

# The State of Connecticut Public Education

A 2007 REPORT CARD FOR ELEMENTARY & MIDDLE SCHOOLS

Preface by Alex Johnston, Ph.D. Introduction by Marc Porter Magee, Ph.D.

October 2007





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This study is the second annual "State of Connecticut Public Education" report and serves as a revised and expanded follow-up to ConnCAN's first report, issued in fall 2006.

The goal of this report series and ConnCAN's other research efforts is to provide an insightful and informative look at how well our public schools are meeting the needs of all students and to help state and district leaders, policymakers, journalists, and parents gain a better understanding of the challenges and the opportunities ahead of us in ensuring "Great Schools for All."

This research report is one element of a three-part initiative focusing on school performance across the state. I encourage you to visit *www.conncan.org* to explore the two other elements of this project: 1) the online School and District Report Cards, with letter grades for more than 1,000 Connecticut public schools and 160 school districts, and 2) the Success Stories, which profile Connecticut public schools that are demonstrating that the achievement gap can be closed through dramatic gains in students' academic performance.

ConnCAN's mission is to close Connecticut's achievement gap, which, as this report documents, is the largest gap of any public school system in the nation. To advance this goal, ConnCAN's research both draws upon and helps inform our other efforts to raise awareness, empower parents, and build consensus for change.

I hope you find this report helpful in developing a more complete understanding of the state of Connecticut public education, and I invite you to visit us online at *www.conncan.org* or to contact me directly to learn more about our work.

## Introduction

#### Marc Porter Magee, Ph.D.

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The single most pressing issue facing public education in Connecticut is the achievement gap, the persistent and significant disparity between the academic achievement of low-income and minority children and their white, middle-class peers. This report is designed to provide a concise overview of what state and national student achievement data can tell us about the challenge of raising the achievement levels of all Connecticut students.

In the sections that follow, this report builds on ConnCAN's school and district report card database to provide analysis and key findings for Connecticut, its districts, and its schools. Results from this 2007 analysis include:

### ARE CONNECTICUT SCHOOLS MAKING THE GRADE?

Overall, two out of three students in Connecticut elementary and middle schools are meeting state goals on the Connecticut Mastery Test. However, just one-third of African American, Hispanic, and low-income students are meeting these same goals.

The gap between low-income and minority students and their white, middle-class peers actually increases between elementary and middle school. Between fifth and eighth grade the annual performance gains of white students are twice those of African American students and three-and-a-half times those of Hispanic students.

Compared nationally, Connecticut's achievement gap between poor and non-poor students ranks us  $50^{\text{th}}$  lowest of 50 states. Compared to low-income students in other states, Connecticut's low-income eighth-graders rank  $42^{\text{nd}}$  in reading and  $49^{\text{th}}$  in math.

### ARE THERE DISTRICTS THAT ARE CLOSING THE GAP?

Of the 101,000 poor students below grade level in Connecticut public schools in 2007, the majority are in just five school districts: Bridgeport, Hartford, New Haven, Waterbury and New Britain.

While there are districts making double-digit gains in the percentage of students meeting the state goal on the Connecticut Mastery Test, the average annual gain for students in the five districts with the most low-income students is just one percentage point.

Since 1993, the gap between Connecticut's three largest school districts (Hartford, Bridgeport, and New Haven) and the state average on the fourth- grade Connecticut Mastery Test has increased in reading and writing while decreasing in math. The writing gap is now 50 percent larger than it was 14 years ago in these three cities.

While almost half of the large districts in Connecticut spending less than \$12,000 per student have annual performance gains of two points or greater, none of the large districts spending more than \$12,000 per student have annual performance gains of two points or greater.

### ARE THERE TYPES OF SCHOOLS THAT ARE CLOSING THE GAP?

Connecticut's magnet schools and public charter schools, on average, have student bodies with twice the percentage of low-income students and three times the percentage of minority students as traditional public schools.

In general, African American and low-income students perform better in magnet schools and public charter schools than in traditional public schools.

Public charter schools had higher average annual performance gains than traditional public schools, with charter students making twice the gain in elementary school (10.1 points versus 4.1 points) and three times the gain in middle school (6.9 points versus 2.0 points) as their counterparts in traditional schools.

One factor contributing to charter schools' larger performance gains may be "time on task," with charter schools providing their students with 18.2 percent more hours of instruction than traditional public schools in elementary school and 12.2 percent more hours of instruction than traditional public schools in middle school.

#### CONNECTICUT'S TOP 10 SCHOOLS

The schools appearing most often on the 2007 Top 10 lists are Hartford's Jumoke Academy, Bridgeport's New Beginnings Family Academy, Stamford's Rogers School, New Haven's Amistad Academy, and New Haven's Elm City College Preparatory School.

Traditional schools occupy 61 percent of the slots, magnet schools occupy 22 percent of the slots, and public charter schools occupy 17 percent of the slots.

The districts with the greatest number of schools holding Top 10 slots are Stamford, Bridgeport, Hartford, and New Haven.

The Success Stories section of ConnCAN's website will serve as a growing repository of the lessons learned from these Top 10 schools

# 1

# Are Connecticut Schools Making the Grade?

In the search for a better understanding of how well Connecticut's public education system is serving its students, results from the state achievement tests have emerged as a key yardstick for measuring our strengths, weaknesses, successes, and setbacks.

To help make sense of these results, ConnCAN's school and district report cards (*www.ctreportcards.org*) organize this data into key indicators of performance and apply an easy-to-understand grade scale to provide parents with absolute benchmarks for how well their child's school is meeting the needs of all its students.

This section examines Connecticut's overall performance and presents report cards for the state's elementary and middle schools. These report cards point to one challenge above all others in Connecticut's public education system: closing the achievement gap.

#### PERFORMANCE CATEGORIES

Drawing on the results from the 2006 and 2007 Connecticut Mastery Tests, administered in the spring to all Connecticut public schools students in grades three through eight, ConnCAN provides letter grades for the state of Connecticut, its districts, and its schools across four key performance indicators:

**Students within Goal Range.** The average percentage of students at or above the state goal on the fifth-grade reading, writing and math tests (for elementary schools) and eighth-grade tests (for middle schools).

**Subgroups within Goal Range.** The average percentage of African American, Hispanic and low-income students within goal range on the fifth-grade reading, writing and math tests (for elementary schools) and eighth-grade tests (for middle schools).

**Gap between Subgroups.** The difference in the average percentage of students within goal range between African Americans and whites, Hispanics and whites, and non-poor and poor students.

**Performance Gains.** The average growth or decline in the percentage of students meeting the state goal during their year in school. Calculated as the change from third to fourth grade and fourth to fifth grade in elementary school and fifth to sixth, sixth to seventh, and seventh to eighth in middle school.

#### **GRADE SCALE**

An "A" grade is assigned to each section of the report card as follows:

**Overall Performance:** when the average percentage of students within goal range is 90 points or greater.

**Subgroup Performance:** when the average percentage of African American, Hispanic and low-income students within goal range is 90 points or greater.

**Achievement Gap:** when the average gap between student subgroups is less than 3 points.

**Performance Gains:** when more than 23 percent of the students not at grade level are brought up to grade level over the course of the year.

At the other end of the scale, an "F" grade is assigned to each section as follows:

**Overall Performance:** when the average percentage of students within goal range is less than 30 points.

**Sub-group Performance:** when the average percentage of African American, Hispanic and low-income students is less than 30 points.

