Evaluating the Performance of Charter Schools in Connecticut

A Report Commissioned by ConnCAN

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February 2005

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Executive Summary

Report Prepared for ConnCAN by Dr. Gary Miron, The Evaluation Center, WMU

This report was commissioned by the Connecticut Coalition for Achievement Now (ConnCAN) and focuses specifically on the performance of charter schools in Connecticut.[1] Performance gains made by charter schools on standardized tests relative to gains made by traditional public schools are examined. Also, a brief analysis looks at the extent to which charter schools have met their self-specified goals and objectives.

Connecticut administers two standardized tests to all public schools. The Connecticut Mastery Test (CMT) is used in grades 4, 6, and 8 and covers reading, writing, and mathematics. The Connecticut Academic Performance Test (CAPT) is administered to 10th graders and covers reading, writing, mathematics, and science. The attached technical report explains in detail the design and methods used for the study which included both cohort and trend analyses. The key findings are highlighted below:

- Ten of the 14 currently operating charter schools were included in the analysis (2 schools were newly opened and had no test data, 1 charter school was not included because it had only 1 year of test data, and another school was excluded because it had too few test takers for the results to be released).
- Results from the CMT analysis included eight schools and used a cohort analysis. In three of the four cohorts, the charter schools made much larger gains than their comparison groups.
- The results for the CAPT at grade 10 were mixed to negative for the charter schools. This, analysis, however, included only two schools, both with small numbers of test takers, and the students tested had at most one year of instruction in the charter school. Unfortunately, we do not have data relating to prior or subsequent academic performance. Consequently, this analysis used a weaker trend design, and is of limited value in evaluating the performance of charter high schools.
- The results spelled out in this report are largely in line with what we found three years ago. Namely, charter school students are gaining more on the state assessment tests than students in surrounding traditional public schools.

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[1] The Evaluation Center conducted a longitudinal study of charter schools in Connecticut from 1997 to 2002. This earlier study was commissioned by the Connecticut State Department of Education (CSDE) and covered a wider range of questions and issues. See Miron, G., & Horn, J (2002) *Evaluation of Connecticut charter schools and charter school initiative: Final report*. Hartford, CT, Connecticut State Department of Education. [Online: http://www.wmich.edu/evalctr/charter/].

The last section of the technical report includes an analysis of the extent to which charter schools were meeting their self-specified goals and objectives. The 2003-04 annual reports were used as a source for the stated objectives and evidence to support whether the objectives were met.[2] Using annual reports to report on school-specific measurable objectives balances accountability based solely on student performance on state assessment tests. Below the key findings from this analysis are highlighted:

- In total, 179 objectives were set by the schools. Nearly 44 percent of the measurable objectives identified in their annual reports were fully met, another 27 percent were mostly met, and 8 percent were partially met. Twenty-one percent of the objectives were deemed in this study to have not been met, in many cases because the schools did not provide sufficient evidence.
- As with performance on standardized tests, there were considerable differences in the performance of the charter schools when it came to fulfilling their goals and objectives. Two schools fully met more than 70 percent of their measurable objectives, while 2 schools met less than 20 percent of their objectives.
- Connecticut should be seen as a model in terms of how it balances its demands for accountability. More work may be needed, however, to ensure that the charter schools continue to strengthen their accountability frameworks by setting realistic and measurable objectives and by providing relevant and sufficient evidence so that progress can be measured.

Researchers at The Evaluation Center have been involved in conducting evaluations of charter schools in six states. The results from Connecticut are the most positive and promising for charter schools that we have seen. This said, it is important that generalizations are not made across states.

The positive results in Connecticut are likely due to the unique nature of this reform. Compared with other states, Connecticut exercises more rigor in approving schools to operate and in overseeing charter schools. The closure of a number of struggling charter schools has helped lift the aggregate results of the charter schools. While generalizations cannot be made across states, lessons certainly can be shared from this charter school reform to reforms in other states.

[2] It is common that states require charter schools to prepare annual reports. In most instances, these annual reports cover the agreed-upon measurable objectives spelled out in the charter agreement or contract. When this happens—as it does in Connecticut—the annual reports serve as an important tool for accountability and complement results on standardized assessment tests.

Introduction and Background

The performance of charter schools is an increasingly debated topic. In part, this is because of recent studies that conflict with each other over the objective performance of charter schools.[3] Another reason for the attention being placed on charter school performance is that the No Child Left Behind Act has identified conversion to a charter school as one form of corrective action that poor-performing traditional public schools can choose. Even though more than a decade has passed since the first charter school opened, we still know relatively little about the performance of charter schools.

In a recent synthesis of charter school studies that examined student achievement,[4] we found that charter schools—on the whole—were performing similarly or slightly worse than traditional public schools. The results, however, varied considerably by state, with Connecticut, as 1 of the 12 states considered in the synthesis, with a clearly positive rating. While obvious differences exist between states, it is also important to remember that differences in performance also exist within states (i.e., between charter schools in the same state).

This report summarizes the findings from a study that examines the performance of charter schools in Connecticut. This study was commissioned by ConnCAN, a group that identifies itself as an advocate of charter schools. ConnCAN commissioned The Evaluation Center to undertake this study because we have a reputation for impartial evaluations[5] and because we earlier conducted a 5-year evaluation of charter schools in Connecticut that was commissioned by the Connecticut State Department of Education.[6] In order to ensure the impartiality of this study, we requested that the contract for the work indicate that we would be able to release the findings regardless of whether they were positive or negative. The contract also indicated that representatives from the Connecticut State Department of Education would be allowed to review and comment on the findings.

There are a number of diverse policy objectives for charter schools, and many of the state-commissioned evaluations are expected to examine all or most of the specified policy objectives set for charter school reforms. The most common policy objectives or anticipated outcomes for charter schools are listed below.

- ❑ Charter schools will have high performance levels.
- ❑ Charter schools will promote school choice.

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[3] See National Center for Education Statistics. (2004). *America's charter schools: Results from the NAEP 2003 pilot study*. Washington, DC: Author.

See also SRI International. (2004*). Evaluation of the public charter schools program: Final report*. Washington, DC: Author.

[4] See Miron, G., & Nelson, C. (2004). "Student achievement in charter schools: What we know and why we know so little." In K. Bulkley & P. Wohlstetter (Eds.), *Taking account of charter schools: What's happened and what's next?* New York: Teachers College Press.

[5] The Evaluation Center has conducted evaluations of charter schools in six states. While findings from our Michigan studies were largely negative, our findings from Connecticut and—more recently Delaware—have been positive. Findings from our evaluations in Illinois, Pennsylvania, and Ohio were mixed. See http://www.wmich.edu/evalctr/charter/.

[6] This evaluation started in 1997 and ended in 2002. The final report (Miron & Horn, 2002) is available on the Web site of the Connecticut State Department of Education and on The Evaluation Center Web site.

- ❑ Charter schools will provide new professional opportunities for teachers.
- ❑ Charter schools will be innovative.
- ❑ Charter schools will improve other public schools by sharing innovations and creating competition.
- ❑ Charter schools are to be highly accountable.

We can talk broadly of three types of accountability: performance accountability, market accountability, and regulatory accountability. While our more comprehensive evaluation of Connecticut charter schools examined all three forms of accountability, this study examines only performance accountability.

When examining the performance of charter schools (i.e., performance accountability), distinct types of outcomes and measures can be considered. For the purpose of this evaluation, we looked at performance accountability more broadly and considered both the performance of charter school students on standardized tests, as well as performance of the charter schools relative to their self-defined goals and objectives.

Methods and Data Sources

All data used for this evaluation were publicly available. Data and information on the charter school goals and objectives were obtained from the charter schools' own annual reports for the 2003-04 school year. These reports are posted on the Connecticut State Department of Education Web site. Test data for charter and traditional public schools that were used for studying the performance of students on standardized tests were also obtained from the State Department of Education Web site. Because of state laws restricting access to student-level data, our analysis of test data is based on group or school level data. More details regarding the methods for analyzing the data are presented in the report in connection with the findings.

Limitations

With regard to our examination of the schools' goals and objectives, it is important to keep in mind that we looked only at what the schools reported in their annual reports. Our findings are accurate to the extent that what is reported in the annual reports reflects what is actually occurring at the schools.

Our analyses of the student achievement data also come with some critical limitations, which are described and discussed in greater detail in the section of the report that covers the results from the secondary analysis of CMT and CAPT data. The key caveat to list here is a reminder that we are working with group level data, not student level data. The number of schools considered in the analysis of student achievement is small (i.e, only 10 schools); however, this represents all the schools except one that had only one year of test data, and one that had too few test takers.

Overview

The next section of this report will look at the performance of charter school students on standardized tests (i.e., CMT and CAPT). The last section of the report examines the extent to which the charter schools have met their self-defined goals and objectives. A number of appendices are also included that provide further detail regarding the performance of the charter schools.

It is important to point out that the emphasis of this evaluation is on the charter school reform as a whole and not on individual charter schools. While the discussion of findings will focus on the aggregate of charter schools, a lot of the data and findings also are broken out by school.

Performance on State Assessment Tests

While charter schools may have a wide range of potential impacts on students, one of the most important is on the academic achievement of students. This section of the report looks exclusively at the performance of students in Connecticut charter schools relative to the performance of students in traditional public schools.

Some key limitations need to be considered, and it is important to note that there are various lenses with which we could look at the data. Results for the most rigorous designs for the analysis are included in this section, while the appendices contain school level results and findings from less rigorous study designs.

Measuring Student Achievement

Any analysis of student achievement in charter schools must address two core methodological issues: (1) the measurement of student achievement and (2) the choice of comparison groups. Below, we have addressed each of these in turn.

The task of assessing student achievement in charter schools is made easier if there are convenient ways to compare charter school students' performance with that of students in traditional public schools. This study focuses on the Connecticut Mastery Test (CMT) and the Connecticut Academic Performance Test (CAPT) since they are the only such instruments administered to students in all charter and traditional public schools.

The CMT is a criterion-referenced test that assesses students' knowledge and skills. The contents of the test reflect the state curriculum standards and are determined by experts and practicing educators as important for students entering the grade to have mastered. The CMT includes three subjects—reading, writing, and mathematics—and is administered in the fall of each year in grades 4, 6, and 8. The third generation of the CMT was first implemented in 2000. With the change in tests, new measures were used to report the findings, thus limiting comparisons that can be made before and after 2000.

The CAPT is administered only to students in grade 10 and yields results in four subject areas: mathematics, science, reading, and writing. The CAPT is administered in the spring of each year. The second generation of the CAPT tests was first used in 2001. Changes in the CAPT test included replacing the language arts and interdisciplinary subject tests with the reading and writing subject tests. New measures were also used for reporting the second generation results.

Only school level data (by grade and subject area test) are available to the public for both the CMT and CAPT. Therefore, our analysis cannot match and track individual students. Rather, it focuses on changes in group- or school-level results over time.

The strongest or most sensitive measures of school level performance available to us include (i) the percentage of students that meet the state standard and (ii) the average scale score. Until 2000 for the CMT and until 2001 for the CAPT, an index score[7] was reported instead of the scale score. Unfortunately, this index score was not calculated and reported in subsequent years. The scale scores run from 100 to 400 for each subject and, depending on the grade and subject area test, the state determines a cutoff that corresponds with what students should know minimally to meet the state standard. Appendices A and B contains the results for all charter schools and reports both the percentage of students meeting state standard as well as the index or scale score.

Comparisons

Simply knowing the direction and magnitude of a charter school's growth trend on the CMT and CAPT does not by itself allow us to assess its *impact* on student achievement. Assessing impact requires us to try to estimate what student outcomes might have been like if they had continued to attend traditional public schools. This task is severely complicated by the fact that scores on achievement tests reflect two sets of influences. First, the fact that students and families tend to sort themselves into schools and school districts according to income and other factors means that achievement scores reflect students' economic and social endowments. This fact usually makes it difficult to isolate the second major influence on achievement scores—the educational value added by schools' inputs and processes. The second, "value-added," component of achievement test scores is that part of the variation among scores that can be explained by what the school is doing.

Generally, the best way to isolate charter schools' impacts is to randomly assign students to charter and noncharter schools. For a variety of ethical, logistical, and political reasons, such a randomized experiment is impossible to undertake for this study. Thus, we have to turn to weaker designs, one that compares trends (trends study) in charter school scores with those of their host districts.[8] The other design compares cohorts in charter school scores with those of their host districts (cohort study).[9] These designs allow us to distinguish trends that are unique to charter schools from those that are common to all schools. They also allow us to examine the relative progress made by charter schools over time.

Weighted averages. Because the size of the charter schools varies extensively, and because our aim was to estimate the overall impact of charter schools on student achievement (i.e., our focus

[7] The CMT index and the CAPT index were both calculated from the percentages of students scoring in each of the four score ranges, giving credit for students who reached the state goals and giving partial credit for students who were approaching the state goal. An index score was calculated for each subject area, and an overall index was calculated for each grade across subject areas.

[8] We used the same comparison groups as we did in 2002. For schools attracting students from multiple districts, the "host district" was the district from which the most students were formerly enrolled.

[9] In addition to host districts, we also make comparisons with state means. While state comparisons are not useful in assessing charter school effectiveness, they do provide a sense of how charter school students are performing in comparison with the state norm.

is on charter schools as a whole rather than impact of individual schools), we have weighted[10] the data according to the size of the schools, as measured by the number of test takers. Therefore, schools with more students taking the test carry more weight in the weighted average. Likewise, we aimed to aggregate results across host districts so we weighted them in a similar fashion. If two charter schools have the same host district, we still counted the host district only once in the weighted average for host districts.

Average annual change scores. We calculated average annual change scores for each trend analysis. This involves calculating the difference between the most recent year of data and the first year of data in the trend. This difference is then divided by the number of years that change scores could be calculated. For example, if there are three years of data and the difference between the most recent and the first year of data was 6 points, we would divide this number by 2, which results in an average annual change score of 3 points. If the difference was -6 (the most recent year of test data was 6 points lower than the first year), the average annual change score would be -3.

We calculated average annual change scores for both the aggregate of charter schools in any given trend or cohort as well as the aggregate for the host districts. Finally, we subtracted the charter school average annual change score from the host district average annual change score to come up with what we call the "difference in change scores." If the difference in change scores is positive, it means the charter schools are gaining relative to host districts. If it is negative, it means that charter schools are losing ground relative to host districts. In other words, the difference between average annual change scores in charter schools and their host districts allows us to examine the relative progress made by charter schools over the years.

Designs for comparisons. We used two separate designs for comparisons. Both use average change scores and both utilized weighted averages that take into consideration the size of the individual schools in the aggregates. Trends analysis was the first design we used for comparisons. With this design, we compared consecutive groups of different students at the same grade level (e.g., this year's fourth graders compared with last year's fourth graders). The second design was cohort analysis, which examined test score data for the same groups of students twice over time. For example, this means we compared fourth grade students in reading in 2001-02 with sixth grade students in reading two years later in 2003-04.

While we have looked at the data with different designs, we decided that we would present and discuss only the results from the most rigorous design. In our earlier study (Miron & Horn, 2002) we presented and aggregated findings from various designs. This time, however, we will discuss and aggregate the results from only the strongest methodological design using the most sensitive measure (i.e., changes in average scale score). For the CMT this meant using a cohort design (e.g., comparing changes in average scale scores for groups of students at grade 4 with the results for grade

[10] For all tests, the weighted average score (WA_i) for a given school *i* is given by:

$$WA_i = \frac{\sum_{i=1}^{n} x_i w_i}{\sum_{i=1}^{n} w_i}$$

where x_i is the score for school *i* and w_i is the number of students tested in school *i*.

6 two years later). This is stronger than the trend design where each year we compare different groups of students taking the same grade level tests (e.g., comparing this year's fourth grade students to last year's fourth grade students). For the CAPT, the best design we could use was the trend design, since this test is administered only at grade 10. In the following pages we will present and discuss the findings for the charter schools relative to their host districts. In the appendices, we have included the results from weaker designs and the results based on the percentage of students meeting the state standard, which is less sensitive than the average scale score.

Limitations

A number of limitations were associated with our analyses. The first such limitation is that the CMT and CAPT data available to us provided no way to track the performance of individual students as they moved from one school to the next or from one year to the next year in the same school. This left the evaluation team with no way to observe students' precharter school achievement levels. This limits our ability to clearly distinguish the value added by charter schools from the influence of other factors.

Second, some charter schools are relatively new. In fact, one school was dropped from our analysis (New Beginnings Charter School) since it only had one year of test data. There are reasons to expect that it might take more time for the effects of the reform to show up clearly in measures of student achievement. While it is important to recognize this limitation, it is also noteworthy that our analysis considers some of the longest trends and most years of data of any charter school study to date.

Third, the fact that Connecticut does not test students in each grade limited any genuine longitudinal analysis of student cohorts. Thus, instead of comparing how the same group of students performed in years one, two, and three, we were restricted to comparing consecutive groups of students at the same grade levels (e.g., this year's fourth graders with last year's) or cohorts of students taking the same subject level test every other year (e.g., fourth graders taking the CMT test in 2000-01 compared with sixth grade students two years later). As a consequence, it is difficult to separate changes in aggregate scores that result from school efforts from changes that may reflect changes in the composition of the student body.

Fourth, because Connecticut has a relatively small number of charter schools, any characterization of charter school students' current performance now may change with the passage of time. Also, given the small number of schools, one should be cautious or simply avoid making generalizations to charter schools in other states.

Finally, inferences about charter school impact presented in this chapter are no stronger than the assumption that host districts provide a group of comparable students. Unfortunately, no education reference groups exist that can be used to compare charter schools with similar schools across the state. In all but a few cases, the charter school students have characteristics similar to students in the host districts (see Appendix C). Our focus on gain or change scores, rather than a cross-sectional analysis, however, places emphasis on overall changes in results rather than the absolute score for students at a set point in time. In other words, even though a charter school may have lower scores than the host district (which might be due to demographic differences), the charter school can be found to outperform the host district if its gain scores are larger than the host district's.

Results on the Connecticut Mastery Test

Because the Connecticut Mastery Test (CMT) is administered at grades 4, 6, and 8, the most rigorous design we could use was to track and compare cohorts of students over time. The results from our cohort analysis are presented in this section. In Appendix D we present the results from the CMT using a trend analysis. The results from the trend analysis are included only as background information and depict school level results as well as comparison of trends between charter schools, host districts, and the state average.

The cohort study collects student achievement scores from approximately the same group of students at two points over time. This means we compare fourth grade students in reading in 2001-02 with sixth grade students in reading two years later, in 2003-04. Table 1 describes each of the 4 cohorts. While it is true that there is some change in the composition of the student groups with some students leaving and others joining the group, this is clearly a preferred design to the trend analyses that compares totally different groups of students at the same grade level in consecutive years. While the cohort design is usually preferable to the trend design, it is important to point out that it is was not possible for us to determine how much the group of students changed over time due to attrition or movement of students. If attrition is high, then the change in results may be due in part to the change in students rather than the impact of the education program.

Table 1. Comparison of Four Cohorts in Charter Schools and Their Host Districts on the CMT

		2000-01	2001-02	2002-03	2003-04
Cohort A	(Integrated Day, Jumoke, and Side-by-Side)		Grade 4	→	Grade 6
Cohort B	(Highville, Integrated Day, and Jumoke)	Grade 4	→	Grade 6	
Cohort C	(Amistad, Integrated Day, ISAAC, Odyssey, Side-by-Side, and Trailblazers)		Grade 6	→	Grade 8
Cohort D	(Amistad, Integrated Day, ISAAC, Odyssey, and Trailblazers)	Grade 6	→	Grade 8	

Note. When two charter schools lie in the same host district, that host district is only counted once when we calculate the aggregate for host districts.

We were able to calculate change scores for 4 different cohorts of students taking the CMT tests. Two fourth grade to sixth grade cohorts were traced longitudinally for each of the first 3 years of the charter school reform. For each cohort we traced results in reading, writing, and mathematics, which provided a total of 18 different comparisons that could be measured. The measure we used was the average scale score. We compared the aggregate of the weighted charter schools' scale scores to the aggregate of their respective host districts. Comparing the change scores over time for the charter schools and their host districts allows us to examine the relative progress made by charter schools over time. Table 2 contains the results from these comparisons.

Again, readers should be cautioned that in many cases charter school students may have similar characteristics to students in the host district, but this assumption is not always true. Readers should also be cautioned that the numbers of students taking the test in each charter school during any one year is small, and cohorts within schools from year to year may be very different. It is

important to emphasize again that host districts have been in operation for many years prior to 1997-98, whereas charter schools are less than five years old.

Table 2. Comparison of Charter Schools and Host Districts Using CMT Scale Scores

Cohort A

Reading	*4th Grade 2001-02*	*6th Grade 2003-04*	*Difference in Change Scores*
CS	223.77	236.58	
HD	219.95	221.99	
CS-HD	3.82	14.60	10.78
Writing			
CS	226.62	232.12	
HD	235.72	230.25	
CS-HD	-9.10	1.86	10.96
Math			
CS	218.56	239.72	
HD	224.06	230.55	
CS-HD	-5.50	9.17	14.67

Cohort B

Reading	*4th Grade 2000-01*	*6th Grade 2002-03*	*Difference in Change Scores*
CS	230.62	231.31	
HD	213.97	217.49	
CS-HD	16.65	13.82	-2.83
Writing			
CS	227.73	228.73	
HD	224.53	227.62	
CS-HD	3.20	1.12	-2.08
Math			
CS	222.24	230.99	
HD	220.91	226.74	
CS-HD	1.33	4.25	2.92

Cohort C

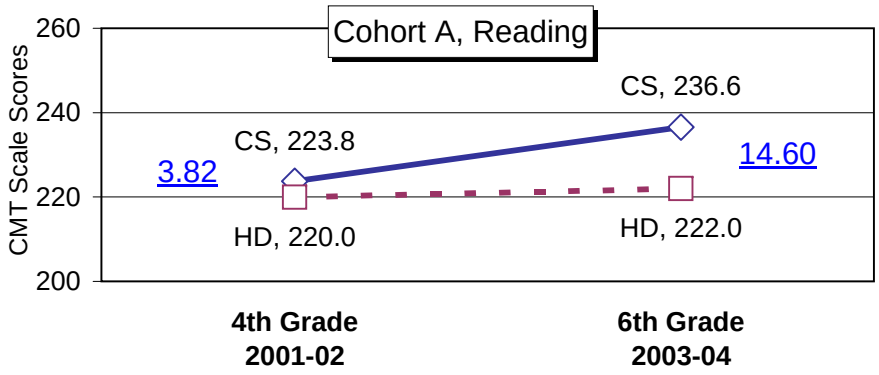
Reading	*6th Grade 2001-02*	*8th Grade 2003-04*	*Difference in Change Scores*
CS	234.95	247.42	
HD	230.39	230.35	
CS-HD	4.56	17.07	12.51
Writing			
CS	227.73	243.95	
HD	228.36	230.17	
CS-HD	-0.63	13.78	14.41
Math			
CS	239.63	246.81	
HD	233.31	228.32	
CS-HD	6.32	18.49	12.17

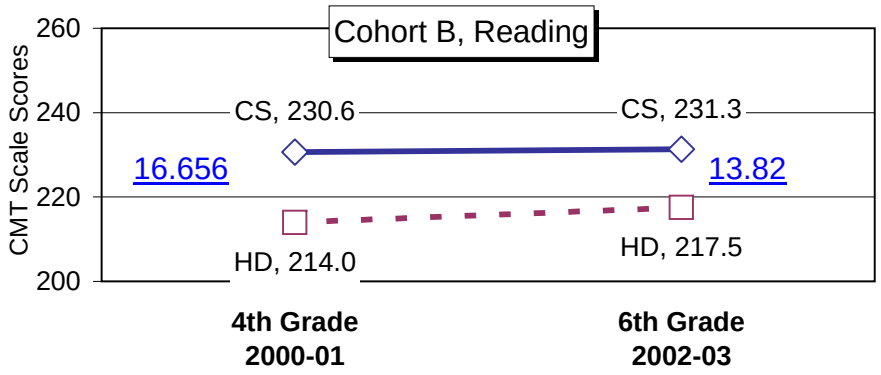
Cohort D

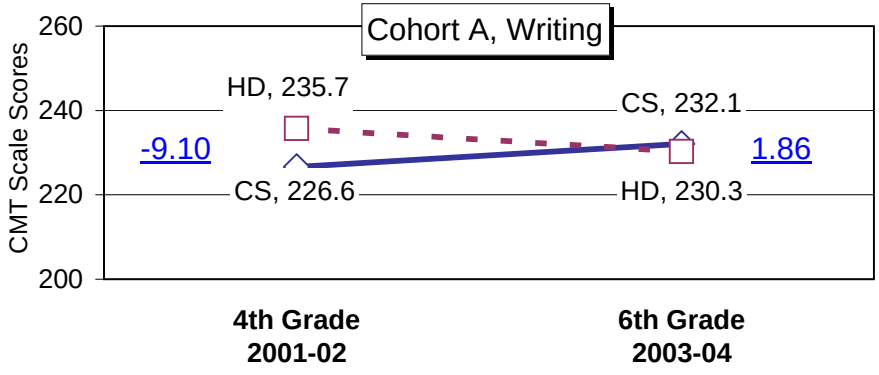
Reading	*6th Grade 2000-01*	*8th Grade 2002-03*	*Difference in Change Scores*
CS	229.80	244.39	
HD	228.77	231.18	
CS-HD	1.03	13.21	12.18
Writing			
CS	228.58	242.44	
HD	228.41	227.14	
CS-HD	0.17	15.30	15.13
Math			
CS	227.16	242.06	
HD	227.07	228.52	
CS-HD	0.09	13.54	13.45

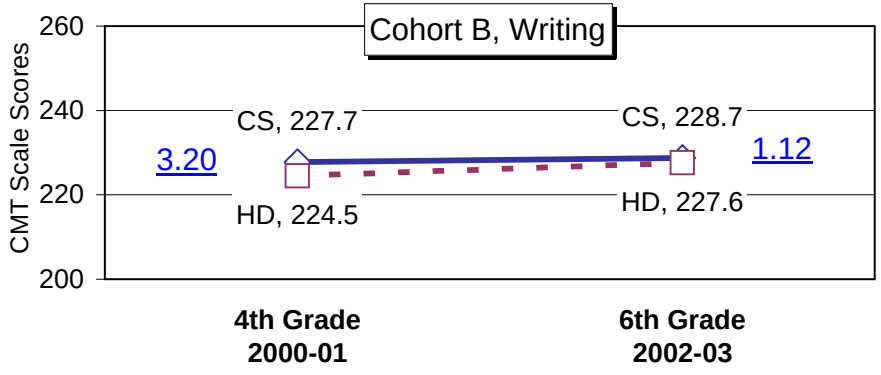
We used average scale scores to calculate the cohort group scores over time. The difference between change scores in cohorts of charter schools and their host districts allows us to examine the relative progress made by charter schools over time. This is calculated by subtracting the charter schools' cohort group change scores from their host districts' cohort group change scores. A positive number indicates that charter schools gained more than their host districts, while a negative number indicates that charter schools gained less than their host districts. The bigger the number, the greater the degree of difference there is between charter schools and host districts. The results are presented in Table 2 and Exhibits I and II.

