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The public-sector pay gap is widening. Unions help shrink it.

Report • By Monique Morrissey and Jennifer Sherer • August 29, 2024

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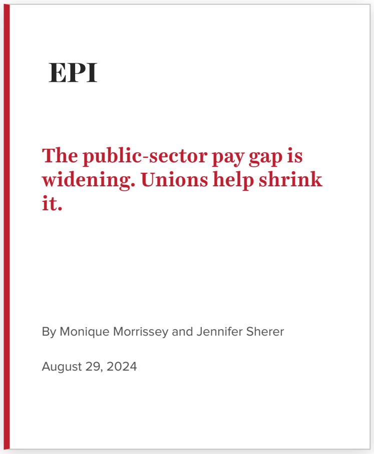
Summary: Public-sector employees earn less than their private-sector counterparts, and that pay gap has widened in recent years. The pay gap is narrower in states where public employees have stronger collective bargaining rights.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Key findings

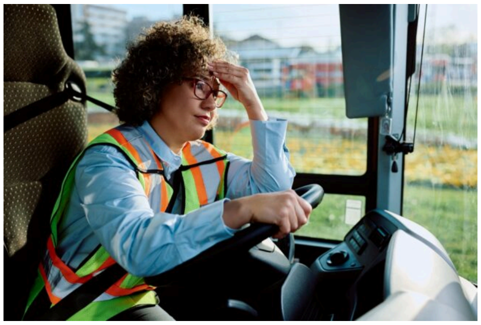
- Nationally, the public-sector pay gap has widened in the last four years.
- State and local government employees earned, on average, 17.6% less than similarly educated private-sector employees, compared with a pre-pandemic pay gap of 13.9%.
- Even when factoring in more robust public-sector benefits packages, total compensation is approximately 14.5% lower for public-sector workers than for private-sector workers.
- Collective bargaining rights for public employees vary widely across states, and this has an effect on pay gaps between public- and private-sector workers. When compared with private-sector workers, public-sector workers with strong bargaining rights (-14.9%) have a narrower pay gap than those with weak (-20.1%) or no bargaining rights (-22.9%).

Why this matters

State and local governments are facing acute and growing staffing shortages as public-sector pay lags farther behind the pay of private-sector workers. Moreover, the public-sector pay gap disproportionately affects women and Black workers, who are more likely to be employed in public-sector jobs and who are disadvantaged in the broader labor market. Strengthening collective bargaining rights for government workers would narrow the pay gap and reduce racial and gender inequality.

How to fix it

At the national level, Congress should pass the Public Service Freedom to Negotiate Act to ensure that state and local government workers across the country have the right to bargain collectively over pay and working conditions. This is particularly important since public employees have been excluded from federal labor law, leaving little consistency in their rights across states. At the state level, policymakers should ensure that all state and local government workers have collective bargaining rights at least equivalent to those guaranteed to private-sector workers under federal law.



> “Unions help narrow the public-sector pay gap—benefiting not only workers but also the public through the quality of public services.

This is a revised and expanded version of a report published in March 2022.

In this report we consider how the absence of collective bargaining rights contributes to long-standing gaps between what state and local government workers and similarly educated private-sector workers are paid, and how expanding collective bargaining rights can help address these gaps. To that end, this report examines how public-sector workers in states with limited or no collective bargaining rights fare compared with public-sector workers in states with well-established collective bargaining rights.

To do so, we estimate pay differences between state and local government workers and private-sector workers with similar education and experience in the four years before the pandemic and the four years since the pandemic's onset. The analysis throughout this report focuses on state and local government workers and excludes federal employees, whose collective bargaining rights are set forth in the Federal Service Labor-Management Relations Statute (CRS 2014) and whose pay is set by Congress.

Nationally, the public-sector pay gap has widened over the past four years, especially for workers with a bachelor's or advanced degree—the majority of public-sector workers. Although public-sector workers have more generous benefits, these benefits do not make up for the lower wages and salaries for most workers.

The right to bargain collectively over pay is associated with higher union membership. This report shows that collective bargaining rights and union strength help government workers narrow the pay gap with private-sector workers. We show that pay gaps for government workers are significantly wider in states with weak or nonexistent bargaining rights.

In recent years, some states—including Colorado, Maryland, Michigan, Nevada, New Mexico, and Virginia—have taken important steps to establish, restore, or expand collective bargaining rights for some public employees. But in far more states over the past decade, public-sector workers' collective bargaining rights have been diminished amid persistent state legislative attacks on public employees and their unions.

SECTIONS

Addressing the public-sector pay gap is particularly important at a moment when state and local governments face staffing shortages and serious challenges to recruiting and retaining qualified employees. Low pay is a key factor driving the staffing crisis facing schools and other units of state and local government (MissionSquare Research Institute 2023; Cooper and Martinez Hickey 2022; Martinez Hickey and Cooper 2023).

Low pay for public-sector workers disproportionately affects women and Black workers, who are more likely to be employed in government jobs. Since these workers are also disadvantaged in the broader labor market, strengthening collective bargaining rights for government workers reduces racial and gender inequality in the labor force and potentially attracts more Hispanic, Asian American and Pacific Islander (AAPI), and other underrepresented workers to public-sector jobs.

Data and methodology

The analysis focuses on full-time wage and salary workers (those working 35 or more hours per week), ages 18–64, who are employed by state or local governments or the private sector, including workers employed by private nonprofits. Differences reported in the tables may or may not be statistically significant, but those highlighted in the text are significant at the 0.05 level unless otherwise noted.

Statistics about the demographics of the public- and private-sector workforce are based on the authors' analysis of microdata from the U.S. Census Bureau's Current Population Survey (CPS) in the four years since the onset of the COVID-19 pandemic, specifically March 2020 to February 2024 (Flood et al. 2020).

The pay analyses use "Outgoing Rotation Group" subsamples from the same survey; these subsamples include information on weekly pay and hours worked (Flood et al. 2020 merged with EPI 2024). Pay analyses compare the four-year period before the pandemic (March 2016 to February 2020) with the pandemic and post-pandemic period (March 2020 to February 2024). Statistics on employer benefits are from U.S. Bureau of Labor Statistics (BLS) Employer Costs for Employee Compensation tables (BLS-ECEC 2020–2023).

