and Salaries	States with Service Contract Prevailing Wages	States without Service Contract Prevailing Wages	Prevailing Wage State Difference (Percent or Percentage Point)
<b>All Custodians</b>	<b>\$30,040</b>	<b>\$24,791</b>	<b>+21.2%</b>
White, non-Hispanic Custodians	\$31,891	\$26,555	+20.1%
Non-White Custodians	\$28,979	\$23,050	+25.7%
Black or African American Custodians	\$31,412	\$22,610	+38.9%
Hispanic or Latinx Custodians	\$28,214	\$23,005	+22.6%
<b>Share of All Custodians Below the Poverty Line</b>	<b>10.4%</b>	<b>12.7%</b>	<b>+2.3%</b>

Source(s): Authors' analysis of 2017, 2018, and 2019 data from the American Community Survey (1-Year Estimates) by the U.S. Census Bureau (Ruggles et al., 2021).

Although the average worker in a custodial occupation earns 21 percent more in a state with a service contract prevailing wage law, it is highly unlikely that the service contract prevailing wage law is specifically and directly responsible for the entire 21 percent difference. Other public policies, such as higher minimum wages, may be contributing factors. Similarly, observable characteristics like age, gender identification, urban status, citizenship and immigration status, level of educational attainment, and weeks worked per year may influence annual earnings. Figure 5 uses regression analyses to control for these factors and determine the independent impact of state-level service contract prevailing wage laws on custodians.

**FIGURE 5: EFFECT OF PREVAILING WAGE LAWS ON ANNUAL INCOMES OF CUSTODIANS, 2017-2019**

Effect on Inflation-Adjusted Annual Incomes	Model: All Workers	Model: Only Workers without Bachelor's Degrees
<i>Impacts on Custodians Only</i>		
<b>Impact of Service Contract Prevailing Wages</b>	<b>+6.3%</b>	<b>+9.5%</b>
<i>Impacts on All Workers, Including Custodians</i>		
States with Service Contract Prevailing Wages	+7.5%	+3.9%
A 10% Increase in the Adult Minimum Wage	+1.4%	+1.6%
A "Right-to-Work" Law	-1.0%	-1.3%

Source(s): Authors' analysis of 2017, 2018, and 2019 data from the American Community Survey (1-Year Estimates) by the U.S. Census Bureau (Ruggles et al., 2021). \*Notes: All results are statistically significant unless noted by "No Effect." All results are converted to percent changes using correct adjustments (Kennedy, 1981; IDRE, 2021). For regression results, see Table A in the Appendix.

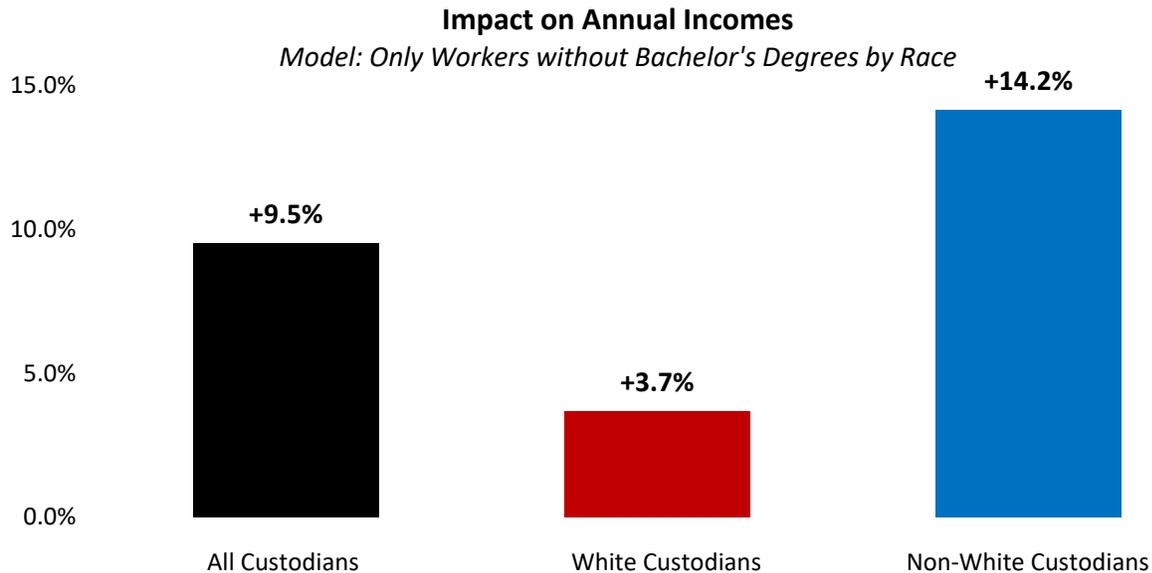
After accounting for other factors, state-level service contract prevailing wage laws boost the annual incomes of custodians by between 6 percent and 10 percent (Figure 5).<sup>2</sup> The first analysis in Figure 5 explores impacts for custodians relative to all other workers in the U.S. economy. The second analysis looks only at custodians without bachelor's degrees and contrasts them with all other workers without bachelor's degrees. Both analyses find that states with service contract prevailing wage laws have higher incomes for all workers, not

<sup>2</sup> All regression outputs throughout this report are converted to percent changes using correct adjustments to interpret natural logarithms (Kennedy, 1981; IDRE, 2021). For example, the coefficients for the interaction term between service contract prevailing wage law and custodians (Mini-SCA x Custodian) are 0.0612 for Model 1 and 0.0910 for Model 2. The correct interpretations of these results are  $e^{(\text{coefficient})} - 1$  or  $e^{0.0612} - 1 = 6.31\%$  and  $e^{0.0910} - 1 = 9.52\%$ . For expanded regression results, see the Appendix.

just custodians. This is due to both labor market dynamics unique to those states as well as public policies. In particular, they are more likely to have higher minimum wages and to not have so-called “right-to-work” laws that weaken collective bargaining units (Manzo & Bruno, 2021b; Hogler et al., 2004; Davis & Huston, 1993). The results show that a 10 percent hike in the state’s adult minimum wage is statistically associated with a 1 percent to 2 percent increase in average annual incomes for custodians, while a “right-to-work” law reduces annual incomes by about 1 percent. State-level service contract prevailing wages, on the other hand, increase annual incomes for custodians by 6 percent when comparing custodians to all workers and by 10 percent when conducting a more apples-to-apples comparison and focusing only on American workers without bachelor’s degrees. Both findings are significant at the 99-percent level of statistical confidence.

Service contract prevailing wage laws have the largest impacts on custodians who are Black or African American, Hispanic or Latinx, or from other non-White racial and ethnic groups (Figure 6). While the analysis of U.S. workers without bachelor’s degrees finds that service contract prevailing wage laws increase incomes for custodians by 10 percent, a modified version that explores differential impacts by race reveals that this effect is concentrated among non-White custodians. People of Color employed as custodians statistically earn 14 percent higher incomes due to service contract prevailing wage laws. By contrast, White custodians take home 4 percent more in annual earnings due to service contract prevailing wage laws. Accordingly, while service contract prevailing wage laws have disproportionate effects on people from underrepresented groups, the data makes clear that all blue-collar custodians—regardless of racial or ethnic background—experience positive impacts.

**FIGURE 6: EFFECT OF PREVAILING WAGE LAWS ON ANNUAL INCOMES OF CUSTODIANS BY RACE, 2017-2019**



Source(s): Authors’ analysis of 2017, 2018, and 2019 data from the American Community Survey (1-Year Estimates) by the U.S. Census Bureau (Ruggles et al., 2021). \*Notes: All results are statistically significant unless noted by “No Effect.” All results are converted to percent changes using correct adjustments (Kennedy, 1981; IDRE, 2021). For regression results, see Table A in the Appendix.

The evidence suggests that the effect of service contract prevailing wage laws on incomes is large enough that it reduces the poverty rate of custodial workers (Figure 7). After accounting for other factors, state-level service contract prevailing wage laws reduce the chances that a custodial worker will fall below the federal poverty line by between 0.5 percent and 0.7 percent. The findings indicate that service contract prevailing wage laws have no differential impacts by racial or ethnic background, reducing the chances that White, Black, and Hispanic custodians are in poverty by between 0.5 percent and 0.7 percent each. The marginal

effect is similar whether investigating all workers in the U.S. economy or just those without bachelor’s degrees, but it is only significant at the 90-percent level of statistical confidence in both instances. It is also worth noting that a 10 percent increase in the state’s adult minimum wage is statistically associated with a 2 percent to 3 percent decrease in the likelihood that an employed custodian earns an annual income below the federal poverty line, which is significant at the 99-percent level of statistical confidence and aligns with other economic research (Dube, 2017; CBO, 2019).

