

Raising pay in public K–12 schools is critical to solving staffing shortages

Federal relief funds can provide a down payment on long-needed investments in the education workforce

Report • By [David Cooper](#) and [Sebastian Martinez Hickey](#) • February 3, 2022

Key takeaways

- **Since the beginning of the pandemic, state and local public education employment fell by nearly 5% overall**, with much larger declines in some states, according to establishment data from the Bureau of Labor Statistics. Household survey data indicate that the number of employed public K–12 teachers fell by 6.8%, school bus drivers by 14.7%, school custodians by 6.0%, and teaching assistants by 2.6%.
- **COVID concerns are likely a factor in nonteacher staff shortages.** Education support staff tend to be older—and thus more at risk of severe COVID—than the average U.S. worker. Less than a third (31.6%) of U.S. workers overall are age 50 or older, compared with 66.2% of bus drivers, 55.4% of custodians, and 50.4% of food service workers in the K–12 public education workforce.
- **Low pay is a long-standing issue for support staff.** From 2014 to 2019, the median weekly wage (in 2020\$) for food service workers in K–12 education was \$331, while school bus drivers received \$493 and teaching assistants \$507. In contrast, the median U.S. worker earned \$790 per week.

- **Inadequate pay is a long-standing issue for teachers.** Past EPI research shows that public K–12 school teachers are paid 19.2% less than similar workers in other occupations.
- **Policymakers should tap into the hundreds of billions of dollars in federal COVID relief funds** available now to raise pay for education staff, enact strong COVID protections, invest in teacher development programs, and experiment with ways to support part-time and part-year staff when school is not in session. They also need to plan for sustainable long-term investments in the K–12 public education workforce.

This research was first presented on January 27, 2022, to a task force of the American Federation of Teachers on the teacher and school staff shortage.

Ever since students began returning to classrooms in the late summer and fall of 2021, countless news stories have described intense staffing shortages in primary and secondary schools.¹ The pandemic has wreaked havoc on the country’s K–12 educational workforce, with overworked educators retiring or leaving the profession, insufficient substitute teachers to fill in when COVID hits a district, too few paraprofessionals and teaching assistants there to support students who are struggling after more than a year of virtual learning, not enough bus drivers to get students to and from school, and skeleton crews of custodial and food service workers trying to make do (Sainato 2021; Truong 2022; Elsen-Rooney 2021; Klein 2021; Lee and Attanasio 2022).

Inadequate safety measures and, in some cases, public officials’ outright opposition to commonsense steps to protect staff and control the pandemic have undoubtedly exacerbated staffing problems.² Many K–12 school support staff—particularly bus drivers, food service workers, and custodial staff—tend to be older and thus more susceptible to severe COVID. But the reality is that staff shortages in K–12 schools are a problem that policymakers in much of the country have had for decades. Calling in the National Guard, as some state governors have done, may get the buses rolling for now, but it will not solve the underlying issue: a lack of investment in public schools and school employees, both teachers and support staff (Lee and Attanasio 2022).

Fortunately, many states and localities confronting shortages have capacity right now to begin reversing this long-running underinvestment. Pandemic relief in the CARES Act and the American Rescue Plan Act (ARPA) have provided unprecedented levels of federal funding to states, counties, municipal governments, tribal territories, and school districts. While some of these funds are directed formulaically to school districts, policymakers at the state and local level have considerable discretion over enormous resources, particularly when it comes to hiring public-sector staff and enacting COVID-mitigation measures. Public officials should use these resources immediately to make public elementary and secondary school jobs more appealing (raising pay and strengthening benefits for both teachers and support staff), enact strong COVID protections, invest in teacher development programs, and experiment with ways to support part-time and part-

year staff when school is not in session.

This moment of crisis for the country's schools could be a turning point—the moment when communities begin funding schools at the levels required to recruit, train, and retain a deep cadre of high-quality educators and support staff in every school district—but it will require public officials to choose to make those investments. Federal COVID relief funds offer a down payment on these investments, but making them sustainable will require an overhaul of how many states fund schools.

In this report, we present data on the characteristics and pay of the K–12 education support workforce, showing trends in employment before and during the pandemic, and discuss how COVID is likely affecting workers' decisions to return to schools. We also present findings from past EPI research that shows that budget cuts, lack of investment in schools, low relative pay, challenging school climates, and inadequate early career supports led to rising teacher turnover and a shrinking pipeline of qualified teachers in the country's schools long before the pandemic began.

K–12 education remains one of the hardest-hit sectors of the economy

Since February 2020, the two major industries that have suffered the largest losses in the economy have been (1) leisure and hospitality and (2) state and local government—with the lion's share of state and local government losses occurring in K–12 education. As of December 2021, public elementary and secondary school employment was down 376,300 (or 4.7%) from its February 2020 level on a seasonally adjusted basis. This would be devastating under normal circumstances; it is even worse in this moment when schools likely need *more* staff than usual to operate with pandemic safety protocols, to try to make up for lost learning over the past two years, and to provide counseling and support to millions of children traumatized by loss and isolation.

