

# Hidden Education Funding Cuts

How Growing Teacher Pension Debt Is Eating into  
K–12 Education Budgets

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# Highlights

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The growing cost of unfunded pension promises is having direct and immediate influence on the ability of school districts to serve children.

Teacher retirement systems were at the peak of their funding health back in 2001. But those pension plans collectively have since fallen hundreds of billions of dollars behind. Meanwhile, increases in K–12 education spending generally have not always kept up with the increased costs created by teacher pension funding shortfalls. The result is that less education money is available today for teacher salaries and classroom spending than there would be if teacher pension funds had been better managed over the past two decades.

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**14.4%** of education spending in 2018 went to pay pension costs. That's nearly double the **7.5%** of education funds spent on pensions in 2001.

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School districts nationwide are struggling financially for a range of reasons, and growing pension costs are exacerbating that existing fiscal stress. Specifically, the share of education spending going to pay pension costs has nearly doubled from 7.5% in 2001 to 14.4% in 2018. That means even as state governments have added money to education budgets, pension costs have grown faster. And that's the hidden cut to education funding.

The effects are felt particularly hard in high-need districts which have fewer local resources to draw on to fill in the gaps when education costs rise, creating less funding for teacher salaries and programs aimed at improving academic and other outcomes.

The way this has manifested varies from state to state. Some have managed their retirement systems well, with only slightly increased costs, but haven't adjusted education spending levels to account for the change. Others have struggled to manage their pension debt and have experienced exploding costs. Depending on the severity of funding shortfalls, the rules a state is using to pay down pension debt, and general trends in education spending, the hidden K–12 funding cuts could be extreme or muted. But in all cases this a problem that has to be addressed now.

This report documents the changes in education funding and teacher pension costs for all 50 states and Washington, DC between 2001 and 2018. Rising pension costs are not necessarily an inherent problem with pension plans themselves but are the result of fiscal challenges associated with paying off hundreds of billions in pension debt. Changes to education budgets are highly contingent on state politics, but almost uniformly have not been sufficiently adapted to changes in pension costs.

Solving for this challenge means adapting today's pension plans for the 21st century, adopting more rigorous policies at the state level that require fully funding pension plans, and ensuring that the dollars required for these changes are provided without drawing from existing education budgets, as that would just exacerbate the hidden funding cut.

# Introduction

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When Michigan Governor Rick Snyder left office at the start of 2019, he touted the state's increase in education spending during each of the eight years he had been in office. This had been a welcome trend, given that K–12 education spending in the Great Lakes State had experienced the largest decline of any state since 1995.<sup>1</sup> But despite ramping up the state's School Aid Fund, little of that additional money actually wound up improving teacher pay or helping kids. A hidden feature in the state's budget meant that nearly all the spending growth was diverted to pay the growing costs of teacher pension debt.

Like many states across the country, Michigan has struggled with keeping its public employee pension systems fully funded. Between 2011 and 2018, the annual costs of the Michigan Public School Employees' Retirement System (MPERS) more than doubled from \$1.2 billion to \$2.8 billion.<sup>2</sup> All of this was paid for either off the top of the School Aid Fund or via payments from school districts.

On the surface, Michigan education funding was increasing. But controlling for inflation and the growing cost of pensions, spending on K–12 education in Michigan was \$500 million *less* in 2018 than it was in 2011, the year Governor Snyder took office.<sup>3</sup>

There are a lot of ways to hash out what happened to MPERS over the past two decades, but the simple reality is this: Teacher pension debt increased, the costs associated with paying for it grew, and Michigan didn't adjust the state budget to account for those increased pension contributions coming out of the education fund. So, pension debt payments became a hidden cut to school funding.

Sadly, Michigan is not alone. This report documents hidden budget cuts to K–12 education over the past two decades in nearly every state nationwide.

The problem is not a Republican or Democrat issue. It is not a challenge created by malicious intent. Nor is it a problem with teachers' actual retirement benefits being too generous or costly. The problem is not even with pensions themselves — well-managed and funded retirement systems can have stable costs over time, shown by states ranging from South Dakota to New York State.

The problem is this: Apathy toward growing shortfalls in pension funding has combined with accounting practices that assume teacher pensions costs should be paid solely from education budgets, creating a serious challenge to school finance stability, the ability to raise teacher pay, and efforts to support and increase education resource equity.

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1 Arsen, David, Tanner Delpier, and Jesse Nagel (2019). "[Michigan School Finance at the Crossroads: A Quarter Century of State Control](#)." *Michigan State University*.

2 See MPERS actuarial valuation for Fiscal Year End (FYE) 2018, p. B-6. There are seven small university employers participating in MPERS, but they typically account for less than 2% of total contributions.

3 See an October 2019 report from the [Michigan Senate Fiscal Agency](#). "State Restricted" and "General Fund" School Aid Fund increased from \$10.8 billion in 2011 (or \$12.2 billion in constant 2018 dollars) to \$13 billion in 2018. Adjusting for MPERS payments, 2011 education spending was \$9.5 billion (or \$10.7 billion in constant 2018 dollars), and 2018 education funding was \$10.2 billion.

# Part 1: National Trends for Pension and Education Finances

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There has been a lot of ink spilled in documenting the funding challenges of public sector pensions in the United States today. These challenges include funding woes created by bad legislative and actuarial policies of the past, and growing levels of risk for the future.<sup>4</sup>

By comparison there has been relatively little attention paid to specific ways growing pension costs have affected public education spending.<sup>5</sup> But where evidence has been produced, such as papers documenting decreased spending on instructional supplies and salaries while spending is increasing to finance retirement benefits, the warnings have been serious.<sup>6</sup>

Public budgeting can be a zero-sum affair. Once tax revenue has been projected for the next budget cycle, there are a finite number of dollars to be spent on any given policy goal or project. If certain funds are required for one kind of public service, it could mean delaying projects or services elsewhere. When states are faced with growing pension costs, the result may be the “crowd out” of other budget priorities, as funds are no longer available.

The way that states typically pay for teacher pension costs, it is almost inevitable that education spending will be crowded out. Required contributions to teacher pension funds can be paid directly by the state out of legislatively managed funds, or they can be paid by the local employer such as a school district. Some states use both methods for different portions of pension costs. But in almost all cases, the dollars used are coming from funds intended to be spent on education — very few states use general fund dollars for teacher pension costs.

In practice, this budgeting approach can pit the interests of student programs and teacher salaries against teacher pension funding. But it doesn't have to be this way.

Education budgets could be automatically expanded as teacher pension costs grow, or teacher pension debt costs could be paid out of general funds. Whatever the approach, unless there is a change to the status quo, additional contributions to state or local retirement systems will mean less money for education purposes.

As we show in this report, over the past two decades the share of K–12 education spending going to pay for teacher pensions has nearly doubled from 7.5% in 2001 to 14.4% in 2018.

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4 Sources that examine the financial and budgetary challenges public pensions are provided in [“Appendix D”](#).

5 Most of the research that is available focuses on specific examples of crowd out, such as Pivot Learning’s exploration of California’s rising teacher pension costs reducing efforts to improve educational equity across racial and socioeconomic lines (see [“The Big Squeeze”](#) by Pivot Learning) and [similar analysis of CalSTRS](#) by Carrie Hahnel for The Opportunity Institute. A few papers have done a 50-state analysis, such as [Bellwether Education](#) showing how spending on staff benefits has grown at a much faster rate than overall K–12 spending, and a 2017 National Council on Teacher Quality report [“Lifting the Pension Fog.”](#) See also the 2019 analysis from The Hechinger Report called [“How Rising Teacher Pension Costs Hurt School Districts.”](#)

6 See Josh McGee’s 2016 early demonstration of this trend in a [Manhattan Institute paper](#).

## ABOUT THIS PROJECT

To show how hidden education funding cuts work, we first show the trends in state spending on K–12 education. Second, we document the growth in pension costs nationally. And finally, we merge the two datasets to show how the rate of change in teacher pension costs is growing much faster than education budgets.

