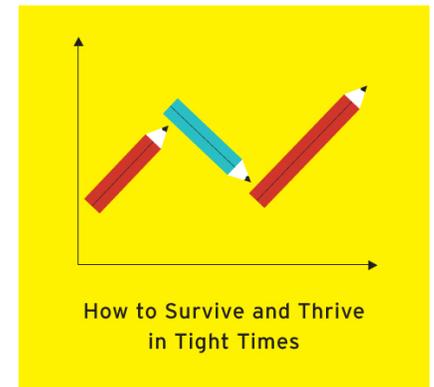


STRATEGIES FOR SMARTER BUDGETS AND SMARTER SCHOOLS

by Nathan Levenson

NATHAN LEVENSON

Smarter Budgets, Smarter Schools



How to Survive and Thrive
in Tight Times

Smarter Budgets and Smarter Schools: Three Strategies

1. Prioritize both achievement and cost-efficiency.

2. Make staffing decisions based on student needs, not adult preferences.

- Staff to enrollment. Districts should establish guidelines for what constitutes a full and fair workload and staff accordingly.
- Manage benefit costs. Districts should know their insurance coverage eligibility rules in detail—and consider the benefits of subcontracting.
- Trade down. Whereas “budget cutting” implies doing less for students, trading down provides equivalent services at less expense.
- Manage class size. Many things are more important—and relatively less expensive—than maintaining small class sizes.

3. Manage special education spending for better outcomes and greater cost-effectiveness.

- Spend on what works. How money is spent matters more than how much money is spent.
- Focus on reading instruction. Districts can reduce special education costs by ensuring that all children read at grade level.
- Hire a few behaviorists in lieu of many paraprofessionals.
- Staff according to service hours, not number of kids served.

There’s no sugarcoating it: These are trying times for school districts. A combination of factors is straining school budgets, including a desire to preserve jobs, quickly rising benefit and pension costs, contractually obligated salary increases, and a growing number of high-need students (those in special education, English language learners, disadvantaged students, etc.). Since states and the federal government are themselves struggling with growing and underfunded pensions, as well as rising Medicaid costs and lots of debt, districts can’t expect a white knight to ride to their rescue. District leaders are recognizing that they simply cannot maintain current staffing levels as per-pupil spending shrinks in many locales.

Though the K–12 finance picture is bleak, it need not paralyze district leadership. Fortunately, strategies are available that can raise achievement and provide a well-rounded education to all children without breaking the bank. But good leaders must distinguish what expenditures really make a difference from a hundred that don’t. Education has long suffered from clever ideas that turned out to be anything but. Whole language, classroom technology, and zillions of hours of professional development, for example, haven’t delivered on their lofty promises. As budgets tighten, districts will devise all manner of cost-saving strategies—some wise, some foolish, some constructive, some damaging.

This brief is intended to help district leaders make better instructional and budgetary choices.¹ Its key lessons are drawn from my 2012 book, *Smarter Budgets, Smarter Schools: How to Survive and Thrive in Tight Times* published by Harvard Education Press (which I hope that you will also read!). That book and this short adaptation both posit that effectively managing resources requires three key actions: 1) cultivating a new mind-set that prioritizes both achievement and cost-efficiency; 2) making staffing decisions based on student needs rather than adult preferences; and 3) managing special education spending for better outcomes and greater cost-effectiveness. Taken together, these three strategies can lead to smarter budgets and smarter schools. Let’s dig into each.

Nathan Levenson is managing director of the District Management Council in Boston and a former school superintendent. This brief is based on his 2012 book, *Smarter Budgets, Smarter Schools: How to Survive and Thrive in Tight Times* published by Harvard Education Press. For more information, go to <http://www.hepg.org/hepg/book/163/SmarterBudgetsSmarterSchools>.

1) PRIORITIZE BOTH ACHIEVEMENT AND COST-EFFICIENCY.