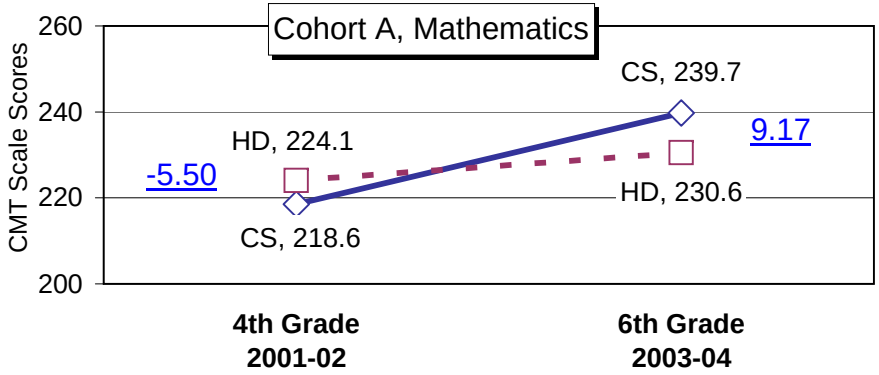
Exhibit I. Cohorts A and B Following Students from Grade 4 to Grade 6

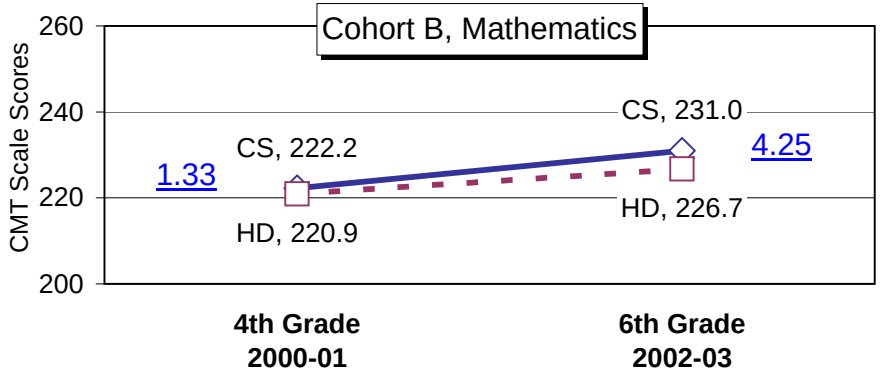










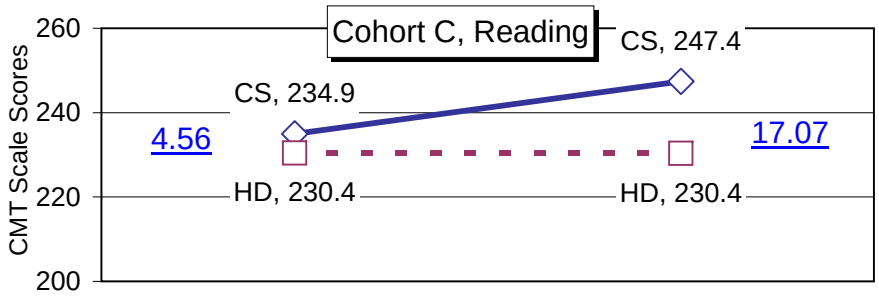


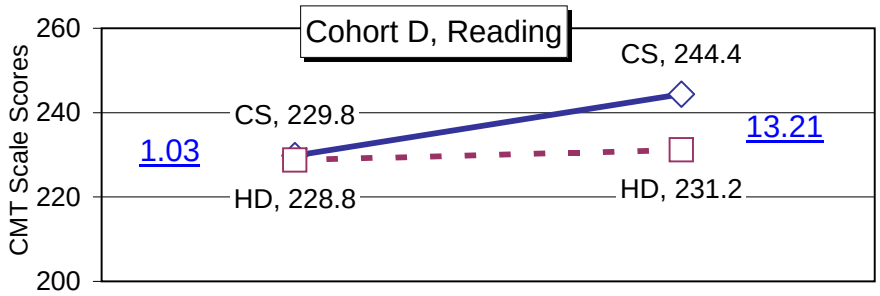
Note: Cohort A includes 3 charter schools (Integrated Day, Jumoke, and Side-by-Side) and their respective host districts. Cohort B also includes 3 charter schools (Highville, Integrated Day, and Jumoke) and their respective host districts. Highville was excluded from Cohort A and Side-by-Side was excluded from Cohort B because the schools had fewer than 20 test takers. Thus, the scale scores were not reported by the State Department of Education.

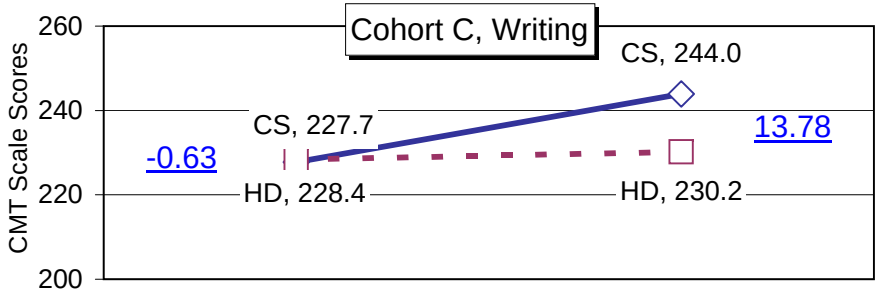
The underlined numbers in the charts indicate the size of the difference between the charter schools and host districts. A negative number indicates that charter schools have a lower score than the host districts. A positive number indicates that the charter schools are scoring higher than host districts.

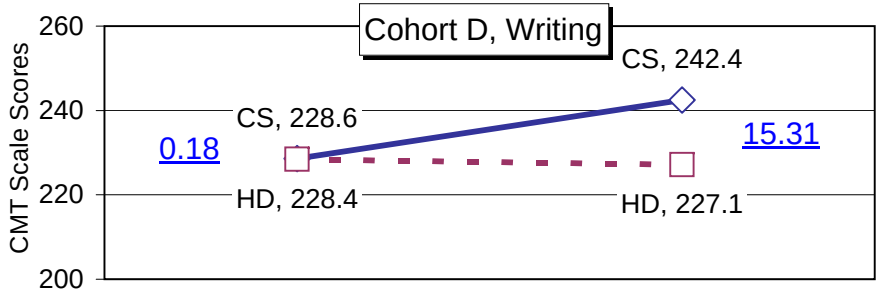
All scores represent weighted average scaled scores for the group of charter schools or host districts. These scale scores are weighted by the number of test takers in each charter school or host district.

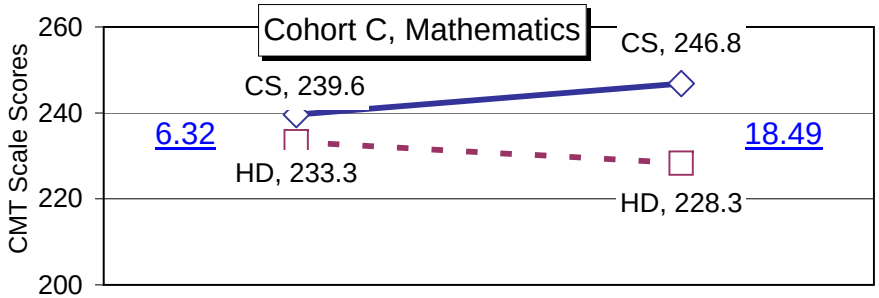
Exhibit II. Cohorts C and D Following Students from Grade 6 to Grade 8

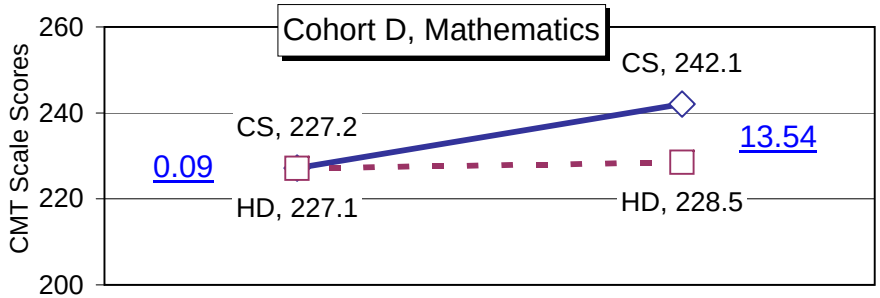












Note: Cohort C includes 6 charter schools (i.e., Amistad, Integrated Day, ISAAC, Odyssey, Side-by-Side, and Trailblazers) and their respective host districts. Cohort D includes 5 charter schools (i.e., Amistad, Integrated Day, ISAAC, Odyssey, and Trailblazers) and their respective host districts. Schools that were excluded from either cohort did not have a sufficient number of test takers (i.e., at least 20) required to report the data publicly. Breakthrough Charter School converted to a magnet school in 2002 so it was also excluded from this analysis.

The underlined numbers in the charts indicate the size of the difference between the charter schools and host districts. A negative number indicates that charter schools have a lower score than the host districts. A positive number indicates that the charter schools are scoring higher than host districts.

All scores represent weighted average scaled scores for the group of charter schools or host districts. These scale scores are weighted by the number of test takers in each charter school or host district.

As can be seen in Table 2, all but 3 comparisons favored charter schools. Cohorts A, C, and D all outgained their comparison groups by between 10 and 15 scale scores. Only Cohort B performed less well than its comparison group. Across all the comparisons we could make, the charter schools were gaining, on average, more than10 points over the comparison host districts.

Exhibits I and II contain graphs that illustrate the results from the cohort analysis. Each chart in the exhibits contains lines that illustrate the relative performance of the weighted aggregate of charter schools and the weighted aggregate of host districts. The values for the line charts are also included in the charts. Two numbers are underlined that indicate the difference between the charter schools and host districts. The number to the left of the lines records the difference in aggregate scores the first time they were tested, and the number to the right represents the difference in scores the second time the two groups were tested.

When we did this analysis in 2002, we found that the charter schools often had lower scores at the first comparison point but caught up or surpassed the scores of the host districts by the second comparison point two years later. Now we can see that the charter schools have results that are similar or slightly higher than the host districts at the first comparison point but then increase more rapidly over the two years leading up to the second point of comparison.

Results on the Connecticut Academic Performance Test

The Connecticut Academic Performance Test (CAPT) covers only grade 10, which meant that we could not track students at two different points using this assessment. For this reason, the strongest design we could use was to track trends over time. The trend analysis required that we collect individual school data on different groups of students over multiple years. In other words, we compared consecutive groups of different students at the same grade level (e.g., this year's tenth graders compared with last year's tenth graders).[11] The most sensitive measure available was the average scale score (see results in Exhibits III and IV). Since the average scale score has been used only since the shift to the second generation CAPT in 2001, we could track only the schools from 2000-01 to 2003-04. Longer trends could be calculated using another measure, namely, the percentage of students meeting state standards. In Appendix E, we include the results from a trend analysis of the CAPT reflecting the percentage of students meeting the state standard.[12]

As explained earlier, we used weighted index scores to calculate average annual change scores or differences over time. We calculated the average annual change score for the charter schools as well as for their respective host districts. Next we examined the difference between average annual change scores in charter schools and their host districts, which illustrates the relative progress made by charter schools over the years. The difference in average annual change scores indicates the charter schools' progress over time.

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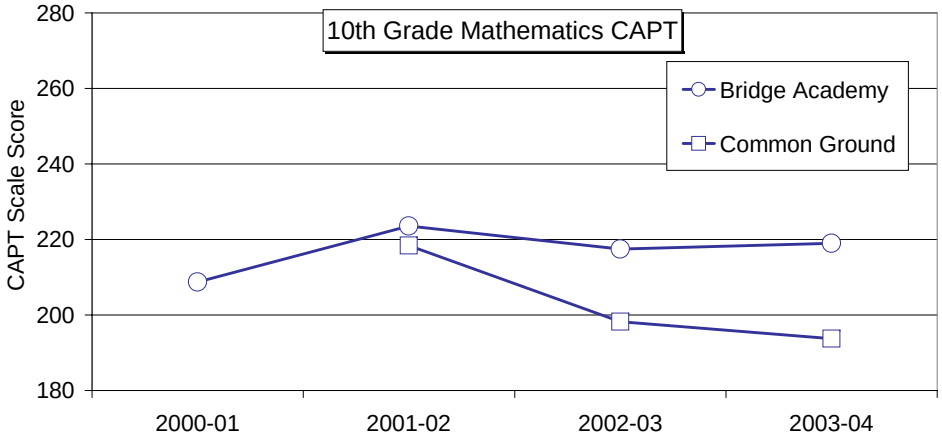
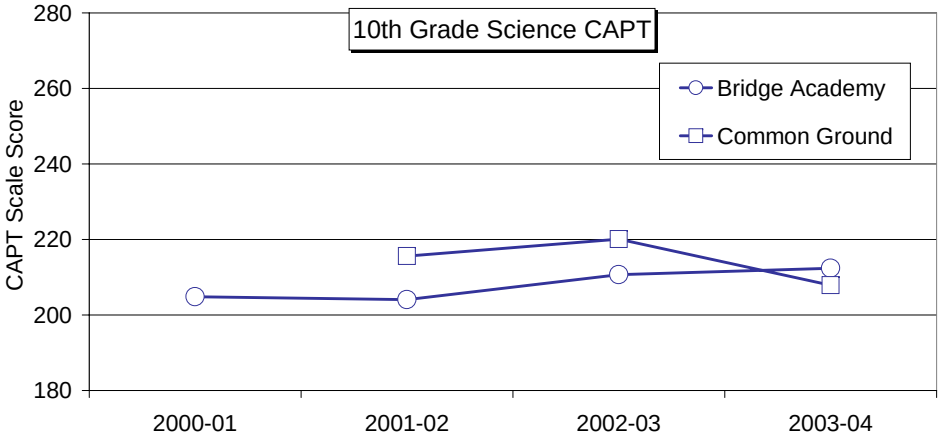
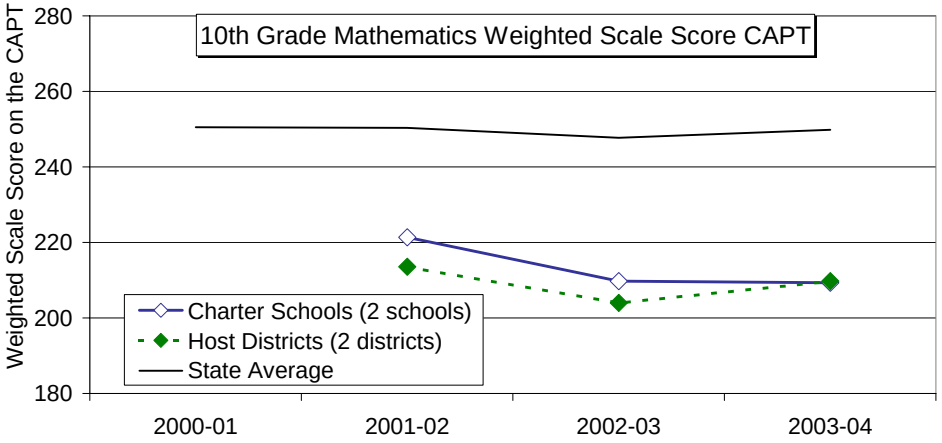
[11] This assumes that the group of students taking a particular grade level test each year has one more year of exposure to the charter school than the group of students that took the same grade level test the year before. This also assumes that over time charter schools will build their focused learning community and pursue their missions and improve results. The rationale for this analysis assumes that student mobility is limited, although in a few schools the mobility rates are reported to be high.

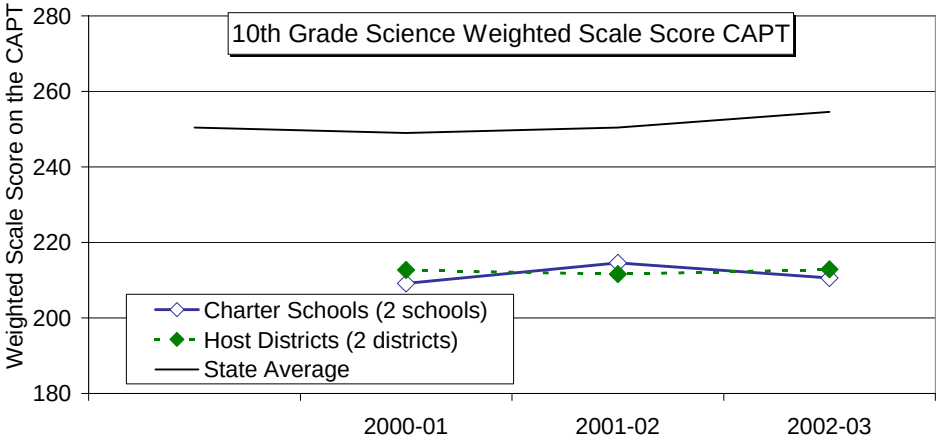
[12] The results from the trend analysis are included only as background information and depict school level results as well as a comparison of trends between charter schools, host districts, and the state average. Results are presented that cover all charter schools that have operated in the state since 1997. As will be seen, changes in the subjects covered by the CAPT and changes in the numbers of charter schools operating over time make it difficult to piece together the performance of the schools. On the whole, the results illustrated in Appendix E do not differ from the trend results presented in Exhibits III and IV.

Exhibit III. Grade 10 Results For Mathematics and Science on the CAPT, 2000-01 to 2003-04









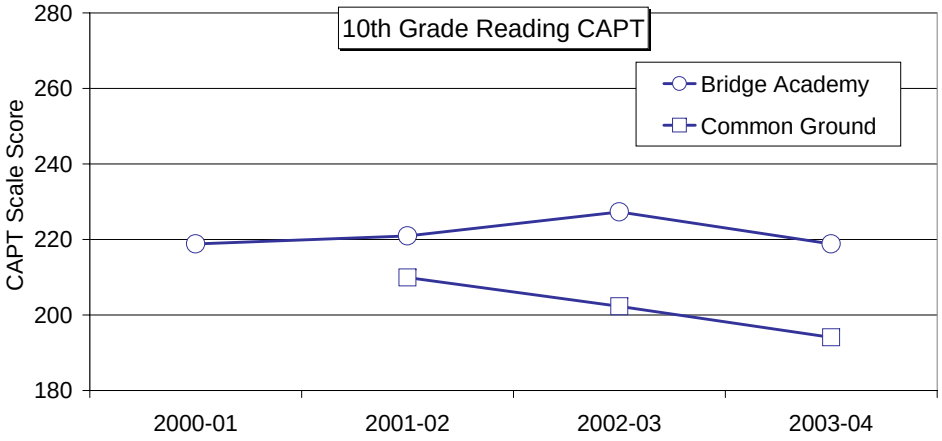
10th Grade Mathematics Weighted CAPT

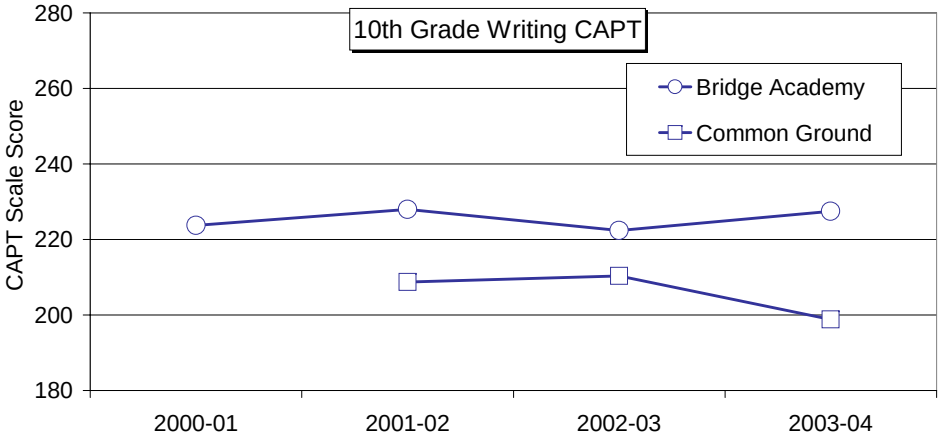
	2000-01	2001-02	2002-03	2003-04	*Average difference*
CS		221.34	209.78	209.33	*-6.00*
HD		213.52	204.00	209.78	*-1.87*
Difference of average difference (CS-HD)					***-4.13***

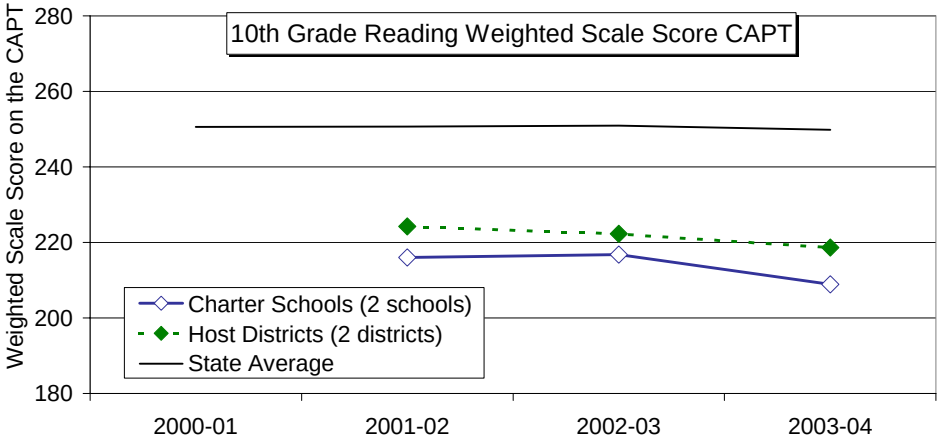
10th Grade Science Weighted CAPT

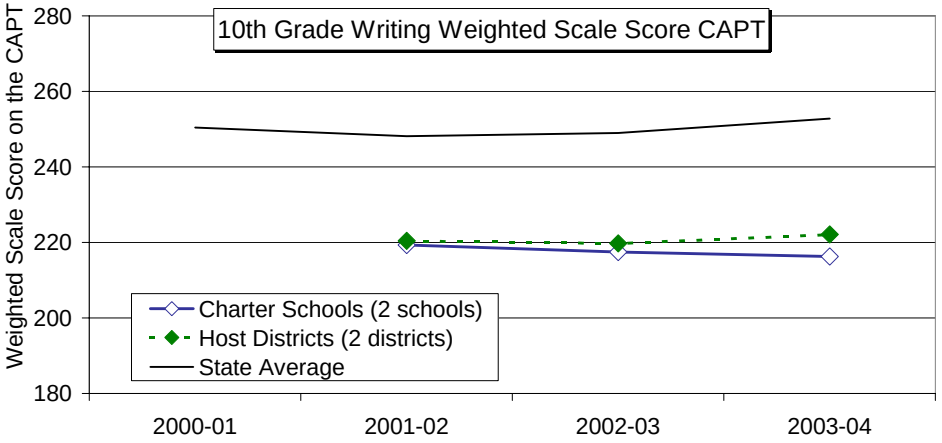
	2000-01	2001-02	2002-03	2003-04	*Average difference*
CS		209.13	214.55	210.60	*0.73*
HD		212.73	211.61	212.90	*0.09*
Difference of average difference (CS-HD)					***0.64***

Exhibit IV. Grade 10 Results For Reading and Writing on the CAPT, 2000-01 to 2003-04









10th Grade Reading Weighted CAPT

	2000-01	2001-02	2002-03	2003-04	*Average difference*
CS		216.01	216.75	208.92	*-3.55*
HD		224.22	222.32	218.67	*-2.77*
Difference of average difference (CS-HD)					***-0.78***

10th Grade Writing Weighted CAPT

	2000-01	2001-02	2002-03	2003-04	*Average difference*
CS		219.28	217.48	216.27	*-1.51*
HD		220.39	219.74	222.15	*0.88*
Difference of average difference (CS-HD)					***-2.39***

Exhibits III and IV on the previous pages illustrate the results from our trend analysis of the CAPT results. Only two charter high schools (i.e., Bridge Academy and Common Ground Charter School) could be included in the trend analysis. Explorations had too few test takers, so their average scale score results are not made available. There were two other charter schools that serve high school students, but one closed in 2001 (i.e., Ancestors Charter School) and the other one (Sports Sciences Academy) converted to a magnet school in 2002.

