

2000 FLORIDA COMPREHENSIVE ASSESSMENT TEST (FCAT) NORM-REFERENCED TEST READING AND MATHEMATICS

The FCAT Norm-Referenced Test (NRT) component was added to the state's assessment FCAT program in order to obtain student achievement information that compares the performance of Florida's students to the performance of a national norm group. The FCAT NRT utilized multiple-choice items to assess student achievement in Reading Comprehension and Mathematics. In March 2000, over 210,800 students in grades 3 - 10 were administered the FCAT NRT component for the first time.

2000 DISTRICT MEDIAN PERCENTILE SCORES

The score used to compare the district's average performance with the national performance is the median percentile score. The median percentile score is interpreted as the score above (or below) where one-half of the students fall. As a basis of comparison, the national median, or the 50th percentile, represents the typical or "average" performance for students in the national norm group. Tables 33 and 34 display the district's median percentile scores in Reading Comprehension and Mathematics, by curriculum group and for all students tested in the state.

Table 33. 2000 FCAT Reading NRT Results: Median Percentile
Scores by Grade, for District Curriculum Groups, and Overall for the District and State

Grades	DISTRICT				STATE
	Standard Curriculum	ESE	LEP Two Yrs/Less	All Students	All Students
3	42	12	14	38	49
4	50	12	12	42	56
5	40	8	8	33	45
6	37	9	9	30	43
7	41	7	7	32	48
8	44	10	8	38	54
9	★	★	★	25	38
10	★	★	★	23	33

★Note: The Florida Department of Education (FDOE) withheld the release of the norm-referenced Reading Comprehension scores for students in Grades 9 and 10 when the results for Grades 3-8 were released. The FDOE released the scores for Grades 9 and 10 on September 26, 2000. However, the data necessary for analysis have not been made available by the FDOE.

Highlights of Table 33 include:

- Standard Curriculum students' reading median percentile scores range from 37 to 50, with fourth grade Standard Curriculum students scoring at the national average.
- ESE students' reading median percentile scores range from 7 to 12.
- LEP Two Years or Less students' reading median percentile scores range from 7 to 14.
- Comparing all students tested in the district and in the state, the district's students scored lower than students statewide at all grade levels.

Table 34. 2000 FCAT Mathematics NRT Results: Median Percentile Scores by Grade, for District's Curriculum Groups, and Overall for the District and State

Grades	DISTRICT				STATE
	Standard Curriculum	ESE	LEP Two Yrs/Less	All Students	All Students
3	51	11	16	43	56
4	49	8	12	42	57
5	59	13	18	49	63
6	44	11	16	38	55
7	38	12	17	32	48
8	46	14	24	40	56
9	39	18	21	35	52
10	44	19	27	38	54

Highlights of Table 34 include:

- Standard Curriculum students' mathematics median percentile scores range from 38 to 59. Standard Curriculum students in Grades 3 and 5 are scoring above the national average in mathematics.
- ESE students' mathematics median percentile scores range from 8 to 19.
- LEP Two Years or Less students' median percentile scores range from 12 to 27.
- Comparing all students tested in the district and in the state, the district's students scored lower than students statewide at all grade levels.

ACHIEVEMENT TRENDS BASED ON THE 2000 FCAT NRT AND THE 1999 STANFORD ACHIEVEMENT TEST, EIGHTH EDITION

The FCAT NRT component used by the state is a secure form of the *Stanford Achievement Test, Ninth Edition*. This edition of the Stanford Achievement Test is the most recent version of the test series. From the spring of 1991 to the spring of 1999, Miami-Dade County Public Schools administered an earlier edition, the *Stanford Achievement Test, Eighth Edition* (SAT-8), to its students in Grades 2 - 8. The FCAT NRT is a totally new edition, not merely a revision of the SAT-8; however, the Reading Comprehension and the Mathematics Applications/Mathematics subtests in both editions of the test series measure similar content and are highly correlated to one another. The FCAT NRT uses more recent norms (1995 norms as compared to the 1988 norms) and it incorporates more items that require higher order thinking skills. Although it is inappropriate to conduct statistical analyses to directly compare the magnitude of change between the results from the SAT-8 and the results from the FCAT NRT, it is possible to gauge the direction of districtwide changes in grade level performance and to make statements about relative performance.

Table 35 displays a comparison of the 2000 FCAT NRT and the 1999 SAT-8 Reading Comprehension median percentile scores for the district's Grades 3 - 8 Standard Curriculum students.