Allocating scarce resources requires district leaders to fund what works. Knowing what works requires information, including information on what drives achievement and drives it cost-effectively. This kind of information gathering may sound technical (data crunching, value-added analysis, and enough spreadsheets to bewilder a CPA), but district leaders only need to adopt this mind-set and know the right questions to ask, rather than do the number crunching themselves.

The first crucial question is, what actually works in this district? In flush times, the typical annual budget discussion goes something like this: “We need funds for math coaches to help implement the new math program, grant dollars to expand professional development in reading, and resources to start a dropout-prevention program.” In tight times, we might hear the following: “Don’t cut the math coaches” (math director). “Don’t cut professional development; it’s the lifeblood of improvement” (director of curriculum and instruction). “Don’t take money from students at risk of dropping out—that would be inexcusable and cruel” (Title I director). And on it goes. Whoever can tell the most persuasive story will carry the day.

But imagine the conversation if information, not storytelling, predominated. Suppose we knew these facts:

- >> Students of teachers receiving support from math coaches gained three and a half months more learning than students of teachers who did not get coaching.
- >> Students of teachers who received professional development in reading fared no better than students whose instructors didn’t receive the professional development.
- >> Of the students entering the dropout-prevention program, 75 percent of those with grade-level reading ability (but with significant social, emotional, and/or drug issues) graduated, while only 5 percent with significant learning and reading deficits eventually graduated.

With information like this in hand, it is likely that math coaches will keep coaching (and maybe do more of it), reading professional development will be stopped (or changed), and the dropout program will remain in place for some types of students but not all.

In a world of declining resources and increasing pressure to

raise pupil achievement, it is reasonable to subject budgetary and pedagogical decisions to this kind of scrutiny, called “academic return on investment” (A-ROI). More than reasonable, it’s highly desirable, even essential. But it takes work. It requires that districts formally evaluate all programs, efforts, and strategies using multiple measures, including effects on student learning, the number of students served, and cost per student. Many superintendents and school boards apply this concept intuitively. There is a great benefit, however, in doing so explicitly. Three powerful concepts undergird A-ROI:

- >> Money spent should lead to positive student outcomes.
- >> Not all money spent to help kids learn is effective.
- >> If achievement gains are similar, spending less is better than spending more.

There is a practical reason why many districts shy away from A-ROI: It creates winners and losers. In fact, its very purpose is to help rank various uses of funds so as to assist district leaders in determining which efforts are worth expanding and which should shrink. This is uncomfortable in a public-education culture that values getting along, where giving something to everyone seems like a fair approach. But as the parable of King Solomon reminds us, something for everyone is sometimes the wrong policy. Half a baby should please no one. Neither should spreading scarce dollars equally across effective and ineffective initiatives.

Funding only what is actually helping students, and helping them in a cost-effective way, is a necessary mindset for the new normal. This mindset drives wise management decisions as well as new calls for the integrated data systems that inform such decisions.

2) MAKE STAFFING DECISIONS BASED ON STUDENT NEEDS RATHER THAN ADULT PREFERENCES.

While every district is distinctive, one constant is that roughly 80 percent of any budget is spent on people, mostly on teachers. Most A-ROI analyses, or an insightful CFO, will eventually circle back to the importance of staffing. Wisely managing personnel costs in a people-intensive organization is crucial, but it’s not always done—perhaps because it’s seldom pleasant.

Teachers and other school staff often work together for decades. District leaders who are caring and good-hearted

don't want to upset loyal staff. And staff often have strong preferences to stay in one school (it's like a family), teach the same grade each year (practice makes perfect), and avoid serving multiple schools (who wants to be a nomad?). These are logical, reasonable preferences, but they are adult preferences and typically add considerably to the cost of educating students.

Increasing teacher productivity means getting the same or more learning by students with fewer staff members or staff dollars. The concept of teacher productivity might sound corporate, not child centered. But this isn't the case: The focus is squarely on helping students learn more.