To assess public-sector collective bargaining rights by state and occupation group, we consulted the following sources:

- National Bureau of Economic Research (NBER) Public Sector Collective Bargaining Law Data Set (Valletta and Freeman 1988) and updates by Rueben (1996) and Dippel and Sauers (2019)
- Sanes and Schmitt 2014
- Frandsen and Webb 2017
- National Council on Teacher Quality (NCTQ) 2019
- Han 2019
- Brannick 2019

- National Education Association (NEA) 2020
- American Federation of State, County, and Municipal Employees (AFSCME n.d.), cited in McNicholas et al. 2020
- Commonwealth Foundation 2021
- García and Han 2021
- Brannick and Holman 2022
- New Mexico Public Employee Labor Relations Board 2023
- National Council of State Legislatures (NCSL) n.d.
- International Association of Fire Fighters (IAFF) n.d

These secondary sources do not always agree because they use different criteria, cover different groups of workers or years, rely on different primary sources, or differ for unexplained reasons. Where sources' assessments of collective bargaining rights conflict, statutory language and case law cited in these sources were also consulted.

More information on data and methodology is provided in the methodology appendix.

Who are government workers?

Occupations. The largest occupational groups in local government are teachers, police, and firefighters. However, these three groups together do not constitute a majority of local government workers. Local government workers are employed in a wide variety of occupations in education; public safety, courts, and corrections; child care, health care, and social services; transportation, public utilities, and sanitation; parks and recreation; housing and environmental protection; libraries and cultural institutions; and legislative bodies and executive offices.

State government workers also work in a wide variety of occupations, including education; public safety, courts, and corrections; health care and social services; economic programs; legislative bodies and executive offices; environmental protection; and highway and other construction and maintenance.[1]

Education. Government workers are highly educated: 62.1% have a bachelor's degree or higher, with half of these (31.4%) having an advanced degree. In contrast, only 40.7% of private-sector workers have a bachelor's degree or higher, with only 13.7% having an advanced degree (**Table 1**).

Race and ethnicity. White and Black workers are more likely to work in state and local government than Hispanic and AAPI/other workers (**Table 2**). Black workers are overrepresented in the public sector despite being less likely to have the bachelor's or advanced degrees required for many public-sector jobs. The relative scarcity of Hispanic and AAPI workers partly reflects age differences since public-sector workers tend to be somewhat older and have more work experience than private-sector workers, whereas the

Table 1

Government workers are highly educated

Educational attainment of private-sector and government workers

	Private sector	State or local government
Less than high school	6.4%	1.4%
High school or G.E.D.	27.5%	15.0%
Some college	25.4%	21.6%
Bachelor’s degree	27.0%	30.7%
Advanced degree	13.7%	31.4%

Note: Statistics shown are for wage and salary workers, ages 18–64, working 35 or more hours per week. Percentages may not sum to 100% due to rounding.

Source: Authors’ analysis of U.S. Census Bureau Current Population Survey microdata, pooled sample March 2020–February 2024 (Flood et al. 2020).

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Hispanic and AAPI populations tend to be younger. Hispanic workers’ underrepresentation also reflects disparities in educational attainment. Hispanic workers with bachelor’s degrees are not underrepresented in government jobs (not shown in tables). Hispanic workers are paid less in both sectors, but the Hispanic pay gap is narrower in the public sector (**Table 3**).

Public-sector jobs are rungs to the middle class for Black workers, who often face labor market discrimination, especially in the private sector where employers may be less likely to follow standardized hiring and promotion practices. Though Black workers are paid less than similarly qualified white workers in both sectors, the Black pay gap in the public sector is much narrower than in the private sector (Table 3).

In addition to seeking greater protection against discrimination, Black workers may be drawn to public-sector jobs because they provide more secure pensions and other benefits. These benefits are especially valuable to Black workers because discriminatory policies and practices have historically relegated Black workers to jobs that lack secure benefits, prevented Black families from accumulating home equity, and generally hindered Black workers from achieving financial security and transferring wealth to younger generations (Rothstein 2017).

Gender. Women are more likely to be employed in government jobs than men, especially in teaching. Over half (58.8%) of full-time public-sector workers are women, whereas only 43.3% of full-time private-sector workers are women (Table 2).

Table 2

Black workers and women are more likely to be employed in state and local government

Demographic breakdown of full-time private-sector and government workers ages 18-64

	Private sector	State or local government
Race and ethnicity:		
White	58.6%	64.9%
Black	11.7%	14.5%
Hispanic	19.9%	13.6%
AAPI/other	9.8%	7.0%
Gender:		
Female	43.3%	58.8%

Notes: Statistics shown are for wage and salary workers, ages 18–64, working 35 or more hours per week. Hispanic refers to Hispanic workers of any race, while white, Black, and AAPI/other refer to non-Hispanic whites, non-Hispanic Blacks, and non-Hispanic Asian Americans, Pacific Islanders, and other racial categories, respectively.

Source: Authors' analysis of U.S. Census Bureau Current Population Survey microdata, pooled sample March 2020–February 2024 (Flood et al. 2020).

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Women in government jobs are concentrated in certain occupations. Over three-quarters (77.4%) of public school teachers and teaching assistants are women, but women account for only 12.2% of police and firefighters.

Teaching, like many female-dominated occupations, pays less than male-dominated occupations requiring similar professional training (Allegretto 2023). Teachers' relative pay is especially low considering that half (49.7%) of teachers and teaching assistants in the United States have advanced degrees. In contrast, male-dominated public safety jobs tend to pay better than other jobs that do not generally require bachelor's degrees. In part because women are overrepresented in teaching and underrepresented in public safety, they face a similar gender pay gap in the public sector as in the private sector (Table 3).

Earnings. Public-sector earnings are less unequal than private-sector earnings. In the public sector, more workers are clustered in the middle of the earnings distribution, and fewer have very low or very high earnings. Government workers at the 90th percentile of the earnings distribution earn 3.8 times what those at the 10th percentile earn. Among private-sector workers, this multiple is 4.8.

Table 3

Black and Hispanic workers face less pay discrimination in the public sector

Black, Hispanic, AAPI/other, and female pay gaps by sector

	Private sector	State or local government
Race and ethnicity:		
Black	-18.5%	-5.1%
Hispanic	-18.7%	-6.9%
AAPI/other	-3.2%	-1.7%
Gender:		
Female	-19.7%	-19.4%

Notes: Table shows differences in weekly earnings of full-time workers, working 35+ hours per week, ages 18–64, controlling for education, age, hours worked, state, and year using regression analysis. The results shown for Black, Hispanic, and AAPI/other workers compare their earnings with those of non-Hispanic white workers in the two sectors. Hispanic refers to Hispanic workers of any race, while white, Black, and AAPI/other refer to non-Hispanic whites, non-Hispanic Blacks, and non-Hispanic Asian Americans, Pacific Islanders, and other racial categories, respectively. The results for women separately compare their earnings with those of men regardless of race and ethnicity.

Source: Authors' analysis of U.S. Census Bureau Current Population Survey microdata, pooled Outgoing Rotation Group sample, March 2020–February 2024 (Flood et al. 2020 merged with EPI 2024).

