

# Trends in State and Local Government Employment

By Sylvia Allegretto, Hayley Brown, and Emma Curchin \*

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Center for Economic and Policy Research  
1611 Connecticut Ave. NW  
Suite 400  
Washington, DC 20009

Tel: 202-293-5380  
Fax: 202-588-1356  
<https://cepr.net>

\* Sylvia Allegretto is a Senior Economist at the Center for Economic and Policy Research (CEPR). Hayley Brown is a Research Associate at CEPR. Emma Curchin is the Domestic Outreach and Research Assistant at CEPR.

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# Executive Summary

- Unlike most prior recessions, state and local government employment struggled to recover following the Great Recession, and in some cases, these jobs never fully came back by the time the pandemic recession hit more than a decade later.
- The degree of state and local government recovery from the Great Recession varied substantially across states, the District of Columbia, and Puerto Rico.
  - Utah experienced the biggest increase in its state and local government workforce, which grew almost 22 percent between 2008 and 2019. Puerto Rico experienced the largest decline; its state and local government workforce contracted by nearly 35 percent over the same period.
  - After adjusting for changes in population, only five states met or surpassed their population-weighted expected public sector workforces. Between 2008 and 2019, West Virginia experienced the biggest population-adjusted percent increase in its public sector (growth of just under 6 percent), while Puerto Rico experienced the largest population-adjusted decline (just over 23 percent).
- Nationally, local public education failed to fully recover from the Great Recession by 2019. The extent of recovery (or lack thereof) also varied by geography.
  - Between 2008 and 2019, employment changes in the local public education subsector ranged from 30.5 percent in Oregon to -35.7 percent in Puerto Rico.
  - Adjusting for levels of K-12 enrollment, changes in local public education employment ranged from just under 23 percent growth in Oregon to a nearly 16 percent decline in Florida.
- The subpar recovery from the Great Recession meant that state and local governments were in a less resilient place than they otherwise might have been at the start of the COVID-19 pandemic.
- The loss of state and local government jobs to outright cuts and privatization has tangible negative effects on the communities those governments are meant to serve.
- In times of crisis, the federal government's response must be commensurate with the situation in order to prevent draconian austerity measures from being implemented at the state and local levels.

# Introduction

The government workforce is crucial to our daily lives and is an integral part of the US economy. The public sector provides an array of services, benefits, and amenities that support individuals and families throughout life, using tax money to support the whole of communities and the infrastructure of the country. Together, state and local governments deliver the lion's share of critical public services and are often the face of government in communities.

The exact division of labor between state and local governments varies by state and locality often with substantial overlap between the two. Local governments are usually responsible for K–12 education, public safety, and emergency services, public libraries and parks, waste management, housing and community development programs, and many other services. State governments typically oversee public higher education systems, manage Medicaid programs for low-income individuals and families, operate state hospitals and clinics, and oversee and maintain statewide transportation infrastructure, among many other responsibilities. These are hardly exhaustive lists, but they illustrate the importance of state and local governments in ensuring the delivery of critical public services like education, health care and public health, emergency response and public safety, transportation, social programs, and other important services and amenities.

Underlying the provision of these services and amenities are state and local government workers. It is via these dedicated public servants that the public is able to realize its investment in itself. Investing in emergency service workers, teachers, parks and recreation, sanitation workers, and public transit workers — to name only a few — ensures communities' well-being, supporting the overall workforce within communities and their ability to thrive in the future.

This paper analyzes employment trends for state and local governments.<sup>1</sup> We look at the long-term trends in overall US public sector employment with an eye toward what occurred

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<sup>1</sup> Federal employees are a smaller overall share (12.9 percent in 2022) of the public workforce and are spread through the states and paid for by the federal government.

in each state, the District of Columbia, and Puerto Rico over the Great Recession cycle. We use annual data, so we are also able to glean some insights into what occurred over the pandemic-led recession through 2022.



# State and Local Government Overall

We start by showing US national public sector employment trends from 1960 through 2022. **Figure 1** depicts US employment levels separately for state and local governments with gray bars that denote recessions. A few notable aspects are evident in these long trends. First, over time there has been growth in the two sectors, reflecting greater need as the population grows. Second, the volatile cyclical nature of government employment (especially local) over the two most recent recessions did not materialize over previous recessions with the exception of the early-1980s double-dip (i.e. two brief recessions, with one quickly following the other) recessions, though slowdowns are evident following some other recessions.<sup>2</sup> Over these three cycles, the economic contractions were relatively deep and/or prolonged — keeping in mind the oddity of the pandemic recession. The often-held view that public sector jobs are recession-proof was certainly not the case over the 1980s double-dip recession, the Great Recession, nor the pandemic-led shutdown. As we will discuss, however, many state and local governments came into the COVID-19 economic crisis without having fully regained what they'd lost during the Great Recession.

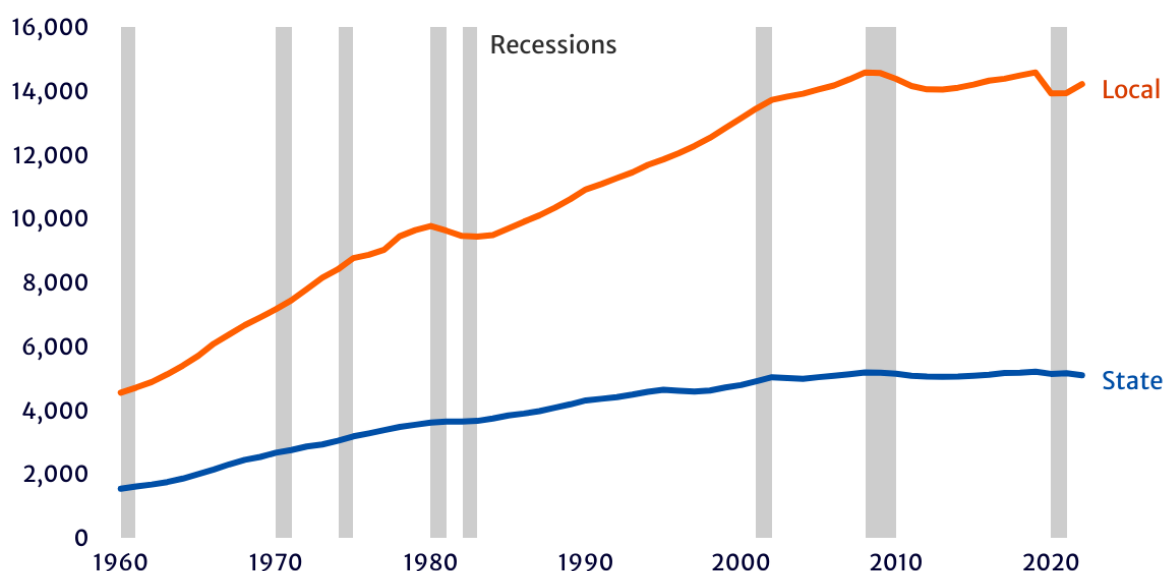
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<sup>2</sup> See Figure 2, page 3: Dadayian, Lucy and Donald J. Boyd 2013. "The Depth and Length of Cuts in State-Local Government Employment Is Unprecedented." Rockefeller Institute of Government Issue Brief. January.

Figure 1

## In Majority of Previous Recessions, Government Employment In US Did Not Display Volatile Cyclical Nature

Number of state and local government employees in thousands



Grey bars are official National Bureau of Economic Research recessions.

Source: Authors' analysis of Current Employment Statistics data, US Bureau of Labor Statistics, 1960–2022.



In this brief, our main focus is on the Great Recession, given that it is a completed cycle. It was unique among modern recessions in the relatively long period it took to regain private and public sector jobs. Officially the recession lasted 18 months, but it took over six years to recoup the level of jobs (private plus public sector) lost over the downturn and eight years for the unemployment rate to get back to 5 percent. We exploit the ample data available over the Great Recession to investigate state disparities, which is not possible during the 1980s recessions.<sup>3</sup> The loss of public sector jobs over the early-1980s recessions and the Great Recession was similar at their worst points at -3.4 percent in 1983 and -3.7 percent in 2013, respectively. But as Figure 1 shows, the length of time it took to regain jobs following the

<sup>3</sup> State and Area Employment, Hours and Earnings data became available for individual states at different times and none were available before 1990.



