



Size Matters: A Look at School-District Consolidation

Ulrich Boser August 2013



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COVER PHOTO

A lone student walks down a hallway at the Jean de Lafayette Elementary School, on the final day of school Wednesday, June 19, 2013, in Chicago. Lafayette is one of 50 schools scheduled to close as a cost cutting and consolidation measure by the Chicago Board of Education.

AP PHOTO/SCOTT EISEN

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Introduction and summary

When it comes to education, not all spending is equal. Some education dollars are spent more productively than others.¹ In other words, some school districts use their resources well and show higher levels of student achievement for the same amount of spending compared to other districts. In a time of lagging revenues and flat achievement in many districts, policymakers have increasingly started to pay greater attention to the question of whether we are getting the most out of every education dollar.

At the same time, policymakers have begun to rethink the fundamental design of our education system. Our education-governance structures were built in a different era, and in many states, little attention has been given to improving the organization and design of states' education systems. Indeed, over time many states have allowed some exceedingly odd systems to evolve. In Nebraska, for example, there are a number of very small districts that are noncontiguous.² In other words, some Nebraska districts are nested like little islands within the confines of other districts. Likewise, school spending is a haphazard affair in a number of states. In New Jersey, due to size and other historical governance issues, the Lower Cape May Regional High School District spends \$50,000 a year per student to send its students to a regional high school. The average spending per district on students in New Jersey, however, is around \$17,000.³

These two strains of work—productivity and governance—have led us to ask: Could we reform the structure of our education system in ways that might increase student achievement?

With this question in mind, this report looks at the widespread existence of small school districts—defined here as districts with fewer than 1,000 students, that are not classified by the U.S. Census Bureau as “rural remote”⁴ or “town remote”⁵—and specifically at the extra education costs associated with these districts. Over the years many have argued that small school districts have unnecessary costs because they lack economies of scale. “If we have fewer school districts, as many states do, we can find ways to economize,” Illinois Gov. Pat Quinn (D) said recently.⁶

Researchers have long known that school-district size matters. What our report does, however, is put national and state-by-state estimates on the scope of the problem. To be clear, we calculated these estimates not because they are firm, take-to-the-bank data. They are not. There are clear shortcomings with the methodology, as we note below. Rather, these data are educated guesses, and we calculated these figures to give a sense of the scope and range of the problem. Based on these calculations and our other research, we uncovered the following:

Many states have large percentages of small, nonremote districts that may represent hundreds of millions of dollars in lost potential capacity. Across the nation, we found that small, nonremote districts might represent as much as \$1 billion in lost annual capacity, by which we mean money that may not have had to be spent if the district was larger. (Research suggests that the optimal school-district size is around 2,000 students to 4,000 students; for our analysis, we considered a district small if it had 1,000 or fewer students.) In California alone, more than \$64 million may be lost on small school districts. In some states, these estimates might be relatively small, but in other states, they are large. In New Jersey, for example, the estimated lost potential cost is about \$100 million, or about \$1,000 per classroom teacher.

There are, however, some crucial caveats. First, by lost potential capacity, we mean money that may not have been spent if the district was larger, and these data are estimates of potential lost dollars based on established methods of determining the cost of providing a sufficient education.⁷ (By sufficient, we mean reaching state and federal standards.) Second, our data rely on cost-estimate studies done by the school-finance firm of Augenblick, Palaich and Associates, Inc., or APA. Many school-finance experts have expressed concerns about the costing-out approach—also known as professional-judgment studies—arguing that they are subjective because they rely on panels of educators.⁸ But many states also continue to rely on the approach. We should note that we used APA's data to calculate relative changes in costs from a small district to a large district, and in this way, we believe that we have avoided one of the downsides of the professional-judgment approach, which is that it may overinflate actual costs.

Ten states account for more than \$650 million in lost potential cost, or about 68 percent of the total. According to our analysis, 10 states have a combined total of 3,625 small school districts. In Illinois, we found that the state's 380 small, nonrural districts potentially cost upward of an additional \$90 million each year. In Texas, that estimate of lost potential cost is more than \$80 million. Again, this is after excluding the state's most remote districts.