The National Center for Education Statistics reports that the number of students per teacher in American public education has decreased steadily—from 29.6 to 15.5—over the last fifty years. In other words, the number of teachers has grown nearly twice as fast as the number of students. Figure 1 shows the inexorable climb in teacher staffing over time. Figure 2 (next page) shows the decline in the number of students served by each teacher, on average.

While almost everyone—teachers, parents, even students—favors small classes, American public education can no longer afford the luxury of ever-fewer pupils per teacher. (The trend isn't good for teacher pay, either.) Yet managing staffing to eke productivity gains from the personnel budget is a multifaceted challenge. Let's look at three ways to do it.

Staff to Enrollment

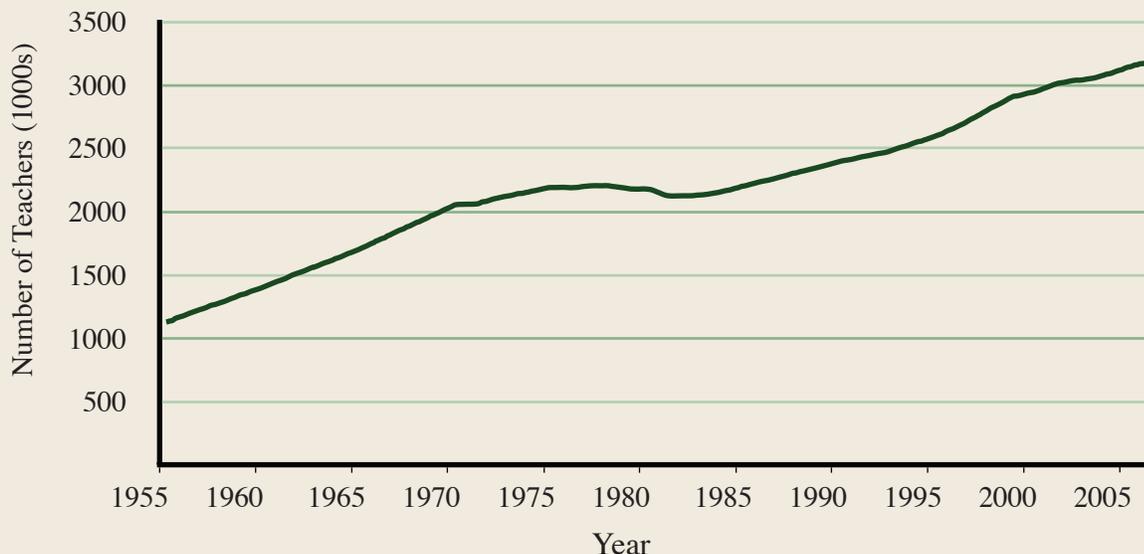
Staffing to enrollment means establishing guidelines on what constitutes a full and fair workload, determining how many children are to be served, and staffing accordingly.

Many readers may want to skip ahead, thinking that we do this already. But in my experience most districts could do more. A district is not staffing to enrollment if it

- >> assigns one librarian, nurse, therapist, art teacher, or other staff member to each elementary school;
- >> has only full-time teachers in the high schools;
- >> doesn't move many elementary teachers between schools and grades each year;
- >> doesn't track the total teaching load of noncore teachers; or
- >> doesn't regularly reassign teachers during the school year.

Staffing to enrollment may not come easily to school districts. A school that has five teachers at each grade, for example, faces great pressure to keep five teachers at each grade next year, even if enrollment shifts. Some principals with declining enrollments fight to keep their current allotment of teachers as a badge of pride. Having fewer teachers somehow signals that they or their schools are less important. Teachers, on the other hand, may not want to learn the curriculum of a new grade or move to a new school and enter a new culture. The reluctance of principals to shift staff each year—and of staff to be shifted—is therefore

Figure 1. Number of Elementary and Secondary Teachers in U.S. Public Schools



Source: National Center for Education Statistics, 2008 Digest of Education Statistics.

understandable, but it's also expensive. Indeed, staffing to enrollment can reduce total salary costs by 5 percent or more—that's \$75,000 per school each year for a typical elementary campus of four hundred pupils.