Table 35. Overall Reading Comprehension Median Percentile Scores: 1999 Stanford Achievement Test, Eighth Edition (SAT-8), and 2000 FCAT NRT for Grades 3 - 8, Standard Curriculum Students at Time Tested

Grades	National Average	SAT-8: 1999	FCAT NRT: 2000	Diff.
3	50	38	42	+4
4	50	40	50	+10
5	50	40	40	0
6	50	36	37	+1
7	50	38	41	+3
8	50	38	44	+6

An examination of the table reveals:

- Students' reading performance increased at Grades 3, 4 and 6 - 8. Most notable is the 10 point increase at Grade 4. At Grade 5, reading performance remained constant in 2000 compared to 1999.
- In 2000, students in Grade 4 scored at the national average in the area of reading.

Table 36 displays a comparison of the 2000 FCAT NRT and the 1999 SAT-8 Mathematics median percentile scores for the district's Grades 3 - 8 Standard Curriculum students.

Table 36. Overall Mathematics Median Percentile Scores: 1999 *Stanford Achievement Test, Eighth Edition* (SAT-8), and 2000 FCAT NRT for Grades 3 - 8, Standard Curriculum Students at Time Tested

Grades	National Average	SAT-8: 1999	FCAT NRT: 2000	Diff.
3	50	51	51	0
4	50	56	49	-7
5	50	59	59	0
6	50	39	44	+5
7	50	40	38	-2
8	50	46	46	0

An examination of the table reveals:

- Students' mathematics performance increased 5 median percentile points at Grade 6. Mathematics performance remained constant at Grades 3, 5, and 8 and declined at Grades 4 and 7.
- Students in Grades 3 and 5 scored above the national average in the area of mathematics.

2000 DISTRICT MEDIAN PERCENTILE SCORES, BY ETHNICITY

Table 37 provides the median percentile scores in Reading Comprehension and Mathematics, by ethnicity and curriculum group, for the district and for all students tested in the state. Please note that due to their small numbers, results for the district's Asian students, American Indian students, and students classified as Multiracial have been combined into one group entitled "Other."

Highlights of Table 37 include:

- White students scored higher than students in all other ethnic groups, regardless of subtest, grade level, or curriculum group.
- Standard Curriculum White students scored above the national average at all grade levels and on both subtests.
- Standard Curriculum Hispanic students in Grade 4 scored above the national average in Reading Comprehension.

- Standard Curriculum Hispanic students in Grades 3 - 5, 8, and 10 scored at or above the national average in Mathematics.
- Standard Curriculum Other students scored above the national average at all grade levels and on both subtests.
- White LEP Two Years or Less students in Grade 10 scored above the national average in Mathematics.

Table 37. 2000 FCAT NRT Results: Median Percentile Scores by Ethnicity, Grade, and Subtest for the District

	Grade 3		Grade 4		Grade 5		Grade 6		Grade 7		Grade 8		Grade 9		Grade 10	
	Read	Math	Read	Math	Read	Math	Read	Math	Read	Math	Read	Math	Read	Math	Read	Math
STANDARD CURRICULUM																
Black	30	36	32	32	27	42	24	27	26	22	33	31	★	31	★	30
Hispanic	46	51	53	53	42	63	40	48	44	41	47	50	★	43	★	50
White	68	70	70	73	64	75	62	69	70	68	69	73	★	69	★	70
Other	58	63	62	61	55	71	55	65	58	61	51	53	★	52	★	58
ESE																
Black	10	8	8	6	7	7	8	9	4	10	7	12	★	15	★	15
Hispanic	12	14	14	10	8	15	9	14	8	12	11	17	★	18	★	19
White	17	21	19	18	15	28	14	19	13	17	19	22	★	21	★	27
Other	12	10	10	9	8	9	9	11	4	12	10	19	★	15	★	19
LEP TWO YEARS OR LESS																
Black	14	8	12	8	8	7	8	11	5	12	8	17	★	18	★	23
Hispanic	14	18	12	12	8	18	9	16	7	17	8	25	★	21	★	30
White	25	43	29	32	15	46	20	44	24	41	22	46	★	35	★	67
Other	12	11	8	10	8	13	6	11	5	14	7	19	★	18	★	23
ALL STUDENTS																
Black	28	33	30	26	21	35	20	24	22	19	26	28	★	28	★	30
Hispanic	38	47	44	46	35	55	30	38	32	32	38	43	★	39	★	44
White	66	70	67	69	58	71	59	65	62	61	69	70	★	65	★	67
Other	48	56	50	53	38	59	40	51	48	52	36	43	★	43	★	50

★Note: The Florida Department of Education (FDOE) withheld the release of the norm-referenced Reading Comprehension scores for students in Grades 9 and 10 when the results for Grades 3-8 were released. The FDOE released the scores for Grades 9 and 10 on September 26, 2000. However, the data necessary for analysis have not been made available by the FDOE.

