

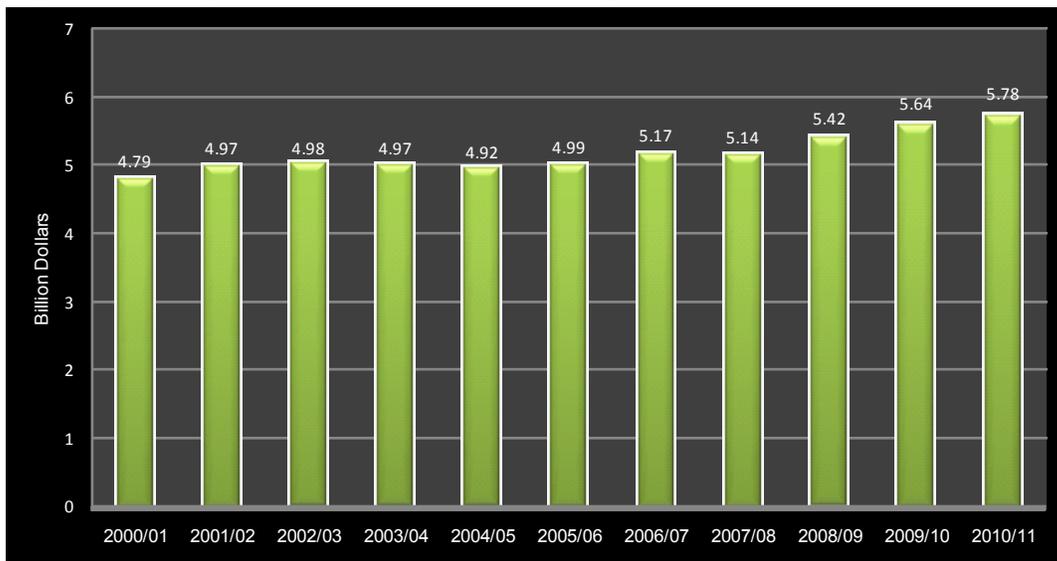


PENNSYLVANIA SCHOOL SPENDING AND STUDENT PERFORMANCE

Legislators, the media, and public interest groups are hotly debating Governor Corbett’s proposal for deep cuts in state spending for public education in Pennsylvania’s 2011/2012 budget. Inevitably, these debates raise the question of whether the state’s increased school spending in recent years has made a serious difference in student performance. Public school advocates focus on the improvements in test scores achieved by students in Philadelphia and other districts in the region with historically low student performance. Opponents point out that even after substantial increases in spending, children in too many districts are still performing below the expected standard for their grade level. They conclude that the state has wasted money trying to rescue low-performing schools.

The one indisputable fact is that during the administration of Governor Ed Rendell, the state of Pennsylvania increased its funding for public schools across the entire state, including southeastern Pennsylvania. **Figure 1** portrays the annual increases in state funding to local school districts from 2000/01 to the 2010/11 school year, in constant dollars.

Figure 1: Pennsylvania Basic Education Funding*



*All dollar amounts are adjusted to 2010/11 dollar values. The totals do not include the Accountability Block Grant Program that annually distributes a much smaller amount (\$200 to \$250 million) across PA school districts for special programs to help children succeed.

Source: PA Department of Education, 2011.

Although Rendell entered the governor’s mansion in 2003 committed to increasing school funding, he was unable to boost education funding very much during his first few years in office. Starting in 2005/06, however, the year-to-year advances in the state subsidy began to grow. These increases in state funding were welcomed by education advocates who have long complained that Pennsylvania short-changes public schools, compared to other states. While the average state government pays 48 percent of the total cost of education, Pennsylvania pays only 36 percent¹. This anomaly had become so obvious by the middle of the last decade that the Pennsylvania legislature commissioned a “Costing-Out Study” to examine the real cost of public education in the state. It found that Pennsylvania was under-funding public schools by more than \$4 billion per year and that the system relied too heavily on local property taxes². In response to that study, the Commonwealth revised its formula for funding public education in 2008 and committed to significantly increase spending over time. The new education funding formula determines the state’s subsidy to each district by taking into account the district’s wealth, size, tax burden and student achievement levels.

