



STATE OF CONNECTICUT

STATE DEPARTMENT OF EDUCATION



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TO: Superintendents of Schools

FROM: Betty J. Sternberg, Commissioner of Education

DATE: December 12, 2003

SUBJECT: Results from the 2003 Administration of the
Connecticut Academic Performance Test

Connecticut has a long history of setting high educational standards and then working to meet them. Each year, and over time, standardized assessments like the Connecticut Academic Performance Test (CAPT) and Connecticut Mastery Test (CMT) yield important information about progress toward these goals. Patterns and trends in the scores help schools and parents judge and address the progress of individual students as well as the overall effectiveness of district curriculum and instruction. For example, many schools have enhanced their writing programs or filled gaps in their mathematics curriculums based on the results of statewide tests.

This report presents the statewide results from the 2003 administration of the CAPT. In May 2003, the standard CAPT was administered to 38,602 Grade 10 students, each earning a valid score in at least one area of the test. The 2003 CAPT marks the third year that the Second Generation CAPT (CAPT-2) has been administered to Grade 10 students, which means that comparisons can be made to the 2001 and 2002 CAPT results.

While the CAPT is a critical measure of the achievement of Connecticut's high schools and their students, many different indicators of success are important to our understanding of the accomplishments and needs of our students. As stated in a position statement of the State Board of Education adopted September 13, 2000, *"The Connecticut Mastery Test (CMT) and Connecticut Academic Performance Test (CAPT) results provide important information about student performance on a selected set of skills and competencies in mathematics, reading and writing in Grades 4, 6 and 8, and also science in Grade 10. However, these results do not provide a comprehensive picture of student accomplishments."* Other measures include information such as how many students stay in school to graduate, how many students are taking more rigorous and demanding courses, and how many pursue higher education after high school.

The State Board of Education and I urge you, your local board, staff members, parents and the media to review these results in a larger context of these additional measures and achievements over time. Collectively, this information can help give direction to school improvement efforts, and can focus discussions among staff members, students and parents about how we can help students improve.

Highlights of 2003 CAPT Results

- The percentages of students reaching the state goal in the four content areas ranged from 43.2 percent in Science to 52.8 percent in Writing Across the Disciplines. The percentage of students reaching the goal increased from 2002 by 1.1 percent in Mathematics, 2.2 percent in Reading Across the Disciplines and 1.8 percent in Writing Across the Disciplines. The percentage achieving goal in Science remained constant.
- An additional 1,907 students, on average, participated in the standard CAPT in 2003 compared to the average number of students participating in 2002. The average percentage of Grade 10 students participating in the standard CAPT increased from 87.9 percent in 2002 to 89.8 percent in 2003. The rates of participation increased significantly for students enrolled in special education and English language learners, as well as for minority and high-poverty students.
- Statewide, the gaps in student achievement between minorities and nonminorities have increased somewhat across all four major content areas.
- The percentage of minority students scoring in the goal range increased in Mathematics, Reading Across the Disciplines and Writing Across the Disciplines.
- Although the overall participation in the CAPT has improved, especially for special populations, there is still a need to ensure that all students participate in an assessment appropriate to their needs and that students who are absent are provided retesting opportunities. The average state percentage of students absent or without valid scores was 7.5 percent, compared to 9.2 percent in 2002. For students enrolled in special education, it was 15.7 percent, compared to 17.3 percent in 2002; and for English language learners, it was 19.1 percent with out-of-level students included as invalid, compared to 17.1 percent in 2002 when out-of-level students were not included. These rates must continue to be reduced. The state statute mandating that CAPT be one option for local graduation requirements affects the class of 2006, which will be taking the CAPT in spring 2004. The new requirements should result in an increasing number of students participating in CAPT.

I. What was the performance of all Grade 10 students in 2003?

The CAPT-2 is aligned with Connecticut's curriculum frameworks and provides information about how well students are performing with respect to important skills in the content areas of Reading Across the Disciplines, Writing Across the Disciplines, Mathematics and Science. In each content area, scale scores, which range from 100-400, are calculated. A state goal has been established for each content area; the goal represents a high level of achievement for Grade 10 students. Table 1 presents the percentage of all Grade 10 students who participated in each part of the standard CAPT with or without accommodations. Table 1 also includes the percentage of students scoring within the goal range and the percentage of students scoring at proficient or above. Data is presented for each year of CAPT-2.

