

Sarasota County Public Schools Office of Research, Evaluation and Assessment

Research Brief – 2010 Third Grade FCAT Performance

Introduction

The Research Brief on 3rd Grade FCAT Performance is a summary of several analysis designed to examine the performance of the SY 2009 and SY 2010 cohorts. These analyses considered:

- Sarasota County student performance in comparison to State results
- Differences in performance between the SY 2009 and SY 2010 third grade cohorts
- The performance of third grade AYP subgroups

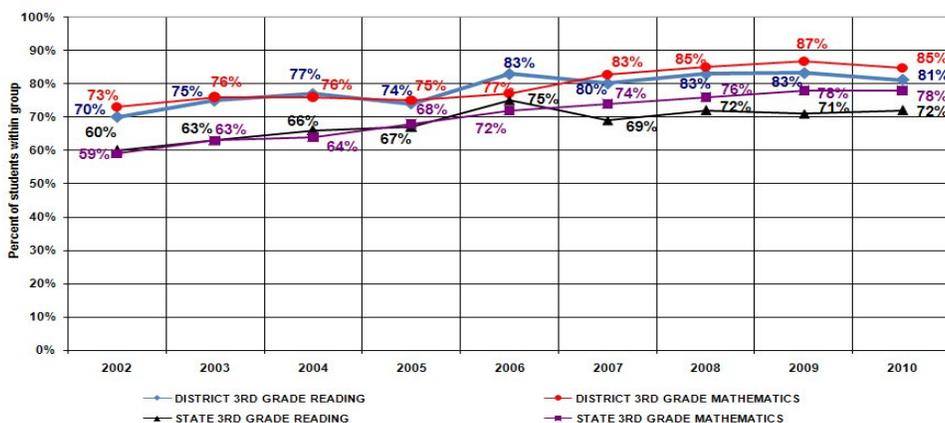
Descriptive Analysis

Comparison SY 2009 – SY 2010, Sarasota and State

Eighty-one percent of the 3,108 Sarasota County third grade students who participated in the 2010 Reading FCAT scored proficiently and 85 percent scored proficiently on the Mathematics FCAT.

(See Figure 1). Although proficiency rates decreased slightly from the prior year, Sarasota’s third grade student performance in reading and mathematics was significantly above state levels. This has been a consistent trend over the past eight years with only slight variation.

Figure 1
DISTRICT ELEMENTARY SCHOOLS
FCAT READING AND MATHEMATICS
Percent of Students Level 3 and Above
Grade 3
2002 - 2010



Comparison of SY 2009 and SY 2010 Achievement Level Distributions, Sarasota and State

Tables 1 and 2 provide descriptive information on SY 2009 and SY 2010 FCAT Grade 3 annual Sarasota and State cohort results in reading and mathematics. Since the percentages are influenced by the number of students, both are reported within the achievement levels. FCAT Achievement Levels range from 1 (lowest) to 5 (highest). The FCAT distribution of third grade Sarasota students across achievement levels approximates normal with a higher number of students collectively in Achievement Levels 2, 3, and 4 and fewer at the higher or lower ends of the distribution. The State data is slightly skewed with more students in the lower end of the distribution and fewer at the high end.

In reading, the percent of Sarasota students in the lowest Achievement Level 1 and the highest Achievement Levels of 4 and 5 decreased, with a corresponding increase in Levels 2 and 3 from SY 2009 to SY 2010. In mathematics the percent of students in Levels 2 and 3 increased while the percent of students in Level 5 decreased. The percent in Levels 1 and 4 remained the same.

