



# Public



## Schools AND Money

Public school shepherds endlessly scream “wolf.” Yet, with one minor exception in the early 1980s, no fiscal predator has ever penetrated the perimeter constructed by public education stakeholders. Now, however, after four years of economic slowdown, the United States is facing an unusual alignment of unfavorable fiscal forces. It is increasingly doubtful that public education advocates can continue to protect their flocks. A cry of “wolf” may be justified.

Not all relevant financial figures are available yet, but reasoned extrapolations from private- and public-sector employment data suggest that U.S. schooling may be on a historic glide path toward lower per-pupil resources and significant labor-force reductions. If not thoughtfully considered, budget-balancing decisions could damage learning opportunities for schoolchildren.

Education managers are typically inexperienced in and often reluctant to initiate cost-savings actions. Budget cuts may be poorly targeted, and students, particularly economically disadvantaged

### Strategies for improving productivity in times of austerity

students, are swept up in the process as collateral damage.

In California and Washington, bad budget cutting has already begun. Governors in these two states have acquiesced to employee demands and have protected educator jobs at the expense of students’ time to learn.

The greatest risk of all is to the past quarter century of efforts to render America’s schools more effective. Unless means are identified for making schools more

productive, that is, doing better with less, reform momentum is in serious jeopardy.

### Evolving Context

Many members of the general public and the policy community believe that school districts are going bankrupt, teachers are underpaid, and educator layoffs are rampant (see “The Compensation Question,” forum, Fall 2012). Inaccurate media reporting, naive celebrity comments, education-advocate laments, social-media babble, and talk-show dialogue reinforce this view.

By JAMES W. GUTHRIE and ELIZABETH A. ETTEMA

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What are the facts? Total K–12 public-school spending approaches \$700 billion annually. Inflation-adjusted per-pupil school spending has increased over the last century by, on average, 2.3 percent per year. There have been a few plateau years during recessions, but never a significant decline (see Figure 1).

As a consequence, the United States now spends more money on K–12 schooling than any other nation in the world. More is spent by the United States, in the aggregate, than by hugely

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populous nations such as China and India. Spending per pupil is higher in the U.S. than in every country except Switzerland.

Achievement levels in the U.S. are not commensurate with spending, however. Many nations exceed the United States in science and math test scores, for example.

Spending increases have been directed overwhelmingly toward adding school employees. Professional-to-pupil ratios have become ever more favorable. Whereas 30 years ago there was one professional educator employed for every 18.6 public school students, the equivalent figure today is one for every 15.4 students. When other personnel are added to the mix—cafeteria workers, custodians, clerks, and so forth—the ratio falls to one employee for every 7 students.

School productivity, measured as educational outcomes divided by labor or financial inputs, has declined dramatically. Indeed, relative to sectors such as communication, finance, manufacturing, and agriculture, the public schools are highly labor-intensive. The productivity picture is made worse by the resistance of schools to augment teachers' efforts with new instructional technologies.

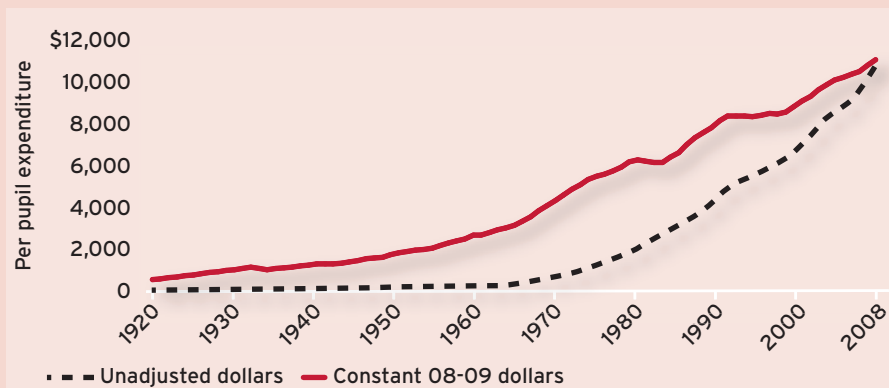
### Why School Productivity Matters

A new normal of public-sector fiscal austerity is emerging. Forty-two states and the District of Columbia face budget shortfalls. (Only a few fossil fuel-rich or agricultural states are able to sidestep the issue.) Although federal tax revenues are far short of anticipated spending, the federal government is not about to step in with still another stimulus package. Congress and the president are deadlocked over a path to economic recovery. Eurozone economies are in disarray and have had their credit ratings lowered, which jeopardizes U.S. exports.