Table 1: Statewide Results by Content Area for 2001, 2002 and 2003*

CAPT Content Area	Percent Tested			Percent Scoring in the Goal Range			Percent Scoring at Proficient or Above		
	2001	2002	2003	2001	2002	2003	2001	2002	2003
Mathematics	85.9	87.4	89.8	44.6	44.0	45.1	77.0	77.7	74.3
Science	86.0	89.2	90.8	43.4	43.2	43.2	81.5	80.8	80.7
Reading Across the Disciplines	86.2	88.5	89.9	42.2	44.8	47.0	77.8	78.9	77.9
Writing Across the Disciplines	84.1	86.7	88.8	48.7	51.0	52.8	81.8	79.8	81.0

*The percentages in this table reflect participation and performance of participants in the standard Grade 10 test only.

Some Major Findings from the 2003 CAPT Administration

- Although the percentage of students scoring at the proficient level or above has decreased slightly over time, the percentage tested and those scoring in the goal range have increased in most content areas.
- There is evidence that the performance differences between males and females in the areas of Mathematics and Science are improving. Female performance has improved in both content areas when compared to last year. For example, in 2002, males outperformed females in the area of Mathematics; 47.2 percent of males scored within the goal range, compared to 41.0 percent of females. In 2003, females reduced that difference to 2.7 percentage points.
- The percentage of Grade 10 students from ERG I scoring within the goal range on the Writing Across the Disciplines test has increased from 2001, when 22.7 percent of ERG I students scored within the goal range, to 2003, when 24.5 percent scored within the goal range. This improvement occurred while 946 additional students participated in the test.

Another way to gauge the overall progress of students statewide is to examine the percentage of tested students who achieve the statewide goals on all four of the CAPT subtests. This year, 10,258 students (26.6 percent) succeeded in reaching this mark, 1464 more students than in 2002, compared to 11.8 percent in 1995, when the CAPT was first administered. Further, the percentage of students not meeting the goal on any of the tests dropped slightly, from 36.1 percent in 2002 to 35.7 percent in 2003.

Table 2: Percentage of Students At or Above State Goal

Number of Tests	2001 (N=34914)	2002 (N=37096)	2003 (N=38602)
All Four Tests	22.6	23.7	26.6
Three Tests	12.9	12.7	12.3
Two Tests	13.4	13.7	12.6
One Test	13.7	13.7	12.8
No Tests	37.4	36.1	35.7

II. What was the performance of Grade 10 students across ERGs?

Table 3 presents CAPT results for 2001, 2002 and 2003 by Education Reference Group (ERG). The data show a typical pattern of decreasing performance from ERG A to ERG I. Due to increased state and federal expectations for test participation, it is critical that readers keep in mind the increased participation of students, especially from ERGs H and I, when making comparisons of CAPT results from 2001 to 2002 and 2003.