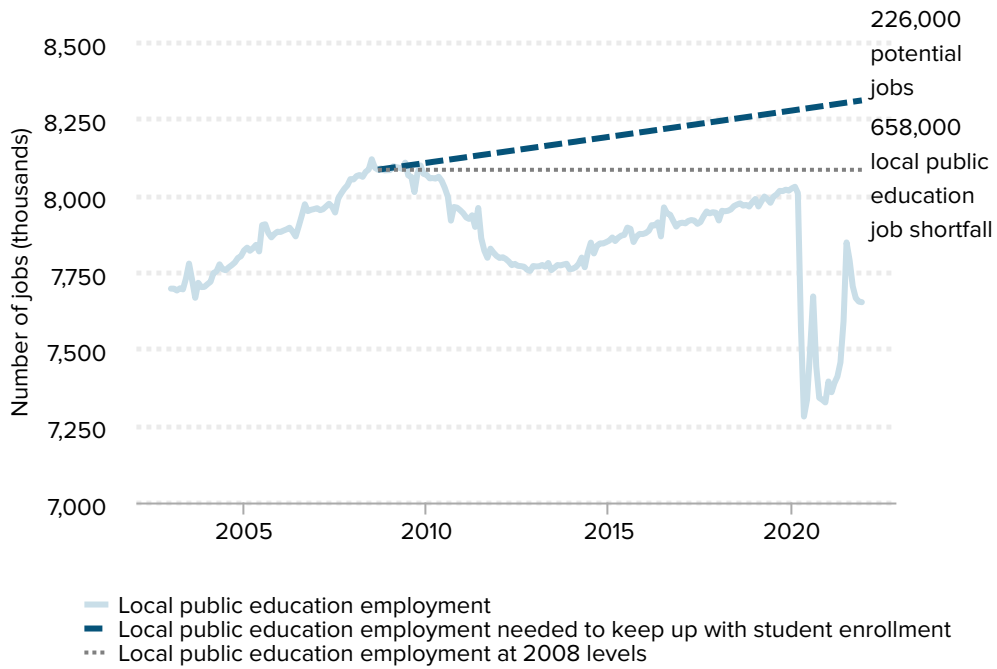
The current gap in K–12 education employment comes on the heels of huge employment losses in public education after the Great Recession that were never fully restored. In 2010 and 2011, many states made huge cuts to public education budgets, leading to severe declines in K–12 employment (Leachman, Masterson, and Figueroa 2017). As shown in **Figure A**, some of the 2010–2011 losses were eventually restored, but overall employment in K–12 public school employment never regained 2007 levels before COVID hit. As of December 2021, K–12 public education employment is down 432,000 (or 5.3%) from September 2008. This understates the true gap in K–12 education staffing, however, because student enrollment has grown since then. Had school staffing kept pace with student enrollment growth since Fall 2008—i.e., schools maintaining the same classrooms sizes and staffing ratios—K–12 public education employment today would be 658,000 (or 8.6%) higher than it was in December 2021.

Nearly every state has experienced substantial losses in local public education employment because of the pandemic. **Figure B** shows the change in local public

Figure A

Public K–12 education employment has collapsed

Local public education employment and employment needed to keep up with enrollment, 2003–2021



Source: Reproduced from Gould 2020, “Public Education Job Losses in April Are Already Greater Than in All of the Great Recession.” EPI analysis of data from the Current Employment Statistics public data series and U.S. Department of Education, National Center for Education Statistics.

