

Restructuring Resources for High-Performing Schools

A Primer for State Policymakers

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Karen Hawley Miles & Karen Baroody with Elliot Regenstein

ABOUT THE AUTHORS

Karen Hawley Miles, President and Executive Director, Education Resource Strategies

Karen Hawley Miles is the president and executive director of Education Resource Strategies, Inc. Dr. Miles has led intensive work with large urban school systems nationwide to analyze and improve their funding systems, school level resource use, and human capital and professional development systems. She has taught school leaders at Harvard University, in school districts, for New Leaders for New Schools, and the Broad Institute for School Boards. She has authored numerous articles and co-authored *The Strategic School: Making the Most of People, Time, and Money* with Stephen Frank. She serves as a Commissioner on the *Equity and Excellence Commission* for the U.S. Department of Education and as a Senior Advisor and Partner to the Aspen Institute Education and Society Program Urban Superintendent's network and CFO network. Prior to her work at ERS, Dr. Miles worked at Bain & Company as a strategy and management consultant for hospitals and corporations. She has a B.A. in Economics from Yale University and a Doctorate in Education from Harvard University, specializing in school organization, change and finance.

Karen Baroody, Managing Director, Education Resource Strategies

Karen Baroody is the managing director of Education Resource Strategies, Inc. Ms. Baroody is responsible for business development, strategic planning, and internal operations. She manages grants and outside partnerships and has led development of the ERS series, *Practical Tools for District Transformation* as well as written and spoken about district turnaround. Prior to joining ERS, Ms. Baroody worked as a senior vice president at Fidelity Investments and was a management consultant at Bain & Company. She holds a B.A. in mathematics from Princeton University.

Elliot Regenstein, Partner, EducationCounsel

Elliot Regenstein is a Chicago-based partner of EducationCounsel LLC who focuses on providing legal, policy, strategic planning, and advocacy services to governments, foundations, and not-for-profit organizations. From 2004 to 2006 he served in the Illinois governor's office as Director of Education Reform. He earned his J.D. from the University of Michigan Law School, and a B.A. in history from Columbia University.

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A Primer for State Policymakers

More than 98 percent of the students in our nation’s K-12 schools live in states that have experienced budget deficits in the last year. That means around the nation state education leaders will be working to improve student outcomes even as they wrestle with serious financial problems. Investing in educational improvement at a time when dollars are scarce is no easy feat. Despite the influx of stimulus funds, very few districts have been able to advance reform, instead using the dollars to plug holes in antiquated cost structures that offer little promise of transformation and improvement.¹ And while funding adequacy and equity must remain a priority for states, ensuring that limited resources are used as effectively as possible is paramount. States can use this moment of combined reform and financial pressure to set policies and promote action that will create the right conditions for change at the local level.

There are very real barriers to using people, time, money, and technology well in today’s public schools systems. To begin to break down these barriers, ERS has created a framework to prioritize seven urgent restructuring priorities (see Figure 1). We have found that these areas represent the largest opportunities for freeing unproductive use of resources and at the same time moving toward higher-performing designs for schools and systems. The popular press is full of discussion about some of these areas, especially with regard to teacher compensation, including easing restrictive teacher tenure and dismissal policies, rethinking how teachers are evaluated and compensated, and addressing the challenges of escalating benefits and pension costs.² For the purposes of this paper, in order to ensure that declining resources are used most effectively, we have focused on four priority areas that states will have to address in order to ensure that declining resources are used most effectively:

1. How schools organize personnel and time
2. How districts and schools spend special education dollars
3. How districts allocate resources to schools and students
4. What information districts gather on resources and spending

Figure 1: Seven restructuring priorities for transformation in tough times

1. Restructure one-size-fits-all teacher compensation and job structure to foster individual and team effectiveness and professional growth.
2. Rethink standardized class size model to target individual attention.
3. Optimize existing time to meet student and teacher needs and extend where needed.
4. Redirect special education spending to early intervention and targeted individual attention for all students.
5. Maximize use of buildings and land.
6. Redirect spending from compliance and monitoring to leadership development.
7. Leverage outside partners and technology.

¹Mead, S., Vaishnav, A., Porter, W. & Rotherham, A. (2010). *Conflicting Missions and Unclear Results: Lessons from the Education Stimulus Funds*. Bellwether Education Partners.

²Alvarez, Lizette. (March 9, 2011). “Florida Lawmakers Push to Link Teacher Pay to Student Performance.” *New York Times*; Kaplan, Thomas (March 2, 2011). “Cuomo Pushes for Changes in Teacher Evaluations.” *New York Times*; Sawchuk, Stephen (January 13, 2011). “More State Officials Take Aim at Tenure.” *EdWeek*; Cavanagh, Sean (November 22, 2010). “Journal Explores Costs of Teacher Pensions, Retiree Health Care.” *EdWeek*.

Our recommendations here aim to productively engage state policymakers in helping districts focus more strategically in these four areas. Although the challenges are many, with the right vision and focus on resources, states can provide the knowledge, scale, incentives, limits, and legislative authority to support sustainable school improvement.

Education Resource Strategies (ERS) is a non-profit organization dedicated to helping urban school systems organize talent, time, and money to create successful schools at scale. Through our work with districts we have learned that they rarely have the conditions and capacity that enable them to maximize resources for student learning. Many of the biggest misalignments in resource use result from a combination of tradition, regulation, contracts, and policies that will take concerted efforts to change. Regardless of the strength and skills of district management, ERS has seen firsthand how state laws and policies can support or thwart districts in making strategic use of resources. EducationCounsel LLC is an innovative law, policy, strategy, and advocacy organization committed to strengthening education systems, closing achievement gaps, and expanding access to educational opportunities. The firm collaborates with education leaders from across the country, including state and local leaders, higher education officials, associations, and pioneering private and public entities to improve educational outcomes for all students.