**Achievement Gap:** when the average gap between student subgroups is greater than 31 points.

**Performance Gains:** when more than 16 percent of the students at grade level fall below grade level over the course of the year.

# Report Card

CONNECTICUT ELEMENTARY SCHOOLS	GROUP	%	GRADE
PERFORMANCE GAINS Average change in percentage of students within goal range over the course of a year.	Connecticut	4.2	C+
STUDENTS WITHIN GOAL RANGE  Average percentage of 5 <sup>th</sup> grade students within goal range across all subjects.	Connecticut	64.0	C+
SUBGROUPS WITHIN GOAL RANGE	African American	37.2	
Average percentage of 5 <sup>th</sup> grade students within	Hispanic	37.2	
goal range across all subjects.	Low-Income Students	37.5	
CAR RETWEEN SUR CROUPS	African American/ White Gap	37.5	
<b>GAP BETWEEN SUBGROUPS</b> Average difference in percentage of 5 <sup>th</sup> grade student subgroups within goal range.	Hispanic/ White Gap	37.5	F
	Low-Income/ Non-Low Income Gap	37.5	

CONNECTICUT MIDDLE SCHOOLS	GROUP	%	GRADE
<b>PERFORMANCE GAINS</b> Change in percentage of students scoring within goal range between their 6 <sup>th</sup> and 7 <sup>th</sup> grade tests.	Connecticut	1.6	C+
STUDENTS WITHIN GOAL RANGE Average percentage of students within goal range across all subjects in 4 <sup>th</sup> grade.	Connecticut	63.8	C+
SUBGROUPS WITHIN GOAL RANGE	African American	34.1	
Average percentage of students within goal range	Hispanic	33.8	D -
across all subjects in 4 <sup>th</sup> grade.	Low-Income Students	34.9	
CAR RETWEEN SURCEOURS	African American/ White Gap	41.5	
<b>GAP BETWEEN SUBGROUPS</b> Average difference in percentage of student subgroups within goal range in 4 <sup>th</sup> grade.	Hispanic/ White Gap	41.8	F
	Low-Income/ Non-Low Income Gap	39.8	

The complete results for every school and school district in Connecticut—along with student demographics, grade levels, size, contact information, and per pupil spending—are available for free at *www.ctreportcards.org*. The complete methodology and grading tables can be found online or in the appendix of this report (page 24).

#### **ELEMENTARY SCHOOL RESULTS**

In 2007, 61.4 percent of fifth-grade students reached or exceeded the state goal for reading on the Connecticut Mastery Test. This figure was 64.6 percent for writing, and 66.0 percent for math, producing an average score of 64.0 across the three tests. This result earns a grade of C+ for the state on the Students within Goal Range indicator, up 2.3 points from the 2006 CMT.

The results from the "Performance Gains" measure show that across Connecticut, elementary schools helped bring an additional 4.2 percent of students above grade level during the course of their year in school.

However, despite this progress, the performance of Connecticut's African American, Hispanic and low-income students continues to lag significantly behind their white, middle-class peers in elementary school. The average percentage of African American (37.2 percent), Hispanics (37.2 percent) and low-income students (37.5 percent) within goal range—one-half the average for whites and non-poor students—resulted in a grade of D on the Subgroups within Goal Range indicator. The average achievement gap between non-poor and white students and their poor and minority peers was 37.5 points, resulting in an F for the Gap between Subgroups indicator.

#### MIDDLE SCHOOL RESULTS

The results for middle schools suggest not only that Connecticut is making little progress between fifth and eighth grade but that in some significant areas we are actually sliding backward.

On average, the percentage of students deemed to be meeting or exceeding state goals on the eighth-grade CMT is essentially the same as in fifth grade (63.8 percent versus 64.0 percent). However, a closer look reveals that the percentage of African American (34.1), Hispanic (33.8), and low-income (34.9) students meeting the state goal is 3.1 points lower for African Americans, 3.4 points lower for Hispanics and 2.6 points lower for low-income students than the results for elementary school. As a result of these declines, in 2007 the achievement gap in Connecticut's middle schools (41.0 points) is actually larger, on average, than the one in our elementary schools (37.5 points).

Perhaps the most important difference between elementary and middle schools is found in the area of performance gains. Connecticut's elementary schools increased the percentage of students within goal range on average by 4.2 points during their year in school. By contrast, Connecticut's middle schools achieved only a 1.6 point gain.

#### PERFORMANCE GAINS: A CLOSER LOOK

Why do Connecticut public schools make greater gains with their students in elementary school than middle school? And why is the achievement gap larger in eighth grade than in fifth grade? To shed some light on these questions, it is important to take a closer look at the performance gains being made in Connecticut's public schools.

Using 2006 and 2007 Connecticut Mastery Test (CMT) results, it is possible to look at the specific gains made between each year of schooling: third to fourth, fourth to fifth, fifth to sixth, sixth to seventh and seventh to eighth. It is important to note, however, that the ability of this indicator to represent the change in achievement for a student cohort accurately is determined, in part, by the stability of the student body. Similarly, while the goal standard is designed to measure the level of performance "reasonable to expect of students" within their grade level, small differences in the way this "cut score" is determined between years may affect figures for increases or decreases in the percentage of students that have crossed this threshold of grade-level knowledge. Despite these challenges, this indicator provides the best available measure of the "value added" by schools each year.

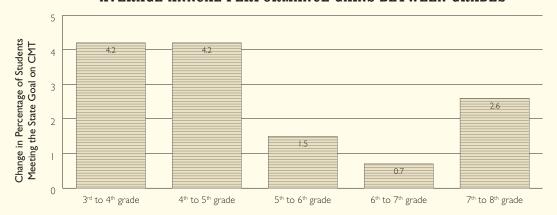
As can be seen in Chart 1, the gains made during each school year in elementary school are identical: an additional 4.2 point gain is made each year in the average percentage of students meeting the state goal. However, there is a significant drop in the transition to middle school.

The gains made between fifth and sixth grade are just one-third the size of the gains made in elementary school, and the gains made between sixth and seventh grade are just one-sixth the size of the gains made in elementary school. The gains made between seventh and eighth grade increase slightly to 2.6 points but remain below the elementary school levels. Hence, in the transition from elementary to middle school, progress in bringing students who have fallen behind up to grade level appears to stall.

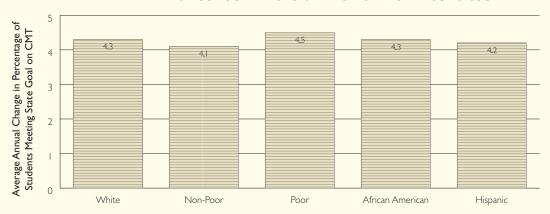
Most troublingly, this decline in performance gains does not occur equally across the student population but is most pronounced among minority and low-income students. As can be seen in Chart 2, the gains made in elementary school by Connecticut students are consistent for poor and non-poor students and for white, African American, and Hispanic students. Thus, while Connecticut's elementary schools are not closing the achievement gap, they are not exacerbating it, either.

