Preliminary Report on Current Fiscal Conditions in Massachusetts School Districts

January 2008

Office of Strategic Planning, Research, and Evaluation
Office of School Finance
Massachusetts Board of Education Members
January 2008

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Summary and key findings

Over the past decade and a half, the Commonwealth has moved steadily to increase expectations on school districts, schools, teachers, and students to meet the demands of a global economy. It has also added fiscal resources to support reaching these expectations, increasing state aid for education by almost 11 percent per year throughout the 1990s. Recent fiscal challenges at the state level, however, coupled by rising fixed costs and shifting enrollment patterns for districts, have combined to create substantial challenges for districts in sustaining the momentum of education reform. This initial investigation found that:

- **Academic expectations and challenges have risen, but spending on instructional services has not kept pace.** From fiscal years 2002 to 2007, total spending by districts and spending per pupil have remained flat relative to inflation. At the same time, the academic expectations for districts, schools, educators, and students have appropriately increased, and the demographic characteristics of the state’s students have changed. Spending on instructional services is being crowded out by increases in other budget areas such as health insurance and out-of-district student placements. As a result, instructional services are declining as a share of total spending.

- **On average, districts spend 18 percent more than their foundation budget, and nearly every district in the state is spending over foundation.** This suggests that the current foundation budget formula may not reflect the cost of providing an adequate education to all students. Health insurance, payments to other districts, and teacher salaries were areas of particular concern; actual expenditures in these areas substantially outpaced the assumptions behind the foundation budget.

- **Chapter 70 aid increases did not keep up with inflation between 2003 and 2006.** From fiscal year 2003 to fiscal year 2006, most districts saw little or no increase in their aid, and many districts experienced cuts in fiscal year 2004. With the adoption of changes to the Chapter 70 formula in fiscal year 2007, aid has increased by more than 6 percent in each of the last two years. But after adjusting for inflation, state aid has only recovered to fiscal year 1999 levels, well below the high-water mark of fiscal year 2002.

- **Despite the Chapter 70 aid cutbacks, many districts were able to maintain their overall spending levels, but only by increasing local funding, and, to a much lesser degree, imposing user fees for transportation and extracurricular activities.** Although
these actions helped protect school budgets, they created added pressure on municipal budgets and on parents and community members.

- **A number of districts have experienced enrollment declines, which can have both a positive and negative fiscal impact.** Declining enrollment should make it easier to maintain services when budgets are tight, but in extreme cases it may also require school consolidations and teacher layoffs. Declines have been especially common in districts that serve large percentages of low-income students.

- **Districts have employed a variety of strategies to maintain services for students despite constraints in their instructional budgets.** In some cases, staff reductions have compensated for higher-than-average salary increases. In other cases, lower-than-average salary increases have helped maintain staffing levels but leave the district at risk of not being able to attract qualified new teachers. Statewide, average salaries have grown more slowly than inflation but more quickly than assumed by the foundation budget, and student-teacher ratios have edged up slightly during the period.

In summary, at a time when districts need to be moving forward quickly to address their students’ growing educational needs, they are hard-pressed to maintain their expenditure levels, let alone increase them to meet higher expectations. And unlike the situation in the late 1980s, when school budget cuts were disproportionately affecting the poorer urban districts, today’s fiscal pressures appear to affecting a much broader range of districts, including many middle-class communities that have traditionally taken great pride in the quality of their school systems.

The current statewide foundation budget is $8.4 billion. Some short-run increase in this funding level is likely necessary to address the rising cost of education in the Commonwealth. Beyond that, the Board of Education may wish to recommend a detailed study to update the foundation budget formula to ensure that it provides an adequate level of fiscal resources for both current and future needs. While the state continues to work toward a sustainable long-range funding plan, it will need to continue other initiatives to ensure that it is making the best use of its existing resources. Examples include:

- Creating incentives for local participation in the state health insurance and pension fund programs, to help bring the cost of these programs under control.

- Expanding the use of educational collaboratives and other regional entities to more efficiently provide services such as special education transportation, professional development, and specialized education programs.

- Helping districts to identify and adopt instructional practices and models that have been proven effective at improving student outcomes at a reasonable cost.

- Addressing the inefficiencies and lack of capacity created by the large number of small school districts in the state. Currently, 284 of the state’s 328 operating districts serve fewer than 5,000 students.

Bringing all these resources to bear will allow districts to provide an adequate education to every child and allow the state to reach the vision and promise of education reform.
Introduction

During the past several months, the Board of Education has begun a discussion on the fiscal conditions facing Massachusetts public school districts. The Board has heard considerable anecdotal evidence that a number of districts are facing financial difficulties that may be compromising their ability to provide quality educational services. At the Board’s direction, the Department has conducted an initial investigation into district fiscal conditions in order to further this discussion and identify areas for possible Board action.

Increasing expectations, increasing challenges

Massachusetts was one of the first states to establish the concept of a foundation budget: the minimum amount of funding needed by each local district to provide an adequate education. The foundation budget formula was first enacted in the Education Reform Act of 1993, and since then it has been used annually to calculate state aid allotments and minimum local funding levels. Other than some minor enhancements, as well as annual adjustments for inflation and enrollment changes, the foundation budget formula has essentially remained unchanged since its enactment.

Over the past decade and a half, the Commonwealth has moved steadily to increase expectations for school districts, schools, teachers, and students to meet the demands of a global economy. In 1993, the state had not yet articulated the standards it expected students to attain, nor had it developed the assessments the state would use to determine whether students had met those standards or the programs and supports that would help all students to achieve those standards.

Today, the Commonwealth has a fully articulated set of standards for all core subjects, including English language arts, mathematics, science and technology/engineering, history and social science, foreign languages, health, and the arts. Since the graduating class of 2003, students have been required to pass the grade 10 mathematics and English language arts MCAS tests in order to graduate from high school, with requirements for passing high school science and social science assessments soon to follow. In addition, students in the classes of 2010 and beyond who achieve only a Needs Improvement level on the grade 10 MCAS English language arts and mathematics tests will be required to complete an Educational Proficiency Plan in order to meet the state’s high school graduation standard.
The state provides significant financial and programmatic support to help students attain these standards, and the state’s students perform relatively well by many measures. Yet while 87 percent of the state’s tenth graders passed both sections of the grade 10 MCAS test on the first try in spring 2007, only about 70 percent score Proficient or higher on either assessment—and proficiency on these grade 10 tests is increasingly viewed as an indicator that students are on a path to be college- and career-ready by the time they graduate. Moreover, more than one-third of the state’s public high school graduates who enroll in public higher education in Massachusetts must take at least one remedial course in college, indicating that they are not yet ready for college-credit-bearing coursework despite having completed all the state and local requirements for high school graduation.