I. ORGANIZING PEOPLE AND TIME

Why it matters

Across the nation, more than 80 percent of school district operating expenditures pays for compensation, with between 40 and 55 percent allocated to teacher compensation.³ Simply put, budget pressure will require reducing the number of people employed in K–12 schools, and altering their roles and how they are paid. The key for states and districts will be cutting the people and positions that are contributing the least to instructional effectiveness, and rethinking how the remaining personnel can be most effectively organized, supported, and rewarded to improve results. While many of the final decisions on personnel use should be made at the local level, state policy plays an extremely important role in framing those decisions and in encouraging districts to tackle the tough challenges now.

What we see

- **State policies requiring inflexible class sizes and mandating staffing ratios limit the ability of districts to best match group sizes and teacher expertise to student needs.** Improvements in student performance have been linked to class size reduction only in early elementary grades, where classes are reduced dramatically to below about 13–17 students.⁴ Attempting to manage these ratios across the board means that class size reduction becomes a very expensive strategy relative to other potentially more powerful ways of improving instruction. Teaching quality, on the other hand, has been demonstrated to have a strong correlation to student outcomes at all levels.⁵

Helping *all* students reach higher standards will require matching teacher skills and experience with student needs and varying amounts of time and individual attention in response to these needs. But class size and staffing requirements that mandate the same class sizes for all students, all day long, preclude schools and districts from applying creative solutions. One such solution might be assigning significantly smaller class sizes targeted at higher-need students, critical subjects, or for certain parts of the day—offset by slightly larger classes for other students or subjects and at other times. Obviously, the ideal situation is to have

³Wilson, Steven (2010). “The Efficient Use of Teachers” in Frederick Hess and Eric Osberg, eds. *Stretching the School Dollar: How Schools and Districts Can Save Dollars while Serving Students Best* (Cambridge, MA: Harvard Education Press).

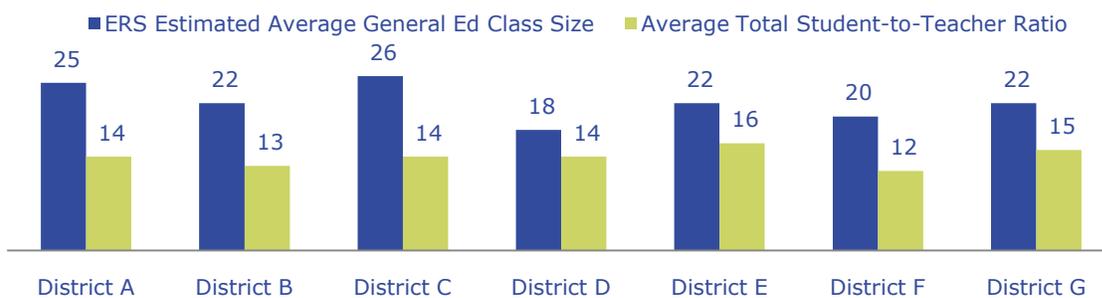
⁴AERA. (Fall 2003). “Class Size: Counting Students Can Count” *Research Points*. Volume 1 Issue 2.

⁵Nye, B., Konstantopoulos, S., & Hedges, L.V. (2004 Fall). “How Large Are Teacher Effects?” *Educational Evaluation and Policy Analysis*, 26(3), 237-257; Rivkin, S.G., Hanushek, E.A., & Kain, J.F. (2005 March). “Teachers, Schools, and Academic Achievement.” *Econometrica*, 73(2), 417-458.

small classes with great teachers—but if districts cannot provide that, they should have the freedom to determine that a slightly larger class with a great teacher will better serve students than multiple smaller classes with lower-quality teachers.

There is potential to reorganize existing teaching staff for greater individual attention. ERS analysis reveals that for most of the seven districts in Figure 2, average general education class sizes were significantly higher than overall teacher-to-student ratios, sometimes by as much as 10–12 students. These differences are due to the large number of teaching staff working outside of the general education classroom, often in response to mandates. Less stringent class size and staffing requirements would allow flexibility in assigning these staff members to general education, small group, and intervention strategies to best meet student needs throughout the day. The right solution for students may depend on the subject, teacher candidate pool, building size, and a host of other factors that districts and schools are in the best position to judge.

Figure 2: General education class size is often much higher than student-to-teacher ratios