There is no easy policy answer to the problem of small districts. When it comes to small districts, policymakers have long been focused on system consolidation. In the past states across the country have employed this approach, and since the early 20th century, more than 100,000 school districts have been either consolidated or simply eliminated.⁹ And while efforts to consolidate have slowed in recent years due to concerns about the approach, consolidation efforts are very much part of the policy conversation in many states.

To address the problem of small districts, we present a number of viable recommendations, fully aware that there is no one optimal solution.

- **States should generally avoid one-size-fits-all approaches to maximizing district size.** While our report finds that many districts suffer from lost capacity due to their small size, there is no easy solution to this problem, and the best solution for one district may not be the best solution for another. The evidence suggests that policymakers should take an approach that does more to take into account the context of local districts and their needs and do more to improve overall systems of education management.
- **States and districts must reform school-management systems.** Policymakers must create performance-focused management systems that are flexible on inputs and strict on outcomes. States and districts should also take this opportunity to rethink the role that school districts play in our education system.
- **States and districts should consider regionalization and the sharing of services and resources where possible.** States can help ease the cost burden of small districts through the creation of state-supported education-service agencies serving a group of two or more small districts to increase overall productivity.

In researching this report, we analyzed the school-district data gathered by the U.S. Department of Education's National Center for Education Statistics. In addition, we used independent studies that had previously been conducted in several states to evaluate the additional costs associated with small districts.

Let's turn now and take a deeper dive into the issue of school-district size.

Background: A brief history of school-district consolidation

The debate over school-district size goes back centuries, and efforts to reform small school districts had their start in the early 19th century, when education was highly localized and towns and cities were the major providers and funders of public schools. As states increasingly took responsibility for local education systems, many chose to institutionalize town and city structures as local education agencies. During the early 20th century, the push to consolidate schools and districts grew more aggressive, and as a result of these efforts, between 1940 and today the number of school districts in the United States has shrunk from about 117,000 districts to about 14,000 school districts.¹⁰

Different states, of course, took their own approach to designing their education systems. Some states, such as Maryland and Florida, decided to build countywide school systems rather than districts anchored to towns or cities. As a result, these two states have small numbers of districts, particularly relative to other states with similar-sized student populations.

In many areas, race and class played an important role in deciding which districts consolidated and which districts did not. In North Carolina's Halifax County, for instance, there have been three separate school districts operating for more than a century.¹¹ Two of Halifax's school districts are nearly 100 percent nonwhite.¹² In contrast, the county's third and remaining district, the Roanoke Rapids Graded School District, has a student population that is 70 percent white. According to many observers, the reason that these three small districts have not merged into a single school district is partially a racial one. "The county's three districts—Halifax County Public Schools (HCPS), Weldon City Schools (WCS) and Roanoke Rapids Graded School District (RRGSD)—remain among the most segregated in the state and are tainted by the ongoing impacts of the legacy of Jim Crow segregation," one recent report concluded.¹³ According to the report, the more diverse school districts have lower student achievement and higher teacher turnover.¹⁴ In some cases such as fourth-grade reading, the difference in student achievement between the school districts in Halifax County is more than 20 percentage points.¹⁵

Whatever the root cause of the overabundance of small school districts in the United States, what's clear is that small districts today are not necessarily rural or isolated. In Illinois, 91 of the state's 382 small districts are classified as "suburban." In New Jersey, the number of suburban districts stands at 138, or 62 percent of the state's small districts. Many of the states with the largest number of small, nonremote districts are states with large student populations such as California and Texas. But states with much-smaller student populations, including Oklahoma and New Jersey, also have large numbers of small, nonremote districts. In fact, in New Jersey, there are a significant number of K-6 districts in the state's nonrural areas.¹⁶