Local educators are working hard to bring all their students to proficiency and beyond, but this is essentially a new job, and one that is proving to be tremendously challenging. Teachers today are educating a different set of students with different and greater needs than they were a decade ago. Total enrollment has declined slightly since its peak in 2003, but the number of students who require increased educational services (such as English language learners, those eligible for free or reduced-price lunch, and special education students) has risen dramatically relative to the total. Teachers must use a broader set of educational tools to reach these students and bring them all to proficiency—tools which they may not be trained or prepared to use. At the same time, state support for the professional development that would help teachers make this transition has stagnated, and the requirement that districts spend at least $150 per pupil on professional development each year was eliminated as a result of the most recent budget crisis.

Schools and districts, too, are finding it difficult to reach the state’s ambitious goals for education. Every year more schools and districts are identified as “in status”—that is, as not making sufficient progress in improving the performance of their students, either as a whole or for certain student subgroups. Statewide, 38 percent of the state’s schools and 20 percent of its districts are in status for at least one subgroup, and the number will continue to increase as the federally required target of “all students proficient by 2014” looms ever closer.

Impact on districts

For the first nine years of education reform, large increases in Chapter 70 aid, averaging almost 11 percent per year, allowed most districts to maintain and increase their educational services. Cities and towns also committed more resources to schools in order to meet the state’s school spending requirements for localities. The current period of fiscal distress began in fiscal year 2003, when the economic recession of the early 2000s resulted in significant stresses on state and district fiscal conditions. Over the past six years, district fiscal conditions have worsened. Our initial investigation has found that:

- **Academic expectations and challenges have risen, but spending on instructional services has not kept pace.** From fiscal years 2002 to 2007, total spending by districts and spending per pupil have remained flat relative to inflation. At the same time, academic expectations for districts, schools, educators, and students have appropriately increased, and the demographic characteristics of the state’s students have changed. Further, spending on instructional services—those services most directly related to...
educating students—has increased at only half the rate of inflation, and even more slowly in districts that serve large shares of low-income students. Spending on instructional services is being crowded out by substantial increases in other budget areas such as health insurance and out-of-district student placements. As a result, spending on instructional services is declining as a share of total spending.

- **On average, districts spend 18 percent more than their foundation budget**, and nearly every district in the state is spending over foundation. This suggests that the current foundation budget formula may not reflect the cost of providing an adequate education to all students. Three areas were particularly concerning:
  
  - **Health insurance expenditures have far outpaced the foundation budget assumptions.** On average, health insurance spending grew by 74 percent between 2002 and 2007; 84 districts saw their costs more than double. This increase reflects national trends in health care costs.
  
  - **Payments to other districts have also increased substantially.** A primary reason is rapid growth in special education costs, particularly for out-of-district students.
  
  - **The teacher salary assumptions in the foundation budget have historically underestimated actual statewide average salaries.** This gap has grown in recent years, even though teacher average salaries are actually increasing more slowly than inflation.

- **Chapter 70 aid increases did not keep up with inflation between 2003 and 2006.** From fiscal year 2003 to fiscal year 2006, most districts saw little or no increase in their aid, and many districts experienced cuts in fiscal year 2004. With the adoption of changes to the Chapter 70 formula in fiscal year 2007, aid has increased by more than 6 percent in each of the last two years. But after adjusting for inflation, state aid has still only recovered to fiscal year 1999 levels, well below the high-water mark of fiscal year 2002.

- **Despite the Chapter 70 aid cutbacks, many districts were able to maintain their overall spending levels, but only by increasing local funding**, and, to a much lesser degree, imposing user fees for transportation and extracurricular activities. Although these actions helped protect school budgets, they created added pressure on municipal budgets and on parents and community members.

- **A number of districts have experienced enrollment declines, which can have both a positive and negative fiscal impact.** Declining enrollment should make it easier to maintain services when budgets are tight, but in extreme cases it may also require school consolidations and teacher layoffs. Declines have been especially common in districts that serve large shares of low-income students.

- **Districts have employed a variety of strategies to maintain services for students despite constraints in their instructional budgets.** In some cases, staff reductions have compensated for higher-than-average salary increases. In other cases, lower-than-average salary increases have helped maintain staffing levels but leave the district at risk of not being able to attract qualified new teachers. Statewide, average salaries have grown more
slowly than inflation but more quickly than assumed by the foundation budget, and student-teacher ratios have edged up slightly during the period.

In summary, it is clear that many districts have lost ground with respect to instructional spending over the past six years, while others have struggled to maintain their existing levels of services. And few districts have had the resources to expand their instructional offerings to keep pace with the rising demands of education reform. Unlike the situation in the late 1980s, when school budget cuts were disproportionately affecting the poorer urban districts, today’s fiscal pressures appear to affecting a much broader range of districts, including many middle-class communities that have traditionally taken great pride in the quality of their school systems.

**Recommendations**

The current statewide foundation budget is $8.40 billion. Some short-run increase in this funding level is likely necessary to address the rising cost of education in the Commonwealth. Beyond that, the Board of Education may wish to recommend a detailed study to update the foundation budget formula to ensure that it provides an adequate level of fiscal resources for both current and future needs. As noted earlier, no such review has occurred since the foundation budget was first established in 1993. This study, in turn, will help inform the Board’s future budget requests for Chapter 70 state aid and other district funding programs.

While the state continues to work toward a sustainable long-range funding plan, it will need to continue other initiatives to ensure that it is making the best use of its existing resources. Examples include:

- Creating incentives for local participation in the state health insurance and pension fund programs, to help bring the cost of these programs under control.
- Expanding the use of educational collaboratives and other regional entities to more efficiently provide services such as special education transportation, professional development, and specialized education programs.
- Helping districts to identify and adopt instructional practices and models that have been proven effective at improving student outcomes at a reasonable cost.
- Addressing the inefficiencies and lack of capacity created by the large number of small school districts in the state. Currently, 284 of the state’s 328 operating districts\(^1\) serve fewer than 5,000 students.

The remainder of this report analyzes district financial conditions in more detail, identifying which factors are likely to have contributed most substantially to the fiscal conditions faced by many districts today. It provides supporting detail on school district spending and other fiscal trends during this period of time based on the end-of-year pupil and financial data submitted by each district to the Department. In addition to the summary tables included in this report, more detailed data used in this analysis is available on the Department’s website at

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\(^1\) An operating district is a municipal or regional school district or vocational or agricultural school. Charter schools are not included.
These data will help inform the Board’s continuing discussions on whether districts have adequate fiscal resources to meet their current and future needs.

**A comparison to the early 1990s**

Today’s fiscal situation for districts is best understood in relation to the last major fiscal crisis for school districts, in the early 1990s. At that time, the problems facing Massachusetts school districts were clearer. The state had not defined what constituted an adequate education, and state and local officials were not required to ensure that districts met annual spending goals. As a result, wealthier school districts were spending substantially more on their students than the districts that served our most disadvantaged students. Further compounding this situation was the economic recession that the Commonwealth experienced in the early 1990s, which severely limited the amount of aid available from the state to supplement local resources.