The analyses offered are presented in three separate reports:

- This report presents national trends and summarizes some of the variance in how these trends manifest from state to state.
- In a separate report, we review a select set of state profiles to show how the hidden funding cuts work in more specific detail, and then provide data and profiles for all 50 states and Washington, DC (for more see [“Appendix B: State Profiles”](#)).
- In a third report, we examine data at the school district level by using a dataset of expenditures across the state of California (for more see [“Appendix C: School District Profiles”](#)).

Each iteration of our investigation follows a similar approach, exploring first the trends in education spending and then pension debt and costs. Each concludes with an examination of pension costs as a share of education spending, allowing for a direct comparison to best illustrate the extent to which the growth of pension costs is outpacing education expenditures.

## Let's Define Three Key Terms

**Unfunded Liability (UAAL):** This is the shortfall in money that a pension fund should have on hand to pay all future promised benefits. Think of this as pension debt owed to retirement systems to pay promised pension benefits. In technical terms, this refers to the Unfunded Actuarially Accrued Liability.

**Actuarially Determined Employer Contributions (ADEC):** This is the money that actuaries calculate should be paid each year by the state and local employers to cover pension benefits earned plus to paydown any pension debt (after accounting for any employee contributions).

**Own-Source K–12 Spending:** This is the money spent on primary education using state resources only, excluding any federal funding, local resources, or expenditures on higher education.

## Methodology

Before we begin our examination of the trends in pension costs and education spending, we briefly discuss here the data and methods we utilize in our analyses.

### DATASETS

We compiled data across several different sources to produce two datasets containing retirement plan liabilities, assets, required contributions and contributions paid by employers (states and districts), and states' spending on K–12 education. Our first dataset offers insights into state and national trends as they relate to K–12 spending and the growth of pension costs as a share of K–12 expenditures from 2001 through 2018. Our second dataset provides a similar compilation of variables for a sample of 98 California school districts from 2011 through 2017 that allows for an example of what more nuanced crowd out analysis can uncover.<sup>i</sup> For details on the data descriptions and adjustments see "[Appendix A: Data & Methods](#)." For details on the sources see "[Appendix D: Sources on Pension Funding](#)."

### DEFINING EDUCATION SPENDING

Given the complexities in public education financing, it is necessary to define what we mean by *education spending*. Specifically, we examine the amount of money actually sent by the state to fund K-12 public schools. This does not include federal funds that pass through the state or local revenues that go directly to schools. In more technical terms, we have chosen to focus on "own-source" spending on salaries, capital expenditures, programs, curriculum, and related K–12 education expenditures.

This way of looking at education spending includes funding from both the state's general fund, which can be likened to a state's primary checking account used for state operations, and any additional specialized streams of revenue that might operate outside the state's general fund — including dedicated state education budgets and local tax revenues.<sup>ii</sup>

The reason we analyze state own-source spending only while excluding all federal funding is so that we can be sure any trends we observe will be functions of state and local budget decisions plus shifts in pension costs, as opposed to fluctuations in federal funding. Federal dollars are often earmarked for specific purposes, too.

### RETIREMENT PLANS ANALYZED

The context in which public sector pensions interact with public education varies from state to state. While some provide retirement benefits to public school employees, the vast majority of benefit spending is on classroom teachers.<sup>iii</sup> Some states provide pension benefits to all state employees, including teachers, through a single system. Other states have a stand-alone system for public school employees. And still others have retirement systems specific to classroom teachers (providing benefits to other educators and administrators separately).

Our analysis is focused on the costs of retirement plans that cover classroom teachers. For systems that provide benefits to other employees, we estimate the portion of liabilities and costs associated with K–12 educators based on the publicly available data provided by each retirement system. For more details see "[Appendix A: Data & Methods](#)."

### EDUCATION BUDGET CROWD OUT ANALYSIS

Our analysis related to education spending indicates that pension costs are growing much faster than total funding, meaning that items other than pension expenses are being squeezed out of budgets. Whether this crunch translates into fewer teachers, stagnant salary schedules, larger class sizes, deferred school maintenance, or the discontinuation of school programs will vary from district to district. However, the reality is simple—pension costs are harming states' ability to provide a quality public education.

This report, then, does not aim to perform statistical tests to verify the presence of crowd out in state education.<sup>iv</sup> Instead, it focuses on the growth in pension costs in states relative to growth in K–12 spending, examining the "share" of education spending being consumed by retirement costs.<sup>v</sup> Statistical modeling is not necessary to see that pension costs are cutting into state and school district budgets.

A litany of various factors could impact this ratio, and it isn't necessary to attempt blame on a single source. The reality is simple: If the share of education spending going toward retirement systems is growing faster than increases in education budgets, an increasing share of funds will not be available to support resource equity, provide teacher raises, or otherwise make it into the classroom.

<sup>i</sup> This analysis follows on data collection efforts by Pivot Learning in their 2019 report "[The Big Squeeze](#)" and expands the dataset for this analysis.

<sup>ii</sup> Alabama and Wyoming provide examples of this scenario, but numerous other states also fund education, either fully or in part, outside their general funds.

<sup>iii</sup> See our methodological notes for comment on the classification of employees in education spending, and structural context for who provides the benefits in each state.

<sup>iv</sup> We also note that Sarah Anzia has found statistically significant support for this relationship, documented in a papers from 2017 and 2019. See "[Appendix D: Sources on Pension Funding](#)."

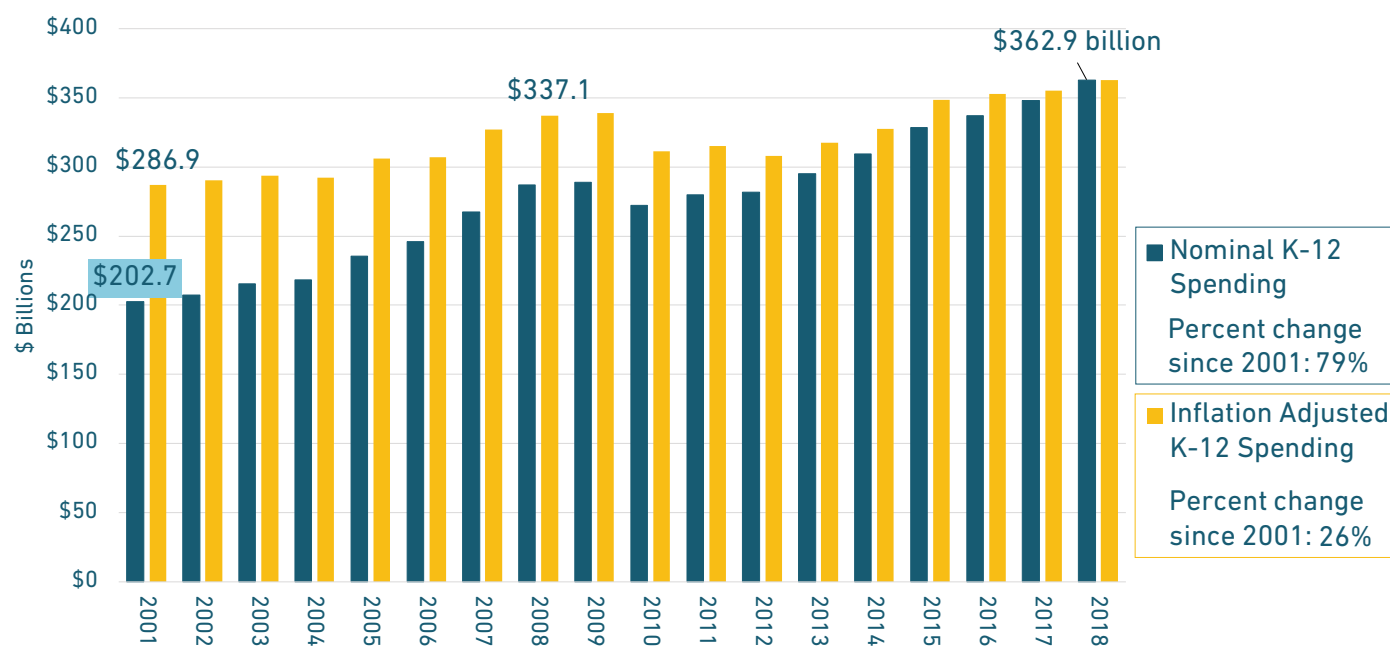
<sup>v</sup> This methodological approach is comparable to the one employed by McGee, Josh (2016). "[Feeling the Squeeze: Pension Costs Are Crowding Out Education Spending](#)." *Manhattan Institute*.