Manage Benefit Costs (Within Existing Collective Bargaining Agreements)

Instead of waiting for governors or Washington to rein in health and pension costs, many districts could take advantage of cost-saving options that don't require union approval or new legislation. The place to focus their attention is one line item that continues to grow at double-digit rates: health insurance costs.

Yes, district leaders worry a lot about this escalating budget line. Yet not all feel they can do much about it. Some districts have had greater success managing health costs away from the bargaining table. The first step is to know your insurance-coverage eligibility rules in fine detail since this can expose opportunities. (Remember that most districts have many different sets of health care coverage rules, very likely one for teachers, another for administrators, another for custodians, yet another for retirees, etc.)

One midsized district offers a valuable example of how knowledge can lead to savings: It learned that its contract called for providing health insurance to any staff member who worked half time or more. This meant that when a full-time position was split into two half-time roles, the total salary stayed the same, but the health insurance costs

doubled, adding more than \$15,000 a year with no additional service to children. Armed with this information, the superintendent compiled a census of part-time staff. One hundred part-time positions turned up. By reposting these as fifty full-time positions, the district saved \$750,000 in health insurance costs each year, without reducing a single minute of service to children.

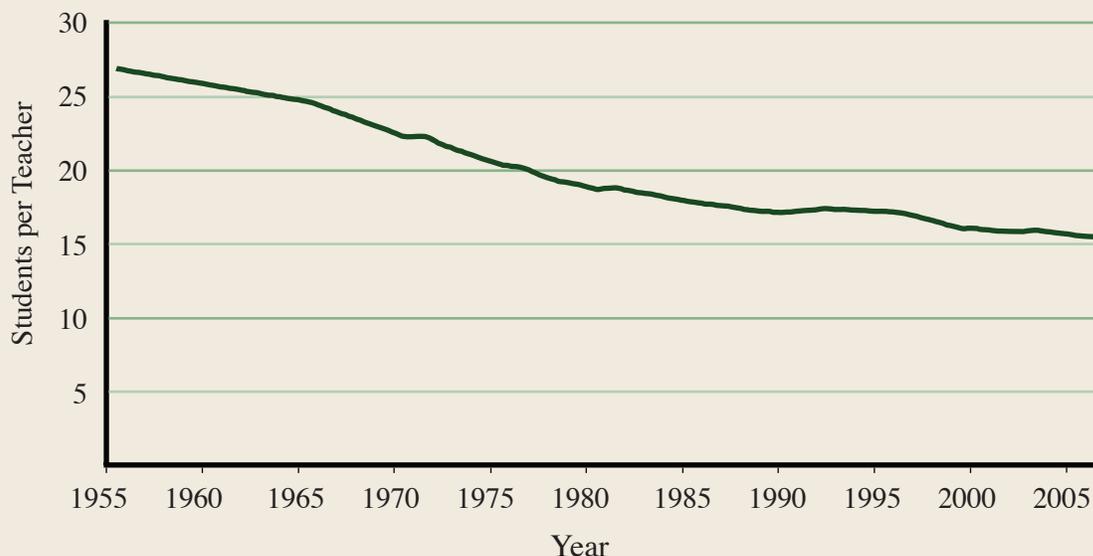
Other districts have captured substantial savings on the benefits line by subcontracting some positions to outside firms with more reasonable, free-market-based benefits packages. When benefits are very generous and negotiations unfruitful, this strategy can preserve services for children. No, benefits costs cannot be managed painlessly—but they can be managed.

Trade Down

The worst part of balancing a shrinking budget is creating the cut list—the programs or services that the district won't provide next year. Many an elementary school has cut art to save reading. Nurses and social workers have been reduced to save math and English. Wrestling with cuts is important, but sometimes it is possible to provide a service or support differently instead of eliminating it. Whereas budget cutting implies doing less for students, trading down provides like services at less expense.

