

State of Florida *High Schools That Work*
1998 Assessment Results

SUMMARY

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EXECUTIVE SUMMARY

High Schools That Work is a comprehensive, whole-school revitalization based on the belief that students following general and vocational programs of study can master complex academic and technical subjects if schools create an environment that encourages students to succeed. *HSTW* sites administer an assessment every two years of the achievement, school experiences, and work experiences of career-bound youth. The assessment includes tests in Reading, Mathematics and Science that are linked with the National Assessment of Educational Progress (NAEP) tests -- the congressionally-mandated "report card of the nation." Because the *HSTW* test development and score scale are based on the NAEP characteristics, it is possible to make comparisons between *HSTW* assessment results and the national NAEP academic and vocational samples.

In 1998, Florida *HSTW* sites tested 1,554 vocational completers (seniors who completed at least 4 Carnegie Units in a vocational concentration). While there is still much progress to be made, the 1998 assessment results show that efforts by Florida *HSTW* schools are paying off in improved student achievement. Florida has increased student achievement in all three subjects: reading, mathematics and science, as shown below:

Test Area	Mean Score		% Meeting Performance Goal		% Meeting Curriculum Goal	
	1998	1996	1998	1996	1998	1996
Reading	286.8 (0.7)	277.5 (0.9)	66%	54%	38%	33%
Mathematics	310.8 (0.7)	297.9 (1.1)	75%	62%	85%	77%
Science	299.5 (0.7)	284.8 (0.9)	62%	47%	63%	52%

Some key strengths shown by the assessment results include:

- Mathematics is Florida's strongest area. Students show the highest proficiency in mathematics, and more students meet the curriculum goals in mathematics. Florida's mean score in mathematics is closer to the NAEP academic sample than in reading or science.
- In general, Florida's performance compares favorably to high-scoring sites in *High Schools That Work*.

Some key challenges are apparent from the 1998 assessment results, including:

- Reading is the weakest area. Many students are reading at basic or below-basic proficiency levels. Fewer students are meeting the English curriculum goals.
- Too little progress is being made in advancing the achievement of some groups of students. The average scores of female students in mathematics, male students in reading, and African-American students in all subject areas are not improving. In particular, the needs of African-American students, as compared to other groups, are not being met.
- In addition to emphasizing more higher-level courses for students, students need to be given more challenging assignments and be taught in more relevant ways.

INTRODUCTION

The Southern Regional Education Board (SREB), established in 1948, is the nation's first interstate education compact. The *High Schools That Work (HSTW)* initiative, developed by SREB, was established in 1987. *High Schools That Work* is a comprehensive, whole-school revitalization based on the belief that students following general and vocational programs of study can master complex academic and technical subjects if schools create an environment that encourages students to succeed. Two major goals of *HSTW* are:

- to improve the mathematics, science, communication, problem-solving, and technical skills of more students to the national average and above; and
- to blend the essential content of traditional college preparatory studies with vocational and technical studies, by creating conditions that support school leaders and teachers in carrying out key practices.

HSTW targets high school students who have traditionally not been challenged to meet higher academic standards, including youths who plan to work, enter the military, attend a technical or community college, or enroll in a four-year college or university with an open admissions policy. These youths make up from 60 to 65% of high school students (Southern Regional Education Board, undated).

Along with the framework of goals, ten key *HSTW* practices and a set of key conditions provide a focus for change at the high school level. The key practices focus on changing what students are taught, how students are taught, what the school expects of students, and how the teachers and staff relate to each other and to the students. The key conditions focus on leadership and other system supports for implementing the key practices. SREB provides intensive technical assistance, targeted assessment services, and ongoing staff development and networking opportunities to *HSTW* to states and schools in the network.

The use of data to measure results and improve practices is an important component of the *HSTW* initiative. The *HSTW* sites administer an assessment every two years of the achievement, school experiences, and work experiences of career-bound youth. The assessment includes a student survey, a transcript survey, and achievement tests in mathematics, science and reading. An in-depth report on the assessment provides powerful information for helping teachers, counselors and staff understand how to revise instruction, curriculum, guidance practices, and other programs in order to improve high school for these students.

THE *HSTW* ASSESSMENT

The *HSTW* assessment is coordinated and its findings are reported by the Educational Testing Service (ETS) of Princeton, New Jersey. A detailed report is issued at the school level for each site and at the state level for each state in the *HSTW* network. At the state level, the report is titled *Composite of Florida Sites*. To make Florida's 1998 state level results accessible to a broad range of Florida stakeholders, the Institute for Workforce

Competitiveness has, in this present document, provided basic information on the 1998 assessment and a summary of the Florida composite report results.

Florida's *HSTW* sites tested varying numbers of students, including both vocational completers and some other students as well. The *Composite of Florida Sites* report, as with all state-level composites, provides data from the 1,554 vocational completers only; other student groups are not included. Vocational completers are those seniors who have completed at least 4 Carnegie Units in a vocational concentration. For a list of Florida *HSTW* schools that participated in the 1998 assessment, see Appendix A.