## 1.1 National Education Spending Has Been Stagnant

Funding for primary education has increased over the past two decades, steadily but slowly. The actual money spent using revenues collected within each state — known as nominal, own-source K–12 spending — increased in the aggregate by 79% from 2001 to 2018, a climb up from \$203 billion to \$363 billion. Once we adjust for inflation, however, the growth in education funding shrinks to only 26% over the past 18 years. This is shown in Figure 1.

Looking at the data over time reveals a clear hit to education spending following the Great Recession. The growth in state budgets during the mid-2000s helped elevate total spending on K–12 primary education, along with most other public programs. This trend reversed after the Great Recession, as many states slashed allocations to school districts, which in turn had to come up with ways to absorb the cuts, such as through layoffs and pay freezes.<sup>7</sup> As a result, it has taken nearly a decade for education spending to get back up to the levels seen before the Great Recession — a factor that has contributed to the frustration in pay levels voiced by teachers across the country. Adjusted for inflation, K–12 spending in 2018 is up only 7.6% from 2008.

**Figure 1: Most of the growth in state K–12 education spending is due to inflation. In fact, spending has only recently caught up to 2008 funding levels, after a decline following the Great Recession.**



Aggregate K–12 Education Spending (in Billions), 2001–2018

7 Leachman, Michael, Nick Albares, Kathleen Masterson, & Marlana Wallace (2016). “[Most States Have Cut School Funding, and Some Continue Cutting](#).” Center on Budget and Policy Priorities.

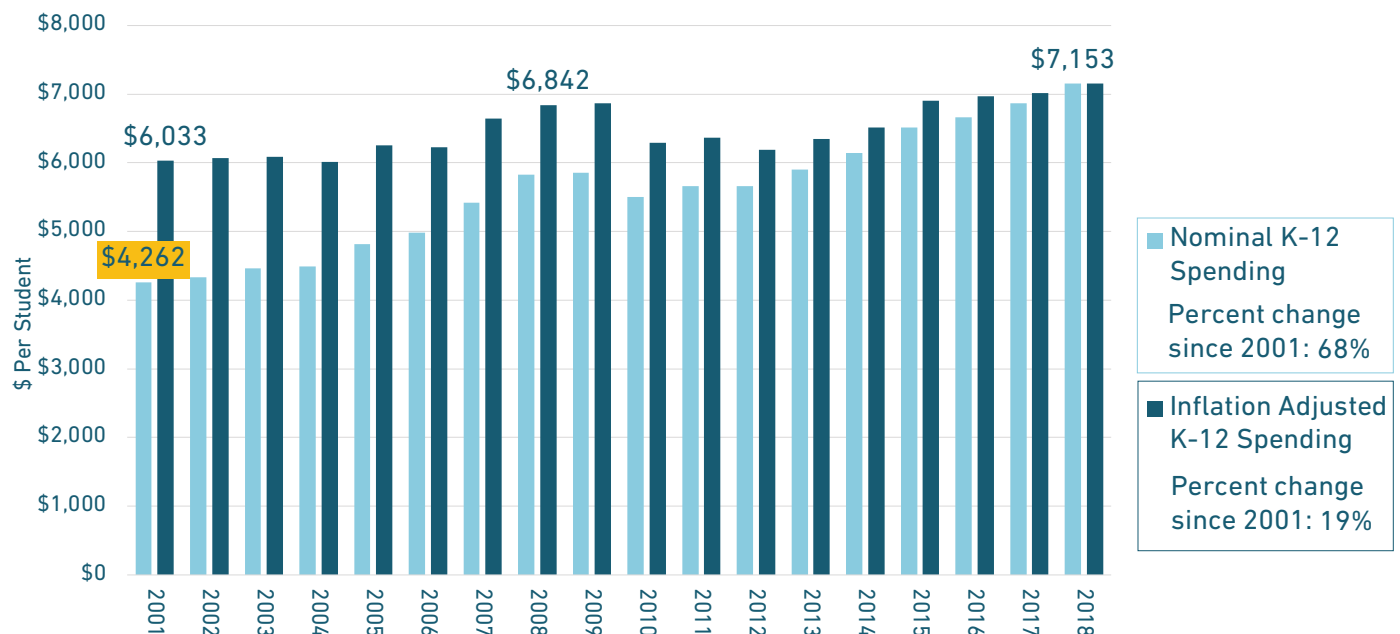


Meanwhile, as education funding was growing slowly, enrollment was growing steadily. In 2001, the aggregate enrollment was 47.6 million students and by 2018 it had increased to 50.7 million. Between 2008 and 2018, while education funding was essentially stagnant, enrollment increased by 1.5 million students.

When examined on a per-student basis, funding grew at an even slower rate in both nominal- and inflation-adjusted figures, as shown in Figure 2. Since 2008, there has only been a 4.5% increase in education spending on a per-student level as the number of students climbed while spending barely changed.

This unsettling decade of stagnant per-student spending has been well documented.<sup>8</sup> According to research by the Center on Budget and Policy Priorities, “Public investment in K–12 schools — crucial for communities to thrive and the U.S. economy to offer broad opportunity — has declined dramatically in a number of states over the last decade.”<sup>9</sup>

**Figure 2: Total K–12 spending has grown even less on a per-student basis, as enrollment growth has outpaced increases in primary and secondary education funding.**



<sup>8</sup> Examples illustrating the national trend include: Rosewicz, Barb (2019, June). “[Lost Decade](#)” Casts a Post-Recession Shadow on State Finances.” *The Pew Charitable Trusts*; Burnette II, Daarel. (2019, September 24). “[Money Jitters are Never Far Below the Surface for School Leaders](#).” *Education Week*.

<sup>9</sup> Leachman, Michael, Nick Albares, Kathleen Masterson, & Marlana Wallace (2015). “[Most States Have Cut School Funding, and Some Continue Cutting](#).” *Center on Budget and Policy Priorities*.

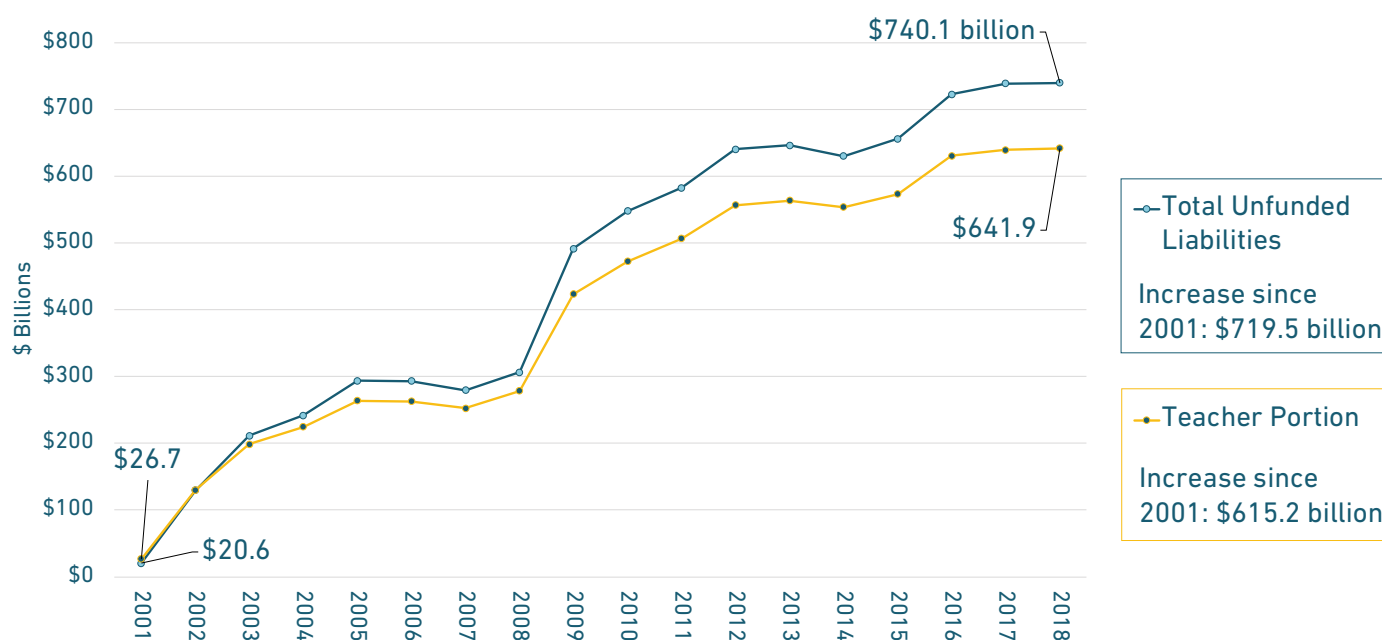
## 1.2 National Pension Costs Are Growing