As in the past, the new distribution formula has resulted in the 64 Pennsylvania school districts within the Philadelphia metropolitan area receiving different dollar amounts per pupil. **Table 1** divides the 64 districts in our region into four categories, depending on how many dollars per pupil they received from the state in 2008/09. The twenty districts grouped into the “Low” category received on average only about one-fifth of the subsidy per pupil that went to the school districts in the “High” category.

**Table 1: School districts of southeastern PA
grouped by dollars received from the state in 2008/09**

<u>District type</u>	<u>Avg. state subsidy per pupil, 2008/09</u>
20 districts with low subsidy	\$614
12 districts with moderate-low subsidy	\$971
16 districts with moderate-high subsidy	\$1,488
16 districts with high subsidy	\$3,014

Source: PA Department of Education, 2011.

The fact that some districts benefit from more generous state subsidies does not mean those districts have the advantage of spending more on their schools than districts receiving lower state allocations. Quite the reverse. **Table 2** shows that the two groups of districts receiving the higher subsidies from the state have been spending lower dollar amounts per pupil. Even after the new funding formula was put in place, large differences remained. At the extremes, affluent districts like Lower Merion and Springfield (Montgomery County) received state subsidies of less than \$600 per pupil in 2008/09, yet their instructional expenditures totaled \$17,854 and \$14,141 respectively for each student in their district. Such high-spending districts covered their school budgets mainly through local tax support. At the other extreme, the two districts in our region that received the highest state subsidies per pupil were Chester-Upland and Philadelphia. Despite receiving larger subsidies of \$5,622 and \$4,521 respectively, they spent only \$9,171 and \$7,400 because the local tax base generated only modest additional support for school budgets. It is worth noting that despite these different spending levels, districts in all four categories increased their spending per pupil across the nine years by about twenty percent.

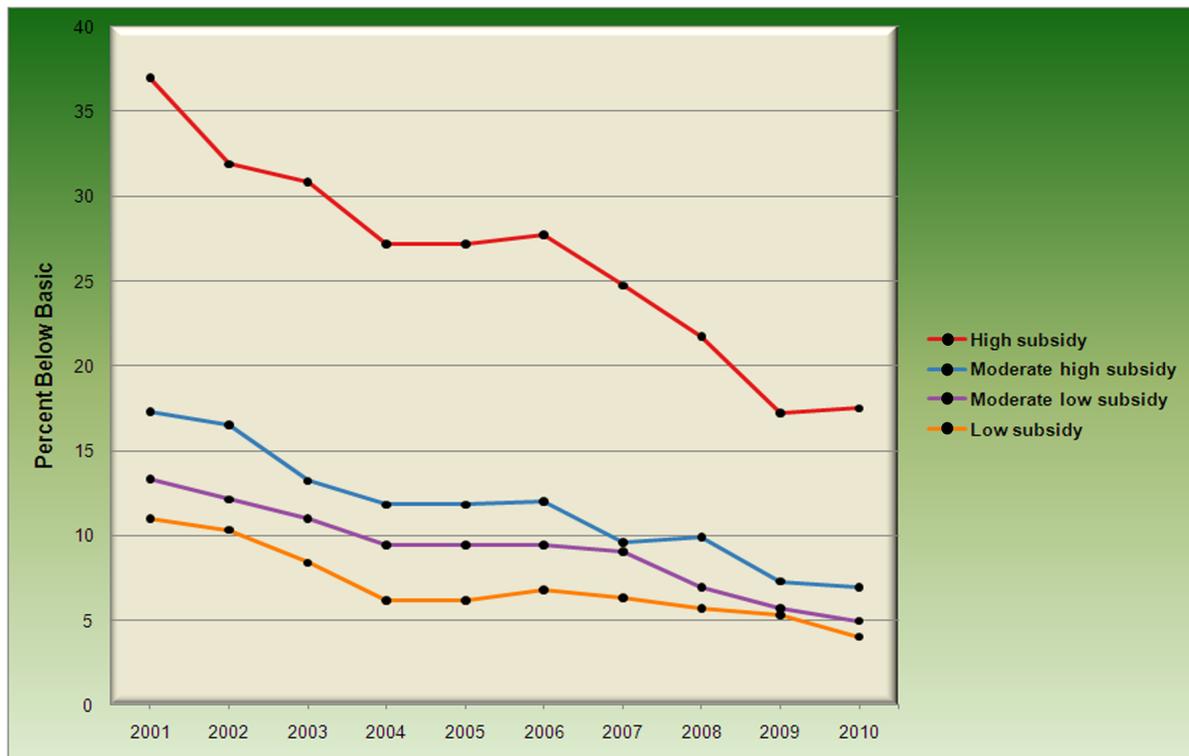
Table 2: Expenditures per pupil by districts receiving different levels of state funding*