CONTENT SCORES

Students also received content scores on the FCAT NRT Reading Comprehension and Mathematics subtests. Content scores represent the percent of items that students responded to correctly within each content area.

In the area of reading, the identical four content areas were assessed at each of the eight grade levels for which the district has scores. The Florida Department of Education has not released norm-referenced Reading Comprehension scores for students in Grades 9 and 10 because of reported inconsistencies with results for other grades and subject areas. Table 38 on the next page presents the average percent correct for each Reading Comprehension content area as well as the total number of items that are used to assess each content area.

The Reading content areas for Grades 3 - 10 are as follows:

- Initial Understanding
- Interpretation
- Critical Analysis
- Strategies

An examination of the table reveals the following:

- Standard Curriculum students at Grades 3 and 4 and 6-8 performed best in the content area of Initial Understanding. Grade 5 Standard Curriculum students performed best in the content areas of Initial Understanding and Interpretation.
- Across all grade levels and reading content areas, Standard Curriculum students answered between 44% to 75% of the items correctly.
- In general, ESE students at all grade levels answered between 29% and 42% of the items correctly in all the contents areas.
- In general, LEP Two Years or Less students at all grade levels answered between 29% and 43% of the items correctly in all of the content areas.
- With few exceptions, all students tested statewide responded correctly to a slightly higher percent of items in the four Reading contents areas than all students tested in the district.

Table 38. 2000 Reading Comprehension Content Areas: Average Percent Correct,
Grades 3 - 8

	Initial Understanding	Interpretation	Critical Analysis	Strategies
Grade 3				
No. of Possible Pts.	14	24	8	8
Std. Curriculum	64%	58%	50%	63%
ESE	36%	33%	38%	38%
LEP Two Yrs./Less	43%	33%	38%	38%
District-All Students	57%	54%	50%	50%
State-All Students	64%	63%	63%	63%
Grade 4				
No. of Possible Pts.	12	24	9	9
Std. Curriculum	75%	58%	56%	56%
ESE	42%	33%	33%	33%
LEP Two Yrs./Less	42%	33%	33%	33%
District-All Students	67%	54%	44%	56%
State-All Students	75%	63%	56%	56%
Grade 5				
No. of Possible Pts.	12	24	9	9
Std. Curriculum	58%	58%	56%	56%
ESE	33%	29%	33%	33%
LEP Two Yrs./Less	33%	29%	33%	33%
District-All Students	58%	50%	56%	44%
State-All Students	58%	58%	67%	56%
Grade 6				
No. of Possible Pts.	12	24	9	9
Std. Curriculum	67%	54%	56%	44%
ESE	33%	29%	33%	33%
LEP Two Yrs./Less	33%	33%	33%	33%
District-All Students	58%	50%	44%	44%
State-All Students	67%	58%	56%	44%

Table 38. 2000 Reading Comprehension Content Areas: Average Percent Correct, Grades 3 - 8

	Initial Understanding	Interpretation	Critical Analysis	Strategies
Grade 7				
No. of Possible Pts.	10	24	10	10
Std. Curriculum	70%	58%	60%	50%
ESE	40%	33%	40%	30%
LEP Two Yrs./Less	40%	33%	40%	30%
District-All Students	60%	54%	60%	50%
State-All Students	70%	63%	60%	60%
Grade 8				
No. of Possible Pts.	10	24	10	10
Std. Curriculum	70%	67%	60%	60%
ESE	40%	42%	40%	40%
LEP Two Yrs./Less	40%	42%	40%	30%
District- All Students	60%	63%	60%	50%
State-All Students	70%	71%	70%	60%

★Note: The Florida Department of Education (FDOE) withheld the release of the norm-referenced Reading Comprehension scores for students in Grades 9 and 10 when the results for Grades 3-8 were released. The FDOE released the scores for Grades 9 and 10 on September 26, 2000. However, the data necessary for analysis have not been made available by the FDOE.

In the area of Mathematics, either nine or ten mathematics content areas were assessed, based on the grade level assessed. Table 39 presents the average percent correct for the content areas assessed at Grades 3 and 4; Table 40 displays the average percent correct for the content areas assessed at Grades 5 - 8; Table 41 presents the average percent correct for the content areas assessed at Grades 9 and 10.