**FIGURE 7: EFFECT OF PREVAILING WAGE LAWS ON THE POVERTY RATE OF CUSTODIANS, 2017-2019**

Effect on the Probability of Living in a Household Below the Federal Poverty Line	Model: All Workers	Model: Only Workers without Bachelor’s Degrees
<i>Impacts on Custodians Only</i>		
Service Contract Prevailing Wages and White Workers	-0.5%	-0.7%
Service Contract Prevailing Wages and Non-White Workers	-0.5%	-0.7%
<i>Impacts on All Workers, Including Custodians</i>		
States with Service Contract Prevailing Wages	-0.1%	-0.2%
A 10% Increase in the Adult Minimum Wage	-2.2%	-3.2%
A “Right-to-Work” Law	+0.1%	No Effect

Source(s): Authors’ analysis of 2017, 2018, and 2019 data from the American Community Survey (1-Year Estimates) by the U.S. Census Bureau (Ruggles et al., 2021). \*Note: All results are statistically significant unless noted by “No Effect.” For regression results, see Table B in the Appendix.

### Service Contract Prevailing Wages Expand Health Coverage for Custodians

Workers employed as custodians are more likely to have health insurance coverage in states that have service contract prevailing wage laws (Figure 8). Fully 86 percent of the custodians in the eight states that have service contract prevailing wage laws plus the District of Columbia have health insurance plans, 5 percent more than the rate of coverage for their counterparts in the rest of the United States (82 percent). The service contract prevailing wage difference in health insurance coverage is 4 percent higher among White custodians and 9 percent higher among all other custodians, including 7 percent higher for Black or African American custodians and 14 percent higher for Hispanic or Latinx custodians.

**FIGURE 8: HEALTH INSURANCE COVERAGE OF CUSTODIANS BY STATE PREVAILING WAGE STATUS AND RACE, 2017-2019**

Health Insurance Coverage Rate	States with Service Contract Prevailing Wages	States without Service Contract Prevailing Wages	Prevailing Wage State Difference (Percentage Point)
<b>All Custodians</b>	<b>86.4%</b>	<b>81.6%</b>	<b>+4.9%</b>
White, non-Hispanic Custodians	92.9%	88.6%	+4.3%
Non-White Custodians	82.9%	74.0%	+8.9%
Black or African American Custodians	91.0%	83.5%	+7.5%
Hispanic or Latinx Custodians	79.3%	65.3%	+13.9%

Source(s): Authors’ analysis of 2017, 2018, and 2019 data from the American Community Survey (1-Year Estimates) by the U.S. Census Bureau (Ruggles et al., 2021). Differences may be within ±0.1% due to rounding.

After accounting for other factors, state-level service contract prevailing wage laws expand overall health insurance coverage for custodians (Figure 9). The analyses find that states with service contract prevailing wage laws have higher rates of health insurance coverage for all workers and that states with so-called “right-to-work” laws have 3 percent to 4 percent fewer workers with health insurance coverage. Independent from

these factors, state-level service contract prevailing wages are statistically associated with a 1 percent increase in the probability that custodians have health insurance coverage when comparing them to all workers and a 2 percent increase when focusing only on American workers without bachelor’s degrees. Both findings are significant at the 99-percent level of statistical confidence.

**FIGURE 9: EFFECT OF PREVAILING WAGE LAWS ON HEALTH INSURANCE COVERAGE OF CUSTODIANS, 2017-2019**

Effect on the Probability of Having Health Insurance Coverage	Model: All Workers	Model: Only Workers without Bachelor’s Degrees
<i>Impacts on Custodians Only</i>		
<b>Impact of Service Contract Prevailing Wages</b>	<b>+1.4%</b>	<b>+1.5%</b>
<i>Impacts on All Workers, Including Custodians</i>		
States with Service Contract Prevailing Wages	+1.2%	+1.7%
A 10% Increase in the Adult Minimum Wage	+0.6%	+0.8%
A “Right-to-Work” Law	-2.6%	-3.5%

Source(s): Authors’ analysis of 2017, 2018, and 2019 data from the American Community Survey (1-Year Estimates) by the U.S. Census Bureau (Ruggles et al., 2021). \*Note: All results are statistically significant unless noted by “No Effect.” For regression results, see Table C in the Appendix.

The finding that service contract prevailing wage laws improve the overall rate of health insurance coverage is due entirely to an increase in employer-provided health insurance plans (Figure 10). After accounting for state labor policies, demographics, urban status, levels of educational attainment, and various work factors, state-level service contract prevailing wages increase the probability that custodians have access to employer-provided health insurance plans by between 2 percent and 4 percent. These effects are significant at the 99-percent level of statistical confidence. Among custodians without bachelor’s degrees, service contract prevailing wage laws increase the share with employer-provided health insurance coverage by 4 percent but only increase the overall rate of health insurance coverage by 2 percent. The 2 percent gap implies a drop in other types of health insurance coverage, such as Medicaid and Affordable Care Act plans subsidized by the federal government through marketplace exchanges.

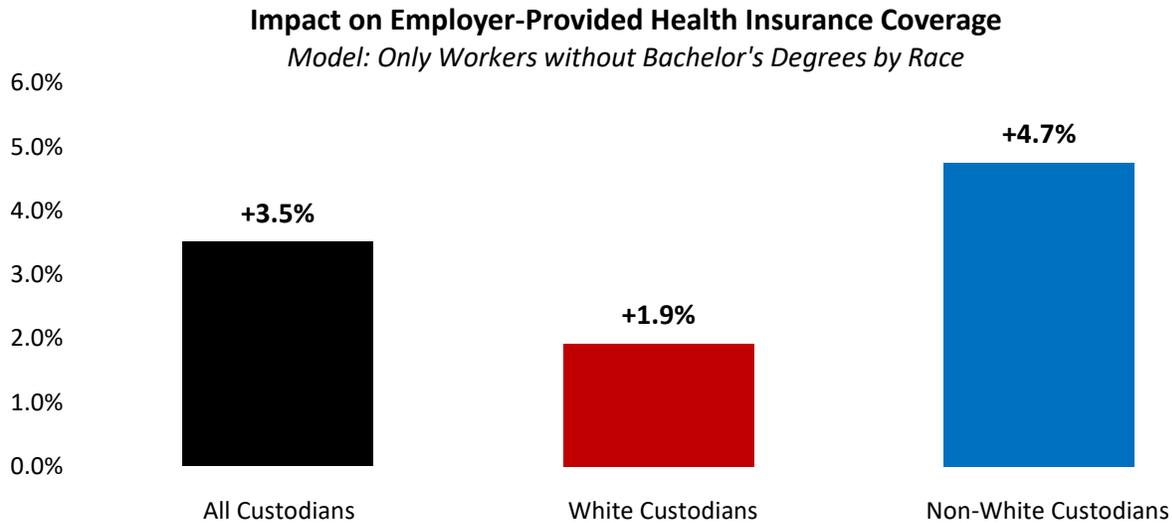
**FIGURE 10: EFFECT OF PREVAILING WAGE LAWS ON EMPLOYER-PROVIDED HEALTH INSURANCE OF CUSTODIANS, 2017-2019**

Effect on the Probability of Having Employer-Provided Health Insurance	Model: All Workers	Model: Only Workers without Bachelor’s Degrees
<i>Impacts on Custodians Only</i>		
<b>Impact of Service Contract Prevailing Wages</b>	<b>+2.4%</b>	<b>+3.5%</b>
<i>Impacts on All Workers, Including Custodians</i>		
States with Service Contract Prevailing Wages	+0.3%	No Effect
A 10% Increase in the Adult Minimum Wage	-0.2%	-0.2%
A “Right-to-Work” Law	-2.5%	-2.6%

Source(s): Authors’ analysis of 2017, 2018, and 2019 data from the American Community Survey (1-Year Estimates) by the U.S. Census Bureau (Ruggles et al., 2021). \*Note: All results are statistically significant unless noted by “No Effect.” For regression results, see Table D in the Appendix.

Gains in access to employer-provided health insurance plans are greatest for non-White custodians (Figure 11). Service contract prevailing wage laws increase employer-provided health insurance coverage rates by 5 percent for People of Color employed as custodians. In comparison, any given White custodian is 2 percent more likely to have an employer-provided health insurance plan due to service contract prevailing wages. Once again, the data reveal that prevailing wage policies benefit all workers regardless of racial or ethnic background, but that they produce the highest value to historically disadvantaged communities.

**FIGURE 11: EFFECT OF PREVAILING WAGES ON EMPLOYER-PROVIDED HEALTH INSURANCE BY RACE, 2017-2019**



Source(s): Authors' analysis of 2017, 2018, and 2019 data from the American Community Survey (1-Year Estimates) by the U.S. Census Bureau (Ruggles et al., 2021). \*Note: All results are statistically significant unless noted by "No Effect." For regression results, see Table D in the Appendix.

### Service Contract Prevailing Wages Have Offsetting Effects on Employment Outcomes

This section explores the impact of state-level service contract prevailing wage laws on employment outcomes for American custodial workers. Specifically, it assesses the impact of the laws on average hours worked, the probability that a custodian will work full-time, and the probability that any given worker will be employed as a custodian. The results all control for state labor policies, demographic characteristics, urban status, and level of educational attainment. The analyses on average hours worked per week and full-time status also take various work factors into account, such as whether the worker was employed in the public or private sector.