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Middle-class government jobs have societal benefits that extend beyond the workers and their families. A large middle class fosters economic and social mobility and gives talented people from modest backgrounds more opportunities to contribute to society (Krueger 2012; Olinsky and Post 2013). Careful research has found that high union density decreases inequality beyond the direct effect of raising the wage floor for members (Farber et al. 2021). The likely channels for this effect are that unions support higher minimum wages and other labor standards, change social norms and workers' expectations about pay (changes that spill over to affect even nonunion workplaces), decrease pay inequality within unionized workplaces, and generally support policies that foster economic opportunity and mobility.

How do collective bargaining rights vary across states?

The National Labor Relations Act excludes public-sector employees from coverage, leaving states to set policy on union and collective bargaining rights for public employees. Collective bargaining rights vary widely across states and for different occupations within states. This report looks at states where government workers have weak or nonexistent collective bargaining rights and compares these with states where government workers have stronger collective bargaining rights.

Collective bargaining rights can vary across several dimensions, including:

- which matters related to compensation or working conditions must be or can be discussed in bargaining
- whether bargaining is purely voluntary on the part of employers or whether employers are obligated to bargain under certain conditions, such as majority support for the union
- what steps a group of workers must take to gain or maintain recognition and/or legal certification as a recognized union for purposes of collective bargaining
- what mediation or arbitration procedures are prescribed if the two parties reach an impasse in bargaining
- whether workers have the right to strike

Researchers such as Keefe (2015) and Frandsen and Webb (2017) have found that these differences in public-sector workers' collective bargaining rights are associated with differences in compensation. Laws governing how workers form unions and whether individual workers can opt out of paying union fees can also affect workers' bargaining strength (Keefe 2015). In 2018, however, in its 5–4 decision in *Janus v. AFSCME Council 31*, the U.S. Supreme Court ruled that public-sector unions and employers could no longer negotiate agreements ensuring that all workers covered by a collective bargaining agreement are required to pay fees to cover the costs of union representation (McNicholas, Mokhiber, and von Wilpert 2018; McNicholas 2018; McNicholas, Shierholz, and Poydock 2021).

Focus of this analysis. The current analysis focuses on legal rights to collective bargaining established by statute, case law, or state constitutions. Notably though, legal rights are not the only factors that determine whether workers have the leverage to bargain for better pay and working conditions. In addition to collective bargaining and union security rights, workers' leverage also depends on local economic and political conditions, unions' institutional capacity, and other factors outside the scope of this report.

Evolution of public-sector collective bargaining rights. Variations in collective bargaining rights among states have historical antecedents, notably in Southern states where systemic racism contributed to the enactment of anti-union policies (Dixon 2009; Kaufman 2018; Stelzner, Hoyt, and Ramchurn 2019). With the exception of Arizona, all states that ban public-sector collective bargaining are in the South.

Since the early 20th century, public employees have organized unions and sought various means to achieve formal or informal agreements with public employers. Starting with Wisconsin in 1959, many states adopted laws codifying public employee collective bargaining rights in response to increased organizing (and in some cases, strike activity) among public employees whose demands for equal bargaining rights and improved pay and working conditions were often closely entwined with those of the 20th-century civil rights and women's rights movements. By the 1980s, a majority of states had enacted collective bargaining policies, though these statutes varied in strength and coverage (Farber 1988). As detailed below, since 2010 these state policies have faced sustained attack, and several states, including Wisconsin, have repealed or harshly limited formerly robust collective bargaining statutes. A few states have also expanded or strengthened collective bargaining rights during this same period.

States that have recently expanded public-sector collective bargaining rights. In 2020, Virginia repudiated the South's anti-union legacy by taking a step to expand public-sector collective bargaining rights to some local government workers (Rankin 2020; Schweitzer 2021). Since May 2021, local government bodies in Virginia can voluntarily agree to bargain with unionized workers. This opening falls short of a statewide duty to bargain, but it has quickly resulted in numerous local jurisdictions adopting collective bargaining ordinances and substantial numbers of public employees forming new unions—including, most recently, 27,000 teachers and school staff in Fairfax County (Borja 2022; Meyerson 2024).

In recent years, Maryland—where collective bargaining coverage varies by jurisdiction and occupation under a patchwork of highly fragmented collective bargaining laws—took steps to extend bargaining rights to some previously excluded public workers, including community college employees, library staff, and supervisory employees (Shwe 2022; IAMAW 2022; Albert 2024). However, repeated efforts to extend bargaining rights to graduate employees at state universities have yet to succeed (Hogan 2024).

Three Western states—Colorado, Nevada, and New Mexico—have also taken steps to strengthen public-sector bargaining rights. Nevada, where local government employees have had collective bargaining rights for decades, extended these rights to state employees in 2019 (AFSCME 2019). New Mexico overhauled its public-sector bargaining statute in 2020, including restructuring the state's labor board system to strengthen previously weak or inconsistent enforcement of employee bargaining rights (Lewis 2020). Colorado granted collective bargaining rights to some state employees in 2020 and to some county government employees in 2022 (Hindi 2020; Metzger 2022).

Some states with strong collective bargaining frameworks in place have continued to expand coverage to occupations formerly excluded or functionally blocked from coverage. Just a few such examples include legislation extending bargaining rights to university graduate researchers and state legislative employees in California (Zhen 2017; McKinnor 2023), student employees at public universities in Washington (The Stand 2023), and various groups of Minnesota public university employees (Caputo 2024).

States weakening collective bargaining rights since 2010. Many states have weakened public-sector workers' collective bargaining rights in recent years. In 2011, newly elected Wisconsin Governor Scott Walker championed passage of Act 10, legislation designed to severely limit public employee union rights. Act 10's sweeping changes nullified existing public-sector collective bargaining agreements for most state and local government employees (excluding public safety workers such as police and firefighters) and created numerous administrative barriers to maintaining union membership. Among other changes, Act 10 prohibited negotiations on any subject other than base wages (while capping negotiated increases at the rate of inflation), outlawed payroll deduction of union dues, and required a new state-administered election each year in order for a local union to maintain legal certification (Malin 2012; Nack, Childers, and Ibarra 2019).

