



Return on Educational Investment: 2014

A District-by-District Evaluation of U.S. Educational Productivity

By Ulrich Boser July 2014

Introduction and summary

In 2011, the Center of American Progress released the first-ever attempt to evaluate the productivity of almost every major school district in the country. That project developed a set of relatively simple productivity metrics in order to measure the achievement that a school district produces relative to its spending, while controlling for factors outside a district's control, such as the cost of living and students living in poverty.

The findings of that first report were worrisome and underscored the fact that the nation suffers from a productivity crisis. The data suggested that low productivity might cost the nation's school system billions of dollars a year. What's more, too few states and districts tracked the bang that they received for their education buck.

In this updated report, CAP uses these same metrics to once again examine the productivity of the nation's school districts. We embarked on this second evaluation for a number of reasons. In many areas, education leaders continue to face difficult budget choices, and more than 300,000 education-related jobs have been lost since the start of the Great Recession.¹ At the same time, the advent of the new, more rigorous Common Core standards will demand that far more from educators, including better, tougher exams. In short, many educators are being asked to do more with less.

But still, school productivity has not become part of the reform conversation, and with this project, our hope is to shine a light on how productivity differs across districts, as well as to identify key areas of reform. Moreover, for the first time, we conducted a special analysis of educational fiscal practices, diving deep into state budgeting approaches. We believe that if our education system had a more robust way of tracking expenditures, it could do more to increase productivity. Together with this report, we have also released analysis by CAP Senior Policy Analyst Robert Hanna on twin districts. Hanna's analysis looks more closely at the programs and practices of more effective districts.

As noted in our previous report, the emphasis on productivity does not mean that CAP endorses unfettered market-based reforms. We continue to believe, for instance, that school vouchers do not further the cause of public education. Nor do we argue that policymakers should spend less on education. Indeed, we believe neither of these approaches can solve the nation's pressing education challenges, and together with this report, CAP is releasing a paper by Bruce Baker titled "America's Most Financially Disadvantaged School Districts and How They Got that Way," which looks at some of the severe inequities that plague our nation's school system.

The bottom line is that we believe policymakers and educators need to focus on what works in education and scale up those practices. This means focusing on effectiveness *and* on equity. We need, in other words, to look at both who gets education dollars and what they do with those dollars.

What's more, it is clear is that schools and districts can boost outcomes, and in recent years, a number of districts and states have significantly raised student achievement. But these success stories are not enough. We also need to figure ways to do more with what we have.

Here is a summary of our most recent findings:

- **Low educational productivity remains a deeply pressing problem, with billions of dollars lost in low-capacity districts.** Thousands of school districts ranked poorly on at least one of our productivity metrics; hundreds showed low scores on all three of our productivity metrics. The lowest productivity school districts serve about 3 percent of the more than 41 million students covered by our study. (Note that the productivity rankings for 2014 cannot be compared to the rankings in previous years, due to methodological limitations)
- **Some of the nation's most affluent school systems show a worrying lack of productivity.** Our analysis showed that after accounting for factors outside of a district's control, many high-spending districts posted middling productivity results. For example, only slightly more than one-third of the districts in the top third in spending were also in the top third in achievement.

- **In some districts, spending priorities are clearly misplaced.** Texas is one of the few states that report athletic spending at the district level, and the state’s data suggest that more than 100 districts in Texas spend upward of \$500 per student on athletics.² A few districts in Texas spend more than \$1,000 per student annually on athletics. To keep these numbers in perspective, the average unadjusted per-pupil operating expenditure in the state in 2013 was around \$10,000.
- **State approaches to improving fiscal effectiveness vary widely.** Only a few states, such as Rhode Island, currently take a weighted-student funding based approach to education, where money is distributed to schools based on student need. What’s more, only two states, Florida and Texas, regularly rate the productivity of local school dollars. Some policymakers are taking on the issue of productivity, however, and some states, such as New York and Virginia, have taken smart capacity-building approaches.
- **States have failed to make fiscal equity a priority and large funding gaps exist across school districts.** In our analysis, we calculated the expenditure difference between a district that spends near the top and near the bottom in each state. This is a long-standing approach to measuring school finance inequity, and using the latest spending data provided by the federal government, we found that gaps among school districts remain high. In New Jersey, the difference between the wealthiest districts and the least wealthy district was \$6,200, after adjusting for cost of living and student demographics. For this reason, we took significant steps in our report to control for funding disparities.
- **State budget practices are often inconsistent and opaque.** Key expenditure-related definitions vary, and while almost every state now has a common chart of accounts—a type of budget dictionary—the specifics are not comparable across states. This means that what might count as curriculum spending in one state is most likely different than what counts as curriculum spending in another state.