**FIGURE 12: EFFECT OF PREVAILING WAGE LAWS ON WEEKLY HOURS WORKED BY CUSTODIANS, 2017-2019**

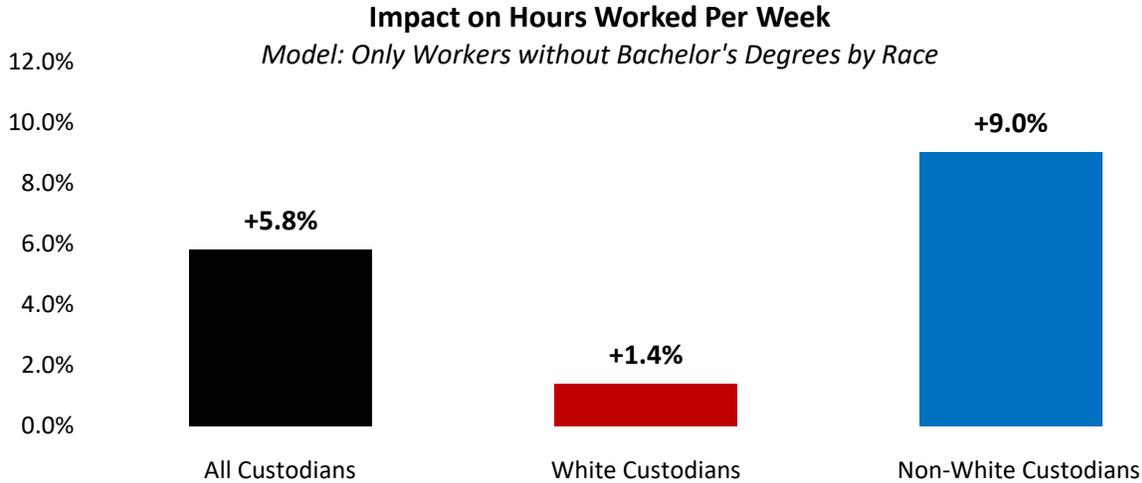
Effect on Average Hours Worked Per Week	Model: All Workers	Model: Only Workers without Bachelor's Degrees
<i>Impacts on Custodians Only</i>		
<b>Impact of Service Contract Prevailing Wages</b>	<b>+5.2%</b>	<b>+5.8%</b>
<i>Impacts on All Workers, Including Custodians</i>		
States with Service Contract Prevailing Wages	-0.7%	-1.3%
A 10% Increase in the Adult Minimum Wage	-0.2%	-0.3%
A "Right-to-Work" Law	+1.3%	+1.4%

Source(s): Authors' analysis of 2017, 2018, and 2019 data from the American Community Survey (1-Year Estimates) by the U.S. Census Bureau (Ruggles et al., 2021). \*Notes: All results are statistically significant unless noted by "No Effect." All results are converted to percent changes using correct adjustments (Kennedy, 1981; IDRE, 2021). For regression results, see Table E in the Appendix.

After accounting for other observable factors, service contract prevailing wage laws increase the weekly hours worked by custodians by between 5 percent and 6 percent, on average (Figure 12). These findings are significant at the 99-percent level of statistical confidence. Once again, the data demonstrate disparate impacts by racial and ethnic background. Service contract prevailing wage laws increase the average hours worked for Black or African American, Hispanic or Latinx, and other non-White individuals who are custodians

by 9 percent while only improving hours worked by their White counterparts by about 1 percent (Figure 13). The results are significant at the 99-percent level of statistical confidence for non-White workers and only at the 90-percent level of statistical confidence for White workers.

**FIGURE 13: EFFECT OF PREVAILING WAGE LAWS ON WEEKLY HOURS WORKED BY CUSTODIANS BY RACE, 2017-2019**



Source(s): Authors' analysis of 2017, 2018, and 2019 data from the American Community Survey (1-Year Estimates) by the U.S. Census Bureau (Ruggles et al., 2021). \*Notes: All results are statistically significant unless noted by "No Effect." All results are converted to percent changes using correct adjustments (Kennedy, 1981; IDRE, 2021). For regression results, see Table E in the Appendix.

The increase in weekly hours is enough to turn many part-time jobs into full-time jobs (Figure 14). Between 2017 and 2019, more than 65 percent of custodians in states with service contract prevailing wage laws worked full-time, or at least 35 hours per week over at least 48 weeks during the year. In states without the policy, fewer than 61 percent of custodians worked full-time. In states with service contract prevailing wage laws, White custodians are 4 percent more likely to be working full-time, Black custodians are 4 percent more likely to be working full-time, and Latinx custodians are 2 percent more likely to be working full-time. These differences indicate that service contract prevailing wage laws promote job stability for all custodians regardless of racial or ethnic background.

**FIGURE 14: SHARE OF CUSTODIANS EMPLOYED FULL-TIME BY STATE PREVAILING WAGE STATUS AND RACE, 2017-2019**

Share of Custodians Working at Least 35 Hours Per Week for at Least 48 Weeks Per Year	States with Service Contract Prevailing Wages	States without Service Contract Prevailing Wages	Prevailing Wage State Difference (Percentage Point)
<b>All Custodians</b>	<b>65.4%</b>	<b>60.8%</b>	<b>+4.7%</b>
White, non-Hispanic Custodians	61.6%	57.3%	+4.3%
Non-White Custodians	67.5%	64.6%	+3.0%
Black or African American Custodians	67.1%	62.9%	+4.2%
Hispanic or Latinx Custodians	68.6%	66.9%	+1.7%

Source(s): Authors' analysis of 2017, 2018, and 2019 data from the American Community Survey (1-Year Estimates) by the U.S. Census Bureau (Ruggles et al., 2021). Differences may be within  $\pm 0.1\%$  due to rounding. NOTE: The average difference of 4.7% exceeds the White difference (4.3%) and Non-White difference (3.0%). This is not an error, but rather an example of "Simpson's Paradox" when data are aggregated compared to when they are separated into subgroups (Kohersen, 2018).

In fact, service contract prevailing wage laws statistically lift the share of custodians working full-time, or at least 35 hours per week for at least 48 weeks per year (Figure 15). On average, service contract prevailing wage laws are associated with a 3 percent increase in the share of White custodians working full-time and a

5 percent increase in the share of People of Color employed as custodians working full-time when all workers are included in the analysis. Service contract prevailing wage laws are associated with a 4 percent increase in the share of all custodians working full-time, regardless of racial or ethnic background, when the analysis is limited to only workers without bachelor’s degrees. The findings are significant at the 99-percent level of statistical confidence.

**FIGURE 15: EFFECT OF PREVAILING WAGE ON THE PROBABILITY OF BEING A FULL-TIME CUSTODIAN BY RACE, 2017-2019**

Effect on the Probability of Being Employed Full-Time in a Custodial Occupation	Model: All Workers	Model: Only Workers without Bachelor’s Degrees
Service Contract Prevailing Wages and White Workers	+2.9%	+3.7%
Service Contract Prevailing Wages and Non-White Workers	+4.8%	+3.7%
Impact of Being a Person of Color	No Effect	+1.9%
A 10% Increase in the Adult Minimum Wage	-3.6%	-2.8%
A “Right-to-Work” Law	+1.2%	+1.5%

Source(s): Authors’ analysis of 2017, 2018, and 2019 data from the American Community Survey (1-Year Estimates) by the U.S. Census Bureau (Ruggles et al., 2021). \*Notes: All results are statistically significant unless noted by “No Effect.” Results are determined by dividing the effect of each variable on the probability of a custodian working full-time (i.e., the coefficient) by the overall likelihood of any given worker being employed full-time (i.e., the constant term) in each analysis. For regression results, see Table F in the Appendix.

Conversely, service contract prevailing wage laws tend to reduce the overall employment of custodians (Figure 16). After accounting for other observable factors (including the fact that Black, Latinx, and other non-White individuals are about 34 percent more likely to be custodians), service contract prevailing wage laws are statistically associated with a 7 percent decrease in the share of workers who are employed as custodians. This effect is significant at the 99-percent level of statistical confidence. There is no disparate impact by race; both White workers and non-White workers alike are 7 percent less likely to be custodians due to service contract prevailing wage laws. However, differential effects by racial and ethnic background are suggested in the analysis that looks exclusively at workers without bachelor’s degrees, with service contract prevailing wage laws reducing the share of White workers employed as custodians by about 5 percent and the share of Black, Latinx, and other non-White individuals who work as custodians by about 9 percent. However, the result for White workers is significant at the 95-percent level of statistical confidence and the result for non-White workers is only significant at the 90-percent level of statistical confidence.

**FIGURE 16: EFFECT OF PREVAILING WAGE LAWS ON THE PROBABILITY OF BEING A CUSTODIAN BY RACE, 2017-2019**

Effect on the Probability of Being Employed in a Custodial Occupation	Model: All Workers	Model: Only Workers without Bachelor’s Degrees
Service Contract Prevailing Wages and White Workers	-7.2%	-4.6%
Service Contract Prevailing Wages and Non-White Workers	-7.2%	-8.6%
Impact of Being a Person of Color	+34.6%	+33.7%
A 10% Increase in the Adult Minimum Wage	-1.3%	-1.3%
A “Right-to-Work” Law	-11.1%	-11.7%

Source(s): Authors’ analysis of 2017, 2018, and 2019 data from the American Community Survey (1-Year Estimates) by the U.S. Census Bureau (Ruggles et al., 2021). \*Notes: All results are statistically significant unless noted by “No Effect.” Results are determined by dividing the effect of each variable on the probability of being a custodian (i.e., the coefficient) by the overall likelihood of any given worker being employed as a custodian (i.e., the constant term) in each analysis. For regression results, see Table G in the Appendix.