Following Wisconsin's example, Republican statehouse majorities in at least a dozen other states passed legislation in 2011 and 2012 to substantially restrict or prohibit collective bargaining rights of some or all public-sector workers (Lafer 2013). Indiana, for example, restricted the scope of public-sector bargaining to wages and related items; Nebraska implemented an arbitration procedure that limited compensation increases unless existing compensation was lower than in comparable communities, with reduced compensation targets during economic downturns. Idaho made teacher collective bargaining contingent on a union validating that at least half of a district's teachers were members and limited the scope of collective bargaining to a one-year agreement on compensation; Oklahoma restricted the right to organize and bargain collectively to employees of municipalities with populations above 35,000; and Tennessee officially banned collective bargaining for teachers but required school boards to engage in "collaborative conferencing" with teachers' representatives. Michigan in 2012 also limited the scope of bargaining for teachers, weakened impasse procedures for police and firefighters, and allowed the state to declare a financial emergency to reject a contract agreement, but the state has since reversed these changes with 2023 legislation (LeBlanc 2023).

State legislative attacks on public-sector bargaining rights have continued up to the present, with hundreds of bills filed in all 50 states since 2010 (NCSL n.d.). Other notable changes enacted more recently include the following:

In 2017, the Iowa General Assembly replaced a long-standing comprehensive collective bargaining statute with legislation restricting the scope of public-sector mandatory bargaining to base wages (with wage increases capped at the level of inflation), requiring unions to undergo recertification elections each time a contract expires, and prohibiting payment of union dues via payroll deduction. Like Wisconsin's Act 10, the Iowa law excluded public safety employees (police and firefighters) from the newly restricted scope of mandatory bargaining. For all other public-sector employees, Iowa's new law mandates bargaining only over base wages, prohibits bargaining over other aspects of compensation like health insurance and supplemental pay, and permits but does not require bargaining over most other topics (University of Iowa Labor Center 2018).

In 2021, Arkansas prohibited collective bargaining for all state and school district employees, leaving bargaining rights in place only for police, firefighters, and other city or county employees (Herzog and Wickline 2021; Gardner 2023).

In 2023, Florida enacted legislation to severely diminish public employee collective bargaining rights after decades of serving as the exception to the rule among Southern states on public-sector collective bargaining. Florida first adopted a comprehensive collective bargaining statute in 1974, in response to a 1968 statewide teachers' strike and strong unions flexing their muscles during the construction of Disney World (McGuire 1973; IUPAT 2017). Florida's new law makes it more difficult for public employees to maintain union membership (prohibiting payment of union dues via payroll deduction) while simultaneously requiring unions to demonstrate at least 60% dues-paying membership or undergo "recertification" elections in order to maintain legal certification for the purpose of collective bargaining. Unions are challenging the law in court as a violation of the Florida state constitution's guarantee that the "right of employees, by and through a labor organization, to collectively bargain, shall not be denied or abridged" (Berger 2023). Meanwhile, since taking effect July 1, 2023, the new law has already stripped union coverage from tens of thousands of Florida workers (Rivero 2024).

Overall, public-sector workers in multiple states across the country have far fewer protections today to unionize and collectively bargain than they did in 2010. And over a decade after passage, laws like Wisconsin's Act 10 have begun to show devastating impacts on public education spending, unionization levels, and worker wages—impacts that include widening public-sector pay gaps and gender pay gaps (Nack, Childers, and Ibarra 2019; García and Han 2021; Biasi and Sarsons 2021). We should expect that the diminished strength of collective bargaining rights, especially when targeted at public workers in occupations with a disproportionate share of women and workers of color, has contributed to widening public-sector pay gaps as well as larger gender and racial pay gaps.

Classifying states by collective bargaining rights. The statistical analysis in the next section differentiates between the following: states where collective bargaining or similar negotiation over pay is banned for state and local government workers, states where such bargaining is permitted but not required, and states where employers have a duty to bargain with state and local government workers.

These rights can vary across occupations, with public safety workers and teachers often having more rights than other government workers. The analysis therefore differentiates between the following groups: public prekindergarten through high school teachers and teaching assistants ("teachers" for short), police, firefighters, other local government employees, and other state government employees.

Classifying states by collective bargaining rights is not as straightforward as it might seem. Many states lack laws on public-sector bargaining or rely on vague statutes and case law that can be interpreted in different ways. Tennessee, for example, formally bans collective bargaining for government employees but, as mentioned previously, requires school districts to engage in nonbinding "collaborative conferencing" with teachers. In many states, there is no statewide right to collective bargaining, but local jurisdictions may allow or even require it. Thus, while Maryland is classified here as a state where public-sector collective bargaining is permitted but not required for local government workers other than teachers, in practice it more closely resembles a duty-to-bargain state since the most populous jurisdictions engage in bargaining (see, for example, Montgomery County n.d.; Prince George's County n.d.; Baltimore City Code 2010).

Table 4 shows a positive relationship between collective bargaining rights and union density. "B" (Banned) indicates states where specified groups of government workers are barred from collective bargaining. "P" (Permitted) denotes states where these workers may engage in bargaining, but there is no statewide bargaining mandate. "R" (Required) identifies states where employers have a duty to bargain with these workers. Union density, shown in the last column, is for all full-time state and local government workers, ages 18–64.

In general, stronger collective bargaining rights are associated with higher union density, but not all states fit neatly into this pattern. As shown in Table 4, South Dakota has low union density despite strong bargaining rights; Florida, Iowa, West Virginia, and Wisconsin previously had strong bargaining rights before they curbed or ended them; and Maryland's largest jurisdictions have a duty to bargain. Virginia and Colorado recently extended collective bargaining to some workers, but efforts to organize these workers were still in early stages during the period covered by this analysis.

Table 4

States that ban or limit collective bargaining rights for government workers have fewer union members

Collective bargaining rights and the share of state and local government workers belonging to a union, states ranked in order from lowest to highest by union density

	Teachers	Police	Firefighters	Other local	Other state	Public-sector union density
SC	B	B	B	B	B	27.0%
AR	P→B	P	P	P→B	P→B	27.3%
NC	B	B	B	B	B	28.0%
VA	B→P	B→P	B→P	B→P	B	29.2%
WY	P	P	R	P	P	29.7%
SD	R	R	R	R	R	30.0%
LA	P	P	P	P	P	30.0%
GA	B	B	P	B	B	30.2%
TN	R	B	B	B	B	30.3%
TX	B	R	R	B	B	30.3%
MS	P	P	P	P	P	30.7%
ID	R	P	R	P	P	31.4%
CO	P	P	P	P	B→P	31.6%
ND	R	P	P	P	P	31.8%
OK	R	R	R	P	B	31.9%
AL	P	P	P	P	P	32.1%
AZ	P	P	P	P	P	32.2%
UT	P	P	R	P	P	32.3%
KY	P	R	R	P	P	32.4%
WV	P	P	P	P	P	32.7%
NM	R	R	R	R	R	32.8%
DC	R	R	R	R	R	32.8%
MO	R	R	R	R	R	32.9%
WI	B	R	R	B	B	33.0%
FL	R→P	R	R	R→P	R→P	33.1%
IA	P	R	R	P	P	34.0%
KS	R	R	R	R	R	34.5%
NE	R	R	R	R	R	35.1%
IN	R	R	R	P	B	35.6%

Table 4 (cont.)