Table 1
Sarasota County FCAT Grade 3 Results

					Percent and (Count) in FCAT Achievement Levels					Percent in
	Year	Students Tested	Mean DSS	Mean Scale Score	1	2	3	4	5	Level 3 & above
Reading	2009	3149	1508	334	10	7(220)	30	40(1260)	14(441)	83(2614)
	2010	3108	1483	330	9(280)	10(311)	32(995)	37(1150)	12(373)	81(2517)
Mathematics	2009	3149	1569	358	5(157)	8(252)	27(850)	34(1071)	25(787)	87(278)
	2010	3104	1540	352	5(155)	11	31(34)	34(1055)	20(621)	85(2638)

When comparing Sarasota's SY 2009 and SY 2010 cohorts to the comparable State's cohorts, Sarasota has a higher percentage of high performing students in Achievement Levels 4 and 5 and a correspondingly smaller percentage of students at Achievement Levels 3 or below. In reading, Sarasota cohorts decreased 1 percentage point in Achievement Level 1 from SY 2009 to SY 2010. No other change in reading is noted. In mathematics the State cohorts decreased 1 percentage point in both Levels 1 and 5. All other levels remained the same. (See Table 2).

Table 2
State FCAT Grade 3 Results

	Percent and (Count) in FCAT	Percent in
--	-----------------------------	------------

					Achievement Levels					
	Year	Students Tested	Mean DSS	Mean Scale Score	1	2	3	4	5	Level 3 & above
Reading	2009	205,135	1381	313	17(34873)	12(24616)	33(67695)	31(63592)	8(16411)	71(145646)
	2010	205,639	1386	314	16(32902)	12(24677)	33(67861)	31(63748)	8(16451)	72(148060)
Mathematics	2009	205,135	1473	337	10(20514)	13(26668)		30(61541)	16(32822)	78(160005)
	2010	205,720	1471	337	9(18515)	13(26744)		30(61716)	15(30858)	78(160462)

Summary:

Overall both the State and Sarasota Grade 3 cohorts remained very stable across the two years. Minor fluctuations within Achievement Levels are noted. In both distributions, there is a general trend for percentages at the upper and lower end of the distributions to decrease from SY 2009 to SY 2010. It is important to note that the number of Level 1 students decreased in Sarasota even though the overall percent proficient decreased.

Percent of Students Passing the FCAT or the Alternate Test and promoted to 4th Grade

State statute mandates that grade 3 students who score a Level 1 on the Spring FCAT in Reading must demonstrate proficiency on the FCAT or an alternate test to be promoted to fourth grade. As indicated in Table 3, in SY 2010 there was a 1% increase in the number and percent of students who scored level two or higher on the FCAT and were thereby promoted to grade 4. This increase was from 90% to 91%. This number and percent increased further, 91% to 93% when the students who took the SAT-10 as the alternate assessment were included.

Table 3

3rd Grade Students Meeting Promotional Assessment Requirements SY2009 and SY2010						
	Total Number of 3rd Graders	Percent Passing the FCAT at a Level 2 or higher	Number of students Passing the FCAT with a Level 2 or Higher	Percent Passing the FCAT or the SAT - 10	Number Passing the FCAT or the SAT - 10	Number of students Passing the FCAT or the SAT - 10
2009	3149	90%	2834	91%	40	2874
2010	3108	91%	2828	93%	58	2886

Summary:

In SY 2010, 93% of the Sarasota third grade cohort was not retained due to the third grade assessment requirement, an increase of 2% from the prior year.

SAT – 10 Performance

State statute mandates that grade 3 students who score a Level 1 on the Spring FCAT in Reading must score above Achievement Level 1 on the FCAT or above the 45th percentile on the SAT-10 to be promoted to fourth grade. In SY 2010, 280 (9%) of students scored a Level 1 on the FCAT and 200 of these students took the SAT-10*. Twenty-nine percent of these students scored proficiently on the SAT-10 and were thereby promoted. This was a 10 percent increase in the number of students who passed the Spring SAT-10 administration in 2009 when 315 or 10 percent of the students scored a Level 1, and 215 took the alternate exam. Analysis of the SAT-10 data indicated that the 2010 median scores were 9 percentage points higher than the median score in 2009. (See Table 4).