Sure, some of these alternatives aren't as good as the original, but they are better than nothing at all. If districts move less-critical functions to less-skilled staff, and then

Figure 2. Students per Teacher in U.S. Public Schools



Source: National Center for Education Statistics, 2008 *Digest of Education Statistics*.

supplement with careful hiring, good supervision, and high-quality professional development, they can still serve students well at much lower cost. A few examples:

>> A suburban district replaced some IT support staff—the people who install software, troubleshoot printers, and help teachers use technology—with tech-savvy moms working part time.

>> One district replaced certified librarians with library paraprofessionals. No one would say this was a step forward, but it allowed each school to add a certified reading teacher and not cut library time.

>> At almost no cost, a district filled fourteen full-time-equivalent positions with graduate-student social workers, who were required to work part time for a year as part of their master’s degree program. They were supervised and guided every week by an experienced counselor. These interns handled many of the routine cases and freed up the full-time staff to focus on children with more complex needs. Most principals found their help and support to be of great value. The arrangement wasn’t perfect, but it surely beat the alternative.

As new fiscal realities force districts to consider trading down, they will likely face the possibility of hiring noncertified staff for noncore positions. When is a certified teacher absolutely required, especially in noncore areas like art, music, or PE? Believing that these subjects are very important components of a well-rounded education isn’t the same as believing that only a certified teacher can provide high-quality instruction (notwithstanding state and union rules).

Necessity appears to be the mother not only of invention but also of hiring noncertified teachers. I first saw trading down in noncore subjects put to the test when a high school PE teacher suddenly left school midyear. The superintendent knew he needed to fill the position quickly. While the search was getting under way, the super had an idea during his own aerobics class at a nearby health club. He had just finished an energetic workout led by an outgoing, engaging instructor. He approached the trainer and asked, “Do you like kids, and what do they pay you?” She did like kids, and she earned less than half of what a PE teacher earns. She was also very knowledgeable about health, nutrition, and a wide range of sports, and she was CPR trained. Within days, the district subcontracted PE services to the health-club instructor.

The options extend well beyond PE. Why not have artists teach art and musicians music, LPNs provide nurse cover-

age, and speech-pathology assistants provide speech and language services? Before you say, “I don’t like the idea,” keep in mind that a district with five thousand students might save \$3 million a year, and one with fifty thousand students could free up \$30 million each year—without reducing services to students or reducing a single core-subject teacher.

Manage Class Size

Class size may not seem like a “productivity” issue, but it is. If one teacher can educate twenty-five versus twenty students, that’s a 25 percent spread in productivity if the outcomes are the same.

The research on class size is unambiguous (although many still do not believe it). Most studies, including the well-respected Student Teacher Achievement Ratio (STAR) study conducted in Tennessee in the late 1980s, indicate that only very large reductions in class size—at least seven fewer students or a 32 percent drop—will impact student learning. Moreover, this gain is limited to the early grades and to students from impoverished backgrounds.²

In my experience, almost no parents or teachers believe this research, and not many administrators do either. At a recent superintendents’ conference, a panel of veteran district leaders shared their advice for coping with tight budgets. Their message was simple: Protect the classroom by protecting class size. Cut all else first.

Smaller class sizes may indeed be preferable, but at what cost? Supplemental reading programs, effective professional development, curriculum leadership, and the use of student data to drive instruction all have greater impacts on student learning and are relatively inexpensive compared to maintaining small classes. Despite their proven importance, however, these services are often cut, and cut deeply, during a downturn.