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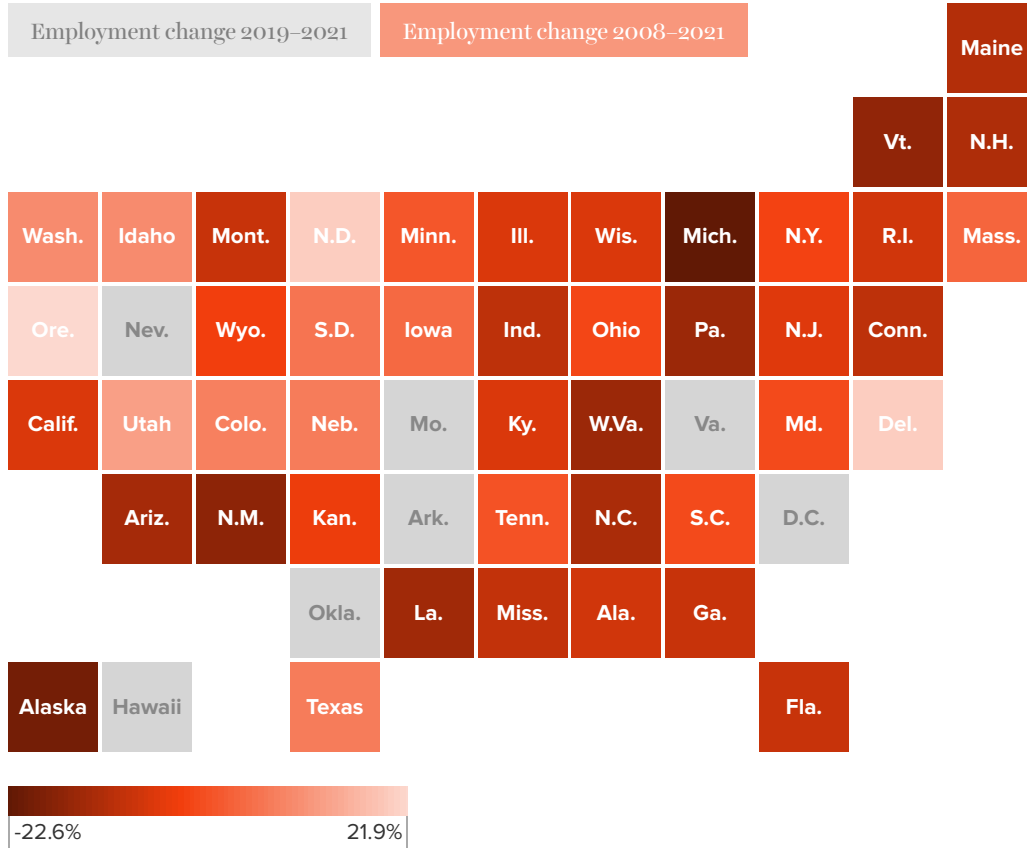
education services—an industry category that is mostly made up of public elementary and secondary schools—by state from 2019 to 2021.³ As the map indicates, the largest declines in the pandemic have occurred in Alaska (-17.5%), Vermont (-11.6%), and New Mexico (-10.7%). A total of 16 states have experienced losses of 5% or more, with seven states having losses of 8% or more.

Employment declines have occurred among both teachers and support staff. Our analysis of data from the Current Population Survey, depicted in **Figure C**, shows that the number of people reporting they were employed in public K–12 elementary and secondary schools declined by 4.7% from Fall 2019 to Fall 2021. The number of teachers fell by 6.8%—an enormous and potentially very damaging loss for the long-term success of schools and the academic success of students, which we discuss in a later section of this report. There were also acute declines among nonteacher support staff, with the number of bus drivers falling by 14.7%, school custodians by 6.0%, and a slightly smaller 2.6% drop among teaching assistants.

Figure B

Public education employment has not recovered from the Great Recession, much less the COVID pandemic

Change in public education employment, 2008–2021 and 2019–2021



Notes: Employment data is for all local public education services, which includes K–12 workers as well a small share of additional education workers. New York state data is for K–12 exclusively. Change in employment calculated by comparing average of September, October, and November data from each year. Education employment data is not available for Hawaii, Missouri, or the District of Columbia and does not go back to 2008 for Arkansas, Nevada, Oklahoma, or Virginia.

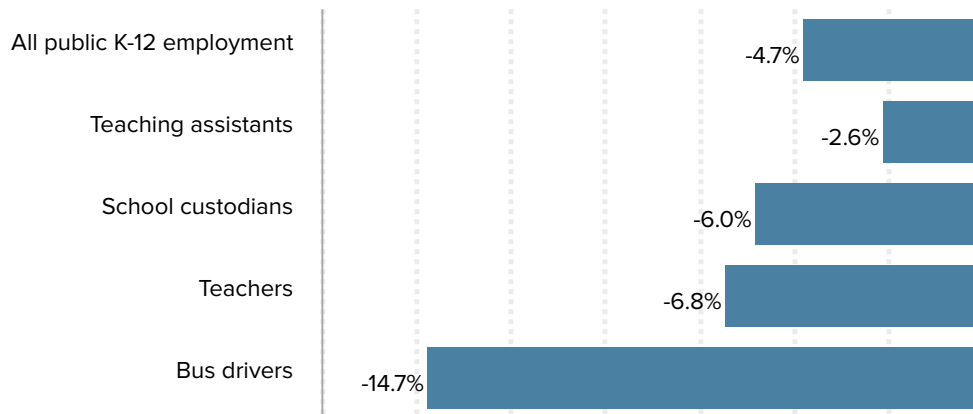
Source: EPI analysis of BLS Current Employment Statistics data.

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Figure C

Bus drivers, teachers, and school custodians have experienced particularly large declines in employment during the pandemic

Percent change in employment levels from October 2019 to October 2021 for select K–12 public education occupations



Notes: Data reflect the 12-month average in employment ending in October 2021 relative to the 12-month average of employment ending in October 2019.