Charts 1, 2 & 3

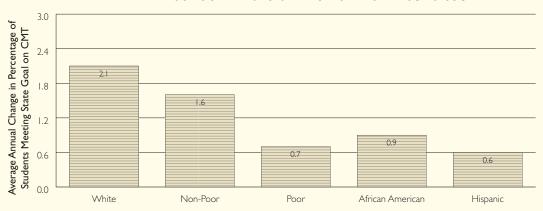
#### AVERAGE ANNUAL PERFORMANCE GAINS BETWEEN GRADES



#### ELEMENTARY SCHOOL PERFORMANCE GAINS BY SUBGROUP



#### MIDDLE SCHOOL PERFORMANCE GAINS BY SUBGROUP



However, as shown in Chart 3, by middle school, the annual gains made by non-poor students (1.6 points) are more than twice the gains made by poor students (0.7 points). Similarly, the annual gains made by white students (2.1 points) are more than twice the gains made by African American students (0.9 points) and three-and-a-half times the gains made by Hispanic students (0.6 points).

Although the percentage of Connecticut's non-poor and white students not meeting state goals by the start of middle school (25 percent) is much smaller than the percentage of poor and minority students not meeting state goals (63 percent), Connecticut's middle schools still make considerably more progress catching up these remaining white and non-poor students to grade level than their poor and minority peers. Thus, it is not surprising that between fifth and eighth grade Connecticut's achievement gap actually increases from 37.5 to 41.0 points.

#### CONNECTICUT'S ACHIEVEMENT GAP IN CONTEXT: HOW DO WE COMPARE TO OTHER STATES?

**Is Connecticut's achievement gap really all that different from the gaps in other states?** And isn't this gap just a reflection of how well our white and non-poor students perform rather than a function of the low performance of poor and minority students? The best tool we have for answering these questions is the National Assessment of Educational Progress (NAEP).

Mandated by Congress and overseen by the U.S. Department of Education, NAEP was created in 1969 and is commonly referred to as the "Nation's Report Card." Administered every two years to fourth-, eighth-, and twelfth-graders in math and reading, and at six-year intervals in other subjects, NAEP provides a common yardstick that allows side-by-side comparisons of the academic achievement of students from different racial, ethnic, and socioeconomic groups and students from different states. Fourth- and eighth-grade results are released for all 50 states, while twelfth-grade results are released only on the national level.

The 2007 NAEP mathematics and reading assessments were administered in all 50 states between January and March 2007, approximately the same time as the 2007 Connecticut Mastery Test.

The results make clear that Connecticut's achievement gap between poor and non-poor students is the largest gap of the 50 states across all four categories: fourth-grade reading, fourth-grade math, eighth-grade reading and eighth-grade math. As Charts 4 and 5 demonstrate, Connecticut is not only 50th out of 50 states, but the difference between Connecticut and the 49th ranking state is dramatic. On average, Connecticut's gap is more than one-half a grade level larger than the nearest state.

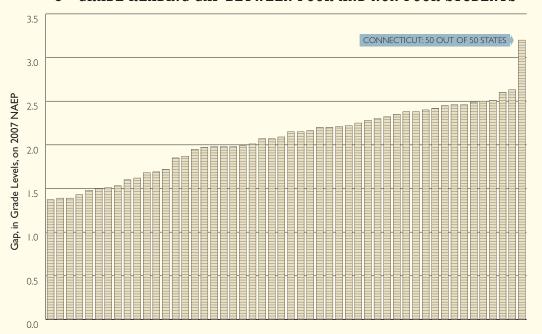
Why is Connecticut's achievement gap so much larger than any other state? The NAEP results suggest that it is not because our white and non-poor students are performing so well but instead because our poor students have some of the lowest scores in the nation compared to poor students in other states.

On the 2007 NAEP, Connecticut's poor students ranked 43<sup>rd</sup> out of 50 states in both reading and math. By contrast, Massachusetts' poor students ranked third in the nation on fourth-grade reading and second in the nation on fourth-grade math. On average, Connecticut's poor students were found to be 1.5 grade levels behind Massachusetts' poor students, meaning that they were reading and performing math on the level that was reached by poor students in Massachusetts half way through the second grade.

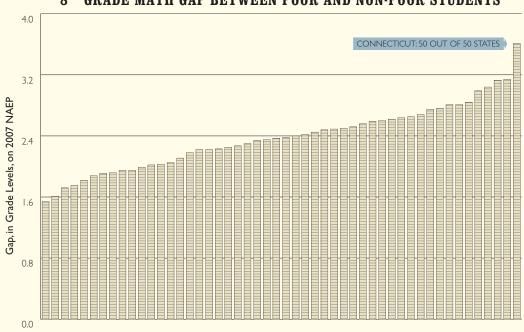
As can be seen in Table 1, on the eighth-grade NAEP tests, Connecticut's poor students ranked 42nd in reading and 49th in math, meaning that Connecticut's poor eighth-graders performed math worse than any other poor students in the country except the students of Alabama. By eighth grade, the gap in math performance between Connecticut's poor students and Massachusetts' poor students increased to nearly two grade levels.

# Charts 4 & 5

#### 8<sup>TH</sup> GRADE READING GAP BETWEEN POOR AND NON-POOR STUDENTS



#### 8<sup>TH</sup> GRADE MATH GAP BETWEEN POOR AND NON-POOR STUDENTS



# STUDENTS 2007 8TH GRALOW-INCOM

### 2007 8<sup>TH</sup> GRADE READING, LOW-INCOME STUDENTS

RANK	STATE	SCALE SCORE
1	Maine	260.7
2	Vermont	260.3
3	Montana	259.8
4	South Dakota	259.0
5	North Dakota	257.8
6	New Hampshire	257.2
7	Massachusetts	255.9
8	Idaho	255.9
9	Wyoming	255.4
10	Delaware	253.8
11	Minnesota	253.6
12	Nebraska	253.6
13	Kansas	253.4
14	Oregon	253.2
15	Iowa	253.0
16	Pennsylvania	252.5
17	Virginia	252.5
18	Kentucky	252.2
19	Utah	251.8
20	Missouri	251.5
21	Oklahoma	251.5
22	Colorado	251.3
23	Ohio	251.3
24	Maryland	250.9
25	New Jersey	250.9
26	Indiana	250.7
27	Washington	250.6
28	New York	250.4
29	Texas	249.3
30	Florida	249.2
31	Illinois	248.9
32	Arkansas	247.4
33	Tennessee	247.3
34	Georgia	246.9
35	West Virginia	245.9
36	Wisconsin	245.8
37	North Carolina	245.5
38	Louisiana	245.1
39	South Carolina	244.6
40	Alaska	244.4
41	Michigan	243.7
42	Connecticut	243.4
43	Hawaii	242.9
44	Mississippi	242.0
45	New Mexico	242.0
46	Rhode Island	241.6
47	Arizona	241.1
48	Alabama	240.6
49	Nevada	240.2
50	California	239.1

#### 2007 8<sup>™</sup> GRADE MATH, LOW-INCOME STUDENTS

RANK	STATE	SCALE SCORE
I	North Dakota	280.2
2	Vermont	277.4
3	Wyoming	275.4
4	Kansas	275.1
5	South Dakota	275.1
6	Maine	274.8
7	Texas	274.7
8	Massachusetts	274.6
9	Minnesota	272.8
10	Idaho	272.6
	Montana	272.1
12	Indiana	270.8
13	New Hampshire	270.7
14	Iowa	270.0
15	Oregon	269.9
16	Delaware	269.5
17	South Carolina	268.7
18	North Carolina	268.4
19	Virginia	268.2
20	New York	268.0
21	Washington	267.9
22	Maryland	267.8
23	Ohio	267.8
24	Pennsylvania	267.4
25	Utah	267.4
26	Kentucky	267.4
27	Colorado	267.3
28	New Jersey	266.1
29	Missouri	265.9
30	Wisconsin	265.9
31	Alaska	265.8
32	Nebraska	265.2
33	Florida	264.7
34	Oklahoma	264.5
35	Louisiana	264.1
36	Arkansas	263.0
37	Illinois	262.3
38	Arizona	262.0
39		261.8
	Tennessee	
40	Georgia	261.7
41	West Virginia	260.2
42	Michigan	259.3
43	Nevada	258.8
44	Hawaii	258.3
45	New Mexico	257.7
46	California	257.3
47	Mississippi	256.8
48	Rhode Island	256.6
49	Connecticut	256.0
50	Alabama	250.4

# 2

# Are There Districts That Are Closing the Gap?

Connecticut's achievement gap is often discussed in terms of the difference in performance between poor and non-poor students and between white and minority students. This same gap is also apparent as an urban-suburban divide.