<u>District type</u>	<u>Avg. spending per pupil, 2000/01</u>	<u>Avg. spending per pupil, 2004/05</u>	<u>Avg. spending per pupil, 2008/09</u>	<u>Change, 2000/01 to 2008/09</u>
Low subsidy	\$10,300	\$11,402	\$12,386	20%
Moderate-low state subsidy	\$9,351	\$10,332	\$11,141	19%
Moderate-high subsidy	\$9,054	\$10,048	\$10,923	21%
High subsidy	\$8,160	\$8,984	\$9,902	21%

*All dollar amounts are adjusted to 2008/09 dollar values.
Source: PA Department of Education, 2011.

Let us now consider how student performance changed across the same period. Although different schools function at very different performance levels, a minimum goal for schools is preventing students from falling behind their grade level. Using that minimum standard, we measure academic performance by the percentage of 8th grade students testing “below basic” in Math and Reading. We chose to report PSSA scores in Math and Reading because those are the two tests whose results determine whether a school is making “Adequate Yearly Progress” (AYP) under the federal No Child Left Behind law (NCLB). Schools that do not achieve AYP suffer consequences that can include personnel changes and financial penalties. In Pennsylvania’s testing system, known as the Pennsylvania System of School Assessment (PSSA), “below basic” is the lowest of four levels at which a student may score: advanced, proficient, basic, and below basic. That lowest level indicates that the student neither understands what is being taught nor has the skills appropriate to the grade level. In short, the student has fallen below grade level.

Figure 2: Percent below basic Math standard on PSSA by state subsidy



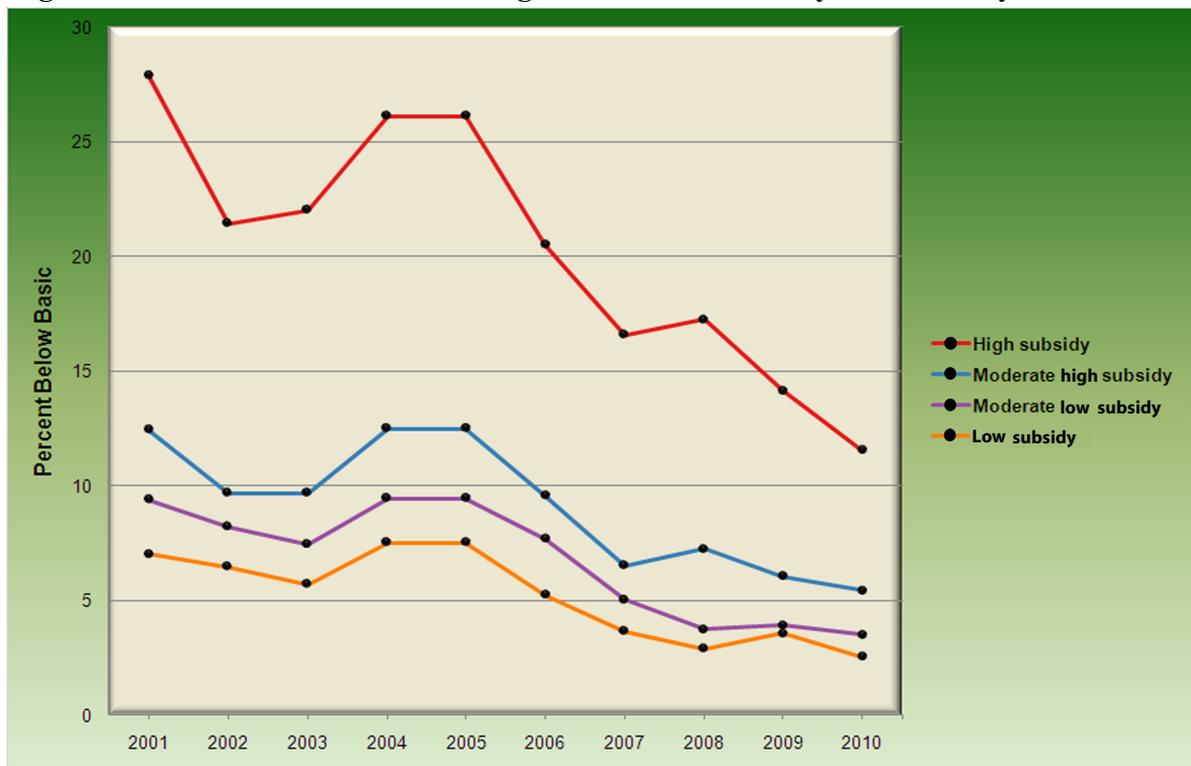
Source: PA Department of Education, 2011.