Plus, some state practices are difficult to follow. In Washington state, for instance, school districts are allowed to release two different sets of financial statements.³ The first set of statements is for the state’s annual financial accounting system. The second set of statements meet a different set of accounting procedures. According to the state, the second set of financial statements are “considered to be ‘special reports’ or ‘supplemental schedules’ and are not basic financial statements.”

Brief description of the productivity ratings used in this study

This work builds on our 2011 productivity study, and for the most part, we used the same methodology as in the previous report.⁴ Specifically, the spending data come from the 2010-11 school year, the most recent year for which data are available. For achievement, we relied on the results of 2010-11 state reading and math assessments in elementary, middle, and high school. All three of our metrics use a green-to-red color-coding system, and the first two approaches use the matrix shown below to evaluate districts. The same color legend is used on the interactive companion website at www.americanprogress.org/ROI.

ROI evaluation matrix

	Lowest achievement	Medium achievement	Highest achievement
Lowest cost			
Medium cost			
Highest cost			

Basic Return on Investment index rating

The Return on Investment, or ROI, index is a measure that rates school districts on how much academic achievement they realize for each dollar spent, relative to other districts in their state. To avoid penalizing districts where education costs are higher, we adjusted for a variety of factors, including cost-of-living differences and higher concentrations of low-income, non-English-speaking, and special education students.

Adjusted Return on Investment index rating

This measure uses the same approach as the Basic ROI but applies a different statistical method, called a regression analysis, to account for the higher costs associated with serving larger concentrations of low-income, non-English-speaking, and special education students. The adjustments, or weights, used in the Basic ROI are not always sensitive enough to account for spending differences within states.

Predicted Efficiency index rating

The Predicted Efficiency rating measures whether a district's achievement is higher or lower than would be predicted after accounting for its per-pupil spending and concentrations of low-income, non-English-speaking, and special education students. Under this approach, a low-achieving district could get high marks if it performed better than predicted. Lowering academic expectations for students from disadvantaged backgrounds is not a policy position supported by CAP.

As we have noted before, our measures are far from perfect, and individual district evaluations should be interpreted with caution. The connection between spending and achievement is complex, and our methods cannot capture everything that goes into creating an efficient school system. Nor can we control for everything that is outside of a district's control, and our adjustments for factors such as poverty and students in special education are estimations and do not account for variations in severity and type within those demographic groups.

Most of the variation in student achievement is within schools, and so district-level productivity results mask significant variations in productivity within districts. Furthermore, one cannot compare productivity ratings across years due to the nature of our approach. Finally, we are aware that some of the data reported by states and districts have reliability issues, with agencies sometimes using inconsistent definitions and weak data collection practices.

Despite these important caveats, we believe our district-level ratings use the best available methods and reveal important results. Our work has been guided by a panel of experts, who reviewed our approach and provided helpful feedback. However, we take full responsibility for the methodology and resulting evaluations.

This report recommends the following:

- **States should build capacity for productivity gains through targeted grants, assistance teams, and performance metrics.** When done well, performance metrics can provide local leaders with better information on their district's productivity levels and also guide best practices. We also believe that states should consider creating grants that link increases in funding to improved student achievement and recommend that states build technical assistance teams that assist districts in increasing productivity.
- **Education leaders should improve accounting procedures and create a multistate initiative that will focus on building more robust education budgets.** Educators can do a lot within their communities to make accounting and budgets more transparent and actionable. Some states have detailed school-level fiscal databases, which make it easier to evaluate local levels of equity and effectiveness. Other states such as Texas have made their fiscal database highly robust, which allow observers to easily compare district spending on discrete categories such as athletics.
- **Educators should also improve the quality of fiscal data across states, and the Common Core State Standards Initiative provides an example of how states can work together to create a stronger, more innovative education system.** Something similar should be done within the fiscal space, with states coming together to develop more rigorous budgeting procedures. Such a group of state education leaders could create a common chart of accounts, set out best accounting practices, and generally build capacity.
- **States and districts should encourage smarter, fairer approaches to school funding, such as student-based funding policies.** Policymakers should develop funding policies that direct money to students based on their needs. This will go a long way to give all schools and districts an equal opportunity to succeed. At the same time, the gross funding inequalities between school districts cannot be ignored, and policymakers must take steps to improve fiscal equity across schools, districts, and states. Specifically, we recommend weighted student funding, which has the potential to both solve equity and efficacy issues with current school funding approaches.

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