Projections of State Budget Shortfalls on K-12 Public Education Spending and Job Loss

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RAPID RESPONSE

Executive Summary

Nearly all state budgets are in the red, suggesting looming cuts and possible job loss in K-12 education. New estimates of shortfalls in state revenues and K-12 staffing data enable early projections of the magnitude of both the impact on K-12 public education spending and corresponding job loss. These projections can help policymakers at all levels understand the size and scope of the problem as they work to craft next steps.

Assuming the absence of intervention via increased taxes or federal stimulus spending, this analysis projects an 18.5 percent drop in state funds for K-12 education from 2009 budgeted figures to FY 2011, creating an 8.7 percent drop in total public education spending over the same period. The implication is that states will spend a total of $54 billion less on public K-12 education during the 2009 and 2010 calendar years than if spending had been held at budgeted FY 2009 levels. That number jumps to $80 billion for state spending on K-16 education, if higher education spending projections are included.

For many districts, spending cuts will imply job loss. For the projected shortfalls modeled here, this analysis suggests that school districts may need to eliminate just over 9 percent of total jobs in K-12 education. In raw numbers, the implication is that 574,277 jobs would be eliminated during the three school years, many via attrition. That figure, however, assumes that districts do indeed reduce spending via the elimination of jobs, rather than by shortening the school year or reducing pay.

These projections include only the effects of shortfalls at the state level. With 44 percent of total K-12 education spending generated at the local level, any shortfalls at the local level will further aggravate the fiscal effects for districts.

Introduction

As new estimates of state revenues continue to emerge, public officials struggle to understand their implications for public education. The goal of this analysis is to produce rapid projections of the effects on public education of the most recent estimates of declines in state revenues. More specifically, what's sought are both estimates of the degree to which K-12 education spending could be cut under a specified set of assumptions and the corresponding effect on employment.

This analysis summarizes:

1. The magnitude of projected reductions in state spending on K-12 education.
2. The projected impact on job loss in K-12 education.

Several assumptions are critical to understanding the relevance of the projections. First, the analysis assumes that state shortfalls, unless already indicated in 2009 mid-year budget plans, are applied evenly to all state spending priorities such that K-12 education takes on a proportional share of the gaps. Even where states have insulated education from 2009 mid-year cuts, this analysis assumes that in fiscal years 2010 and 2011, cuts will be applied proportionately to education. This assumption, while tenuous, is based on the notion that education typically consumes the largest slice of state and local public funds, and intentions to insulate education from cuts in future years may come up against the mathematics of it all.

Second, the analysis assumes the absence of an intervention. Here again, this assumption is unlikely to hold. At the time of writing, federal stimulus packages are under consideration, and some state and local governments are considering tax hikes.

And third, the analysis of job loss assumes that districts will apply spending cuts by cutting jobs, instead of shortening the school year or reducing pay for current employees.

With these precarious assumptions, it is important to reiterate that the idea here is to make projections that might inform the reactions of policymakers to current forecasts. As such, these projections are just that: *projections*, not predictions.

Modeling the Magnitude of K-12 State Spending Reductions

States fund the largest share of K-12 education, providing 46.5 percent of total funds. This analysis uses the most recent projected state budget gaps reported by the Center for Budget and Policy Priorities (CBPP) to estimate reductions in state education spending, for each FY 2009 (mid-year gaps), 2010, and 2011. For the mid-year 2009 gaps, proportionate gaps are applied state-by-state to those states where education is not reported as being "exempt" from mid-year cuts.[1] Where education is reported as protected in some way, this analysis assumes no or smaller cuts to K-12 education.[2] For FY 2010 and 2011, the CBPP estimates are applied to the 46.5 percent national lump

[1] States "exempting" education from cuts are reported in the December 2008 *Fiscal Survey of States* produced by the National Governors Association and the National Association of State Budget Officers.

[2] States "exempting" education from cuts in 2009 include: AR, IL, KS, MD, MS, NY, OH, and WI. GA and HI held cuts to 2% and 2.6% respectively.

sum state share of the FY 2009 total national budgeted expenditures of $504.69 billion.[3] In each case, the estimated gap is relative to the 2009 budget (before mid-year gaps are applied). Current estimates assume all other variables (including tax rates, level of federal funding, etc.) are held constant. Table 1 summarizes the implied corresponding cuts to state education spending.