The upper graphs in Exhibits III and IV illustrate the individual performance of the two schools. The 2000-01 results are not illustrated for Common Ground because only 10 students took the test that year. The aggregate trends, which are illustrated in the lower set of graphs, starts in 2001-02 when both schools had available test data. Finally, at the bottom of the exhibits, the actual weighted aggregate scale scores are listed along with the calculation of the average annual change scores and the difference in change scores for the charter schools and host districts.

The results indicate that the charter schools and their host districts performed rather similarly over time. While the state average on the CAPT remains stable around 250, the results for the charter schools and their host districts are much lower, with average scale scores usually between 210 and 200. In three of the subject area tests, the host districts had average annual change scores that were larger than the charter schools. In mathematics, the host districts had an average annual change score that was more than 4 points higher than the charter schools. Only in science did the charter schools have a small advantage over the host districts.

Again, readers need to interpret these results carefully. Only two charter schools are included in the analysis, and the trend runs for only three years. It is also important to recall that the numbers of students taking the test in each charter school during any one year is small, and it is possible that there are differences in background characteristics of the consecutive groups of students taking the test each year. Furthermore, the trend study is limited because it cannot filter out whether changes in student scores are due to changes in students or changes in a school program. Finally, one last critical limitation is that the charter schools had full participation on the CAPT test while the host districts had substantially lower participation rates (see Table 3).

In the next section, we look at the extent to which charter schools met or fulfill their own goals and objectives.

Table 3. Comparison of CAPT Participation Rates for Charter High Schools and Their Host Districts

	CAPT Participation Rate
Bridge Academy	100%
Host District (Bridgeport)	86.4%
Common Ground	100%
Host District (New Haven)	85.9
Explorations	100%
Host district (Gilbert School)	99.2%
State	96.9%

Note. CAPT participation rates for 2003-04 come from the School Profiles.

Extent to Which Charter School Goals and Objectives are Being Met

In this section we address the question, "Are Connecticut charter schools meeting their own goals?" To answer this question we examined and analyzed each school's annual reports for 2003-04. In these annual reports, each charter school's goals and measurable objectives are specified and data are presented regarding the progress made in terms of meeting the goals. Unlike many other states, the annual report submitted by charter schools in Connecticut is an important tool for accountability. Although the reports vary in their formatting and presentation, their structure is standard and prescribed by the state. This made our job of reviewing the goals and objectives much easier.

In our earlier statewide evaluation (Miron & Horn, 2002), we described the process that was used as the charter schools developed, defined, and redefined their measurable objectives. Our analysis of the annual reports also considered the extent to which each school's goals and objectives covered its stated mission. Our earlier report also examined the quality and relevance of the goals and objectives set by each school. I mention these topics covered in our earlier 2002 report because they provide important background information and because we did not re-examine the quality and relevance of the charter school goals in this study.

It is important to note that with respect to the report on goals and objectives, the approach taken by the schools varied widely in terms of the number of specific goals and objectives (from 5 to 41), and the nature of the goals and objectives. It appears that there is a lack of clarity on the part of the schools as to the proper design and importance of this section of their annual report. Consequently, it is difficult to draw conclusions on the actual performance of the schools based on a reading of these reports. We would encourage the Department of Education to place more emphasis on this section of the annual report, and to work with the schools to make it a more comprehensive and meaningful reflection of the school's performance.

Are the Schools Meeting Their Own Goals?

Each annual report contains a section that addresses the three state-mandated areas where the charter schools are expected to elaborate goals and measurable objectives: (i) student progress; (ii) accomplishment of mission, purpose, and specialized focus; and (iii) efforts to reduce racial, ethnic, and economic isolations. For each area we counted the number of measurable objectives and compared this number with the number of objectives that, according to the data provided in the report, were met by the school. In judging whether a particular goal was met, we applied the benchmark provided by the school. For instance, if a school's benchmark was that 80 percent of the students would achieve passing grades on an exam, we considered the school to have achieved the objective only if the reported pass rate was 80 percent or higher.

If a school reported a lower percentage pass rate, we used a coding system that judged schools on the numerical difference between benchmarks and reported values. This system has the advantage of giving schools credit for coming close to their benchmarks. While it was not always possible to make objective estimates of the extent to which an objective was nearly met, we used the category "Mostly met" when we could estimate that 75 percent or more of the target was fulfilled.

The "Partially met" category was used to refer to instances where between 50 percent and 74 percent of the target was achieved. If less than 50 percent of the target was achieved, we used the category "Did not meet" to classify the item.

Among those objectives that scored in the "Did not meet" category, we counted the number of objectives *for which there was insufficient data* to measure the outcome. This indicator helped us understand the extent to which the schools were not reporting on their preestablished objectives. It is important to note that sometimes the schools could not report relevant data because the objective was not fully measurable or was not fully relevant to the school at that time.

Table 4 reports summary statistics on the extent to which Connecticut charter schools have met their self-determined goals. The findings are reported for each of the three state-mandated areas, along with totals across all three areas. Overall, Connecticut charter schools fully met 43.6 percent of the measurable objectives identified in their annual reports. The success rate was highest (48.8 percent) for objectives related to the schools' specific missions and foci, where the schools have the most flexibility in defining goals. The success rate was lowest (36.6 percent) for objectives related to the educational progress of students. The success rate was 46.1 percent for objectives related to reducing racial, ethnic, and economic isolation.

Table 4. Percentage of Objectives Met by Charter Schools by Area, 2003-04

Area	*Number of Objectives Achieved*	*Total Number of Objectives*	*Percent of Objectives Achieved*
Educational progress of students	26	71	36.6%
Accomplishment of mission, purpose, and specialized focus	40	82	48.8%
Efforts to reduce racial, ethnic, and economic isolation	12	26	46.2%
Totals	78	179	43.6%

Source of data: Compiled from 2003-04 charter school annual reports by The Evaluation Center

In total, 179 objectives were set by the schools. Figure 1 illustrates the extent to which these objectives were met or fulfilled. The findings illustrated in Figure 1 appear worse that what we found for earlier years (see Chapter 7 in the 2002 evaluation report). In this review of objectives, however, we have been more strict in rating the objectives. Previously, if data were not available in the annual report, we dropped the objective from the aggregate results. This time around, however, if the measurable objective was reported but

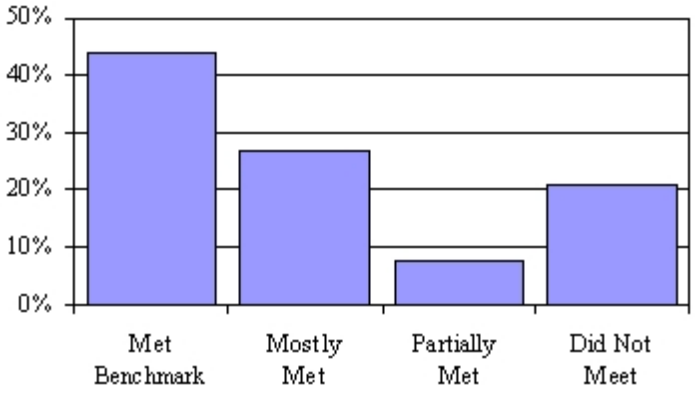


Figure 1. Distribution of Objectives Based on Extent to Which They Were Fulfilled

no data or evidence of accomplishment were provided we grouped the objective with the objectives that were not met.

Table 5 provides a school-by-school breakdown of the charter schools' performance relative to their self-established objectives. As can be seen in the results from Table 5, there are considerable differences in the performance of the charter schools. Two of the schools (Amistad and Highville) met 70 percent or more of their measurable objectives. On the other end, Jumoke fully met none of its objectives and ISAAC met only 20 percent of its objectives.

The actual quality of the goals and objectives set by the schools as well as the quality and completeness of the evidence provided in the annual report relevant to the objectives also varied extensively among the schools. While a few schools have well-defined goals with clear, measurable benchmarks and progress indicators, other schools have goals and measurements that are confusing or have insufficient data to measure progress. Below, some of our key observations regarding quality and completeness are summarized for each school.

- ❑ Amistad Academy and Highville Mustard Seed Charter School had well-defined goals, objectives, and measurable progress indicators. Interestingly, these two schools also fully met the highest percentage of their objectives.
- ❑ Bridge Academy's progress indicators or explanations of progress were sometimes confusing and vague.
- ❑ Common Ground had a large number of measurable goals and outcomes (34). The school set benchmarks based on 100 percent of students meeting an objective by graduation and then a certain percentage of students per year. These types of benchmarks and the manner in which the evidence was provided were confusing and hard to interpret. The annual report includes extensive data and results; however, these did not necessarily answer whether or not the school was meeting the objectives it set for itself.
- ❑ Integrated Day Charter School had the greatest number of measurable objectives among the charter schools (41). However, some educational goals seemed to have more subjective measurements that may be susceptible to internal bias.
- ❑ ISAAC had a small and insufficient set of goals and objectives (i.e., a total of 5 objectives). The benchmarks are interpreted as progress versus a measurement standard.
- ❑ Jumoke Academy had vague reports of progress. Thus, many objectives failed to meet goals.
- ❑ New Beginnings Charter School had some weak definitions of goals and objectives. Certain objectives also need better measurement indicators for interpreting progress.
- ❑ Odyssey Charter School had only seven measurable objectives. The objectives concerning curriculum and diversity reportedly had been met, but progress measurements could be more clearly defined by individual benchmarks rather than a general summary of progress covering multiple objectives.
- ❑ Side By Side Charter School had goals and objectives that could be defined and measured better. Certain objectives were reported as met when evidence was unclear or confusing.
- ❑ Trailblazers Academy generally had well-defined and measurable goals and objectives. However, certain aggregate indicators were confusing to extract from reported progress measurements.

Table 5 Success Rate in Meeting Objectives by School and Objective Area, 2003-04

School		Educational Progress of Students						Mission, Purpose, Specialized Focus						Reduce Racial, Ethnic, & Economic Isolation						Totals					
		Met Bench-mark	*Mostly Met*	*Partially Met Bench-mark*	*Did Not Meet*	*Total*	*Number of "Did Not Meets" That Had Insufficient Data*	*Met Bench-mark*	*Mostly Met*	*Partially Met Bench-mark*	*Did Not Meet*	*Total*	*Number of "Did Not Meets" That Had Insufficient Data*	*Met Bench-mark*	*Mostly Met*	*Partially Met Bench-mark*	*Did Not Meet*	*Total*	*Number of "Did Not Meets" That Had Insufficient Data*	*Met Bench-mark*	*Mostly Met*	*Partially Met Bench-mark*	*Did Not Meet*	*Total*	*Number of "Did Not Meets" That Had Insufficient Data*
Amistad	n	3	0	0	0	3	0	0	1	1	0	2	0	3	0	0	0	3	0	6	1	1	0	8	0
	%	100%	0%	0%	0%	100%		0%	50%	50%	0%	100%		100%	0%	0%	0%	100%		75%	13%	13%	0%	100%	
Bridge Academy	n	1	1	1	1	4	0	2	2	0	0	4	0	0	1	1	2	4	1	3	4	2	3	12	1
	%	25%	25%	25%	25%	100%		50%	50%	0%	0%	100%		0%	25%	25%	50%	100%		25%	33%	17%	25%	100%	
Common Ground	n	1	1	1	8	11	7	9	3	0	6	18	6	3	2	0	0	5	0	13	6	1	14	34	13
	%	9%	9%	9%	73%	100%		50%	17%	0%	33%	100%		60%	40%	0%	0%	100%		38%	18%	3%	41%	100%	
Explorations	n	1		0	1	2	0	5	2	0	0	7	0	1	0	0	1	2	0	7	2	0	2	11	0
	%	50%	0%	0%	50%	100%		71%	29%	0%	0%	100%		50%	0%	0%	50%	100%		64%	18%	0%	18%	100%	
Highville	n	2	0	1	0	3	0	5	0	1	0	6	0	0	1	0	0	1	0	7	1	2	0	10	0
	%	67%	0%	33%	0%	100%		83%	0%	17%	0%	100%		0%	100%	0%	0%	100%		70%	10%	20%	0%	100%	
Integrated Day	n	9	9	1	0	19	0	7	13	1	0	21	0	0	0	1	0	1	0	16	22	3	0	41	0
	%	47%	47%	5%	0%	100%		33%	62%	5%	0%	100%		0%	0%	100%	0%	100%		39%	54%	7%	0%	100%	
ISAAC	n	0	0	0	2	2	2	0	0	0	1	1	1	1	0	1	0	2	0	1	0	1	3	5	3
	%	0%	0%	0%	0%	0%		0%	0%	0%	100%	100%		50%	0%	50%	0%	100%		20%	0%	20%	60%	100%	
Jumoke Academy	n	0	0	0	4	4	4	0	1	0	3	4	3	0	0	0	2	2	2	0	1	0	9	10	9
	%	0%	0%	0%	100%	100%		0%	25%	0%	75%	100%		0%	0%	0%	100%	100%		0%	10%	0%	90%	100%	
New Beginnings	n	4	1	0	3	8	3	1	0	2	2	5	2	3	0	0	0	3	0	8	1	2	5	16	5
	%	50%	13%	0%	38%	100%		20%	0%	40%	40%	100%		100%	0%	0%	0%	100%		50%	6%	13%	31%	100%	
Odyssey	n	0	1	0	1	2	0	4	1	0	0	5	0	0	0	0	0	0	0	4	2	0	1	7	0
	%	0%	50%	0%	50%	100%		80%	20%	0%	0%	100%		0%	0%	0%	0%	0%		57%	29%	0%	14%	100%	
Side By Side	n	3	4	1	1	9	0	5	1	0	0	6	0	1	1	0	0	2	0	9	6	1	1	17	0
	%	33%	44%	11%	11%	100%		83%	17%	0%	0%	100%		50%	50%	0%	0%	100%		53%	35%	6%	6%	100%	
Trailblazers	n	2	1	1	0	4	0	2	0	1	0	3	0	0	1	0	0	1	0	4	2	2	0	8	0
	%	50%	25%	25%	0%	100%		67%	0%	33%	0%	100%		0%	100%	0%	0%	100%		50%	25%	25%	0%	100%	
TOTAL		**26**	**18**	**6**	**21**	**71**	**16**	**40**	**24**	**6**	**12**	**82**	**12**	**12**	**6**	**3**	**5**	**26**	**3**	**78**	**48**	**15**	**38**	**179**	**31**
%		**37%**	**25%**	**8%**	**30%**	**100%**		**49%**	**29%**	**7%**	**15%**	**100%**		**46%**	**23%**	**12%**	**19%**	**100%**		**44%**	**27%**	**8%**	**21%**	**100%**	

Changes and Improvements Over Time

The overall quality of the objectives and the reporting of them improved during the initial years of the reform (i.e., 1997-2001). Over the past four years, however, there have been only moderate improvements by some schools; for a few of the schools, the quality and completeness of the annual reports has worsened considerably. Since our earlier review of the schools' objectives and annual reports, two of the charter schools have closed. These two schools did not have the best formulated objectives and their annual reports tended to be weaker than the others in terms of evidence reported relevant to the set objectives. Further change in the aggregate of the schools was affected by two of the more stable charter schools converting to magnet schools within the Hartford Public School District.

The charter schools reported fewer measurable objectives in 2004 than they did in 2000. On average, each school reported 15 measurable objectives in 2004 and 21 objectives in 2000. In part, this drop is explained by requirements in earlier years for objectives to be reported in an additional area (i.e., evidence of viability of the school) that is no longer required. Also, many schools have continued to refine their measurable objectives and remove less relevant objectives. The most measurable objectives for any given school was 41 for Integrated Day Charter School. Impressively, the school reported evidence on all 41 objectives in its 2004 annual report.

A few of the schools lost ground or did not improve their accountability frameworks over time. For example, Jumoke Academy has not noticeably improved its measurable objectives or the reporting of evidence. The school increased its number of objectives from 5 to 10 between 2000 and 2004. However, there was weak or insufficient evidence for 80 percent of the objectives in 2000, and this increased to 90 percent of the objectives in 2004. ISAAC is another school that has not made improvements in its accountability framework. In 2000, this school had 19 measurable objectives; in its 2004 report this number dropped to only 5 measurable objectives. In our earlier analysis, we emphasized the importance of how well the measurable objectives covered the various aspects of the unique mission statements. Over time, a few schools have dropped objectives, resulting in an accountability framework that now does not completely cover the unique aspects of the school raised in its mission statement.

The completeness of the evidence reported in the annual reports has not improved over time. In 1999-2000, 24 percent of the measurable objectives lacked corresponding evidence. In the 2000-01 annual reports, only 14 percent of the schools' measurable objectives did not have corresponding evidence reported. Unfortunately, in the 2003-04 annual reports, this figure increased to 17 percent of the objectives that lacked sufficient evidence.

One area of improvement for most schools is the continued shift in the objectives from addressing process objectives to addressing outcome objectives. Given the nature of charter school reforms and the emphasis on autonomy in the operation of the school (i.e., processes) but greater accountability for results (i.e., outcomes), it is essential that the schools focus their objectives on outcomes. It is noteworthy that the outcome objectives have been harder for the charter schools to fully achieve or meet. Therefore, the increasing shift toward outcome objectives has meant that fully meeting the objectives is often more difficult.

Another area of improvement is that the measurable objectives are increasingly realistic. In the earlier years, many schools included objectives that had benchmarks that really were unattainable (e.g., having 100 percent of the students meet a particular state standard). Now that the

objectives and their respective benchmarks are increasingly relevant and realistic, it is easier for the schools to fully meet their objectives.

In earlier years, the Connecticut State Department of Education provided extensive assistance and guidance to the schools in terms of their annual reports. Pressure was also placed on the schools to improve the measurable objectives and prepare effective annual reports that present evidence regarding the fulfillment of objectives. Given that the quality of the accountability framework, including the agreed-upon measurable objectives and the annual reports, is worsening at some of the charter schools and showing relatively small improvements at other schools suggests the need for CSDE's continued support and pressure.

It is common that states require charter schools to prepare annual reports. In most instances, these annual reports are supposed to report on the agreed-upon measurable objectives spelled out in the charter agreement or contract. When this happens, the annual reports serve as an important tool for accountability. Using annual reports to report on unique measurable objectives balances accountability based solely on students' performance on state assessment tests. Unfortunately, it is common that states and charter school authorizers have low expectations with regard to the annual reports. In a number of instances, the charter schools do not even complete the mandated annual reports. With its current accountability framework, Connecticut still should be seen as a leader and as a model for balancing its demands for accountability. More work may be needed, however, to ensure that the schools set realistic and measurable objectives, so that the quality and use of the annual reports remain high.

Appendices

Appendix A. Connecticut Mastery Test (CMT) Results for Connecticut Charter Schools

Amistad, Grades 5-8 — **Percent Meeting State Goal**

Grade	Subject	n	Fall 97-98	n	Fall 98-99	n	Fall 99-00	n	Fall 00-01	n	Fall 01-02	n	Fall 02-03	n	Fall 03-04	Avg. Annual Difference
Grade 6	Reading	.	.	.	.	35	43.0	45	22.2	40	37.5	70	45.7	69	33.3	-2.43
Grade 6	Writing	.	.	.	.	35	40.0	45	34.1	40	42.5	68	63.2	68	55.9	3.98
Grade 6	Mathematics	.	.	.	.	35	15.0	45	22.2	40	35.0	70	42.9	69	40.6	6.40
Grade 6	ALL 3 TESTS	.	.	.	.	35	8.6	45	17.8	40	25.0	68	34.3	68	21.7	3.28
Grade 8	Reading	.	.	.	.	.	.	.	.	33	54.5	35	71.4	40	80.0	12.75
Grade 8	Writing	.	.	.	.	.	.	.	.	33	63.6	35	88.6	40	85.0	10.70
Grade 8	Mathematics	.	.	.	.	.	.	.	.	33	45.5	35	65.7	40	75.0	14.75
Grade 8	ALL 3 TESTS	.	.	.	.	.	.	.	.	33	27.3	35	60.0	40	65.0	18.85

Amistad, Grades 5-8 — **Index Score 97-98 through 99-00 and then Scale Score 00-01 through 03-04***

Subject	n	1997-98	n	1998-99	n	1999-00	n	2000-01	n	2000-01 SCALE	n	2001-02	n	2002-03	n	2003-04	Avg. Annual Difference
Reading					35	55.7	45	35.6	45	208.3	40	220.4	70	227.1	69	220.1	3.9
Writing					35	58.6	45	60.6	44	222.3	40	231.0	68	245.8	68	244.3	7.3
Mathematics					35	40.4	45	45.9	45	212.1	40	229.9	70	235.0	69	234.3	7.4
Overall Index						51.6	45	47.4	.	.	.	.	.	.	.	.	.
Reading									.	.	33	235.0	35	250.4	40	258.6	11.8
Writing									.	.	33	243.6	35	285.9	40	280.0	18.2
Mathematics									.	.	33	243.2	35	253.3	40	261.5	9.2
Overall Index									.	.	.	.	.	.	.	.	.

Highville, Grades K-8 — **Percent Meeting State Goal**

Grade	Subject	n	Fall 97-98	n	Fall 98-99	n	Fall 99-00	n	Fall 00-01	n	Fall 01-02	n	Fall 02-03	n	Fall 03-04	Avg. Annual Difference
Grade 4	Reading	.	.	22	14.0	16	19.0	20	5.0	28	17.9	36	27.8	18	27.8	2.76
Grade 4	Writing	.	.	22	40.0	16	0.0	20	5.0	28	28.6	36	8.3	18	61.1	4.22
Grade 4	Mathematics	.	.	22	18.0	16	38.0	20	0.0	29	13.8	36	27.8	18	22.2	0.84
Grade 4	ALL 3 TESTS	.	.	22	4.5	16	0.0	20	0.0	28	3.4	36	8.3	18	16.7	2.44
Grade 6	Reading	.	.	.	.	19	45.0	25	16.0	25	20.0	25	32.0	16	43.8	-0.30
Grade 6	Writing	.	.	.	.	19	63.0	25	36.0	23	26.1	25	16.0	16	43.8	-4.80
Grade 6	Mathematics	.	.	.	.	19	32.0	25	20.0	24	16.7	25	20.0	16	18.8	-3.30
Grade 6	ALL 3 TESTS	.	.	.	.	19	15.0	25	0.0	23	12.0	25	8.0	16	18.8	0.95
Grade 8	Reading	.	.	.	.	.	.	.	.	13	62.0	31	29.0	14	50.0	-6.00
Grade 8	Writing	.	.	.	.	.	.	.	.	14	50.0	31	29.0	14	35.7	-7.15
Grade 8	Mathematics	.	.	.	.	.	.	.	.	13	54.0	31	9.7	14	21.4	-16.30
Grade 8	ALL 3 TESTS	.	.	.	.	.	.	.	.	13	50.0	31	3.2	14	14.3	-17.85

Highville, Grades K-8 — **Index Score 97-98 through 99-00 and then Scale Score 00-01 through 03-04***

Subject	n	1997-98	n	1998-99	n	1999-00	n	2000-01	n	2000-01 SCALE	n	2001-02	n	2002-03	n	2003-04	Avg. Annual Difference
Reading			22	22.7	16	37.5	20	21.7	20	196.1	28	216.0	36	206.3	18	*	5.1
Writing			22	55.0	16	25.0	20	33.3	20	202.7	28	228.5	36	192.5	18	*	-5.1
Mathematics			22	36.4	16	54.2	20	26.7	20	184.8	29	204.0	36	196.6	18	*	5.9
Overall Index				38.0		38.9	20	27.2	.	.	.	.	.	.	.	.	.
Reading					19	57.5	25	30.7	25	207.0	25	206.4	25	208.0	16	*	0.5
Writing					19	76.3	25	64.0	25	223.1	23	205.2	25	206.4	16	*	-8.3
Mathematics					19	63.2	25	45.3	25	210.5	24	214.4	25	210.1	16	*	-0.2
Overall Index						65.7	25	46.7	.	.	.	.	.	.	.	.	.
Reading									.	.	13	*	31	206.5	14	*	.
Writing									.	.	14	*	31	212.5	14	*	.
Mathematics									.	.	13	*	31	202.5	14	*	.
Overall Index									.	.	.	.	.	.	.	.	.