	Teachers	Police	Firefighters	Other local	Other state	Public-sector union density
DE	R	R	R	R	R	36.9%
MT	R	R	R	R	R	37.6%
MD	R	P	P	P	R	38.7%
NV	R	R	R	R	R	39.0%
AK	R	R	R	R	R	39.9%
OH	R	R	R	R	R	39.9%
MI	R	R	R	R	R	40.3%
IL	R	R	R	R	R	40.5%
VT	R	R	R	R	R	41.2%
NH	R	R	R	R	R	41.4%
MA	R	R	R	R	R	41.5%
OR	R	R	R	R	R	41.7%
MN	R	R	R	R	R	41.7%
WA	R	R	R	R	R	41.7%
ME	R	R	R	R	R	41.9%
CA	R	R	R	R	R	42.0%
PA	R	R	R	R	R	42.1%
RI	R	R	R	R	R	42.5%
CT	R	R	R	R	R	43.8%
NJ	R	R	R	R	R	43.8%
NY	R	R	R	R	R	44.5%
HI	R	R	R	R	R	45.2%

Note: Union density is the share of full-time (35+ hour) state and local government workers, ages 18-64, who belong to a union. "B" ("Banned") denotes states where the specified groups of government workers are barred from bargaining collectively over pay. "P" ("Permitted") denotes states where these workers may engage in bargaining, but there is no statewide mandate to bargain over pay. "R" ("Required") denotes states where employers have a duty to bargain with these workers over pay.

Sources: Union density is based on the authors' analysis of U.S. Census Bureau Current Population Survey microdata, pooled sample for the pandemic and post-pandemic period (March 2020–February 2024) (Flood et al. 2020). The strength of collective bargaining rights for this period is based on the authors' analysis of Valletta and Freeman (1988); Rueben (1996); Dippel and Sauers (2019) Sanes and Schmitt (2014); Frandsen and Webb (2017); NCTQ (2019); Han (2019); Brannick (2019); NEA (2020); AFSCME (n.d.) cited in McNicholas et al. (2020); Commonwealth Foundation (2021); García and Han (2021); Brannick and Holman (2022); New Mexico Public Employee Labor Relations Board (2023); NCSL (n.d.(a)); IAFF (n.d.).

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How does the pay of state and local government workers compare with that of private-sector workers?

On average, in the pandemic and post-pandemic period, government workers' weekly earnings were 17.6% lower than those of similar private-sector workers after controlling for education, age, hours worked, state, and year using regression analysis (**Table 5**). (The methodology appendix has the details). The public-sector pay gap was narrower but still substantial in the pre-pandemic period (-13.9%).

Adding control variables—for race, ethnicity, and gender, as well as immigrant and marital status—reduces the government pay gap slightly, from -17.6% to -16.1% in the pandemic and post-pandemic period (Table 5). Including these variables, however, has the effect of normalizing the lower pay of women and Black workers, who are more likely to be employed in government. To the extent that the lower pay for these workers is due to discrimination rather than unobserved differences in job qualifications, controlling for race, ethnicity, and gender tends to minimize the public-sector pay gap between equally qualified workers (see the methodology appendix).

Pay gaps by education. The government pay gap is largely due to the sector's lower pay for workers with bachelor's or advanced degrees when compared with the private sector. In the pandemic and post-pandemic period, the pay gap is -25.7% for workers with bachelor's degrees or more education and only -2.2% for workers without bachelor's degrees (Table 5).

Pay gaps by race and ethnicity. As shown previously in Table 3, racial and ethnic pay disparities are much smaller in the public sector than in the private sector. These smaller racial and ethnic disparities offset some or all of the lower average pay in the public sector, so Black and Hispanic workers are paid only slightly less in the public sector than in the private sector in the pandemic and post-pandemic period (3.8% and 2.5% less, respectively). In the pre-pandemic period, there was no statistically significant public-sector pay gap for these workers (Table 5).

Pay gaps by gender. As shown previously in Table 3, women are paid much less than similarly qualified men in both the public and private sectors. Table 5 shows that women and men are both affected by lower public-sector pay. (In both tables, small differences by gender are not statistically significant.) The low pay of teachers disproportionately affects women, but male teachers are also disadvantaged by being in a female-dominated profession.

Table 5

Pay gaps for public-sector workers have grown since the pandemic

Differences between government and private-sector earnings

	Pre-pandemic	Pandemic and post-pandemic
All	-13.9%	-17.6%
All (with additional demographic controls)	-12.6%	-16.1%
By education:		
No bachelor's degree	0.5%	-2.2%
Bachelor's degree	-22.5%	-25.7%
By race and ethnicity:		
White	-17.6%	-21.2%
Black	-0.2%	-3.8%
Hispanic	1.0%	-2.5%
AAPI/other	-15.9%	-21.6%
By gender:		
Men	-11.1%	-14.6%
Women	-11.4%	-15.3%

Notes: Public-sector pay gaps are differences in the weekly earnings of full-time government workers, working 35+ hours per week, ages 18–64, compared with those of their private-sector counterparts, controlling for education, age, hours worked, state, and year using regression analysis. Regressions with additional demographic controls also adjust for race, ethnicity, gender, immigrant and marital status. Hispanic refers to Hispanic workers of any race, while white, Black, and AAPI/other refer to non-Hispanic whites, non-Hispanic Blacks, and non-Hispanic Asian Americans, Pacific Islanders, and other racial categories, respectively.

Source: Authors' analysis of U.S. Census Bureau Current Population Survey microdata, pooled Outgoing Rotation Group sample (Flood et al. 2020 merged with EPI 2024). The pre-pandemic period is March 2016–February 2020; the pandemic and post-pandemic period is March 2020–February 2024.

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Pay gaps are wider in states with weak or no collective bargaining rights

As shown in **Table 6**, public-sector pay gaps are wider for government workers who have no (-22.9%) or weak (-20.1%) bargaining rights compared with those with strong bargaining rights (-14.9%). But these gaps have widened across the board since the pandemic. The biggest change was among workers with strong bargaining rights, who have lost ground since the pandemic. Even so, they continue to fare better than workers with weak or nonexistent rights.