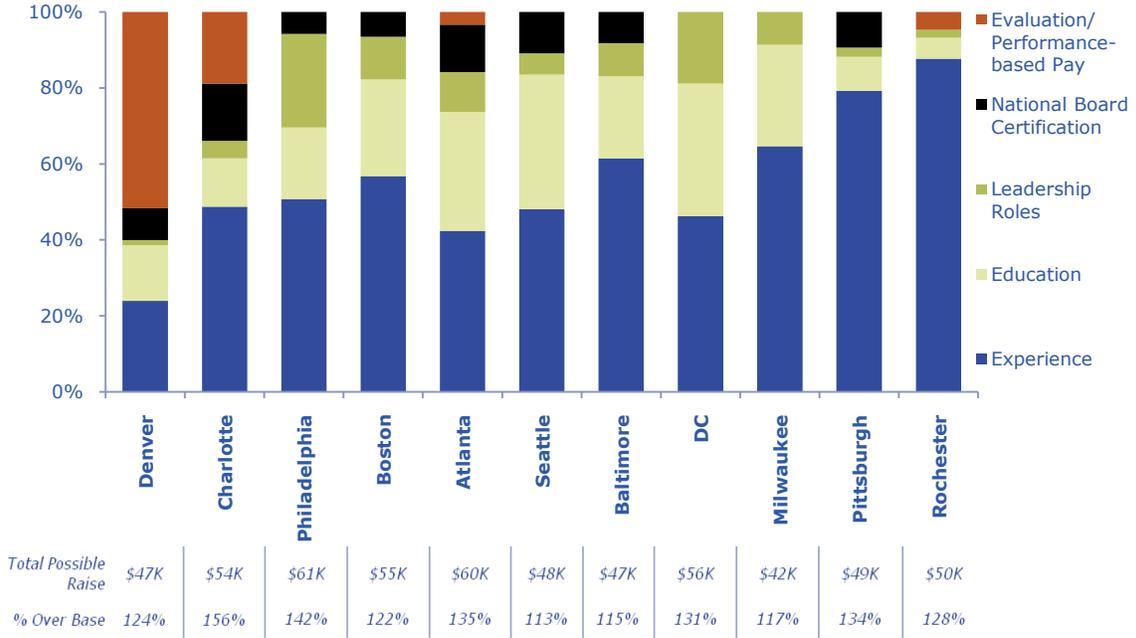


Source: ERS analysis and district data

- Compensation incentives for longevity and master’s degrees have little correlation to student outcomes and limit resources available for rewarding teachers who contribute the most.** Though the details of teacher compensation vary in important ways, the basic structure is stunningly similar across districts and states. In districts with which we have worked teachers can usually double their salaries from their starting levels over their career. But more than 80 percent of this increase comes from years on the job and additional course credits (see Figure 3). And longevity (after the first three to five years of teaching) and educational attainment (with the exception of a master’s degree in math) do not consistently link to student outcomes.⁶ Spending on these compensation structures severely limits a district’s ability to reward teachers for taking on increased responsibilities or generating improved results. ERS analysis suggests that most districts spend less than two percent of total compensation dollars to reward the highest contributing teachers (see Figure 4).

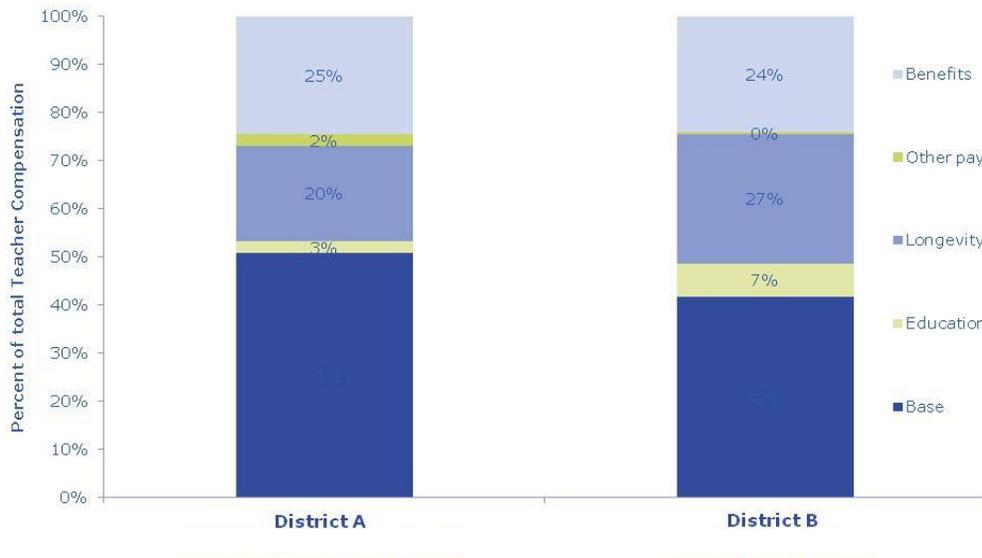
⁶Rivkin, S., Hanushek, E., & Kain, J. (2005). “Teachers, Schools, and Academic Achievement.” *Econometrica*, 73(2), pp. 417–458; Ehrenberg, R., & Brewer, D. (1994). “Do School and Teacher Characteristics Matter? Evidence from High School and Beyond.” *Economics of Education Review* 13(1), pp. 1–17.

Figure 3: Education and experience comprise the majority of increases in teacher compensation



Source: ERS analysis and district data

Figure 4: Less than 2% of typical total district compensation spending pays for leadership, increased responsibility, and performance



Source: ERS analysis and district data

States and districts need to find ways to create compensation structures that attract and keep the best and brightest. Doing this will require redirecting dollars tied to antiquated structures related to longevity and course credits. Even as states and districts work to overhaul compensation structures, they can make short-term changes that minimize spending on years of experience and course credits freeing dollars to pay expert teachers to take on more leveraged roles.⁷

- **State tenure and dismissal policies restrict schools’ and districts’ ability to remove ineffective teachers and other staff members.** Collective bargaining agreements are often blamed for districts’ inability to remove poorly performing employees who do not improve. But in many states tenure and dismissal policies are governed by state law and can be unreasonably restrictive. For example, laws regarding civil service can create huge barriers to districts seeking to redesign their central offices to take advantage of new technology. These laws often require lay-offs based on seniority regardless of the particular combination of skills an individual may bring to the job.

- **Reliance on the Carnegie unit⁸ and mandated time requirements force schools to use resources inefficiently.**
 - *In core⁹ academic subjects:* A new generation of standards and assessments will increasingly allow states to focus on proficiency rather than on the completion of Carnegie units. Because of the current reliance on Carnegie units, students do not have the opportunity to learn at their own pace. They must master material defined as a “course” in exactly one year—no more, no less. This wastes resources by forcing some students to spend too long in one class, and forcing other students to repeat an entire course instead of continuing in a progression. For districts, this means higher costs without improved outcomes. The example from one large district in Figure 5 below illustrates how different approaches across schools can have very different returns on investment by focusing on mastery of content rather than standard course completion.

Figure 5: Inflexible course requirements yield greater expense/lower outcomes for struggling students

Because student B repeated the same course, this district invested four times more per distinct math class in Student B, AND achieved a significantly worse outcome.