Source: Economic Policy Institute analysis of BLS Current Employment Statistics series and Current Population Survey microdata.

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What's driving nonteacher staffing shortages

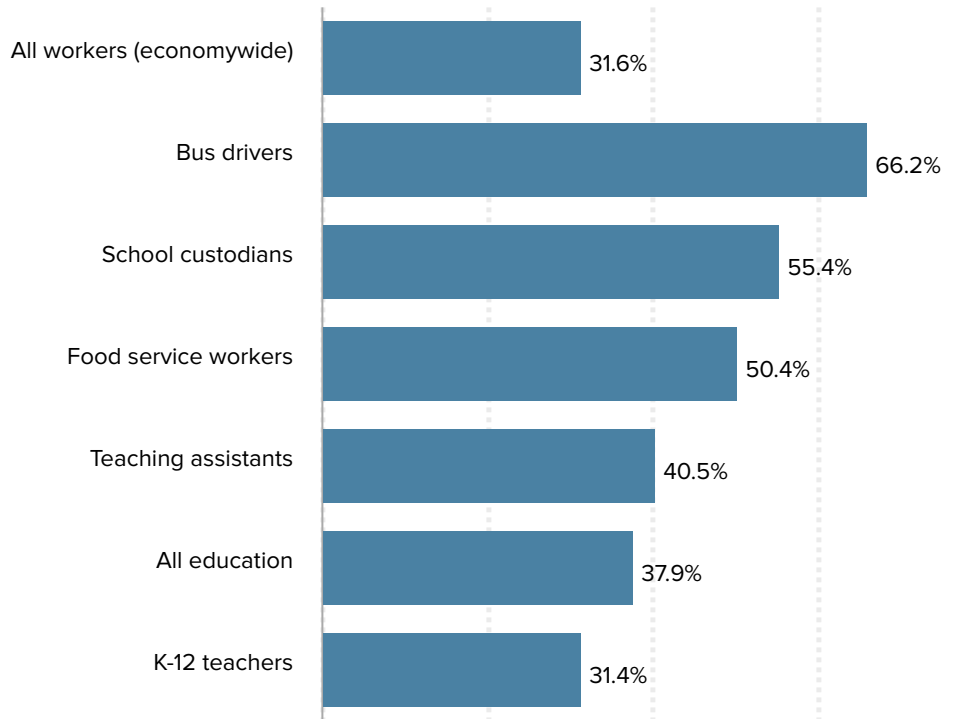
Education support staff are vital to school operations—getting students to school, ensuring they're fed, maintaining safe and clean facilities, and providing individual support and attention when a student needs help. In many cases, these workers are also particularly vulnerable to COVID-19. Not only are education workers in general exposed to what has been—until recently—a largely unvaccinated student population, but support staff in particular are older, on average, than the typical U.S. worker, putting them at higher risk for severe COVID-19 illness. Our analysis of 2014–2019 data from the Current Population Survey (CPS) finds that the average age of education support staff overall is 48 years old, compared with 41 among all workers in the economy. The average bus driver is 54 years old, while both food service and custodial workers are 49 years old on average. The average age among teaching assistants is 46 years old.

To see just how meaningful these age differences are, **Figure D** shows the share of workers in various K–12 public education occupations who are age 50 or older, as well as the share among workers in the economy overall. The share of K–12 teachers who are age 50 or older (31.4%) is roughly the same as the share in the overall workforce (31.6%). In

Figure D

Education support staff are typically older than other workers

Shares of K–12 public education support workers and workers in the overall economy who are age 50 or older



Source: EPI analysis of 2014–2019 pooled Current Population Survey microdata.

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contrast, the share of public school bus drivers who are 50 or older is 66.2%—more than double the share in the economy overall. Similarly, more than half of food service and custodial workers are age 50 or older. Given that COVID poses greater health risks to older individuals, it is plausible that this typically older workforce may be especially concerned about returning to front-line jobs, particularly jobs that require them to be around a population that may not be fully vaccinated.