The Board and Department of Education played important roles in documenting these conditions in two influential reports that were published in the fall of 1991 entitled “Report on the Condition of the Public Schools in Holyoke, Lawrence, Brockton, and Chelsea” and “A Policy Position on Distressed School Systems and School Reform.”

This situation led the Supreme Judicial Court to rule in the *McDuffy* case that the Commonwealth was not meeting its constitutional obligation to provide an adequate level of education to its students. The Education Reform Act of 1993, which included substantial changes to how the Commonwealth funds public education, was signed into law a few days after the *McDuffy* decision.

The Act required the legislature to define a foundation budget for each district: the amount of money necessary to provide an adequate education to all students in that district, based on district enrollment patterns and other factors. Forty percent of school districts were already spending at or above the foundation budget level, but many urban and rural districts were spending at levels far below it. The act also established annual spending requirements for cities and towns to make on behalf of their schools. For districts spending below foundation, the state committed to increasing state aid to make up the difference between required local spending and the foundation budget amount. Districts that were already spending at or above their foundation budgets were guaranteed minimum aid increases each year.

Today all districts are spending at or above foundation and the correlation between property wealth and per-pupil spending is far weaker. Since the implementation of the Education Reform Act, overall spending has increased and it has increased the fastest in districts that serve the highest numbers of low-income students, as Table 1 demonstrates.²

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² Districts in the lowest quartile have low-income populations between 0 and 6.1 percent; second quartile, between 6.2 and 12.7 percent; third quartile, between 12.8 and 24.7 percent; highest quartile, 24.8 percent or greater. The state average is 28.9 percent. These data are calculated from the 2006–2007 school year special populations report published by the Department of Education.
Table 1: Actual net school spending per pupil by enrollment of low-income students (quartiles), 1993 and 2007

<table>
<thead>
<tr>
<th>Actual Net School Spending Per Pupil</th>
<th>FY93</th>
<th>FY07</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lowest quartile (smallest share of low-income students)</td>
<td>$5,640</td>
<td>$9,622</td>
<td>70.6%</td>
</tr>
<tr>
<td>Second quartile</td>
<td>$5,257</td>
<td>$9,402</td>
<td>78.9%</td>
</tr>
<tr>
<td>Third quartile</td>
<td>$5,234</td>
<td>$10,003</td>
<td>91.1%</td>
</tr>
<tr>
<td>Highest quartile (largest share of low-income students)</td>
<td>$5,250</td>
<td>$10,388</td>
<td>97.9%</td>
</tr>
</tbody>
</table>

FY07 includes data on 293 of 328 operating districts.

In a recent test of the progress that the Commonwealth has made since McDuffy, the Supreme Judicial Court ruled in the Hancock case that the Commonwealth was meeting its constitutional obligations relative to public education. Citing the billions of dollars invested and the establishment of curriculum and accountability standards since McDuffy, the court denied further relief and terminated ongoing oversight. Yet there have been only minor adjustments to the assumptions that underlie the foundation budget since they were established in the mid 1990s. Fifteen years later, how closely do they track actual spending?

The foundation budget is not keeping pace with actual spending in some key expenditure categories

The foundation budget is derived from a series of assumptions about the school staffing, salaries, and non-instructional costs necessary to provide an adequate education to students. These assumptions are reflected in a set of per-pupil rates, adjusted for inflation each year. Higher rates are assigned to students whose resource needs are assumed to be greater, such as vocational students, English language learners, and low-income students. District foundation budgets are calculated by applying these rates to the student demographic profile of the district. Since fiscal year 2000, all districts have been funded at least at foundation budget levels through a combination of local contributions and Chapter 70 aid.

The metric that the Department has traditionally used to track district expenditures against the foundation budget is net school spending (NSS) as a percent of the foundation budget. Using available data, by this measure the average district in the Commonwealth spent 18 percent more than foundation in fiscal year 2007, suggesting that the foundation budget assumptions may not be keeping pace with actual spending. So far, 117 districts spent 25 percent or more above foundation, and 64 districts spent 40 percent or more above foundation.

Breaking the foundation budget out by spending categories reveals the areas where the assumptions are most out of alignment with actual spending. Recent changes in the spending
categories mean that this analysis can only be performed for fiscal year 2007, and only for the 265 operating districts that had reported their fiscal year expenditures by category at the time this analysis was performed.³

Figure 1 shows that spending in many categories tracks fairly closely with the foundation budget assumptions, but in at least four functional categories, actual general fund spending is substantially different. The categories with the largest disparities are insurance and retirement, payments to other districts, teacher salaries, and instructional equipment and materials.

![Figure 1: Actual general fund spending compared to foundation budget, FY07](http://finance1.doe.mass.edu/chapter70/chapter_cal_cat.html)

Data presented for 265 of 328 operating districts.

Among the districts with data available for this analysis for fiscal year 2007, spending in the insurance and retirement category exceeded foundation by 239 percent: $1.39 billion in actual spending versus $579 million assumed in the foundation budget. Costs in this category have grown much faster than inflation in recent years, and districts have had a difficult time managing this growth.

³ Prior to fiscal year 2007, the foundation budget assumptions were broken down into 18 functional categories, many of which did not conform to the accounting categories that districts are required to use when they report their expenditures. A major change to the foundation budget occurred in fiscal year 2007 when the 18 categories were consolidated into 11, all of which conform directly to the Department’s chart of accounts. For more information about the foundation budget go to: [http://finance1.doe.mass.edu/chapter70/chapter_cal_cat.html](http://finance1.doe.mass.edu/chapter70/chapter_cal_cat.html).
Payments to other districts are also outpacing foundation budget assumptions: $580 million spent versus $136 million assumed, a 425 percent difference. But here the picture is more complicated. When the foundation budget was first constructed, this category was intended to cover the cost of special education out-placement tuitions and did not anticipate the growth that has occurred in the school choice program or the advent of charter schools. Out of the $580 million in actual general fund expenditures, 60 percent went to special education tuition payments. These expenditures totaled $349 million, or 257 percent of the foundation assumption.4

The remaining $231 million was comprised of tuitions for regular education and vocational students, most of which went to charter schools and school choice districts. Pupils attending charter schools and choice districts are included in the other ten functional categories when the foundation budget is calculated, but the actual tuition expenditures for these students shows up under payments to other districts. It is proper to report these tuitions in the payments to other districts function, but not to compare these expenditures to the assumptions about special education tuition.

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4 Special education enrollment, both for in-district and out-of-district students, is an assumed rather an actual enrollment number to eliminate the incentive to over-classify students into special education. The assumed enrollment percentage is 3.75 percent for in-district enrollment and 1 percent for out-of-district enrollment. This assumed number is then multiplied by an estimated cost—$20,822 for in-district students and $21,750 for out-of-district students in fiscal year 2007—to arrive at the foundation budget allotment for special education students.
Actual spending also exceeded foundation budget assumptions in the teacher salaries category, which totaled $3.07 billion, 11 percent higher than the $2.75 billion foundation allotment. While the gap is not as pronounced as many of the other categories in percentage terms, the $319 million dollar difference is substantial. The difference is at least in part attributable to the fact that the average teacher salary assumption in the fiscal year 2007 foundation budget was $55,794, while the actual average for these districts was $58,253. Figure 2 shows that the salary assumptions in the foundation budget have historically tracked below actual statewide averages by between 2 percent (fiscal year 1993) and 11 percent (fiscal year 2004).