Service contract prevailing wages thus have offsetting effects on employment (Figure 12, Figure 15, and Figure 16). They reduce custodians’ share of total employment by about 7 percent but lift hours worked by custodians by as much as 6 percent. In states with service contract prevailing wage laws, there are fewer part-time custodians and more full-time custodians. Other labor market policies also give off mixed signals.

For example, a so-called “right-to-work” law is associated with 1 percent more hours of work for custodians but an 11 percent to 12 percent decrease in custodians’ share of total employment. Meanwhile, a 10 percent increase in the minimum wage is associated with very modest disemployment effects—less than a 0.3 percent decrease in hours worked per week and about a 1 percent decrease in the share of workers who are custodians.

### Service Contract Prevailing Wages Improve Outcomes for Custodians in Illinois

As previously mentioned, the Illinois Procurement Code establishes prevailing wage and benefits rates to service employees performing work on state contracts. Custodians, security guards, food service workers, and printers are covered by the Illinois Procurement Code. As an example, a custodian performing contract work at a state building in Cook County, which includes the City of Chicago, in 2021 earned \$15.80 per hour in their first year and \$19.20 per hour after four years *plus* \$923.87 per month in employer-provided health insurance coverage and \$52.00 per week in pension benefits (IDOL, 2021). An experienced custodian employed full-time at 40 hours per week and 52 weeks per year would earned about \$39,900 in wages, nearly \$11,100 in health benefits, and about \$2,700 in pension benefits at a state-owned building in Cook County.

Custodians in Illinois have better economic outcomes than their counterparts in states without service contract prevailing wage laws (Figure 17). On average, the 105,000 workers employed as custodians in Illinois earn about \$28,200 in annual wages, 14 percent more than those in states without service contract prevailing wage laws (\$24,900 per year). Additionally, 85 percent of custodians in Illinois have health insurance coverage, which is 3 percent higher than the coverage rate in states without the policy (82 percent). The share of custodians employed full-time in Illinois is 64 percent, which is also 3 percent higher than the equivalent share in states without the policy. Finally, while 10 percent of Illinois custodians earn incomes that place them below the federal poverty line, the poverty rate is nearly 13 percent for custodians in states without service contract prevailing wages—a 3 percent difference.

**FIGURE 17: WAGE AND SALARY INCOME OF CUSTODIANS IN ILLINOIS VS. SELECTED STATES, 2017-2019**

Selected Labor Market Outcomes for Custodians	State of Illinois	States without Service Contract Prevailing Wages	Illinois Difference (Percent or Percentage Point)
Inflation-Adjusted Income from Wages	\$28,205	\$24,791	+13.8%
Health Insurance Coverage Rate	84.8%	81.6%	+3.2%
Share of Custodians Working Full-Time*	64.0%	60.8%	+3.2%
Share of Custodians Below Poverty Line	10.1%	12.7%	-2.6%
Total Number of Custodians	104,776	1,704,195	--

Source(s): Authors’ analysis of 2017, 2018, and 2019 data from the American Community Survey (1-Year Estimates) by the U.S. Census Bureau (Ruggles et al., 2021). \*”Full-time” employment is defined in this report as those working at least 35 hours per week for at least 48 weeks per year. Differences may be within ±0.1% due to rounding.

Similar to the rest of the United States, custodians in Illinois are disproportionately Black or African American and Hispanic or Latinx (Figure 18). While the overall workforce in Illinois is 64 percent White, 12 percent Black or African American, and 17 percent Hispanic or Latinx, only about half of the custodians in the state are White and half are non-White. Illinois’ custodians are 51 percent White, 16 percent Black or African American, and 29 percent Hispanic or Latinx.

**FIGURE 18: RACIAL AND ETHNIC BACKGROUND OF WORKERS IN ILLINOIS, CUSTODIANS VS. ALL WORKERS, 2017-2019**

Racial or Ethnic Background of Workers in Illinois	Custodians	Total Workforce	Custodian Difference (Percentage Point)
White, non-Hispanic	51.3%	63.7%	-12.4%
Black or African American	15.8%	11.7%	+4.1%
Hispanic or Latinx	29.5%	16.8%	+12.7%

Source(s): Authors' analysis of 2017, 2018, and 2019 data from the American Community Survey (1-Year Estimates) by the U.S. Census Bureau (Ruggles et al., 2021). Differences may be within ±0.1% due to rounding.

The data suggest that prevailing wages improve labor market outcomes for all custodians in Illinois, but that Black and Hispanic custodians experience the largest impacts (Figure 19). Compared to their counterparts in states without service contract prevailing wages, White custodians earn 13 percent higher incomes, are 2 percent more likely to have health insurance coverage, and are 2 percent less likely to fall below the poverty line. By contrast, Black and African American custodians earn 15 percent higher incomes, are 6 percent more likely to have health insurance coverage, and are 3 percent less likely to fall below the poverty line in Illinois. Hispanic and Latinx custodians in Illinois earn 18 percent more, are 7 percent more likely to have health insurance coverage, and are 5 percent less likely to fall below the poverty line.

**FIGURE 19: LABOR MARKET OUTCOMES OF CUSTODIANS IN ILLINOIS VS. SELECTED STATES BY RACE, 2017-2019**

Selected Labor Market Outcomes for Custodians	State of Illinois	States without Service Contract Prevailing Wages	Illinois Difference (Percent or Percentage Point)
<u>Inflation-Adjusted Income from Wages</u>			
White, non-Hispanic Custodians	\$30,071	\$26,555	+13.2%
Black and African American Custodians	\$26,304	\$23,050	+14.1%
Hispanic and Latinx Custodians	\$25,988	\$22,610	+14.9%
<u>Health Insurance Coverage Rate</u>			
White, non-Hispanic Custodians	90.2%	88.6%	+1.6%
Black and African American Custodians	89.7%	83.5%	+6.2%
Hispanic and Latinx Custodians	72.6%	65.3%	+7.3%
<u>Share of Workers Below Poverty Line</u>			
White, non-Hispanic Custodians	8.2%	10.7%	-2.4%
Black and African American Custodians	12.7%	15.5%	-2.8%
Hispanic and Latinx Custodians	9.5%	14.7%	-5.2%

Source(s): Authors' analysis of 2017, 2018, and 2019 data from the American Community Survey (1-Year Estimates) by the U.S. Census Bureau (Ruggles et al., 2021). Differences may be within ±0.1% due to rounding.

## Conclusion

By stabilizing the wage floor, state-level service contract prevailing wage laws improve labor market outcomes for blue-collar custodians. The policies boost annual incomes for custodians by as much as 10 percent, increase employer-provided health insurance coverage by as much as 4 percent, and have the largest positive impacts on Black or African American, Hispanic or Latinx, and other non-White workers—reducing both racial inequality and working poverty. At the same time, service contract prevailing wage laws have offsetting effects on employment outcomes, reducing the likelihood that an individual works in a custodian occupation but statistically increasing the average hours worked by those who are employed as custodians. The increase in hours worked is large enough to turn many part-time jobs into full-time jobs for

custodians. These improvements in job stability and worker retention may help address labor shortages, ensuring that businesses have enough workers to submit bids and perform quality work on government contracts. The data also reveal that service contract prevailing wages improve labor market outcomes for all custodians in Illinois, with disproportionate impacts on Black and Hispanic custodians. While more economic research is needed, specifically on the direct impacts of the federal McNamara-O’Hara Service Contract Act, the data indicate that service sector prevailing wage laws deliver outcomes that are analogous to construction industry prevailing wage laws. A prevailing wage law is an effective way to improve employment conditions and living standards for workers and the labor market competitiveness of employers in service sectors of the American economy.