Table 4

3rd Grade SAT-10 Performance SY2009 and SY2010					
	Total Number of 3rd Graders	Number of 3rd Graders Testing (Level 1)	Percent Passing	Number of students Passing	Median Score
2009	3149	215	18.6%	40	25
2010	3108	200	29.0%	58	36

*Not all Level 1 third graders take the alternate assessment and may be promoted for other approved reasons or may be retained.

Summary: Since more students passed the SY 2010 SAT-10 than in prior years and achieved higher scores, it is possible that the SY 2010 cohort’s lower performers were more sensitive to the assessment in some way. If the 58 students, who later were proficient on the alternate assessment, were removed from the Achievement Level 1 percentage and added to the percent proficient on the SY 2010 Reading FCAT, the district rate would increase from 81% to 83%. Following the same logic, the district reading proficiency rate would increase from 83% to 84% in SY 2009, narrowing the gap between the two years to 1%.

Overview of Test Cluster Comparison SY 2009 – SY 2010, Sarasota and State

The reading and mathematics FCAT is comprised of several content cluster areas. The number of points possible to be earned in each cluster area varies slightly each year. The number of point’s possible and average number of points earned by Sarasota third grade students for SY 2009 and SY 2010 are reported in Table 5 and for the State third grade students in Table 6. A review of the cluster information is useful for two reasons.

1. A review of the reading and mathematics ‘possible point’ changes over time may

influence student's scores differently in different years. 2. If a change in the 'points possible' occurs, it would be interesting if it affected Sarasota students and State students similarly.

In reading, a change in the number of points possible did occur from SY 2009 to SY 2010. The number of 'points possible' decreased in Words and Phrases and the Comparison and Cause/Effect content clusters from SY 2009 to SY 2010. The number of 'points possible' increased in Main Idea by one point and the number of points in Reference and Research doubled.

Sarasota students increased their average percent correct in the Words and Phrases cluster, performed similarly in Main Idea and decreased their performance in Cause and Effect and Reference and Research from SY 2009 to SY 2010. In alignment with the pattern of results noted in Tables 1 and 2 above, Sarasota students either outperformed or scored identically to State third grade cohorts in both SY 2009 and SY 2010. The State SY 2009 and SY 2010 third grade cohorts demonstrated the same pattern of results as did Sarasota in response to the cluster 'points possible' changes in reading. Specifically, like the Sarasota cohorts, the State third grade cohorts increased their average percent correct in the Words and Phrases cluster, performed similarly in Main Idea and decreased their average percent correct in Cause and Effect and Reference and Research from SY 2009 to SY 2010. In sum, the two distributions fluctuated similarly from 2009 to 2010.

In mathematics the number of 'points possible' in each cluster area remained the same in 2010 as they were the prior year. The SY 2010 Sarasota students scored identically in Number Sense, Measurement, Geometry, Algebraic Thinking and higher in Data Analysis when compared to the SY 2009 Sarasota third grade cohort. The State SY 2009 and SY 2010 cohorts also scored similarly each year. Although within populations the data was similar each year, Sarasota students outperformed the state averages in most cluster areas in both years and scored identically to the state cohorts in Geometry.

Table 5
Sarasota FCAT Performance for SY 2009 and SY 2010
Reading and Mathematics Clusters, Average Percent Correct

School Year	CLUSTER POINTS	READING CLUSTERS				MATHEMATICS CLUSTERS				
		Words and Phrases	Main Idea	Comparison Cause/Effect	Reference and Research	Number Sense	Measurement	Geometry	Algebraic Thinking	Data Analysis
2009	POSSIBL	9	24	9	3	12	8	7	6	7
	EARNED	7	18	7	2	9	6	5	5	5
	AVG. %	78%	75%	78%	67%	75%	75%	71%	83%	71%
2010	POSSIBL	6	25	7	7	12	8	7	6	7
	EARNED	5	18	5	4	9	6	5	5	6
	AVG. %	83%	72%	71%	57%	75%	75%	71%	83%	86%