Spending on instructional materials and equipment (such as textbooks and computers) shows a disparity in the opposite direction. The foundation budget was $339 million for the 256 districts with available fiscal year 2007 data, but these districts actually spent only $170 million from general funds on this category—about half the amount assumed in the foundation budget. The last five years have seen an 8 percent drop in nominal spending in this category, from $350 million statewide in fiscal year 2002 to $321 million in fiscal year 2006. Some of this spending ($96 million for the 256 reporting districts) appears to be made up for with grants and other financial resources not included in this analysis. Yet even with the addition of these funds, districts are still spending 27 percent below the foundation budget assumption for this category.

**Three factors: health insurance, special education, and changing demographics**

The analysis so far shows that the assumptions of the foundation budget are not always aligned with actual district expenditures. This section delves more deeply into three of the most important reasons for this misalignment: growing health insurance costs, growing special education costs, and changing student demographics. It also explores how expenditure patterns vary by the representation of low-income students in districts and what the state has done so far to address these problems.

For this analysis we rely on annual end of year report data, which includes expenditures by districts from all sources: general fund, state and federal grants, and other funds. These data are available for fiscal year 2007 for 317 out of the 328 operating school districts in the state. This differs slightly from the analysis of the foundation budget assumptions versus actual expenditures, which looked only at general fund expenditures and were available for 265 of 328 operating districts for fiscal year 2007.

**Health insurance**

The previous analysis showed that districts on average are spending three times more on health insurance than the foundation budget assumes. These increases reflect a national trend of skyrocketing health insurance costs. For districts with available data, on average health insurance spending grew by 74.3 percent between 2002 and 2007; 84 districts saw their costs more than double. Even districts whose health insurance spending has grown at less than average rates have experienced phenomenal growth in this category: only 60 districts saw their health insurance spending grow by less than 50 percent.
These costs are consuming an ever-larger share of district spending. Looking at districts with available data for fiscal year 2007, the share of total operating expenditures going to health insurance grew from 8.3 percent to 11.7 percent between 2002 and 2007. While this seems like a small change in percentage terms, if the share of spending had simply remained constant, these districts would have spent $388 million less to fund their health insurance programs in fiscal year 2007 than they actually did. This trend has a substantial impact on school districts’ budgetary decision-making.

Table 2: Health insurance spending by enrollment of low-Income students (quartiles), 2002 and 2007

<table>
<thead>
<tr>
<th>Health insurance spending (millions)</th>
<th>Percent of total operating expenditures</th>
<th>FY02</th>
<th>FY07</th>
<th>Percent change</th>
<th>FY02</th>
<th>FY07</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lowest quartile (smallest share of low-income students)</td>
<td>$114.9</td>
<td>$221.1</td>
<td>92.3%</td>
<td>7.2%</td>
<td>10.5%</td>
<td></td>
</tr>
<tr>
<td>Second quartile</td>
<td>$135.9</td>
<td>$248.1</td>
<td>82.6%</td>
<td>8.0%</td>
<td>11.4%</td>
<td></td>
</tr>
<tr>
<td>Third quartile</td>
<td>$118.6</td>
<td>$221.7</td>
<td>87.0%</td>
<td>8.4%</td>
<td>12.6%</td>
<td></td>
</tr>
<tr>
<td>Highest quartile (highest share of low-income students)</td>
<td>$403.0</td>
<td>$655.7</td>
<td>62.7%</td>
<td>8.8%</td>
<td>11.9%</td>
<td></td>
</tr>
<tr>
<td>State totals</td>
<td>$772.4</td>
<td>$1,346.6</td>
<td>74.3%</td>
<td>8.3%</td>
<td>11.7%</td>
<td></td>
</tr>
</tbody>
</table>

Includes data from 317 out of 328 operating school districts.

Interestingly, the districts experiencing the highest rates of growth in health insurance costs are those that serve the fewest low-income students as a percent of their total student populations. Health insurance spending is growing the slowest among districts that have the highest proportion of low-income students, possibly because these districts tend to be larger and therefore can get more advantageous rates. Another notable trend, however, is that those districts with higher percentages of low-income students also spend larger shares of their budgets on health insurance.

To address this concern, last summer the legislature enacted the portion of the governor’s Municipal Partnership Act that allows cities, towns, and regional school districts to purchase their health insurance from the Group Insurance Commission, which oversees health care plans for state employees. Historically, the GIC’s large enrollment pool has allowed it to be much more successful than cities and towns at controlling growing health insurance costs. Between fiscal years 2001 and 2006, the GIC’s costs grew by 48 percent, much lower than the increase for the average school district in the Commonwealth.5

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5 Massachusetts Department of Revenue, Division of Local Services, Municipal Data Bank.
The estimated cost savings associated with this change are significant and could free up additional resources to support programs and services that directly benefit students. However, the requirement that local governments gain the approval of 70 percent of their collective bargaining units to take advantage of the new law has meant that few municipalities have been able to quickly adopt this change. Saugus received a special exemption to begin participating in GIC on January 1, 2008. Four other towns and three regional school districts have secured the necessary approvals to enroll in GIC in fiscal year 2009. Time will tell how many will pursue this option, what kinds of cost savings they will realize, and how these savings will be used to benefit schools.

Special education

Special education costs are another area of misalignment between foundation budget assumptions and actual expenditures. Federal law entitles all students with disabilities to receive a free and appropriate public education in the least restrictive environment. Shouldering the cost of providing these services has proven a challenge, particularly in smaller districts where just a few special-needs children can represent a large share of total district expenditures and where expenditures can be unpredictable from year to year.

Based on the most current available expenditure data for this category, between 2002 and 2006 spending on special education grew from $1.37 billion to $1.75 billion, representing nearly 20 percent of total district expenditures. Within this category, out-of-district tuition appears to be creating the greatest burden. Districts typically incur out-of-district costs for their highest-need students, such as those that attend special schools for students with severe disabilities. Out-of-district tuition costs grew by 39.0 percent between 2002 and 2006, as compared to 23.3 percent for in-district expenditures.

With larger increases in out-of-district expenditures, districts that serve fewer low-income students (the lowest and second quartiles) saw their total special education expenditures grow by more than 30 percent. Districts in the third and highest quartiles saw their total special education expenditures grow at much slower rates, but also saw their out-of-district costs grow faster than in-district costs.