## Sources

- Adams, Scott and David Neumark. (2005). *The Effects of Living Wage Laws: Evidence from Failed and Derailed Living Wage Campaigns*. University of Wisconsin – Milwaukee; Public Policy Institute of California.
- Alaska Department of Labor and Workforce Development (AK DLWD). (2020). *Laborers' and Mechanics' Minimum Rates of Pay: Effective September 1, 2020 Issue 41*. Wage and Hour Administration.
- Allegretto, Sylvia and Michael Reich. (2016). *Are Local Minimum Wages Absorbed by Price Increases? Estimates from Internet-based Restaurant Menus*. University of California, Berkeley.
- Asfaw, Abay; Roger Rosa; and Regina Pana-Cryan. (2017). "Potential Economic Benefits of Paid Sick Leave in Reducing Absenteeism Related to the Spread of Influenza-Like Illness." *Journal of Occupational and Environmental Medicine*, 59(9): 822-829.
- Balistreri, Edward; Christine McDaniel; and Eina Vivian Wong. (2003). "An Estimation of U.S. Industry-Level Capital-Labor Substitution Elasticities: Support for Cobb-Douglas," *The North American Journal of Economics and Finance*, 14: 343-356.
- Belman, Dale and Paul Wolfson. (2014). *What Does the Minimum Wage Do?* Kalamazoo, MI: W.E. Upjohn Institute for Employment Research. <https://doi.org/10.17848/9780880994583>
- Bilginsoy, Cihan. (2003). "Wage Regulation and Training: The Impact of State Prevailing Wage Laws on Apprenticeship," *The Economics of Prevailing Wage Laws*. Editors: Hamid Azari-Rad, Peter Philips, and Mark Prus. 149-168.
- Blankenau, William and Steven Cassou. (2011). "Industry Differences in the Elasticity of Substitution and Rate of Biased Technological Change between Skilled and Unskilled Labor," *Applied Economics*, 43: 3129-3142.
- Boushey, Heather and Sara Jane Glynn. (2012). *There Are Significant Business Costs to Replacing Employees*. Center for American Progress.
- Brenner, Mark. (2004). *The Economic Impact of Living Wage Ordinances*. University of Massachusetts Amherst.
- Buss, James and Arthur Romeo. (2006). "The Changing Employment Situation in Some Cities with Living Wage Ordinances." *Review of Social Economy*, 64(3): 349-367.
- Buszkiewicz, James; Cathy House; Anju Aggarwal; Mark Long; Adam Drewnowski; and Jennifer Otten. (2019). "The Impact of a City-Level Minimum Wage Policy on Supermarket Food Prices by Food Quality Metrics: A Two-Year Follow Up Study." *International Journal of Environmental Research and Public Health*, 16(1): 102.
- California Legislative Information (CLI). (2021). (a). "Government Code – Gov: Title 2. Government of the State of California [8000 – 22980]." State of California.
- California Legislative Information (CLI). (2021). (b). "Public Contract Code – PCC: Division 2. General Provisions [1100 – 22355]." State of California.
- Cengiz, Doruk; Arindrajit Dube; Attila Lindner; and David Zentler-Munro. (2021). "Seeing Beyond the Trees: Using Machine Learning to Estimate the Impact of Minimum Wages on Labor Market Outcomes." OM Partners; University of Massachusetts Amherst; University College London.
- Cengiz, Doruk; Arindrajit Dube; Attila Lindner; and Ben Zipperer. (2019). *The Effect of Minimum Wages on Low-Wage Jobs: Evidence from the United States Using a Bunching Estimator*. University of Massachusetts Amherst; University College London; Economic Policy Institute.

- Census. (2021). "Census Bureau Announces Changes for 2020 American Community Survey 1-Year Estimates." U.S. Census Bureau.
- Census. (2017). "Construction: Geographic Area Series: Detailed." *Economic Census of Construction*. U.S. Census Bureau.
- Census. (2012). "Summary Series: General Summary: Value of Construction Work for Location of Construction Work by Subsectors and Industries for U.S. and States: 2012." *Economic Census of Construction*. U.S. Census Bureau.
- Charpentier, Will. (2021). "Safety Hazard Analysis of Custodial Jobs." *Chron*.
- Congressional Budget Office (CBO). (2021). *Cost Estimate: H.R. 4350, National Defense Authorization Act for Fiscal Year 2022 (As reported by the House Committee on Armed Services on September 10, 2021)*. U.S. Congress.
- Congressional Budget Office (CBO). (2019). *The Effects on Employment and Family Income of Increasing the Federal Minimum Wage*. U.S. Congress.
- Connecticut Department of Labor (CT DOL). (1999). "Reference Guide – Standard Wage Rates for Certain Service Workers: Summary of Connecticut's Service Worker Law Statute 31-57f." State of Connecticut.
- Davis, Joe and John Huston. (1993). "Right-to-Work Laws and Free Riding." *Economic Inquiry* 31:1, 52-58.
- Department of Defense (DOD). (2021). "The Department of Defense Releases the President's Fiscal Year 2022 Defense Budget."
- 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*. University of Illinois at Urbana-Champaign; Illinois Economic Policy Institute; Michigan State University.
- Dube, Arindrajit. (2017). *Minimum Wages and the Distribution of Family Incomes*. University of Massachusetts Amherst.
- Dube, Arindrajit; T. William Lester; and Michael Reich. (2011). *Do Frictions Matter in the Labor Market? Accessions, Separations and Minimum Wage Effects*. University of Massachusetts– Amherst; University of North Carolina– Chapel Hill; University of California, Berkeley.
- Duncan, Kevin. (2016). *The Wage Differential Method: Promising Construction Costs Savings with the Repeal or Weakening of Prevailing Wage Laws that Cannot Be Delivered*. Colorado State University-Pueblo.
- Duncan, Kevin. (2015). "The Effect of Federal Davis-Bacon and Disadvantaged Business Enterprise Regulations on Highway Maintenance Costs," *Industrial and Labor Relations Review*, 68(1): 212-237.
- Duncan, Kevin. (2011). *Economic, Fiscal and Social Impacts of Prevailing Wage in San Jose, California*. Working Partnerships USA; Colorado State University-Pueblo.
- Duncan, Kevin and Alex Lantsberg. (2015). *How Weakening Wisconsin's Prevailing Wage Policy Would Affect Public Construction Costs and Economic Activity*. Colorado State University-Pueblo and Smart Cities Prevail.
- Duncan, Kevin and Russell Ormiston. (2017). *Prevailing Wage Laws: What Do We Know?* Institute for Construction Economics Research (ICERES).
- Duncan, Kevin and C. Jeffrey Waddoups. (2020). "Unintended Consequences of Nevada's Ninety-Percent Prevailing Wage Rule," *Labor Studies Journal*, 45(2): 1-20.

- Duncan, Kevin; Peter Philips; and Frank Manzo IV. (2017). *Building America with Prevailing Wage: The Davis-Bacon Act Delivers Good Middle-Class Jobs, a Stronger Economy, and the Best Value for U.S. Taxpayers*. Colorado State University-Pueblo; University of Utah; Illinois Economic Policy Institute.
- Economic Policy Institute. (2021). "Minimum Wage Tracker."
- Fairris, David. (2003). "The Impact of Living Wages on Employers: A Control Group Analysis of the Los Angeles Ordinance." University of California, Riverside.
- Fairris, David; David Runsten; Carolina Briones; and Jessica Goodheart. (2015). *Examining The Evidence: The Impact of the Los Angeles Living Wage Ordinance on Workers and Businesses*. University of California, Riverside; University of California, Los Angeles; Los Angeles Alliance for a New Economy.
- Fenn, Ari; Zhi Li; Gabriel Pleites; Chimedlkhram Zorigtbaatar; and Peter Philips. (2018). "The Effects of Prevailing Wage Repeals on Construction Income and Benefits." *Public Works Management & Policy*, 1-19.
- FindLaw. (2021). "New York Consolidated Laws, Labor Law - LAB § 230. Definitions." Thomson Reuters.
- FindLaw. (2019). (a). "California Code, Education Code - EDC § 45103.1." Thomson Reuters.
- FindLaw. (2019). (b). "California Code, Public Contract Code - PCC § 20919.27." Thomson Reuters.
- Godøy, Anna and Michael Reich. (2019). *Minimum Wage Effects in Low-Wage Areas*. Institute for Research on Labor and Employment at the University of California, Berkeley.
- Gopalan, Radhakrishnan; Barton Hamilton; Ankit Kalda; and David Sovitch. (2018). *State Minimum Wage Changes and Employment: Evidence from One Million Hourly Wage Workers*. Washington University in St. Louis; Indiana University.
- Gould, Elise and Melat Kassa. (2021). *Low-Wage, Low-Hours Workers Were Hit Hardest in the COVID-19 Recession: The State of Working America 2020 Employment Report*. Economic Policy Institute.
- Hill, Heather. (2013). "Paid Sick Leave and Job Stability." *Work and Occupations*, 40(2): 1-26.
- Hogler, Raymond; Steven Shulman; and Stephan Weiler. (2004). "Right-to-Work Legislation, Social Capital, and Variations in State Union Density." *The Review of Regional Studies* 34, (1): 95-111.
- Illinois Department of Labor (IDOL). (2021). "Prevailing Wage Rates." Conciliation and Mediation Division.
- Institute for Digital Research and Education (IDRE). (2021). "FAQ How Do I Interpret a Regression Model When Some Variables Are Log Transformed?" University of California, Los Angeles.
- Justia. (2020). "2020 California Code: Public Utilities Code – PUC Division 1 – Regulation of Public Utilities Part 1 – Public Utilities Act: Chapter 3 – Rights and Obligations of Public Utilities Article 1 – Rates Section 465." REGULATION OF PUBLIC UTILITIES
- Kelsay, Michael. (2016). *An Economic Analysis of the Impact of Kansas Repeal of Prevailing Wage Statutes in Sedgwick County, Kansas and Wyandotte County, Kansas*. University of Missouri– Kansas City.
- Kennedy, Peter. (1981). "Estimation with Correctly Interpreted Dummy Variables in Semilogarithmic Equations." *American Economic Review*, 71(4): 801.
- Kim, Jaewhan; Chang Kuo-Liang; and Peter Philips. (2012). "The Effect of Prevailing Wage Regulations on Contractor Bid Participation and Behavior: A Comparison of Palo Alto, California with Four Nearby Prevailing Wage Municipalities," *Industrial Relations*, 51(4): 874-891.