Table 6
State FCAT Performance for SY 2009 and SY 2010
Reading and Mathematics Clusters

School Year	CLUSTER POINTS	READING CLUSTERS				MATHEMATICS CLUSTERS				
		Words and Phrases	Main Idea	Comparison Cause/Effect	Reference and Research	Number Sense	Measurement	Geometry	Algebraic Thinking	Data Analysis
2009	POSSIBLE	9	24	9	3	12	8	7	6	7
	EARNED	6	16	6	2	8	5	5	4	5
	AVG. %	67%	67%	67%	67%	67%	63%	71%	67%	71%
2010	POSSIBLE	6	25	7	7	12	8	7	6	7
	EARNED	5	17	4	4	8	5	5	4	5
	AVG. %	83%	68%	57%	57%	67%	63%	71%	67%	71%

Summary:

Content cluster point changes occurred in reading between SY 2009 and SY 2010. The most notable change is in Reference and Research. Both the State and Sarasota results changed similarly in response to these differences.

AYP Subgroup Performance, 2001-2010, Sarasota Students

Figure 2 and 3 depicts Sarasota County third grade cohort proficiency performance from SY 2001 to

SY 2010 disaggregated by Annual Yearly Progress (AYP) subgroups for reading and mathematics respectively. The federal AYP categories include the racial groups of White, Black, Hispanic, Students with Disabilities (SWD), English Language Learners (ELL) and Low Income. The subgroups are not mutually exclusive; a student can be in more than one subgroup. The proportion of ELL, SWD and minority students relative to the total population was similar in SY 2009 and SY 2010, however, there was a 5% increase in the number of Low Income students in grade 3.

Figure 2

**DISTRICT ELEMENTARY SCHOOLS
FCAT READING
Percent of Students Level 3 and Above
Grade 3
2001 - 2010**

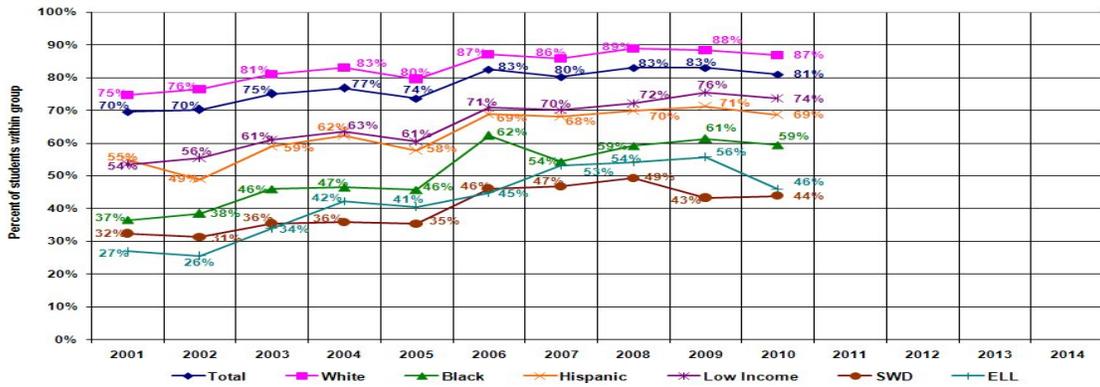


Figure 2 indicates that the performance of minority, ESE, ELL, and Low Income subgroups consistently underperform the White and Total Population. There was a one percentage point increase in the percent of SWD subgroup who demonstrated proficiency from SY 2009 to SY 2010. The ELL subgroup demonstrated the most significant change; 46 percent of the 2010 ELL subgroup demonstrated reading proficiency compared to 56 percent the prior year.