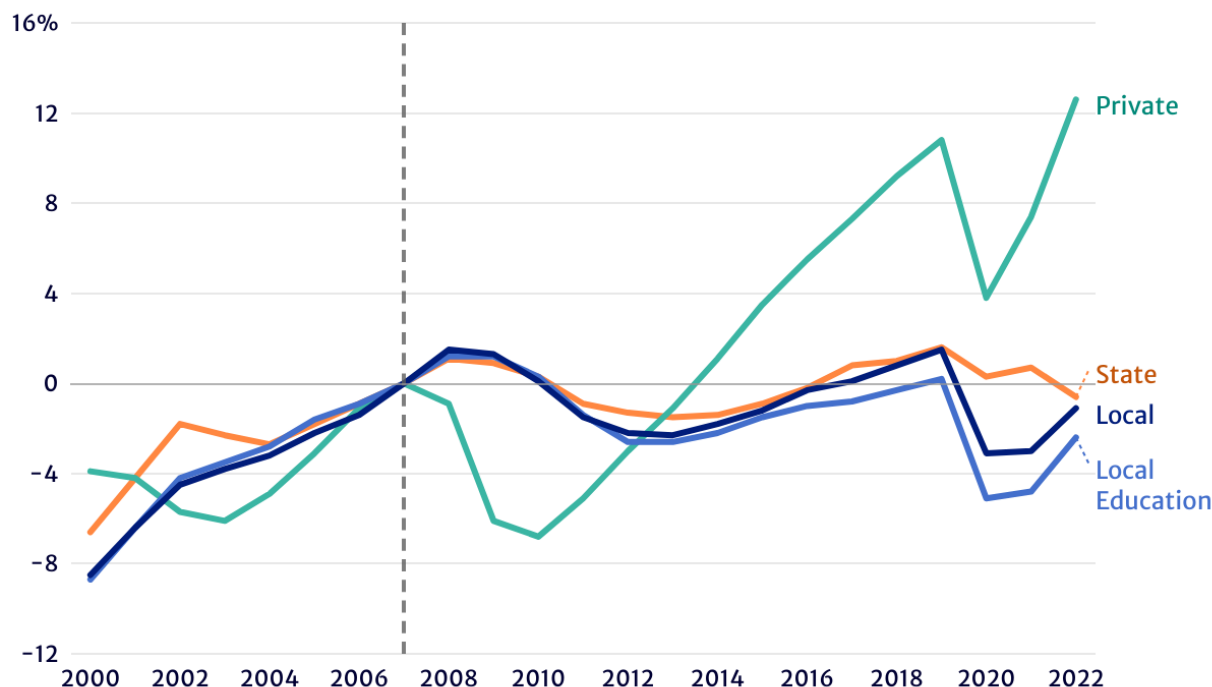
Great Recession was an anomaly. On net, US local public sector employment had not attained its previous peak level prior to the pandemic-induced shutdown a decade later, and state employment had just caught up.

The National Bureau of Economic Research (NBER), the official economic cycle dating committee, dates the entirety of the Great Recession cycle just over 12 years from the December 2007 economic peak to the subsequent peak in February 2020 just before the pandemic-induced shutdown. What is markedly different over this relatively long (peak-to-peak) cycle, is that the rebound of public sector employment across states varied considerably, and many did not recover their previous peak levels. **Figure 2** presents a closer look at this period for employment trends of four employment series: the private sector, state government, local government, and local education (a subsector of local). The dotted line centers the trends at 2007, thus data points give the rate of growth compared to 2007, the peak year just prior to the Great Recession.



Figure 2

## Public Sector Job Recovery Lagged Behind Private Sector Following Great Recession



Trends are centered around 2007 which represents a peak year prior to the Great Recession.

Source: Authors' analysis of Current Employment Statistics data, US Bureau of Labor Statistics, 2000–2022.



As Figure 2 shows, jobs in the private sector contracted immediately in response to the economic downturn. Private sector employment decreased nationally from 2007 to 2010, with an especially sharp annual decline between 2008 and 2009. It took six years for jobs in the private sector to regain their 2007 peak level (i.e., crossing the zero line in 2014). By 2019, just prior to the pandemic recession, private employment was up nearly 11 percent over 2007. The figure depicts the pandemic plunge in private sector jobs followed by a “v-turn” recovery that continues today.

There is a lag that is evident in Figure 2 as employment levels in the three public sector series (state, local, and local education) grew from 2007 to 2008, followed by larger decreases into 2009 until eventually state and local bottomed out in 2013. The local education subsector hit its low point in 2012 and stayed there for two years. The public sector has budgets and



employment levels planned, so it took some time for the downturn to affect future tax revenues and government budgets. Governments then assessed resources and planned responses to depleted budgets — which entailed significant cuts in work hours and/or public sector layoffs — even as critical services are still needed and have to be provided with a smaller workforce.

Analyzing employment trends in the public sector from their 2008 peaks (instead of the 2007 private sector peak) through 2019 shows that state employment was up 0.6 percent, local had just regained its 2008 level, and the subsector local education was down by 1.0 percent over the 11-year span. Hidden in the national data, and central to this brief, is the disparate trends in public sector employment across states, the District of Columbia, and Puerto Rico. By 2019, state-specific trends ranged from significant gains to significant shortfalls compared to their respective 2008 levels.

**Figure 3** shows the percent change in combined state and local government employment from 2008 to 2019 for each state, the District of Columbia, and Puerto Rico. Twenty-six states and the District of Columbia had larger government workforces in 2019 than in 2008 (shades of blue in Figure 3). Positive growth ranged from 0.2 percent in Wyoming to 21.7 percent in Utah, which recorded the most significant gains followed by Colorado (21.2 percent), North Dakota (10.5 percent), and Texas (9.5 percent). It is unclear exactly why Utah's or Colorado's public sectors fared so much better than the rest of the country. Annual data indicate that Utah's local government workforce continued to grow through the Great Recession, and Utah's state government workforce dipped only slightly in 2009 before resuming its growth trajectory. Utah applies [stress tests](#) to its budget proposals to determine how well they can withstand a recession, a practice that is somewhat unique among states. However, this does not explain Utah's resilience during the Great Recession itself, as the state did not begin stress-testing its budgets until 2015. Utah also stands out for its consistent [population growth](#); its population increased more than that of any other US state or territory between 2010 and 2020.<sup>4</sup>