The legislature has acted in recent years to address this growing problem. In fiscal year 2004, the state implemented the Special Education Circuit Breaker program to help districts offset the cost of educating high-need special education students enrolled in both in-district and out-of-district programs. If the cost of educating these students exceeds a certain threshold—$31,616 in fiscal year 2006—districts can be reimbursed for up to 75 percent of the cost above this amount, depending on the availability of funds. Since its inception, the Circuit Breaker program has grown substantially: from $94 million in fiscal year 2004 to close to $200 million in fiscal year 2007. Statewide, the Circuit Breaker is now reimbursing districts for roughly 10 percent of the total cost of educating special-needs children, on top of the 36 percent of special education expenditures that are offset by Chapter 70 aid.7,8

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6 “Municipal Health Reform: Seizing the Moment.” [http://www.bmrb.org/content/upload/BMRBMFTF.pdf](http://www.bmrb.org/content/upload/BMRBMFTF.pdf)
7 This is calculated as the share of actual net school spending on special education that was paid for through Chapter 70 aid in fiscal year 2006.
Table 3: Special education expenditures by enrollment of low-income students (quartiles), 2002 and 2006

<table>
<thead>
<tr>
<th>Special Education</th>
<th>Percent change in special education expenditures, FY02 to FY06</th>
<th>Special education expenditures as a share of total spending (excluding grants)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>In-district</td>
<td>Out-of-district</td>
</tr>
<tr>
<td>Lowest quartile (smallest share of low-income students)</td>
<td>31.4%</td>
<td>51.2%</td>
</tr>
<tr>
<td>Second quartile</td>
<td>27.2%</td>
<td>47.7%</td>
</tr>
<tr>
<td>Third quartile</td>
<td>18.4%</td>
<td>36.9%</td>
</tr>
<tr>
<td>Highest quartile (highest share of low-income students)</td>
<td>20.1%</td>
<td>30.7%</td>
</tr>
<tr>
<td>State totals</td>
<td>23.3%</td>
<td>39.0%</td>
</tr>
</tbody>
</table>

Includes data from 328 out of 328 operating school districts

An additional concern for districts is the high cost of transporting some special education students, which in some cases can be more expensive than the cost of their education program. Among districts with available fiscal year 2007 data, special education transportation costs increased by 40 percent between fiscal years 2002 and 2007, from $150 million to $208 million. The state does not currently reimburse districts for these costs, but the Department is funding a pilot program with three collaborative special education schools around the state to promote cooperative purchasing of these services. The Department will be evaluating the impact of this program in 2008 to determine whether it should be expanded to more districts and collaboratives.

**Demographic trends**

An additional educational and fiscal challenge driving the misalignment of foundation budget assumptions to actual expenditures is the impact of demographic change. Declining enrollments and a shifting distribution of student characteristics have interacted in recent years to increase the cost of educating the Commonwealth’s children.

After a number of consecutive years of enrollment growth in the 1990s and early 2000s, demographic changes are now causing the school age population to trend slightly downward across the state. Right now this trend is most noticeable among the regional school districts in the western part of the Commonwealth, but districts across the state are seeing enrollment declines, and this trend is projected to continue in the years ahead.

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8 Special education expenditure data for individual school districts is available at [http://finance1.doe.mass.edu/SchFin/sped/sped_exp_budget.aspx](http://finance1.doe.mass.edu/SchFin/sped/sped_exp_budget.aspx).
Table 4: Enrollment (FTEs) by enrollment of low-income students (quartiles), 2002 and 2007

<table>
<thead>
<tr>
<th>Enrollment (FTEs)</th>
<th>FY02</th>
<th>FY07</th>
<th>Percent change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lowest quartile (smallest share of low-income students)</td>
<td>180,817.6</td>
<td>187,418.5</td>
<td>3.7%</td>
</tr>
<tr>
<td>Second quartile</td>
<td>194,673.0</td>
<td>196,298.7</td>
<td>0.8%</td>
</tr>
<tr>
<td>Third quartile</td>
<td>152,728.9</td>
<td>144,978.1</td>
<td>-5.1%</td>
</tr>
<tr>
<td>Highest quartile (highest share of low-income students)</td>
<td>417,164.2</td>
<td>388,043.0</td>
<td>-7.0%</td>
</tr>
<tr>
<td><strong>State totals</strong></td>
<td><strong>945,383.7</strong></td>
<td><strong>916,738.3</strong></td>
<td><strong>-3.0%</strong></td>
</tr>
</tbody>
</table>

Includes data from 317 out of 328 operating school districts

Table 4 shows that enrollment has fallen by 3 percent on average between fiscal years 2002 and 2007 for districts with available data. Enrollment declined at the fastest rate in districts that serve the highest percentages of low-income students, by 29,000 students (7 percent). Enrollment declined by nearly 8,000 students (5 percent) in third-quartile districts and increased by nearly 6,600 students (4 percent) in districts that serve the smallest share of low-income students.

Some districts may be able to deal with declining enrollment by consolidating services, closing buildings, and/or reducing staffing levels. Other districts, however may not be able to adjust to enrollment changes as easily. The amount of enrollment decline might not be sufficient to justify major organizational changes, or the community might not support the changes. The decision to close elementary schools in rural regional school districts, for example, is complicated by the impact that a closure can have on the fabric of a community as well as concern about maintaining reasonable travel times for younger students. The foundation budget calculations assume that districts are operating at an efficient scale and therefore apply the same per-pupil rates to all districts. But external factors that affect a district’s ability to adjust to declining enrollment might cause some districts to operate what would otherwise be considered inefficiently small elementary schools.

In addition to enrollment loss, some districts are also seeing changes in the demographic characteristics of their student populations. First, as the children of the Baby Boomers age, enrollment has shifted away from elementary schools and toward secondary institutions. As Table 5 demonstrates, high school students currently comprise 30.8 percent of total enrollment, up from 26.3 percent in 1997. Programmatic focus on early childhood has also upped the number of students enrolled in public pre-K programs, yielding a nearly 60 percent increase in enrollment in this category in just ten years. Further, the state has seen rapid growth among certain demographic subgroups, such as non-native English speakers (up by 26,000 since 1997); students with limited English proficiency (up by 10,000); and low-income students (up by 42,000).
Table 5: Enrollment by grade span and student status, 1997, 2002, and 2007