Integrated Day, Gr. K-8 — **Percent Meeting State Goal**

Grade	Subject	n	Fall 97-98	n	Fall 98-99	n	Fall 99-00	n	Fall 00-01	n	Fall 01-02	n	Fall 02-03	n	Fall 03-04	Avg. Annual Difference
Grade 4	Reading	22	55.0	33	76.0	30	59.0	32	59.0	34	53.0	31	54.8	30	56.7	0.28
Grade 4	Writing	22	64.0	33	67.0	30	50.0	31	55.0	34	50.0	31	41.9	30	56.7	-1.22
Grade 4	Mathematics	22	55.0	33	64.0	30	53.0	32	56.0	34	50.0	32	65.6	32	59.4	0.73
Grade 4	ALL 3 TESTS	22	36.4	33	45.5	30	33.3	32	43.8	34	29.4	31	34.4	30	40.6	0.70
Grade 6	Reading	20	55.0	21	81.0	22	82.0	33	81.8	33	69.7	32	62.5	34	67.6	2.10
Grade 6	Writing	20	25.0	21	24.0	22	91.0	33	72.7	33	66.7	33	69.7	34	67.6	7.10
Grade 6	Mathematics	20	55.0	21	45.0	22	64.0	33	60.6	33	51.5	32	65.6	34	61.8	1.13
Grade 6	ALL 3 TESTS	20	15.0	21	19.0	22	50.0	33	45.5	33	45.5	32	54.5	34	47.1	5.35
Grade 8	Reading	.	.	.	.	2	100.0	12	92.0	18	72.0	30	90.0	32	84.4	-3.90
Grade 8	Writing	.	.	.	.	2	100.0	12	58.0	18	83.0	32	78.1	31	74.2	-6.45
Grade 8	Mathematics	.	.	.	.	2	100.0	12	75.0	18	39.0	29	89.7	32	87.5	-3.13
Grade 8	ALL 3 TESTS	.	.	.	.	2	96.4	12	58.3	18	38.9	29	62.5	31	68.8	-6.90

Integrated Day, Gr. K-8 — **Index Score 97-98 through 99-00 and then Scale Score 00-01 through 03-04***

Subject	n	1997-98	n	1998-99	n	1999-00	n	2000-01	n	2000-01 SCALE	n	2001-02	n	2002-03	n	2003-04	Avg. Annual Difference
Reading	22	63.3	33	81.8	30	63.8	32	69.8	32	258.7	34	241.1	31	247.4	30	246.0	-4.2
Writing	22	82.9	33	80.3	30	67.9	31	74.2	31	253.9	34	250.6	31	240.6	30	251.9	-0.7
Mathematics	22	72.7	33	86.9	30	67.8	32	72.9	32	245.8	34	241.5	32	254.6	32	248.6	0.9
Overall Index		73.0		83.0		66.5	32	72.3	.	.	.	.	.	.	.	.	.
Reading	20	90.4	21	83.3	22	86.4	33	85.9	33	260.0	33	265.6	32	259.6	34	258.8	-0.4
Writing	20	57.5	21	54.8	22	95.5	33	86.9	33	253.8	33	252.8	33	252.1	34	253.4	-0.1
Mathematics	20	71.2	21	71.7	22	81.8	33	80.8	33	253.0	33	253.2	32	256.0	34	265.8	4.3
Overall Index		73.0		69.9		87.9	33	84.5	.	.	.	.	.	.	.	.	.
Reading					2	100.0	12	94.4	12	*	18	*	30	273.8	32	273.7	-0.1
Writing					2	100.0	12	83.3	12	*	18	*	32	257.8	31	273.1	15.3
Mathematics					2	100.0	12	88.9	12	*	18	*	29	281.1	32	279.4	-1.7
Overall Index						100.0	12	88.9	.	.	.	.	.	.	.	.	.

ISAAC, Grades 6-8 — **Percent Meeting State Goal**

Grade	Subject	n	Fall 97-98	n	Fall 98-99	n	Fall 99-00	n	Fall 00-01	n	Fall 01-02	n	Fall 02-03	n	Fall 03-04	Avg. Annual Difference
Grade 6	Reading	38	57.0	40	43.0	35	29.0	29	62.1	52	57.7	41	61.0	41	36.6	-3.40
Grade 6	Writing	38	29.0	40	53.0	35	35.0	28	40.7	50	44.0	42	42.9	41	39.0	1.67
Grade 6	Mathematics	38	32.0	40	33.0	35	15.0	30	43.3	49	51.0	42	50.0	41	34.1	0.35
Grade 6	ALL 3 TESTS	38	13.5	40	20.0	35	5.7	29	33.3	49	34.6	41	28.6	41	31.7	3.03
Grade 8	Reading	.	.	.	.	41	60.0	30	66.7	28	53.6	27	59.3	41	65.9	1.48
Grade 8	Writing	.	.	.	.	41	24.0	30	46.7	29	27.6	27	44.4	42	42.9	4.73
Grade 8	Mathematics	.	.	.	.	41	39.0	30	43.3	28	17.9	27	40.7	42	40.5	0.38
Grade 8	ALL 3 TESTS	.	.	.	.	41	16.7	30	33.3	28	17.2	27	33.3	41	31.0	3.58

ISAAC, Grades 6-8 — **Index Score 97-98 through 99-00 and then Scale Score 00-01 through 03-04***

Subject	n	1997-98	n	1998-99	n	1999-00	n	2000-01	n	2000-01 SCALE	n	2001-02	n	2002-03	n	2003-04	Avg. Annual Difference
Reading	38	67.6	40	55.0	35	42.9	29	69.0	29	248.2	52	250.1	41	244.4	41	229.0	-6.4
Writing	38	55.7	40	67.5	35	57.4	28	71.6	27	236.0	50	233.0	42	230.5	41	229.7	-2.1
Mathematics	38	57.7	40	59.2	35	39.4	30	70.0	30	237.8	49	248.6	42	245.0	41	237.6	-0.1
Overall Index		60.3		60.6		46.6	29	70.2	.	.	.	.	.	.	.	.	.
Reading					41	73.8	30	78.9	30	249.6	28	234.9	27	249.9	41	256.8	2.4
Writing					41	47.6	30	75.6	30	238.4	29	219.0	27	228.7	42	231.1	-2.4
Mathematics					41	64.2	30	68.9	30	236.6	28	210.8	27	229.5	42	239.2	0.9
Overall Index						61.9	30	74.5	.	.	.	.	.	.	.	.	.

Jumoke, Grades K-6

Percent Meeting State Goal

Grade	Subject	n	Fall 97-98	n	Fall 98-99	n	Fall 99-00	n	Fall 00-01	n	Fall 01-02	n	Fall 02-03	n	Fall 03-04	Avg. Annual Difference
Grade 4	Reading	.	.	27	11.0	28	7.0	34	29.4	38	21.1	37	27.0	43	23.3	2.46
Grade 4	Writing	.	.	27	22.0	28	10.0	34	29.4	37	13.5	37	21.6	43	30.2	1.64
Grade 4	Mathematics	.	.	26	19.0	28	14.0	34	23.5	38	18.4	37	18.9	43	23.3	0.86
Grade 4	ALL 3 TESTS	.	.	26	7.4	28	0.0	34	14.7	37	10.5	37	8.1	43	11.6	0.84
Grade 6	Reading	.	.	.	.	.	.	20	25.0	19	26.0	29	27.6	36	16.7	-2.77
Grade 6	Writing	.	.	.	.	.	.	20	30.0	19	22.0	29	27.6	36	13.9	-5.37
Grade 6	Mathematics	.	.	.	.	.	.	20	0.0	19	16.0	29	24.1	36	11.1	3.70
Grade 6	ALL 3 TESTS	.	.	.	.	.	.	20	0.0	19	10.5	29	17.2	36	5.6	1.87

Jumoke, Grades K-6

Index Score 97-98 through 99-00 and then Scale Score 00-01 through 03-04*

Subject	n	1997-98	n	1998-99	n	1999-00	n	2000-01	n	2000-01 SCALE	n	2001-02	n	2002-03	n	2003-04	Avg. Annual Difference
Reading			27	25.9	28	22.4	34	47.1	34	224.5	38	204.4	37	219.5	43	215.7	-2.9
Writing			27	53.7	28	25.9	34	55.9	34	218.6	37	203.0	37	218.1	43	231.7	4.4
Mathematics			26	28.2	28	41.7	34	56.7	34	222.1	38	194.2	37	202.0	43	208.5	-4.5
Overall Index				35.9		30.0	34	53.2	.	.	.	.	.	.	.	.	.
Reading							20	36.7	20	209.5	19	*	29	220.2	36	211.8	0.8
Writing							20	60.0	20	221.0	19	*	29	221.4	36	208.7	-4.1
Mathematics							20	31.7	20	197.8	19	*	29	221.4	36	203.1	1.8
Overall Index							20	42.8	.	.	.	.	.	.	.	.	.

New Beginnings, Gr. K-4

Percent Meeting State Goal

Grade	Subject	n	Fall 97-98	n	Fall 98-99	n	Fall 99-00	n	Fall 00-01	n	Fall 01-02	n	Fall 02-03	n	Fall 03-04	Avg. Annual Difference
Grade 4	Reading	.	.	.	.	.	.	.	.	.	.	.	.	33	27.3	.
Grade 4	Writing	.	.	.	.	.	.	.	.	.	.	.	.	34	38.2	.
Grade 4	Mathematics	.	.	.	.	.	.	.	.	.	.	.	.	34	32.4	.
Grade 4	ALL 3 TESTS	.	.	.	.	.	.	.	.	.	.	.	.	33	17.6	.

New Beginnings, Gr. K-4

Index Score 97-98 through 99-00 and then Scale Score 00-01 through 03-04*

Subject	n	1997-98	n	1998-99	n	1999-00	n	2000-01	n	2000-01 SCALE	n	2001-02	n	2002-03	n	2003-04	Avg. Annual Difference
Reading									.	.	.	.	.	.	33	220.2	.
Writing									.	.	.	.	.	.	34	233.0	.
Mathematics									.	.	.	.	.	.	34	214.9	.
Overall Index									.	.	.	.	.	.	.	.	.

Odyssey, Grades 5-8

Percent Meeting State Goal

Grade	Subject	n	Fall 97-98	n	Fall 98-99	n	Fall 99-00	n	Fall 00-01	n	Fall 01-02	n	Fall 02-03	n	Fall 03-04	Avg. Annual Difference
Grade 6	Reading	35	71.0	30	73.0	30	67.0	32	53.1	31	51.6	34	35.3	45	60.0	-1.83
Grade 6	Writing	35	32.0	30	24.0	30	43.0	33	45.5	30	50.0	34	32.4	45	42.2	1.70
Grade 6	Mathematics	35	53.0	30	63.0	30	63.0	32	50.0	32	53.1	33	45.5	45	51.1	-0.32
Grade 6	ALL 3 TESTS	35	22.9	30	13.3	30	33.3	32	27.3	30	28.1	33	20.6	45	31.1	1.37
Grade 8	Reading	.	.	9	33.0	39	81.0	32	74.2	41	58.5	32	71.9	32	75.0	8.40
Grade 8	Writing	.	.	9	22.0	39	26.0	31	54.8	37	56.8	33	42.4	33	48.5	5.30
Grade 8	Mathematics	.	.	9	33.0	39	68.0	32	51.6	39	48.7	32	46.9	34	55.9	4.58
Grade 8	ALL 3 TESTS	.	.	9	0.0	39	23.7	32	45.2	37	34.1	32	27.3	32	32.4	6.48

Odyssey, Grades 5-8

Index Score 97-98 through 99-00 and then Scale Score 00-01 through 03-04*

Subject	n	1997-98	n	1998-99	n	1999-00	n	2000-01	n	2000-01 SCALE	n	2001-02	n	2002-03	n	2003-04	Avg. Annual Difference
Reading	35	73.5	30	83.3	30	73.3	32	66.7	32	240.9	31	241.0	34	222.0	45	251.5	3.5
Writing	35	54.4	30	55.2	30	66.7	33	67.7	33	237.4	30	235.1	34	214.6	45	239.3	0.6
Mathematics	35	71.6	30	82.2	30	82.2	32	70.5	32	240.8	32	249.8	33	232.0	45	253.0	4.1
Overall Index		66.5		73.6		74.1	32	68.3	.	.	.	.	.	.	.	.	.
Reading			9	44.4	39	87.8	32	83.9	31	252.0	41	242.5	32	246.7	32	254.3	0.8
Writing			9	44.4	39	48.7	31	80.6	31	239.9	37	239.1	33	231.1	33	251.2	3.8
Mathematics			9	59.3	39	87.4	32	71.0	31	239.7	39	244.5	32	241.6	34	243.5	1.3
Overall Index				49.4		74.6	32	78.5	.	.	.	.	.	.	.	.	.

Side-by-Side, Grades K-8

Percent Meeting State Goal

Grade	Subject	n	Fall 97-98	n	Fall 98-99	n	Fall 99-00	n	Fall 00-01	n	Fall 01-02	n	Fall 02-03	n	Fall 03-04	Avg. Annual Difference
Grade 4	Reading	20	35.0	22	32.0	20	47.0	19	68.0	20	30.0	21	42.9	23	39.1	0.68
Grade 4	Writing	20	5.0	22	68.0	20	26.0	19	74.0	21	42.9	21	47.6	23	56.5	8.58
Grade 4	Mathematics	20	35.0	22	27.0	20	35.0	21	43.0	21	38.1	21	52.4	23	39.1	0.68
Grade 4	ALL 3 TESTS	20	0.0	22	22.7	20	5.0	20	42.9	20	14.3	21	38.1	23	26.1	4.35
Grade 6	Reading	.	.	19	58.0	18	39.0	16	63.0	23	43.5	21	61.9	22	63.6	1.12
Grade 6	Writing	.	.	19	58.0	18	22.0	16	38.0	23	30.4	21	42.9	23	52.2	-1.16
Grade 6	Mathematics	.	.	19	42.0	18	11.0	15	27.0	24	58.3	22	63.6	23	69.6	5.52
Grade 6	ALL 3 TESTS	.	.	19	36.8	18	5.6	16	18.8	23	12.5	21	22.7	22	34.8	-0.40
Grade 8	Reading	.	.	.	.	.	.	15	73.0	11	55.0	24	58.3	22	77.3	1.43
Grade 8	Writing	.	.	.	.	.	.	15	27.0	11	27.0	24	45.8	22	22.7	-1.43
Grade 8	Mathematics	.	.	.	.	.	.	15	27.0	11	9.0	24	37.5	22	63.6	12.20
Grade 8	ALL 3 TESTS	.	.	.	.	.	.	15	13.3	11	0.0	24	25.0	22	18.2	1.63

Side-by-Side, Grades K-8

Index Score 97-98 through 99-00 and then Scale Score 00-01 through 03-04*

Subject	n	1997-98	n	1998-99	n	1999-00	n	2000-01	n	2000-01 SCALE	n	2001-02	n	2002-03	n	2003-04	Avg. Annual Difference
Reading	20	51.7	22	43.2	20	55.3	19	78.9	19	*	20	231.1	21	241.4	23	240.8	4.9
Writing	20	35.0	22	79.6	20	57.9	19	86.0	19	*	21	229.4	21	247.0	23	244.8	7.7
Mathematics	20	51.7	22	36.4	20	53.3	21	78.6	19	*	21	225.5	21	230.1	23	240.8	7.7
Overall Index		46.1		53.1		55.5	20	81.2	.	.	.	.	.	.	.	.	.
Reading			19	71.1	18	52.8	16	70.8	16	*	23	247.4	21	242.9	22	242.8	-2.3
Writing			19	73.7	18	41.7	16	70.6	16	*	23	230.1	21	233.1	23	237.3	3.6
Mathematics			19	66.7	18	46.3	15	57.8	15	*	24	254.3	22	247.2	23	258.5	2.1
Overall Index				70.5		46.9	16	66.4	.	.	.	.	.	.	.	.	.
Reading							15	86.7	15	*	11	*	27	238.8	22	260.3	21.5
Writing							15	55.6	15	*	11	*	27	236.1	22	227.3	-8.8
Mathematics							15	51.1	15	*	11	*	27	228.1	22	260.6	32.5
Overall Index							15	64.5	.	.	.	.	.	.	.	.	.

Trailblazers, Grades 6-8

Percent Meeting State Goal

Grade	Subject	n	Fall 97-98	n	Fall 98-99	n	Fall 99-00	n	Fall 00-01	n	Fall 01-02	n	Fall 02-03	n	Fall 03-04	Avg. Annual Difference
Grade 6	Reading	.	.	.	.	25	17.0	36	13.9	32	3.1	33	12.1	34	26.5	2.38
Grade 6	Writing	.	.	.	.	25	36.0	36	11.8	31	6.5	33	9.1	35	37.1	0.28
Grade 6	Mathematics	.	.	.	.	25	13.0	34	8.8	32	18.8	34	11.8	36	27.8	3.70
Grade 6	ALL 3 TESTS	.	.	.	.	25	4.0	34	0.0	31	0.0	33	2.9	34	11.1	1.78
Grade 8	Reading	.	.	.	.	.	.	30	13.8	36	11.1	35	25.7	37	8.1	-1.90
Grade 8	Writing	.	.	.	.	.	.	30	0.0	36	5.6	37	18.9	37	13.5	4.50
Grade 8	Mathematics	.	.	.	.	.	.	30	13.3	37	2.7	35	11.4	37	16.2	0.97
Grade 8	ALL 3 TESTS	.	.	.	.	.	.	30	0.0	36	0.0	35	2.7	37	5.4	1.80

Trailblazers, Grades 6-8

Index Score 97-98 through 99-00 and then Scale Score 00-01 through 03-04*

Subject	n	1997-98	n	1998-99	n	1999-00	n	2000-01	n	2000-01 SCALE	n	2001-02	n	2002-03	n	2003-04	Avg. Annual Difference
Reading					25	25.0	36	36.1	36	204.3	32	182.1	33	199.8	34	204.3	0.0
Writing					25	44.0	36	37.3	34	197.8	31	179.4	33	190.6	35	223.1	8.4
Mathematics					25	24.6	34	35.3	34	199.8	32	202.9	34	206.4	36	212.4	4.2
Overall Index						31.2	35	36.2	.	.	.	.	.	.	.	.	.
Reading							30	21.8	29	182.0	36	178.3	35	206.8	37	188.6	2.2
Writing							30	15.6	30	173.9	36	180.1	37	208.2	37	198.6	8.2
Mathematics							30	25.6	30	184.6	37	186.3	35	208.6	37	206.2	7.2
Overall Index							30	21.0	.	.	.	.	.	.	.	.	.

Breakthrough, converted to magnet — **Percent Meeting State Goal**

Grade	Subject	n	Fall 97-98	n	Fall 98-99	n	Fall 99-00	n	Fall 00-01	n	Fall 01-02	n	Fall 02-03	n	Fall 03-04	Avg. Annual Difference
Grade 4	Reading	.	.	18	17.0	17	25.0	21	38.1	22	45.5	19	47.4	21	42.9	5.18
Grade 4	Writing	.	.	18	17.0	17	38.0	21	38.1	22	27.3	19	42.1	21	52.4	7.08
Grade 4	Mathematics	.	.	18	39.0	17	41.0	20	20.0	22	31.8	19	36.8	21	57.1	3.62
Grade 4	ALL 3 TESTS	.	.	18	0.0	17	11.8	20	4.8	22	22.7	19	15.8	21	38.1	7.62
Grade 6	Reading	.	.	18	22.0	17	35.0	20	40.0	21	28.6	20	60.0	21	47.6	5.12
Grade 6	Writing	.	.	18	33.0	17	65.0	19	42.0	21	52.4	20	65.0	21	47.6	2.92
Grade 6	Mathematics	.	.	18	22.0	17	41.0	21	47.6	21	57.1	20	50.0	21	52.4	6.08
Grade 6	ALL 3 TESTS	.	.	18	0.0	17	17.6	19	27.3	21	23.8	20	45.0	21	33.3	6.66
Grade 8	Reading	.	.	.	.	.	.	.	.	18	67.0	18	61.1	21	38.1	-14.45
Grade 8	Writing	.	.	.	.	.	.	.	.	18	72.0	18	50.0	21	47.6	-12.20
Grade 8	Mathematics	.	.	.	.	.	.	.	.	17	41.0	18	50.0	21	52.4	5.70
Grade 8	ALL 3 TESTS	.	.	.	.	.	.	.	.	17	38.9	18	27.8	21	28.6	-5.15

Breakthrough, magnet — **Index Score 97-98 through 99-00 and then Scale Score 00-01 through 03-04***

Subject	n	1997-98	n	1998-99	n	1999-00	n	2000-01	n	2000-01 SCALE	n	2001-02	n	2002-03	n	2003-04	Avg. Annual Difference
Reading			18	30.6	17	31.2	21	49.2	21	225.9	22	230.1	19	*	21	234.6	2.9
Writing			18	44.4	17	59.4	21	63.5	21	227.0	22	227.3	19	*	21	237.5	3.5
Mathematics			18	51.9	17	68.6	20	55.0	20	216.2	22	222.3	19	*	21	243.1	9.0
Overall Index				42.3		53.1	21	55.9	.	.	.	.	.	.	.	.	.
Reading			18	33.3	17	55.9	20	48.3	20	221.8	21	224.3	20	248.8	21	238.7	5.6
Writing			18	63.9	17	82.4	19	71.9	19	*	21	241.5	20	239.8	21	240.1	-0.7
Mathematics			18	51.9	17	72.5	21	65.1	21	231.8	21	254.8	20	248.0	21	240.2	2.8
Overall Index				49.7		70.3	20	61.8	.	.	.	.	.	.	.	.	.
Reading									.	.	18	*	18	*	21	236.7	.
Writing									.	.	18	*	18	*	21	231.1	.
Mathematics									.	.	17	*	18	*	21	247.0	.
Overall Index									.	.	.	.	.	.	.	.	.

Brooklawn, closed — **Percent Meeting State Goal**

Grade	Subject	n	Fall 97-98	n	Fall 98-99	n	Fall 99-00	n	Fall 00-01	n	Fall 01-02	n	Fall 02-03	n	Fall 03-04	Avg. Annual Difference
Grade 6	Reading	.	.	24	42.0	23	43.0	24	33.3	13	38.0	16	12.5	.	.	-7.38
Grade 6	Writing	.	.	24	36.0	23	29.0	24	8.3	13	46.0	17	11.8	.	.	-6.05
Grade 6	Mathematics	.	.	24	17.0	23	30.0	24	12.5	13	31.0	17	0.0	.	.	-4.25
Grade 6	ALL 3 TESTS	.	.	24	4.2	23	8.7	24	4.2	13	23.1	16	0.0	.	.	-1.05
Grade 8	Reading	.	.	19	42.0	19	79.0	26	50.0	24	50.0	22	13.6	.	.	-7.10
Grade 8	Writing	.	.	19	39.0	19	11.0	26	29.0	24	42.0	20	0.0	.	.	-9.75
Grade 8	Mathematics	.	.	19	21.0	19	26.0	26	21.0	24	38.0	22	0.0	.	.	-5.25
Grade 8	ALL 3 TESTS	.	.	19	10.5	19	5.3	26	12.5	24	25.0	20	0.0	.	.	-2.63

Brooklawn, closed — **Index Score 97-98 through 99-00 and then Scale Score 00-01 through 03-04***

Subject	n	1997-98	n	1998-99	n	1999-00	n	2000-01	n	2000-01 SCALE	n	2001-02	n	2002-03	n	2003-04	Avg. Annual Difference
Reading			24	52.1	23	54.3	24	45.8	24	218.2	13	*	16	*	.	.	.
Writing			24	54.5	23	52.4	24	36.1	24	198.0	13	*	17	*	.	.	.
Mathematics			24	48.6	23	56.5	24	45.8	24	212.4	13	*	17	*	.	.	.
Overall Index				51.7		54.4	24	42.6	.	.	.	.	.	.	.	.	.
Reading			19	57.9	19	89.5	26	60.3	24	230.4	24	232.3	22	201.8			-14.3
Writing			19	63.9	19	44.7	26	46.2	24	213.3	24	227.8	20	185.3			-14.0
Mathematics			19	43.9	19	57.9	26	48.7	24	220.0	24	235.6	22	190.1			-15.0
Overall Index				55.2		64.0	26	51.7	.	.	.	.	.	.	.	.	.

Charter Oak, closed — **Percent Meeting State Goal**

Grade	Subject	n	Fall 97-98	n	Fall 98-99	n	Fall 99-00	n	Fall 00-01	n	Fall 01-02	n	Fall 02-03	n	Fall 03-04	Avg. Annual Difference
Grade 6	Reading	.	.	32	9.0	15	7.0	10	11.0	20	25.0	.	.	.	.	5.33
Grade 6	Writing	.	.	32	16.0	15	0.0	9	11.0	20	25.0	.	.	.	.	3.00
Grade 6	Mathematics	.	.	32	9.0	15	27.0	9	0.0	21	9.5	.	.	.	.	0.17
Grade 6	ALL 3 TESTS	.	.	32	6.3	15	0.0	9	0.0	20	2.0	.	.	.	.	-1.43
Grade 8	Reading	.	.	.	.	44	14.0	31	4.0	27	11.1	.	.	.	.	-1.45
Grade 8	Writing	.	.	.	.	44	2.0	33	3.0	27	3.7	.	.	.	.	0.85
Grade 8	Mathematics	.	.	.	.	44	0.0	29	0.0	26	3.8	.	.	.	.	1.90
Grade 8	ALL 3 TESTS	.	.	.	.	44	0.0	31	0.0	26	0.0	.	.	.	.	0.00

Charter Oak, closed — **Index Score 97-98 through 99-00 and then Scale Score 00-01 through 03-04***

Subject	n	1997-98	n	1998-99	n	1999-00	n	2000-01	n	2000-01 SCALE	n	2001-02	n	2002-03	n	2003-04	Avg. Annual Difference
Reading			32	17.2	15	23.3	10	29.6	9	*	20	199.0	.	.	.	.	.
Writing			32	46.8	15	32.1	9	14.8	9	*	20	204.3	.	.	.	.	.
Mathematics			32	26.0	15	48.9	9	14.8	9	*	21	200.5	.	.	.	.	.
Overall Index				30.0		34.8	9	19.7	.	.	.	.	.	.	.	.	.
Reading					44	25.6	31	7.1	28	176.8	27	191.2					14.4
Writing					44	14.8	33	17.2	31	184.5	27	193.9					9.4
Mathematics					44	24.0	29	6.9	29	175.2	26	191.3					16.1
Overall Index						21.5	31	10.4	.	.	.	.	.	.	.	.	.