	STUDENT A	STUDENT B
Proficiency at end of grade 8	Below proficient	Below proficient
Semester-long math classes in grades 9-10	Algebra 1A Algebra 1B Technical Math 1 Geometry	Introductory Math Introductory Math Introductory Math No Math Course
Cumulative investment	\$1,362	\$1,341
Average investment per distinct class	\$341	\$1,341
Status in grade 11	On track/college ready	Dropped out

Source: ERS analysis and district data

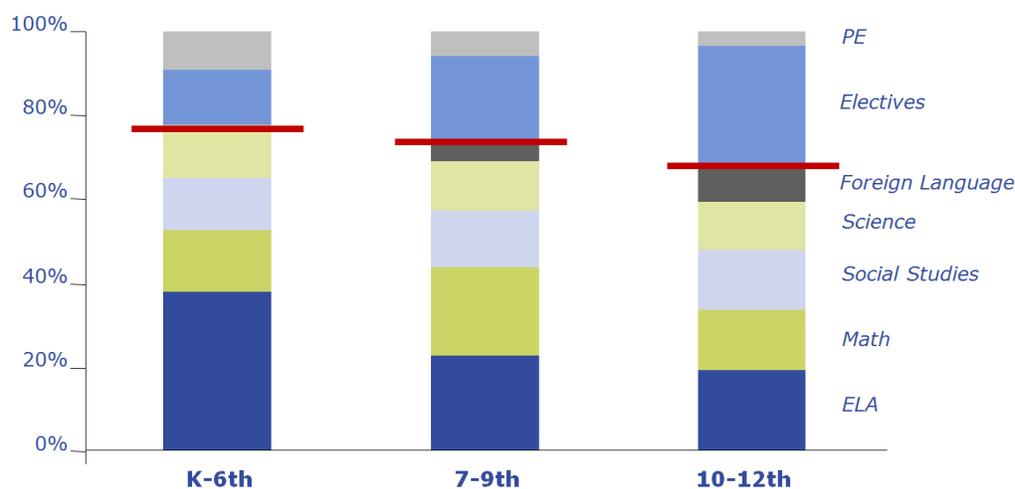
⁷The Teaching Job: Restructuring for Effectiveness. (2010). Watertown, MA: Education Resource Strategies.

⁸A widely used measure of hours required for course completion at the secondary level.

⁹Core refers to English language arts, math, science, social studies, and foreign language.

- *In other subjects:* While there is no question that physical activity and artistic involvement are important for student development and engagement, states should not assume that blanket course requirements or set amounts of in-school time in those areas are the most cost-effective ways to ensure students appropriate exposure to these subjects. In addition to added expense, these requirements often reduce time that may be needed in core academic areas, especially for low-performing students in the higher grades (see Figure 6). We have found that many high-performing schools that have succeeded with high-poverty student populations invest significant additional time in core subject instruction while pursuing alternative ways to provide other subjects.¹⁰ Eliminating seat time requirements in non-core subjects can free schools to focus on what they think is most important, and to meet the needs of their students more flexibly.

Figure 6: Significant instructional time in higher grades is weighted toward non-core subjects in this district



Source: ERS analysis and district data

- **Turnaround policies do not adequately account for unique school conditions.** While federal law sets limits on the ability of states and districts to choose which schools are eligible for turnaround funds and what models of turnaround are used, states do have flexibility in allocating money among districts and schools. Because they begin with different needs and levels of funding, not all schools in need of turnaround require the same amount of money to make turnaround succeed. We have seen very few states or districts analyze the existing level and use of talent, time, and dollars before adding new resources.¹¹ Programs that provide the same assistance to all schools regardless of their current funding level, unique student population, and teaching force do not tailor resources to meet specific needs. In addition, states that work directly with turnaround schools without considering the district’s commitment to improvement efforts and capacity for long-term support will not likely see lasting improvement.
- **State regulations and local contracts prohibit district leaders from providing instructional and support services through non-traditional providers.** Even when a district can demonstrate lower-cost and higher-quality programs, state laws and union agreements often limit the use of

¹⁰Shields, R. & Miles, K. (2008). *Strategic Designs: Lessons from Leading Edge Small Urban High Schools*. Watertown, MA: Education Resource Strategies.

¹¹Baroody, K. (January 2011). *Turning Around the Nation’s Lowest Performing Schools: 5 Steps Districts Can Take to Improve Their Chances of Success*. Center for American Progress.

part-time employees or outside contractors. This includes non-instructional areas such as food services as well as instructional areas. Even for non-core subjects such as physical education, art, and music most districts must use certified teachers paid on the same salary schedule as regular core instructional staff members.

What state policymakers can do

- **Eliminate class size requirements and required staffing ratios, including funding streams tied to specific job titles (e.g., librarian, guidance counselor, special education aide)—and instead create a set of accountability measures that ensure that student needs are being met.** Over time, districts and schools can develop a better understanding of how proficiency, class size and other approaches to individual attention relate in different grades and subjects and use this information to share best practices and guide policy.
- **Eliminate state-mandated pay incentives for teacher longevity and education and tie compensation to other factors more relevant to effectiveness, contribution, and job responsibilities.** Incentivize districts—and, where applicable, their union partners—to restructure pay systems in order to accomplish state, district, and school goals. While the state of the art in teacher pay may still be emerging, we know that forcing districts to pay for years of service and degrees limits their ability to use funds to help drive student and school improvement.
- **Ease restrictive teacher tenure and dismissal requirements.** Work with unions and districts to consider alternatives to traditional tenure structures. Changes could include a provisional period of five years for new teachers instead of the standard two or three, and “re-tenuring” of teachers every 5–10 years. Seek to create a fair and transparent process for removing low-performing teachers that guarantees due process but also supports the timely removal of teachers if performance does not improve. Develop school leadership skills and invest in systems and support for accurate, timely, and effective teacher evaluation.
- **Eliminate requirements for Carnegie units and specific “seat time” requirements.** Set high goals for attainment and achievement, but give districts and schools the flexibility to accommodate differing student needs when setting up instruction schedules. In addition, consider allowing extracurricular or co-curricular activities as an alternative strategy to state-mandated courses for non-core subjects.
- **Remove barriers that currently prevent outside contractors and non-traditional providers from supplying education and support services.**
- **Allocate school improvement funds in a manner that is sensitive to existing funding and needs.** States should ensure that schools are repurposing the money they are already spending (rather than just layering turnaround spending on top of existing funds), and that improvements can be sustained if federal funds are exhausted. In combination with the funding allocations, states should provide graduated flexibility to districts and schools based on their demonstrated ability to use resources effectively.
- **Create innovation grant programs for districts that demonstrate the commitment to transform outmoded models.** States should consider funding these grants out of a portion of

existing categorical funds, shifting from a model which focuses on compliance with restrictive rules on resource use, to one that encourages creativity and rewards results.