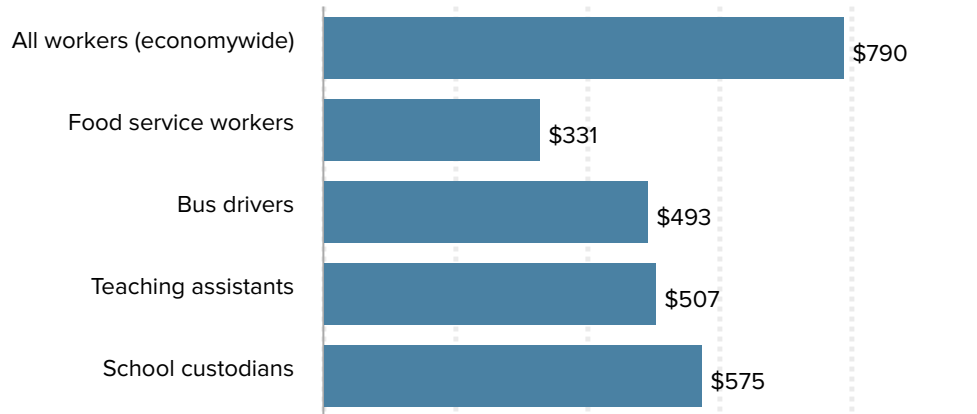
The other key issue likely driving education support staff shortages is the fact that these jobs are very poorly paid. **Figure E** shows that typical weekly wages of education support staff are considerably lower than typical weekly wages in the economy overall. From 2014 to 2019, the median weekly wage of food service workers in K–12 education was \$331 per week (2020 dollars)—less than half the median weekly wage of workers in the economy overall. Similarly, bus drivers and teaching assistants are paid roughly \$500 per week—just over 60% of the overall median.

For some of these positions, low weekly wages are a function of both low hourly rates and more limited hours. School buses and cafeterias, for example, typically operate only for a

Figure E

Education support staff are paid very low wages

Weekly median wages of all workers and K–12 public education support workers



Notes: Weekly wages in 2020 dollars.

Source: EPI analysis of 2014–2019 pooled Current Population Survey microdata.

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portion of the workday. Bus drivers and food service workers average only about 30 hours a week in these jobs.⁴

At these weekly rates, a school food service worker makes just over \$17,000 a year, and school bus drivers just under \$26,000 *if they work year-round*—an unlikely scenario, as many of these jobs are available only when school is in session. Many K–12 education staff are either out of work or must find alternative employment during the summer months.

Whether they supplement their school work with seasonal work during the summer or with additional work year-round—or both—school staff are more likely than other workers to work multiple jobs. Our analysis of CPS data finds that whereas 4.5% of all workers work more than one job, 11.4% of public school bus drivers, 10.6% of teaching assistants, 7.1% of school custodians, and 6.1% of food service staff work multiple jobs.

The combination of low pay and limited hours makes these front-line jobs less attractive to return to—or apply to. Part-time earnings at low hourly rates may simply not be viable for many would-be staffers in these roles.

Serious challenges for teachers amid an existing staffing crisis

The enormous toll that the pandemic has had on teachers cannot be understated. Streeter (2021) describes some of what teachers have faced: Many spent significant portions of the past two years trying to provide their students with a quality education via Zoom, often while juggling their own children’s needs. Many were asked to return to in-person teaching

environments in which reasonable safety measures such as mask-wearing were politicized and, in some cases, outright banned. Many lost friends and colleagues to COVID.

In some districts, teachers are now dealing with politically motivated efforts to censor classroom instruction, particularly around topics of race and racial injustice.⁵ As Sawo and Banerjee (2021) describe, this campaign to scrutinize and attack school curriculum is intended to distract from, and subvert reforms on, substantive issues facing communities.

All of these relatively recent developments are playing out against a longstanding, large, and growing gap between what teachers earn and what their similarly educated counterparts elsewhere in the economy are paid. Under these circumstances, it should not be surprising that schools are dealing with teacher shortages and that an increasing share of teachers have considered leaving the profession (Zamarro et al. 2021).

Though the pandemic has certainly heightened staffing challenges, education journalists and researchers have known since long before COVID that the United States has had a large and growing shortage of certified, well-trained teachers. In 2019 and 2020, EPI produced a series of reports by Emma García and Elaine Weiss that extensively documents this problem.⁶ The series describes how estimates of the overall supply and demand for teachers made back in 2016 already projected a gap of at least 110,000 educators by 2020 (García and Weiss 2019a). Importantly, EPI's research explains that when accounting for teacher credentials and the distribution of highly qualified teachers across schools serving concentrations of low-income students, the shortages are even worse than these overall estimates.

Nearly one in five public schools reported having difficulty filling teacher vacancies a decade before COVID, and the problem only got worse in the intervening years. **Figure F**, adapted from García and Weiss 2019b, shows first of all that the share of schools that reported having vacancies to fill grew from two-thirds in the 2011–2012 school year to nearly four in five schools by the 2015–2016 school year. Among those with vacancies, the share reporting that it was “very difficult” to fill vacancies nearly doubled, from 19.7% to 36.2%.