In fact, of the 101,000 poor students below grade level in Connecticut public schools in 2007, the majority (51,000) are in just five of the 169 school districts: Bridgeport (15,000), Hartford (12,000), New Haven (9,000), Waterbury (9,000) and New Britain (6,000).

Closing Connecticut's achievement gap will require that large districts with significant percentages of low-income students make big performance gains with their students.

#### DISTRICT PERFORMANCE GAINS

### Are there large districts with significant percentages of low-income students making big gains in catching these students up to grade level?

Chart 6 plots school districts' average performance gains with their students between 2006 and 2007 against the percentage of students who qualify for the free and reduced-price meal program. The three highest-performing districts—Colebrook (10.7 points), Region 4, covering Chester, Deep River, and Essex (10.3), and Scotland (10.1)—all had less than 15 percent low-income students and less than 1,000 students overall.

The highest-performing district with more than 25 percent low-income students is East Haven, which on average increased the percentage of students meeting the state goal by 7.0 points per year. This was the 11<sup>th</sup>-best gain out of the 160 districts for which the performance gains figure could be calculated. However, since East Haven ranks just 26<sup>th</sup> in terms of the number of low-income students, its impact on closing the state's achievement gap is relatively small.

The highest-performing district with more than 50 percent low-income students is Meriden, with a student body that is 57 percent low-income and an average performance gain of 3.6 points. Meriden has the seventh-largest number of poor students below grade level in Connecticut, suggesting that these gains, while not as large as East Haven's, could potentially play a more significant role in helping lessen the state's achievement gap. The performance gains for the five districts with the most low-income students below grade level in the state are:

New Haven:	Waterbury:	Hartford:	New Britain:	Bridgeport:
1.6 points.	1.4 points.	1.1 points.	1.1 points.	0.2 points.

The two districts with more than 50 percent low-income students and negative performance gains are Windham (-0.5) and New London (-0.7).

As with the use of performance gains in the statewide analysis, it is important to note that the ability of this indicator to represent the change in achievement for a student cohort accurately is determined, in part, by the stability of the student body. The student stability rate for the 2005–2006 school year ranged from Bethany's 98.5 percent to Sprague's 66.8 percent. The mean for Connecticut school districts was 91.2 percent, and the median was 92.9 percent. The average stability rate for the districts with the 10 largest performance gains was 94.1 percent, compared to 89.9 percent for the districts with the 10 smallest performance gains.

#### **DISTRICT PERFORMANCE TRENDS: 1993–2007**

While performance gains can only be calculated for grades three through eight between 2006 and 2007 (since testing for each of the grades started in 2006), it is possible to explore improvements in grades three, six and eight as far back as 1993. Are there districts that have made significant progress in raising the percentage of students meeting the state goal over that time period?



## PERFORMANCE GAINS AGAINST PERCENTAGE OF POOR STUDENTS WITHIN DISTRICT



Percent Free and Reduce Meals Eligible Students

One way to answer that question is to look at changes in the percentage of fourth-grade students meeting the state goal in reading between 1993 and 2007. Since many district interventions are designed to help ensure younger students come to school ready to learn and to catch up students in the critical area of reading before they slip too far behind, the fourth-grade reading figure is a good measure to use when seeking to discern potentially promising signs that the gap is being closed.

The three districts that have made the greatest gains in the percentage of students meeting the state goal in reading since 1993 are Berlin (36.8 point gain), East Lyme (36.2), and Monroe (29.4). During this same time period, the percentage of all Connecticut students meeting the state goal in reading rose 12.4 percentage points, or approximately one-third the gains made in Berlin. However, all of these districts have very few low-income students, with just 4.5 percent, 2.2 percent, and 4.1 percent, respectively.

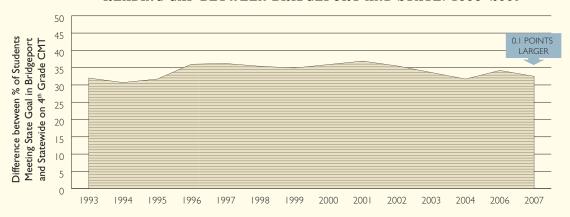
Among the three districts with the greatest numbers of low-income students in the state, the trend is quite different (see Charts 7, 8, and 9). While the percentage of students meeting the state goal in reading increased in all three districts between 1993 and 2007, the gap between these districts and the statewide average worsened. The reading gap between Bridgeport and the state worsened by 0.1 points, the reading gap between Hartford and the state worsened by 5.2 points, and the reading gap between New Haven and the state worsened by 8.0 points. **That means the reading gap between New Haven and the state is now one-third larger than it was 14 years ago.** 

More promising trends are found in the subject of math, where Hartford's gap declined 1.2 points, Bridgeport's gap declined 2.4 points, and New Haven's gap declined 5.5 points. However, on the CMT writing test, the gap between these three districts and the state increased dramatically. Hartford's writing gap increased 13.9 points, Bridgeport's writing gap increased 12.2 points, and New Haven's writing gap increased 13.5 points. In these three cities, the average writing gap in 2007 was more than 50 percent larger than it was in 1993 (34.5 points in 2007 versus 21.3 points in 1993).

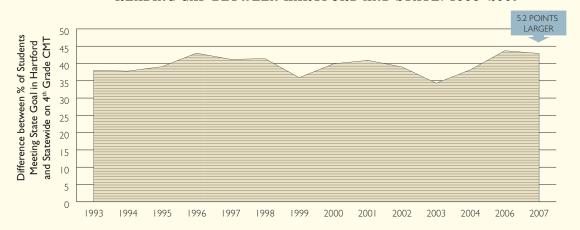
While any analysis across such a long span of time and involving multiple generations of tests should be interpreted with caution, the growth in the gap between Connecticut's three cities and the statewide average for reading and writing suggests that we may well be moving in the wrong direction in the urban-suburban achievement gap.