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>% of total</td>
<td>N</td>
<td>% of total</td>
</tr>
<tr>
<td>Pre-school</td>
<td>15,695</td>
<td>1.7</td>
<td>20,865</td>
<td>2.1</td>
</tr>
<tr>
<td>Kindergarten</td>
<td>76,546</td>
<td>8.2</td>
<td>68,576</td>
<td>7.0</td>
</tr>
<tr>
<td>Grades 1–5</td>
<td>380,549</td>
<td>40.7</td>
<td>378,109</td>
<td>38.8</td>
</tr>
<tr>
<td>Grades 6–8</td>
<td>208,664</td>
<td>22.3</td>
<td>232,230</td>
<td>23.8</td>
</tr>
<tr>
<td>Grades 9–12</td>
<td>246,205</td>
<td>26.3</td>
<td>273,911</td>
<td>28.1</td>
</tr>
<tr>
<td>Special education</td>
<td>155,029</td>
<td>16.6</td>
<td>150,003</td>
<td>15.4</td>
</tr>
<tr>
<td>First language not English</td>
<td>118,375</td>
<td>12.7</td>
<td>128,218</td>
<td>13.2</td>
</tr>
<tr>
<td>Limited English Proficiency</td>
<td>44,934</td>
<td>4.7</td>
<td>46,254</td>
<td>4.7</td>
</tr>
<tr>
<td>Low-income</td>
<td>238,713</td>
<td>25.5</td>
<td>246,808</td>
<td>25.3</td>
</tr>
<tr>
<td>Total enrollment</td>
<td>935,623</td>
<td>n/a</td>
<td>974,015</td>
<td>n/a</td>
</tr>
</tbody>
</table>

As a result, the share of the student body comprised of students requiring additional educational services, such as high school students, English language learners, and low-income students, has increased substantially since the early years of education reform. Although the Chapter 70 budget accounts for these higher costs, increases in the foundation budget do not necessarily translate into more state aid to districts.

Cuts in state aid mean school districts are relying more on local revenues to support their operating costs

At the same time as costs have risen faster than the foundation budget assumes, cuts in state aid have prompted districts to rely more on local funds to support their operating budgets. When the stock market bubble burst in 2002, growth in state revenues declined substantially. For three successive fiscal years starting in 2003, new Chapter 70 funds were only provided to districts that needed additional support to guarantee that they would reach foundation. Districts who were already being funded at or above foundation were level-funded in fiscal year 2003 and actually saw their state aid reduced by as much as 20 percent in fiscal year 2004 when the revenue picture worsened. Statewide, Chapter 70 aid fell by 4.5 percent or $150 million that year. Most districts were level-funded once again in fiscal year 2005.
Despite the slow growth in Chapter 70 aid during the fiscal downturn, the formula remained progressive, providing relatively more resources to districts serving more low-income students. Table 6 shows that in per-pupil terms, districts serving the highest percentages of low-income students received the highest aid allocations and saw their per-pupil aid allocations to these districts increase at the fastest rates between 2002 and 2008.

Table 6: Chapter 70 aid per pupil by enrollment of low-income students (quartiles), 2002 and 2008

<table>
<thead>
<tr>
<th>Chapter 70 Per Pupil</th>
<th>FY02</th>
<th>FY08</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lowest quartile (smallest share of low-income students)</td>
<td>1,736</td>
<td>1,965</td>
<td>13.2%</td>
</tr>
<tr>
<td>Second quartile</td>
<td>2,245</td>
<td>2,626</td>
<td>17.0%</td>
</tr>
<tr>
<td>Third quartile</td>
<td>2,904</td>
<td>3,385</td>
<td>16.6%</td>
</tr>
<tr>
<td>Highest quartile (highest share of low-income students)</td>
<td>4,687</td>
<td>5,671</td>
<td>21.0%</td>
</tr>
<tr>
<td>State totals</td>
<td>3,350</td>
<td>3,922</td>
<td>17.1%</td>
</tr>
</tbody>
</table>

Includes data for all operating school districts.
Nonetheless, after adjusting for inflation, the Chapter 70 aid allocation in fiscal year 2008 was approximately the same as the amount allocated in fiscal year 1999, well short of the peaks reached in the early 2000s. Moreover, of the 252 districts that saw their state aid reduced in fiscal year 2004, 75 are receiving less aid, in nominal terms, in fiscal year 2008 than they did before the fiscal downturn.

Recent changes implemented by the state legislature have begun to address this shortfall in state aid for education. Chapter 70 aid grew by 3.3 percent in fiscal year 2006, enough to ensure that all districts, not just those eligible for foundation aid, received some increase in funding. Funding increased further in fiscal year 2007 as the state began to phase in a sweeping set of changes to the funding formula. Starting in fiscal year 2007 the formula began using communities’ current property values and residential income to determine the “ideal” mix of state and local funding for schools. This change increased state aid by 6.6 percent overall in fiscal year 2007, bringing the total appropriation to $3.50 billion.

Districts that will benefit from this new approach are those that in the past were required to make higher contributions than their ability to pay, as measured by their income and property wealth. The required contributions for these districts will be brought down to the level defined by the formula over the next five years, and commensurately, their state aid will increase. Aid will increase at faster rates for districts with the largest disparities. In fiscal year 2008, 119 districts fell into this category. Other districts will still be eligible for aid increases to offset the effects of enrollment growth or will receive the minimum guaranteed increase.

Chapter 70 aid increased by another 6.2 percent, or $220 million, in fiscal year 2008 as the changes to the formula continue to be implemented. At this rate of increase, Chapter 70 is expected to outpace overall state budget growth by 2 percent. Assuming the legislature continues to phase in the changes to the formula at or near the current pace, many districts will see funding increases in the next few years.9

Nonetheless, districts are still feeling the impact of the earlier Chapter 70 cuts in their operating budgets. In order to keep services level, municipalities have had no choice but to substantially increase their contributions to school budgets. Between fiscal years 2002 and 2006, the most current year for which this breakdown is available, total spending across all districts increased from $9.3 billion to $11.1 billion, an increase of 19 percent. As Table 7 demonstrates, while state and federal programs such as the Special Education Circuit Breaker and the additional funding associated with No Child Left Behind grew quickly during this period, in dollar terms they only supported one-quarter of the increase in spending. Three-quarters of the increase—$1.3 billion—was supported by local funds.

Since local funds support the majority of district operating expenditures in most school districts in the first place, this is not in and of itself surprising. But this rate of increase combined with very slow growth in Chapter 70 funding and a decline in state grant line items caused the share of total spending generated from local sources to increase.

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9 For more information on how the foundation budget and Chapter 70 aid are calculated, go to http://finance1.doe.mass.edu/chapter70/chapter_08.html.
Table 7: Total operating expenditures by source of funds, 2002 to 2006 (millions of dollars)

<table>
<thead>
<tr>
<th></th>
<th>Local funds</th>
<th>Chapter 70 aid</th>
<th>Federal grants</th>
<th>State grants</th>
<th>Other funds</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY02</td>
<td>$5,031</td>
<td>$3,213</td>
<td>$440</td>
<td>$230</td>
<td>$399</td>
<td>$9,312</td>
</tr>
<tr>
<td>FY03</td>
<td>$5,268</td>
<td>$3,258</td>
<td>$528</td>
<td>$181</td>
<td>$431</td>
<td>$9,665</td>
</tr>
<tr>
<td>FY04</td>
<td>$5,623</td>
<td>$3,111</td>
<td>$599</td>
<td>$130</td>
<td>$529</td>
<td>$9,992</td>
</tr>
<tr>
<td>FY05</td>
<td>$5,956</td>
<td>$3,183</td>
<td>$577</td>
<td>$108</td>
<td>$662</td>
<td>$10,486</td>
</tr>
<tr>
<td>FY06</td>
<td>$6,357</td>
<td>$3,289</td>
<td>$585</td>
<td>$115</td>
<td>$714</td>
<td>$11,060</td>
</tr>
<tr>
<td>Dollar change</td>
<td>$1,326</td>
<td>$76</td>
<td>$144</td>
<td>-$114</td>
<td>$316</td>
<td>$1,748</td>
</tr>
<tr>
<td>Percent change</td>
<td>26.4%</td>
<td>2.4%</td>
<td>32.8%</td>
<td>-49.8%</td>
<td>79.2%</td>
<td>18.8%</td>
</tr>
</tbody>
</table>