II. SPECIAL EDUCATION

Why it matters

More than 20 percent of total education spending pays for students classified as requiring special education—and the percentage has grown significantly over the last decades, outpacing the growth of general education spending.¹² Regulations, court decisions, and other real and perceived restrictions have made special education largely immune to cuts, forcing budget reductions to come largely at the expense of general education students. Diverting resources from general education settings limits opportunities to differentiate content, tailor instruction, and provide frequent intervention for struggling students—practices that may serve *all* students more effectively.

What we see

The federal Individuals with Disabilities Education Act sets important parameters on special education spending. However, states and districts often have more flexibility than they use. By definition, special education students have distinctive needs, but federal law requires meeting those needs in the least restrictive environment. Unfortunately, many states and districts have created funding systems that award the highest dollars to students served in segregated settings even if they might be better served in general education settings. In addition, declining general education resources can mean that the only way to provide the extra help that students with distinct learning challenges need is to classify them as special education students, inflating the referral rate and subjecting the district to increased reporting and compliance requirements and increasing costs.

- **State policies and practices drive different levels of classification in highly specialized, regulated programs.** The percentage of students enrolled in special education varies widely from state to state—from a high of almost 20 percent in Rhode Island to a low of just over 10 percent in Texas.¹³ Though they serve similarly needy populations, the urban school districts with which we work place very different percentages of their student body in special education programs. The fact that Boston Public Schools places 20 percent of its population in special education programs while Los Angeles Unified School District places 10 percent indicates that there is more at work here than just the needs of the student population.
- **State and district policies create little accountability for prudent spending on special education programs.** Schools and districts deliver special education services expensively without systematic evaluations of program costs or quality. For example, we routinely find classrooms with six to seven students, one teacher, and four or more instructional aides. Instructional aides typically have little work experience or training. Redirecting these dollars to invest in high-quality teachers and exploring ways to leverage combined school or classroom settings could yield significant savings. Schools may find they can achieve this by writing student’s Individual Education Plans (IEPs) in the context of the full set of resources and expertise that will be available in that classroom and school instead of thinking about each plan in isolation.¹⁴

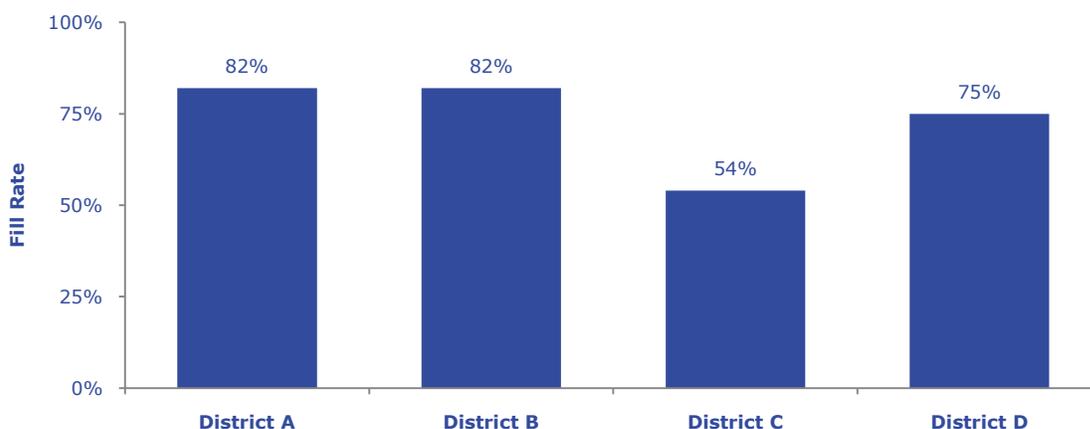
¹²Alonso, J.D. & Rothstein, R. (October 2010). *Where Has All the Money Been Going? A Preliminary Update*. Economic Policy Institute. Policy Paper #281; Frank, S. & Miles, K. (in press). *Tackling the Untouchable: Examining Special Education Spending to Improve Cost and Quality*. Education Resource Strategies.

¹³NCES data, 2008. Because preschool services are mandated for preschool students and special education, students can continue attending school until they turn 21, this overstates the percentage of students ages 6 to 18 in special education. To see sped percentages over time, see NCES publication 93442, which can be found at: <http://nces.ed.gov/pubs93/93442.pdf>

¹⁴Michael F. Giangreco, et al., “Be Careful what You Wish for: Five Reasons to Be Concerned about the Assignment of Individual Paraprofessionals.” *Teaching Exceptional Children*. Vol 37. No. 5 pp 28-34.

- School assignment policies that allow students to attend the school of their choice regardless of the services they require forces schools to add high-cost services and staff, diluting the quality of service.** Special education classes are on average “filled” to only about 75 percent capacity (and many are filled less than 50 percent) relative the district’s target size, because the districts choose to offer all programs at all schools (see Figure 7). Classes that reach only half of the targeted fill rate are double the expense, often with reduced quality because the district has to hire more expert teachers who are often in short supply. In an environment of limited resources, schools and districts must balance the desire to keep students in their local school with ensuring these students receive the highest-quality teaching and the best facilities.

Figure 7: Special education fill rates are typically well below district targets



Source: ERS analysis and district data

- Use waivers for federal maintenance-of-effort requirements to innovate and improve effectiveness and efficiency.** Maintenance-of-effort requirements aim to protect special education students from reductions in the level of service and support they receive. If a better way of providing service to children can be identified and turns out to be less expensive, maintenance-of-effort requirements should not be an obstacle to implementing the new services. Federal regulations allow for exceptions to maintenance-of-effort requirements in certain circumstances,¹⁵ and states can help districts to identify and take advantages of these opportunities.
- Certification policies limit opportunities for struggling students to work with teachers who have content expertise.** In many states, certification rules do not require that special education teachers have expertise in content areas. This creates a less-than-ideal situation in which the students most in need of support in reading and math receive most of their support from teachers who lack expertise in these content areas.

¹⁵Guidance on the Maintenance-of-Effort Requirements in the State Fiscal Stabilization Fund Program. U.S. Department of Education (January 2010). <http://www2.ed.gov/policy/gen/leg/recovery/statutory/moe-guidance.pdf>.