Public pensions in America haven't always felt like they were struggling. Back in 2001, most state pension plans reported that they were on solid ground, in some cases sitting on multi-billion-dollar surpluses. When looking at all of the state retirement systems providing benefits to public school employees nationally, there was a total of just \$26.4 billion dollars' worth of unfunded liabilities — i.e., pension debt. And of this amount, \$20.3 billion of the shortfall was for teachers' and other educators' share of their retirement systems.<sup>10</sup>

However, at the same time that education funding generally was growing slowly, public pension debt and costs were exploding across the country.

Between 2001 and 2018 a confluence of underperforming investments, missed assumptions, and failure by many states to pay their full actuarially required contributions, have transformed these systems from being almost fully funded to being major drags on their state budgets. As Figure 3 shows, by 2018 the teacher portion of unfunded liabilities for pension systems covering teachers had ballooned north of \$642 billion.

**Figure 3: Pension debt owed to teachers has exploded from less than \$20 billion in 2001 to north of \$642 billion in 2018.**



Total Pension Funding Shortfall for Plans with Teachers and Share of the Pension Funding Shortfall Specific to Teachers (Actuarial Value), 2001–2018

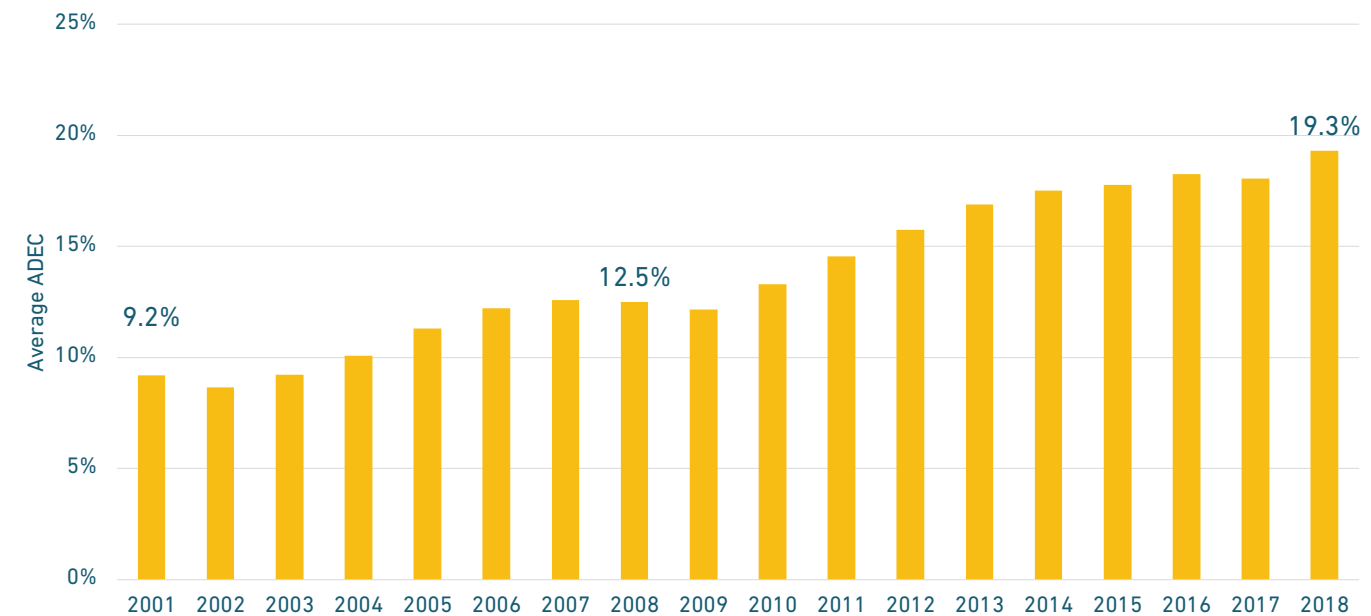
<sup>10</sup> The teacher “share” here refers to the amount of the unfunded actuarial accrued liability that is specific to the teachers enrolled in plans that include more than just teachers among their membership. For example, Arizona’s State Retirement System (ASRS) offers retirement plans to active and retired teachers, municipal employees, and state workers — teachers comprise 43% of the total membership.

Notice that the pension debt began growing in the years before the Great Recession. While losses during the financial crisis certainly didn't help, they haven't been the main reason states are struggling. In fact, in the years since the financial crisis markets have totally recovered but pension systems have not. There are a lot of reasons, but at the core the problem is that state legislatures, governors, and pension board trustees haven't effectively adapted to changing markets and demographics.<sup>11</sup>

### 1.3 Unfunded Liabilities Mean Pension Debt Payments

These hundreds of billions in unfunded liabilities come with costs. As Figure 4 indicates, the average actuarially determined employer contribution (ADEC) grew from 9.2% of teacher payroll to 19.3% between 2001 and 2018.<sup>12</sup>

**Figure 4: Annual required pension costs to be paid by states and school districts have more than doubled as states work to pay down the growing teacher pension debt.**



Average Actuarially Determined Employer Contributions as a Percent of Payroll

11 The main problem today is not overly generous pension benefits or the misfortune of the financial crisis in 2008. Pension benefits were enhanced in the 1990s, increasing overall costs, but mostly this ate up surplus funds that states thought they had and left no room for error. Unfortunately, errors were plentiful as pension boards have failed to adequately adjust their actuarial assumptions about investment returns or demographic changes, like life expectancy rates. To compound things further, legislatures did not always pay the full ADEC and states used accounting methods that often meant paying less than the interest accruing on pension debt. All of this was going on before the financial crisis. The financial crisis exposed the underlying challenges. This is evidenced by the fact that financial markets have more than recovered all of their losses since then, but unfunded liabilities have continued to increase.

12 Until 2014, most states referred to the ADEC as the actuarially required contribution or other varying terminology. Since then new Governmental Accounting Standards Board (GASB) reporting rules have standardized certain reporting metrics.

Of this amount, most of the increase is due to growth in unfunded liability amortization payments, as opposed to growth in “normal cost.”

*Normal cost* is the annual contribution into a pension fund to pay for all benefits earned in that fiscal year. Usually, employees and employers make contributions toward normal cost. This normal cost might increase if the value of benefits is increased, or if the accounting methods for measuring the value of benefits change.<sup>13</sup> However, benefits have not been a major source of increased costs, as only a few states have increased teacher pension benefits since 2001.

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Actuarially determined contributions for states and school districts have more than doubled from 9.2% to 19.3% of teacher payroll since 2001.

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*Unfunded liability amortization payments* are contributions into a pension fund to backfill any shortfall in the funding of the pension plan, which is frequently thought of as paying down pension debt. Pension boards typically adopt “funding policies” that create payment plans to address existing pension debt and that prevent the accrual of any new unfunded liabilities. Over the past two decades states have typically stretched out their amortization payments over 30 or more years, trying to keep annual costs low. But the simple fact is that pension debt is the true driver behind the rising tide of pension costs that threaten to overwhelm state budgets.

The primary drivers of the growth in unfunded liabilities for teacher pension plans in America are the same as for other public sector pensions: Investment returns have been less than anticipated. Assumed rates of return were overly optimistic and financial markets started producing relatively lower returns compared to the 1980s and 1990s. States often failed to pay 100% of their actuarially determined employer contributions. And pension managers struggled to keep up with demographic changes, such as slower than expected growth in salaries and longer life expectancies.<sup>14</sup>

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13 Like adjusting the “discount rate” or “mortality tables.”