Figure 4 shows that this shift amounted to 3 percentage points (55 percent to 58 percent) between fiscal years 2002 and 2006. Meanwhile, Chapter 70 aid as a share of total expenditures fell from 34 percent to 30 percent. The share of federal funding held steady, while state grant support fell by 1 percentage point. Funding from other sources consumed a larger share of the overall pie, due to the aforementioned increases in Circuit Breaker funding for special education students and, to a lesser degree, an increase in user fees to support services like transportation and athletics.

Figure 4: District operating expenditures, all funds by source, 2002 and 2006

Source: Massachusetts Department of Education

Note: Figure 4 includes other state revenues in the share of local spending that cannot be distinguished from local source revenues. These are mostly Lottery and Additional Assistance funds, which cities and towns can use to offset some of their educational spending in addition to other municipal expenses. If it could be calculated, the percentage accounted for by these funds would be relatively small, and it probably declined between fiscal years 2002 and 2006 when funding for both line items was reduced.
A note on fees

Many districts institute fees in order to dampen the impact of declining revenues on other programs and services. Fees garner a great deal of public attention because of the burden they place on individual students. How important are they in shoring up district budgets?

Fees are most commonly imposed for transportation and extra-curricular activities, typically athletics. Though the state does not collect data on the total amount of revenues districts receive from fees, it does collect data on the amount of money districts spend from fee revenues.

By this measure, between fiscal years 2002 and 2006, district spending on transportation services funded by user fees increased from $3 million to $11 million; spending in this category appears to be increasing for fiscal year 2007 as well. The number of districts expending fee revenues to support transportation services—a proxy for the number of districts charging transportation fees—increased from 41 in fiscal year 2002 to 93 in fiscal year 2006. This increase may have been in response to the state’s elimination of the municipal transportation reimbursement line item, which was cut in 2004 during the budget crisis.

The number of districts spending athletic fee revenues has remained stable at just over 200 between fiscal years 2002 and 2006, and this number will likely remain unchanged in fiscal year 2007. Spending from athletic revolving funds, which is largely supported by user fees, increased from $12 million to $23 million between fiscal years 2002 and 2006, suggesting that districts are relying less on general fund revenues and more on fees to support these programs.

Districts and the state have taken steps to minimize the impact of fees on students. Most districts have reduced fee structures and waivers to accommodate the needs of low-income students, and districts may only charge transportation fees to students who are not eligible to receive free transportation. It’s important to remember, however, that the dollars that districts spend from fee revenues represent a very small share of district operating expenditures, generally well under 1 percent. They are probably more valuable as a means of gaining visibility for challenging district fiscal conditions than as a means of resolving them.

Worsening district fiscal conditions have begun to affect educational services

The pressures these fiscal trends have put on school budgets have begun to affect districts’ ability to serve their students, particularly for districts that serve a large share of low-income students.

For the most part, districts have been able to maintain total spending in nominal terms, though spending is down somewhat after adjusting for inflation. Statewide total spending on education in fiscal year 2002 was $9.29 billion; in fiscal year 2007, it was $11.53 billion for districts with available data. At 24.1 percent, this increase slightly lagged the 25.3 percent inflation rate for state and local government services during this period. Similarly, per-pupil spending (available using a new methodology beginning in fiscal year 2005) increased at close to the rate of inflation, from $10,560 per pupil in fiscal year 2005 to $11,363 in fiscal year 2007.
The impact on instructional services, however, has been more visible. Instructional services is the programmatic core of education: the part of expenditures most directly tied to actually educating students. Most of the costs in this category support salaries for teachers and administrative staff such as principals, curriculum directors, paraprofessionals, librarians, medical and therapeutic staff, and guidance counselors and psychologists. Appropriately, these services are the single largest category of expenditures for districts, comprising 50 to 60 percent of most districts’ budgets.

Statewide, instructional spending grew by $720 million between fiscal years 2002 and 2007. This represents a 13 percent increase, only half the inflation rate over the same period. Further, instructional spending is losing ground to other categories as a share of total operating expenditures, falling from 61.0 percent to 55.4 percent. Instructional spending is clearly being squeezed by faster-than-anticipated growth in other spending categories, such as health insurance and special education.

Table 8: Instructional spending by enrollment of low-income students (quartiles), 2002 and 2007

<table>
<thead>
<tr>
<th>Instructional Spending (millions)</th>
<th>FY02</th>
<th>FY07</th>
<th>Percent Change</th>
<th>FY02</th>
<th>FY07</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lowest quartile (smallest share of low-income students)</td>
<td>$996.5</td>
<td>$1,206.5</td>
<td>21.1%</td>
<td>62.4%</td>
<td>57.5%</td>
</tr>
<tr>
<td>Second quartile</td>
<td>$1,063.5</td>
<td>$1,239.5</td>
<td>16.5%</td>
<td>62.4%</td>
<td>56.8%</td>
</tr>
<tr>
<td>Third quartile</td>
<td>$853.6</td>
<td>$958.5</td>
<td>12.3%</td>
<td>60.5%</td>
<td>54.6%</td>
</tr>
<tr>
<td>Highest quartile (highest share of low-income students)</td>
<td>$2,753.9</td>
<td>$2,983.3</td>
<td>8.3%</td>
<td>60.2%</td>
<td>54.3%</td>
</tr>
<tr>
<td>State totals</td>
<td>$5,667.6</td>
<td>$6,387.9</td>
<td>12.7%</td>
<td>61.0%</td>
<td>55.4%</td>
</tr>
</tbody>
</table>

Includes data from 317 out of 328 operating school districts

Even more worrisome, instructional spending is growing most slowly in districts that serve the largest share of low-income students. These districts saw instructional spending increase by only 8.3 percent over the six years, one-third the increase in districts with the smallest share of low-income students.