Table 3: CAPT Results by ERG for 2001, 2002 and 2003

ERG	Year	Mathematics		Science		Reading Across the Disciplines		Writing Across the Disciplines	
		% Scoring in the Goal Range	% Scoring at Proficient or Above	% Scoring in the Goal Range	% Scoring at Proficient or Above	% Scoring in the Goal Range	% Scoring at Proficient or Above	% Scoring in the Goal Range	% Scoring at Proficient or Above
A	2001	74.3	94.0	73.4	96.3	75.2	97.0	79.0	96.6
	2002	75.4	95.3	71.2	97.0	75.0	96.5	76.5	95.8
	2003	80.5	95.3	76.9	97.3	79.9	96.7	83.8	96.7
B	2001	62.8	90.9	61.4	93.8	61.6	91.2	64.5	91.9
	2002	65.0	91.1	60.3	93.5	63.9	92.1	67.8	91.4
	2003	67.0	90.4	64.0	94.2	69.0	91.9	72.1	93.1
C	2001	59.2	90.2	61.1	94.1	61.2	90.6	61.8	90.5
	2002	60.1	91.0	62.0	94.2	60.0	90.8	63.9	89.5
	2003	62.8	89.8	61.3	93.8	61.1	89.8	64.6	89.9
D	2001	53.5	85.2	50.7	89.6	48.1	86.3	57.9	89.3
	2002	52.3	86.9	52.3	89.5	52.5	87.8	62.0	88.8
	2003	53.5	83.5	51.4	89.3	55.4	87.0	63.5	89.0
E	2001	45.7	82.9	47.4	89.9	45.3	81.6	50.4	83.6
	2002	45.7	85.8	48.9	90.8	47.1	84.7	56.7	87.8
	2003	50.0	83.6	48.5	90.1	52.7	86.1	58.8	87.8
F	2001	42.9	78.9	41.4	82.5	37.7	79.5	46.8	83.1
	2002	41.4	80.3	41.8	82.5	42.5	79.5	52.1	82.2
	2003	41.9	75.7	41.7	83.3	44.6	79.2	51.4	82.5
G	2001	37.4	78.7	37.0	83.0	32.2	75.8	41.5	80.4
	2002	37.6	80.2	35.7	80.3	36.9	77.2	45.0	78.3
	2003	41.0	75.7	36.4	82.5	38.2	75.8	44.9	78.5
H	2001	37.1	71.9	34.8	77.1	33.5	73.6	43.5	79.1
	2002	33.7	71.0	33.3	75.1	36.0	73.7	42.3	73.9
	2003	33.8	66.5	31.7	74.2	37.0	71.4	44.4	76.1
I	2001	14.5	47.3	14.1	55.2	16.9	54.7	22.7	62.5
	2002	13.7	47.0	14.8	52.9	19.8	56.1	24.4	57.8
	2003	13.0	41.2	12.9	51.6	19.2	51.5	24.5	57.9
VT	2001	13.9	49.0	13.2	55.6	7.6	42.6	11.3	53.7
	2002	12.1	51.2	14.1	57.6	10.1	49.8	14.3	51.8
	2003	15.2	50.8	14.2	60.6	13.3	53.9	18.5	60.2
State	2001	44.6	77.0	43.4	81.5	42.2	77.8	48.7	81.8
	2002	44.0	77.7	43.2	80.8	44.8	78.9	51.0	79.8
	2003	45.1	74.3	43.2	80.7	47.0	77.9	52.8	81.0

III. How have participation rates changed?

More of Connecticut's Grade 10 students participated in the spring 2003 administration of the CAPT than at any time since the exam was first given in 1994. In the last three years, average participation rates across content areas increased from 85.6 percent to 89.8 percent. Increases are due to a number of factors, including increased academic accountability requirements for English language learners and students enrolled in special education brought about by the *No Child Left Behind Act of 2001*. This increased emphasis on inclusion is meant to guarantee equal educational opportunities for all students.

Table 4 shows the percentage of all tenth graders in different categories of participation and nonparticipation by ERG for 2003. Given the fact that many more students with special learning needs took the rigorous Grade 10 test in 2003, it is encouraging to see steady results and slight improvements in scores statewide.

To access participation rates for previous administrations of CAPT-2, visit www.captreports.com.

Table 4: 2003 CAPT Participation Status of Grade 10 Students by ERG

	PARTICIPATION STATUS	Mathematics	Science	Reading Across the Disciplines	Writing Across the Disciplines
ERG A	Tested**	98.0	97.5	97.2	96.7
	Absent/Exempt	2.0	2.5	2.8	3.3
ERG B	Tested	97.8	98.0	97.2	96.8
	Absent/Exempt	2.2	2.0	2.8	3.2
ERG C	Tested	98.0	98.1	98.2	97.8
	Absent/Exempt	2.0	1.9	1.8	2.2
ERG D	Tested	96.5	95.9	95.9	94.6
	Absent/Exempt	3.5	4.0	4.1	5.4
ERG E	Tested	97.9	97.8	97.3	95.5
	Absent/Exempt	2.1	2.2	2.7	4.5
ERG F	Tested	94.7	94.1	94.4	93.3
	Absent/Exempt	5.3	5.9	5.5	6.7
ERG G	Tested	95.4	96.4	95.3	94.5
	Absent/Exempt	4.6	3.6	4.7	5.5
ERG H	Tested	92.9	92.0	91.7	90.7
	Absent/Exempt	7.1	8.0	8.3	9.3
ERG I	Tested	84.3	84.8	83.8	81.1
	Absent/Exempt	15.7	15.2	16.2	18.9
Vo-Tech	Tested	98.8	98.7	98.4	98.0
	Absent/Exempt	1.2	1.3	1.6	2.0
State	Tested	94.5	94.3	94.0	92.9
	Absent/Exempt	5.5	5.7	6.0	7.1

****Tested** includes students who participated in the standard or out-of-level CAPT, those administered the CAPT Skills Checklist and students who tested but did not earn a valid score.