Big mistake. Managing class size is a huge budget lever. Adding two students to each classroom frees up \$1.3 million dollars in a typical five thousand-student district and \$13 million in a fifty thousand-student district. We know that larger classes are unpopular with parents, teachers, and principals. Still, if districts are going to provide a high-quality, well-rounded education to their students, we are all going to have to learn how to effectively manage larger classes. As human-capital systems improve and parents can be assured that a highly skilled and effective teacher is in front of the room, they may not mind that their child is

sharing that teacher with twenty-five or thirty other students.³

3) MANAGE SPECIAL EDUCATION SPENDING FOR BETTER OUTCOMES AND GREATER COST-EFFECTIVENESS

No district can create smarter budgets without tackling the twin challenges of raising achievement for students with special needs and reducing special education costs. Fortunately, dozens of best-practice strategies exist for rethinking the roles and schedules of paraprofessionals, therapists, special education teachers, and elementary reading staff.

A few topics are still hard to discuss candidly in public, and high on that list is the cost of special education. The share of total U.S. school budgets spent on special education rose from 4 percent to 21 percent from 1970 to 2005.⁴ In private, some parents and educators worry that these relentless increases are pulling funds from general education. At the same time, parents of students with special needs worry that their children aren't at grade level, won't make it through college, or won't be able to obtain and keep a job. It seems no one is happy.

Yet managing the special education budget is not so very different from managing other costs in a school district. Most of the strategies are universal: They work with special ed and general ed alike. The great irony of managing special education is that it shouldn't be treated as special. Applying academic return on investment and aligning staffing with student needs are strategies that benefit both kids and budgets. Let's take a look at four approaches.

Spend Money on What Works

In the United States, the root difficulty for 40 percent of students with special needs is reading.⁵ Yet many districts lack robust reading interventions. It's not that they don't want them—they just think they can't afford them. They can, however, afford small armies of special education paraprofessionals, speech and language therapists, and ever-increasing numbers of special education teachers. Despite this growing personnel surge, however, students with mild to moderate disabilities have not fared well.

While many administrators (parents and teachers, too) believe that more funding is needed to improve outcomes for students with special needs, best-practice districts have shown that higher achievement can be obtained at

lower levels of spending. A recent study of ten pairs of like districts in five states demonstrated that the district in each pair that spent less on special education had many more students scoring advanced or proficient in math and English.⁶ The study showed that, on average, the number of students achieving proficiency was 25 percent higher in the lower-spending districts than in their higher-spending counterparts. We learn from this and other studies that how money is spent on special education matters more than how much money is spent. We also learn, once again, that teacher quality, not teacher quantity, matters just as much in special education as in general education.

The reluctance to consider (or publicly discuss) special education spending is reinforced by many federal and state regulations. "Maintenance of effort" rules, the ban on considering cost criteria when discussing service options for students with special needs, and the overwhelming focus on inputs (school compliance) rather than outcomes (student results) all push districts away from a rigorous review of special ed costs and benefits. These policies and mind-sets are not best for students. Fortunately, even within these restrictions, districts can shift funds to early intervening services, create cost-effective programs, and focus on results (while maintaining compliance).

Focus on Reading Instruction

Nearly every elementary school principal, director of curriculum, and superintendent understands the importance of students reading on grade level by third grade.

The absence of a strong early-intervention reading program leads to more special education referrals and, in turn, more (and costlier) special education services. An old real estate adage says that three things matter: location, location, location. Likewise, when seeking to raise the achievement of students with special needs, particularly those diagnosed as "learning disabled," three things matter: reading, reading, reading. Let's review the evidence:

>> Nationwide, reading is the core challenge for 40 percent of all students in special education.⁷

>> Fully 80 percent of students with the designation SLD (specific learning disability) struggle with reading. SLD is the largest disability group, accounting for over 40 percent of students receiving special education services.⁸

>> A student who can't read on grade level by third grade is four times less likely to graduate by age nineteen than one who does read proficiently by that time. Add poverty to the mix, and a struggling reader is thirteen times less likely

to graduate on time than his or her proficient and wealthier peer. Yet 89 percent of students in poverty who do read on level by third grade graduate on time.⁹

Most districts bemoan the fact that they don't have the time or financial resources to provide intensive support to struggling readers. Yet districts adopting an A-ROI mind-set see how they can shift funds toward reading, especially when they look at costs and benefits rolled up over time, not just for a single year.