These declines in expenditures on instructional services are also reflected in staffing levels and salary trends. Table 9 shows that since 2002, staffing has declined by 3,700 teachers statewide for districts with available fiscal year 2007 financial data. Nearly one-third of this drop occurred during a single year, fiscal year 2004, at the height of the fiscal downturn. Districts reported nearly 1,400 fewer teachers in fiscal year 2004 than they did in fiscal year 2003. Further, most of the decline has occurred in districts that serve the highest proportion of low-income students.
Table 9: Teacher staffing levels and average teacher salaries, 2002 and 2007

<table>
<thead>
<tr>
<th></th>
<th>Teaching Staff (FTEs)</th>
<th>Average Teacher Salaries</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FY02</td>
<td>FY07</td>
</tr>
<tr>
<td>Lowest quartile (smallest share of low-income students)</td>
<td>13,055</td>
<td>13,047</td>
</tr>
<tr>
<td>Second quartile</td>
<td>14,276</td>
<td>14,247</td>
</tr>
<tr>
<td>Third quartile</td>
<td>11,806</td>
<td>11,505</td>
</tr>
<tr>
<td>Highest quartile (highest share of low-income students)</td>
<td>35,676</td>
<td>32,302</td>
</tr>
<tr>
<td>State totals</td>
<td>74,813</td>
<td>71,102</td>
</tr>
</tbody>
</table>

Includes data from 317 out of 328 operating school districts

Teacher salary growth is also lagging. Among districts with available data, average salaries—calculated as the total expenditure on salaries divided by the number of full-time equivalent teachers—grew by 16.4 percent statewide, 8 percentage points slower than inflation. But averages may not tell the whole story. Because of the nature of teacher salary schedules, districts that employ higher shares of new or less senior teachers will have lower average salaries for the same staffing levels, complicating fair comparisons across districts.

It is difficult to determine how much of the declines in instructional spending and in staffing is attributable to fiscal constraints versus labor market factors such as retirements and difficulties with recruitment and retention versus enrollment declines. For instance, districts in the highest quartile have experienced a higher rate of enrollment loss than districts in the other three quartiles, so it may be reasonable to see greater declines in teaching staff and instructional spending for those districts.

At the state level, the best proxy available for measuring the impact of staffing trends on students is the student-teacher ratio. Table 10 shows that the cuts in staffing levels did yield an increase in the student-teacher ratio between 2002 and 2007. However, that increase was slight: from 12.6 students per teacher in 2002 to 12.9 students per teacher in 2007, a 2.4 percent increase. Districts with the largest share of low-income students followed the state trend, while districts with the smallest share saw faster increases.

While this trend is encouraging, it is important not to confuse student-teacher ratios with class sizes. Presently, there is no way to determine class sizes using state-level data. The Department is only now beginning to gather the data that it will need to calculate class sizes in the future through the new Education Personnel Information Management System (EPIMS). EPIMS will provide much more detailed information about the teacher labor market than has been available in the past.
Table 10: Average student-teacher ratios, 2002 and 2007

<table>
<thead>
<tr>
<th>Student-Teacher Ratios</th>
<th>FY02</th>
<th>FY07</th>
<th>Raw change</th>
<th>Percentage point change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lowest quartile (smallest share of low-income students)</td>
<td>13.9</td>
<td>14.4</td>
<td>0.5</td>
<td>3.6%</td>
</tr>
<tr>
<td>Second quartile</td>
<td>13.6</td>
<td>13.8</td>
<td>0.1</td>
<td>1.5%</td>
</tr>
<tr>
<td>Third quartile</td>
<td>12.9</td>
<td>12.6</td>
<td>-0.3</td>
<td>-2.3%</td>
</tr>
<tr>
<td>Highest quartile (highest share of low-income students)</td>
<td>11.7</td>
<td>12.0</td>
<td>0.3</td>
<td>2.6%</td>
</tr>
<tr>
<td>State totals</td>
<td>12.6</td>
<td>12.9</td>
<td>0.3</td>
<td>2.4%</td>
</tr>
</tbody>
</table>

Includes data from 317 out of 328 operating school districts

It appears that districts are doing their best to minimize the impact of weak fiscal conditions on the classroom, maintaining student-teacher ratios even as instructional spending and staffing decline. In some cases, staff reductions have compensated for higher-than-average salary increases but may reduce other educational services to students. In other cases, lower-than-average salary increases have helped maintain staffing levels but leave the district at risk of not being able to attract qualified new teachers. But total expenditures are barely keeping pace with inflation, and non-instructional spending is consuming a growing share of district expenditures. It is unlikely, therefore, that instructional spending is increasing at the rate it should to cover the cost of meeting the increased expectations placed on districts, schools, teachers, and students.

Conclusions and next steps

State data suggests that many districts across the state are experiencing difficulties in shouldering the cost of educating their students. The average district spends 18 percent above the amount assumed by foundation budget, suggesting that the foundation budget alone may not be sufficient to provide an adequate education to all students. Many districts also experienced cuts in state aid for education in the early 2000s and are just now beginning to regain the ground they lost at that time. And declines in overall enrollment coupled with shifts towards more costly to educate students within the enrolled population have added to districts’ fiscal challenges in recent years.

In most cases, districts have managed to maintain total spending by increasing local contributions to school funding, but spending on instructional services has declined as a share of total expenditures because of pressure from rising fixed costs. At the same time, increasing expectations for districts, schools, teachers, and students have made the educational task of districts all the more challenging. At a time when districts need to be moving forward quickly to address their students’ educational needs, they are hard-pressed to maintain their expenditure levels, let alone increase them to meet higher expectations.

The assumptions behind the foundation budget appear to have grown out of alignment in the 15 years since they were established, particularly in the areas of health insurance, special education,
and teacher salaries. In addition, the foundation budget has not been updated to consider the potential increased costs that might be associated with recent changes in the Commonwealth’s education reform strategies.

The current state-wide foundation budget is $8.4 billion. Some short-run increase in this funding level is likely necessary to address the rising cost of education in the Commonwealth. Beyond that, the Board may wish to recommend a detailed study to update the foundation budget formula to ensure that it provides an adequate level of fiscal resources for both current and future needs.

While the state continues to work toward a sustainable long-range funding plan, it will need to continue other initiatives to ensure that it is making the best use of its existing resources. Examples include:

- Providing incentives for local participation in the state health insurance and pension fund programs, to help bring the cost of these programs under control.

- Expanding the use of educational collaboratives and other regional entities to more efficiently provide services such as special education transportation, professional development, and specialized education programs.

- Helping districts to identify and adopt instructional practices and models that have been proven effective at improving student outcomes at a reasonable cost.

- Addressing the inefficiencies and lack of capacity created by the large number of small school districts in the state. Currently, 284 of the state’s 328 operating districts have fewer than 5,000 students.

The state is expected to increase its commitment to Chapter 70 funding this year despite tight fiscal conditions statewide and the prospect of slow economic growth. These additional resources will help to alleviate these challenging fiscal conditions. But the solution is not more money alone. Additional financial resources should be coupled with better district business practices and new ideas for ways to conserve resources if they are to have maximum impact. Furthermore, the state will need to provide support, leadership, and information to school districts to help them serve their students as effectively and efficiently as possible. Bringing all these resources to bear will allow districts to provide an adequate education to every child and allow the state to reach the vision and promise of education reform.