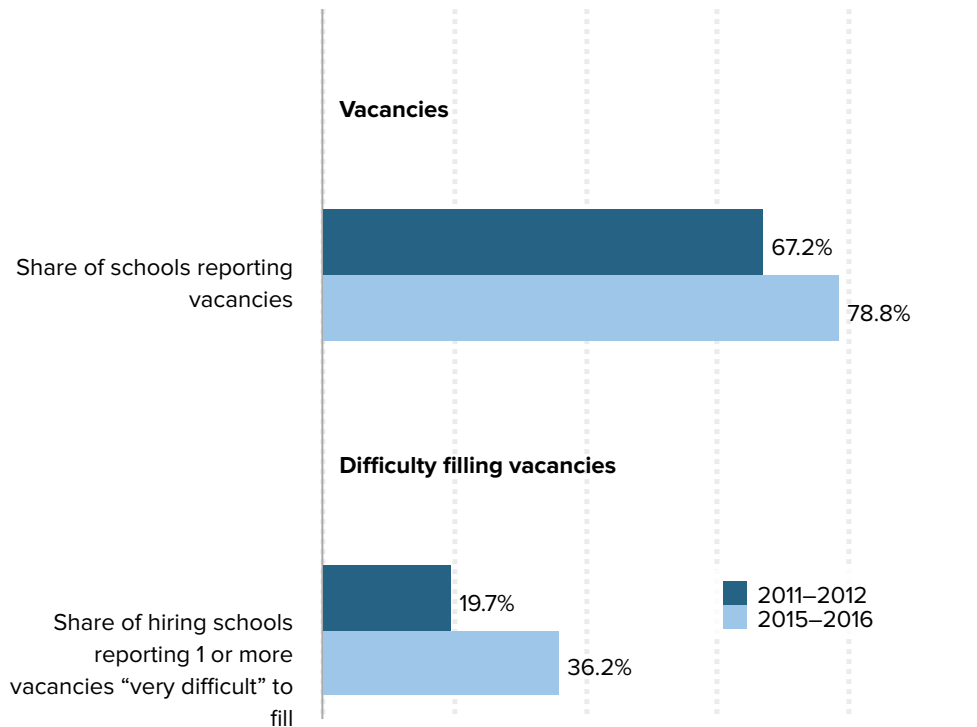
García and Weiss's research also describes how the pipeline of qualified teachers shrank considerably in the years after the Great Recession. **Figure G**, also adapted from García and Weiss 2019b, shows that from 2008–2009 to 2015–2016, the number of people awarded degrees in education declined by 15.4%, the number enrolled in teacher preparation programs dropped by 37.8%, and the number completing teacher preparation programs fell by 27.4%.

EPI's research identifies three primary factors driving the teacher shortage: (1) challenging work environments or “school climates”; (2) inadequate or uneven professional supports for teachers; and (3) low pay relative to peers in other professions with similar credentials and experience (García and Weiss 2019c, 2019d, 2019e).

On this last point, EPI has been documenting the growing teacher pay gap for decades. Research by Sylvia Allegretto and Lawrence Mishel shows that after adjusting for inflation, the average weekly pay of public school teachers did not grow at all between 1996 and

Figure F

Share of schools that reported having vacancies and having difficulty filling vacancies, 2011–2012 and 2015–2016



Notes: Data are for public noncharter schools and are based on a count of schools, not on the total number of vacancies or the number of teachers the school failed to hire.

Source: Adapted from Figure B in García and Weiss 2019b, *U.S. Schools Struggle to Hire and Retain Teachers*. Analysis of 2011–2012 Schools and Staffing Survey (SASS) and 2015–2016 National Teacher and Principal Survey (NTPS) microdata from the U.S. Department of Education's National Center for Education Statistics (NCES).

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2018, while wages of other college graduates rose about 22% over the same period (Allegretto and Mishel 2019). In fact, when compared with similarly educated and experienced workers in other professions, teachers have suffered a persistent and growing pay penalty since the early 1980s.

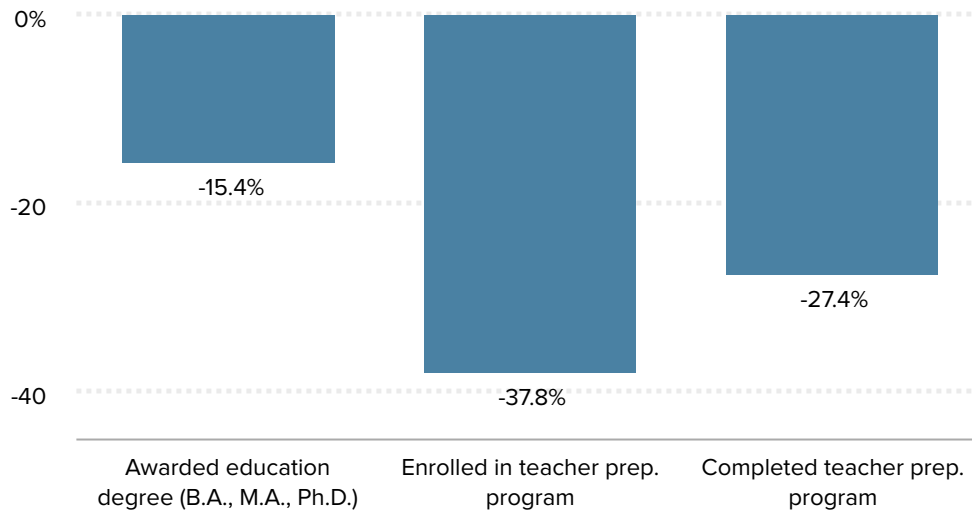
Figure H, adapted from Allegretto and Mishel (2020), shows how the teacher pay penalty—the relative difference in weekly earnings of teachers compared with similar workers in other occupations—has more than tripled since the mid-1990s, growing from a 6.1% gap in 1996 to a 19.2% gap in 2019.