What state policymakers can do

Focus on student outcomes by taking the following actions:

- **Support early intervention and/or Response to Intervention (RTI) approaches that reduce the number of students placed into the special education system.** Many districts are successfully reducing special education referral rates by introducing early intervention programs and alternative support strategies for struggling learners, especially in transition grades.¹⁶
- **Eliminate requirements based on rigid staffing ratios and instructional models that do not take into account student progress.**
- **Avoid requiring districts to acquire specific equipment or curricula that personnel are not trained to use so dollars are not wasted.**
- **Revise funding formulas reducing incentives to classify students as requiring special education services in the most restrictive settings.** This could include providing extra financial weighting for students who enter secondary schools significantly behind grade level so that schools have resources to provide transition support and accelerate progress within the general education program. States should also clarify maintenance-of-effort requirements and support districts in interpreting these rules and obtaining waivers where appropriate.
- **Consider varying percentage of state contribution to special education by district. California pays for a higher percentage of the extra cost of special education services for districts that place fewer students in special education.** This approach is not a panacea (and can have disproportionate impacts on small districts), but variations on this approach are worth considering
- **Provide incentives and support for teachers to obtain dual certification in both content areas and special education creating more options for innovative delivery models.** Change special education certification rules if necessary to include expertise in content area.
- **Fund research efforts to document and promote effective, cost-efficient delivery models.**
- **Provide graduated flexibility to districts and schools around staffing and spending requirements based on demonstrated performance and ability to use resources effectively.**

¹⁶Fuchs, L. (Winter, 2007). *NRCLD Update on Responsiveness to Intervention: Research to Practice*. National Research Center on Learning Disabilities; VanDerHeyden, A., Witt, J. & Gilbertson, D. (2006). *A Multi-Year Evaluation of the Effects of a Response to Intervention Model on Identification of Children for Special Education*. *Journal of School Psychology* 45 (2007) pp. 225-256.

III. STATE AND DISTRICT FUNDING SYSTEMS

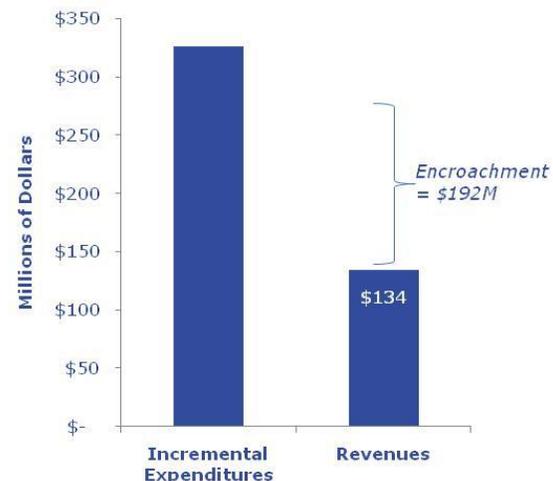
Why it matters

As states and the federal government hold schools increasingly accountable for meeting higher-performance standards, they must not only ensure sufficient resources for each school's student population but also allow schools the flexibility to organize schedules and staff in ways that best meet student needs. In tough fiscal times, unfunded state mandates for specific programs and students can pull resources from general education as districts backfill required funding gaps. In addition, inflexible funding systems and rules that require set schedules, positions, and staffing ratios can force higher spending, the wrong trade-offs, and stifle innovation.

What we see

- **Too many categorical funding streams restrict district financial flexibility.** Individual categorical funding streams are intended to address specific program and student needs. However, the more fragmented and prescriptive in nature, the more limits these funding categories place on district budgets. Funds tied to specific categories cannot be used to support overall district priorities or more integrated and strategic approaches to school improvement. For example, California recently consolidated its myriad of funding streams, but still allocates funding through 43 distinct programs, each with its own compliance rules. That is in addition to the 58 federal restricted funding sources.¹⁷ Likewise, the state of Connecticut allocates through over 50 different funding streams.¹⁸ The result for individual districts and schools is often a disjointed collection of programs and positions that do not make the most of increasingly scarce resources.
- **Special education and English Language Learners (ELL) mandates for service provision, mentioned in Section II, often result in district spending that far exceeds the federal and state funding provided for these students.** In many of ERS' partner districts, we see significant "encroachment"—the deficit between what a district receives and what a district actually spends in order to comply with government-specific special education requirements. Figure 8 illustrates this gap in one large district. This crowds out spending in general education and key investments in providing early intervention to struggling students. In addition, inflexible staffing policies and mandated programs and positions can result in wide variances in per pupil ELL and special education spending across schools within the same district (see Figure 9).

Figure 8: Spending on special education far exceeds the revenues designated for these students in this district

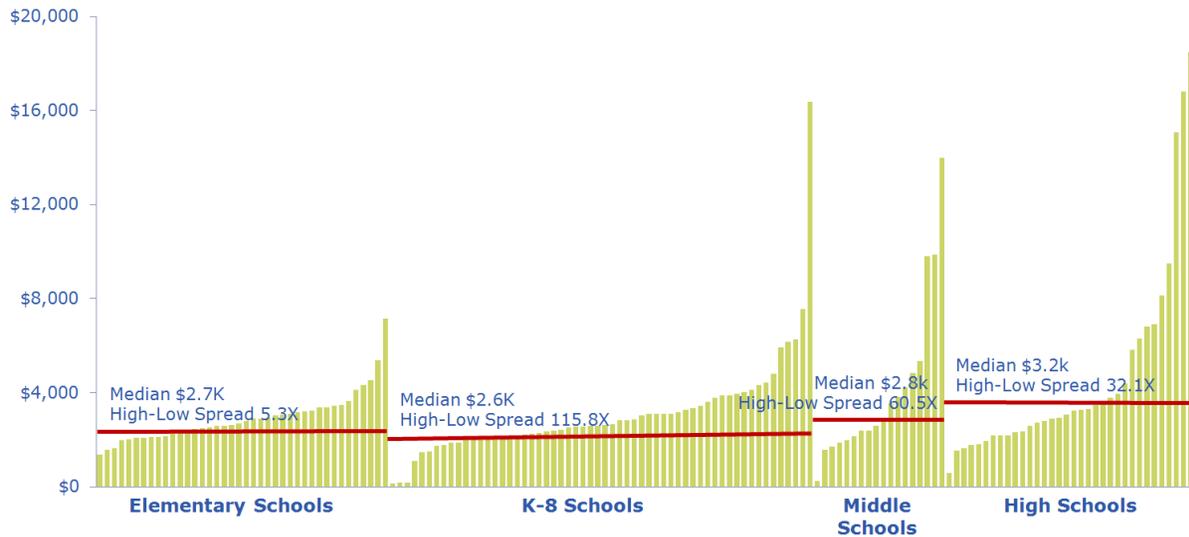


Source: ERS analysis and district data

¹⁷California Department of Education, 2011.