14 Equable (2019). “[The Pension Basic Series](#).”

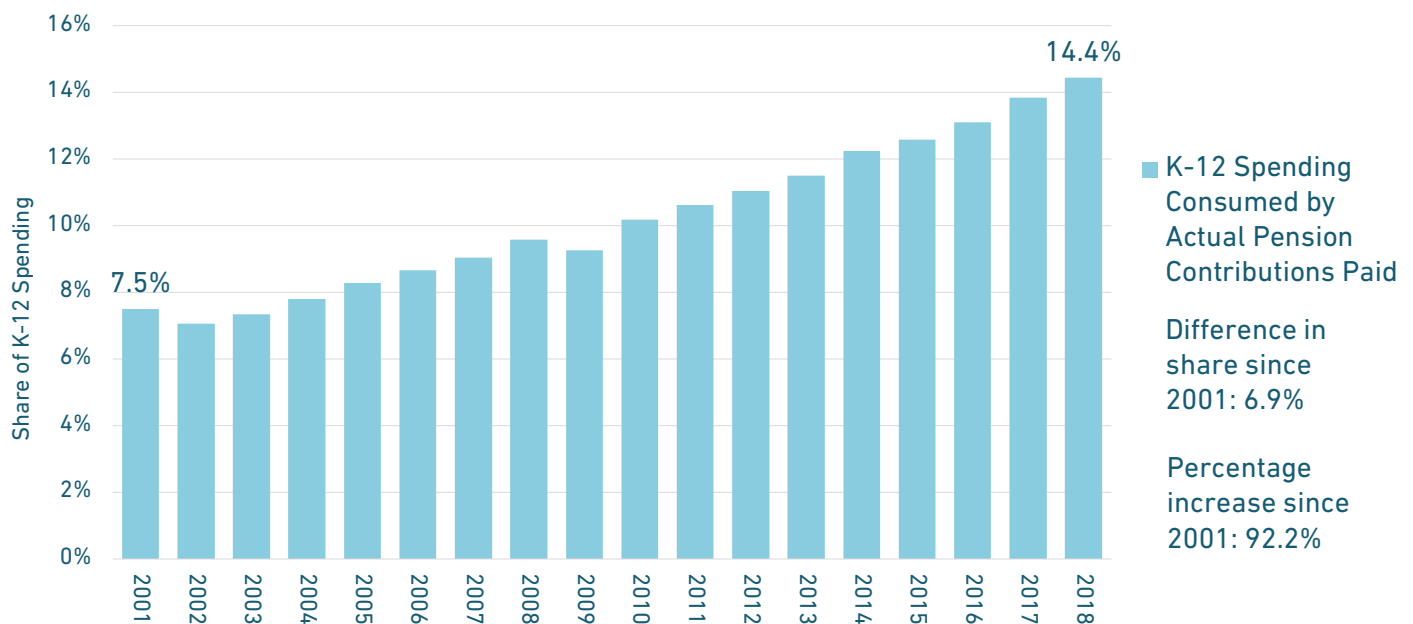
## Part 2: Growth in Pension Spending Is Outpacing Growth in Education Funding

To understand how education budgets have been slowly eroded by growing pension costs is to comprehend that the growth in pension costs themselves have been gradual and unexpected for policymakers.

Most states increased pension benefits in the 1990s, but only a few states did the same during the 2000s. If anything, states have been trying to reduce “normal costs” since 2009 by cutting the value of benefits being offered to new teachers. Instead, as unfunded liabilities have grown, amortization payments to eliminate those unfunded liabilities have grown, too.

The growth in these pension debt payments has been chipping away bit by bit at education spending to the point where in some states it is consuming K–12 budget dollars intended for the classroom. Figure 5 shows how the percentage of own-source education spending on pension costs (actual contributions paid) has increased since 2001.

**Figure 5: The share of state education spending consumed by pension costs has nearly doubled since 2001.**



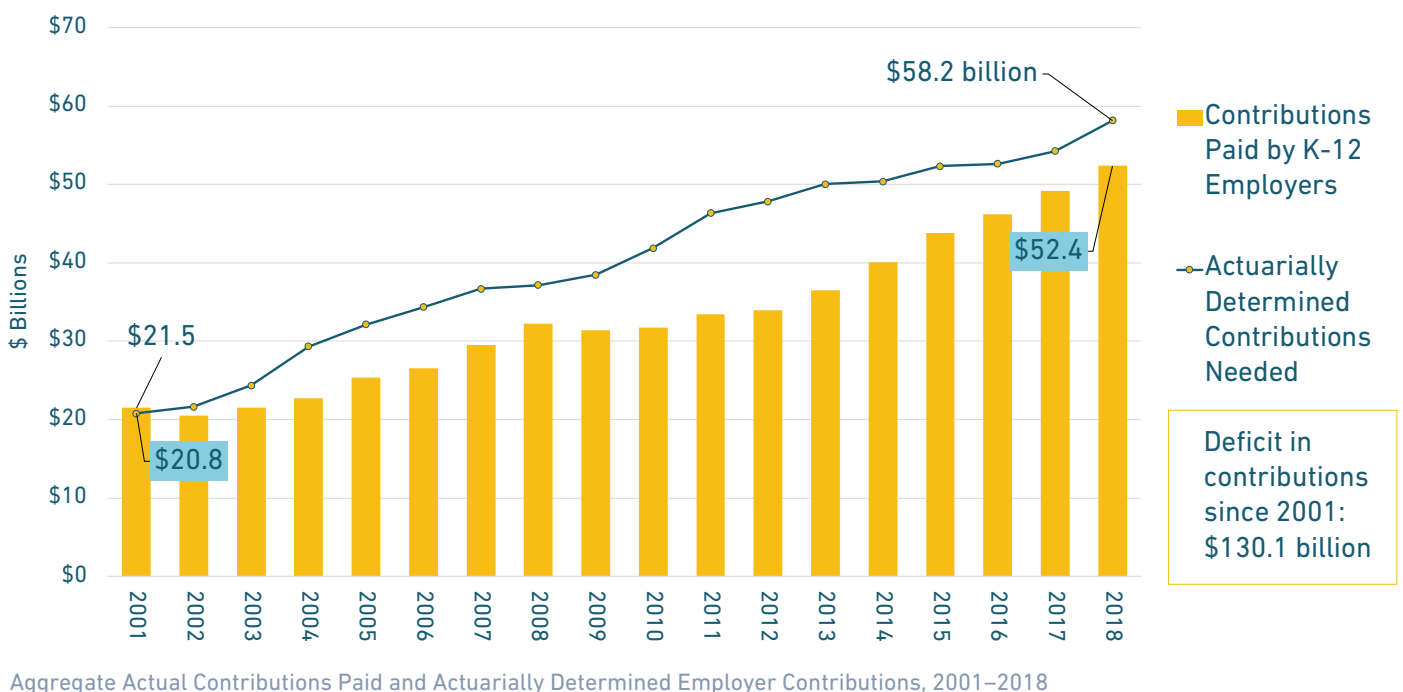
Pension Costs as a Share of State Own-Source K-12 Spending, 2001–2018

State governments do not always ensure that the actual contributions paid each year into their pension funds are equal to the amounts that *need to be paid*. Actuaries determine annually what needs to be contributed to keep a pension fund on track for full funding, but when revenues are down — or budgets crunched — states sometimes skip making their full pension payment.

This is an important factor to consider when looking at hidden education funding cuts because in some contexts the failure to keep up with actuarially required contributions has prevented education crowd out in the short-term but extenuated it in the long-term.

Consider that back in 2001, when pension plans were effectively fully funded, states were contributing more into their retirement systems than actuarially required. But as Figure 6 shows, aggregate contributions paid were less than the actuarially determined levels every year after 2001.