- Koehrsen, Will. (2018). "Simpson's Paradox: How to Prove Opposite Arguments with the Same Data." Towards Data Science.
- Kuhn, Peter and Lizi Yu. (2019). *How Costly is Turnover? Evidence from Retail*. University of California, Santa Barbara.
- Lester, T. William. (2011). "The Impact of Living Wage Laws on Urban Economic Development Patterns and the Local Business Climate: Evidence From California Cities." *Economic Development Quarterly*, 25(3): 237-254.
- Li, Zhi; Chimedlkham Zorigtbaatar; Grbiel Pleité; Ari Fenn; and Peter Philips. (2019). "The Effect of Prevailing Wage Law Repeals and Enactments on Injuries and Disabilities in the Construction Industry," *Public Works Management & Policy*, 24(4): 1-17.
- MacDonald, Daniel and Eric Nilsson. (2016). *The Effects of Increasing the Minimum Wage on Prices: Analyzing the Incidence of Policy Design and Context*. Upjohn Institute for Employment Research.
- Manzo IV, Frank. (2021). *The Effects of "Federal-Aid Swap" Programs on Highway Construction Costs, Contractor Diversity, and Out-of-State Contractors: Evidence from Iowa*. Midwest Economic Policy Institute.
- Manzo IV, Frank and Robert Bruno. (2021). (a) *Protecting Workers' Rights in Illinois: Illinois Fares Better than "Right-to-Work" States on 10 Important Economic Outcomes*. Illinois Economic Policy Institute; University of Illinois at Urbana-Champaign.
- Manzo IV, Frank and Robert Bruno. (2021). (b) *Promoting Good Jobs and a Stronger Economy: How Free Collective-Bargaining States Outperform "Right-to-Work" States*. Illinois Economic Policy Institute; University of Illinois at Urbana-Champaign.
- Manzo IV, Frank and Kevin Duncan. (2018). (a). *An Examination of Minnesota's Prevailing Wage Law: Effects on Costs, Training, and Economic Development*. Midwest Economic Policy Institute; Colorado State University-Pueblo.
- Manzo IV, Frank and Kevin Duncan. (2018). (b) *The Effects of Repealing Common Construction Wage in Indiana: Impacts on Ten Construction Market Outcomes*. Midwest Economic Policy Institute; Colorado State University-Pueblo.
- Manzo, Jill; Robert Bruno; and Frank Manzo IV. (2018). *State Prevailing Wage Laws Reduce Racial Income Gaps in Construction: Impacts by Trade, 2013-2015*. Illinois Economic Policy Institute; University of Illinois at Urbana-Champaign.
- Manzo IV, Frank; Alex Lantsberg; and Kevin Duncan. (2016). *The Economic, Fiscal, and Social Impacts of State Prevailing Wage Laws: Choosing Between the High Road and the Low Road in the Construction Industry*. Illinois Economic Policy Institute; Smart Cities Prevail; Colorado State University-Pueblo.
- Manzo IV, Frank; Jill Gigstad; and Robert Bruno. (2020). (a). *Prevailing Wage and the American Dream: Impacts on Homeownership, Housing Wealth, and Property Tax Revenues*. Illinois Economic Policy Institute; University of Illinois at Urbana-Champaign.
- Manzo IV, Frank; Kevin Duncan; Jill Gigstad; and Nathaniel Goodell. (2020). (b). *The Effects of Repealing Prevailing Wage in Wisconsin: Impacts on Ten Construction Market Outcomes*. Midwest Economic Policy Institute; Colorado State University-Pueblo.

- Maryland Department of Labor (MD DOL). (2021). "Maryland's Living Wage Frequently Asked Questions (FAQs) - Living Wage for State Service Contracts." Division of Labor and Industry.
- Massachusetts Department of Labor Standards (MA DLS). (2021). "A Guide to the Prevailing Wage Law for Awarding Authorities." Commonwealth of Massachusetts.
- Montana Department of Labor and Industry (MT DLI). (2021). "Nonconstruction Services Occupations." State of Montana.
- Neumark, David. (2002). *How Living Wage Laws Affect Low-Wage Workers and Low-Income Families*. Public Policy Institute of California.
- Neumark, David and Scott Adams. (2003). "Detecting Effects of Living Wage Laws." *Industrial Relations*, 42(4): 531–564.
- Neumark, David and Scott Adams. (2000). *Do Living Wage Ordinances Reduce Urban Poverty?* Michigan State University.
- New Jersey (NJ). (2021). "Governor Murphy Signs the Healthy Terminals Act." State of New Jersey.
- New Jersey Department of Labor and Workforce Development (NJ DLWD). (2021). "State Building Service Contracts Act." State of New Jersey.
- New State Ice Co. v. Liebmann*. (1932). U.S. Supreme Court. Published online by the Cornell Law School.
- New York State Senate. (2020). "Senate Bill S6266D." New York State.
- Niedt, Christopher; Greg Ruiters; Dana Wise; and Erica Schoenberger. (1999). "The Effects of the Living Wage in Baltimore." Johns Hopkins University.
- Onsarigo, Lameck; Kevin Duncan; and Alan Atalah. (2020). "The Effect of Prevailing Wages on Building Costs, Bid Competition, and Bidder Behavior: Evidence from Ohio School Construction," *Construction Management and Economics*, 38(10): 1-17.
- Perkins, Carl. (1974). *Congressional Oversight Hearings: The Plight of the Service Worker Revisited*. Report of the Subcommittee on Labor-Management Relations of the Committee on Education and Labor. U.S. House of Representatives.
- Perkins, Carl. (1971). *The Plight of Service Workers Under Government Contracts*. Report of the Special Subcommittee on Labor of the Committee on Education and Labor. U.S. House of Representatives.
- Philips, Peter. (2014). *Kentucky's Prevailing Wage Law: An Economic Impact Analysis*. University of Utah.
- Pollin, Robert and Jeannette Wicks-Lim. (2015). *A \$15 U.S. Minimum Wage: How the Fast-Food Industry Could Adjust Without Shedding Jobs*. Political Economy Research Institute at the University of Massachusetts-Amherst.
- Reich, Michael; Peter Hall; and Ken Jacobs. (2013). *Living Wages and Economic Performance: The San Francisco Airport Model*. University of California, Berkeley.
- Reich, Michael; Sylvia Allegretto; and Anna Godøy. (2017). *Seattle's Minimum Wage Experience 2015-16*. University of California, Berkeley.
- Rubenstein, Michael. (2008). *Impact of the Maryland Living Wage*. Department of Legislative Services. State of Maryland.

- Ruggles, Steven; Sarah Flood; Sophia Foster; Ronald Goeken; Jose Pacas; Megan Schouweiler; and Matthew Sobek. (2021). IPUMS USA: Version 11.0 [dataset]. Minneapolis, MN.
- Schmitt, John. (2013). *Why Does the Minimum Wage Have No Discernible Effect on Employment?* Center for Economic and Policy Research.
- Sniderman, Mark. (1983). *Prevailing Wage Laws, the Federal Reserve, and the Service Contract Act*. Federal Reserve Bank of San Francisco.
- Stearns, Jenna and Corey White. (2018). "Can Paid Sick Leave Mandates Reduce Leave-Taking?" *Labour Economics*, 51(C): 227-246.
- Stepick, Lina and Frank Manzo IV. (2021). *The Impact of Oregon's Prevailing Wage Rate Law: Effects on Costs, Training, and Economic Development*. University of Oregon; Illinois Economic Policy Institute.
- Thompson, Jeff and Jeff Chapman. (2006). *The Economic Impact of Local Living Wages*. Economic Policy Institute.
- University of California System (UC System). (2021). "Article 5: Contracting Out." In current Contract for the Service Unit (SX) between the University of California and the American Federation of State, County, and Municipal Employees. *UCnet*.
- Wage and Hour Division (WHD). (2009). "Fact Sheet #67: The McNamara-O'Hara Service Contract Act (SCA)." U.S. Department of Labor.
- Walter, Karla and Anastasia Christman. (2021). *Service Contract Workers Deserve Good Jobs*. Center for American Progress.
- Walter, Karla; Malkie Wall; and Alex Rowell. (2020). *A How-To Guide for Strengthening State and Local Prevailing Wage Laws: Raising Standards for Government-Funded Work*. Center for American Progress.
- Wang, Kevin; Lauren Machingo; Hyunjoo Park; and Bonnie Shook-Sa. (2013). *Investigation into Possible Impact of the Service Contract Act (SCA) on NSDUH Staffing and Data Quality*. RTI International. Prepared for the Substance Abuse and Mental Health Services Administration.
- Washington State Legislature. (2003). "WAC 296-127-023: Building Service Maintenance." Washington State.
- Whittaker, William. (2007). *Federal Contract Labor Standards Statutes: An Overview*. Congressional Research Service. U.S. Congress.

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- Prot Tachapaint. (Accessed September 2021). "Cleaning tools cart wait for maid or cleaner in the hospital. Bucket and set." Canva.com Free Photos.
- Soupstock. (Accessed September 2021). "Janitor Mopping the Floor." Canva.com Free Photos.