* Beginning in the 2000-01 school year the scale score replaced the index score as a main CMT reporting indicator.

Appendix B. Connecticut Academic Performance Test (CAPT) Results for Connecticut Charter Schools

Bridge Academy, Grades 9-12 — **Percent Meeting State Goal**

	n	97-98	n	98-99	n	99-00	n	00-01	n	01-02	n	02-03	n	03-04	Avg. Annual Difference
Grade 10 Language Arts	32	6.0	35	11.0	36	6.0	.	.	.	.	.	.	.	.	.
Grade 10 Mathematics	32	0.0	35	0.0	36	3.0	33	0.0	35	5.7	39	10.3	42	11.9	1.98
Grade 10 Science	32	0.0	35	0.0	36	0.0	33	3.0	36	2.8	39	5.1	42	4.8	0.80
Grade 10 Interdisciplinary	32	32.0	35	6.0	36	25.0	.	.	.	.	.	.	.	.	.
Grade 10 .	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Grade 10 Reading	.	.	.	.	.	.	33	6.1	35	5.7	37	18.9	42	11.9	1.93
Grade 10 Writing	.	.	.	.	.	.	32	12.5	34	29.4	38	26.3	42	16.7	1.40
Grade 10 All Four Tests	32	0.0	35	0.0	36	0.0	.	0.0	.	0.0	.	5.1	.	2.4	0.40

Bridge Academy — **Index Score 97-98 through 99-00 and then Scale Score 00-01 through 03-04***

Subject	n	97-98	n	98-99	n	99-00	n	00-01	n	01-02	n	02-03	n	03-04	Avg. Annual Difference
Language Arts	32	58.1	35	53.3	36	61.1	.	.	.	.	.	.	.	.	.
Mathematics	32	26.0	35	37.1	36	29.6	33	208.7	35	223.6	39	217.5	42	219.0	3.43
Science	32	21.9	35	16.2	36	27.8	33	204.8	36	204.1	39	210.7	42	212.4	2.53
Interdisciplinary	32	66.7	35	45.7	36	67.6	.	.	.	.	.	.	.	.	.
Overall Index	32	43.2	35	38.1	36	46.5	.	.	.	.	.	.	.	.	.
Reading	.	.	.	.	.	.	33	218.8	35	220.9	37	227.3	42	218.8	0.00
Writing	.	.	.	.	.	.	32	223.7	34	228.0	38	222.4	42	227.5	1.27
	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Common Ground, Grades 9-12 — **Percent Meeting State Goal**

	n	97-98	n	98-99	n	99-00	n	00-01	n	01-02	n	02-03	n	03-04	Avg. Annual Difference
Grade 10 Language Arts	11	9.0	14	0.0	18	0.0	.	.	.	.	.	.	.	.	.
Grade 10 Mathematics	11	9.0	14	0.0	18	11.0	10	20.0	27	7.4	26	11.5	26	3.8	-0.87
Grade 10 Science	11	20.0	14	0.0	18	11.0	10	20.0	28	14.3	27	22.2	28	3.6	-2.73
Grade 10 Interdisciplinary	11	9.0	14	0.0	18	0.0	.	.	.	.	.	.	.	.	.
Grade 10 .	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Grade 10 Reading	.	.	.	.	.	.	10	10.0	28	7.1	27	11.1	28	7.1	-0.97
Grade 10 Writing	.	.	.	.	.	.	10	20.0	28	10.7	26	26.9	27	3.7	-5.43
Grade 10 All Four Tests	11	9.0	14	0.0	18	0.0		0.0		3.6		3.7		0.0	-1.50

Common Ground — **Index Score 97-98 through 99-00 and then Scale Score 00-01 through 03-04***

Subject	n	97-98	n	98-99	n	99-00	n	00-01	n	01-02	n	02-03	n	03-04	Avg. Annual Difference
Language Arts	11	24.2	14	31.0	18	10.0	.	.	.	.	.	.	.	.	.
Mathematics	11	33.3	14	31.0	18	29.6	10	.	27	218.4	26	198.2	26	193.7	-12.35
Science	11	40.0	14	33.3	18	35.2	10	.	28	215.6	27	220.1	28	207.9	-3.85
Interdisciplinary	11	33.3	14	38.1	18	41.2	.	.	.	.	.	.	.	.	.
Overall Index	11	32.7	14	33.3	18	29.0	.	.	.	.	.	.	.	.	.
Reading	.	.	.	.	.	.	10	.	28	209.9	27	202.3	28	194.1	-7.90
Writing	.	.	.	.	.	.	10	.	28	208.7	26	210.3	27	198.8	-4.95
	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Explorations, Grades 10-12 — **Percent Meeting State Goal**

	n	97-98	n	98-99	n	99-00	n	00-01	n	01-02	n	02-03	n	03-04	Avg. Annual Difference
Grade 10 Language Arts	13	0.0	19	0.0	16	0.0	.	.	.	.	.	.	.	.	.
Grade 10 Mathematics	13	31.0	19	42.0	16	25.0	14	36.0	15	26.7	19	31.6	14	21.4	-1.60
Grade 10 Science	13	33.0	19	28.0	16	28.0	13	77.0	16	6.2	18	27.8	14	21.4	-1.93
Grade 10 Interdisciplinary	13	31.0	19	6.0	16	22.0	.	.	.	.	.	.	.	.	.
Grade 10 .	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Grade 10 Reading	.	.	.	.	.	.	0	n/a	16	6.2	18	50.0	16	12.5	3.15
Grade 10 Writing	.	.	.	.	.	.	11	27.0	15	13.3	18	33.3	16	37.5	3.50
Grade 10 All Four Tests	13	0.0	19	0.0	16	0.0		0.0		0.0		10.5		0.0	0.00

Explorations — **Index Score 97-98 through 99-00 and then Scale Score 00-01 through 03-04***

Subject	n	97-98	n	98-99	n	99-00	n	00-01	n	01-02	n	02-03	n	03-04	Avg. Annual Difference
Language Arts	13	45.5	19	28.1	16	19.0	.	.	.	.	.	.	.	.	.
Mathematics	13	66.7	19	71.9	16	56.3	14	.	15	.	19	.	14	.	.
Science	13	63.9	19	66.7	16	70.4	13	.	16	.	18	.	14	.	.
Interdisciplinary	13	61.5	19	54.9	16	53.7	.	.	.	.	.	.	.	.	.
Overall Index	13	59.4	19	55.4	16	49.9	.	.	.	.	.	.	.	.	.
Reading	.	.	.	.	.	.	0	.	16	.	18	.	16	.	.
Writing	.	.	.	.	.	.	11	.	15	.	18	.	16	.	.
	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Ancestors, Grades 9-12, closed — **Percent Meeting State Goal**

	n	97-98	n	98-99	n	99-00	n	00-01	n	01-02	n	02-03	n	03-04	Avg. Annual Difference
Grade 10 Language Arts	4	40.0	15	0.0	10	0.0	.	.	.	.	.	.	.	.	.
Grade 10 Mathematics	4	25.0	15	0.0	10	0.0	2	0.0	.	.	.	.	.	.	.
Grade 10 Science	4	N/A	15	0.0	10	0.0	2	0.0	.	.	.	.	.	.	.
Grade 10 Interdisciplinary	4	25.0	15	0.0	10	0.0	.	.		.	.	.	.	.	.
Grade 10 .	.	.	.	.	.	.	.	.		.	.	.	.	.	.
Grade 10 Reading	.	.	.	.	.	.	3	0.0		.	.	.	.	.	.
Grade 10 Writing	.	.	.	.	.	.	2	0.0		.	.	.	.	.	.
Grade 10 All Four Tests	4	0.0	15	0.0	10	0.0	.	.	.	.	.	.	.	.	.

Ancestors — **Index Score 97-98 through 99-00 and then Scale Score 00-01 through 03-04***

Subject	n	97-98	n	98-99	n	99-00	n	00-01	n	01-02	n	02-03	n	03-04	Avg. Annual Difference
Language Arts	4	53.3	15	11.9	10	15.2	.	.	.	.	.	.	.	.	.
Mathematics	4	50.0	15	2.2	10	3.3	2	.	.	.	.	.	.	.	.
Science	4	n/a	15	6.3	10	6.1	2	.	.	.	.	.	.	.	.
Interdisciplinary	4	66.7	15	18.7	10	16.7	.	.	.	.	.	.	.	.	.
Overall Index	4	0.0	15	9.8	10	10.3	.	.	.	.	.	.	.	.	.
Reading	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.
Writing	.	.	.	.	.	.	2	.	.	.	.	.	.	.	.
	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Sports Sciences, Grades 9-12, converted to magnet — **Percent Meeting State Goal**

	n	97-98	n	98-99	n	99-00	n	00-01	n	01-02	n	02-03	n	03-04	Avg. Annual Difference
Grade 10 Language Arts	.	.	67	4.0	75	9.0	.	.	.	.	.	.	.	.	.
Grade 10 Mathematics	.	.	67	12.0	75	12.0	66	4.5	63	3.2	88	17.0	99	15.2	0.64
Grade 10 Science	.	.	67	6.0	75	3.0	68	5.9	70	4.3	87	11.5	99	15.2	1.84
Grade 10 Interdisciplinary	.	.	67	1.0	75	9.0	.	.	.	.	.	.	.	.	.
Grade 10 .	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Grade 10 Reading	.	.	.	.	.	.	67	4.5	70	12.9	90	18.9	99	11.1	2.20
Grade 10 Writing	.	.	.	.	.	.	69	14.5	68	27.9	86	29.1	99	41.4	8.97
Grade 10 All Four Tests	.	.	67	0.0	75	0.0	.	0.0	.	2.8	.	1.1	.	6.1	1.22

Sports Sciences — **Index Score 97-98 through 99-00 and then Scale Score 00-01 through 03-04***

Subject	n	97-98	n	98-99	n	99-00	n	00-01	n	01-02	n	02-03	n	03-04	Avg. Annual Difference
Language Arts	.	.	67	40.8	75	43.3	.	.	.	.	.	.	.	.	.
Mathematics	.	.	67	47.5	75	44.7	66	209.4	63	209.6	88	229.5	99	228.7	6.43
Science	.	.	67	30.3	75	36.4	68	211.9	70	215.3	87	223.9	99	223.9	4.00
Interdisciplinary	.	.	67	37.3	75	63.7	.	.	.	.	.	.	.	.	.
Overall Index	.	.	67	39.0	75	47.0	.	.	.	.	.	.	.	.	.
Reading	.	.	.	.	.	.	67	205.8	70	218.7	90	231.1	99	225.5	6.57
Writing	.	.	.	.	.	.	69	218.6	68	235.6	86	232.1	99	240.8	7.40
	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

* A second generation CAPT was introduced in May 2001. Beginning in the 2000-01 school year (1) the "Language Arts" and "Interdisciplinary" categories were dropped; (2) "Reading" and "Writing" categories were added; and (3) the scale score replaced the index score as a main CAPT reporting indicator.

** Scale scores for less than 20 test takers were unavailable in CT DOE reports.

Appendix C. Comparison of Characteristics of Charter School Students with Host Districts, 2003-04

School and District Names	*Number of Students Enrolled**	*Percent Free/Reduced Lunch**	*Percent Non-English Home Language**	*Percent Special Education***	*Percent American Indian*	*Percent Asian American*	*Percent African American*	*Percent Hispanic*	*Percent White*	*Percent Other*	*Percent Total Minorities*
CS: Amistad Academy	243	64.6	33.7	4.9	0	0	62.6	35.4	2.1	0	98
NEW HAVEN SCHOOL DISTRICT	20694	66.5	29.1	10.1	0	1.1	54.4	31.7	10.8	2	89.2
CS: Common Ground High School	113	75.2	0.9	18.1	0	0	64.6	23	12.4	0	87.6
NEW HAVEN SCHOOL DISTRICT	20694	66.5	29.1	10.1	0	1.1	54.4	31.7	10.8	2	89.2
CS: Explorations	69	15.9	0	21.4	0	0	2.9	2.9	94.2	0	5.8
GILBERT SCHOOL	522	16.5	6.5	6.8	0.8	1	1.1	5.9	90.1	1	9.8
CS: Highville Charter School	300	72.0	10.3	1.7	0	0	82.3	10.7	5	2	95
NEW HAVEN SCHOOL DISTRICT	20694	66.5	29.1	10.1	0	1.1	54.4	31.7	10.8	2	89.2
CS: Integrated Day Charter	297	15.8	5.7	12.6	1	1.3	13.8	8.4	72.4	3	27.5
NORWICH SCHOOL DISTRICT	4066	51.7	15.9	14.3	2.1	4.9	20.1	15.1	57.8	0	42.2
CS: Interdistrict School (ISAAC)	122	36.1	0.8	17.5	0	2.5	19.7	23	54.9	0	45.2
NEW LONDON SCHOOL DISTRICT	3178	68.3	23.8	16.8	1.4	2	30.7	41.3	17.4	7.2	82.6
CS: Jumoke Academy	282	>95	0	3.8	0	0	96.8	2.5	0	0.7	100
HARTFORD SCHOOL DISTRICT	22351	>95	51.8	15.5	0.1	0.8	40	53.1	4.4	1.6	95.6
CS: New Beginnings	182	56.0	0.5	1.6	0	0	76.9	20.9	1.6	0.5	97.8
BRIDGEPORT SCHOOL DISTRICT	22394	>95	37.9	11.6	0.1	2.9	42.8	42.5	10.1	1.6	89.9
CS: Odyssey Community School	127	28.3	0	10.3	0	0.8	7.1	11	73.2	7.9	18.9
MANCHESTER SCHOOL DISTRICT	7651	32.1	11.3	12.9	0.4	4.8	19.1	15.8	59.6	0.3	40.4
CS: Side by Side Community Schoo	231	32.0	23.2	7.7	0	3.5	29.9	26	34.6	6.1	59.4
NORWALK SCHOOL DISTRICT	11105	25.3	28.8	10.1	0.1	3.8	25.5	25.3	45.3	0	54.7
CS: Sports Sciences Academy	343	>95	45.5	6.7	0	0.6	35.9	47.8	15.2	0.6	84.3
HARTFORD SCHOOL DISTRICT	22351	>95	51.8	15.5	0.1	0.8	40	53.1	4.4	1.6	95.6
CS: The Bridge Academy	168	63.1	29.8	6.3	0	0	54.2	42.3	3.6	0	96.5
BRIDGEPORT SCHOOL DISTRICT	22394	>95	37.9	11.6	0.1	2.9	42.8	42.5	10.1	1.6	89.9
CS: Trailblazers Academy	109	>95	12.8	18.3	0	0	55	36.7	8.3	0	91.7
STAMFORD SCHOOL DISTRICT	15262	40.1	34.2	11.7	0	5.5	24.6	26.3	43.7	0	56.3

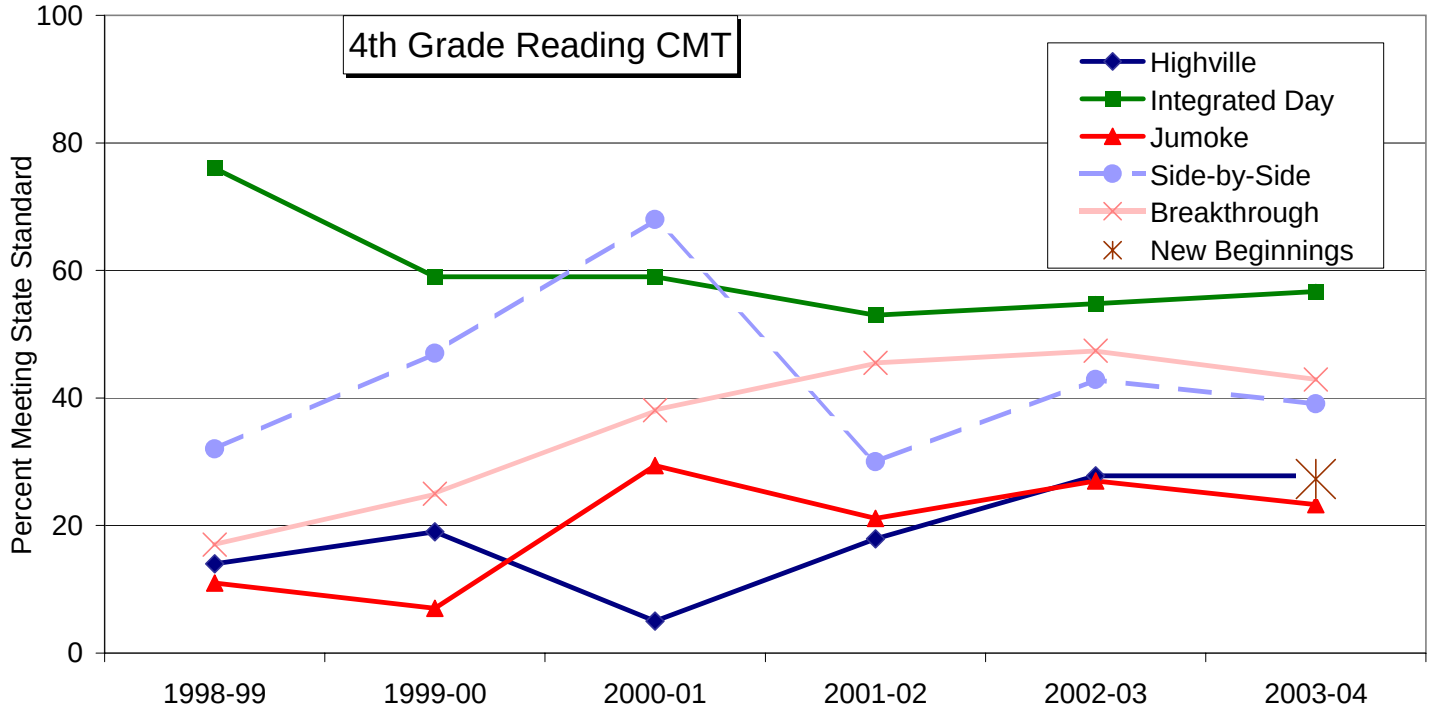
* Charter school data is from 2003-04 CT DOE School Profiles. Host district data is from 2003-04 CT DOE School Profiles, except special education percentages.

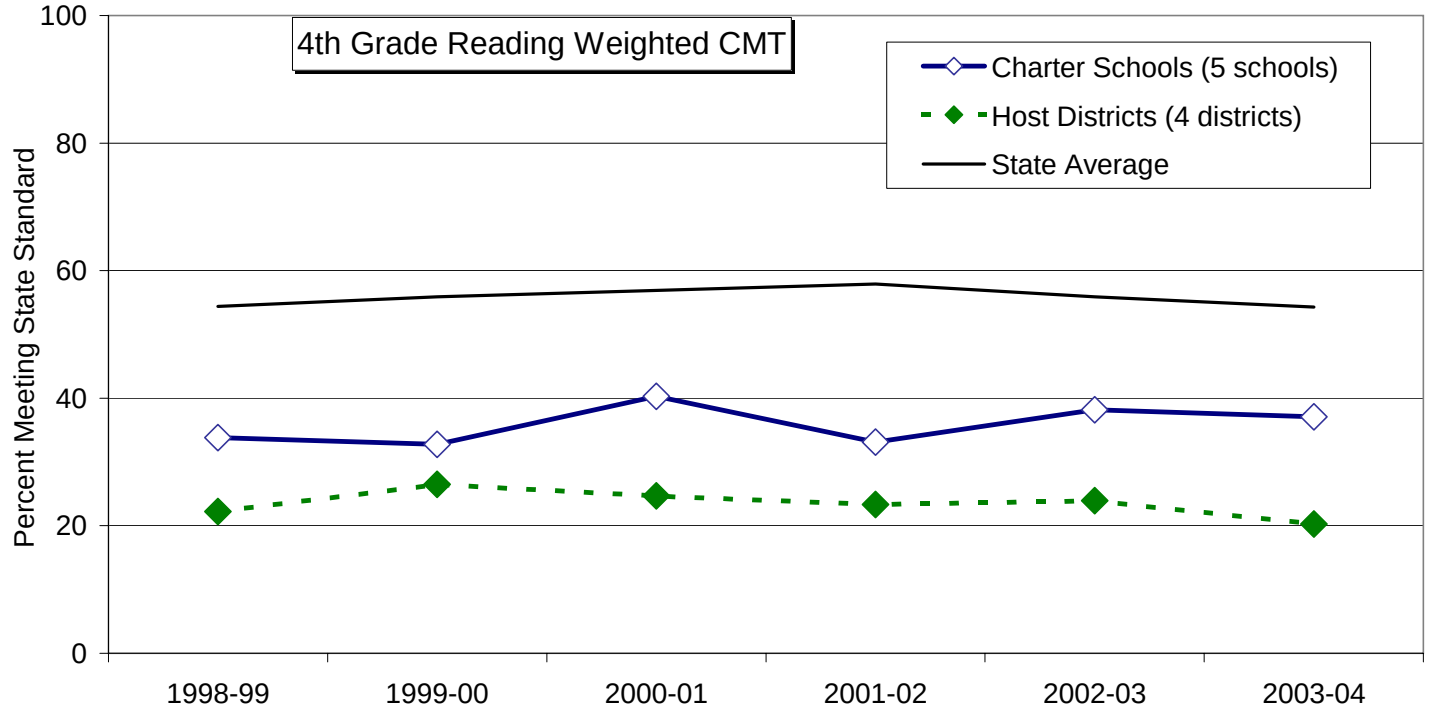
** Host district special education percentages are from 2002 CT DOE Education Database.

Note: We used the same host districts for comparison groups as we did in 2002. For schools attracting students from multiple districts, the "host district" was the district from which the most students were formerly enrolled. For example, Highville is physically located in Hamden, but 63 percent of its students come from New Haven and the rest come from Hamden and other districts. Likewise, ISAAC draws students from a number of districts but most (i.e., 65 percent) come from New London.