¹⁸Connecticut Department of Education, 2011.

Figure 9: Incremental per pupil ELL spending varies significantly by school in this district



Source: ERS analysis and district data

What state policymakers can do

Revise funding systems for equity and flexibility:

- **Combine categorical funding streams.** States should analyze their categorical funding streams and identify the goals those streams are meant to serve and the outcomes they are meant to produce; they can then collapse the funding streams into a smaller number of streams that provide more discretion. They can also consider whether the goals and outcomes animating the categorical funding streams should be codified in law elsewhere. This should lead to a situation where districts have better defined overall goals, and more flexibility in funding to help achieve them.
- **Eliminate mandates that require specific staffing levels or delivery models that do not have funding attached to them.**
- **Shift funding rules and systems away from specifying inputs including the examples mentioned previously of specific positions, time requirements, class sizes, or specific instructional models toward creating accountability around outcomes.**
- **Encourage districts to move to weighted student funding systems that allocate districts' dollars based on the number of students adjusted for their needs to avoid wide discrepancies in per-pupil spending across schools.¹⁹**

¹⁹Policy makers should pay careful attention to the details of revised funding and incentive systems especially as they relate to adjustments for small districts and charter schools. For example, using staffing formulas that allocate similar numbers of administrative and support staff to schools regardless of size can unnecessarily drive up the per-pupil costs of very small schools, and result in underinvestment in larger schools. Similarly, providing charter or other schools with a district average funding per pupil, even if those schools serve different student populations (e.g., lower numbers of special education or ELL students) than the district overall can take money away from high-need students who remain in district schools.

IV. DISTRICT DATA AND REPORTING RECOMMENDATIONS

Why it matters

Nationally, about 48 percent of education funding comes from states, and about 44 percent comes from districts.²⁰ While the percentages vary significantly from state to state (and the federal percentage has spiked recently with one-time expenditures), states can maximize their impact on student outcomes by leveraging the billions of state dollars spent by local districts.

What we see

States have an opportunity to encourage better decision-making at the local level and learn which practices are more cost-effective by creating more visibility into district-level resource use and outcomes. States already require districts to publicly report a wide variety of data—refining the data that is requested can facilitate more thoughtful discussions and decision-making about resource use without increasing the burden on schools and districts.

What state policymakers can do

We present here examples of metrics that can help change the way education leaders approach key decisions about resource use. By bringing these metrics into the public conversation—and analyzing the differences among districts, schools, and students—state and district leaders can strengthen the link between resource decisions and improvement strategies. In particular, we would urge that data be reported at the school level, as well as the district level, since district-wide “averages” mask significant differences in school-by-school investment and make it impossible to discuss how spending at each school addresses the needs of its students.

Designing an effective reporting system requires thoughtful analysis and engagement of all stakeholders. Here we propose a starting set of “power metrics.” We believe that if these metrics are gathered, tracked, and analyzed by school districts and their constituencies, they will engender a new conversation about how to best match limited resources with the needs of our schools and students. Some of these can be reported easily now. Others will require building different systems for gathering data and changes in how state, district, and school leaders think about resource use. These metrics examine the following strategies across districts, schools, and students and are outlined in the table on the next page (see Figure 10):

- Maximize instructional spending
- Ensure equitable, transparent, and flexible funding across schools adjusted for student need
- Restructure teaching and leadership to foster individual and team effectiveness and professional growth
- Support schools in organizing talent, time, and money to maximize learning

²⁰*Public Education Finances 2008*. (Issued 2010). Governments Division, U.S. Bureau of Census.

Figure 10: Recommended metrics for states

Strategy	Power Metric	Why is this important?
Maximize instructional spending	Breakdown of instructional spending into key components including: <ul style="list-style-type: none"> • Average class size • Average teacher compensation • Numbers of specialist vs. classroom teachers • Instructional time vs. non-instructional time • Teacher support funds (coaches, teacher leaders, tuition reimbursement, professional development) • Instructional technology, supplies, textbooks 	There are many “right answers” to how individual schools and districts manage this mix. Understanding how schools trade off among these key components is critical to understanding how effectively they allocate limited resources. This has use for broader comparisons; for instance, some other countries have much higher class sizes but invest more in teacher salaries and planning time.
Ensure equitable, transparent, and flexible funding across schools adjusted for student need	Per pupil general education spending within school level (elementary, middle, and high school), sorted by school performance.	Funding systems are frequently intended to provide equity across schools, but ERS work shows large variations by schools, often to the surprise of district leaders. With further analysis district leaders can understand what is driving differences in funding: student population, school size, school type (e.g., magnet, specialty), or school performance. ²¹
	Per pupil spending on special populations, (including % of students classified as special education, English Language Learners (ELL), free and reduced lunch (FRL), below proficiency) sorted by school performance.	This statistic is most useful for large districts; in smaller districts, the cost per pupil will vary widely based on small variations in the number of students. Long term, it will be helpful to look at funding levels by students or student types within different schools and districts. At the school level, new federal reporting requirements are going to put more focus on school-by-school differences. It is important when comparing resource measures like per pupil spending—or teacher compensation, quality, and experience—to understand these numbers in the context of the needs of the students being served at that school.
Restructure teaching and leadership to foster individual and team effectiveness and professional growth	Average teacher and principal compensation, years of experience, percentage certified in subject, evaluation distribution, and percentage of specialty teachers who are content certified by school.	While many states are in the process of revamping their teacher evaluation measures (which historically have not been meaningful), it is not too soon to begin creating a culture of reporting teacher data on a school-by-school basis. Combining that information with other key data points will show whether the highest need schools have the quality staff they require.
	Average teacher and principal compensation by teacher performance evaluation quartile.	Even if compensation is not linked to teacher evaluation, examining how district spending on teacher compensation varies by teacher evaluation scores can help identify areas for improvement.
	Total teacher work hours per year and percent spent on instruction.	In some districts, the required teacher work day is seven hours or less and the number of school days varies significantly across states. Though every good teacher works many more hours than required, contracts that only require certain work hours limit time available outside the student day for teacher collaboration and limit options for organizing both student and teacher time differently. The percentage of the total teacher contract year spent on instruction runs about 80% in the United States, compared to 60% in other countries. Recent policy discussions have focused on increasing the percentage of time teachers spend in the classroom, but that may undervalue the importance of teaching teams, collaboration, reflection, and analysis of individual student results. Other countries provide more time for collaboration and continuous improvement; districts and schools should use this metric to improve their analysis of how out-of-classroom time impacts the effectiveness of instructional time.
	Breakdown of total teacher (and principal) compensation expense, separating out base pay and benefits from pay based on experience, education, performance, and job responsibilities.	There is limited public understanding of how teacher and principal compensation is structured. More transparent information on these contracts can encourage more discussion about how to better align compensation with instructional goals.