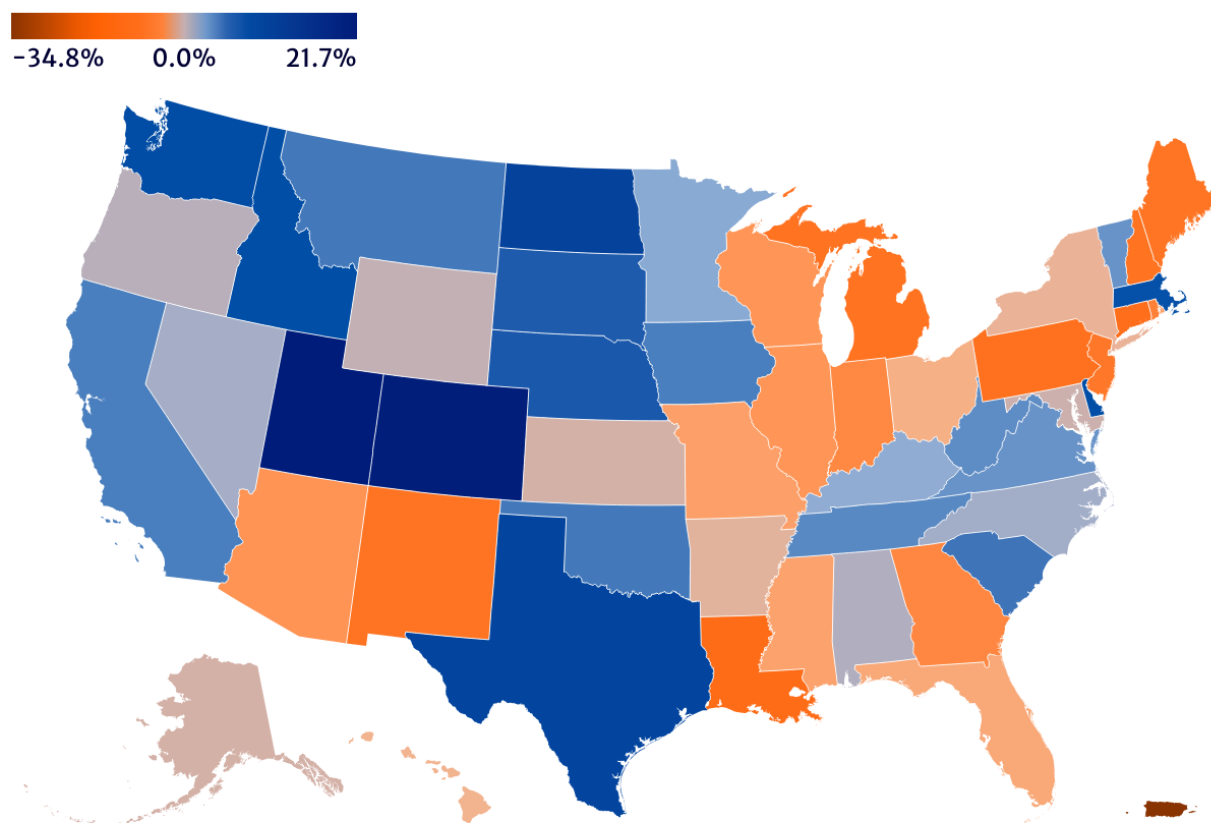
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<sup>4</sup> Utha: 2020 Census. [UTAH: 2020 Census](#).

Figure 3

## Not All States' Public Sectors Recovered From Great Recession

Percent Change in State and Local Government Employment, 2008–2019



Source: Authors' analysis of State and Area Employment, Hours, and Earnings data, US Bureau of Labor Statistics, 2008–2019.



In the 24 remaining states plus Puerto Rico, state and local government employment declined between 2008 and 2019 (shades of orange in Figure 3). Puerto Rico experienced the biggest shortfall, with a nearly 35 percent drop in its state and local government workforce. This was far beyond the losses experienced by the states with the next biggest shortfalls: Louisiana, Connecticut, and Pennsylvania, which were down by 10.6 percent, 9.2 percent, and 7.2 percent, respectively.

The groundwork for Puerto Rico's staggering decline was arguably laid well before the Great Recession took hold. Puerto Rico's status as a territory rather than a state limits its ability to

[put its citizens first](#) when responding to crises.<sup>5</sup> The island has also been subjected to [crippling austerity measures](#),<sup>6</sup> many of which were imposed by an unelected oversight board colloquially known as “La Junta.” Lack of [self-governance](#)<sup>7</sup> and substantial [cuts to public services](#),<sup>8</sup> alongside a series of [environmental disasters](#),<sup>9</sup> have resulted in [significant upheaval](#).<sup>10</sup> While the exact contributions of each of these elements deserve further inquiry, Puerto Rico nevertheless emerges as a cautionary tale about the human cost of austerity.

The Great Recession cycle lasted over a decade, during which time population changes occurred across the country. Accounting for these changes gives a different — and arguably bleaker — picture than the one in Figure 3. **Figure 4** shows the number of US public sector jobs (state plus local, solid line) was nearly the same in 2019 compared to 2008 as previously discussed. The dotted line holds constant the 2008 ratio of public sector workers and applies it to population growth for each year, thus giving an expected level of government employment taking population growth into account. It took until 2019 for the absolute *level* of public sector employment to regain its previous peak, but over this time frame, the *relative* size of the public workforce actually shrunk considerably when considering the growth in population. Otherwise, by the population-weighted measure, there was a 1.53 million shortfall (red line) in the public sector workforce in 2019. By 2022, the pandemic decline in the public sector had not recovered — widening the US population-adjusted shortfall to 2.34 million public sector workers.

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<sup>5</sup> Ruiz, 2022, “An Unfulfilled Promise: Colonialism, Austerity, and the Puerto Rican Debt Crisis”, Harvard Political Review, <https://harvardpolitics.com/unfulfilled-promise-2>.

<sup>6</sup> Merling et al, 2017, “Life After Debt in Puerto Rico: How Many More Lost Decades?”, Center for Economic and Policy Research, <https://cepr.net/images/stories/reports/puerto-rico-2017-07.pdf>.

<sup>7</sup> Varela, 2022, “Puerto Rico’s new bankruptcy plan does nothing for most of the island”, MSNBC, <https://www.msnbc.com/opinion/puerto-rico-s-new-bankruptcy-plan-does-nothing-most-island-n1287883>.

<sup>8</sup> Ramos & Martinez, 2022, “Department of Education Is Planning a New Wave of School Closings”, Centro de Periodismo Investigativo, <https://periodismoinvestigativo.com/2022/01/department-of-education-is-planning-a-new-wave-of-school-closings>.

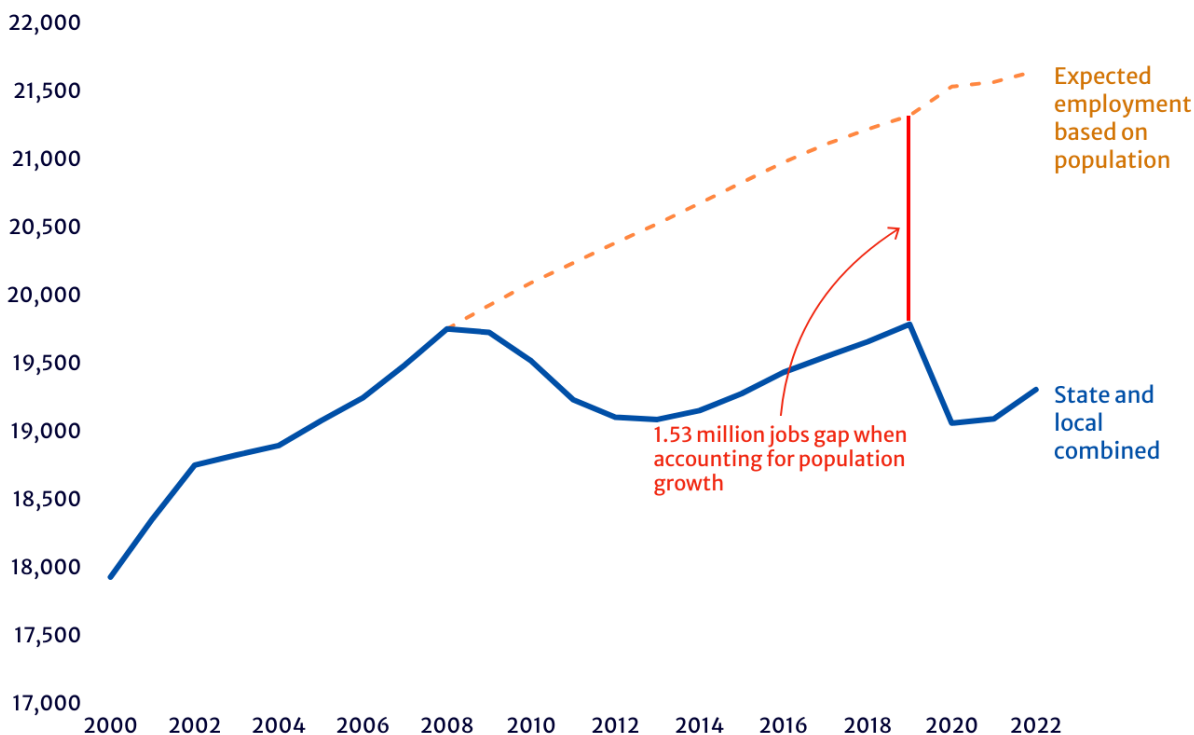
<sup>9</sup> Dupraz-Dobias, 2022, “In storm-hit Puerto Rico, local communities fill US disaster response gaps”, The New Humanitarian, <https://www.thenewhumanitarian.org/news-feature/2022/11/17/Puerto-Rico-hurricane-disaster-response-gaps>.