Appendix

TABLE A: IMPACT OF SERVICE CONTRACT PREVAILING WAGES ON ANNUAL INCOMES, ROBUST OLS REGRESSIONS

[Model] In(Real Income from Wages)	[1] All Workers		[2] No Bachelor's		[3] No Bachelor's by Race	
Variable	Coefficient	(St. Err.)	Coefficient	(St. Err.)	Coefficient	(St. Err.)
Mini-SCA x Custodian	0.0612***	(0.008)	0.0910***	(0.008)	0.0362***	(0.012)
Mini-SCA x Custodian x POC					0.0997***	(0.014)
Mini-SCA x POC					-0.0275***	(0.002)
Person of Color (POC)					-0.0402***	(0.002)
Mini-SCA State	0.0721***	(0.008)	0.0384***	(0.002)	0.0526***	(0.002)
Custodian	-0.1400***	(0.007)	-0.1262***	(0.007)	-0.1301***	(0.007)
In(Minimum Wage)	0.1479***	(0.004)	0.1649***	(0.005)	0.1723***	(0.005)
"Right-to-Work" State	-0.0099***	(0.001)	-0.0127***	(0.002)	-0.0128***	(0.002)
Urban Status Dummies	Y		Y		Y	
Age	Y		Y		Y	
Age <sup>2</sup>	Y		Y		Y	
White	Y		Y		N	
Black or African American	Y		Y		N	
Hispanic or Latinx	Y		Y		N	
Woman	Y		Y		Y	
Military Veteran	Y		Y		Y	
Married	Y		Y		Y	
Citizen	Y		Y		Y	
Foreign-Born	Y		Y		Y	
Less than a High School Degree	Y		Y		Y	
Some College, No Degree	Y		Y		Y	
Associate Degree	Y		Y		Y	
Bachelor's Degree	Y		N		N	
Master's Degree	Y		N		N	
Professional or Doctorate Degree	Y		N		N	
Current Student	Y		Y		Y	
Weeks Worked Dummies	Y		Y		Y	
Sector Dummies	Y		Y		Y	
Occupation Dummies	Y		Y		Y	
Industry Dummies	Y		Y		Y	
Year: 2018	Y		Y		Y	
Year: 2019	Y		Y		Y	
Constant	6.3053***	(0.010)	6.3486***	(0.013)	6.3776***	(0.012)
R <sup>2</sup>	0.594		0.577		0.577	
Observations	4,281,480		2,678,102		2,678,102	
Weighted	Y		Y		Y	

\*\*\*P≤|0.01|; \*\*P≤|0.05|; \*P≤|0.10|. Source(s): Authors' analysis of 2017, 2018, and 2019 data from the American Community Survey (1-Year Estimates) by the U.S. Census Bureau (Ruggles et al., 2021). For full regression results, see the .txt file at this link.

**TABLE B: IMPACT OF SERVICE PREVAILING WAGES ON PROBABILITY OF WORKING IN POVERTY, ROBUST PROBITS**

[Model] P(In Poverty) Variable	[4] All Workers by Race		[5] No Bachelor's by Race	
	AME (dy/dx)	(St. Err.)	AME (dy/dx)	(St. Err.)
Mini-SCA x Custodian	-0.0051*	(0.004)	-0.0067*	(0.004)
Mini-SCA x Custodian x POC	0.0045	(0.003)	0.0059	(0.005)
Mini-SCA x POC	-0.0074***	(0.001)	-0.0094***	(0.001)
Person of Color (POC)	0.0151***	(0.000)	0.0194***	(0.001)
Mini-SCA State	-0.0015***	(0.001)	-0.0016*	(0.001)
Custodian	-0.0068***	(0.001)	-0.0098***	(0.002)
ln(Minimum Wage)	-0.0226***	(0.001)	-0.0323***	(0.002)
"Right-to-Work" State	0.0007	(0.000)	0.0004	(0.001)
Urban Status Dummies	Y		Y	
Age	Y		Y	
Age <sup>2</sup>	Y		Y	
White	Y		Y	
Black or African American	Y		Y	
Hispanic or Latinx	Y		Y	
Woman	Y		Y	
Military Veteran	Y		Y	
Married	Y		Y	
Citizen	Y		Y	
Foreign-Born	Y		Y	
Less than a High School Degree	Y		Y	
Some College, No Degree	Y		Y	
Associate Degree	Y		Y	
Bachelor's Degree	Y		N	
Master's Degree	Y		N	
Professional or Doctorate Degree	Y		N	
Current Student	Y		Y	
Weeks Worked Dummies	Y		Y	
Usual Hours Worked Per Week	Y		Y	
Sector Dummies	Y		Y	
Occupation Dummies	Y		Y	
Industry Dummies	Y		Y	
Year: 2018	Y		Y	
Year: 2019	Y		Y	
Constant	0.0674***	(0.000)	0.0902***	(0.000)
R <sup>2</sup>	0.221		0.185	
Observations	4,524,826		2,843,247	
Weighted	Y		Y	

\*\*\*P≤|0.01|; \*\*P≤|0.05|; \*P≤|0.10|. Source(s): Authors' analysis of 2017, 2018, and 2019 data from the American Community Survey (1-Year Estimates) by the U.S. Census Bureau (Ruggles et al., 2021). Both probits use average marginal effects (margins, dydx in STATA). For full regression results, see the .txt file at this link.

TABLE C: IMPACT OF SERVICE CONTRACT PREVAILING WAGES ON PROBABILITY OF HEALTH INSURANCE, ROBUST PROBITS

[Model] P(Any Health Insurance) Variable	[6] All Workers		[7] No Bachelor's	
	AME (dy/dx)	(St. Err.)	AME (dy/dx)	(St. Err.)
<b>Mini-SCA x Custodian</b>	<b>0.0137***</b>	<b>(0.003)</b>	<b>0.0151***</b>	<b>(0.004)</b>
Mini-SCA State	0.0121***	(0.001)	0.0173***	(0.001)
Custodian	0.0101***	(0.002)	0.0146***	(0.003)
ln(Minimum Wage)	0.0619***	(0.002)	0.0886***	(0.002)
“Right-to-Work” State	-0.0257***	(0.001)	-0.0346***	(0.001)
Urban Status Dummies	Y		Y	
Age	Y		Y	
Age <sup>2</sup>	Y		Y	
White	Y		Y	
Black or African American	Y		Y	
Hispanic or Latinx	Y		Y	
Woman	Y		Y	
Military Veteran	Y		Y	
Married	Y		Y	
Citizen	Y		Y	
Foreign-Born	Y		Y	
Less than a High School Degree	Y		Y	
Some College, No Degree	Y		Y	
Associate Degree	Y		Y	
Bachelor's Degree	Y		N	
Master's Degree	Y		N	
Professional or Doctorate Degree	Y		N	
Current Student	Y		Y	
Weeks Worked Dummies	Y		Y	
Usual Hours Worked Per Week	Y		Y	
Sector Dummies	Y		Y	
Occupation Dummies	Y		Y	
Industry Dummies	Y		Y	
Year: 2018	Y		Y	
Year: 2019	Y		Y	
Constant	0.8958***	(0.000)	0.8591***	(0.000)
R <sup>2</sup>	0.202		0.171	
Observations	4,524,826		2,843,247	
Weighted	Y		Y	

\*\*\*P≤|0.01|; \*\*P≤|0.05|; \*P≤|0.10|. Source(s): Authors' analysis of 2017, 2018, and 2019 data from the American Community Survey (1-Year Estimates) by the U.S. Census Bureau (Ruggles et al., 2021). Both probits use average marginal effects (margins, dydx in STATA). For full regression results, see the .txt file at this link.

**TABLE D: IMPACT OF SERVICE PREVAILING WAGES ON PROBABILITY OF EMPLOYER-PROVIDED INSURANCE, ROBUST PROBITS**

[Model] P(Employer-Provided Health)	[8] All Workers		[9] No Bachelor's		[10] No Bachelor's by Race	
Variable	AME (dy/dx)	(St. Err.)	AME (dy/dx)	(St. Err.)	AME (dy/dx)	(St. Err.)
Mini-SCA x Custodian	0.0241***	(0.004)	0.0351***	(0.005)	0.0191***	(0.008)
Mini-SCA x Custodian x POC					0.0736***	(0.008)
Mini-SCA x POC					-0.0056***	(0.001)
Person of Color (POC)					0.0156***	(0.001)
Mini-SCA State	0.0026***	(0.001)	-0.0002	(0.001)	-0.0100***	(0.001)
Custodian	0.0110***	(0.003)	0.0097***	(0.004)	-0.0541***	(0.004)
ln(Minimum Wage)	-0.0222***	(0.002)	-0.0183***	(0.003)	-0.0274***	(0.003)
"Right-to-Work" State	-0.0246***	(0.001)	-0.0263***	(0.001)	-0.0147***	(0.001)
Urban Status Dummies	Y		Y		Y	
Age	Y		Y		Y	
Age <sup>2</sup>	Y		Y		Y	
White	Y		Y		N	
Black or African American	Y		Y		N	
Hispanic or Latinx	Y		Y		N	
Woman	Y		Y		Y	
Military Veteran	Y		Y		Y	
Married	Y		Y		Y	
Citizen	Y		Y		Y	
Foreign-Born	Y		Y		Y	
Less than a High School Degree	Y		Y		Y	
Some College, No Degree	Y		Y		Y	
Associate Degree	Y		Y		Y	
Bachelor's Degree	Y		N		N	
Master's Degree	Y		N		N	
Professional or Doctorate Degree	Y		N		N	
Current Student	Y		Y		Y	
Weeks Worked Dummies	Y		Y		Y	
Usual Hours Worked Per Week	Y		Y		Y	
Sector Dummies	Y		Y		Y	
Occupation Dummies	Y		Y		Y	
Industry Dummies	Y		Y		Y	
Year: 2018	Y		Y		Y	
Year: 2019	Y		Y		Y	
Constant	0.6992***	(0.000)	0.6339***	(0.000)	0.6339***	(0.000)
R <sup>2</sup>	0.167		0.132		0.132	
Observations	4,524,826		2,843,247		2,843,247	
Weighted	Y		Y		Y	