Charts 7, 8 & 9

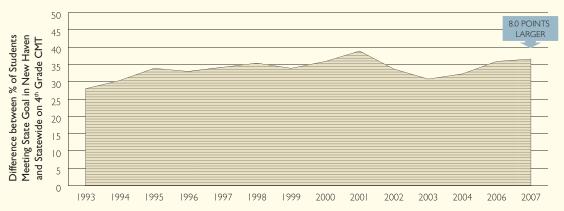
#### READING GAP BETWEEN BRIDGEPORT AND STATE: 1993-2007



#### READING GAP BETWEEN HARTFORD AND STATE: 1993-2007



#### READING GAP BETWEEN NEW HAVEN AND STATE: 1993-2007



#### SPENDING AND PERFORMANCE GAINS

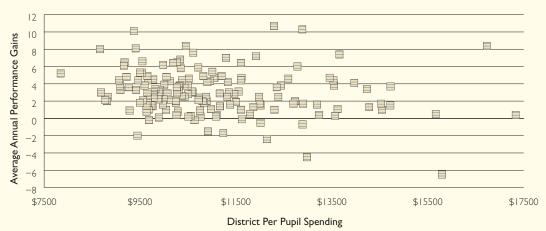
**Are performance gains more common among districts with higher spending per pupil?** To help shed some light on this question, average district performance gains between 2006 and 2007 were plotted against district-perpupil spending for the 2005–2006 school year, which is the most recent data available.

As seen in Chart 10,65 percent (105 of 160) of Connecticut's school districts had performance gains of 2.0 points or greater between 2006 and 2007. This percentage is actually higher for districts spending less than \$12,000 per student (71 percent of which had a 2.0 point gain or greater) than for districts spending more than \$12,000 per student (46 percent of which had a 2.0 point gain or greater).

Chart 11 provides the results just for Connecticut's 20 largest districts. Overall, nine of the 20 largest districts have performance gains of 2.0 points or greater (45 percent). However, all of the large districts with performance gains of 2.0 points or greater spent less than \$12,000 per student. **None of the six large districts spending more than \$12,000 per pupil had a 2.0 point gain or greater.** This basic analysis does not allow for any determination of causation, but it does reveal that among this set of the 20 largest districts in Connecticut, the examples of those districts making larger than average gains with their students are not found among the districts spending more than the state average. This suggests that when seeking to raise student achievement in large districts, one of the first issues to focus on is *how* money is being spent.

# Charts 10 & 11

#### PERFORMANCE GAINS AGAINST PER PUPIL SPENDING



## PERFORMANCE GAINS AGAINST PER PUPIL SPENDING: 20 LARGEST DISTRICTS



# 3

# Are There Types of Schools That Are Closing the Gap?

While Connecticut currently does not have a breakthrough example of a large district making big gains with a significant number of low-income students, there do appear to be certain types of school spread out across the state that are achieving promising results.

One approach for looking beneath the statewide numbers is to examine the relative performance of Connecticut's more than 1,000 public schools in terms of school type. To do so, elementary and middle schools were sorted into four school types: traditional public schools, intradistrict magnets (whose students come from one district), interdistrict magnets (whose students come from more than one district), and public charter schools.

As seen in Table 2, while student demographics vary considerably from school to school, **on average Connecticut's magnet schools and public charter schools serve a student population that is twice as diverse as the population served by the state's traditional public schools**. In terms of the percentage of low-income students, Connecticut's public charter schools have a student body made up of more than 60 percent low-income students, interdistrict and intradistrict magnets have a student body made up of approximately 50 percent low-income students, and traditional schools have a student body that is approximately 25 percent low-income.

#### STUDENT PERFORMANCE

The average percentage of students within goal range in both elementary school (fifth-grade CMT) and middle school (eighth-grade CMT) varies between 45 percent and 64 percent across the school types and levels. In elementary school, 62 percent of students in traditional schools, 59 percent of students in interdistrict magnets, 57 percent of students in public charter schools, and 45 percent of students in intradistrict magnet schools score met the state goal on the 2007 CMT. Similarly, in middle school, 64 percent of students within traditional schools, 57 percent of students within public charter schools, 47 percent of students within interdistrict magnets, and 50 percent of students within intradistrict magnet schools score met the state goal.

To better understand which school types are helping close the achievement gap, it is necessary to look underneath these overall figures to the performance of subgroups of students within the schools.

As seen in chart 12, in general the percentage of low-income students meeting the state goal is larger in Connecticut's magnet schools and public charter schools than in traditional public schools. The greatest difference is seen in middle school, with 53 percent of low-income public charter school students meeting the state goal, compared to 36 percent of low-income students in traditional public schools.

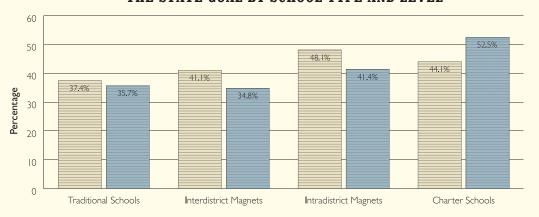
Chart 13 shows the same comparison for African American students. In elementary school, African American students in traditional and magnet schools perform at a comparable level, with between 32 percent and 35 percent

Zable 2		ELEMENTARY SCHOOLS		MIDDLE SCHOOLS	
		% African American or Hispanic	% Low-Income	% African American or Hispanic	% Low-Income
	Charter Schools	77%	62%	79%	63%
	Interdistrict Magnets	76%	49%	71%	47%
	Intradistrict Magnets	54%	39%	70%	55%
	Traditional Schools	29%	26%	26%	23%

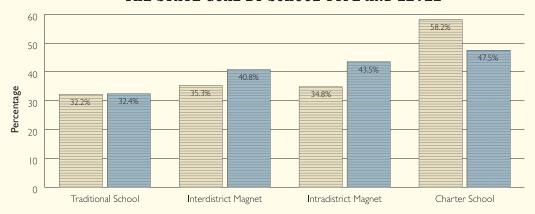


# Charts 12, 13 & 14

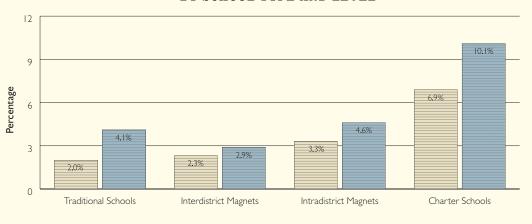
## PERCENTAGE OF LOW-INCOME STUDENTS MEETING THE STATE GOAL BY SCHOOL TYPE AND LEVEL



## PERCENTAGE OF AFRICAN AMERICAN STUDENTS MEETING THE STATE GOAL BY SCHOOL TYPE AND LEVEL



## AVERAGE ANNUAL PERFORMANCE GAINS BY SCHOOL TYPE AND LEVEL



meeting the state goal, while 58 percent of African American elementary students met this goal in the state's public charter schools. On the middle school level, African Americans in both magnet schools and public charter schools outpaced their peers in traditional schools in meeting the state goal by between nine and 16 percentage points. (Comparisons among Hispanic students were not possible due to the lack of Hispanic scores on the school level for charter schools, a result of their small size.)

#### PERFORMANCE GAINS: SELECTION EFFECTS OR SCHOOL EFFECTS?

While magnet schools and public charter schools have, on average, greater percentages of African American and low-income students meeting the state goals, it is possible that this has more to do with attracting higher performing African American and low-income students at the outset than with the schools' greater abilities in catching their students up academically.

To help shed light on the question of "school effects" versus "selection effects," average annual performance gains were calculated for each of the four school types across both elementary and middle school. If the higher levels of student achievement found among magnet schools and charter schools were primarily produced through "creaming" higher-performing students at the outset instead of catching up students, then we would expect to see annual performance gains with magnet and charter students similar to the gains made in traditional schools.