Figures 2 and 3 show that in the first years following the 2001 introduction of NCLB, schools in all four categories reduced their failure rates for both Math and Reading. The steepest reductions were achieved by the districts receiving the highest level of state subsidy. As explained above, these were generally the poorest districts in the region with high poverty rates and heavy tax burdens. After those early improvements, however, progress in bringing down failure rates stalled. Not until 2005/06, the year when state funding began to accelerate, did the schools again begin achieving reductions in failure rates. Again, in the period after 2006, the steepest reductions were achieved by the districts receiving the highest level of state subsidy.

Figures 2 and 3 show that schools in all four categories made the most progress reducing failure rates during the years since 2006, as state funding was rising significantly. The convergence of those two trends suggests that they were linked. Furthermore, the fact that students in the poorest schools made the greatest progress on PSSA tests suggests that the increased funds meant the most to them. What makes it difficult to determine cause-and-effect is the great variety in the way different districts were using the increased funds. Some districts were shrinking class size. Some districts were experimenting with smaller high schools. Some districts were adopting standardized curricula. Any of those initiatives (as well as dozens of other educational initiatives) might have helped improve test scores where they were adopted.

One nearly-universal change in school practices during this period was to introduce programming to strengthen students' test-taking skills. During the years examined here, schools have devoted increasing resources to prepare students for PSSAs. Teachers have attended workshops on how to prepare students for the PSSA. Reading, English, and mathematics teachers have received instructions to review the Pennsylvania Department of Education guidelines and give children opportunities to complete sample PSSA questions both in class and as a routine part of homework. Schools have held tutoring programs and encouraged struggling students to take more classes in math and reading rather than gym, music, art, and other electives that are not included in PSSAs. During the weeks immediately before the test, many schools have devoted a portion of class time to test preparation each day. This coaching to prepare students for PSSA testing almost certainly contributed to improving PSSA scores in a large number of districts.

Figure 3: Percent below basic Reading standard on PSSA by state subsidy



Source: PA Department of Education, 2011.

Probably the most honest statement about the link between money and student performance is the one made by Michael Masch, the Chief Financial Officer of the Philadelphia School District, when he testified to a legislative hearing on April 9, 2011, that “higher student achievement has gone hand in hand with increased funding.” The two trends have occurred simultaneously, but it is difficult to measure exactly which uses of increased funds are responsible for the widespread student gains.

Endnotes

¹Pennsylvania School Funding Campaign, *Funding Basic Education in Pennsylvania: A Status Report*. Harrisburg, PA, Winter 2011.

²Augenblick, Palaich and Associates, *Costing Out the Resources Needed to Meet Pennsylvania's Public Education Goals*. Denver, CO, November 2007.