Through deep and painful experience with cyclical growth and recession, U.S. private-sector firms have learned to deal with contraction. There have been nine recessions in the United States since 1955. During each of these, employment in the private sector declined. Employment subsequently turned up, but conventional private-sector response to recession has been workforce contraction. Private-sector managers know how to hone their labor force to balance cost cutting with the retention of scarce skilled talent and how to invest in labor-saving technology.

### Almost a Perfectly Steady Rise (Figure 1)

*Adjusted for inflation, increases in per-pupil spending over the last century averaged 2.3 percent per year.*

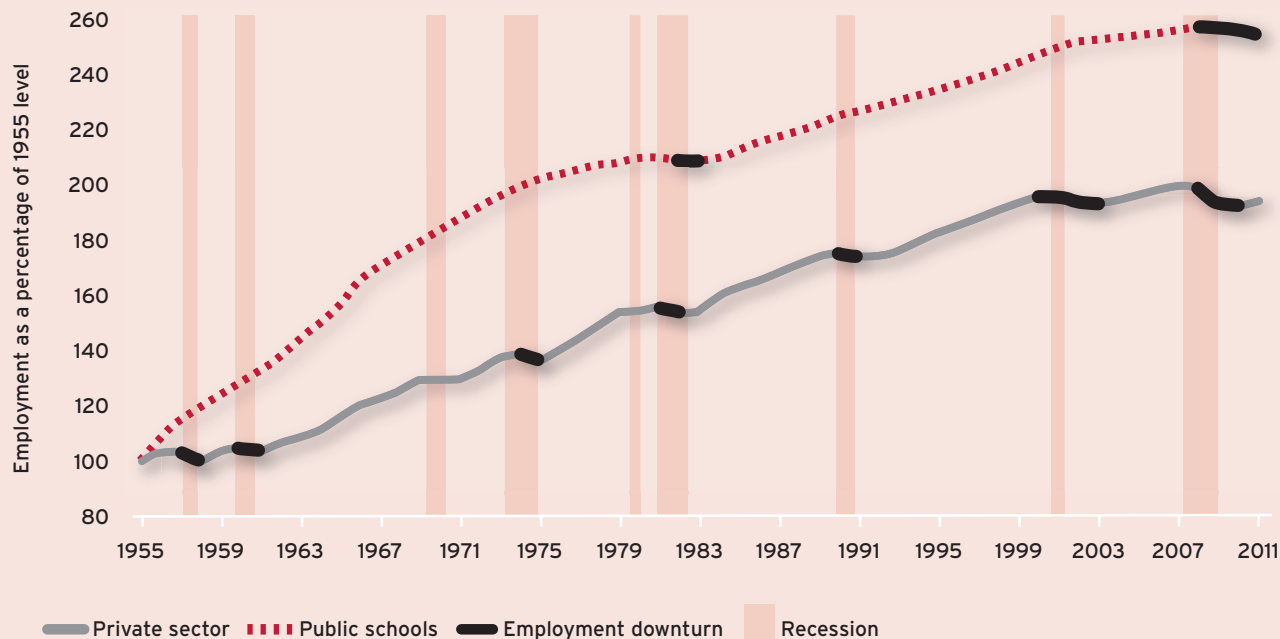


NOTES: Values in 2007 and 2008 represent straight averages across states; finance data expressed in real 2008 dollars.

SOURCES: U.S. Department of Education, National Center for Education Statistics, Biennial Survey of Education in the United States, 1919-20 through 1955-56; Statistics of State School Systems, 1957-58 through 1969-70; Revenues and Expenditures for Public Elementary and Secondary Education, 1970-71 through 1986-87; and Common Core of Data (CCD), "National Public Education Financial Survey," 1987-88 through 2007-08. (This table was prepared November 2010.)