The Mathematics content areas for Grades 3 and 4 are as follows:

- Whole Numbers
- Number Sense
- Geometry and Spatial Sense
- Measurement
- Statistics and Probability
- Fractions and Decimals
- Patterns and Relationships
- Estimation
- Problem Solving

An examination of Table 39 reveals:

- Standard Curriculum students at Grades 3 and 4 performed best in the content area of Whole Numbers.
- Standard Curriculum students at Grades 3 and 4 answered between 33% and 75% of the items correctly in all of the content areas.
- ESE and LEP Two Years or Less students at Grades 3 and 4 performed best in the area of Patterns and Relationships.
- ESE and LEP Two Years or Less students at Grades 3 and 4 answered between 25% and 67% of the items correctly in all of the content areas.
- Regardless of the curriculum group and grade level, students answered the same number of items in the content areas of Patterns and Relationships and Estimation correctly as all students tested in the district as well as statewide.

The Mathematics content areas for Grades 5 - 8 are as follows:

- Measurement
- Estimation
- Problem Solving
- Number Relationships
- Number Systems
- Patterns and Functions
- Algebra
- Statistics
- Probability
- Geometry

An examination of Table 40 reveals:

- Standard Curriculum students at Grade 5 performed best in the content area of Number Relationships. Standard Curriculum students at Grade 6 performed equally well in the content areas of Patterns and Functions, Algebra, and Probability. Standard Curriculum students at Grades 7 and 8 performed best in the area of Patterns and Functions.
- Standard Curriculum students answered correctly between 20% to 83% of the items in the content areas.
- ESE and LEP Two Years or Less students at Grades 5 - 8 answered correctly between 20% and 67% of the items in the various content areas.
- Regardless of the curriculum group, students at Grade 5 and 7 answered the same number of items correctly in the content area of Probability as all students tested in the district as well as statewide.

- Regardless of the curriculum group, students at Grade 8 answered the same number of items correctly in the content areas of Measurement and Problem Solving as all students tested in the district.

The Mathematics content areas for Grades 9 and 10 are as follows:

- Problem Solving
- Algebra
- Statistics
- Probability
- Functions
- Geometry-Synthetic
- Geometry-Algebraic
- Trigonometry
- Discrete Mathematics
- Precalculus

An examination of Table 41 reveals the following:

- Standard Curriculum students at Grade 9 performed best in the content areas of Algebra and Functions. Standard Curriculum students at Grade 10 performed best in the area of Algebra.
- ESE students at Grades 9 and 10 answered correctly between 17% and 40% of the items in the content areas.
- LEP Two Years or Less students answered correctly between 17% and 50% of the items in the content areas.
- Regardless of the curriculum group, students at Grades 9 and 10 answered the same number of items correctly in the content areas of Trigonometry, Discrete Mathematics, and Precalculus as all students tested in the district as well as statewide.

Table 39. 2000 Mathematics Content Areas: Average Percent Correct, Grades 3 and 4

	Whole Numbers	Number Sense	Geometry & Spatial Sense	Measurement	Statistics & Probability	Fractions & Decimals	Patterns & Relationships	Estimation	Problem Solving
Grade 3									
No. of Possible Pts.	4	6	6	10	6	4	3	3	4
Std. Curriculum	75%	67%	67%	60%	67%	50%	67%	33%	50%
ESE	50%	50%	50%	40%	50%	25%	67%	33%	25%
LEP Two Yrs./Less	50%	50%	50%	40%	50%	25%	67%	33%	25%
District-All Students	75%	67%	67%	60%	67%	50%	67%	33%	50%
State-All Students	75%	67%	67%	60%	67%	50%	67%	33%	50%
Grade 4									
No. of Possible Pts.	4	6	6	10	6	6	3	3	4
Std. Curriculum	75%	67%	67%	60%	67%	67%	67%	33%	50%
ESE	50%	33%	33%	30%	33%	33%	67%	33%	25%
LEP Two Yrs./Less	50%	33%	33%	40%	33%	50%	67%	33%	25%
District-All Students	75%	50%	50%	50%	67%	67%	67%	33%	50%
State-All Students	75%	67%	67%	60%	67%	67%	67%	33%	50%