Figure 3

**DISTRICT ELEMENTARY SCHOOLS
FCAT MATHEMATICS
Percent of Students Level 3 and Above
Grade 3
2001 - 2010**

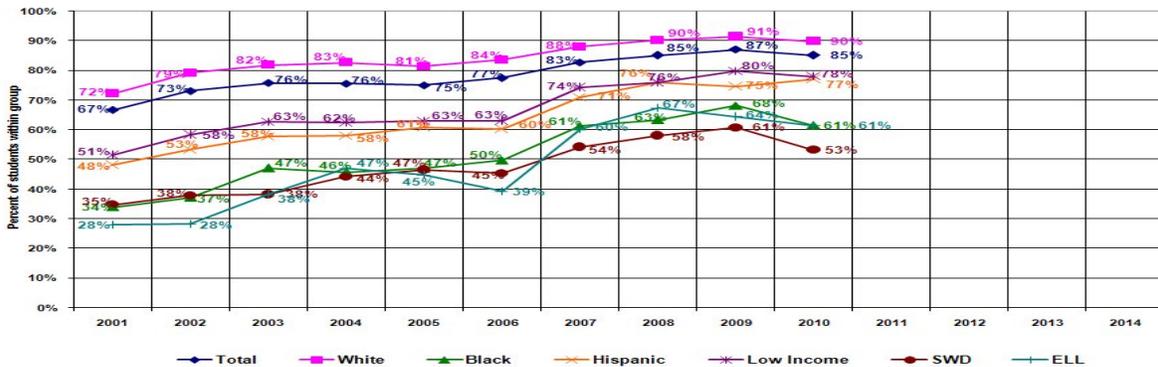


Figure 3 illustrates the overall increase in subgroup performance of Grade 3 cohorts from SY 2001 to SY 2010 in mathematics. The SY 2010 Hispanic subgroups' performance was two percentage points higher than the 2009 Hispanic cohort. The Black, Low Income, and ELL SY 2010 cohorts performed less well compared to the SY 2009 subgroups.

Prior research has indicated that there is a higher percentage of ELL, Low Income, and SWD students in Achievement Level 1. Table 7 depicts the number and percent of ELL, Low Income, and SWD students at each FCAT Reading and Mathematics Achievement Levels for both SY 2009 and SY 2010. Since, the SWD group is comprised of 16 different

ESE subgroups (according to the Florida Department of Education classification system), this groups data was further disaggregated. In Sarasota the largest of these SWD subgroups are the Specific Learning Disability and Emotional Behavior Disability students. Table 7 also includes the performance of these specific SWD subgroups.

Overall the ELL, SWD, Learning Disabled and Low Income subgroups, had a larger percentage of students in Level 1 compared to the Total Population in both SY 2009 and SY 2010. However, the percent of students in Level 1 reading has decreased in all subgroups with the exception of ELL students. The Low Income subgroup decreased their percent of Level 1 student and Level 3 while increasing the percent in Level 2. The Total Population and the Low Income groups had a larger percentage of students in Levels 4 and 5 than the other subgroups. There is evidence that the ELL performed less well than in SY 2009. The percentage of SY 2010 ELL who scored in FCAT Reading Achievement Level 3 decreased and the percentage of students in Levels 1 and 2 increased. Conversely, the Emotionally Disabled subgroup in SY 2010 performed better than in the prior year.

Performance of the subgroups was better in mathematics. The SY 2010, ELL, SWD, the two SWD and Low Income subgroups, had a lower percentage of students in Level 1 than the prior year. As was the case with reading, all subgroups had a similar percent of students in Achievement Level 3 but none of the subgroups either year had a large percentage of students in Level 5. The ELL and Low Income students had a larger percentage of students in Achievement Level 4 than the SWD subgroups.