## Relative Immunity (Figure 2)

Between 1955 and 2011, the private sector experienced nine labor-market contractions while public schools had one downturn in the early 1980s and a second after 2009.



SOURCE: Bureau of Labor Statistics, Employment, Hours, and Earnings from the Current Employment Statistics survey (national)

These dynamics render the private sector ever more efficient, sustaining the production of goods and services with lower labor costs.

Here is an example of just how productive the private sector has become during the most recent recession: By the final quarter of 2011, gross domestic product (GDP) had returned to its 2008 prerecession level. It did so, however, with 5 million fewer private-sector employees.

School districts demonstrate the flip side of this dynamic. Cost-saving actions in public education, such as layoffs, school closures, salary freezes, benefit reductions, and decreasing school days, are possible but unusual. Taking such uncomfortable steps is legally cumbersome and politically treacherous. Cutbacks frequently fail to generate anticipated savings and can trigger hard-to-heal labor-management wounds. In recent recessions, when the private-sector workforce was contracting, school-district hiring continued apace.

It is important to note that much of the employment decline in the private sector during recessions is the result of firms going out of business. In difficult economic times,

private firms must either become more efficient or fail. The public-school sector faces no such threat, which may be why schools have historically added jobs, regardless of economic conditions.

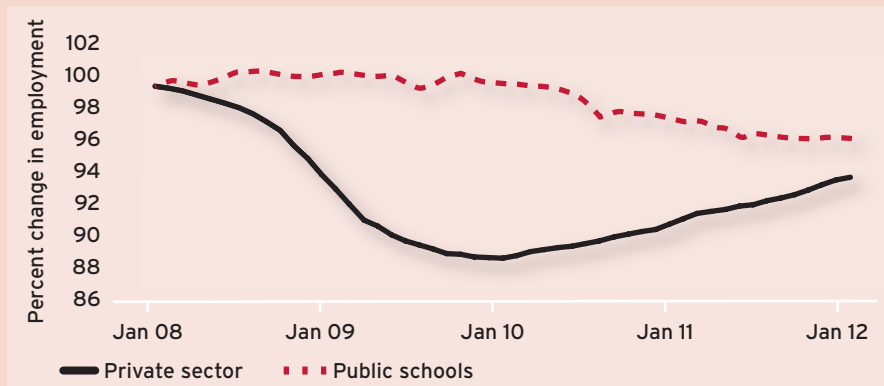
Figure 2 depicts growth in private-sector and public-school employment. Here one can see that from 1955 to the start of the most recent recession, the private sector experienced nine labor-market contractions—on average, one downturn per decade. Conversely, until the current recession, employment in public schools had only one downturn, in 1982–83.

The downturn in public-school employment in the early 1980s came on the heels of two recessions, one that stretched from January to July 1980 and the other from July 1981 to November 1982. The fact that teaching jobs were shed after these recessions were officially over should not be surprising, given that school budgets are set, teacher contracts are made, and federal and state funding are allocated ahead of time, causing the public-school sector to respond to tough economic times more slowly than the private sector.



## A Lagged Response (Figure 3)

Although public school enrollments had a delayed response to the recent recession, with jobs falling at a time they were increasing in the private sector, a higher percentage of public-school employees than private-sector employees were holding on to their jobs in January 2012.



SOURCE: Bureau of Labor Statistics, Employment, Hours, and Earnings from the Current Employment Statistics survey (national, seasonally adjusted)

The same condition prevailed in the wake of the most recent recession. Following 2009, when the private sector began adding wage earners, the public schools began to shed teachers. Figure 3 shows this in greater detail.

From June 2008 to March 2012, public schools shed more than 250,000 jobs, 3 percent of their total workforce. It is of particular note that this shrinkage in the public-education workforce took place in spite of the added revenues from the American Recovery and Reinvestment Act (ARRA), which were intended to prevent such a decline.

Nonetheless, as Figure 3 also indicates, a larger share of school employees who were working in 2008 were still on the job in 2012 than the share of workers still employed in the private sector in 2012.