This change, based on real (inflation-adjusted) wages, is likely due to a tight labor market where strong private-sector wage growth has roughly kept pace with inflation. Many public-sector employees are covered by collective bargaining agreements that set nominal wages over multiyear periods. If these agreements were negotiated before 2021, they would not have factored in the unusually high inflation of the post-pandemic recession recovery. That means employees covered by these agreements were locked into lower pay increases that did not keep pace with inflation. The weakening of the collective bargaining advantage could also reflect a worsening political environment for public-sector bargaining in some states, including the reality that even in some states where bargaining during this time period remained classified as “required” or “permitted” under the criteria applied in our analysis, significant changes to aspects of bargaining laws and/or practices nonetheless diminished workers’ bargaining power.

Table 6

Pay gaps for public-sector workers are larger in states with weak or no collective bargaining rights

Differences between government and private-sector earnings by strength of public-sector bargaining rights

	Pre-pandemic			Pandemic and post-pandemic		
	Banned	**Permitted**	**Required**	**Banned**	**Permitted**	**Required**
All	-21.3%	-18.1%	-9.5%	-22.9%	-20.1%	-14.9%
All (with additional demographic controls)	-19.0%	-16.6%	-8.7%	-20.5%	-18.6%	-13.8%
By education:						
No bachelor’s degree	-10.0%	-8.5%	8.0%	-11.9%	-8.2%	3.5%
Bachelor’s degree	-27.9%	-23.1%	-19.9%	-29.0%	-25.9%	-24.3%
By race and ethnicity:						
White, non-Hispanic	-24.2%	-20.5%	-13.8%	-25.5%	-23.0%	-19.1%
Black, non-Hispanic	-9.9%	-3.4%	8.6%	-12.5%	-2.9%	1.6%
Hispanic	-10.5%	-7.3%	8.1%	-12.8%	-10.7%	3.9%
AAPI/other, non-Hispanic	-24.4%	-19.4%	-13.0%	-29.5%	-21.8%	-19.5%
By gender:						
Men	-20.5%	-16.0%	-6.0%	-23.2%	-17.8%	-10.7%
Women	-16.1%	-14.7%	-8.2%	-17.5%	-17.1%	-13.9%

Table 6 (cont.)

Notes: Hispanic refers to Hispanic workers of any race, while white, Black, and AAPI/other refer to non-Hispanic whites, non-Hispanic Blacks, and non-Hispanic Asian Americans, Pacific Islanders, and other racial categories, respectively. “Banned” states are those in which government workers are effectively barred from engaging in collective bargaining over pay. “Permitted” states are those in which government entities may engage in collective bargaining over pay with government workers, but there is no statewide mandate. “Required” states are those in which government entities are required to engage in collective bargaining over pay with government workers. Collective bargaining rights are determined separately for teachers, police, firefighters, other local government workers, and other state government workers. The pay gap is the difference in weekly earnings of full-time government workers, working 35+ hours weekly, ages 18–64, compared with those of their private-sector counterparts, controlling for education, age, hours worked, state, and year using regression analysis. Regressions with additional demographic controls also adjust for race, ethnicity, gender, immigrant and marital status. The pre-pandemic period is March 2016–February 2020. The pandemic and post-pandemic period is March 2020–February 2024.

Source: Authors’ analysis of U.S. Census Bureau Current Population Survey microdata, pooled Outgoing Rotation Group sample (Flood et al. 2020 merged with EPI 2024). Collective bargaining rights based on authors’ analysis of Valletta and Freeman (1988); Rueben (1996); Dippel and Sauers (2019) Sanes and Schmitt (2014); Frandsen and Webb (2017); NCTQ (2019); Han (2019); Brannick (2019); NEA (2020); AFSCME (n.d.) cited in McNicholas et al. (2020); Commonwealth Foundation (2021); García and Han (2021); Brannick and Holman (2022); New Mexico Public Employee Labor Relations Board (2023); NCSL (n.d.(a)); IAFF (n.d.).

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Positive effect of strong collective bargaining on non-college-educated workers. In states with strong collective bargaining rights, workers without bachelor’s degrees actually earn 3.5% more than their private-sector counterparts because unions raise the wage floor for workers with less education (Table 6). However, this advantage has shrunk relative to the pre-pandemic period.

Positive effect of strong collective bargaining rights on Black and Hispanic workers. In states where employers are required to bargain, Black workers earn roughly the same in government as in the private sector, as lower average pay is offset by less racial pay discrimination in the public sector (Table 6). (Black workers appear to earn slightly more in the public sector—1.6% more—but the difference is not statistically significant.) Hispanic workers earn 3.9% more in the public sector in states where collective bargaining rights are strong.

Positive effect of strong collective bargaining rights for men and women. As discussed earlier, women in the public sector are disproportionately employed in teaching, an occupation in which highly educated workers are paid much less than their counterparts in historically male occupations. In contrast, male-dominated public safety occupations tend to pay better than other jobs that do not generally require a bachelor’s degree. This advantage stems from the fact that collective bargaining rights for public safety workers are often stronger than for other government workers; these jobs require more training and responsibility than many other noncollege jobs; and male-dominated occupations often pay better than female-dominated ones due to a bias against women's work (Schieder and Gould 2016). As a result, strong collective bargaining rights reduce the public-sector pay gap for women, but not as much as for men (Table 6).

How do our findings compare with prior research?

Other studies (for an overview, see Brunner and Ju 2019) have also found that public-sector workers are paid less than comparable private-sector workers and that strong bargaining rights narrow this gap. The study by Eric J. Brunner and Andrew Ju (2019) using data from 2005–2015 found that mandatory collective bargaining rights increased public-sector pay by approximately 5–8 percentage points compared with states with weak or no public-sector bargaining rights. Our research found larger potential effects of strong bargaining rights in the pre-pandemic period but similar potential effects in the pandemic and post-pandemic period.

Though our study shares many similarities with that of Brunner and Ju, key differences explain why their findings might be considered a lower-bound estimate of the effect of legislation granting collective bargaining rights, while our pre-pandemic results might be considered an upper-bound estimate.

In an effort to isolate the effect of collective bargaining laws from other area effects on wages, Brunner and Ju compared workers who work in the same commuting zone but in bordering states with different collective bargaining laws. This statistical technique has advantages but limits the analysis to commuting zones that straddle state boundaries, which likely minimizes the effect of collective bargaining rights on wages due to spillover effects between neighboring areas.

For example, a school district in a state with weak bargaining rights that is adjacent to a state with strong bargaining rights may need to offer higher pay to attract and retain teachers than a district elsewhere in the state. Conversely, a school district across the border (in the state with strong bargaining rights) may be able to offer lower wages than a district elsewhere in that state. There may also be political spillover effects because strong public-sector unions tend to increase support for funding public services (see, for example, Han and Maloney 2019; Brunner, Hyman, and Ju 2020; Banerjee et al. 2021). Thus, well-funded schools in one district may increase support for more school funding and higher teacher pay in an adjacent district.