Appendix D
Results From Trend Analysis on the CMT Using Percent Meeting State Standards

Grade 4 Reading Results on the CMT, 1998-99 to 2003-04





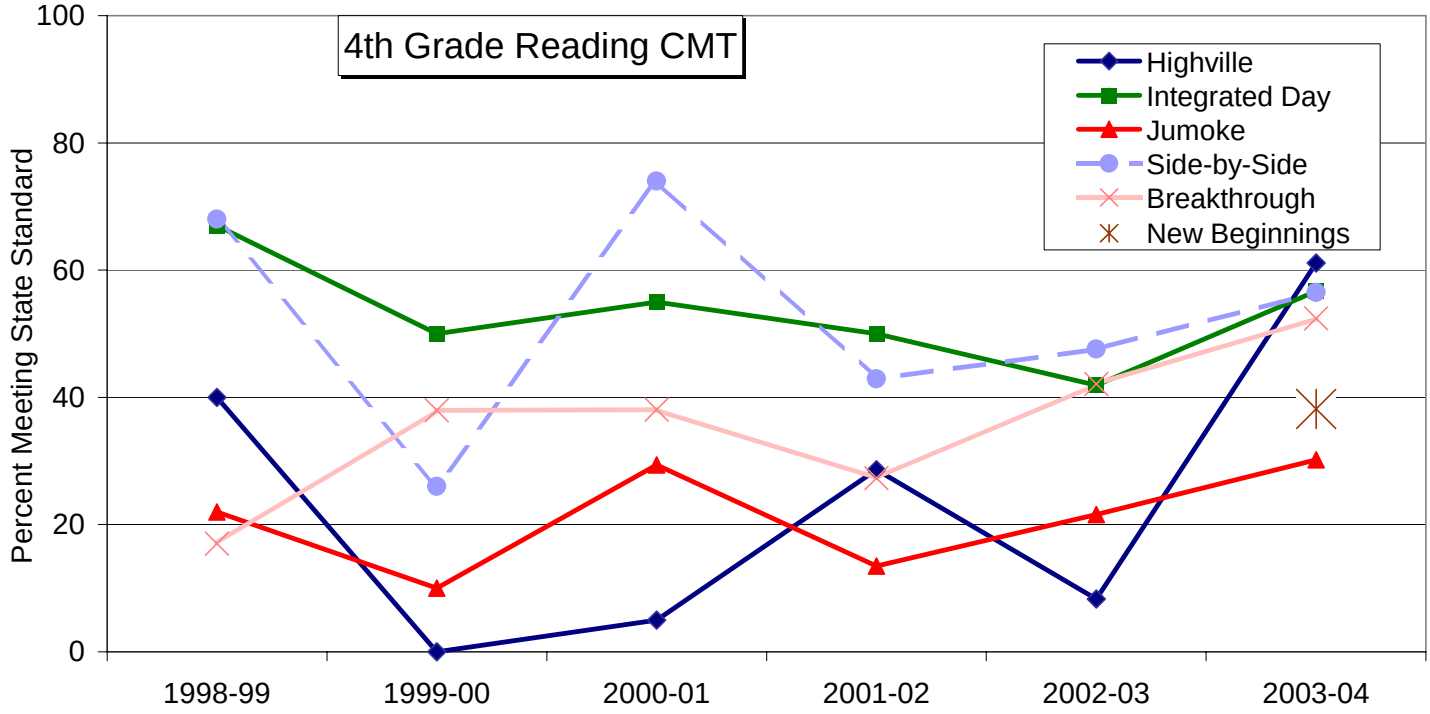
4th Grade Reading Weighted CMT

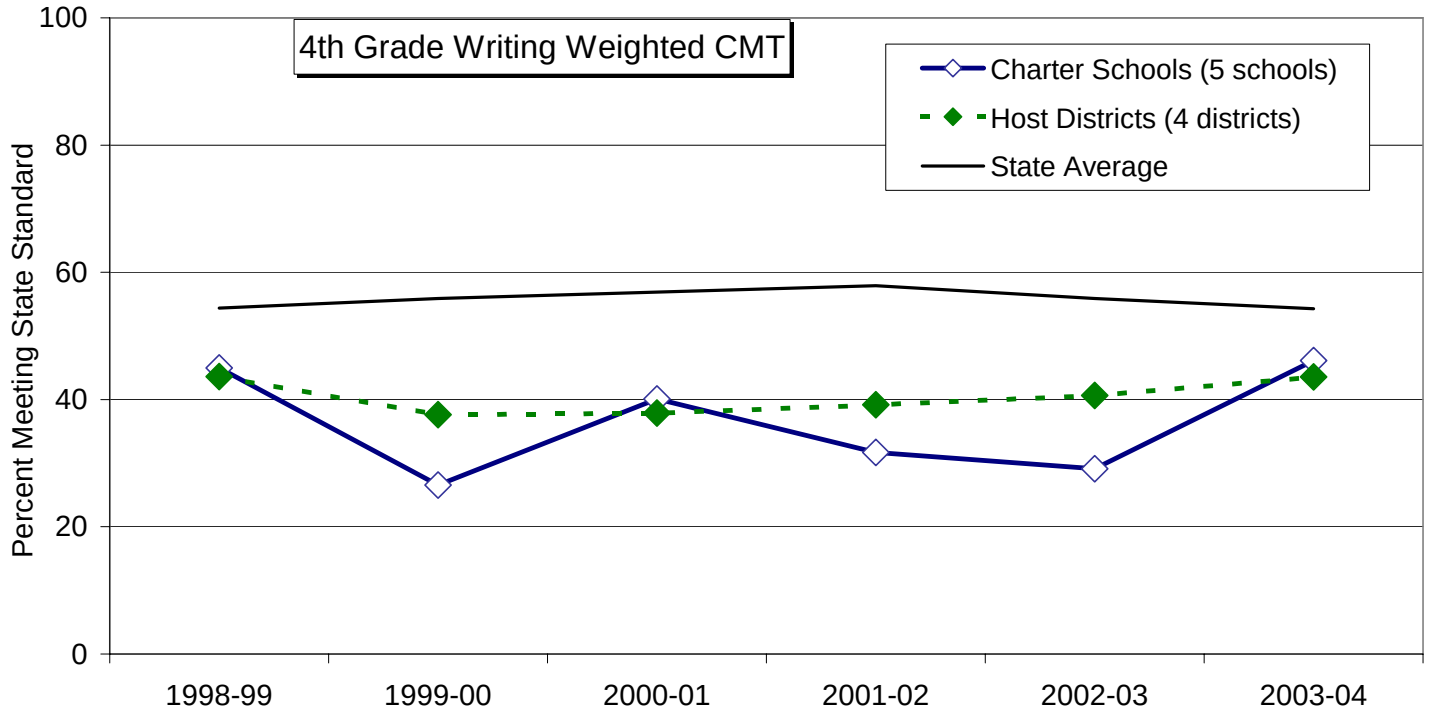
Trend

	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	*Average difference*
CS	33.80	32.75	40.32	33.14	38.20	37.06	*0.65*
HD	22.21	26.51	24.68	23.34	23.93	20.30	*-0.38*
Difference of average difference (CS-HD)							*1.03*

Notes: New Beginnings Charter School is excluded from the aggregate trend since it only has one year of test data.

Grade 4 Writing Results on the CMT, 1998-99 to 2003-04



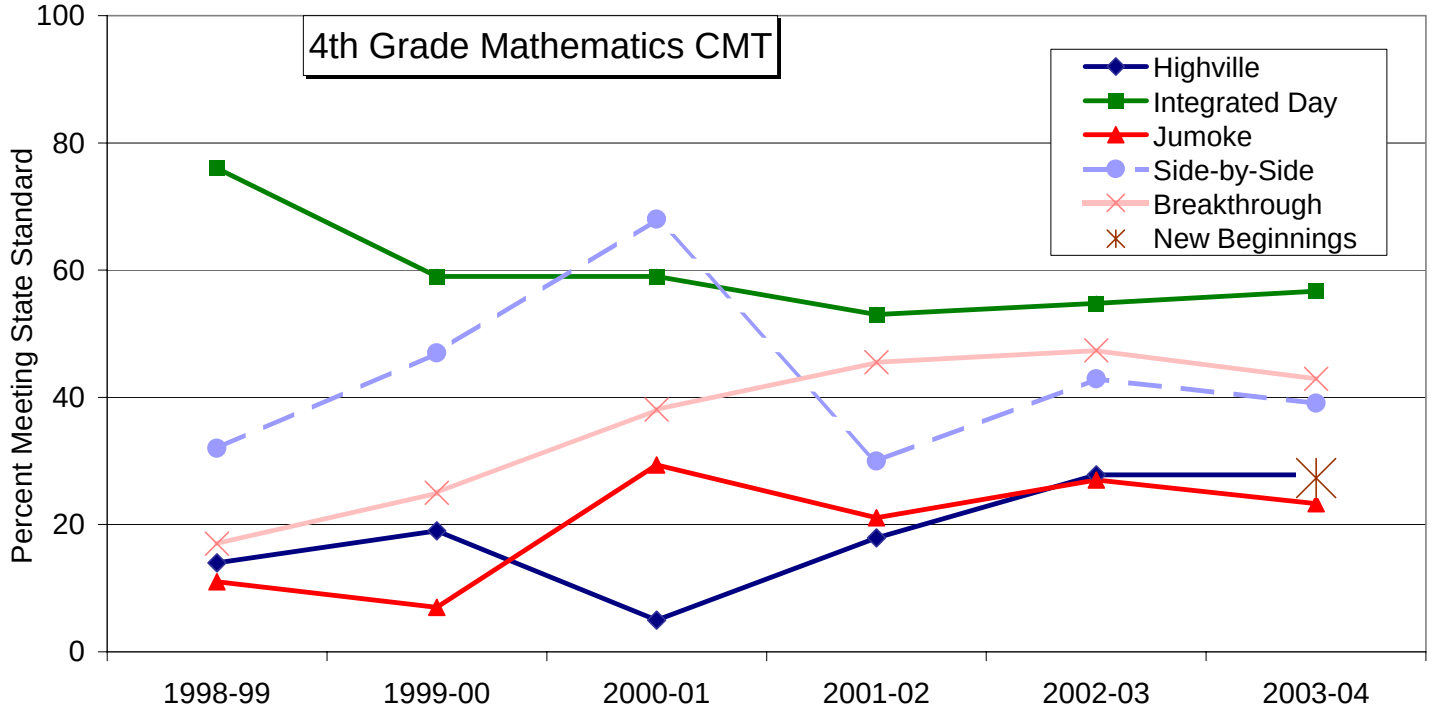


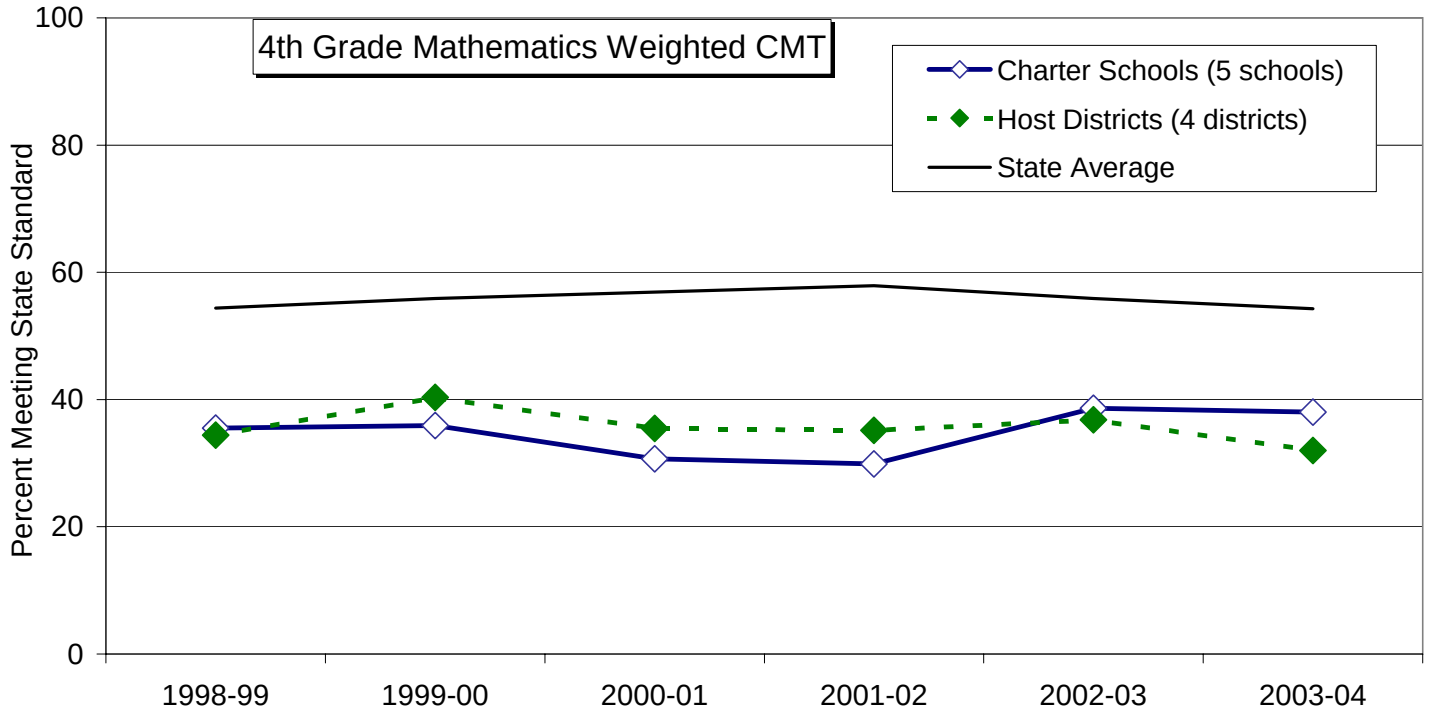
4th Grade Writing Weighted CMT

	Trend						
	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	*Average difference*
CS	44.98	26.54	40.09	31.70	29.14	46.14	*0.23*
HD	43.59	37.62	37.89	39.18	40.63	43.58	*0.00*
Difference of average difference (CS-HD)							*0.24*

Notes: New Beginnings Charter School is excluded from the aggregate trend since it only has one year of test data.

Grade 4 Reading Results on the CMT, 1998-99 to 2003-04



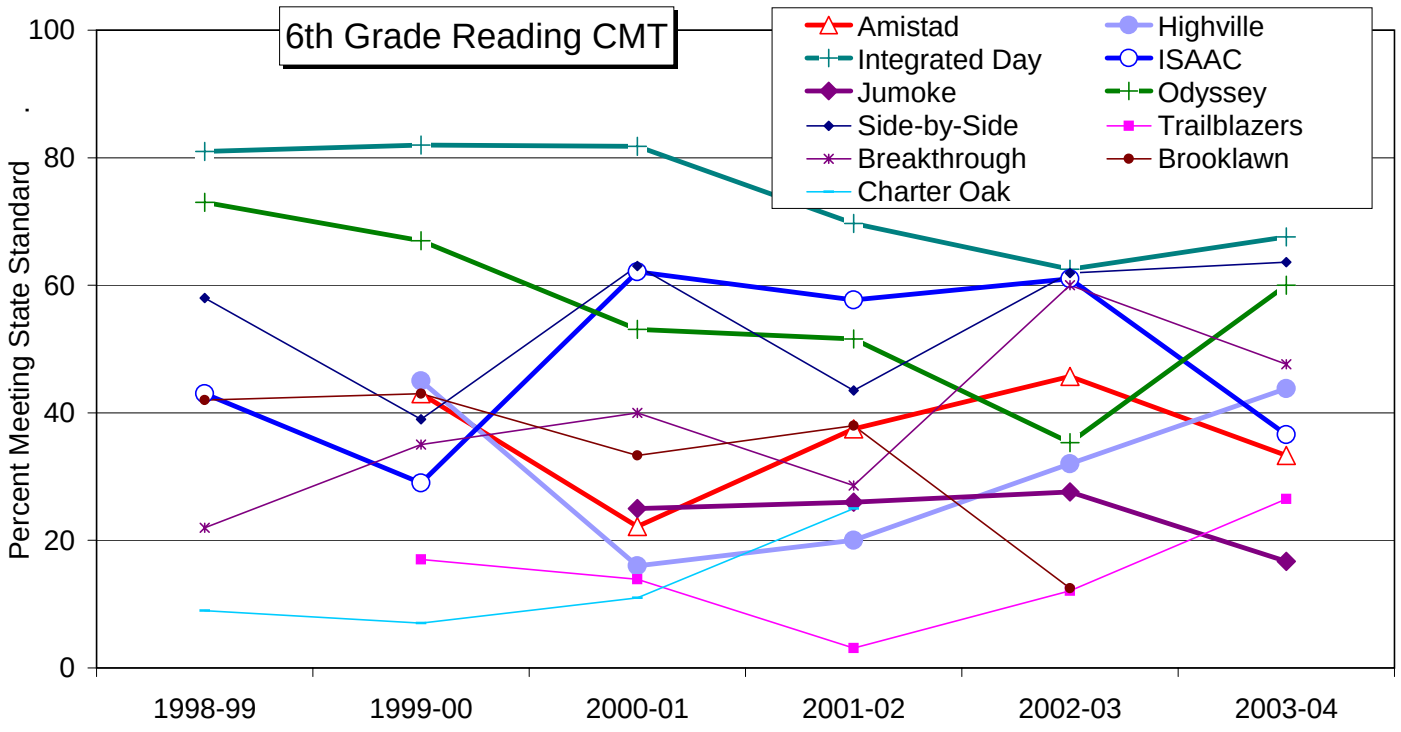


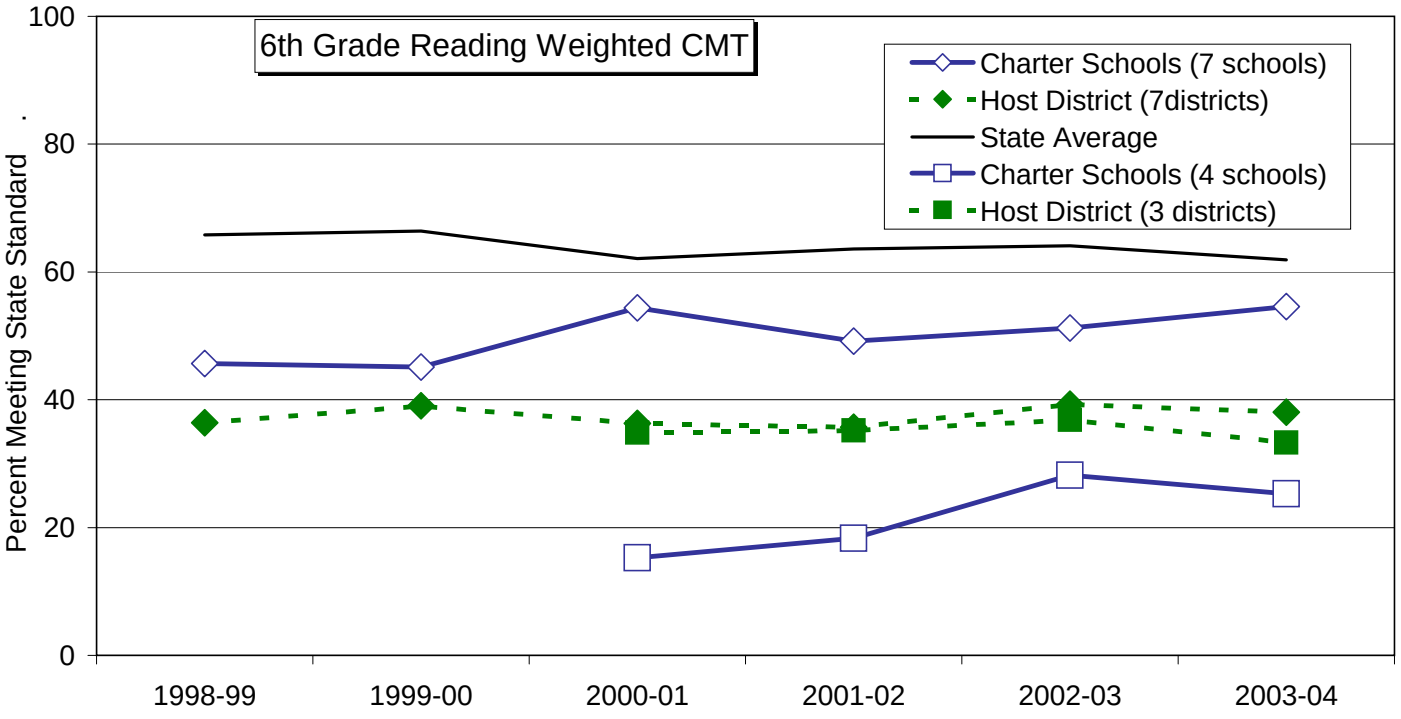
4th Grade Mathematics Weighted CMT

	Trend						
	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	*Average difference*
CS	35.52	35.92	30.66	29.85	38.61	38.03	*0.50*
HD	34.39	40.36	35.45	35.18	36.82	32.00	*-0.48*
Difference of average difference (CS-HD)							*0.98*

Notes: New Beginnings Charter School is excluded from the aggregate trend since it only has one year of test data.

Grade 6 Reading Results on the CMT, 1998-99 to 2003-04





6th Grade Reading Weighted CMT

First Trend

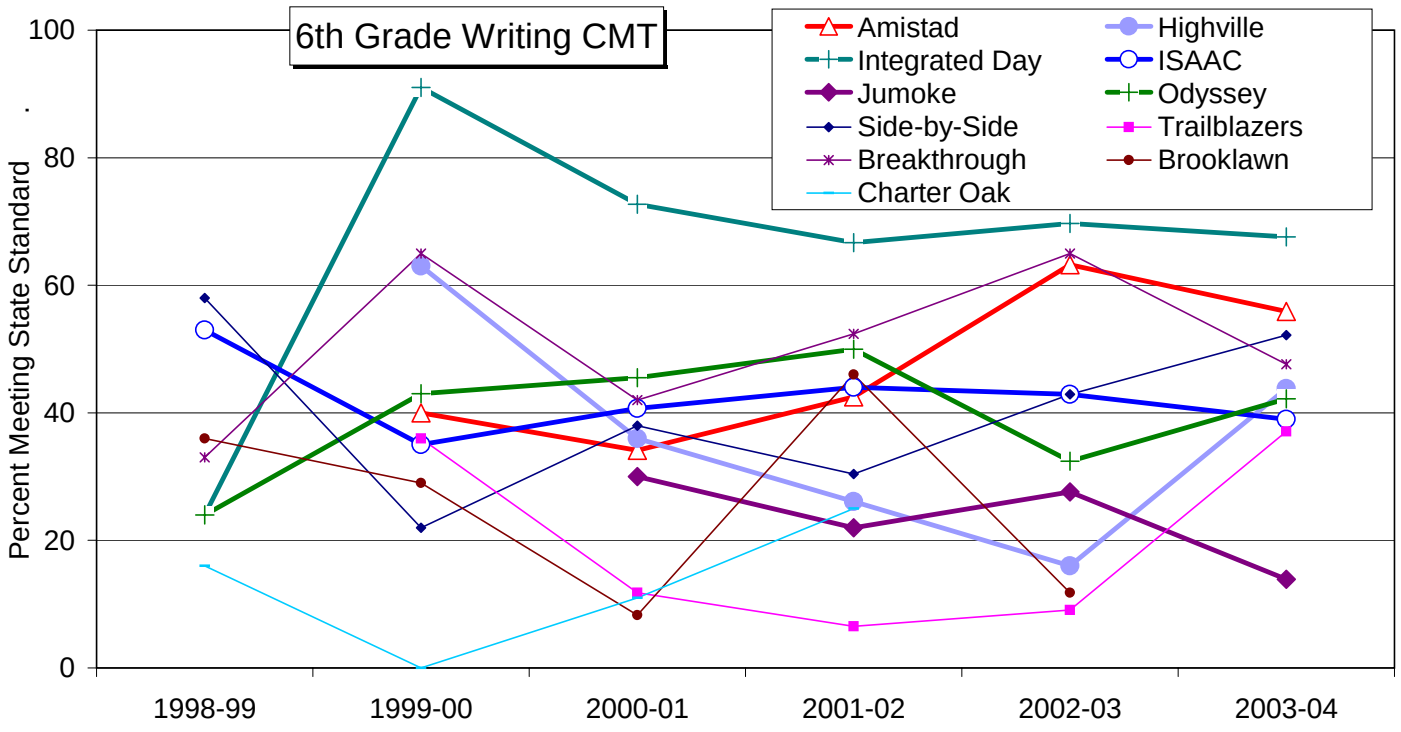
	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	*Average difference*
CS	45.68	45.13	54.37	49.20	51.23	54.59	*1.78*
HD	36.39	39.07	36.31	35.72	39.29	38.04	*0.33*
Difference of average difference (CS-HD)							*1.45*

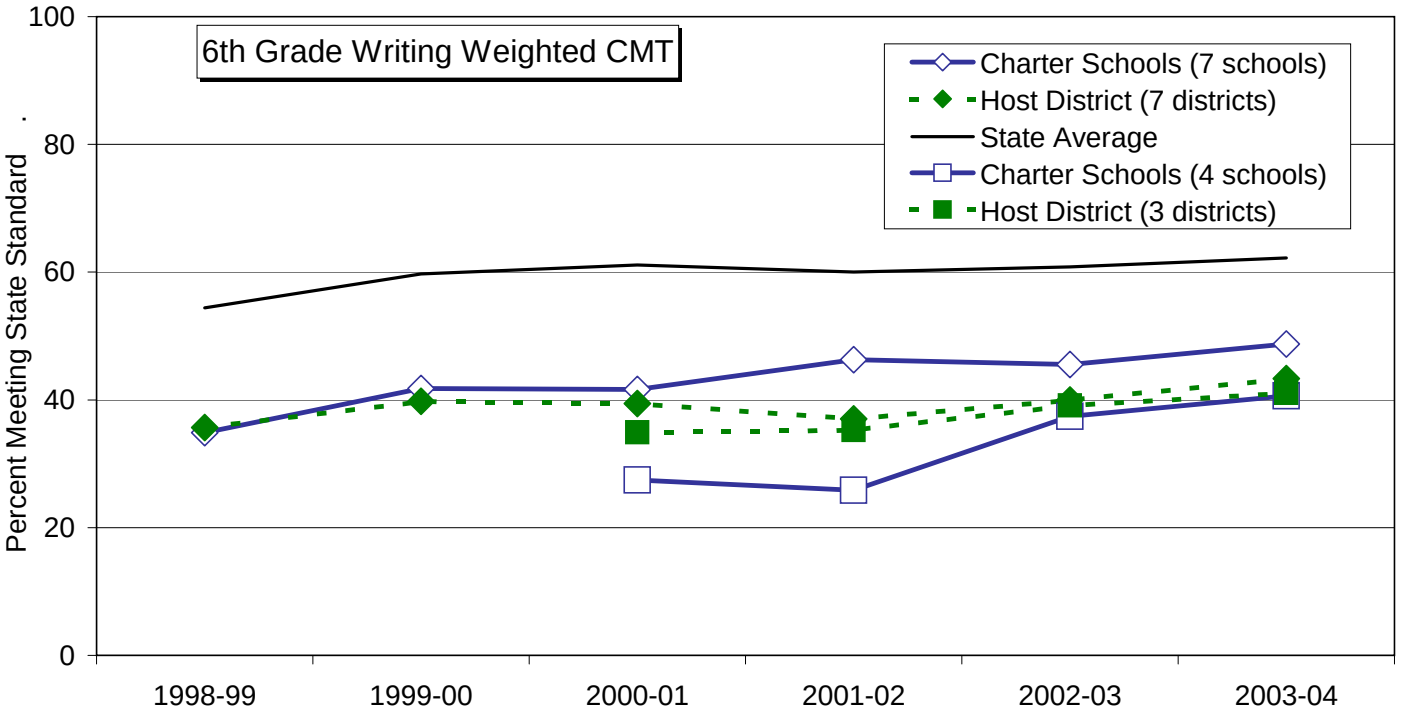
Second Trend

	2000-01	2001-02	2002-03	2003-04	*Average difference*
CS	15.27	18.32	28.19	25.27	*3.33*
HD	34.86	35.22	36.84	33.28	*-0.53*
Difference of average difference (CS-HD)					*3.86*