Let's compare an investment in reading support to one in special education: In an elementary school of four hundred students, an intensive reading support program—one that provides coaching to classroom teachers and offers struggling students thirty minutes a day of extra help from a certified reading teacher—would cost about \$250,000. Assuming one-hundred students are struggling, this amounts to \$2,500 per student each year. In my experience, high-quality instruction and remediation can help most such students reach grade level in two to three years, so the cost would be \$7,500 per student over the life of the intervention.

In contrast, the cost of serving a student with mild to moderate special needs is much higher. It averages about \$5,000 per student each year based on my organization's studies (much higher if co-teaching is involved). Since students almost never exit special education, the services may last ten years, for a lifetime cost of \$50,000. Worse, in a typical district, only about 10 percent of elementary students receive extra help in reading through special education. In this example, however, 25 percent will get extra help through beefed-up general education services. That's two and half times more students helped!

Hire a Few Behaviorists in Lieu of Many Paraprofessionals

Behavior management is an area where districts chronically underinvest, in part because they aren't considering return on investment. The truth is, however, that paying more for highly skilled staff is actually less expensive than paying less for lower-skilled paraprofessionals—and doing so could transform the lives of many students with behavior-related disabilities.

About 80 percent of principals report that the number of students with significant behavior needs has risen over the last five years.¹⁰ Most districts respond to this challenge with an ever-expanding cadre of paraprofessionals. These relatively low-cost helpers monitor student behavior and

often move disruptive youngsters out to the hallway when tempers flare. Yet a focus on A-ROI should force districts to ask, "Is this really a low-cost solution, and is it helping students?"

In answering these questions, we should first recognize that the number of paraprofessionals in schools was over seven hundred thousand in 2006 (the latest year for which data are available). This means paraprofessionals account for almost a quarter (22 percent) of all instructional staff in U.S. schools.¹¹ Many of these positions were added to address behavior needs. While each individual position is low in cost—at least when compared to a teacher position—the total dollars are big.

Relying on paraprofessionals to monitor and assist students with behavior needs seems like a reasonable approach. Districts understandably want to include these children in the general education setting but don't want outbursts to disrupt the learning of other students. The paraprofessional strategy, however, may be counter-productive. Rather than learning how to prevent outbursts or cope with frustration, these students learn that when they don't want to be in class, they should act out. Bad behavior results in the classroom exit they were seeking.

What's a better solution? Hire a skilled behaviorist, who earns much more than an aide but actually offers a much better return on investment. Behaviorists are experts certified in behavior management who focus on observable and quantifiable approaches; they are relatively new in schools. Behaviorists study in detail what triggers a student's outbursts, identify early warning signs, and create a behavior plan. This may include changing the environment (sitting away from a noisy heater, for example, which can be very upsetting to students with Asperger's), coaching the teacher to avoid triggering events (such as unintentionally embarrassing a student who doesn't know the answer to a question), and teaching the student how to self regulate. A few days or weeks of this high-level intervention can replace years of paraprofessional support and better prepare these students for productive lives.

Yet most districts don't employ behaviorists. Why? They can't afford such costly help in tough times. A focus on ROI, however, would show that they can't afford *not* to hire them!

Staff According to Service Hours, Not Number of Kids Served

Thoughtful workload analysis and staffing based on the amount of time that students need intervention—not the number needing intervention—is an excellent way to lower the cost of special education without taking a minute of teaching away from children. Better scheduling can reduce staffing requirements by 30 percent without changing a single word in an individualized education plan (IEP)¹² and without reducing a minute of services to a single student with a disability.

Let's assume that five hundred students with special needs require speech and language services as part of their IEPs. How many speech and language therapists are needed? In general education, calculating the number of teachers needed is straightforward. If five hundred students need high school math, class size is twenty-five, and teachers teach five classes a day, you'd need exactly four teachers. But it's not so simple to figure out special education staffing. Some of the five hundred students with special needs require thirty minutes a week of service; others need ninety minutes. Some can be placed in groups of three or four; others must be seen alone. Even for students who can be helped in a small group, there is no guarantee that another similar-age child in the same school needs the same help. In short, knowing that five hundred students need speech and language therapy doesn't tell you much. Yet that's all most directors or superintendents know when budgeting their staff.