<sup>10</sup> Newkirk, 2018, “Puerto Rico Enters a New Age of Austerity”. The Atlantic, <https://www.theatlantic.com/politics/archive/2018/05/puerto-rico-enters-a-new-age-of-austerity/559565>.

Figure 4

## US Public Sector Jobs Lag Far Behind Population Growth

Number of state and local government employees in thousands



Source: Authors' analysis of Current Employment Statistics data, US Bureau of Labor Statistics, 2000–2022; and Intercensal Estimates of the Resident Population by Sex and Age for the United States, U.S. Census Bureau, 2000–2009; and Annual Estimates of the Resident Population for Selected Age Groups by Sex for the United States, US Census Bureau, 2010–2022.



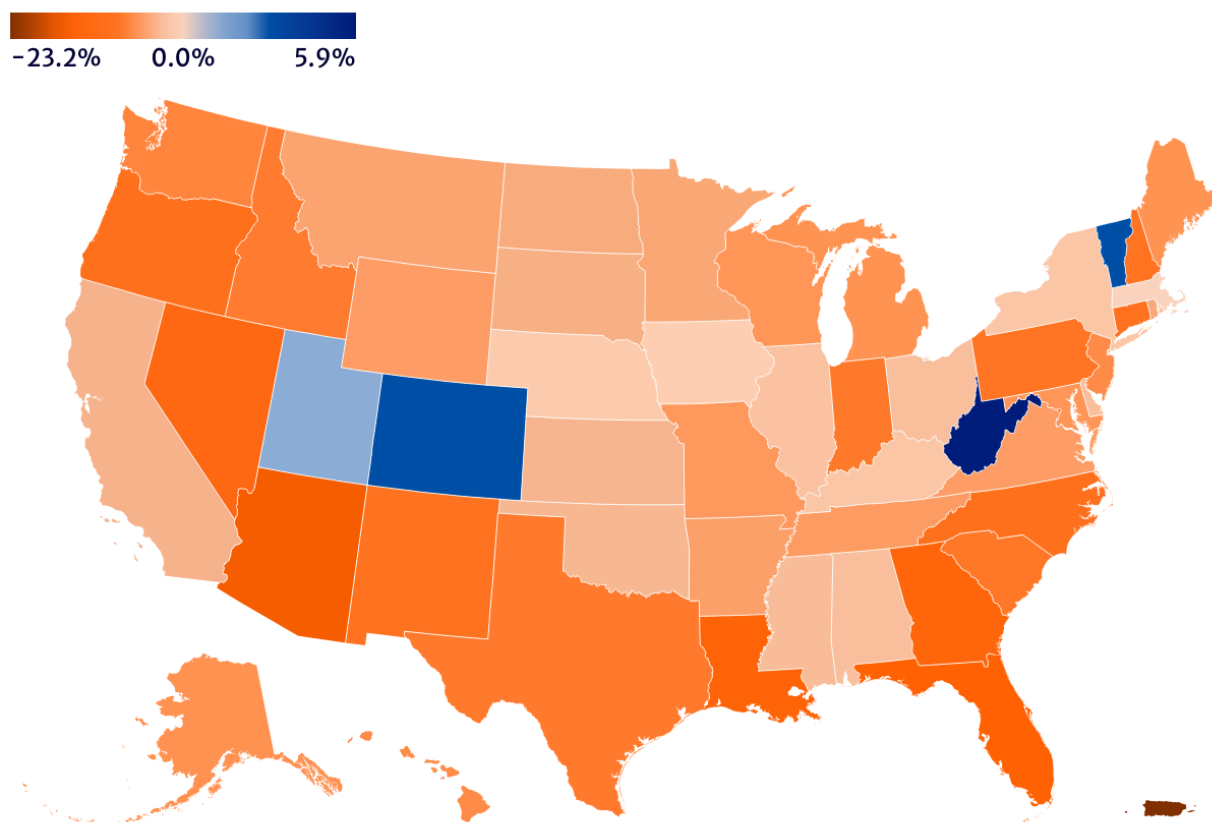
Likewise, if we take into account state-specific population growth from 2008 through 2019, the increases in public sector employment for 26 states plus Washington, DC reported in Figure 3 disappear for all but five states. Just four states in **Figure 5**, denoted in shades of blue, surpassed their population-weighted expected public sector workforces: West Virginia (5.9 percent), Vermont (2.9 percent), Colorado (2.9 percent), and Utah (1.1 percent). Massachusetts (0.0 percent) was at parity. Populations in Colorado and Utah grew considerably during this period, while West Virginia experienced the second largest percent decline in population after Puerto Rico.



Figure 5

## Accounting for Population Changes, Very Few States' Public Sectors Recovered After Great Recession

*Population-Adjusted Percent Change in State and Local Government Employment, 2008–2019*



Source: Authors' analysis of State and Area Employment, Hours, and Earnings data, US Bureau of Labor Statistics, 2008–2019; and Intercensal Estimates of the Resident Population by Sex and Age for the United States, US Census Bureau, 2008, and Annual Estimates of the Resident Population for Selected Age Groups by Sex, US Census Bureau, 2019.



The 24 states plus Puerto Rico that experienced declines in their state and local public sector workforces shown in Figure 3 saw those declines grow steeper after factoring in population growth. Florida went from -1.8 percent to -15.3 percent, and Georgia from -4.0 percent to -14.0 percent. On a per capita basis, eight states and Puerto Rico experienced shortfalls of at least 10 percent (darker shades of orange in Figure 5).



Taking population changes into account meant that relative public sector workforces in most states were far short of what they were prior to the Great Recession. Populations in some states increased during this period, while others contracted. While a few states like Utah and Colorado responded to their growing populace with commensurate increases in their public sectors, others, like Texas, experienced significant population growth but did not grow their public sectors accordingly. Only West Virginia, Wyoming, and Colorado saw the state and local government share of all employed increase between 2008 and 2019; in West Virginia and Wyoming, this was accompanied by a net decrease in private sector employment. It is beyond the scope of this brief to do a deep dive into the specific drivers of outcomes in each state, the District of Columbia, and Puerto Rico. More research is needed to determine how various policies intersected with economic and social conditions in each state and territory such that they resulted in the trends discussed in this brief. It would be especially useful to better understand how and why state and local governments in states like Utah and Colorado apparently weathered the Great Recession better while public sectors were gutted elsewhere.

While it is not immediately clear what hand various state and local policies may have had in the trends identified so far, what is clear is that public sector cuts had negative ramifications for the communities in which they occurred. For example, to make up for a 190.2 million dollar budget deficit, the city of Dallas laid off nearly 800 employees in 2009, resulting in cuts to numerous popular and necessary services like street repairs, park maintenance, arts funding, and library hours.<sup>11</sup> A 2021 report found that many of Dallas' streets and sidewalks would cost several times more to repair after years of neglect, with many of the crumbling pathways having become unusable in the meantime.<sup>12</sup> That same year, furloughs to state government employees meant that disability claims piled up in at least seven states.<sup>13</sup> In these instances, cuts made to ostensibly ease the budget had costly ramifications down the line. In New York City, cuts to library funding directly affected the provision of adult English

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<sup>11</sup> Bowman, Ann O'M, and Richard C. Kearney, 2016, *State and Local Government*, Cengage, Boston, MA, p.13; Bush, Rudolph, 2009, "Dallas City Council Knows 'Brutal' Budget Cuts Coming," Dallas Morning News, [www.dallasnews.com](http://www.dallasnews.com) (June 18, 2009)

<sup>12</sup> Kalthoff, Ken, 2021, "Report Reveals Nearly \$2 Billion Cost to Maintain and Improve Damaged Dallas Sidewalks", NBCDFW, <https://www.nbcdfw.com/news/local/report-reveals-nearly-2-billion-cost-to-maintain-and-improve-damaged-dallas-sidewalks/2660077/>.