In fact, as seen in Chart 14, **Connecticut's public charter schools have considerably higher average annual performance gains than traditional public schools**, with more than twice the gain in elementary school (10.1 points versus 4.1 points) and more than three times the gain in middle school (6.9 points versus 2.0 points). This suggests that the higher performance of African American and low-income students in charter schools is the result, in part, of the higher performance gains made by charter schools (their "school effects").

There is a less clear distinction between the performance gains made by magnet schools and traditional public schools. For example, while intradistrict magnets outpace traditional middle schools (3.3 points versus 2.0), traditional public elementary schools have larger gains than their interdistrict magnet counterparts.

As with the use of performance gains in the statewide and district analysis, it is important to note that the ability of this indicator to represent the change in achievement for a student cohort accurately is determined, in part, by the stability of the student body. For the 2005–2006 school year, the average student stability rates in elementary school were 83.1 percent for intradistrict magnet schools, 84.0 percent for interdistrict magnet schools, 85.8 for public charter schools and 87.1 percent for traditional public schools. Similarly, the average student stability rates in middle school were 86.6 percent for public charter schools, 87.6 percent for intradistrict magnet schools, 88.6 percent for interdistrict magnet schools, and 90.6 percent for traditional public schools. Thus, the differences between the four school types were relatively small, with a range of 3.1 points in elementary school and 4.0 points in middle school.

What factors might be helping charter schools achieve greater performance gains than other public schools? **One simple difference may be "time on task."** While the average number of hours of instruction differed little between magnet schools and traditional public schools during the 2005–2006 school year, charter schools provided their students with 18.2 percent more hours of instruction (1,165 versus 985) than traditional public schools in elementary school and 12.2 percent more hours of instruction (1,130 versus 1,007) than traditional public schools in middle school.

#### SIZE MATTERS

While analysis of the subgroup and performance gain figures suggests that Connecticut's public charter schools may serve as a potential model for closing the state's achievement gap, their performance currently has little impact on the gap statewide. Connecticut's elementary and middle public charter schools make up approximately two percent of all elementary and middle public schools in Connecticut. Thus, **even though they are raising low-income and minority student performance faster than their traditional school counterparts, their small scale limits the impact of this higher performance.** 

At the same time, it is important to note that the small number of elementary and middle charter schools (12 in total) and the small size of these schools make comparative analysis more sensitive to influence by changes in the performance of individual schools. This is particularly true for the subgroup analysis, in which four of the 12 elementary and middle charter schools were too small for the Connecticut State Department of Education to report out subgroup data on African American and low-income student scores.

Together, Connecticut's intradistrict and interdistrict magnet elementary and middle schools constitute approximately six percent of all elementary and middle public schools—more than three times the number of public charter schools in the state. While the magnet schools' larger numbers suggest they could potentially have a greater impact than charter schools in closing the achievement gap, in practice their lower percentages of African American and low-income students meeting the state goal and their smaller performance gains largely mitigate the bigger reach their greater numbers provide.

## 4 Connecticut's Top 10 Schools

To better understand which specific schools in Connecticut can serve as examples of excellence in raising student performance and helping to close the achievement gap, this final section of the report presents the Top 10 schools in Connecticut across five key performance categories for both the elementary and middle school levels: Performance Gains, Most Improved, Low-Income Scores, African American Scores and Hispanic Scores. The result is ten "Top 10" lists, with a total of 100 slots. The schools appearing most often on the 2007 Top 10 lists are:

Hartford's Jumoke Academy (6 times)
Bridgeport's New Beginnings Family Academy (4)
Stamford's Rogers School (4)
New Haven's Amistad Academy (3)
New Haven's Elm City College Preparatory School (3)

In terms of school type, traditional schools occupy 61 percent of the slots, magnet schools occupy 22 percent of the slots, and public charter schools occupy 17 percent of the slots. Both magnet schools, which make up six percent of all public schools in Connecticut, and public charter schools, which make up two percent of all public schools in Connecticut, are overrepresented on the 2007 Top 10 lists. This reflects both the greater diversity of their student bodies compared to traditional schools and the emergence within these school types of some of Connecticut's highest-performing schools. For example, the 17 percent of Top 10 slots occupied by charter schools is the result of just four high-performing schools: Jumoke Academy, New Beginnings Family Academy, Amistad Academy, and Elm City College Preparatory School.

The districts with the greatest number of Top 10 slots are: Stamford, Bridgeport, Hartford, and New Haven. Of these "Top 10" slots, 45 percent are held by public charter schools, 45 percent by magnet schools, and 10 percent by traditional public schools.

Each school earning a place on the lists that follow has something to teach us about what it takes to close the achievement gap, and the "Success Stories" section of ConnCAN's website will serve as a growing repository of these lessons (www.conncan.org).

# Top 10 Elementary Schools

PERFORMAN	RANK	ELEMENTARY SCHOOL	DISTRICT	SCHOOLTYPE	PERFORMANCE GAINS: 3 <sup>RD</sup> (2006)-4 <sup>TH</sup> (2007), 4 <sup>TH</sup> (2006)-5 <sup>TH</sup> (2007)
Ħ	1	New Beginnings	Bridgeport	Public Charter School	27.2%
æ	2	Church Street School	Hamden	Traditional Public School	22.2%
<b>E</b>	3	Holmes School	New Britain	Traditional Public School	21.1%
	4	Tariffville School	Simsbury	Traditional Public School	20.4%
Œ	5	Rogers School	Stamford	Intradistrict Magnet School	20.1%
	6 (tie)	Second Hill Lane School	Stratford	Traditional Public School	18.5%
GAINS	6 (tie)	East Farms School	Farmington	Traditional Public School	18.5%
SS	8	Charter Oak School	West Hartford	Intradistrict Magnet School	18.0%
	9	East School	Torrington	Traditional Public School	17.8%
	10	Mitchell Elementary	Regional 14	Traditional Public School	17.4%

=	RANK	ELEMENTARY SCHOOL	DISTRICT	SCHOOLTYPE	IMPROVEMENT: 2006–2007
MOST	I	New Beginnings	Bridgeport	Public Charter School	27.3%
Sī	2	Northville Elementary School	New Milford	Traditional Public School	18.8%
¥	3	Rogers School	Stamford	Intradistrict Magnet School	18.1%
IMPR0	4	Lincoln-Bassett School	New Haven	Traditional Public School	16.1%
80	5	Morris Street School	Danbury	Traditional Public School	15.6%
VED	6	Staffordville School	Stafford	Traditional Public School	14.6%
E	7	Brooklyn Elementary School	Waterbury	Traditional Public School	14.1%
	8	Skinner Road School	Vernon	Traditional Public School	13.8%
	9	Wesley School	Middletown	Traditional Public School	13.3%
	10	Margaret M. Generali	Waterbury	Traditional Public School	13.1%

ST	RANK	ELEMENTARY SCHOOL	DISTRICT	SCHOOLTYPE	LOW-INCOME STUDENTS WITHIN GOAL RANGE
12 [	1	Forbes School	Torrington	Traditional Public School	72.2%
불용	2	Rogers School	Stamford	Intradistrict Magnet School	71.8%
LOW-IN	3	Jumoke Academy	Hartford	Public Charter School	67.4%
NC NC	4 (tie)	Ellen P. Hubbell School	Bristol	Traditional Public School	66.7%
COME SCORES	4 (tie)	Waddell School	Manchester	Traditional Public School	66.7%
E E	6	Park Avenue School	Danbury	Traditional Public School	63.3%
E	7	Mary P. Hinsdale School	Winchester	Traditional Public School	62.7%
	8	Hamilton Avenue School	Greenwich	Interdistrict Magnet School	62.3%
	9	Ralph M.T. Johnson School	Bethel	Traditional Public School	61.7%
	10	Westover School	Stamford	Intradistrict Magnet School	61.1%