Table 40. 2000 Mathematics Content Areas: Average Percent Correct, Grades 5 - 8

	Measurement	Estimation	Problem Solving	Number Relationships	Number Systems	Patterns & Functions	Algebra	Statistics	Probability	Geometry
Grade 5										
No. of Possible Pts.	6	4	5	6	5	3	3	6	3	7
Std. Curriculum	50%	50%	40%	83%	80%	67%	67%	67%	67%	71%
ESE	33%	25%	20%	50%	40%	67%	33%	50%	67%	43%
LEP Two Yrs./Less	33%	25%	20%	50%	40%	67%	33%	50%	67%	43%
District- All Students	50%	50%	40%	67%	60%	67%	67%	67%	67%	71%
State-All Students	67%	50%	40%	83%	80%	100%	67%	67%	67%	71%
Grade 6										
No. of Possible Pts.	6	4	5	6	5	3	3	6	3	7
Std. Curriculum	50%	50%	40%	50%	40%	67%	67%	50%	67%	57%
ESE	33%	25%	20%	33%	20%	33%	33%	33%	33%	29%
LEP Two Yrs./Less	33%	25%	20%	33%	40%	33%	33%	33%	33%	43%
District-All Students	50%	50%	40%	50%	40%	67%	33%	50%	67%	57%
State-All Students	50%	50%	40%	67%	60%	67%	67%	50%	67%	57%
Grade 7										
No. of Possible Pts.	5	6	5	6	4	3	4	5	3	9
Std. Curriculum	40%	50%	40%	50%	50%	67%	50%	60%	33%	56%
ESE	20%	33%	20%	33%	25%	33%	25%	40%	33%	33%
LEP Two Yrs./Less	40%	33%	20%	33%	50%	33%	25%	40%	33%	33%
District-All Students	40%	50%	40%	50%	50%	67%	50%	40%	33%	44%
State-All Students	60%	50%	40%	50%	50%	67%	50%	60%	33%	56%

Table 40. 2000 Mathematics Content Areas: Average Percent Correct, Grades 5 - 8

	Measurement	Estimation	Problem Solving	Number Relationships	Number Systems	Patterns & Functions	Algebra	Statistics	Probability	Geometry
Grade 8										
No. of Possible Pts.	5	6	5	6	4	3	5	5	4	9
Std. Curriculum	40%	50%	20%	50%	50%	67%	60%	60%	50%	56%
ESE	40%	33%	20%	33%	25%	33%	40%	40%	25%	33%
LEP Two Yrs./Less	40%	33%	20%	33%	50%	33%	40%	40%	25%	44%
District-All Students	40%	50%	20%	50%	50%	67%	60%	40%	50%	56%
State-All Students	40%	50%	40%	67%	50%	67%	60%	60%	50%	67%

Table 41. 2000 Mathematics Content Areas: Average Percent Correct, Grades 9 and 10

	Problem Solving	Algebra	Statistics	Probability	Functions	Geometry-Synthetic	Geometry-Algebraic	Trigonometry	Discrete Math	Precalculus
Grade 9										
No. of Possible Pts.	6	5	4	6	5	6	5	3	3	3
Std. Curriculum	33%	60%	50%	33%	60%	50%	40%	33%	33%	33%
ESE	17%	40%	25%	33%	40%	33%	20%	33%	33%	33%
LEP Two Yrs./Less	17%	40%	25%	33%	40%	33%	40%	33%	33%	33%
District-All Students	33%	60%	50%	33%	40%	50%	40%	33%	33%	33%
State-All Students	33%	60%	50%	33%	60%	50%	40%	33%	33%	33%
Grade 10										
No. of Possible Pts.	6	6	5	5	5	6	5	3	3	3
Std. Curriculum	33%	67%	40%	40%	40%	50%	60%	33%	33%	33%
ESE	33%	33%	20%	20%	20%	33%	20%	33%	33%	33%
LEP Two Yrs./Less	17%	50%	20%	20%	40%	50%	40%	33%	33%	33%
District-All Students	33%	50%	40%	40%	40%	50%	60%	33%	33%	33%
State-All Students	33%	67%	40%	40%	60%	50%	60%	33%	33%	33%

SCHOOL LEVEL RESULTS

Appendices N - P at the conclusion of this report provide the 2000 FCAT NRT median percentiles for the Reading Comprehension and Mathematics subtests for individual schools. Results are provided for all students tested at each school and for each curriculum group separately (Standard Curriculum, ESE and LEP Two Years or Less). Appendix N provides this information for elementary schools (Grades 3 - 6); Appendix O provides this information for middle schools (Grades 6-9); and Appendix P provides this information for senior high schools (Grades 9 and 10). Please note that any elementary school that has a grade configuration that includes grade 7 and above will have the results for their sixth grade displayed in both Appendix N and Appendix O. Likewise, any middle school that has grade 9 and above as part of their grade configuration will have the results for their ninth grade displayed in both Appendix O and Appendix P.