Why small districts have higher costs

There are lots of reasons why small districts are more expensive than larger districts. For one, small districts often have small schools, and small schools can have higher overhead costs. While the debate about school size is beyond the scope of this report, it is not too hard to imagine that running a school with only 100 students is more expensive than running one with 600 students. The issue, in short, is economies of scale, which economists define as "factors that cause the average cost of producing something to fall as the volume of its output increases."¹⁷

Another issue is that small districts often still have to provide their students with a full array of course offerings even if there are fewer students. This can mean, for example, hiring a chemistry teacher for only four chemistry students. This problem is highlighted in a state such as Colorado, where school districts have on average an overall teacher-to-student ratio of 1-to-16, but for the state's small, nonremote districts, the teacher-to-student ratio is 1-to-12.¹⁸ To give a hypothetical example, in a school with 1,000 students, this means the difference of about 62 teachers compared to 83 teachers. Using the national average teacher salary of about \$50,000, that is a difference of more than \$1 million per school.¹⁹

Recent efforts to consolidate districts

Today many states continue to offer incentives for districts to consolidate, hoping to spur districts to undertake reorganization efforts. For the most part, policy leaders argue that the problem is the high costs associated with smaller districts. Let's look at a few more examples of states seeking to address the problems created by very small districts culled from recent news stories.

- In Iowa, two districts that voted to consolidate in February 2011 stand to gain \$750,000 in state incentive funding over the next three years.²⁰
- In 2011 Illinois Gov. Quinn announced a plan to consolidate school districts in the state.²¹ One state representative in Illinois, Robert Pita, has taken consolidation considerations even further, introducing a bill in the 2011-2012 General Assembly that called for the dissolution of all school boards and the establishment of county-based school boards in their place.²²
- In Pennsylvania, former Gov. Ed Rendell (D) pushed for consolidation in the Keystone State and in his 2009 budget address proposed consolidating Pennsylvania's 501 districts into 100 districts.²³ The effort eventually failed.

Despite all of these high-profile efforts, it is clear that the public reception to consolidation has waned over the past decade. Part of the issue appears to be community opposition. Another part of the issue is a realization that diseconomies of scale exist in education as well—when, for example, districts become too large. Whatever the case, efforts have slowed. The state of New York, for instance, has more than 200 small districts, but voters have only approved four school-district consolidations since 2000.²⁴

Problems with large-scale systemic consolidation

Over the years there have been a number of issues with systemic district consolidation. First, the approach in most states has been a one-size-fits-all method that ignores significant variation. Age of buildings, the size of the community, the density of the surrounding area, and the capacity of the surrounding towns and cities all play a role in whether consolidation eventually makes districts more or less productive after the reform.

Logistics also plays a role, and for consolidation to be successful, districts need to be geographically compatible.²⁵ In a number of cases, consolidation has led to increased costs because of larger transportation costs²⁶ and the need for capital construction to accommodate the new district.²⁷ Similarly, consolidation has also been found to negatively impact housing prices in some areas.²⁸ The density of districts also can make a significant difference with regard to costs and the potential savings of consolidation.²⁹ Put differently, if a school district is spread out over a large area, it will have a harder time consolidating with another district.

Another issue is community cohesiveness. A few studies have found that district consolidation has appeared to tear the social fabric of the community. As one study of a Pennsylvania school district concluded:

One thing is certain: arguments about district organization—be they about consolidation, home schooling, or charter schools within districts—do not turn only on issues of money, as advocates on both sides are wont to maintain. They depend upon values and experiences communities collectively bring to deliberations about school district organization.³⁰

In many districts, parents and other community leaders oppose consolidation for this reason: They believe that the culture and community of their local-area schools will be destroyed by the efforts to combine districts. This includes concerns about access to teachers and a sense of familiarity among students and teachers.³¹ Plus, many communities are simply flat-out opposed to consolidation, either because they view themselves as singular or because they view other districts as having low outcomes.³² Finally, some economists believe in the so-called Tiebout model, which assumes that parents buy homes in neighborhoods because of the performance of the local schools.³³