<sup>13</sup> Seelye, Katharine Q., "To Save Money, States Turn to Furloughs", *The New York Times*, <https://www.nytimes.com/2009/04/24/us/24furlough.html>.

classes, disproportionately harming working-class immigrant communities who benefited from those services.<sup>14</sup> These are just a few examples of many from that period.<sup>15</sup>

The negative impact of outright cuts is straightforward to understand — eliminating public workers means less of the public’s work gets done. Some state and local governments sought to privatize certain aspects of government as a way to keep up services and balance their books. This also had negative consequences. Private investors have sought to ensure profitability by curtailing access, making services more expensive to administer,<sup>16</sup> cutting corners on quality, and reducing wages and benefits for workers.<sup>17</sup> In Houston, for example, privatization of the Medicaid transport program drove up costs and complaints, even as the program served fewer people.<sup>18</sup> And around the country, private equity takeovers in emergency care have been associated with slower ambulance response times and more equipment failures, along with astronomical bills and aggressive collections action.<sup>19</sup> Privatized services often rely on non-union contractors that are compensated less than the public sector workers they replaced, resulting in high attrition<sup>20</sup> that puts the work they do in jeopardy. Many of these workers are paid so little that they rely on public benefits to get by, erasing any savings from paying them less than a government employee would have been paid.<sup>21</sup>

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<sup>14</sup> Taylor, Kate, 2010, “New York Libraries’ Adult English Programs Face Cuts”, *The New York Times*, <https://www.nytimes.com/2010/05/31/nyregion/31library.html>.

<sup>15</sup> Mayerowitz, Scott and Nathalie Tadena, 2009, “Budget Nightmare: 10 Most Broke States”, ABC News, <https://abcnews.go.com/Business/Economy/story?id=8016634&page=1>.

<sup>16</sup> Spielman, Fran, 2022, “Parking meter deal gets even worse for Chicago taxpayers, annual audit shows”, *The Chicago Sun Times*, <https://chicago.suntimes.com/city-hall/2022/5/26/23143356/chicago-parking-meters-75-year-lease-daley-city-council-audit-skyway-loop-garages-krislov>.

<sup>17</sup> In the Public Interest, 2014, “Race to the Bottom : How Outsourcing Public Services Rewards Corporations and Punishes the Middle Class”, <https://inthepublicinterest.org/race-to-the-bottom-how-outsourcing-public-services-rewards-corporations-and-punishes-the-middle-class-2/>.

<sup>18</sup> Rosenthal, Brian, 2017, “Report: Privatized Medicaid program serves fewer people, costs more”, *The Houston Chronicle*, <https://www.houstonchronicle.com/politics/texas/article/Report-privatized-Medicaid-program-serves-fewer-10924124.php>.

<sup>19</sup> Ivory, Danielle, Ben Protess and Kitty Bennett, 2016, “When You Dial 911 and Wall Street Answers”, *The New York Times*, <https://www.nytimes.com/2016/06/26/business/dealbook/when-you-dial-911-and-wall-street-answers.html>.

<sup>20</sup> Jablow, Valerie, 2018, “Another School Year, More High Teacher Attrition”, *educationdc*, <https://educationdc.net/2018/02/26/another-school-year-more-high-teacher-attrition/>.

<sup>21</sup> Traub, Amy, and Robert Hiltonsmith, 2013, “Underwriting Bad Jobs: How Our Tax Dollars Are Funding Low-Wage Work and Fueling Inequality”, Demos, <https://www.demos.org/research/underwriting-bad-jobs>.



All of this is aside from the toll which state and local government layoffs exact on the laid off workers themselves, their families, and their communities.<sup>22, 23</sup> It is worth noting that state and local government jobs, long seen as a pathway to the middle class, are also disproportionately held by Black workers, making large-scale cuts especially damaging for Black communities.<sup>24</sup> Compared to the private sector, state and local government employees are more likely to be unionized.<sup>25</sup> Significant layoffs in this sector thus had major consequences for US union density at a time when the labor movement was already in a state of decline, with negative implications for overall worker power.<sup>26, 27</sup> Privatization of public services only exacerbates this effect by replacing good union jobs with poorly paid contractor positions.

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<sup>22</sup> Sawicky, Max B., 2022, “These States: US Federal-State-Local Fiscal Relations in the Wake of Pandemic-Driven Recession”, Center for Economic and Policy Research, <https://cepr.net/these-states-us-federal-state-local-fiscal-relations-in-the-wake-of-pandemic-driven-recession/>.

<sup>23</sup> Sherman, Matt, and Nathan Lane, 2009, “Cut Loose: State and Local Layoffs of Public Employees in the Current Recession”, Center for Economic and Policy Research, <https://www.cepr.net/documents/publications/layoffs-2009-09.pdf>.

<sup>24</sup> Brown, Hayley, and Dean Baker, 2020, “Cutting State and Local Budgets is an Attack on the Country’s Black Workers”, Center for Economic and Policy Research, <https://cepr.net/cutting-state-and-local-budgets-is-an-attack-on-the-countrys-black-workers/>.

<sup>25</sup> Brown, Hayley, 2023, “Mixed Union Membership Report Shows Need for Sustained Movement Effort, Pro-Worker Policy”, Center for Economic and Policy Research, <https://cepr.net/mixed-union-membership-report-shows-need-for-sustained-movement-effort-pro-worker-policy/>.

<sup>26</sup> Dromey, Joe, 2018, “Power to the people: how stronger unions can deliver economic justice”, Institute for Public Policy Research, <https://apo.org.au/node/175871>.

<sup>27</sup> US Department of Labor, “The Union Advantage”, <https://www.dol.gov/general/workcenter/union-advantage>.

# Public Education

To this point we presented national, state, and territorial trends in state and local public sector workforces. We now turn to a subsector of local government to look further into what happened to employment in public education. Cuts in funding and staff that support the K–12 workforce that is responsible for the whole of educating our children, thus the future labor force of the country, is never ideal. It is not optimal when economic downturns are coupled with downturns in public sector services — particularly regarding the education and other support services that schools provide for our kids. But, when recessions hit, and the tax base shrinks, local budgets in particular are balanced on the backs of K–12 students as education is such a large part of local spending.<sup>28</sup> It makes no sense for kids to have disparate educational and school experiences based on the business cycle.

The public education workforce includes K–12 classroom teachers, paraeducators, teaching assistants, librarians, custodians, building and grounds crews, cafeteria workers, and bus drivers. The solid line in **Figure 6** shows the national trend in local education employment. By 2012, the sector was down 3.8 percent, or approximately 307,000 jobs, compared to 2008. Over a decade later in 2019, the sector still had not fully recovered the level of jobs it had in 2008 as it was short by 83,000.

But here again, like population growth discussed above, public school student enrollment grew over the 11-year period. We hold constant the 2008 ratio of local public education employment-to-student enrollment and apply it to the level of students each year to calculate an expected number of jobs to uphold the K–12 public education workforce to the same relative level as it was in 2008 — depicted by the dotted line. In 2019, the shortfall in expected local education jobs was 334,200 accounting for increased enrollment. Roughly 120,000 of these jobs were elementary and secondary teachers.<sup>29</sup> But it wasn't just teacher

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<sup>28</sup> Allegretto, Sylvia, Emma Garcia, and Elaine Weiss, 2022, "Public Education Funding in the U.S. Needs an Overhaul," Economic Policy Institute, Washington DC, <https://www.epi.org/publication/public-education-funding-in-the-us-needs-an-overhaul/>. Refer to Figures H and J to see education funding trends by poverty status over the Great Recession.