## Impact of Revenue Decline

There is no overstating the painful consequences of organizational downsizing, be it private or public. Closing a manufacturing plant, shutting down a large distribution center, and curtailing hours at a backroom financial operation trigger layoffs, and, depending on the context of the contraction, can imperil an entire community. Individuals, parents, children, and even a geographic region can be hurt.

Serious and sustained school revenue declines are at least as bad and in some ways worse. Layoffs almost always involve the least experienced or most recently employed teachers and other staff. If the financial situation necessitates the closure of one or more schools, then the pain spreads wider and may threaten the survival of a community.

School cutbacks may also disproportionately affect low-income students. As mentioned previously, California and Washington have reacted to budget shortfalls in ways that harm students: reducing the length of the school year and the number of days that schools operate. While this saves money and jobs, as teacher salaries are reduced and layoffs avoided, time in school is most important for disadvantaged students. Middle-class families can compensate for the loss of school hours with enrichment activities such as trips to museums and libraries. Low-income students are seldom so insulated from schooling adversity.

If the entire public-education system could be rendered more productive, that is, if higher levels of achievement could be coaxed

from existing resource levels, some of the pain could be avoided or at least mitigated.

## Improving Productivity

Several integrated strategies offer the prospect of protecting, possibly promoting, education reform in the face of a new fiscal austerity. These strategies involve 1) accurately informing the general public and the policy community regarding the condition of schools, that is, their financing, their achievement, and the relationship between the two; 2) conducting empirical research aimed at understanding issues of productivity in education; 3) informing policymakers and school managers regarding means by which budget cuts can be made without eviscerating instructional effectiveness; and 4) solving challenges to wider adoption of instructional technologies.

Federal and state governments have expended hundreds of millions of dollars to ensure that local schools have Internet access and plentiful computing hardware. Grants have also been available for purchase of software and teacher training.

These efforts have seldom proved sufficient to transform America's public schools. Instruction continues to rely almost exclusively on labor-intensive practices. Government policies have ignored the savings that private firms have shown can result from technological innovation. Put bluntly, why should a tenured classroom teacher go to the effort of altering her long-standing instructional protocols to adopt new technologies when her pay, professional status, and job security are only remotely related to improving her effectiveness or her clients' satisfaction?

Strategies must be constructed that will attract classroom teachers to the use of technology to enhance their effectiveness. Whatever strategy emerges in this regard is likely to have to involve teacher and school performance evaluations linked to student achievement gains. If teachers, principals, and entire schools see that their professional status and remuneration are becoming more tightly linked to student achievement, then they will be more open to seeking technologies that will enhance instructional effectiveness.

There are those who contend that online learning will simply bypass schools, that conventional school classes will be disrupted by new digital models that operate outside the brick-and-mortar school. But there is only a modest chance of this happening. A state initiative in Florida, the Florida Virtual School, is promising in this regard. So is the spectrum of well-constructed subject-matter units that can be found at the Khan Academy web site. But the obstacles are almost too numerous to mention. Among them are the monopolistic nature of many public-school systems, the custodial function entrusted to schools by law, and the attractiveness to students of the social interactions that take place in school. If in fact conventional schools are to be disrupted by technology, it is unlikely to happen soon.

While waiting for technologies to augment the work of a teacher, what can be done by state and district officials to wring the maximum effect out of every dollar they have?

First, states and districts can discontinue costly practices that have not been shown to enhance student achievement, including paying educators for out-of-field master's degrees and salary premiums for experience; following "last in, first out" personnel provisions; relying on regular classroom instructional aides; and adhering to mandated limits on class size. Regulations that mandate inefficiency, such as legislatively precluding outsourcing, requiring intergovernmental grants to "supplement not supplant" existing spending, and prohibiting end-of-budget year surplus carryover, can also be revised to encourage smarter spending.

In place of the practices above, states and districts can adopt strategies that foster efficiency at both the school and district

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level, such as adopting "activity-based cost" (ABC) accounting; empowering principals as school-level CEOs; adopting performance-based dollar distribution formulas and school-level financial budgeting; centralizing health insurance at the state level; and outsourcing operational services where proven to save money. By adopting these practices, districts and states may be able to ease the burden of the transition to the coming period of fiscal austerity and increase long-term efficiency in schooling.

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