Notes: Breakthrough converted to a magnet school in 2002. Charter Oak closed in 2002 and Brooklawn closed in 2003

Grade 6 Writing Results on the CMT, 1998-99 to 2003-04



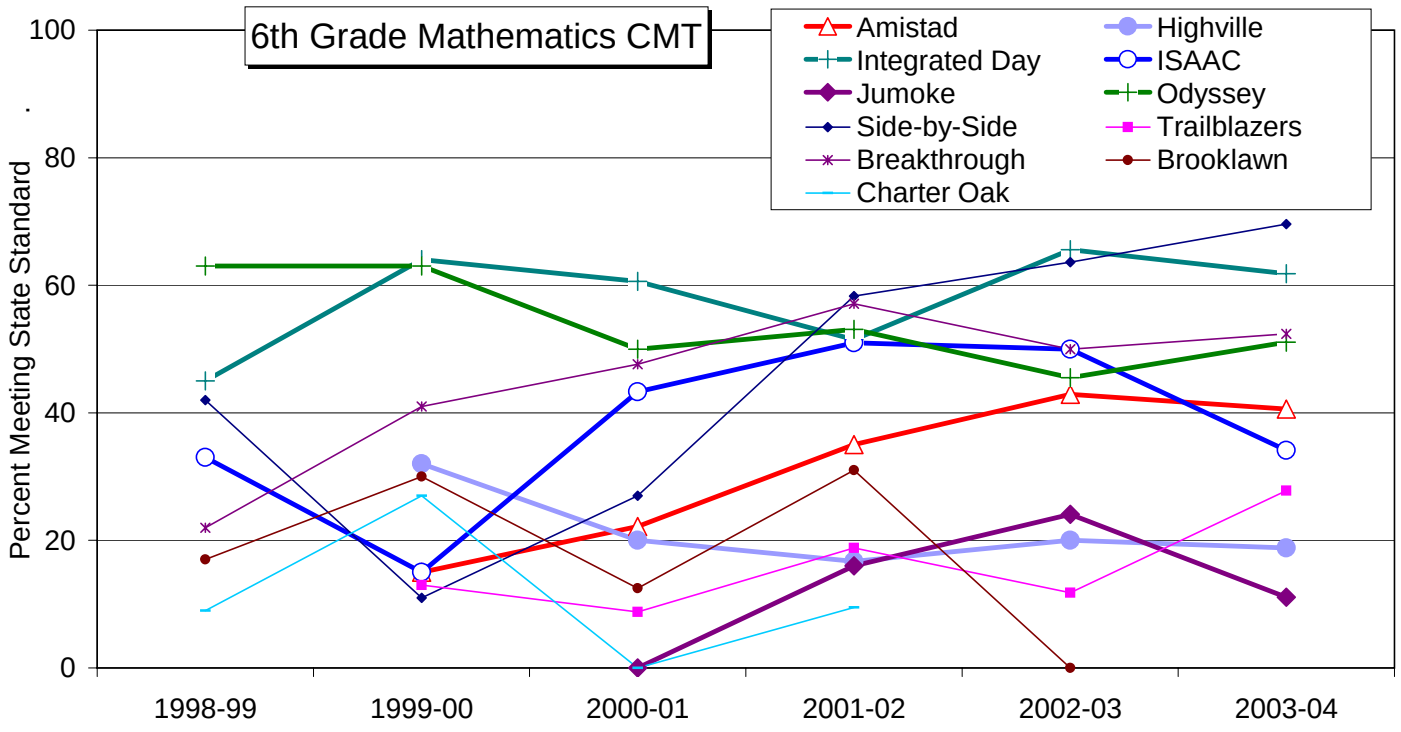


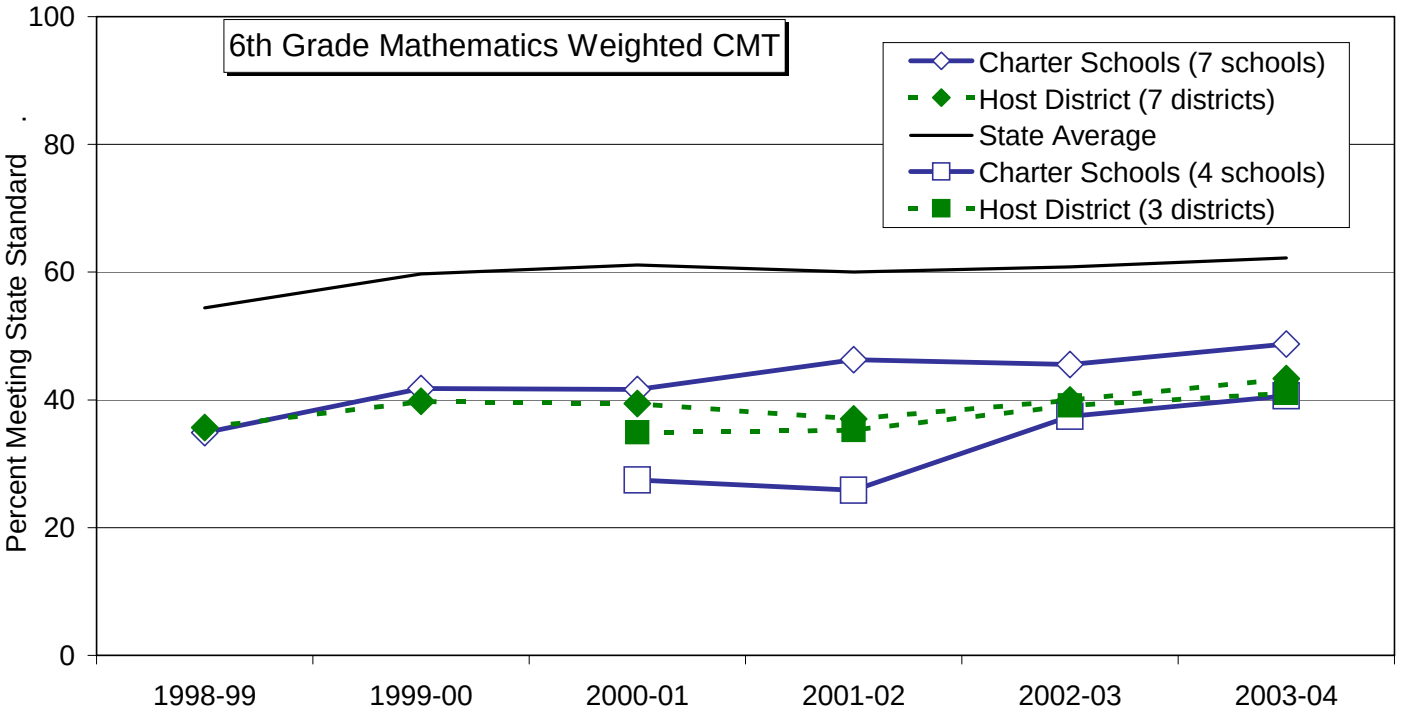
6th Grade Writing Weighted CMT

	First Trend							Second Trend				
	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	*Average difference*	2000-01	2001-02	2002-03	2003-04	*Average difference*
CS	34.87	41.78	41.63	46.31	45.54	48.76	*2.78*	27.45	25.84	37.41	40.65	*4.40*
HD	35.68	39.79	39.42	37.00	39.97	43.34	*1.53*	34.94	35.27	39.11	41.06	*2.04*
Difference of average difference (CS-HD)							*1.25*	Difference of average difference (CS-HD)				*2.36*

Notes: Breakthrough converted to a magnet school in 2002. Charter Oak closed in 2002 and Brooklawn closed in 2003

Grade 6 Mathematics Results on the CMT, 1998-99 to 2003-04



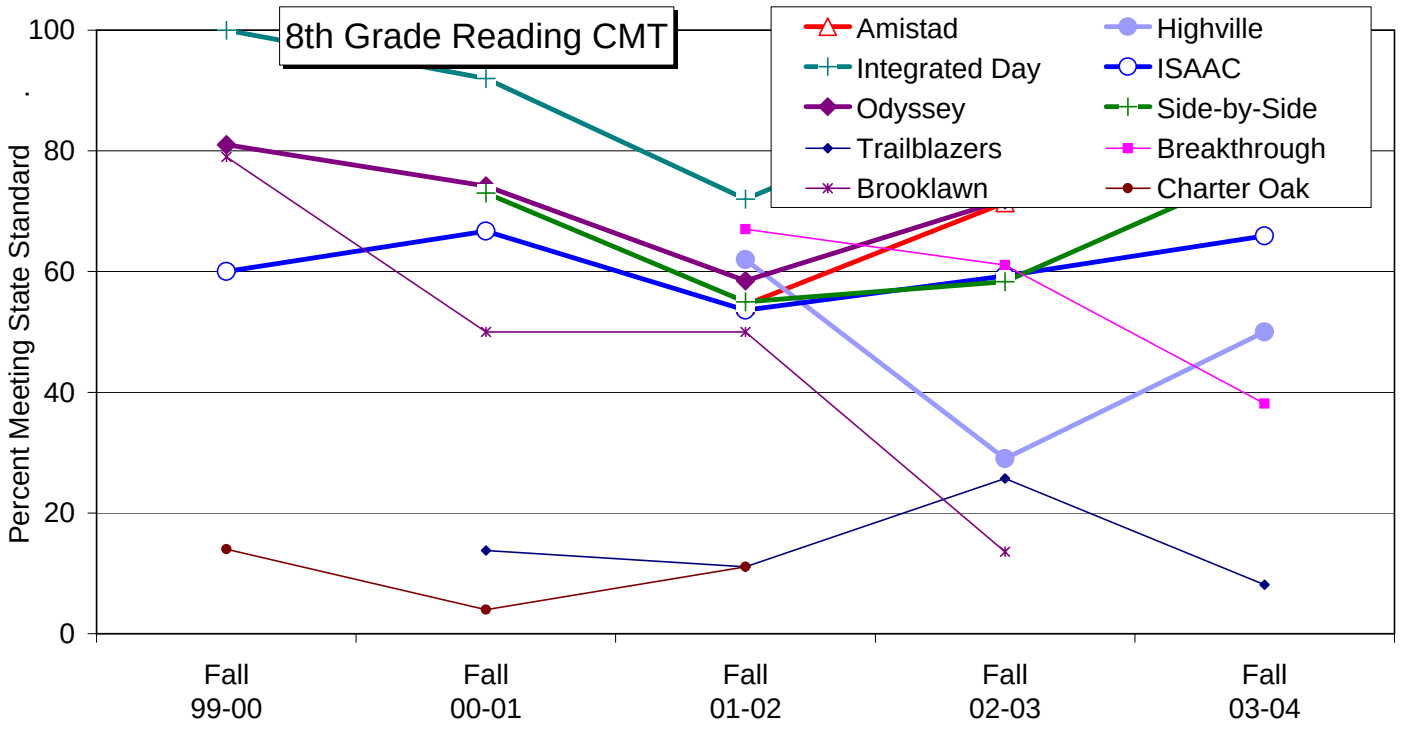


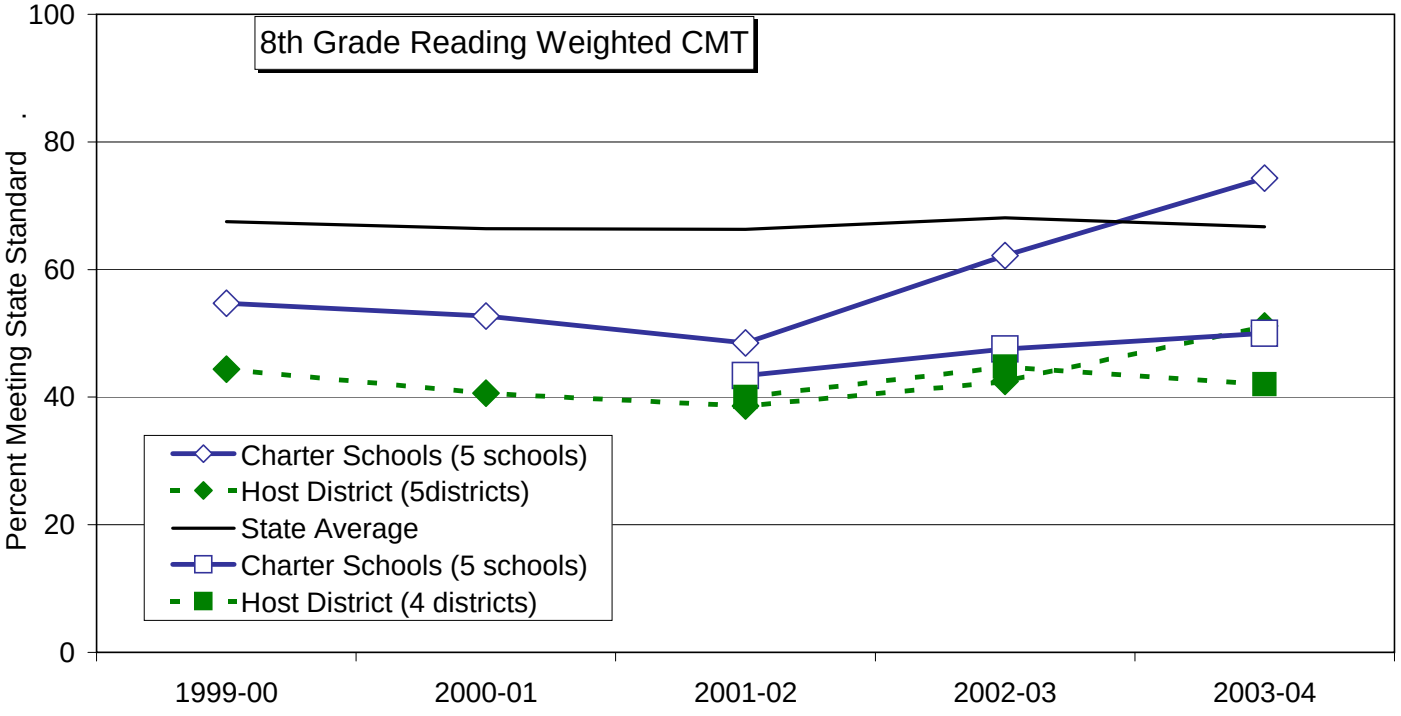
6th Grade Mathematics Weighted CMT

	First Trend							Second Trend				
	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	*Average difference*	2000-01	2001-02	2002-03	2003-04	*Average difference*
CS	32.85	36.33	40.26	47.14	48.79	51.83	*3.80*	14.50	23.53	29.13	28.68	*4.73*
HD	27.38	33.43	34.26	37.23	35.85	40.09	*2.54*	33.25	37.31	36.35	36.82	*1.19*
Difference of average difference (CS-HD)							*1.25*	Difference of average difference (CS-HD)				*3.54*

Notes: Breakthrough converted to a magnet school in 2002. Charter Oak closed in 2002 and Brooklawn closed in 2003

Grade 8 Reading Results on the CMT, 1998-99 to 2003-04



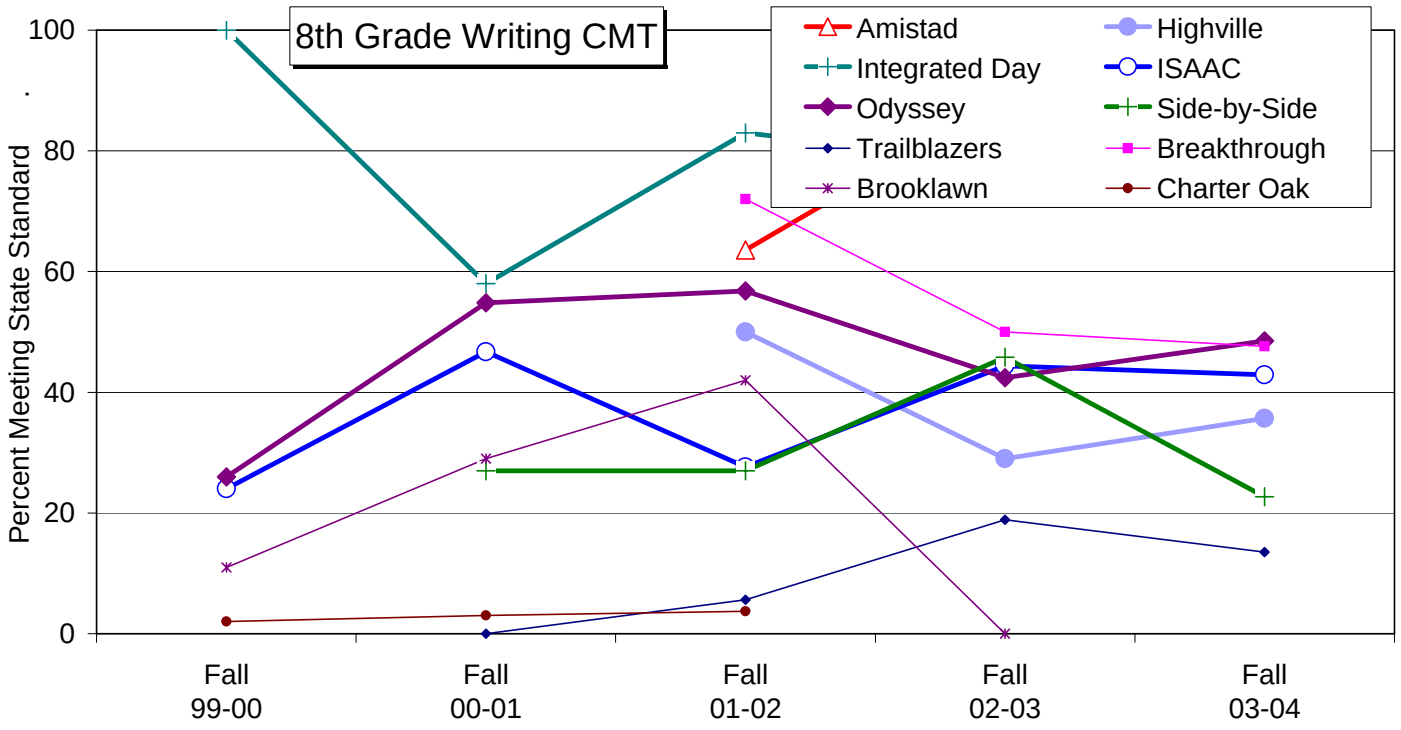


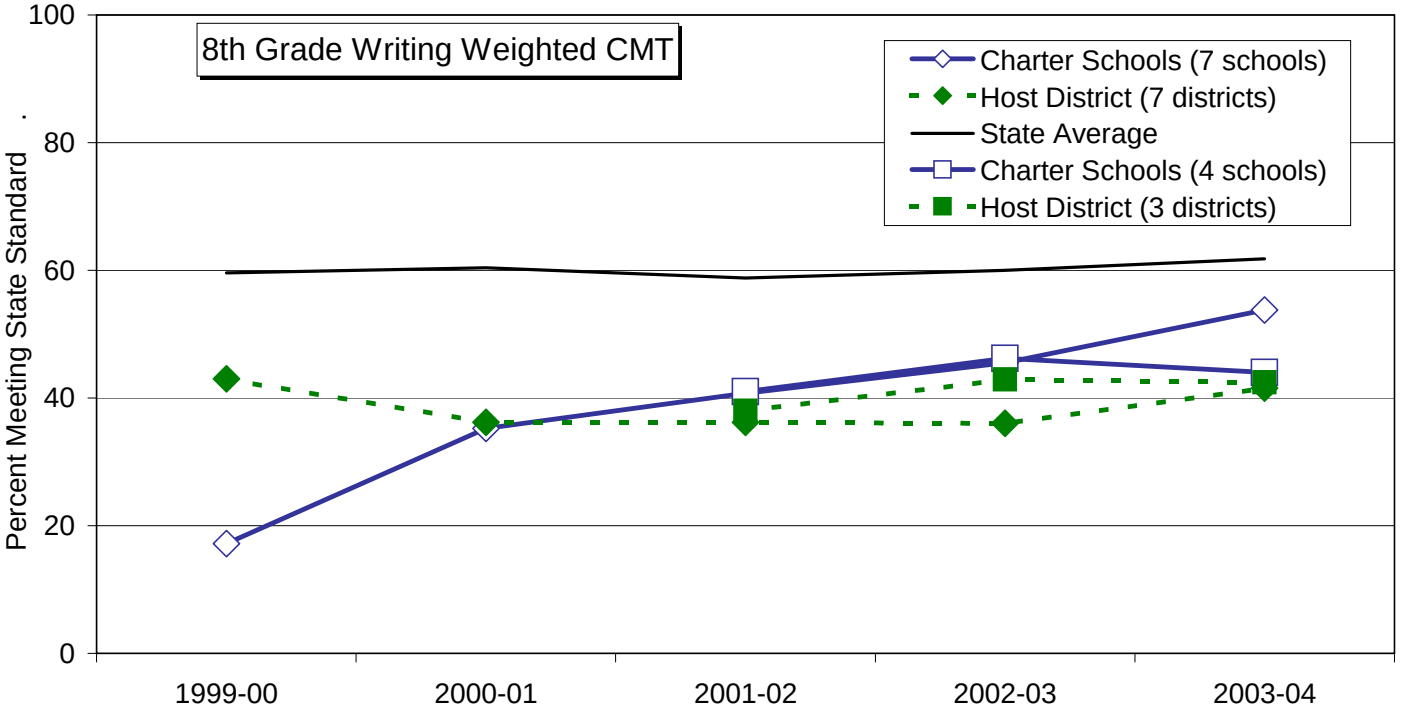
8th Grade Reading Weighted CMT

	First Trend							Second Trend				
	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	*Average difference*	2000-01	2001-02	2002-03	2003-04	*Average difference*
CS		54.73	52.70	48.51	62.17	74.31	*4.90*	43.38	47.53	50.00		*3.31*
HD		44.38	40.62	38.60	42.46	51.17	*1.70*	40.00	44.80	42.01		*1.01*
Difference of average difference (CS-HD)							*3.20*	Difference of average difference (CS-HD)				*2.31*

Notes: Breakthrough converted to a magnet school in 2002. Charter Oak closed in 2002 and Brooklawn closed in 2003