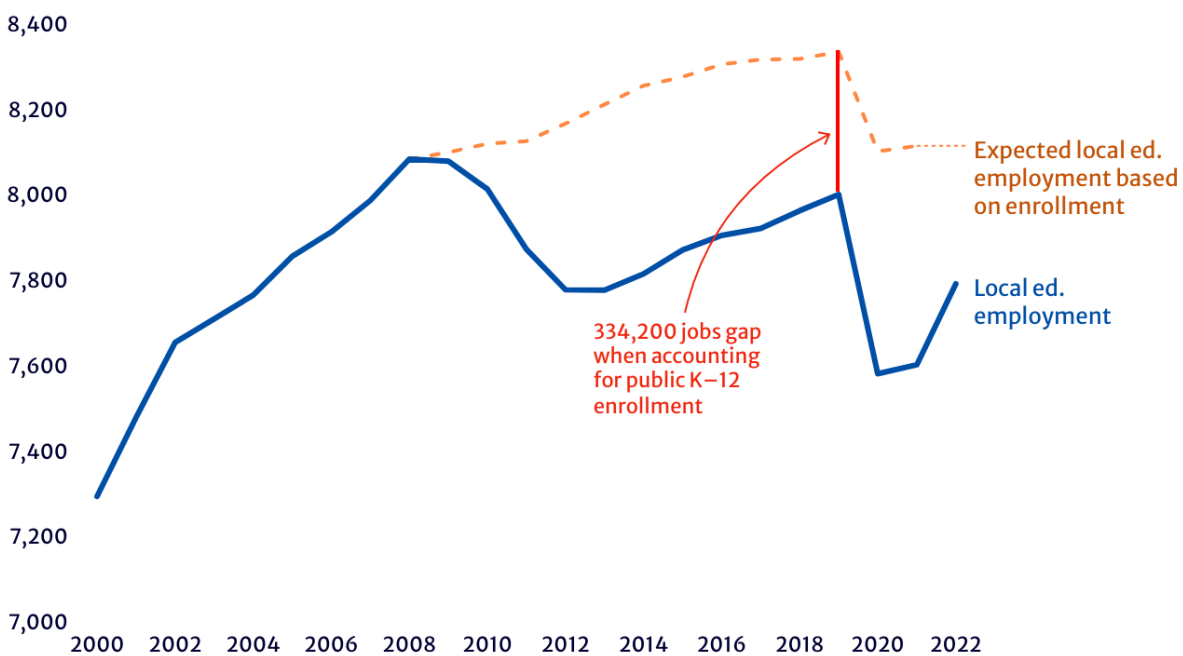
<sup>29</sup> Evans, William N., Robert M. Schwab, and Kathryn L. Wagner, 2019, "The Great Recession and Public Education," *Education Finance and Policy* 14 (2): 298–326, [https://doi.org/10.1162/edfp\\_a\\_00245](https://doi.org/10.1162/edfp_a_00245).

employment that declined. Jackson, Wigger, and Xiong found that, on average, a \$1,000 decline in per pupil spending in K–12 public schools during the Great Recession (2009–2015) was associated with hiring 5.8 percent fewer teachers aides, 13 percent fewer guidance counselors, 10 percent fewer library staff, and 4 percent fewer teachers.<sup>30</sup>

**Figure 6**

## US Employment In Public Education Remains Far Below Expected Levels

Number of local education employees in thousands



Enrollment data is only available through 2021.

Source: Authors' analysis of Current Employment Statistics data, US Bureau of Labor Statistics, 2000–2022; US Department of Education, Table 203.20.



The figure also shows the pandemic fall in both public school student enrollment and a relatively larger drop in the K–12 public education workforce.<sup>31</sup> By 2020, the number of jobs

<sup>30</sup> Jackson, C. Kirabo, Cora Wigger, and Heyu Xiong. 2021. “Do School Spending Cuts Matter? Evidence from the Great Recession.” *American Economic Journal: Economic Policy* 13 (2): 304–35. <https://doi.org/10.1257/pol.20180674>.

<sup>31</sup> Dee, Thomas S. 2023. “Where the Kids Went: Nonpublic Schooling and Demographic Change during the Pandemic Exodus from Public Schools.” *The Urban Institute*. February 9. <https://www.urban.org/research/publication/where-kids-went-nonpublic-schooling-and-demographic-change-during-pandemic>.



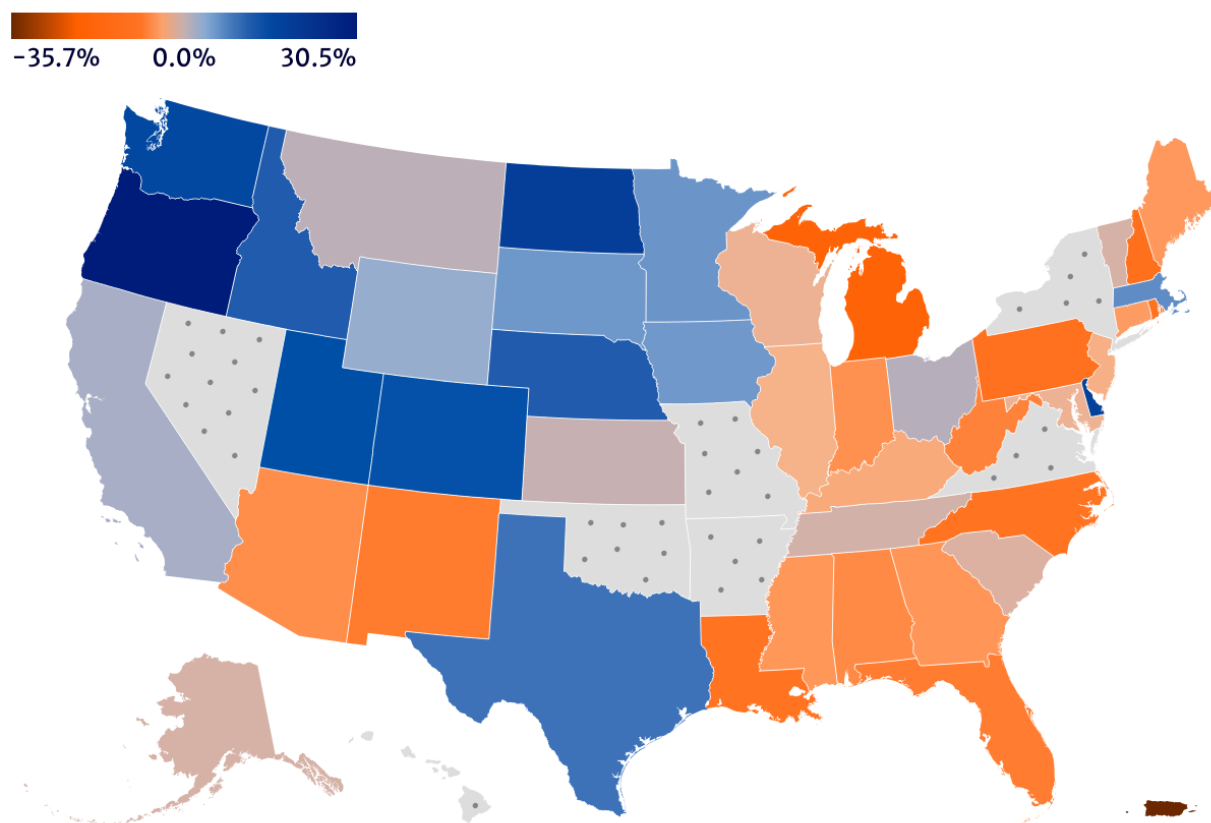
in local education was 6.2 percent less than what it was in 2008. In 2021, after accounting for the growth in student population (most recent data available), staffing of public schools relative to enrollment was down over 510,000.