At the same time, the evidence is mixed when it comes to school-district and student performance.³⁴ One 2009 study of Pennsylvania, for instance, found no relationship between size and student outcomes.³⁵ What's important here is that districts should be looking to produce the best outcomes for their education dollars. As we have noted in other studies and papers, we need to have a national conversation about educational productivity. More specifically, we need to better support more districts that generate higher-than-average achievement per dollar spent and encourage efforts to study highly productive districts.³⁶ Put differently, if districts—regardless of size—manage to lower costs but in the process lower achievement, they will not be more productive. They will, in fact, be less productive. In the end, what's important is to provide districts with the supports and incentives to find better and more-effective ways to spend their dollars.

A new approach to thinking about district size

In many ways, the real problem is not district size. The real problem is our nation's system for managing districts. Our current approach to district governance lacks an outcomes-focused set of practices and programs that ensure that dollars are

well spent. As we have noted in previous reports, the problems of this management approach manifest themselves in ways both small and large.³⁷

There are the examples of straightforward waste, such as a district overpaying for food services by not considering outside providers, but the larger and more pressing issue is that state and local school operations do not provide educators with the tools, skills, and incentives to connect spending to outcomes and actually reorganize inefficient programs, schools, and districts depending on those outcomes. Take online learning, to cite just one example. In many areas of the nation, online learning can be used to help smaller districts get services or learning opportunities that they might not be able to otherwise afford. Many states, however, use seat-time requirements, which mandate that students spend a certain amount of time in a physical classroom setting, and thus limit the ability of schools and districts. Blended learning—using both online and classroom approaches—suffers from similar policy barriers. Such initiatives will need to be implemented carefully in order to gain cost savings, since at least one study suggests that virtual schools cost the same as brick-and-mortar schools.³⁸

One promising reform is student-based budget managing, in which school leaders are given responsibility for and autonomy over their budgets and thus are both empowered and held accountable for making the best resource decisions for their schools. A 2008 CAP report, “Funding Schools Equitably: Results-Based Budgeting in the Oakland Unified School District,” highlighted such an approach, which has proven successful in the Oakland Unified School District.³⁹ While the student-based budget managing is focused on individual schools in Oakland, such an approach would allow greater fiscal freedom within any district.

Another model is cooperative-purchasing agreements, or the sharing of services across districts, an approach that is being used in Colorado and in places such as western New York.⁴⁰ In these areas, education leaders work together to purchase a variety of goods. In New York and Colorado, these cooperatives are called Boards of Cooperative Educational Services, or BOCES. Such cooperatives are formed when two or more districts join together to share services such as human resources,⁴¹ workers’ compensation,⁴² health care, special education, professional development, or a gifted and talented program.⁴³ BOCES allow districts to leverage education dollars and provide services they might not otherwise have the personnel or fiscal capacity to support.⁴⁴

A BOCES serves essentially as the central business and operations office for the member districts. It also serves as the “administrative hub, overseeing human

resources, transportation, accounting, insurance, food services, purchasing, information technology, and other feasible functions for member districts.”⁴⁵ In Idaho, five districts have entered into a cooperative agreement to create a similar entity known there as the Canyon-Owyhee School Service Agency, or COSSA. This joint unit, according to the Idaho Office of Performance Evaluations, “provides professional-technical education, an alternative high school, special education and gifted and talented programs” across the five districts.⁴⁶ At this point, the full cost savings of such programs are not fully understood.

There are other options as well that might help reduce at least some of the costs. Charter management organizations are nonprofits that operate a variety of schools, and they can also serve as a model here. They operate as a type of “virtual district” and can create nongeographic forms of consolidation. Other areas have begun to share superintendents to reduce costs, and currently, more than two dozen districts in New Jersey have taken this approach.⁴⁷

To be sure, these approaches would not get at all of the costs associated with economies of scale, and it is important to bear in mind that central administration is typically less than 2 percent of district budgets.⁴⁸

Against this backdrop, we conducted an analysis of the lost potential capacity of small districts. Next, we will look at those findings.