The fact that teacher pay is too low is underscored by the increasing share of teachers “moonlighting” in second jobs. García and Weiss (2019c) document that in the 2015–2016 school year, 59.0% of teachers took on additional paid work at some point in the year—an increase from 55.6% in the 2011–2012 school year. García and Weiss’s report also finds that teachers who quit the profession were more likely to have earned pay outside of the school system than those who remained in teaching. When teachers must explore outside

Figure G

The teacher pipeline is shrinking

Change in number of people awarded degrees in education, and enrolling in, or completing, teacher preparation programs from 2008–2009 to 2015–2016



Source: Reproduced from Figure A in García and Weiss 2019b, *U.S. Schools Struggle to Hire and Retain Teachers*. Digest of Education Statistics (NCES 2018) and Higher Education Act Title II State Report Card System (U.S. Department of Education 2017a and 2017b).

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options to supplement low teaching pay, they may find something they would rather pursue full time.

As teachers and would-be teachers see their peers taking other jobs where wages are rising, with more supportive work environments, and where funding and job security isn't subject to political whims, it should not be surprising that many would find teaching less attractive. Declining numbers of qualified teachers and increased teacher turnover not only make it harder for schools to operate, but also have damaging effects on students. Research shows that increased teacher turnover depresses student achievement, particularly in high-poverty schools (Sorensen and Ladd 2018).

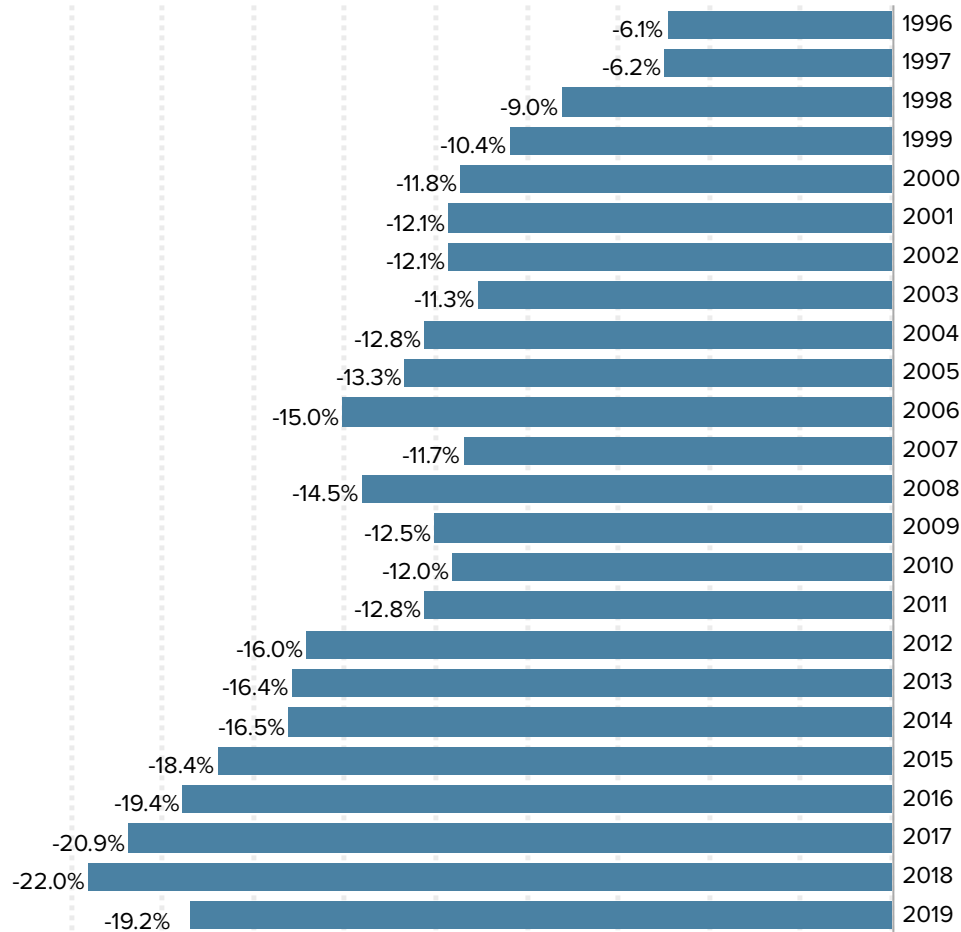
Policymakers have the means to address many of these problems—they need the will to do so