Growth in the level of K–12 public education jobs over the Great Recession cycle varied considerably across states, the District of Columbia and Puerto Rico. **Figure 7** shows that over the 2008–2019 period, employment changes in the local education subsector ranged from 30.5 percent in Oregon to –35.7 percent in Puerto Rico. From the map, there are 18 blue-shaded states that represent zero or positive growth, while there are 26 orange-shaded states plus Puerto Rico that contracted. Eight states and Washington, DC (denoted by dots) did not have 2008 data to calculate changes.

Figure 7

## Great Recession's Scars Lingered on Public Education in Some States

Percent Change in Employment in Local Government Education, 2008–2019



States with dots denote missing data: Arkansas, District of Columbia, Hawaii, Missouri, Nevada, New York, Oklahoma, and Virginia. Calculations for Puerto Rico based on 'state' government data.

Source: Authors' analysis of State and Area Employment, Hours, and Earnings data, US Bureau of Labor Statistics, 2008–2019.



Here again, an important part of the story given the length of the downturn is accounting for state-specific changes in student enrollment. To calculate enrollment-adjusted growth rates we apply the 2008 state ratio of local education jobs-to-state-student enrollment and apply it from 2009 to 2019. The state and territory specific enrollment-adjusted results are reported in **Figure 8**. After accounting for changes in student enrollments (i.e., comparing results in **Figure 8** to those in **Figure 7**) the story changes: five states plus Puerto Rico moved

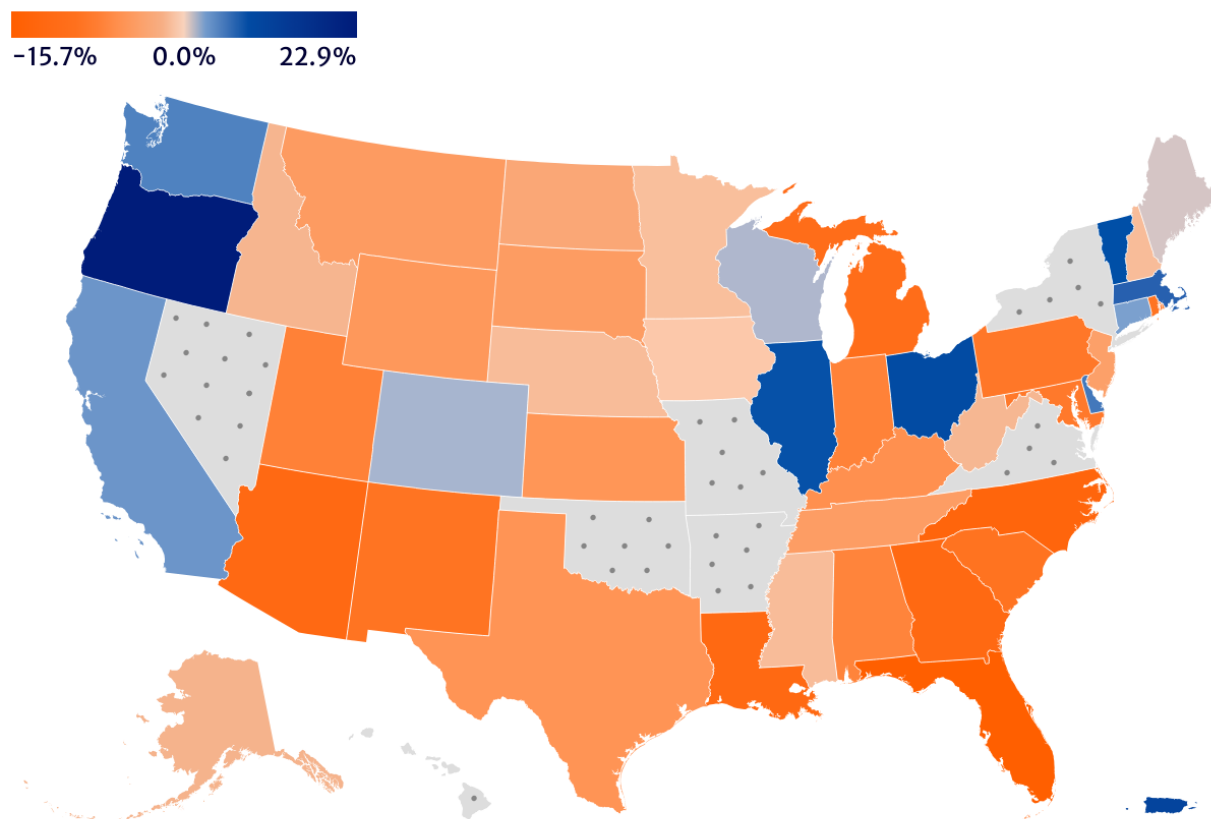


from negative to positive growth, while 10 states moved from positive to negative growth. Enrollment data was available for 43 states and Puerto Rico. Of these, 13 had enrollment-adjusted positive growth in their local public education workforces, while 31 saw enrollment-adjusted declines in local public education employment. Local education workforces, after accounting for state changes in enrollment, were short by over 10 percent in six states: Michigan (-11.2 percent), Arizona (-12.4 percent), Louisiana (-12.7 percent), Georgia (-12.7 percent), North Carolina (-13.8 percent), and Florida (-15.7).

Figure 8

## Accounting for Enrollment, Great Recession's Scars Lingered on Public Education in Some States

Percent Change in State and Local Government Employment, Adjusted for Public Elementary and Secondary School Enrollment, 2008–2019



States with dots denote missing data: Arkansas, District of Columbia, Hawaii, Missouri, Nevada, New York, Oklahoma, and Virginia. Calculations for Puerto Rico based on 'state' government data.

Source: Authors' analysis of State and Area Employment, Hours, and Earnings data, US Bureau of Labor Statistics, 2008–2019; and US Department of Education, National Center for Education Statistics, Common Core of Data, "State Nonfiscal Survey of Public Elementary/Secondary Education," 2008 through 2020–21.



Oregon went from growth of 30.5 percent (Figure 7) to 22.9 percent after accounting for the growth in student enrollment reported in Figure 8 — meaning Oregon had a significantly larger ratio of K–12 jobs-to-students in 2019 compared to 2008, even after accounting for increased student enrollment. Even after adjusting for changes in enrollment, Oregon experienced larger gains than any other US states, the District of Columbia, or Puerto Rico. On the other hand, Utah saw a 13 percent increase in local education employment (as

depicted in Figure 7), but after accounting for changes in Utah’s student enrollment the relative growth was –7.6 percent. Another example is Puerto Rico, which first looked to have massively lowered their ratio of local education employees to students, but this was not the case when factoring in the large drop in student enrollment: growth over 2008–2019 went from –35.7 percent before adjusting for enrollment to –10.7 percent after the adjustment. Puerto Rico’s public sector student enrollment declined by 41.9 percent over that time period. To be clear, the austerity dynamics that have undermined Puerto Rico’s ability to invest in its public sector workforce have been devastating for its public schools. Puerto Rico has seen numerous school closures and mergers, reducing access for many students. In one case, a school attended primarily by children who live in public housing (and whose parents don’t necessarily have cars) merged with a school accessible by 10 minutes of highway driving away.<sup>32</sup> A 2017 fiscal plan froze salaries for teachers, declined to renew many teachers’ contracts, and cut two school days a month. In 2021, Puerto Rico’s Department of Education published a proposal that would close another 83 schools by 2026, affecting more than 18 thousand students.<sup>33</sup> The hollowing out of public education in Puerto Rico presents a dire example of what could be in store for other states and localities should they pursue similar policies.<sup>34</sup>

These types of policy choices have real consequences for children’s education and future success. Research has shown strong associations between recession–era budget cuts and stalled educational progress, with lower test scores and levels of higher education among the most affected cohorts.<sup>35</sup> Schools also often act as access hubs for a range of other social services, such as mental health services, disability support, and free or reduced–cost meals.<sup>36</sup> This makes school closures especially impactful for students and families who rely on these additional services.

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<sup>32</sup> Robles, 2017, “Puerto Rico’s Debt Crisis Claims Another Casualty: Its Schools,” *The New York Times*, <https://www.nytimes.com/2017/05/10/us/puerto-rico-debt-schools-close.html>.