Study findings

This report is designed to spark a conversation about district size and lost productivity and to identify states that have large numbers of small, nonremote districts. Below are our major findings.

Many states have large percentages of small, nonremote districts that represent significant lost potential capacity

Across the nation, we found that small, nonremote districts might represent as much as \$1 billion in lost potential capacity each year. Illinois, California, Texas, and New Jersey all have more than 200 small, nonremote districts that may represent millions of dollars in lost potential capacity. In California alone, more than \$60 million may be lost on small school districts. By lost potential capacity, we mean money that may not have had to be spent if the district was larger, and—as noted below in the methodology section—there are a number of caveats and assumptions associated with this finding. Put bluntly, this is an estimate of lost potential cost based on the best available thinking.⁴⁹

Ten states account for more than \$650 million in lost potential cost, or about 68 percent of the total.

The existence of small districts is hardly universal across states and our estimate of the potential lost cost of small districts is not spread evenly across the nation. In New York, we found that the state's small, nonremote districts potentially represent almost \$100 million in lost costs. In Illinois that estimate is more than \$90 million.

TABLE 1

States with the largest amount of districts with lost potential cost

States with the largest number of small, nonremote districts and their total estimated lost potential cost

State	Total estimated lost potential cost
New Jersey	\$104,988,000
New York	\$99,525,000
Illinois	\$90,922,000
Texas	\$82,683,000
California	\$64,400,000
Vermont	\$54,168,000
Oklahoma	\$48,132,000
Missouri	\$44,791,000
Montana	\$37,469,000
Wisconsin	\$37,039,000

Source: Author's calculations based using expenditure data from school year 2009-10 from the National Center for Education Statistics's Common Core of Data.

Recommendations

In light of this analysis and the pressing need to make the most from our school dollars, we make the following recommendations.

States should avoid a one-size-fits-all approach to maximizing school and district size. While our report finds that many districts suffer from lost potential capacity due to their small size, there is no easy solution to this problem, and the best solution for one district may not be the best solution for another. What's clear is that state-led consolidation is neither the only option nor the right solution in many cases.

Instead, we need to think more broadly about the ways in which we manage both schools and districts and the ways in which we deal with problems of scale. We must make use of technology and other innovations and effective education strategies. States have an important role to play in helping districts be more productive, of course. States, for example, should give schools and districts the incentives and autonomy needed to innovate, experiment, and pursue greater success. States should also eliminate any disincentives both financial and logistical to consolidation or reorganization efforts.⁵⁰

In most cases, however, it should be districts and schools, not states, making the ultimate decisions around consolidation and district redesign efforts. In some states, wholesale consolidation might work. In many states, however, the evidence suggests that a more targeted approach is the wiser course. That's not to argue that states should not have any role here; they might offer incentives to districts to consolidate or build the framework for other measures such as New Jersey's share-a-superintendent program.

States and districts must reform school-management systems. Well-managed organizations support success, encourage innovation, and make sure dollars are well spent. But our nation's school systems lack these key features, and we believe

that policymakers should create performance-focused management systems that are flexible on inputs and strict on outcomes.

Policymakers also need to increase the authority that principals have over budgets, employees, and other operational decisions. States should eliminate mandatory salary schedules, for instance, which establish salaries at the state level, preventing local districts from setting teacher compensation levels. States and districts should also take this opportunity to rethink the role that school districts play in our education system.

States and districts should consider regionalization and the sharing of services and resources where possible. States can help facilitate sharing through the creation of state-supported education-service agencies.⁵¹ Small districts might also choose to work together in order to increase efficiency and save costs by joining entities such as BOCES. Professional development is a great example of a service that, if shared among districts, has the potential to not only save costs but also to increase the quality of the programs.

Moreover, districts do not need to be contiguous to share services, addressing some of the logistical limitations of consolidation.⁵² Many states and districts have begun utilizing regionalization strategies, but these efforts are only the beginning, and there is certainly more that could be done.