Table 1: State Effects

	FY 2009 (mid-year gaps)		**FY 2010**	**FY 2011**
Mid-year budget gaps affected total state spending by:	8.60%	Incremental percentage cut in state funds from year to year	6.64%	7.34%
With many states "protecting education" to varying degrees, current estimates by state indicate state education cuts of:	4.56%	Incremental percentage cut in state funds from year to year (assuming cuts applied proportionately to K-12 education)	6.64%	7.34%
Corresponding reduction in total K-12 spending:	2.18%		3.09%	3.41%
Incremental cut from year prior	$11,027,464,927		$15,582,808,440	$17,225,574,390
Total dollars less than what would have been spent if spending kept at 2009 state budget levels (with no increases).	$11,027,464,927		$26,610,273,367	$43,835,847,757
Total projected funding needed during calendar years 2009 and 2010 to hold state share of K-12 education spending at 2009 budgeted levels			$54,041,929,709	

As the table projects, state shortfalls would yield decreases in total K-12 education spending by 2.18 percent during FY 2009, followed by an additional 3.09 percent in FY 2010 and then an additional 3.41 percent in FY 2011. The effect of these subsequent drops is a withdrawal of over 8 percent of total K-12 education spending during the three fiscal years.

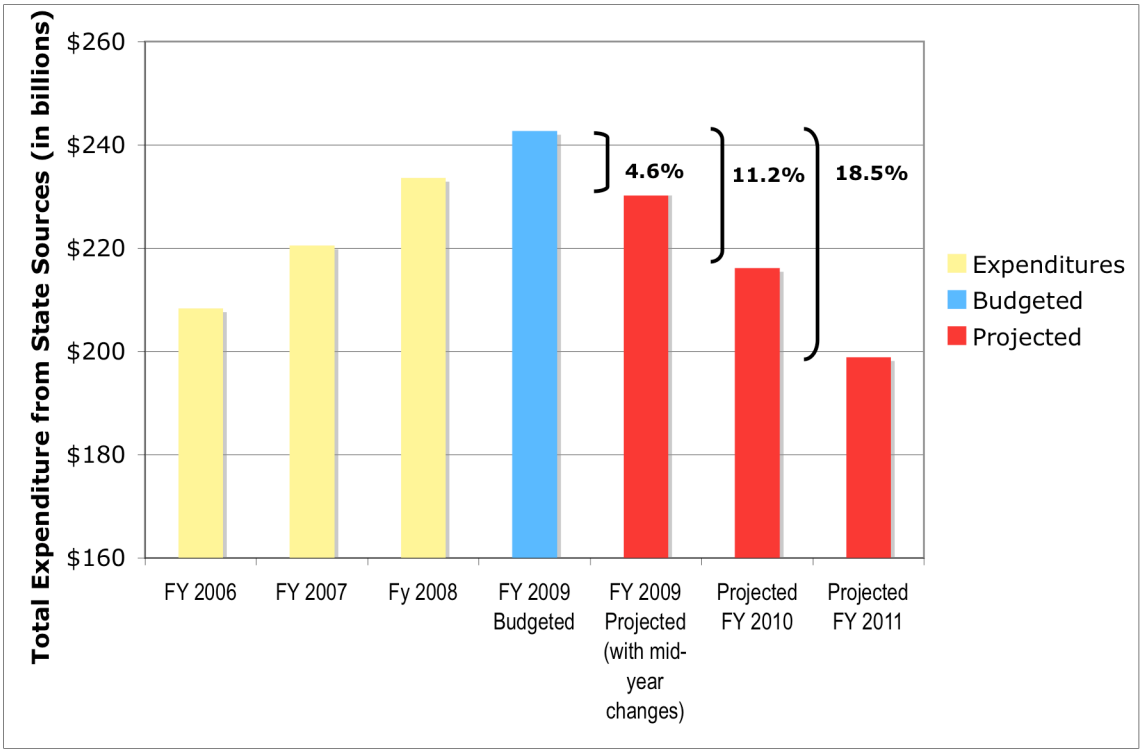
As discussions of a federal stimulus plan zero in on projections for calendar years 2009 and 2010, the last row in the table computes the implied funding withdrawn from

[3] Derived by multiplying the per-pupil projected spending level by total enrollment from the NEA's (2008) *Rankings and Estimates*.

education during this time period.[4] As illustrated, these projections suggest that a two-year total of $54 billion less than what would have been spent if spending had been held at 2009 budgeted levels. Combining this projected figure with an estimated $26 billion cut from state spending on higher education, this analysis projects that $80 billion would be needed to hold K-16 spending to 2009 budgeted levels during calendar years 2009 and 2010.[5]

Figure 1 graphs the projections for the state share of K-12 education spending. As the figure indicates, FY 2009 spending is projected at 4.6 percent below what was originally budgeted at the state level, with FY 2011 spending dropping by 18.5 percent of the FY 2009 budgeted figures.