Table 7
Subgroup Performance by FCAT Reading and Mathematics Achievement Levels
School Year 2009-2010

School Year	Subgroups	Number of Students	Percent of Students in Total	% LEVEL 1	% LEVEL 2	% LEVEL 3	% LEVEL 4	% LEVEL 5	% ABV LEVEL 3
READING									
2009	Total Population	3149		10	7	30	40	14	83
2010	Total Population	3108		9	10	32	37	12	81
2009	Total Low Income	1496	48	15	10	37	32	7	76
2010	Total Low Income	1657	53	14	13	36	32	6	74
2009	Total ELL	205	6	30	15	42	12	2	56
2010	Total ELL	202	6	37	17	34	12	0	46
2009	Total SWD	367	12	41	16	28	14	2	44
2010	Total SWD	369	12	36	21	32	11	.3	43
2009	Learning Disabled	249	8	42	14	29	14	1	45
2010	Learning Disabled	259	8	37	21	35	7	0	42
2009	Emotional/Behavior	54	2	52	13	15	19	2	35
2010	Emotional/Behavior	36	1	31	14	33	22	0	55
	Subgroups	Number of Students	Percent of Students in Total	% LEVEL 1	% LEVEL 2	% LEVEL 3	% LEVEL 4	% LEVEL 5	% ABV LEVEL 3
MATHEMATICS									
2009	Total Population	3149		5	8	27	34	25	87
2010	Total Population	3104		5	11	31	34	20	85
2009	Total Low Income	1496	48	9	12	34	32	13	80
2010	Total Low Income	1649	53	7	15	36	29	13	78
2009	Total ELL	205	6	15	21	39	22	3	64
2010	Total ELL	199	6	13	26	34	25	3	62
2009	Total SWD	366	12	25	15	39	17	4	60
2010	Total SWD	367	12	19	28	32	18	3	53
2009	Learning Disabled	249	8	21	13	41	20	5	66
2010	Learning Disabled	258	8	20	26	34	19	2	55
2010	Emotional/Behavior	54	2	44	9	28	17	2	46
2009	Emotional/Behavior	37	1	41	14	30	14	3	47

Summary:

SWD, ELL and Low Income students scored below Total students in both SY 2009 and SY 2010. There is evidence that the percent of Level 1 students is decreasing in SWD and the Low Income subgroups. The Low Income, ELL and Total SWD subgroups scored better in mathematics than reading.

Office of Research, Evaluation and Assessment

Research Brief – 2010 Third Grade FCAT Performance

SUMMARY

- Analysis of the FCAT results indicates a slight decline in performance in both Reading and Mathematics although both proficiency rates are significantly higher than the State.
- In SY 2010, 93% of the Sarasota third grade cohort passed the assessment promotional requirement and were thereby not retained. This is an increase of 2% from the prior year.
- Twenty-nine percent and 19 percent of the students who scored within Achievement Level 1 passed the SAT-10 as the alternative assessment in SY 2009 and SY 2010 respectively. Factoring these results within the FCAT results reduced the difference to one percent between SY 2009 and SY 2010.
- The SY 2010 Grade 3 Reading test had a higher emphasis on Reference and Research skills as compared to last year's test. The average percent correct for the Reference and Research reading cluster was lower for SY 2010's third graders at both the district and state. The relative performance of Sarasota and the State across the other content clusters was similar in SY 2009 and SY 2010.
- Sarasota AYP subgroup differences between the SY 2009 third grade cohort and the 2010 third grade cohort indicated that while all subgroups declined slightly in proficiency, ELL students demonstrated a 10 percentage point decrease in reading only. In mathematics, the 2010 third grade SWD and Black cohort declined by 8 and 7 points respectively.
- The percent of Low Income students in the general population increased by 5% in SY 2010 compared to the prior year. The Specific Learning Disabled and the Emotionally Disabled subgroups have the largest representation of the 16 exceptional education categories within the SWD subgroup. Overall the majority of ELL and SWD students were non-proficient in reading and over a third of each group scored in Achievement Level 1. However, subgroup analysis indicated better performance among the lowest performing (Level 1) students in SY 2010 compared to the SY2009 cohort, with the exception of ELL. Overall although the ELL, Total SWD, and Low Income groups were below the total, they scored better in mathematics than reading. With the exception of the Emotionally Disabled, slightly more than half were above proficiency in mathematics.