\*\*\*P≤|0.01|; \*\*P≤|0.05|; \*P≤|0.10|. Source(s): Authors' analysis of 2017, 2018, and 2019 data from the American Community Survey (1-Year Estimates) by the U.S. Census Bureau (Ruggles et al., 2021). Both probits use average marginal effects (margins, dydx in STATA). For full regression results, see the .txt file at this link.

TABLE E: IMPACT OF SERVICE CONTRACT PREVAILING WAGES ON HOURS WORKED PER WEEK, ROBUST OLS REGRESSIONS

[Model] In(Hours Worked Per Week)	[11] All Workers		[12] No Bachelor's		[13] No Bachelor's by Race	
Variable	Coefficient	(St. Err.)	Coefficient	(St. Err.)	Coefficient	(St. Err.)
Mini-SCA x Custodian	0.0510***	(0.005)	0.0567***	(0.005)	0.0139*	(0.007)
Mini-SCA x Custodian x POC					0.0283***	(0.008)
Mini-SCA x POC					-0.0124***	(0.002)
Person of Color (POC)					-0.0533***	(0.001)
Mini-SCA State	-0.0067***	(0.001)	-0.0135***	(0.001)	0.0037***	(0.001)
Custodian	-0.0686***	(0.004)	-0.0518***	(0.004)	0.0093**	(0.004)
In(Minimum Wage)	-0.0233***	(0.002)	-0.0280***	(0.003)	-0.0212***	(0.003)
"Right-to-Work" State	0.0127***	(0.001)	0.0140***	(0.001)	-0.0279***	(0.001)
Urban Status Dummies	Y		Y		Y	
Age	Y		Y		Y	
Age <sup>2</sup>	Y		Y		Y	
White	Y		Y		N	
Black or African American	Y		Y		N	
Hispanic or Latinx	Y		Y		N	
Woman	Y		Y		Y	
Military Veteran	Y		Y		Y	
Married	Y		Y		Y	
Citizen	Y		Y		Y	
Foreign-Born	Y		Y		Y	
Less than a High School Degree	Y		Y		Y	
Some College, No Degree	Y		Y		Y	
Associate Degree	Y		Y		Y	
Bachelor's Degree	Y		Y		N	
Master's Degree	Y		Y		N	
Professional or Doctorate Degree	Y		Y		N	
Current Student	Y		Y		Y	
Weeks Worked Dummies	Y		Y		Y	
Sector Dummies	Y		Y		Y	
Occupation Dummies	Y		Y		Y	
Industry Dummies	Y		Y		Y	
Year: 2018	Y		Y		Y	
Year: 2019	Y		Y		Y	
Constant	2.7961***	(0.006)	2.8607***	(0.007)	2.8576***	(0.007)
R <sup>2</sup>	0.265		0.287		0.287	
Observations	4,524,826		2,843,247		2,843,247	
Weighted	Y		Y		Y	

\*\*\*P≤|0.01|; \*\*P≤|0.05|; \*P≤|0.10|. Source(s): Authors' analysis of 2017, 2018, and 2019 data from the American Community Survey (1-Year Estimates) by the U.S. Census Bureau (Ruggles et al., 2021). For full regression results, see the .txt file at this link.

**TABLE F: IMPACT OF SERVICE PREVAILING WAGES ON PROBABILITY OF WORKING FULL-TIME, ROBUST PROBITS**

[Model] P(Full-Time Worker)	[14] All Workers by Race		[15] No Bachelor's by Race	
Variable	AME (dy/dx)	(St. Err.)	AME (dy/dx)	(St. Err.)
Mini-SCA x Custodian	<b>0.0294***</b>	<b>(0.005)</b>	<b>0.0375***</b>	<b>(0.006)</b>
Mini-SCA x Custodian x POC	<b>0.0184***</b>	<b>(0.006)</b>	<b>0.0074</b>	<b>(0.007)</b>
Mini-SCA x POC	0.0016	(0.001)	0.0054***	(0.001)
Person of Color (POC)	0.0156***	(0.001)	0.0188***	(0.001)
Mini-SCA State	-0.0059***	(0.001)	-0.0114***	(0.001)
Custodian	-0.0236***	(0.003)	-0.0121***	(0.003)
ln(Minimum Wage)	-0.0369***	(0.002)	-0.0286***	(0.003)
“Right-to-Work” State	0.0120***	(0.001)	0.0148***	(0.001)
Urban Status Dummies	Y		Y	
Age	Y		Y	
Age <sup>2</sup>	Y		Y	
White	Y		Y	
Black or African American	Y		Y	
Hispanic or Latinx	Y		Y	
Woman	Y		Y	
Military Veteran	Y		Y	
Married	Y		Y	
Citizen	Y		Y	
Foreign-Born	Y		Y	
Less than a High School Degree	Y		Y	
Some College, No Degree	Y		Y	
Associate Degree	Y		Y	
Bachelor's Degree	Y		N	
Master's Degree	Y		N	
Professional or Doctorate Degree	Y		N	
Current Student	Y		Y	
Weeks Worked Dummies	N		N	
Usual Hours Worked Per Week	N		N	
Sector Dummies	Y		Y	
Occupation Dummies	Y		Y	
Industry Dummies	Y		Y	
Year: 2018	Y		Y	
Year: 2019	Y		Y	
Constant	<b>0.7229***</b>	<b>(0.000)</b>	<b>0.6891***</b>	<b>(0.000)</b>
R <sup>2</sup>	0.178		0.192	
Observations	4,531,364		2,847,844	
Weighted	Y		Y	

\*\*\*P≤|0.01|; \*\*P≤|0.05|; \*P≤|0.10|. Source(s): Authors' analysis of 2017, 2018, and 2019 data from the American Community Survey (1-Year Estimates) by the U.S. Census Bureau (Ruggles et al., 2021). “Full-time” employment is defined in this report as those working at least 35 hours per week for at least 48 weeks per year. Both probits use average marginal effects (margins, dydx in STATA). For full regression results, see the .txt file at this link.

**TABLE G: IMPACT OF SERVICE CONTRACT PREVAILING WAGES ON PROBABILITY OF BEING A CUSTODIAN, ROBUST PROBITS**

[Model] P((Custodial Occupation) Variable	[16] All Workers by Race		[17] No Bachelor's by Race	
	AME (dy/dx)	(St. Err.)	AME (dy/dx)	(St. Err.)
<b>Mini-SCA x POC</b>	<b>-0.0004</b>	<b>(0.000)</b>	<b>-0.0010*</b>	<b>(0.001)</b>
Mini-SCA State	-0.0012***	(0.000)	-0.0011**	(0.000)
Person of Color (POC)	0.0057***	(0.000)	0.0081***	(0.000)
ln(Minimum Wage)	-0.0022***	(0.001)	-0.0033***	(0.001)
“Right-to-Work” State	-0.0018***	(0.000)	-0.0028***	(0.000)
Urban Status Dummies	Y		Y	
Age	Y		Y	
Age <sup>2</sup>	Y		Y	
Woman	Y		Y	
Military Veteran	Y		Y	
Married	Y		Y	
Citizen	Y		Y	
Foreign-Born	Y		Y	
Less than a High School Degree	Y		Y	
Some College, No Degree	Y		Y	
Associate Degree	Y		Y	
Bachelor’s Degree	Y		N	
Master’s Degree	Y		N	
Professional or Doctorate Degree	Y		N	
Current Student	Y		Y	
Year: 2018	Y		Y	
Year: 2019	Y		Y	
Constant	0.0166***	(0.000)	0.0241***	(0.000)
R <sup>2</sup>	0.089		0.042	
Observations	4,531,364		2,847,844	
Weighted	Y		Y	

\*\*\*P≤|0.01|; \*\*P≤|0.05|; \*P≤|0.10|. Source(s): Authors’ analysis of 2017, 2018, and 2019 data from the American Community Survey (1-Year Estimates) by the U.S. Census Bureau (Ruggles et al., 2021). Both probits use average marginal effects (margins, dydx in STATA). For full regression results, see the .txt file at this link.