**Figure 6: Collectively states have underpaid their pension bills by nearly \$130 billion since 2001, exacerbating overall pension debt.**



When considered in light of state education funding, these contribution shortfalls mean the share of education funding being consumed by teacher pension costs could have been even larger. Had the full actuarial total been paid each year, the share of K–12 education dollars that would have been allocated to teacher pension benefits and debt costs would have increased from 7.6% in 2001 to 16.3% in 2018.

## 2.1 Summary of National Findings

Here is the reality: all states have prioritized education spending increases at some point over the past two decades. But spending on teacher pension costs has grown faster. Between 2001 and 2018, the share of K–12 education dollars spent on teacher pension benefits has nearly doubled from 7.6% to 14.4%.

To put those percentages in context — in 2018, K–12 employers paid \$19.6 billion in normal costs (i.e., benefits earned that year), and \$42.4 billion *more* to cover unfunded liability amortization payments. In 2001, money paid toward unfunded liabilities was virtually zero.

The hidden funding cuts might actually have been higher in the short-term, if all states were committed to paying their full actuarially determined costs each year. However, shortchanging pension funds has just contributed to the overall teacher pension debt levels, which will create larger budget pressures and cutting into education funding more in the long-run.

## 2.2 Summary of Key State Findings: 2001–2018

The national trends are clear — teacher pension costs are consuming a greater share of K–12 spending each year and are putting a squeeze on education budgets. The severity of the hidden cut to education spending varies considerably from state to state. It is important to look deeper at these trends on a local basis to understand how they might be influencing education outcomes in your state.

For a comprehensive look at state and school district profiles, visit [equable.org/hiddenfundingcuts](https://equable.org/hiddenfundingcuts).

Here we present some top-line findings about trends at all three levels of our analysis: K–12 spending, changes in teacher pension finances, and the comparative analysis of pension costs eating away at education budgets.

### K–12 SPENDING

- The average increase in per-student spending between 2001 and 2018, was \$2,891 per student (nominal). Adjusted for inflation it was \$1,120 per student.
- Most states increased their education funding over the past two decades. But there were six states, plus Washington, DC, that spent less in own-source dollars in 2018 than 2001, adjusted for inflation: Florida, Maine, Michigan, New Hampshire, Oklahoma, and West Virginia.
- Among the remaining 44 states, the average inflation-adjusted increase in education spending was 38%. This means that, on average, state spending for K–12 increased by a little more than 2% a year over the 18-year period measured.

### UNFUNDED LIABILITIES AND PENSION COSTS

- As of 2018, there are only three teacher pension plans with a 95% funded ratio or better: New York State Teachers Retirement System, South Dakota Retirement System, and Wisconsin Retirement System.
- Some states have experienced large increases in their ADEC. See Table 1 on page 16.

**Table 1: Pennsylvania saw the largest increase in its actuarially determined employer contributions, jumping from \$224 million to \$4.2 billion.**

	2001	2018	Increase
<b>Pennsylvania</b>	\$223.9 million	\$4.2 billion	1,794.9%
<b>Wyoming</b>	\$8.1 million	\$93.9 million	1,057.3%
<b>Arizona</b>	\$47.0 million	\$454.5 million	867.3%
<b>Washington</b>	\$57.2 million	\$486.1 million	749.9%
<b>New York State</b>	\$216.2 million	\$1.6 billion	638.4%

States with the Largest Percentage Increases in Actuarially Determined Employer Contributions by Percentage Increase, 2001–2018

## ACTUAL PENSION COSTS AS A SHARE OF EDUCATION SPENDING

- The state with the highest hidden education funding cut was Pennsylvania, which spent 2.4% of own-source K–12 resources on pension costs in 2001 and 34.3% in 2018. The next four highest were:
  2. Illinois, 12.2% (2001) to 33.5% (2018)
  3. Connecticut, 8.5% (2001) to 26.1% (2018)
  4. Michigan, 5.6% (2001) to 22.2% (2018)
  5. New Hampshire, 4.3% (2001) to 20.8% (2018)
- The median increase in education spending going to cover teacher pension costs was 4.5 percentage points. This means pension contributions were about \$1 for every \$20 spent on education.
- States with the lowest (or negative) change in the share of education funding going to pension costs either were managing their pension systems well (like Maine), or were effectively adjusting education spending relative to pension costs, irrespective of how well they managed their retirement systems (like North Dakota). The five lowest hidden funding cut states were:
  1. Indiana, 14.1% (2001) to 12.1% (2018)
  2. Maine, 14.1% (2001) to 13.2% (2018)
  3. North Dakota, 8.4% (2001) to 8.4% (2018)
  4. Idaho, 8.9% (2001) to 9.0% (2018)
  5. Minnesota, 4.0% (2001) to 4.3% (2018)

We note, however, that within these states there are likely many people who thought all of the increased education spending was going to help teacher salaries or improving learning outcomes for kids.

It is also worth emphasizing that some states do not always pay the amount their actuaries recommend. In some cases, the severity of crowd out of education spending in a given year would have been higher if a state was making more responsible pension payments. For more details on this see [“Appendix B: State Profiles.”](#)



## Part 3: Finding the Hidden Funding Cuts

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Education funding is suffering, an unfortunate consequence of growing unfunded pension liabilities across the country. Pension costs driven primarily by pension debt payments have easily outpaced state education spending. While this varies from state to state, the simple national reality is that in the absence of significant additional resources or actions by state policymakers, pension debt costs are crowding funds out of public schools.

This has a direct impact on the ability of school districts to raise teacher salaries, deliver a full and enriching educational program for all students, and provide the additional supports needed to ensure equity in educational outcomes for all kids.

On the national level, the evidence clearly shows that ADECs and annual contributions actually paid have more than doubled since 2001. While at the same time K–12 spending in the states has barely changed, growing just 3.7% on an inflation-adjusted basis during the past decade.

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The problem is this: Apathy toward growing shortfalls in pension funding create a serious challenge to school finance stability, the ability to raise teacher pay, and efforts to support and increase education resource equity.

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As a result, pension costs in 2018 consumed nearly double the share of education funding they had required at the turn of the century.

The majority of states adhere to the national trendline, with pension cost increases acting as a type of hidden K-12 funding cut. A few states have managed to increase education spending enough to keep up with growing pension costs, but they will have to keep up that policy going forward. Meanwhile, even states managing their teacher pension plans responsibly, like New York State, have seen their pension costs increase without ensuring education budgets are similarly adjusted. Simply being a “well-funded” pension system does not mean that pension costs aren’t cutting into school budgets.

And at the district level, the specific consequences of this growing crowd out are taking shape in the form of increased class sizes, fewer teacher pay increases, and elimination of enrichment programs like art, music, and sports.

To solve this challenge, it is important to recognize that teacher pensions are not inherently the problem. Pensions can offer a pathway for public school teachers to have a secure retirement where they can end their careers with dignity, respect, and the comfort of knowing they earned their benefits while educating America’s youth. The real culprit in this story is *pension debt* — the unfunded liabilities and their costs — that has been allowed to accumulate over years of neglect by lawmakers, administrators, and other policymakers. The crux: Without any action, the problem is likely to only grow worse as pension costs increasingly cut into education budgets.

**What should be done about this challenge?** The specifics vary from state to state. Get in touch with Equable Institute's policy team to discuss the range of ways the hidden education funding cut problem can be solved: [research@equable.org](mailto:research@equable.org)

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Jonathan Moody is vice president of Equable Institute, where Anthony Randazzo is executive director. Moody has worked on state fiscal policy since 2014 including time as research officer at the Pew Charitable Trusts. Randazzo has worked with over a dozen states on retirement system improvements, and formerly was managing director of the Pension Integrity Project.

# Appendices

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# Appendix A: Data & Methods

The analyses reported across three reports on hidden education funding cuts are based on two unique datasets compiled by Equable researchers. The first is designed to provide insights into the growing costs of teacher pensions at the state and national levels. The second modifies the work of Pivot Learning by using their sample of 98 school districts to illustrate ways pension costs are crowding out education resources across California.