Federal law, specifically the *No Child Left Behind Act of 2001*, requires that 95 percent of all students participate in a state assessment: standard, out-of-level or CMT/CAPT Skills Checklist. If a district has more than 5 percent of its students absent with no test makeup, it will not meet this requirement. While most school districts have found ways to motivate their students with attendance incentives and test score rewards, some districts continue to struggle with attendance during testing. Encouraging more students to come to school during the testing period and to give the tests their best efforts is a challenge that remains a focus for all.

IV. Are the achievement gaps closing?

More than one-fourth of the 38,602 high school sophomores tested in 2003 reached the state goal on all four content areas tested. This indicates that many students are achieving at exceptionally high

levels. However, when this year's CAPT results are analyzed by subgroups such as race/ethnicity, poverty and gender, troubling disparities in achievement are seen to persist. For example:

- More than 50 percent of white and Asian students scored within the goal range on the Mathematics test, compared with 10.0 percent of black and 13.2 percent of Hispanic tenth graders.
- In Science, just 12.4 percent of low-income students reached the goal, while 49.8 percent of higher-income students did.
- The greatest performance difference between females and males appears in the Writing Across the Disciplines results. The percentage of females scoring within the goal range exceeded that of males by 20.8 percentage points.

There have been improvements in the percentage of students from different subgroups scoring at the proficient level and above.

- Students enrolled in special education have shown a slight improvement in the percentage of students achieving proficiency in Science. In 2002, 49.8 percent of special education students achieved proficiency, compared to 51.2 percent in 2003. This improved performance narrows the achievement gap between special education students and their nondisabled peers by 1.4 percentage points.
- Black and Hispanic students have narrowed the achievement gap with white students in Writing Across the Disciplines. Black students have reduced the difference in scoring at or above proficient by 4.5 percentage points. Hispanic students have reduced the same gap with white students by 1.4 percentage points.

- Table 5 provides results and participation rates by race/ethnicity, poverty level, gender and special education and English language learner status for the 2003 test administration.

Table 5: Percent Scoring in the Goal Range and Participation Rates by Subgroup

	Mathematics		Science		Reading Across the Disciplines		Writing Across the Disciplines	
	% Scoring in the Goal Range	% of Students Participating in Standard CAPT	% Scoring in the Goal Range	% of Students Participating in Standard CAPT	% Scoring in the Goal Range	% of Students Participating in Standard CAPT	% Scoring in the Goal Range	% of Students Participating in Standard CAPT
RACE/ETHNICITY								
Black	10.0	80.9	10.2	82.9	16.8	81.4	23.7	79.1
Hispanic	13.2	77.9	12.3	80.4	17.8	78.1	23.5	76.7
White	54.7	93.3	52.6	93.9	55.6	93.4	61.1	92.6
POVERTY (based on eligibility for free or reduced-price lunch)								
Eligible for F/R Lunch	13.1	78.3	12.4	81.3	16.8	79.1	22.7	77.9
Not Eligible for F/R Lunch	51.7	92.6	49.8	93.1	53.3	92.5	59.0	91.5
GENDER								
Male	46.5	87.6	45.2	89.3	39.3	87.7	42.3	86.7
Female	43.8	92.0	41.2	92.3	54.6	92.2	63.1	91.1
SPECIAL EDUCATION STATUS								
Enrolled in Special Education	12.9	66.4	13.4	70.4	12.2	67.3	15.6	66.7
Not Enrolled in Special Education	48.6	93.3	46.5	93.8	50.7	93.3	56.7	92.1
ENGLISH LANGUAGE LEARNERS (ELL)								
ELL	9.8	66.3	5.3	69.9	5.8	63.9	6.5	65.9
Not ELL	45.8	90.4	44.0	91.3	47.8	90.6	53.7	89.4

V. How will CAPT be used in graduation expectations?

When the Connecticut state legislature established the CAPT, it clearly specified that it should not be used as the sole criterion for graduation. While that condition still remains, **new legislation (PA 01-166) passed in the summer of 2001 does give CAPT a role in students' graduation from high school.**

As of September 1, 2002, each local board of education specified the basic skills necessary for graduation beginning with the class of 2006. This state requirement also includes a process to assess the competency levels of students in such skills. The results of Grade 10 CAPT must be included as one of multiple options to assess competency in the basic skills each district requires for graduation. The CAPT cannot be the sole graduation criterion, however.