Conclusion

In the end, size matters and the continued existence of small, nonremote school districts may represent \$1 billion dollars in lost costs every year—money that could and most certainly should—be put to better use. States, districts, and policymakers need to think of better ways to support these small districts and recognize that an education system designed 200 years ago may no longer be the right system today.

These are politically contentious and challenging issues, to be sure. And small districts are not the only problem; there are many districts that have grown too large and suffer under the problem of diseconomies of scale.

But with lagging student achievement, we need to make sure every school dollar is spent wisely, and that often means experimenting with different solutions, ideas, and strategies to improve educational outcomes. Most importantly, what our nation needs to do is a much better job at setting clear standards and giving local school leaders the flexibility and incentives they need to figure out the solutions that will work best in positively impacting student achievement.

Methodology

For this paper the authors estimated how much districts could save by taking advantage of economies of scale. In brief, the per-pupil cost of education is much higher for districts with *lower* enrollments. In general, a district of 100 students costs more than a highly similar district of 200 students, and a district of 200 students costs more than one of 300 students.

We sought a methodological approach that would capture this relationship. We relied on studies produced by Augenblick & Myers, Inc. or on Augenblick, Palaich and Associates, Inc. to estimate the cost of educating students in four states covering a time period from 2002 to 2007.¹ These studies are known as costing-out studies and they aim to determine the costs per pupil needed for a district with certain characteristics to meet state and federal education standards. From the studies, results were used that were derived from the so-called professional-judgment approach, which means that a group of professionals used their expertise to decide what the costs per pupil should be in certain types of districts. In each of these studies, the professional-judgment approach yields a formula that relates student-enrollment numbers to the per-pupil cost.

We selected studies of states that represented a geographic range: Connecticut, Kansas, Montana, and Pennsylvania.

For each of these states, we estimated the specific per-pupil cost of providing education in each state for districts with up to 1,000 students. Then, we averaged the results across the four states for districts of each size. The average estimated per-pupil cost for districts with exactly 250 students, for example, was \$9,260. The average per-pupil cost for districts with exactly 650 students was \$8,608, and the average per-pupil cost for districts with exactly 1,000 students was \$8,365.²

Overall, these estimated per-pupil costs illustrate economies of scale in education—that is, the relative cost of educating students goes down as the number of student increases. This is nonlinear, with big cost savings occurring when small districts add an additional student, but smaller savings for larger districts. Since different states have different average levels of per-pupil spending, we converted these dollars to percentages. Specifically, we calculated the percentage difference in cost between districts smaller than 1,000 students and districts with exactly 1,000 students. We called this the cost adjustment. We calculated that a district with 250 students might pay about 10 percent more per student than a district with 1,000 students, while a district with 650 students might pay about 3 percent more, for example.

Using data from the National Center for Education Statistics' Common Core of Data, we estimated how much less districts could pay if they

would have 1,000 students.³ For the 2009-10 school year, we identified all districts that were not "remote," as defined by the U.S. Census Bureau. We compiled financial and enrollment data for all nonremote districts with 1,000 or fewer students, including the actual per-pupil cost.

In order to estimate the lost capacity, we compared the actual cost of education with the estimated cost if districts had exploited economies of scale.⁴ We reduced the actual per-pupil cost by the cost adjustment to yield the estimated lower per-pupil cost. We multiplied this per-pupil cost by the actual enrollment to find an estimated lost cost. We did this for every state, except for the four noted above. For each of those four states, we relied on the cost adjustment specific to that state and performed the same calculations.

To provide an example, let's imagine a district that we will call Eisenhower District. If the Eisenhower District had 750 students, we estimated how much they "lost" by having fewer than 1,000 students by looking at the difference between the cost of educating students at the per-pupil rate for 750 students and the cost at the per-pupil rate for 1,000 students. In our model, the Eisenhower District would save 2 percent per student if it educated 1,000 students instead of 750 students. Assuming the actual per-pupil cost was \$8,530, the adjusted per-pupil cost would be \$8,365. This would be a cost saving, or lost capacity, of $(750 \times \$8,530) - (1,000 \times \$8,365)$, or \$1,967,500, or about \$2,600 per student.