Figure 1: Projections of State (Only) Spending on K-12 Public Education



As noted above, assumptions of no revenue interventions and that states will pass on proportionate cuts to education may be somewhat problematic. As such, these estimates reflect a worst-case model summarizing the possible implications for education.

[4] Estimated funding needed during calendar years 2009 and 2010 is derived from adding half the FY 2009 and FY 2011 estimates to the FY 2010 estimate.

[5] Using the same models, this analysis projects a withdrawal of $26 billion from higher education over calendar years 2009 and 2010. Combining this figure with the K-12 figures, this analysis projects that approximately $80 billion less will be spent by states on K-16 education than would have if spending had been held steady at 2009 budgeted levels.

Modeling Job Reductions Associated With Projected Spending Reductions

The vast majority of education expenditures pay for salaries (over 80 percent), so where districts face budget cuts, they often have little choice but to resort to eliminating jobs. While some districts will undoubtedly try to protect jobs by applying cuts to other categories first, other expenditures, such as debt service, utilities, etc., often can't readily absorb cuts either.[6]

The fiscal modeling done here computes the potential job eliminations associated with the fiscal reductions described above. A key assumption here is that reductions in spending will require proportionate reductions in salary expenditures. Salary expenditures, in turn, will be reduced via elimination of jobs. This is again a tenuous assumption in that some districts may indeed find ways to cut salary expenditures by shortening the school year or applying salary reductions, thereby reducing the need to eliminate jobs.

The next assumption is that job elimination will be achieved first via attrition, with layoffs used only to reduce the workforce as needed thereafter. Attrition from the public education system is difficult to predict during economic downturns, when alternate jobs may be difficult to come by. Total attrition (which counts those exiting the system, not those transferring among districts) has averaged 4 percent per year.[7] Further, junior staff often post higher rates of attrition, and with no newer staff hired, attrition rates will likely decline. For this analysis, attrition is modeled at 3 percent.

Lastly, the analysis assumes that any layoffs will be based on seniority and that salary schedules are frozen (i.e., no raises are awarded but staff continue to earn increases based on longevity).[8]

NCES's *Digest of Education Statistics* (Table 77) reports a total of 6,122,358 full time equivalent employees nationally in elementary and secondary public education, 3,136,921 (or 51.2 percent) of them teachers. Table 3 summarizes the seniority-based and attrition-based jobs eliminated in education as a result of the above projections for decreased education spending. Clearly, not all these jobs would be through forced layoffs, but all could be considered jobs that would disappear.[9]

[6] This is especially true in the 2nd year of cuts.
[7] Plecki, et. al (2005), *Teacher Retention and Mobility*: *A Look Inside and Across Districts and Schools in Washington State*, University of Washington.
[8] See Roza (2009), *Seniority-based Layoffs Will Exacerbate Job Loss in Public Education*, Center on Reinventing Public Education.
[9] Since most staff are on contracts, many of these reductions will happen at the end of each of these fiscal years when contracts end.

Table 2: Estimated K-12 Education Jobs Eliminated

	FY 2009 (mid-year gaps)	FY 2010	FY 2011	Cumulative Total
Estimated jobs eliminated	2.18%	3.13%	4.07%	9.4%
Incremental total of all education jobs eliminated each year	**133,467**	**191,630**	**249,180**	**574,277**
Teacher jobs eliminated	68,385	98,186	127,673	294,243

As Table 2 indicates, this analysis projects that some 574,277 jobs will be eliminated during the three fiscal years as a result of state budget cuts.

What About Local Funds?

While the figures presented here may be staggering, it is important to remember that these projections capture only cuts to *state* education spending. Local governments, too, will undoubtedly experience budget gaps, and with 44 percent of total K-12 education spending generated at the local level, any gaps at the local level will also have significant implications for districts. Yet, in the absence of solid projections for the recession on local revenues, incorporating local effects in spending projections is not possible.

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