²¹ *School Funding Systems: Equity, Transparency, Flexibility.* (2010). Watertown, MA: Education Resource Strategies.

Strategy Area	Power Metric	Why is this important?
Support schools in organizing talent, time and money to maximize learning	Teacher cost per high school credit earned sorted by incoming student proficiency level for key subjects and grades (e.g. 9 th grade math and ELA).	<p>This metric illustrates how districts and schools are adjusting time and attention in response to student needs. Putting together this information and then unwinding it to understand the drivers can provide valuable insight. In one district that ERS analyzed, we found that when one school put a struggling student into Algebra 1 in 9th grade, with a great teacher in a smaller class, the student was on track by 10th grade. Another school put a similar student into a big class of basic math, and he failed three times in a row.</p> <p>In order to accurately calculate this metric, districts and schools will need to track:</p> <ul style="list-style-type: none"> • Incoming proficiency for 9th grade students by school • Which students take which courses (i.e., are students at different schools with similar proficiency taking different levels or courses?) • Which teachers instruct which courses (i.e., are more senior or more effective teachers teaching the more challenging courses and students?) • Class sizes by course (i.e., are class sizes smaller for higher or lower levels?) • How many times students repeat those courses
	Total instructional time.	<p>This metric captures the amount of time during the school day that students are in classes (removing study halls, lunch, passing time, etc.). This tends to vary widely among districts and even among schools within districts. Ideally, total school time can be broken into core subject instructional time (math, ELA, social studies, science, foreign language), other instructional time (art, music, PE, elective, other), and non-instructional time.</p>
	The gap between total teacher-to-student ratio and average class size.	<p>This measures the amount of teaching resources allocated to specialty positions that might be better directed to serve the entire student population. Right now this measure is difficult to achieve because most districts cannot accurately track class size.</p> <p>Note that if districts begin to add significant collaborative planning time as discussed in the teaching section, this gap will increase. So it is important to be able to diagnose whether the driver of the gap at a particular school is specialty teachers or planning time. Comparing this measure across districts and schools may also lead to a more thoughtful analysis of how specialty teachers are used, and more effective deployment of those specialty teachers.</p>
	Class size by grade and subject.	<p>Class sizes tend to be largest for mandatory, core subjects in lower grades, such as 9th grade math, and lowest for higher grade electives. This is the opposite of how schools would allocate teaching resources if they were trying to focus lower class sizes in areas of highest need.</p>
	Teacher load for secondary school by subject.	<p>While elementary school teachers tend to teach 20-25 students all day, secondary school teachers can be responsible for up to 170 students per year. High-performing schools find ways to reduce this to as low as 50-60 in-core subjects, especially ELA, to allow teachers to provide more individual attention.</p>

DATA SOURCES

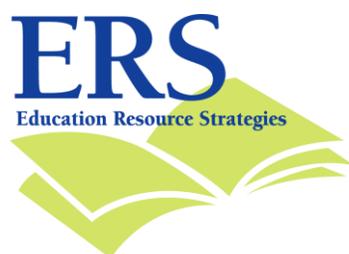
Unless otherwise noted, all data come from ERS work in urban school districts. To maintain confidentiality, we sometimes use the labeling convention of “District A,” “District B,” etc. However, these labels do not consistently reflect the same district from figure to figure. Districts include:

Atlanta (2005-08)	Philadelphia (2008-09)
Baltimore (2007-08)	Prince George County (2007-08)
Boston (2005-06)	Rochester (2008-10)
Charlotte-Mecklenburg (2007-08)	Seattle (2009-10)
Chicago (2005-06)	St. Paul (2005-06)
Los Angeles (2005-06)	Washington, DC (2004-05)
Milwaukee (2009-10)	

FURTHER READING

For publications specifically designed to help district leaders analyze and optimize school system resource allocation please see the ERS series available on our website, *Practical Tools for District Transformation*, which include:

- [*Seven Strategies for District Transformation*](#) - Learn about the seven key strategies for districts to improve student performance at scale.
 - [*School Funding Systems: Equity, Transparency, Flexibility*](#) - Use existing resources more effectively through shifting spending, targeting cuts, and laying the groundwork for long-term change.
 - [*Turnaround Schools: District Strategies for Success and Sustainability*](#) - Help ensure that efforts to improve the worst performing schools lead to sustainable improvement for all students.
 - [*School Design: Leveraging Talent, Time, and Money*](#) - Take action to align your resources with strategic school designs across your district.
 - [*The Teaching Job: Structuring for Quality*](#) - Take action to improve teaching and learning across your district.
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Education Resource Strategies

1 Brook Street

Watertown, MA 02472

617.607.8000

www.erstrategies.org