## State and National Datasets

The state and national trend data were compiled across several different sources:

- Data reporting plan assets, liabilities, unfunded liabilities, required contributions, and contributions paid for teacher retirement systems were collected from the Public Plans Dataset produced by the Center for Retirement Research at Boston College.<sup>15</sup> This information was then supplemented with additional data collection by Equable researchers.
- Data recording states' own-source spending on K–12 education were extracted from the National Association of State Budget Officers' (NASBO) annual Expenditure Report.<sup>16</sup>
- Data measuring student enrollment levels by state were collected from the National Center for Education Statistics' Digest of Education Statistics.<sup>17</sup>
- Data reporting the share of teachers in state plans that include broader public employees in their membership were drawn from the report, "Lifting the Pension Fog" published by the National Council on Teacher Quality and Education Counsel.<sup>18</sup>
- Data capturing inflation were compiled from the Bureau of Labor and Statistics.

Each of the sources provided many of the data for the analyses; however, significant adjustments were required to fairly represent the trends occurring in each state and across the country.

Public Plans Data were first restricted to report only those plans that include K–12 teachers as among their membership. For those plans with membership that includes more than just teachers — such as Arizona's

15 Center for Retirement Research at Boston College, Center for State and Local Government Excellence, and National Association of State Retirement Administrators. [Public Plans Data, 2001–2018, 2018 Q2 Data Update](#). Accessed Aug. 26, 2019.

16 National Association of State Budget Officers (2018). ["State Expenditure Report, Fiscal Years 2017–2018."](#)

17 U.S. Department of Education, National Center for Education Statistics, Common Core of Data (2019). ["State Nonfiscal Survey of Public Elementary/Secondary Education, 1990–91 through 2016–17; and State Public Elementary and Secondary Enrollment Projection Model, 1980 through 2023."](#) Table accessed Aug. 15, 2019.

18 Jacobs, Sandi, Kathryn Doherty, & Martin Lueken (2017). ["Lifting the Pension Fog: What Teachers and Taxpayers Need to Know about the Teacher Pension Crisis."](#) *National Council on Teacher Quality and Education Counsel*.

State Retirement System (ASRS) or Florida Retirement System (FRS) — all figures were adjusted to reflect the “teacher-only” share of liabilities and contributions using the “Teacher Membership” reported in Appendix B of “Lifting the Pension Fog.”<sup>19</sup> These teacher-share adjusted pension figures were then supplemented with the NASBO expenditure data reporting states’ own-source expenditures for K–12. We adjust the NASBO figures where they excluded, or partially excluded, pension contributions to ensure we were not inflating or accidentally overstating the share of K–12 spending paid into teacher retirement systems.<sup>20</sup> We chose to examine states’ own-source education funding figures to provide a more accurate estimate for how much states are allocating their available resources via state funding.<sup>21</sup> As a result, our analyses omitted education funding that comes through the state via federal grants or other federal programs and all education funding that comes from local revenues such as municipal property taxes. As a final adjustment, Equable researchers reviewed pension contributions and identified all instances of single, outsized payments to pension funds that were the result of supplemental appropriations, proceeds from the issuance of pension obligation bonds, or that would otherwise misrepresent the allocation of resources outside of education funding. In each of these cases we removed those supplemental contributions and reported the amount contributed that could be from education funding. In the event we were unable to identify what share of a contribution was supplemental, we reverted to the full ADEC for that year as the total contribution for our analyses.<sup>22</sup>

The result of these adjustments is a unique dataset reporting teacher-only pension data and state K–12 education spending from 2001 through 2018. From these, Equable researchers calculated the share of K–12 spending on pension contributions — both the actuarially determined employer contribution and the contribution actually paid by the state in any given year. These are also supplemented with inflation-adjusted versions that report all figures for all years in constant 2018 dollars. Similarly, all figures were also compiled and reported on a per-student basis using National Center for Education Statistics enrollment figures.<sup>23</sup>

19 We apply this adjustment for all years in the dataset (2001–2018). The shares reported in “Lifting the Pension Fog” are static figures for 2016, meaning our estimate does not allow for the slight fluctuation that will exist within a state’s workforce over time. However, a thorough analysis of a sample of statewide plans with joint public employees and teacher membership found that the relative shares did not have significant variation over time. Our goal in providing an estimate of the “teacher-share” of a plan’s contributions and unfunded liabilities is to show the relative scale of teachers in the state compared to other participants in the pension plan, so the approximation methodology used here is reasonable.

20 Note that NASBO data are unavailable for Alaska in 2001 due to the state not submitting figures to their annual surveys. Education spending data for Wyoming were imputed for fiscal years 2011 and 2012 due to irregularities in data reported to NASBO. Illinois’ data from NASBO incorrectly reflect whether contributions to TRS are included or excluded for several years. After comparison of NASBO totals with Illinois Comptroller reports, we determined that TRS contributions are included in data reported to NASBO for 2001–2008, while they are excluded from 2009–2018. Illinois data used these adjusted figures for our analyses.

21 Education funding data for Washington, DC were drawn from comprehensive annual financial reports.

22 Federal grants and other funds are most commonly designated for specific programs or are allocated in response to specific actions by states. As such, we opted to exclude federal funds from our analyses to ensure that trends in K–12 spending reflect only the available resources for each state.

23 NCES data provided actual figures for 2006 through 2018. Data are also available for 2000. To fill in missing years’ worth of data, the difference between enrollment for 2000 and 2006 was divided by six and then applied equally to each year, such that the missing years reflect a smoothed trend between the two reported figures.

## California District Datasets

The data for our analyses of pension crowd out in school district budgets were drawn from Pivot Learning's *The Big Squeeze* report.<sup>24</sup> They provide line-item expenditure data from a sample of 98 California school districts. Equable researchers supplemented the Pivot data for each district by revising expenditure totals for 2017 with audited actuals and adding 2018 values using Ed-Data.<sup>25</sup> Ed-Data is a partnership between the California Department of Education, EdSource, and the Fiscal Crisis and Management Assistance Team/California School Information Services (FCMAT/CSIS). Their website provides detailed financial data including the figures compiled by Pivot Learning.

As noted in the body of the report, it was unnecessary to calculate the share of total education spending allocated to pension expenses at the district level as this is set each year by the state in statute. Under the funding plan passed as part of AB 1469, the contribution rates for districts were set to ramp up through 2023.<sup>26</sup> Those rates were adjusted as part of the 2019–20 budget, which provided a supplemental \$3.3 billion contribution from the state and a slowing of the rate increases for school districts.<sup>27</sup>

Similar to the state and national dataset, all figures reporting expenditures are adjusted into constant 2018 dollars using a standard inflation adjustment available from the Bureau of Labor and Statistics. All figures are also calculated as per-student values using enrollment figures provided by Pivot with 2017–18 enrollment compiled from [Ed-Data.org](https://ed-data.org).

## Retirement Plan Coverage

We focus our analysis on defined benefit pension plans that cover classroom teachers, as they represent the vast majority of public education payroll. Some states classify all employees in public sector schools as the same for the purpose of retirement benefits; others differentiate between full-time classroom teachers and administrative staff, instructional aids, lunchroom staff, etc., but the payroll for these groups is always dwarfed by covered payroll for classroom teachers. In the few instances where states split out other systems for non-instructional staff (such as Louisiana and Missouri, which create entirely separate pension plans for non-instructional staff; or California, which puts non-instructional employees in the state employee pension plan), the total dollar amounts of pension benefits and contributions are relatively small.<sup>28</sup>

24 Melincoe, Hannah., et al. (2019). "[The Big Squeeze: How Unfunded Pension Costs Threaten Educational Equity](#)." *Pivot Learning*.

25 To learn more, visit [Ed-Data.org](https://ed-data.org).

26 Information about the initially approved ramp-up in district contribution rates through AB 1469 can be found in: CalSTRS (2014, June 12). "[Bill Analysis. Assembly Bill, AB 1469](#)."

27 Detailed breakdowns of the 2019–20 budget adjustments to the AB 1469 ramp-up in district contribution rates can be found at: Legislative Analyst's Office (2019, February 13). "[The 2019–20 Budget: Proposition 98 Analysis](#)"; and California School Boards Association (2019, 14 January). "[What the \\$3 Billion CalSTRS Proposal in the 2019–2020 Budget Means for Local Schools](#)."