About the Test

The CAPT is a comprehensive, cumulative assessment of students' abilities to apply the knowledge and skills they have learned over their years in school. The state goal for each test represents a demanding level of achievement reasonable to expect of students in the spring of the Grade 10. First given in 1994, the CAPT differs from traditional multiple-choice formats that require students to memorize and recall information. To be successful on the CAPT, students must use the knowledge and skills they have learned over many years to solve problems, acquire and analyze information, draw conclusions and communicate effectively in writing. Each year, committees of Connecticut educators participate in the development of the four tests that comprise the CAPT.

- The **Mathematics** test requires students to answer open-ended and grid-in questions that require the application of important mathematics concepts and skills in four major areas: Number & Quantity; Geometry & Measurement; Statistics, Probability & Discrete Mathematics; and Algebra & Functions.
- The **Science** test requires students to answer multiple-choice and short-essay questions to describe or explain important concepts in Life, Physical and Earth Science. Students also demonstrate their ability to collect and analyze data by designing and conducting a laboratory experiment.
- The **Reading Across the Disciplines** test consists of two sections: (1) Response to Literature, in which students read a short story and respond in writing to four open-ended questions asking for interpretation and evaluation of the story, and (2) Reading for Information, in which students read nonfiction articles and respond to multiple-choice and open-ended questions asking for interpretation and analysis of the articles.
- The **Writing Across the Disciplines** test consists of (1) two Interdisciplinary Writing tests in which students read nonfiction articles about a controversial issue and write a persuasive letter in which they take and defend a position, and (2) an Editing & Revising test in which students read passages of student writing and answer multiple-choice questions focusing on errors in organization, word choice, syntax, capitalization, punctuation, usage and spelling.

Each of the four tests is scored on a scale from 100 to 400. The State Board of Education, with the recommendation of committees of educators, established the score ranges for five different performance levels. From highest to lowest these are: Level 5 – Advanced, Level 4 - Goal, Level 3 - Proficient, Level 2 - Basic, and Level 1 – Below Basic. Students who do not meet the state goal have the opportunity to retake the tests in Grades 11 and 12.

VI. Changes in CAPT Reporting

Provisions of the *No Child Left Behind Act* have affected how Connecticut reports results for its statewide assessments. For example, the law requires every state to adopt a proficiency level standard by which the progress of its students will be measured, as well as advanced and basic levels of performance.

The previous standards used in CAPT reporting defined four performance levels, known as Level 1, Level 2, Level 3 and Level 4. Level 1 was regarded as "intervention," whereas Level 4 indicated performance "at or above the goal level." Level 4 remains the state goal for all students. The State Board of Education adopted Level 3 or above as the equivalent of the "proficient level." Level 2 is the equivalent of the "basic proficiency level," and Level 1 is "below basic." The new "advanced level" or Level 5, which is a subset of the goal level, is equivalent to the level of performance that was achieved in 2001 by approximately 20 percent of Connecticut's students statewide in each subject area. You will notice the new terminology applied to Connecticut's performance standards throughout the 2003 CAPT reports.

In the past, CAPT reporting policies required that results for subgroups of fewer than 10 students be suppressed so that individual student confidentiality would not be compromised. In light of new *No Child Left Behind* requirements, the 2003 results are not presented for groups of fewer than 20. Please note that although we will report the achievement for groups of 20 or more students, Connecticut requires a group of at least 40 students when making accountability determinations.

Another area of major change is the way we communicate statewide assessment results. Increasingly, we rely on technology for communication purposes. In general, we all have grown more comfortable with using e-mail and referencing data electronically. Due to this change and our efforts to reduce printing and postage costs, the Department will no longer distribute paper copies of the CAPT Statewide Results to districts. All school, district, ERG and state-level data associated with the CAPT 2003 Statewide Test Results are exclusively electronic and available at www.captreports.com. We trust that this new method of reporting will increase efficiency while improving the quality and quantity of information available to the public.