<sup>33</sup> Ramos & Martínez, 2022, “Department of Education Is Planning a New Wave of School Closings”, Centro de Periodismo Investigativo, <https://periodismoinvestigativo.com/2022/01/departament-of-education-is-planning-a-new-wave-of-school-closings>.

<sup>34</sup> Cardoza, 2023, “Are the challenges of Puerto Rico’s schools a taste of what other districts will face?”, The Hechinger Report, <https://hechingerreport.org/are-the-challenges-of-puerto-ricos-schools-a-taste-of-what-other-districts-will-face>.

<sup>35</sup> Jackson et al, 2021, “Do School Spending Cuts Matter? Evidence from the Great Recession”, *American Economic Journal: Economic Policy*, <https://www.aeaweb.org/articles?id=10.1257/pol.20180674>.

<sup>36</sup> Tugend, 2022, “Community Schools Offer More Than Just Teaching”, *The New York Times*, <https://www.nytimes.com/2022/10/06/education/learning/community-schools.html>.



Trends in economic markers such as jobs, unemployment, wage growth and output are tracked over economic downturns and recoveries. Often, as in the case of jobs shed during a downturn, getting back to pre-recession levels is a noted milestone. In the analyses above we have shown that for an extended downturn, such as the Great Recession, getting back to pre-recession levels may be far off the mark relative to important changes that occurred over the downturn, such as in population or student enrollment.

# Takeaways and Policy Implications

Revenue shortfalls during the Great Recession forced many state and local governments to dramatically scale back spending.<sup>37</sup> Many state and local government workers lost their jobs as a result. A sluggish influx of federal aid from the American Recovery and Reinvestment Act of 2009 helped states and localities avert some harmful budget cuts in the recession, but the money came too late and ran out too quickly.<sup>38</sup> The sluggish recovery from the Great Recession outlasted the allotted federal funds; the trends discussed in this brief are inclusive of stimulus and other federal spending. State and local governments were not able to avoid cuts to public employment, nor were they able to fend off private financial actors that were interested in taking over public services — services that directly touch citizenry’s day-to-day life.

Both outright cuts to and privatization of public services help drive inequality. State and local government workers provide critical support to vulnerable populations, who tend to be hardest hit by service cuts. Cutbacks in state and local government further entrench disadvantage among those most at-risk.<sup>39</sup> Privatization has a similar inequality-generating effect when it reduces the quality of public services and makes them more costly to access.<sup>40</sup> Responding to economic shocks with underinvestment in the public sector is especially inopportune, as the need for services swells during times of crisis. And all of this is in addition to the negative effects for the public sector workers and communities who lose what are more likely to be good, union jobs. It is for all of these reasons that weakening the public sector tends to prolong recovery from recessions.<sup>41</sup>

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<sup>37</sup> Oliff, Phil, Chris Mai, and Vincent Palacios, 2012, “States Continue to Feel Recession’s Impact,” Center on Budget and Policy Priorities, <https://www.cbpp.org/research/states-continue-to-feel-recessions-impact>.

<sup>38</sup> Oliff, Phil, Chris Mai, and Vincent Palacios, 2012, “States Continue to Feel Recession’s Impact,” Center on Budget and Policy Priorities, <https://www.cbpp.org/research/states-continue-to-feel-recessions-impact>.

<sup>39</sup> Kinney, Jen, 2016, “Examples of How City Services Privatization Leads to Inequality Are Piling Up,” Next City, <https://nextcity.org/urbanist-news/privatization-water-utilities-inequality-poverty>.

<sup>40</sup> Cohen, Donald, and Allen Mikaelian, 2021, *The Privatization of Everything: How the Plunder of Public Goods Transformed America and How We Can Fight Back*, The New Press.

<sup>41</sup> Bivens, Josh, 2020, “A prolonged depression is guaranteed without significant federal aid to state and local governments,” Economic Policy Institute, <https://www.epi.org/blog/a-prolonged-depression-is-guaranteed-without-significant-federal-aid-to-state-and-local-governments/>.



The comparatively quick and robust response to COVID-19 and the economic crisis that ensued showed that the federal government, and only the federal government, can respond on such a scale. Despite initial indications that the mistakes of the previous crisis would be repeated<sup>42</sup>, the American Rescue Plan Act of 2021 — which included \$350 billion for state and local governments — did a remarkable job at turning the tide toward recovery.<sup>43</sup> State and local government recovery from the COVID-19 economic crisis has not been smooth sailing, however, with high vacancy rates proving especially difficult to overcome.<sup>44</sup> The negative consequences of both cuts and privatization in the aftermath of the Great Recession meant that the public sector — and, thus, the public — were in a far less resilient place than they could have been when the COVID-19 crisis began. A robust and fully recovered public sector would have put states, territories, and localities in a much better position to weather the storm.

Comparing the approach to the COVID-19 economic crisis to the one undertaken during the Great Recession yields two key takeaways. First, as state and local governments cannot borrow or create money and are thus financially restricted in how they can respond to a crisis, a quick and commensurate federal response is necessary to shore up their public sectors during trying times. It is better to err on the side of a larger stimulus than an insufficient one.<sup>45</sup> Second, lawmakers must be clear and thoughtful in laying out how these funds shall be spent. This will ensure that public sector stimulus money does what it is intended to do, rather than setting the stage for local lawmakers to issue tax breaks<sup>46</sup> or corporate subsidies.<sup>47</sup> Lawmakers must attach sufficient strings such that federal stimulus is used to

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<sup>42</sup> McNichol, Elizabeth, et al, 2020, “States Need Significantly More Fiscal Relief to Slow the Emerging Deep Recession,” Center on Budget and Policy Priorities, <https://www.cbpp.org/research/state-budget-and-tax/states-need-significantly-more-fiscal-relief-to-slow-the-emerging>.

<sup>43</sup> Baker, Dean, 2023, “Biden Gets a Solid ‘A’ at His Midterm,” Center for Economic and Policy Research, <https://cepr.net/biden-gets-a-solid-a-at-his-midterm/>.

<sup>44</sup> Mueller, 2022, “Local governments have billions in federal Covid cash and no workers to pay”, *Politico*, <https://www.politico.com/news/2022/03/31/governments-billions-federal-covid-cash-workers-00020237>.

<sup>45</sup> Stone, Chad, 2020, “Fiscal Stimulus Needed to Fight Recessions”, Center on Budget and Policy Priorities, <https://www.cbpp.org/research/economy/fiscal-stimulus-needed-to-fight-recessions>.

<sup>46</sup> Rampell, Catherine, 2023, “As recession looms (maybe), states sabotage their own finances”, *The Washington Post*, <https://www.washingtonpost.com/opinions/2023/01/19/state-tax-cuts-shortsighted-recession/>.

<sup>47</sup> Warner, Mildred E., and Lingwen Zheng, 2013, “Business Incentive Adoption in the Recession,” *Economic Development Quarterly* 27(2), 90-101, <https://citeseerx.ist.psu.edu/document?repid=rep1&type=pdf&doi=6f4f88bdd49749c21dc128ba4faecbe018057c5e>.

bolster state and local government services, specifically earmarking funds for rebuilding state and local government workforces with particular attention paid to local education.

The success of the ongoing conservative project to eliminate or privatize government services has come at the public's expense.<sup>48</sup> A robust public sector is critical to swift recovery from recessions and overall community resilience. Policymakers must take bold action during crises to ensure that state and local governments can deliver for the communities they serve, by investing in state and local government workers.

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<sup>48</sup> Cohen, Donald, 2018, "The History of Privatization", Talking Points Memo, [https://tpm-features.s3.amazonaws.com/features/privatization/one/index.html?cloudpress\\_cache\\_key=1583069640454353aceab515f3e47422](https://tpm-features.s3.amazonaws.com/features/privatization/one/index.html?cloudpress_cache_key=1583069640454353aceab515f3e47422).