One additional note on the methodology: Over the years a great deal of research has been done on the ideal size for a school district, and a summary of several major studies showed that while there is no clear consensus, the data suggest that the optimal school-district size is around 2,000 students to 4,000 students. With this in mind, and in consultation with experts, we selected the benchmark of 1,000 or fewer students as our definition of a small district.

Endnotes

1 Augenblick, Palaich and Associates, Inc., "Costing out the resources needed to meet Pennsylvania's public education goals" (2007); John Augenblick and others, "Educating the cost of an adequate education of Connecticut" (Denver, CO: Augenblick, Palaich and Associates, Inc., 2005); John Augenblick and others, "Calculation of the cost of a suitable education in Kansas in 2000-2001 using two different analytic approaches" (Denver, CO: Augenblick & Myers, Inc., 2002); Justin Silverstein, "Estimating the cost of an adequate education in Montana" (Denver, CO: Augenblick, Palaich and Associates, Inc., 2007).

2 Author's calculations based on the above studies.

3 National Center for Education Statistics, "Elementary/Secondary Information System," available at <http://nces.ed.gov/ccd/elsi/default.aspx> (last accessed August 2013).

4 In the Common Core of Data, the actual total district expenditures were rounded to the nearest thousand, so we rounded our estimated total cost to the nearest thousand prior to calculating the difference (actual - estimated).

About the author

Ulrich Boser is a Senior Fellow at the Center for American Progress, where he analyzes education, criminal justice, and other social policy issues.

Prior to joining the Center, Boser was a contributing editor for *U.S. News & World Report*, special projects director for the *Washington Post Express*, and research director for *Education Week* newspaper. His writings have appeared in *The New York Times*, *The Washington Post*, *Slate*, and *Smithsonian*.

Boser has written a number of influential reports. His study of school spending included the first-ever attempt to evaluate the productivity of almost every major school district in the country. Hundreds of media outlets covered the release of the report, including *The New York Times*, *The Washington Post*, and the Associated Press. Boser also serves as research director of Leaders and Laggards, a joint project of the Center for American Progress, the U.S. Chamber of Commerce, and Frederick M. Hess of the American Enterprise Institute that evaluates state systems of education.

Boser graduated with honors from Dartmouth College and lives in Washington, D.C., with his wife and two daughters.

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Endnotes

- 1 Ulrich Boser, "Return on Educational Investment: A District-by-District Evaluation of U.S. Educational Productivity" (Washington: Center for American Progress, 2011), available at <http://www.americanprogress.org/issues/education/report/2011/01/19/8902/return-on-educational-investment/>.
- 2 Kerri Ratcliffe, Bruce Riddle, and John Yinger, "The Fiscal Condition of School Districts in Nebraska: Is Small Beautiful?" (Syracuse, New York: Syracuse University, 1988), available at http://www.maxwell.syr.edu/uploaded-Files/cpr/research/cpr_research_education_finance_policy/Nebraska_School_paper.pdf.
- 3 Jack Fichter, "Cape May Paying \$50k Per Student to Regional School District," *Cape May County Herald*, January 4, 2012, available at <http://www.capemaycountyherald.com/article/government/cape+may/79325-cape+may+50k+student+regional+school+district>. For the state average, see New America's Federal Education Budget Project site, available at <http://febp.newamerica.net/> (last accessed July 2013).
- 4 According to the National Center for Education Statistics, "rural, remote" districts are districts in a "Census-defined rural territory that is more than 25 miles from an urbanized area and is also more than 10 miles from an urban cluster." National Center for Education Statistics, "Identification of Rural Locales," available at http://nces.ed.gov/ccd/rural_locales.asp (last accessed July 2013).
- 5 According to the National Center for Education Statistics, "town, remote" districts are districts in a "[t]erritory inside an urban cluster that is more than 35 miles from an urbanized area." Ibid.
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