Brunner and Ju exclude police and firefighters in states where these workers have stronger collective bargaining rights than other public-sector workers. This might also bias their results because the union effect on pay is larger for public safety personnel than for most public-sector workers, especially those with bachelor's or advanced degrees. In addition, Brunner and Ju include some control variables, such as population density and proximity to a coastline, that could affect their results in unforeseen ways. At least one of these variables—the Democratic Party vote share in 2008—is likely to be both a cause and consequence of public-sector collective bargaining strength. Including a variable like this will tend to minimize the effect of collective bargaining rights on public-sector wages (Angrist and Pischke 2009).

In contrast, our estimate of the effect of public-sector bargaining rights on wages may overstate the short-term impact of granting public-sector bargaining rights. This is because some of the pay differences between states with strong and weak or no rights are due to differences in state politics, which will not change overnight as a consequence of passing the federal Public Service Freedom to Negotiate Act.

In general, neither our study nor that of Brunner and Ju accounts for lagged effects of changes in public-sector bargaining laws and other factors, including inflation. Because inflation was unusually high in the early post-pandemic period, union members covered by multiyear contracts saw their real wages eroded by inflation, likely contributing to the decline in the pay advantage of union members. Thus, while our pre-pandemic estimates likely overstate the short-term impact of legislation granting collective bargaining rights because we do not control for other political factors that may be slow to change, our pandemic and post-pandemic estimates may understate the benefits of conferring bargaining rights due to the effect of inflation on the real wages of workers covered under multiyear contracts.

Both our analysis and that of Brunner and Ju include private- and public-sector workers, whether or not they belong to unions. Nonunion workers' pay is affected by collective bargaining rights because unions are obligated to negotiate on behalf of all workers in a bargaining unit, including those who choose not to join the union. There are also spillover effects on workers outside the bargaining unit, including those in managerial positions, as employers adjust pay to preserve hierarchies. The direct effect of granting collective bargaining rights to workers who form a union is likely to be stronger than the indirect effect on workers who are not in a bargaining unit.

How does total compensation compare in government and the private sector?

Though public-sector workers usually have more generous benefits, these are not enough to close the compensation gap for most workers. According to the U.S. Bureau of Labor Statistics, employee fringe benefits were equal to 35.1% of earnings in the private sector and 59.1% of earnings in state and local government (except where otherwise noted, benefit cost estimates are based on the authors' analysis of available BLS-ECEC 2020–2023 data for the pandemic and post-pandemic period. See methodology appendix).

This is not an apples-to-apples comparison, however, because public-sector workers are better educated, work for larger employers, and are more likely to work full time than private-sector workers. Workers with these characteristics usually have more generous benefits. However, it is difficult to adjust for these combined factors using the BLS data, especially since there is no information on worker characteristics, such as educational attainment, and only limited information on employment characteristics, such as establishment size, especially for government workers. According to BLS, however, benefits for full-time private-sector workers were 37.2% of earnings, and benefits for private-sector workers in establishments with 500 or more workers were 42.4% of earnings—less than for public-sector workers but more than for private-sector workers as a whole.

In addition, the BLS measure for public-sector worker benefits is inflated because it includes amounts going to pay down, or “amortize,” unfunded pension liabilities associated with past employment. Thus, while employer contributions toward state and local government pensions averaged 19.0% of earnings based on BLS data, the average employer share of the normal cost of these pensions was only 6.6% of pay based on the plans’ actuarial valuations (authors’ analysis of Public Plans Data 2020–2022). Unlike the BLS measure, which includes amortization payments, normal cost estimates include only the present value of future pension benefits earned by workers in the current year. Removing amortization payments therefore reduces the cost of public-sector benefits to 46.7% of pay.[2]

On the other hand, the BLS measure of health benefits may underestimate the full cost of these benefits since many government employers do not prefund retiree health benefits. Though some of the cost of health benefits for retirees is included in the BLS measure in the form of higher premiums for active workers with whom they are pooled, this does not capture the full cost of covering retirees if employers contribute a portion of retirees’ health insurance premiums or if future benefits are more costly as a share of payroll than current benefits. Since retiree health benefits are more common in the public sector than in the private sector, we adjust for this by adding a percentage point to public-sector benefits, putting their total benefit cost at 47.7% of pay, compared with 42.4% for private-sector workers at large establishments. Based on an earnings gap of 17.6% from Table 5, then, total compensation is roughly 14.5% lower for government workers than for comparable private-sector workers.

Collective bargaining can correct a power imbalance between workers and employers

Employment relationships almost never resemble the perfectly competitive markets described in introductory economics textbooks, where employers who pay workers a penny more than the market rate would be put out of business by competitors and those who pay a penny less would lose all their workers (Manning 2005; Ashenfelter, Farber, and Ransom 2010; CEA 2016; Bivens and Shierholz 2018). In the real world, rather than a precise, nonnegotiable market wage that adjusts quickly to changes in supply and demand, employers and workers negotiate across a range of potential wages within which neither the employer nor the worker would gain by severing the employment relationship. The employer would face significant recruiting, training, and other costs associated with hiring new workers, and the employee would face significant search and other costs associated with looking for a new job.

Another recent study shows why strengthening collective bargaining rights for public employees is especially important for correcting broader imbalances of power in concentrated labor markets. Weber Handwerker and Dey (2022) find that one reason public-sector workers are paid less despite their higher unionization rate is that school districts, hospitals, universities, state governments, public utilities, and other government entities are often the largest—or only—employment option in a given town or region for occupations like teachers, emergency room workers, professors, graduate assistants, legislative aides, utility workers, and others with specialized skills. This "monopsony power," as economists refer to it, gives employers significant leverage in negotiating compensation, especially since many public-sector workers have invested significant time and expense in acquiring specialized skills and cannot easily switch careers. Especially in geographic areas where public employers dominate, public-sector workers' lack of bargaining power has spillover effects on private-sector workers, including measurable downward pressure on wages.

In these real-world circumstances, collective bargaining, like a higher minimum wage, corrects a power imbalance between individual workers and employers, who generally have informational and other advantages over individual workers. Employers also often have a strong incentive to deny individual workers a raise since it may trigger higher wage demands by other workers. Employers are also reluctant to raise wages because it is difficult for morale reasons to reduce them later in response to changing economic conditions, though real wages can be gradually eroded through inflation. These factors help explain why some employers who complain about difficulties hiring workers offer hiring bonuses but are reluctant to raise wages.