AFRICAN	RANK	ELEMENTARY SCHOOL	DISTRICT	SCHOOLTYPE	AFRICAN AMERICANS WITHIN GOAL RANGE
2	I	New Beginnings	Bridgeport	Public Charter School	73.1%
AI	2	Jumoke Academy	Hartford	Public Charter School	67.4%
AMERICAN	3	Poquonock Elementary School	Windsor	Traditional Public School	58.0%
22	4	Church Street School	Hamden	Traditional Public School	55.7%
CA	5	Winthrop School	Bridgeport	Traditional Public School	55.6%
	6	Oliver Ellsworth School	Windsor	Traditional Public School	55.2%
SC	7	Savin Rock Community School	West Haven	Traditional Public School	55.1%
9	8	J. P.Vincent School (4 <sup>th</sup> )	Bloomfield	Traditional Public School	54.6%
SCORES	9	Laurel School (3 <sup>rd</sup> )	Bloomfield	Traditional Public School	52.4%
<b>%</b>	10	Rotella Interdistrict Magnet	Waterbury	Interdistrict Magnet School	52.2%

Ħ	RANK	ELEMENTARY SCHOOL	DISTRICT	SCHOOLTYPE	HISPANICS WITHIN GOAL RANGE
HISPANIC	1	Hamilton Avenue School	Greenwich	Interdistrict Magnet School	76.2%
A	2	Ralph M.T. Johnson School	Bethel	Traditional Public School	67.8%
2	3	Rogers School	Stamford	Intradistrict Magnet School	66.4%
	4	Westover School	Stamford	Intradistrict Magnet School	65.0%
SC	5	Second Hill Lane School	Stratford	Traditional Public School	63.9%
SCORES	6	Julia A. Stark School	Stamford	Traditional Public School	62.9%
S	7	Kendall Elementary School	Norwalk	Traditional Public School	62.8%
	8	Stillmeadow School	Stamford	Traditional Public School	61.9%
	9	Roberts Avenue School	Danbury	Traditional Public School	59.1%
	10	Marvin Elementary School	Norwalk	Traditional Public School	58.3%

# Top 10 Middle Schools

PERFORMANCE	RANK	MIDDLE SCHOOL	DISTRICT	SCHOOLTYPE	PERFORMANCE GAINS: 5 <sup>TH</sup> (2006)-6 <sup>TH</sup> (2007), 6 <sup>TH</sup> (2006)-7 <sup>TH</sup> (2007), 7 <sup>TH</sup> (2006)-8 <sup>TH</sup> (2007)
Ē	1	Portland Middle School	Portland	Traditional Public School	16.4%
æ	2 (tie)	Jumoke Academy	Hartford	Public Charter School	15.3%
M	2 (tie)	Griswold Middle School	Griswold	Traditional Public School	15.3%
Ž	4	Capital Preparatory	Hartford	Interdistrict Magnet School	13.3%
Œ	5	Northeast Middle School	Bristol	Traditional Public School	12.7%
	6	Six to Six Magnet School	Bridgeport	Interdistrict Magnet School	12.1%
GAINS	7	Derby High School	Derby	Traditional Public School	11.9%
SS	8 (tie)	Joseph Melillo Middle School	East Haven	Traditional Public School	10.9%
	8 (tie)	Elm City College Preparatory School	New Haven	Public Charter School	10.9%
	10	John Winthrop Junior High School	Regional 04	Traditional Public School	10.6%

2	RANK	MIDDLE SCHOOL	DISTRICT	SCHOOLTYPE	IMPROVEMENT: 2006-2007
MOST	1	New Beginnings	Bridgeport	Public Charter School	14.6%
Si	2	Six to Six Magnet School	Bridgeport	Interdistrict Magnet School	14.2%
	3	Greater Hartford Classical	Hartford	Interdistrict Magnet School	12.9%
IMPR0	4	Joseph Melillo Middle School	East Haven	Traditional Public School	11.7%
8	5	Jumoke Academy	Hartford	Public Charter School	11.6%
	6	Bristow Middle School	West Hartford	Traditional Public School	10.8%
VED	7	Derby High School	Derby	Traditional Public School	9.8%
	8	Portland Middle School	Portland	Traditional Public School	9.5%
	9	John Winthrop Junior High School	Regional 04	Traditional Public School	8.9%
	10	Thomaston High School	Thomaston	Traditional Public School	8.7%

T STU	RANK	MIDDLE SCHOOL	DISTRICT	SCHOOLTYPE	LOW-INCOME STUDENTS WITHIN GOAL RANGE
	1	Multicultural Magnet School	Bridgeport	Intradistrict Magnet School	86.0%
HO	2	Stafford Middle School	Stafford	Traditional Public School	78.7%
LOW-IN	3	Elm City College Prep (7th)	New Haven	Public Charter School	75.2%
	4	Jumoke Academy (7 <sup>th</sup> )	Hartford	Public Charter School	75.0%
COME SCORES	5	Martin Kellogg Middle School	Newington	Traditional Public School	72.0%
E S	6	Bethel Middle School	Bethel	Traditional Public School	69.1%
ES	7	Roger Ludlowe Middle School	Fairfield	Traditional Public School	68.0%
	8	Amistad Academy	New Haven	Public Charter School	67.5%
	9 (tie)	High Horizons School	Bridgeport	Intradistrict Magnet School	66.7%
	9 (tie)	Swift Middle School	Watertown	Traditional Public School	66.7%

AFRICAN	RANK	MIDDLE SCHOOL	DISTRICT	SCHOOLTYPE	AFRICAN AMERICANS WITHIN GOAL RANGE
2	1	Elm City College Prep (7th)	New Haven	Public Charter School	76.1%
AI	2	Jumoke Academy (7th)	Hartford	Public Charter School	75.0%
Ē	3	Timothy Edwards School	South Windsor	Traditional Public School	65.1%
æ	4	Amistad Academy	New Haven	Public Charter School	63.6%
AMERICAN	5	High Horizons School	Bridgeport	Intradistrict Magnet School	63.3%
	6	Metropolitan Learning Center	Bloomfield	Interdistrict Magnet School	60.9%
SC	7	Sedgwick Middle School	West Hartford	Traditional Public School	60.0%
	8	Scofield Middle School	Stamford	Intradistrict Magnet School	59.6%
SCORES	9	New Beginnings (7 <sup>th</sup> )	Bridgeport	Public Charter School	59.5%
<b>∞</b>	10	City Hill Middle School	Naugatuck	Traditional Public School	58.0%

ш	RANK	MIDDLE SCHOOL	DISTRICT	SCHOOLTYPE	HISPANICS WITHIN GOAL RANGE
HISPANIC	1	Amistad Academy	New Haven	Public Charter School	83.3%
A	2	Timothy Edwards School	South Windsor	Traditional Public School	61.7%
<b>Z</b>	3	Troup Middle School	New Haven	Intradistrict Magnet School	60.8%
	4	Scofield Middle School	Stamford	Intradistrict Magnet School	59.1%
SC .	5	Central Middle School	Greenwich	Traditional Public School	58.3%
SCORES	6	Hartford Magnet Middle School	Hartford	Interdistrict Magnet School	54.1%
E	7	Harry M. Bailey Middle School	West Haven	Traditional Public School	53.7%
	8	Irving A. Robbins Middle School	Farmington	Traditional Public School	53.3%
	9	Schaghticoke Middle School	New Milford	Traditional Public School	53.0%
	10	Nathan Hale Middle School	Norwalk	Traditional Public School	52.8%

## **Appendix**

#### Methodology of ConnCAN's School and District Report Cards

#### **DATA SOURCES**

The descriptive information provided on the schools and school districts (level, type, size, grades, demographics, per pupil spending, and contact information) was obtained from the Connecticut State Department of Education's Strategic School Profiles database. The most recent year made available at the time of publication was for the 2005–2006 school year. The student performance data provided on the schools are based on the 2007 Connecticut Mastery Test.