As García and Weiss explain in the final report of their teacher shortages series (García and Weiss 2020a), the issues driving the teacher shortage are complex and, thus, the shortage cannot be fully solved without a comprehensive set of solutions involving many stakeholders. However, a central piece of both the growing teacher shortage and the pandemic-induced support staff shortages is a lack of adequate financial investment in

Figure H

Teachers earn 19.2% less in wages than comparable workers

Teacher wage gap—public school teacher wages relative to comparable workers, 1996–2019



Notes: The figure shows regression-adjusted weekly wage penalties for public school teachers (elementary, middle, and secondary) relative to other college graduates.

Source: Adapted from Figure A in Sylvia Allegretto and Lawrence Mishel, *Teacher Pay Penalty Dips but Persists in 2019* (EPI and CWED, 2020).

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public education and, more specifically, in education staff. Wages are simply too low in critical positions at many public schools. School districts must also reckon with the fact that the part-time or part-year nature of many of these jobs may not be optimal for attracting and retaining workers.

Fortunately, many states and localities confronting shortages right now have more capacity to address funding and pay issues than they likely have had in decades. Congressional pandemic relief measures have provided unprecedented levels of federal funding to states, counties, municipal governments, tribal territories, and school districts.

The CARES Act, enacted in March 2020, created a \$30.75 billion Education Stabilization Fund (ESF), composed of three relief funds, two of which could support elementary and secondary schools: The Elementary and Secondary School Emergency Relief (ESSER) fund dedicated \$13.2 billion to K–12 schools (through state and local education agencies), and the Governor’s Emergency Education Relief (GEER) fund provided \$3.0 billion to governors to allocate among educational entities in their states at their discretion.⁷

An additional \$54.3 billion was allocated to a second ESSER fund (ESSER II) in December 2020 as part of the Coronavirus Response and Relief Supplemental Appropriations Act. The American Rescue Plan Act (ARPA), enacted in March 2021, created another elementary and secondary emergency relief fund (ARP ESSER) with \$122 billion for state and local education agencies.

Lastly, the ARPA also provided roughly \$350 billion in State and Local Fiscal Relief Funds (SLFRF) to state and local governments to use for a wide range of activities. As Kamper (2022) explains, policymakers at the state and local level have considerable discretion over use of these resources, particularly when it comes to hiring and compensating public-sector staff, as well as for COVID-mitigation measures. As of November 2021, states had allocated only about half of the available funds from this program (Lazere 2021).

Public officials should seize this moment of greater fiscal flexibility to begin making the reforms needed to attract, keep safe, and retain high-quality teachers and support staff. That means raising pay, enacting strong COVID protections, investing in teacher development programs, and experimenting with ways to support part-time and part-year staff when school is not in session. Illinois, for example, recently began letting education support staff collect unemployment in the summer months when school is not in session.⁸

To be clear, the one-time aid provided in the ARPA and the CARES Act will not be sufficient to fully resolve these issues. Policymakers will need to dedicate increased long-term funding to public education to bring out lasting reforms—and, in many cases, this will require expanding state and local revenues. The pandemic has clearly shown that the alternative—continuing to underinvest in public education—is not tenable if we want schools to be open and children to have a safe and supportive place to learn.

Notes

1. See Lieberman 2021 for an example of such news coverage.
2. Barthel, Sadon, and Truong (2022) describe how Virginia’s newly inaugurated governor ended the state’s mask requirement in public schools—the latest example among many cases in which Republican state officials have either failed to instate mask rules or have outright blocked school districts from adopting them. See Decker 2022 for a listing of school mask policies by state. Advisory Board 2021 describes the effectiveness of school mask mandates in schools. Wang, Deng, and Shi (2021) describe how mask-wearing is effective for reducing the spread of COVID-19.
3. Local government education services is the narrowest industry category containing public K–12 schools that is available by state for most states. The vast majority of local government education services are in elementary and secondary schools, although some community college staff may

also be included in some states. New York is the only state for which the BLS produces monthly employment data on just public elementary and secondary schools. In New York, K–12 schools account for roughly 89% of local public education services employment.

4. Authors' analysis of Current Population Survey microdata, 2014–2019.
5. See Lerer and Peters 2021, AP 2022, and Bellamy-Walker 2022 for a discussion of these efforts.
6. See García and Weiss 2020b for a summary of the series.
7. See Skinner et al. 2020 for more detail.
8. See Kamper and Wolfe 2021.

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