28 There are even a few cities that manage teacher pensions. Municipalities offering their own primary retirement plan for teachers include: Chicago, IL; Denver, CO; Kansas City and St. Louis, MO; New York, NY; and St. Paul, MN. Other municipalities offer defined benefit pension plans to teachers supplemental to a statewide plan, such as Knox County, TN, and Fairfax County, VA.

Teachers in several states are afforded the choice to opt into various retirement options including traditional defined benefit pension plans, but also featuring 401k-style defined contribution plans and guaranteed return plans — also known as *cash balance plans* — that operate with individual retirement accounts for teachers but guarantee a designated return on plan members' investments.<sup>29</sup>

Data were readily available for both defined benefit pension plans and guaranteed return plans and they form the bases of our analyses. Unfortunately, defined contribution plans require significantly less oversight and administration from states. As a result, data related to these are largely unavailable, forcing us to exclude them from our analyses. This is not problematic for this study, however, as defined contribution options do not comprise a majority of teacher membership for most states or retirement systems where they are offered. Moreover, the design of defined contribution plans shifts the risks of underfunding onto plan members, reducing the likelihood that pension costs for the state could grow enough to cut into state education spending.<sup>30</sup>

## Data and Code Availability

All data and code files associated with these analyses are available upon request to Equable Institute. Please contact [jon@equable.org](mailto:jon@equable.org) for copies of the data or code.

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<sup>29</sup> Note: Both Kansas and Hawaii offer guaranteed return plans to teachers.

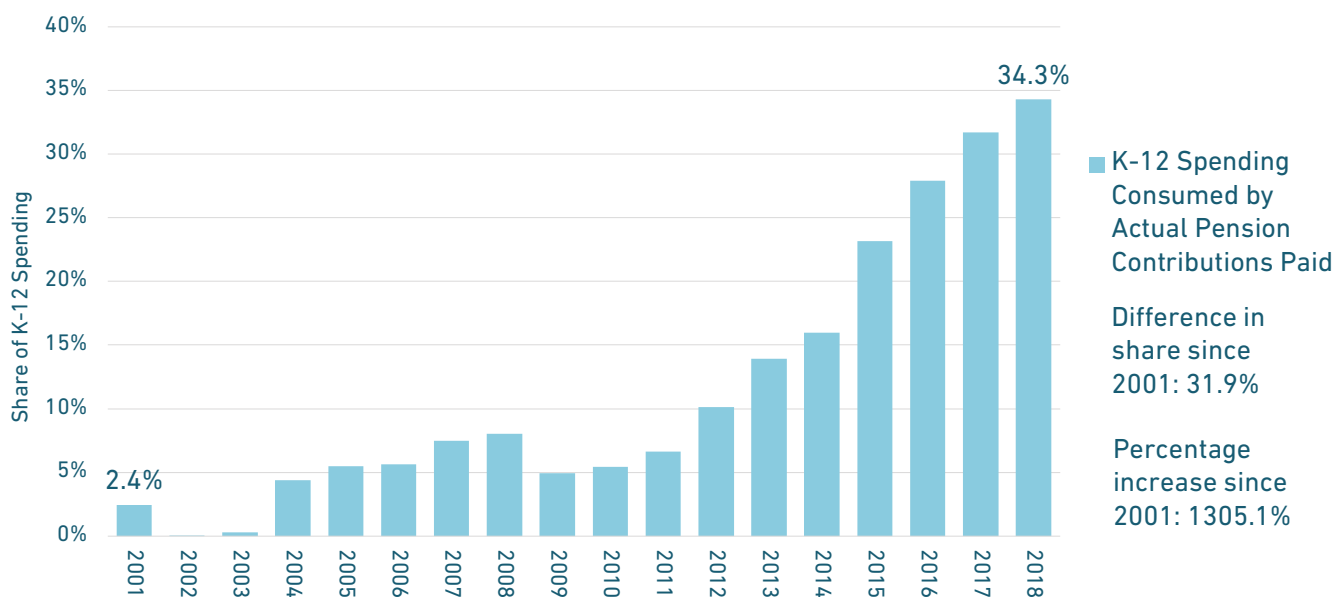
<sup>30</sup> The exception to this rule may be Alaska, where teachers have only been offered a defined contribution option since 2006. However, even in this case, the state is still resolving the unfunded liability of its legacy system, which is included in our data and analysis.

## Appendix B: State Profiles

For comprehensive analysis on some of the state-to-state variance in severity of pension costs crowding out education funding, including comparative profiles of representative states and summary data for each of the 50 states and Washington, DC, visit [equable.org/hiddenfundingcuts](https://equable.org/hiddenfundingcuts) and read “Hidden Education Funding Cuts: State Profiles of Teacher Pension Debt Payments Eating into K–12 Education Budgets.”

Here is an example of the type of analysis you’ll find in your state’s profile.

**Figure 7: The hidden cut to Pennsylvania’s education funding is serious. PSERS contributions are consuming more than thirteen times as much state K–12 spending in 2018 as 2001.**



Pension costs as a Share of State Own-Source K–12 Spending, 2001–2018.

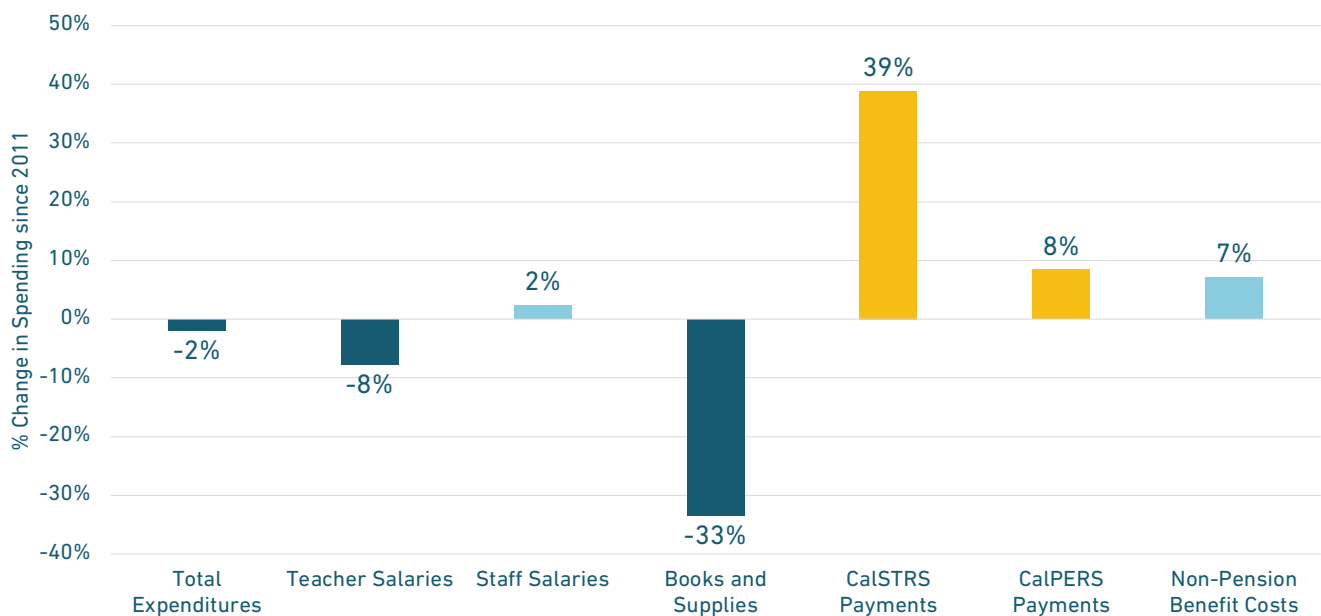


## Appendix C: School District Profiles

To understand how the hidden budget cuts can create challenges at the school district level, check out our analysis of California's struggles to pay down teacher pension debt and school district profiles by visiting [equable.org/hiddenfundingcuts](https://equable.org/hiddenfundingcuts) and read: "Hidden Education Funding Cuts: California School District Profiles of Teacher Pension Debt Payments Eating into K–12 Education Budgets"

Here is an example of the type of analysis you'll find in your state's profile.

**Figure 8: Payments from LAUSD to CalSTRS grew by more than a third, while teacher salaries declined by almost 10 percent.**



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