Grade 8 Writing Results on the CMT, 1998-99 to 2003-04



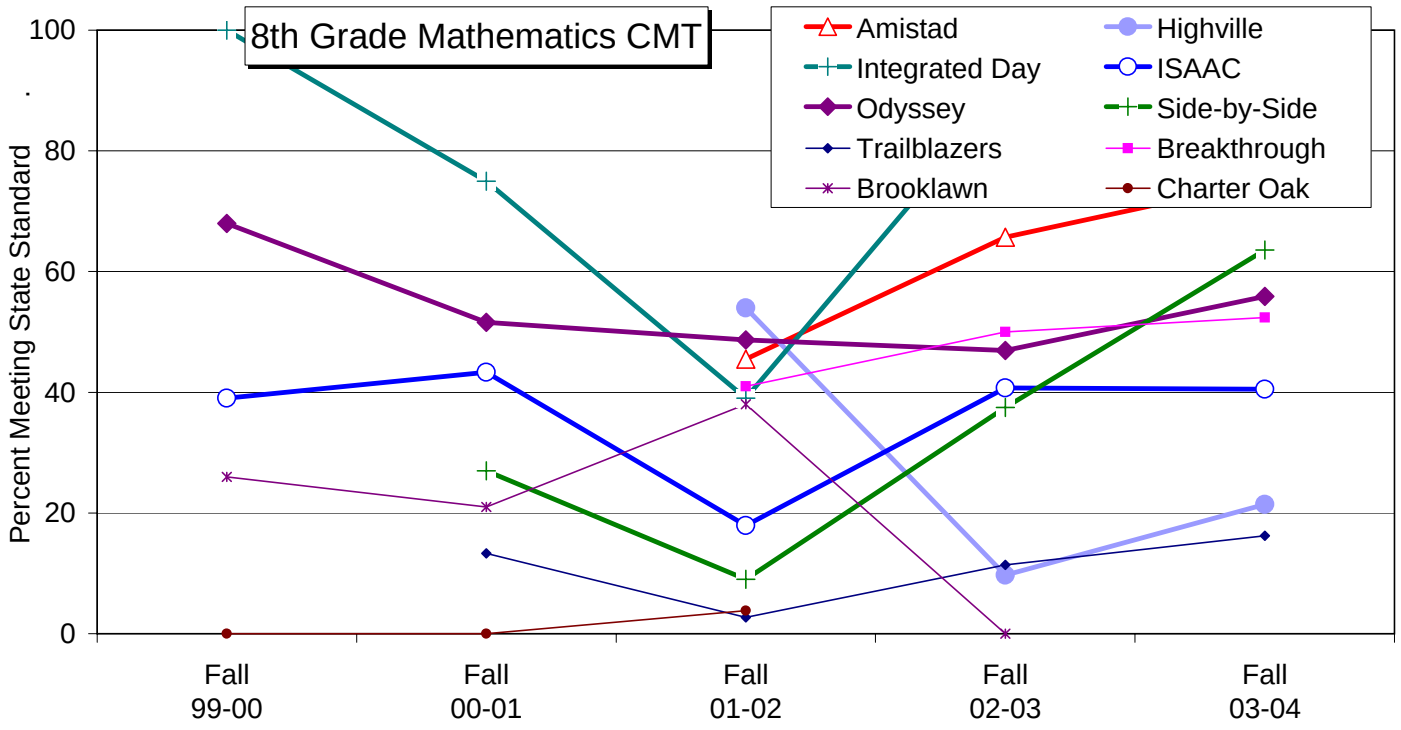


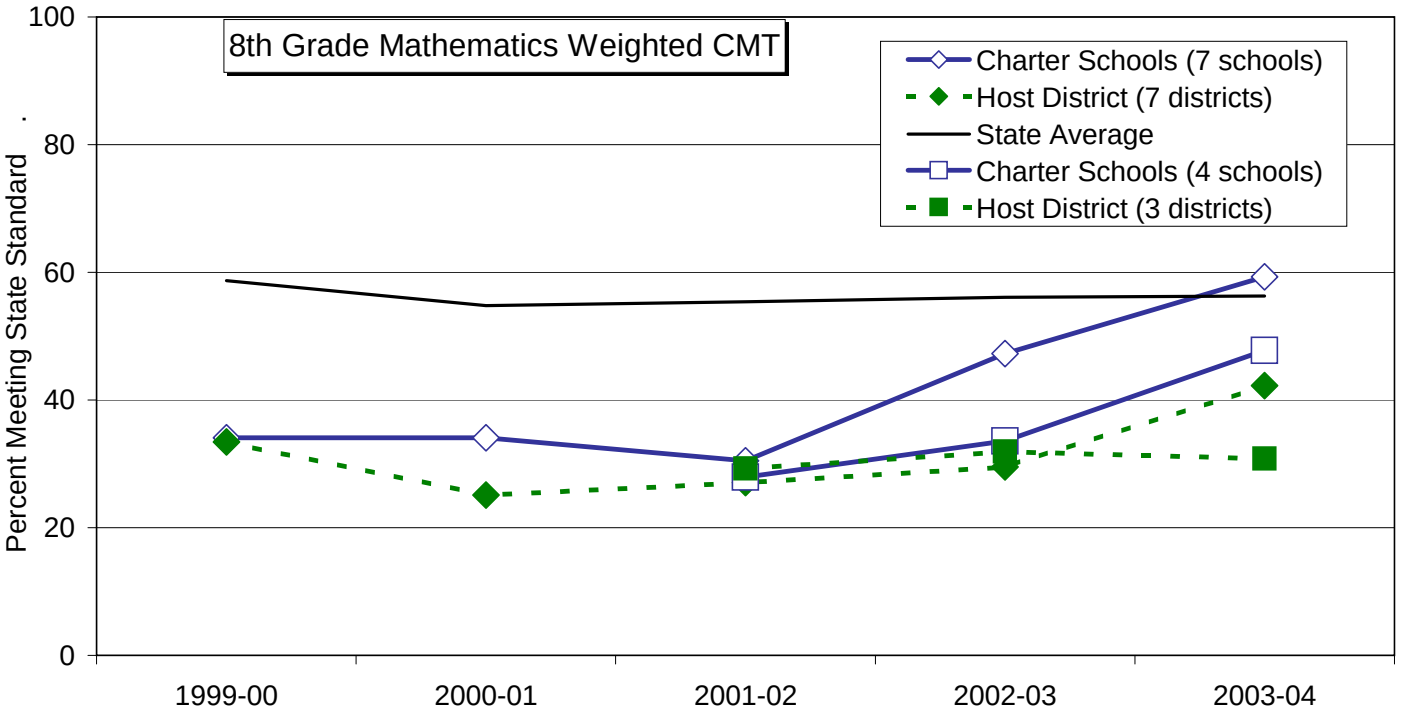
8th Grade Writing Weighted CMT

	First Trend							Second Trend				
	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	*Average difference*	2000-01	2001-02	2002-03	2003-04	*Average difference*
CS		17.21	35.22	40.77	45.51	53.80	*9.15*	41.01	46.20	44.02		*1.50*
HD		43.00	36.17	36.21	36.02	41.55	*-0.36*	37.99	42.93	42.43		*2.22*
Difference of average difference (CS-HD)							*9.51*	Difference of average difference (CS-HD)				*-0.72*

Notes: Breakthrough converted to a magnet school in 2002. Charter Oak closed in 2002 and Brooklawn closed in 2003

Grade 8 Mathematics Results on the CMT, 1998-99 to 2003-04





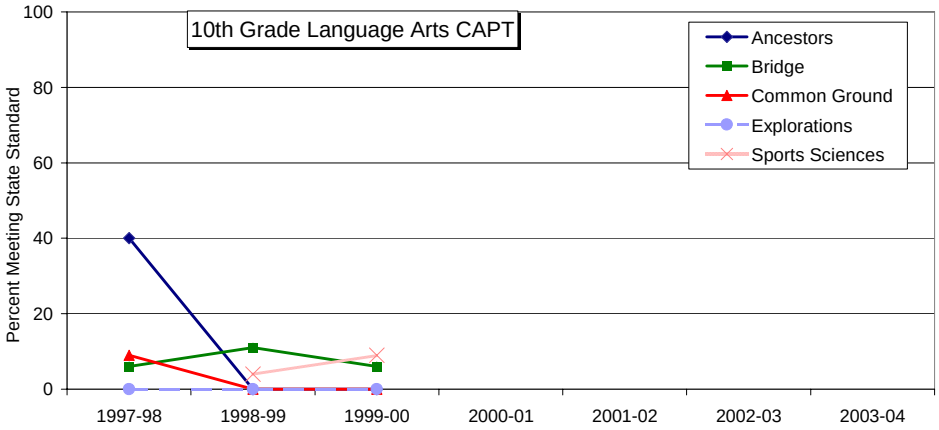
8th Grade Mathematics Weighted CMT

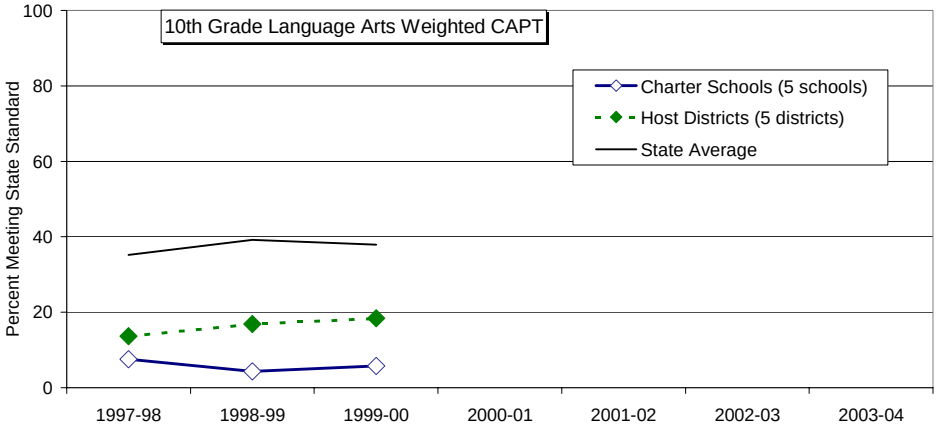
	First Trend							Second Trend				
	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	*Average difference*	2000-01	2001-02	2002-03	2003-04	*Average difference*
CS		34.10	34.08	30.47	47.28	59.27	*6.29*	27.92	33.56	47.75		*9.91*
HD		33.45	25.12	27.08	29.50	42.23	*2.19*	29.26	31.95	30.82		*0.78*
Difference of average difference (CS-HD)							*4.10*	Difference of average difference (CS-HD)				*9.13*

Notes: Breakthrough converted to a magnet school in 2002. Charter Oak closed in 2002 and Brooklawn closed in 2003

Appendix E
Results from the Trend Analysis for the CAPT Using Percent Meeting State Standards

Grade 10 Language Arts on the CAPT, 1997-98 to 1999-00



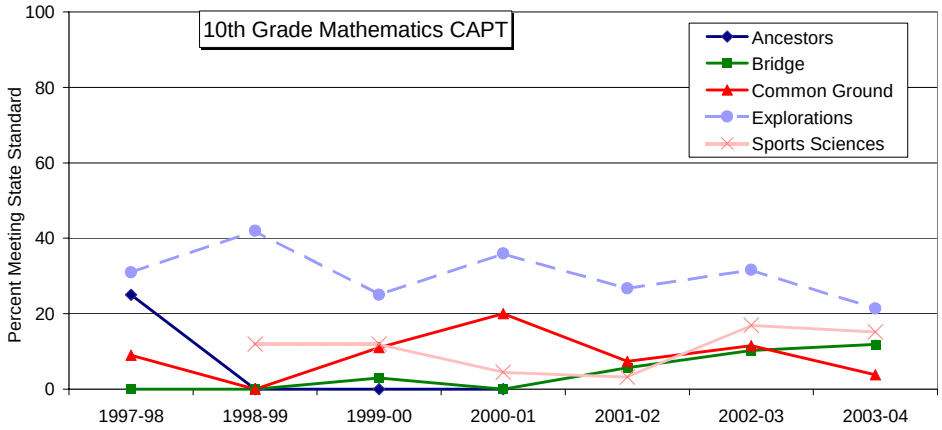


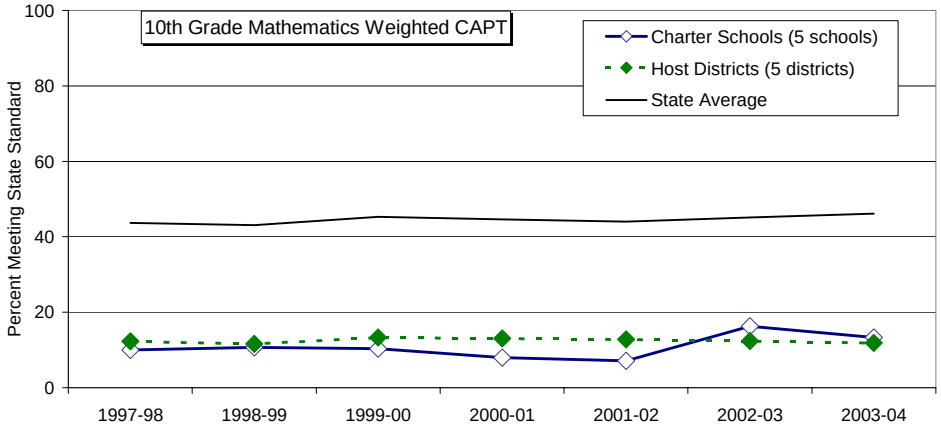
10th Grade Language Arts Weighted CAPT

	Trend							
	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	*Average difference*
CS	7.5	4.4	5.7					*-0.9*
HD	13.6	16.8	18.4					*2.4*
Difference of average difference (CS-HD)								***-3.28***

Note: The 5 charter schools included in the analysis are Ancestors, Bridge Academy, Common Ground, Explorations, and Sports Sciences Academy. Ancestors closed in 2001 and Sports Sciences Academy converted to a magnet school in 2002. Also note that Sports Sciences Academy did not open until 1998, which is a year later than the other 4 charter schools. The Language Arts subject test was discontinued after 2000. The second generation of the CAPT test, which was first administered in May 2001, replaced the Language Arts subject test with separate Reading and Writing subject tests.

Grade 10 Mathematics Results on the CAPT, 1997-98 to 2003-04



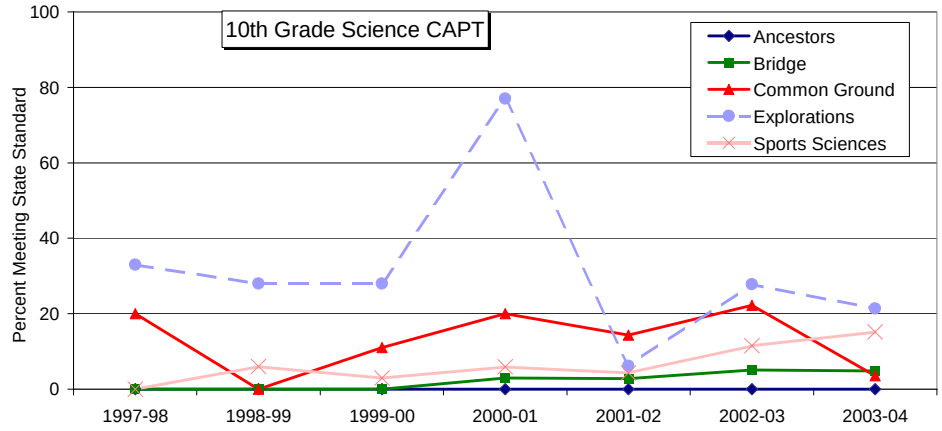


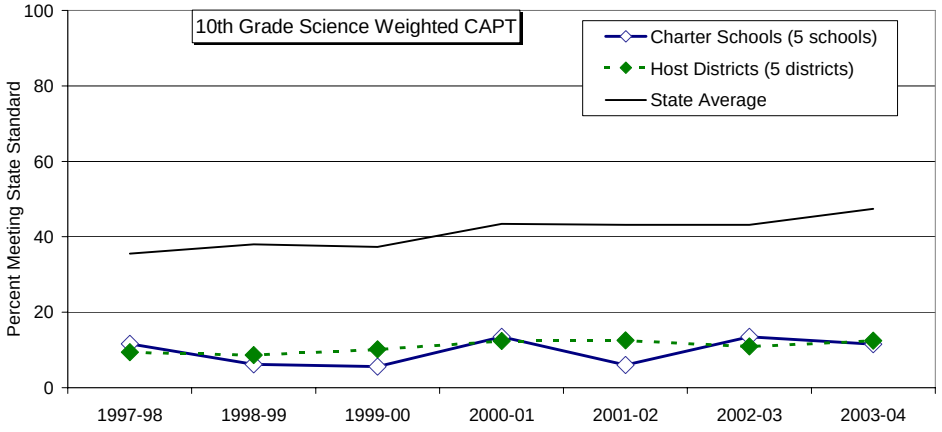
10th Grade Mathematics Weighted CAPT

	Trend							
	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	*Average difference*
CS	10.0	10.7	10.4	8.0	7.2	16.3	13.3	*0.5*
HD	12.3	11.7	13.3	13.1	12.8	12.4	11.8	*-0.1*
Difference of average difference (CS-HD)								*0.61*

Note: The 5 charter schools included in the analysis are Ancestors, Bridge Academy, Common Ground, Explorations, and Sports Sciences Academy. Ancestors closed in 2001 and Sports Sciences Academy converted to a magnet school in 2002. Also note that Sports Sciences Academy did not open until 1998, which is a year later than the other 4 charter schools.

Grade 10 Writing Results on the CAPT, 1997-98 to 2003-04



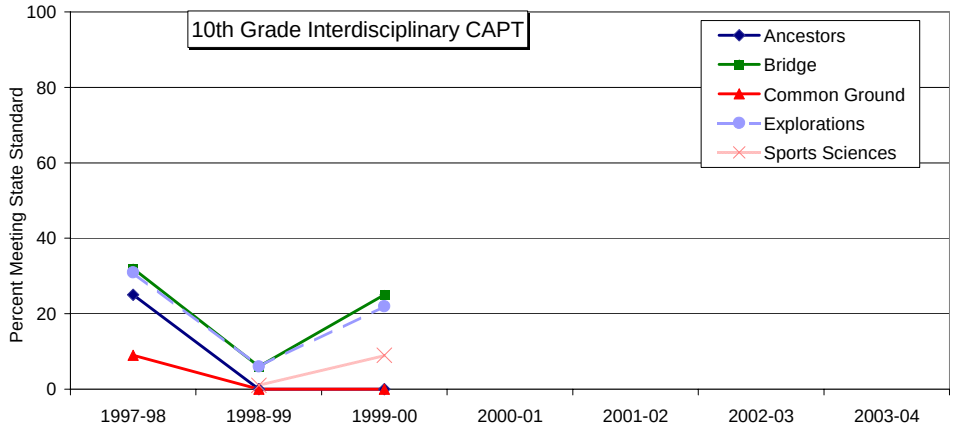


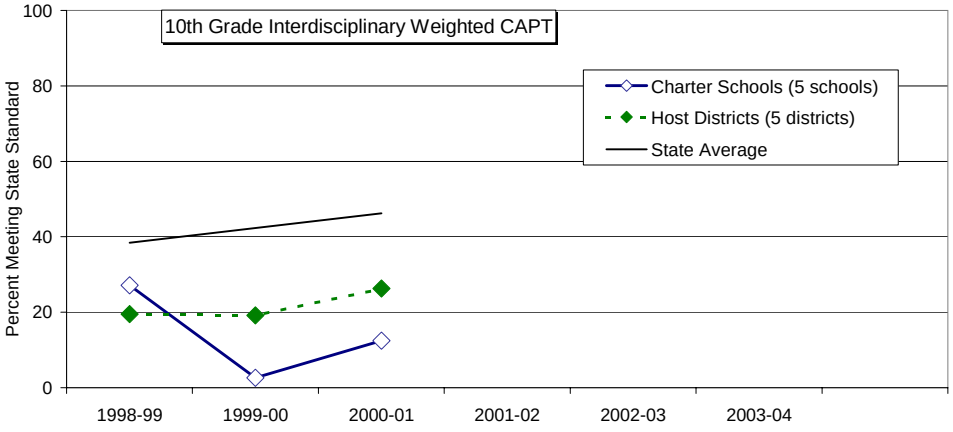
10th Grade Science Weighted CAPT

	Trend							
	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	*Average difference*
CS	11.6	6.2	5.6	13.5	6.0	13.4	11.5	*0.0*
HD	9.4	8.7	10.2	12.4	12.6	10.9	12.5	*0.5*
Difference of average difference (CS-HD)								*-0.52*

Note: The 5 charter schools included in the analysis are Ancestors, Bridge Academy, Common Ground, Explorations, and Sports Sciences Academy. Ancestors closed in 2001 and Sports Sciences Academy converted to a magnet school in 2002. Also note that Sports Sciences Academy did not open until 1998, which is a year later than the other 4 charter schools.

Grade 10 Interdisciplinary on the CAPT, 1997-98 to 1999-00



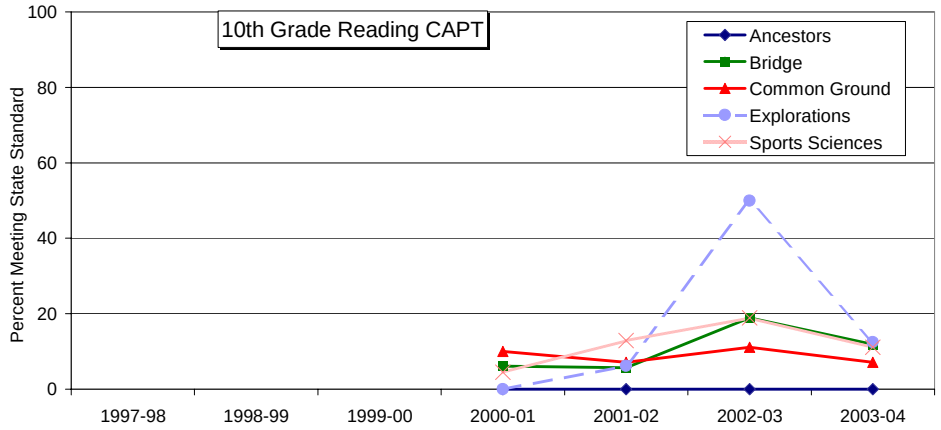


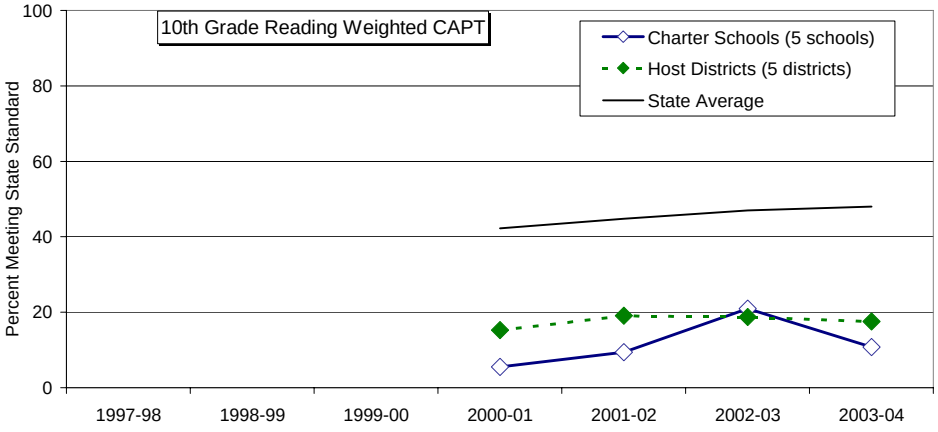
10th Grade Interdisciplinary Weighted CAPT

	Trend							
	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	*Average difference*
CS	27.1	2.6	12.4					*-7.3*
HD	19.5	19.2	26.3					*3.4*
Difference of average difference (CS-HD)								*-10.75*

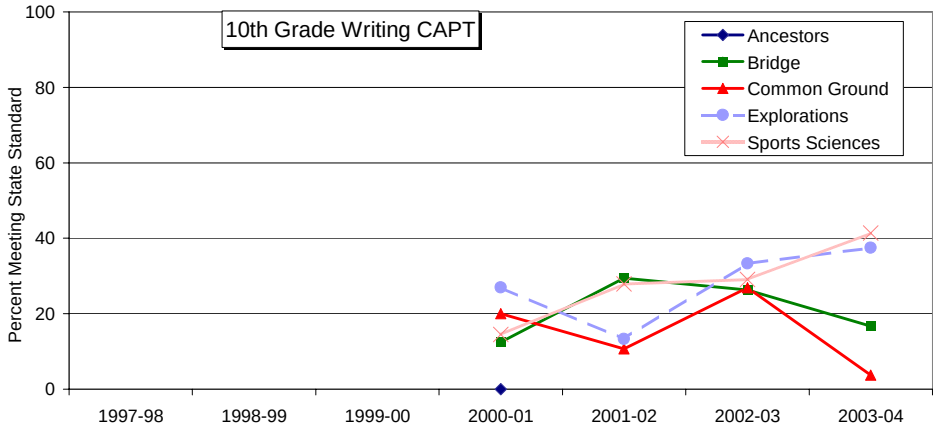
Note: The 5 charter schools included in the analysis are Ancestors, Bridge Academy, Common Ground, Explorations, and Sports Sciences Academy. Ancestors closed in 2001 and Sports Sciences Academy converted to a magnet school in 2002. Also note that Sports Sciences Academy did not open until 1998, which is a year later than the other 4 charter schools. The interdisciplinary subject test was discontinued after 2000.

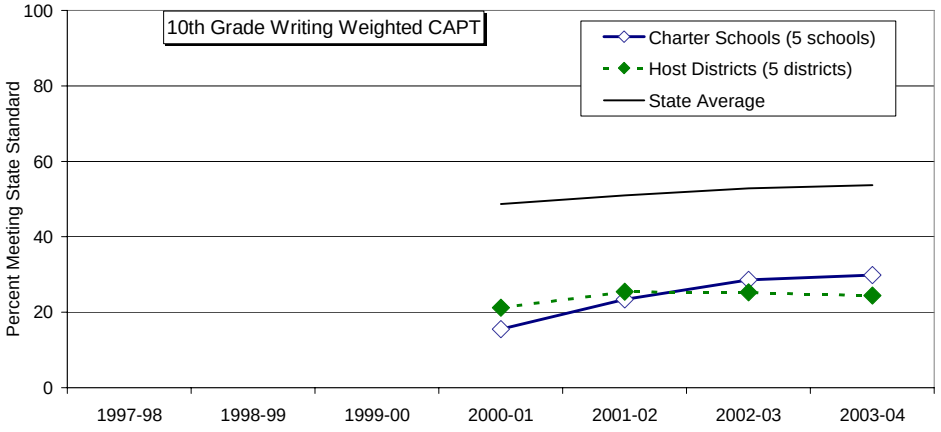
Grade 10 Reading Results on the CAPT, 1997-98 to 2003-04





Grade 10 Writing Results on the CAPT, 1997-98 to 2003-04





10th Grade Reading Weighted CAPT

	Trend							
	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	*Average difference*
CS				5.5	9.4	20.9	10.8	*1.3*
HD				15.3	19.1	18.7	17.6	*0.6*
Difference of average difference (CS-HD)								*0.76*

Note: The 5 charter schools included in the analysis are Ancestors, Bridge Academy, Common Ground, Explorations, and Sports Sciences Academy. Ancestors closed in 2001 and Sports Sciences Academy converted to a magnet school in 2002. Also note that Sports Sciences Academy did not open until 1998, which is a year later than the other 4 charter schools. The reading subject test was started with the introduction of the second generation of the CAPT test, which was first administered in May 2001.

10th Grade Writing Weighted CAPT

	Trend							
	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	*Average difference*
CS				15.6	23.4	28.6	29.9	*3.6*
HD				21.2	25.4	25.3	24.4	*0.8*
Difference of average difference (CS-HD)								*2.78*

Note: The 5 charter schools included in the analysis are Ancestors, Bridge Academy, Common Ground, Explorations, and Sports Sciences Academy. Ancestors closed in 2001 and Sports Sciences Academy converted to a magnet school in 2002. Also note that Sports Sciences Academy did not open until 1998, which is a year later than the other 4 charter schools. The writing subject test was started with the introduction of the second generation of the CAPT test, which was first administered in May 2001.