EQUABLE

Hidden Education Funding Cuts

Methodology

The *Hidden Education Funding Cuts* project examines the extent to which teacher pension costs have reduced the dollars available for K–12 education purposes as provided by state budgets. We chose to examine education funding from a state budgeting perspective to highlight how the funds lawmakers allocate for teachers and classrooms are being impacted by rising pension debt costs.

This document contains the key methodological notes for our research project. The following pages are drawn from our report looking at the national trends in hidden education funding cuts. For any further questions about data sources, data utilization, or data methods, please contact the authors Jonathan Moody and Anthony Randazzo.

As an overview: we use state expenditure data from the National Association of State Budget Officers that exclude both federal and local funding for education. These data are self-reported by state budget officials which allows for the examination and comparison of state trends over-time, regardless of how a specific state funds its primary and secondary schools (e.g., whether they use the general fund or other state funds).

We also use teacher pension employer contribution data, that include both dollars provided by "local" employers (such as school districts or non-state participating employers) and dollars provided by the state budget as a non-employer contributor as reported by the teacher retirement systems. This approach ensures that we are reflecting the most accurate figures related to the retirement system and its associated costs. We have also adjusted pension contribution data to remove outsized single payments that come from the issuance of pension obligation bonds or other supplemental appropriations, as those would not be an accurate representation of state dollars spent on pension costs that could have otherwise been used for education funding.

QUICK GLOSSARY

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 pay down any pension debt (after accounting for any employee contributions).

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.

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.[i] 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 spent by K–12 public schools, whether using money from locally collected revenues or state budget-distributed dollars but excluding federal dollars. 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.[ii]

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.[iii] 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.[iv] 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.[v] 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.

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i This analysis follows on data collection efforts by Pivot Learning in their 2019 report "The Big Squeeze" and expands the dataset for the purposes of this analysis.

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

iii 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.

iv We also note that the work of Sarah Anzia already illustrates that this relationship is statistically significant. See "Appendix D: Sources on Pension Funding"

v 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.

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.[1] This information was then supplemented with additional data collection by Equable researchers.
- Data recording states' own-source spending on K–12 education was extracted from the National Association of State Budget Officers' (NASBO) annual Expenditure Report.[2]
- Data measuring student enrollment levels by state were collected from the National Center for Education Statistics' Digest of Education Statistics.[3]
- 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.[4]
- 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

1 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.

2 National Association of State Budget Officers (2018). "State Expenditure Report, Fiscal Years 2016–2018."

3 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 2028." Table accessed Aug. 15, 2019.

4 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."[5] 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 exclude, or partially exclude, pension contributions to ensure we are not inflating or accidentally overstating the share of K–12 spending paid into teacher retirement systems.[6] States' own-source spending figures are used to provide a more accurate estimate for how much states are allocating from their available resources, without introducing any noise from federal grants or other funding assistance.[7]

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 spent 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 are also compiled and reported on a per-student basis using National Center for Education Statistics enrollment figures.[8]

California District Datasets

The data for our analyses of pension crowd out in school district budgets are drawn from Pivot Learning's *The Big Squeeze* report.[9] 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.[10] 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.

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5 We apply this adjustment for all years in the data (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 work force overtime. 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 is 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.

6 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 2011 and 2012 were imputed due to irregularities reported to NASBO.

7 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.

8 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.

9 Melincoe, Hannah., et al. (2019). "The Big Squeeze: How Unfunded Pension Costs Threaten Educational Equity." Pivot Learning.

10 To learn more, visit Ed-Data.org.

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.[11] 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.[12]

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.

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.[13]

Teachers in several states are afforded the choice to opt into various different 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.[14]

11 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."

12 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."

13 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.

14 Note: Both Kansas and Hawaii offer guaranteed return plans to teachers.

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.[15]

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 for copies of the data or code.

15 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 D: Sources on Pension Funding

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