The Connecticut Mastery Test (CMT) is a statewide, criterion-referenced examination designed and developed by the State Department of Education to assess student performance against established state standards and administered each spring to all public school students in grades three through eight. The CMT measures how well students are achieving in the areas of mathematics, reading, and writing compared to the expectations for their grade level through approximately seven hours of testing over a one- to four-week period.

The skills tested on the CMT are identified in the Connecticut curriculum framework and each student's achievement is compared to a set of established standards for their grade in each subject area. The reading section of the CMT is based on the Degrees of Reading Power (DRP) test and the Reading Comprehension test, and assesses students' understanding of what they have read through both multiple-choice questions and open-ended questions that require written responses. The writing section tests students through both multiple-choice questions on composition, revision, and editing of passages and a required writing sample in response to a specific topic. The mathematics section uses multiple-choice, open-ended and grid-in questions to assess students' mastery of basic skills, their understanding of key concepts, and their ability to solve problems.

While there is no "passing" grade on the CMT, the State of Department of Education does set "state goals" for each subject area in each grade tested. The State Department of Education defines these state goals as the knowledge, skills, and critical thinking abilities that are "reasonable to expect of students" within their grade level.

Students' raw scores (the total number of correct responses) are translated into scale scores from 100 to 400 points, and cut points are assigned for each test for what constitutes the state goal. While the department also reports the percentage of students scoring at a level above Goal, using the term Advanced, and below, using the terms Proficient, Basic, and Below Basic, ConnCAN uses the Goal standard to set the bar for rating schools at the level of performance "reasonable to expect of students" within their grade level.

#### **DATA ANALYSIS**

The performance data provided in the report cards are based on the percentage of students within each school who scored within the goal range on the CMT. The State Department of Education makes this percentage score publicly available for schools in which at least 20 students in a given grade completed the CMT. These percentage scores for Connecticut's public schools are reported for each of the content areas on the CMT (math, reading and writing).

To provide a single score for comparing schools within a district and for comparing subgroups within a school, a single "Students within Goal Range" score is calculated for each school by taking the average percentage of students within goal range across the three tests on the CMT. Elementary schools are assessed using the results from the fifthgrade test (with fourth-grade results used when an elementary school does not have a fifth grade). Middle schools are assessed using the results from the eighth-grade test (with the seventh-grade results used when a middle school does not have an eighth grade). This score provides a straightforward and easy-to-use yardstick on how well the school, on average, is meeting the needs of its students across these key subject areas.

To better understand how well a school is meeting the needs of those students traditionally underserved in Connecticut, a "Students within Goal Range" score is also calculated for African Americans, Hispanics and low-income students. The average score for these subgroups is also calculated and presented in the report cards as "Subgroups within Goal Range." Since data are not made public by the Connecticut State Department of Education for schools with less than 20 students per subgroup, low-income scores can only be calculated for 47 percent of schools, African American scores can only be calculated for 23 percent of schools, and Hispanic scores can only be calculated for 25 percent of schools.

To help bring to light any gaps between subgroups within a school, the difference between the average percentage of low-income and non-low income students, African American and white students, and Hispanic and white students within goal range is calculated. The average of these gaps within a school is also calculated and presented as "Gap

between Subgroups." Overall, 30 percent of schools have enough students in these subgroups to calculate at least one "Gap between Subgroups" score.

Finally, to shed light on the relative effectiveness of schools in increasing the percentage of students within goal range during their time in the school, the change in the average percentage of a student cohort within goal range is calculated.

For elementary schools, the performance gains score is the average change between the 2006 third grade and the 2007 fourth grade, and the 2006 fourth grade and the 2007 fifth grade. For middle schools, the performance gains score is the average change between the 2006 fifth grade and the 2007 sixth grade, the 2006 sixth grade and the 2007 seventh grade, and the 2006 seventh grade and the 2007 eighth grade. A positive score means that the average percentage of students within goal range increased during their year in school while a negative score means the average percentage of students within goal range decreased. This performance gains score could be calculated for 96 percent of all schools.

It is important to note that the ability of this indicator to represent an individual school's impact on the change in student achievement is determined in part by the stability of the student body. Changes in the composition of the student body within a school, either through incoming or outgoing students, will lessen the efficacy of this measure. The average student stability rate for 2005–2006 was 87 percent for elementary schools and 90 percent for middle schools. Only 6 percent of elementary schools and 6 percent of middle schools had a student stability rate of less than 70 percent for the 2005–2006 school year.

Similarly, while the goal standard is designed to measure the level of performance "reasonable to expect of students" within their grade level, small differences in the way this "cut score" is determined between years may affect figures for increases or decreases in the percentage of students that have crossed this threshold of grade-level knowledge.

#### **GRADING**

While the scores across the four major sections of the report card—Performance Gains, Students within Goal Range, Subgroups within Goal Range, and Gaps between Subgroups—are presented with district and state averages to provide a comparison point, it is also helpful for parents to have an absolute benchmark for how their child's school is performing. To meet this need, each elementary and middle school is also assigned a letter grade from A to F in each section for which data is available.

#### **GRADING TABLES**

### Students/Subgroup within Goal Range

GRADE / SCORE Α 90-100 A-84-89 78-83 B+ В 72-77 В-66-71 C+ 60-65 С 54-59 C- 48-53 D+ 42-47 D 36-41 D- 30-35

< 30

#### Gap witnin Subgroups

GRADE / SCORE A 0–2 A - 3 - 56-8 В 9-11 12-14 В-15-17 C+ С 18-20 C- 21-23 D+ 24-26 D 27-29 D- 29-31 >31

#### Performance Gains

If a school's score increased, the difference between these scores is divided by the percentage of students not at goal in 2006. Then the following grade scale is applied:

A 0.24 or more
A- 0.20 to 0.23
B+ 0.16 to 0.19
B 0.12 to 0.15
B- 0.08 to 0.11
C+ 0.04 to 0.07
C 0.00 to 0.03

If a school's score decreased, the difference between these scores is divided by the percentage of students at goal in 2006. Then the following grade scale is applied:

C- -0.1 to -0.04 D+ -0.05 to -0.08 D -0.09 to -0.12 D- -0.13 to -0.16 F -0.17 or more

Schools with an average percentage of students within goal range in 2006 of 85 or greater receive an N/A since the grade scale begins to approach the ceiling of 100 above this level, which diminishes its meaningfulness as a measure of improvement.