If district staff took the time to tally up all of the *student needs* and map out logical groupings, however, it could “convert” those five hundred students into, say, 250 hours each week of required *therapist time*. Yet few districts invest the effort to crunch numbers in this detail. Instead, some districts assign one therapist to each school, or two if it's a big school. And when therapists get overloaded, they voice their frustration, and the district eventually hires more staff.

It is worth the effort to analyze all of the IEPs, crunch the numbers, build the groups, and staff accordingly. I have worked with a number of districts that took the time (or bought software) to do just that. In most cases, they achieved savings of about 30 percent or more—and didn't reduce a minute of services to students!

A PATH FORWARD

Declining resources will make managing, leading, and teaching in our public schools more challenging, but these actions needn't harm students. In fact, transformative gains are still possible (and much-needed) despite tight finances. Leaders can guide districts through tough times by thinking differently, focusing on student needs, accepting their inability to meet all adult preferences, and applying smart strategies to special education as vigorously as to general education.

Such practices will also serve districts well as they experiment with new ways to educate both general and special education students more effectively and cost-efficiently via blended learning, virtual schooling, technology-based adaptive instruction, competency-based credits, outsourced school management, and other emerging options. This approach will also help districts avoid the latest techno fads that raise costs and don't impact achievement.

District leaders have a tough road ahead, but it can lead to a land where all students learn more and are well prepared for success in a complex, competitive world. Tread carefully, of course, but be not afraid to move forward.

¹For another discussion of good choices for schools seeking to save money, see Michael Petrilli, *How Districts Can Stretch the School Dollar* (Washington, DC: Thomas B. Fordham Institute, 2012).

²Grover J. (“Russ”) Whitehurst and Matthew M. Chingos, *Class Size: What Research Says and What It Means for State Policy* (Washington, DC: Brown Center on Education Policy at Brookings, 2011).

³One study, in fact, found that 73 percent of respondents would choose to have a larger class (27 students) if it was taught by one of the district’s best-performing teachers, compared to just 21 percent who preferred a smaller class (22 students) “taught by a randomly chosen teacher.” See Steve Farkas and Ann Duffett, *How Americans Would Slim Down Public Education* (Washington DC: Thomas B. Fordham Institute, 2012).

⁴Rick Hess, “Getting Serious about Bang for the Buck,” *Rick Hess Straight Up* (blog), *Education Week*, January 25, 2011, http://blogs.edweek.org/edweek/rick_hess_straight_up/2011/01/getting_serious_about_bang_for_the_buck.html.

⁵Rennie Center for Education Research & Policy, *Seeking Effective Policies and Practices for Students with Special Needs* (Cambridge, MA: Rennie Center for Education Research & Policy, 2009).

⁶Nathan Levenson, *Boosting the Quality and Efficiency of Special Education* (Washington, DC: Thomas B. Fordham Institute, 2012).

⁷Rennie Center for Education Research & Policy, *Seeking Effective Policies and Practices*.

⁸Ibid.

⁹Sarah D. Sparks, “Study: Third-Grade Reading Predicts Later High School Graduation,” *Inside School Research* (blog), *Education Week*, April 8, 2011, http://blogs.Edweek.org/edweek/inside-school-research/2-11/04/the_disquieting_side_effect_of.html.

¹⁰Proprietary research conducted by District Management Council.

¹¹National Center for Education Statistics, “Table 3. Number of Staff for Public Schools, by Category and State Jurisdiction: School Year 2006–2007,” http://nces.ed.gov/ccd/tables/2009305_03.asp.

¹²An individualized education plan is the legally binding agreement between school and parent that outlines the special services to be provided to a student with a disability.