Unions representing public-sector workers negotiate directly with school districts and other employers and indirectly with elected officials and the taxpayers who elect them. Politicians have an incentive to overpromise the public services they can deliver with existing revenues and to claim credit for saving taxpayers money by reducing or minimizing workers' compensation while ignoring the effect on services. For small-government ideologues, a disgruntled workforce slowly eroded of workers with the best outside options may be seen as a desirable outcome, not a disadvantage, of limits on public-sector bargaining rights—a way to tarnish the government "brand." For these politicians, weakening unions as a force in politics may be a goal in itself.

Public-sector workers, meanwhile, are reluctant to quit careers devoted to public service, especially with pension and other benefits designed to encourage retention. For this reason, elected officials and public-sector employers can sometimes get away with cutting pay for extended periods before facing increased turnover and difficulty recruiting new workers, or even waves of strikes, as occurred among teachers in recent years or among bus drivers working under challenging pandemic conditions in 2021 (Poydock et al. 2022). In the long run, however, the quality of public services suffers when job satisfaction and other nonmonetary rewards do not make up for the lower pay workers receive in the public sector.

In these real-world situations, closing the public-sector pay gap benefits not only workers and their families but also the general public. The broader benefits of strong public-sector unions are outside the scope of this report, but they include fostering social mobility, advocating for better public services, strengthening whistleblower protections, raising labor standards in all sectors, lowering poverty, and reducing expenditures on safety net programs (Banerjee et al. 2021).

Conclusion

Public-sector workers earned, on average, 17.6% less than comparable private-sector employees in the four years since the pandemic, a larger pay gap than in the four years leading up to the pandemic (-13.9%). The compensation of these workers—such as teachers and school staff, bus drivers, firefighters, police, state agency staff, and public university employees—is an important issue because they provide essential public services. Though public-sector workers receive more generous benefits, these are not enough to close the pay gap. Total compensation in the pandemic and post-pandemic period is approximately 14.5% lower among government workers.

Unions help narrow the public-sector pay gap. In states where employers have a duty to bargain with state and local government workers, the pandemic and post-pandemic earnings gap was -14.9%, whereas in states where collective bargaining is banned outright, the earnings gap was -22.9%. In states where collective bargaining is permitted but not required, the gap lay in between the two (-20.1%).

While a few states have strengthened public-sector bargaining rights in recent years, in more states these rights have proven precarious and highly vulnerable to political attack since 2010. The inconsistency in workers' rights across states and the large and growing number of states where public-sector workers lack comprehensive collective bargaining rights illustrate the need for Congress to take action to guarantee a solid floor for collective bargaining rights of all public employees. In the meantime, states must cease attacks on public employees and prioritize ensuring that all workers in their states have rights at least equivalent to those guaranteed to private-sector workers under federal law.

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Methodology appendix

The pay analyses use eight years of pooled inflation-adjusted microdata from the U.S. Census Current Population Survey Outgoing Rotation Group (CPS-ORG) data downloaded from the University of Minnesota's IPUMS site supplemented with weekly pay and hours data from EPI CPS-ORG microdata extracts (Flood et al. 2020; EPI 2024). Pre-pandemic observations are from March 2016–February 2020; pandemic and post-pandemic observations are from March 2020–February 2024. Observations with imputed weekly earnings are dropped from the sample for reasons explained by Allegretto and Mishel (2019) and Brunner and Ju (2019). Top-coded weekly earnings values are estimated separately by year and gender assuming a Pareto distribution, except for observations beginning in March 2023 where the Census Bureau substituted earnings based on the average weekly earnings of the top 3%.

The sample is restricted to full-time wage and salary workers between the ages of 18 and 64 who are employed in state or local government or the private sector, excluding federal government and self-employed workers. The private-sector sample includes nonprofit workers. The full-time workforce is defined as workers working 35 or more hours a week. Although the sample includes some teachers and other workers who do not work year-round, focusing on weekly earnings permits apples-to-apples comparisons.

The regression model—using the natural log of weekly earnings as the dependent variable—is based on Allegretto and Mishel's (2019) model, with some modifications. Since the public-sector sample includes all occupations, not just teachers, the overall sample is not restricted to workers with bachelor's degrees or more education. Likewise, the coefficient of interest is the pay difference for all state and local government workers rather than the pay difference for teachers. Similar to Allegretto and Mishel's (2019) analysis, our analysis controls for age, including a quadratic to capture diminishing returns to experience; educational attainment (less than high school, high school, some college, bachelor's degree, advanced degree); and state. It also controls for the year and number of hours worked, which vary even among full-time workers. Allegretto and Mishel do not control for hours worked to assuage critics who claim that teachers' weekly hours may be overstated. While teachers, police, and firefighters report working longer hours than full-time private-sector workers, this is not true of other government workers, who tend to have slightly shorter work hours. Therefore, omitting a measure of hours worked could result in an exaggerated (not conservative) measure of the pay penalty faced by government workers.

Controls for race, ethnicity, gender, immigrant and marital status are similar to those used by Allegretto and Mishel (2019) but are not included in most regressions examining government earnings gaps. While such demographic characteristics are associated with differences in pay, these differences often reflect labor market discrimination rather than differences in job skills and qualifications. Since women and Black workers tend to be overrepresented in the public sector, in part because civil service hiring practices reduce the scope for discrimination, controlling for race and gender tends to explain away some of the public-sector pay gap. However, because pay differences associated with race, ethnicity, and gender may also reflect unobserved differences in work experience or other job qualifications—for example, if women are more likely to have taken time out of the labor market to care for young children—some researchers prefer to include these demographic controls as proxies for these unobserved differences. Key results are reported both ways to show that conclusions about the state and local government pay gap do not hinge on including or excluding these controls.

Additional regressions estimate the size of pay gaps for women and Black, Hispanic, and AAPI/other workers within each sector, and the size of the public-sector pay gap for each demographic group. These regressions also control for educational attainment, age, year, state, and hours worked.

Employee benefits and total compensation. The source for the cost of employee benefits is the Bureau of Labor Statistics Employer Costs for Employee Compensation downloaded from the BLS website for state and local government employees, full-time private-sector workers, and private-sector workers in establishments with 500 or more workers (BLS-ECEC 2020–2023—the latest available at time of writing). Benefits are adjusted to exclude supplemental pay, which is added to the earnings measure. Benefits in this report are expressed as a share of earnings, whereas those in the BLS data are expressed as a share of total compensation.

Notes

1. See Wolfe and Schmitt (2018) for a detailed profile of state and local government workers.

2. The 6.6% estimate is the participant-weighted average of employers' normal costs in fiscal years 2020–2023 for plans in the Public Plans Database (latest available as of May 10, 2024). This is in line with figures reported in a 2021 Center for Retirement Research brief (Aubry and Wandrei 2021, Figure 2).

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