***HSTW* Assessment and NAEP**

The *HSTW* assessment component includes tests in Reading, Mathematics and Science that are linked with the National Assessment of Educational Progress (NAEP) tests. The NAEP tests are achievement tests mandated by congress that have become known as the “report card of the nation.” The NAEP tests are administered nationally at a number of grade levels and in a number of subject areas. Both the NAEP and the *HSTW* assessments address the outcomes of education – what students know and can do. Both relate student achievement to classroom and school practices.

The *HSTW* assessments in reading, mathematics and science are administered to 12th grade students at *HSTW* sites. The *HSTW* assessment is based on NAEP but tailored to fit the needs of *HSTW* states and schools. Both the test development frameworks and the score scale for the *HSTW* tests are based on the NAEP characteristics, making performance comparisons possible between *HSTW* assessment results and the national NAEP academic and vocational samples. However, the *HSTW* tests include items developed specifically for the *HSTW* assessment requiring students to construct responses to open-ended questions.

Comparison Groups

The data provided in the *HSTW* assessment report enable comparisons of students’ mean test scores among several different comparison groups. Since the *HSTW* tests are based on the NAEP frameworks (as described above), mean scores for any school or state participating in the *HSTW* assessment can be compared to the NAEP scores. In addition, other comparison groups have been established by the *HSTW* network that allow *HSTW* sites to compare the achievement of their students and their school practices to other groups of interest. The Assessment Report includes comparison data for the following groups:

- The NAEP national sample of vocational students
- The NAEP national sample of academic students
- All *HSTW* sites taking part in the 1998 assessment
- High-scoring *HSTW* sites in 1998
- High-scoring sites in relevant school categories (based on racial/ethnic mix and level of parental education) in 1998
- Previous (1996) assessment data

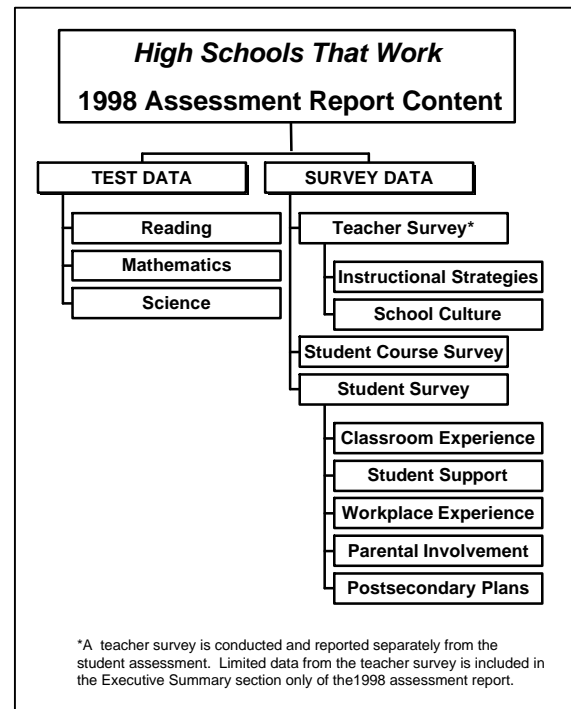
For a complete description of the criteria for inclusion in each school category, see the 1998 Assessment Report. All <i>HSTW</i> comparison groups (excluding NAEP) are limited to students who are vocational completers (12 th graders with 3-4 Carnegie units in a vocational/technical concentration). High-scoring sites are those sites that appear in the upper third of ranked mean scores in at least 2 of 3 subject areas.
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Some comparison group data, such as school category, are more pertinent to an individual school's results than to the Florida composite results. In any case, a comparison of practices and results to the national samples and to high-performing sites can help schools and states identify important aspects of curriculum and instruction associated with high student achievement.

Assessment Components

The student assessment consists of the following components:

- One-hour achievement tests in reading, mathematics and science (based on the NAEP frameworks). The tests include both multiple-choice and constructed items. Each test is benchmarked at defined proficiency levels which describe the behavior and characteristics of students performing at each level.
- A student course survey. This transcript survey is used to determine whether students are meeting recommended curriculum goals and to relate coursework taken by students to achievement in reading, mathematics and science.
- A survey of students' perceptions of their experiences both in and out of school. Students are asked what and how they have been taught, what has been expected of them by teachers and counselors, how much effort they have exerted, their future plans, and their experiences at work and at home.



The student achievement data help teachers identify students' strengths and weaknesses in reading, mathematics and science. The rich survey data, when related to student achievement, helps administrators and teachers see the connections between classroom and school practices and conditions and student achievement.

Assessment data are an important tool for communicating results to stakeholders and for planning strategies for implementing the key practices. The results help schools understand how to revise course instruction, graduation requirements, curricula, guidance practices and work-based learning programs in order to improve students' academic and technical performance.

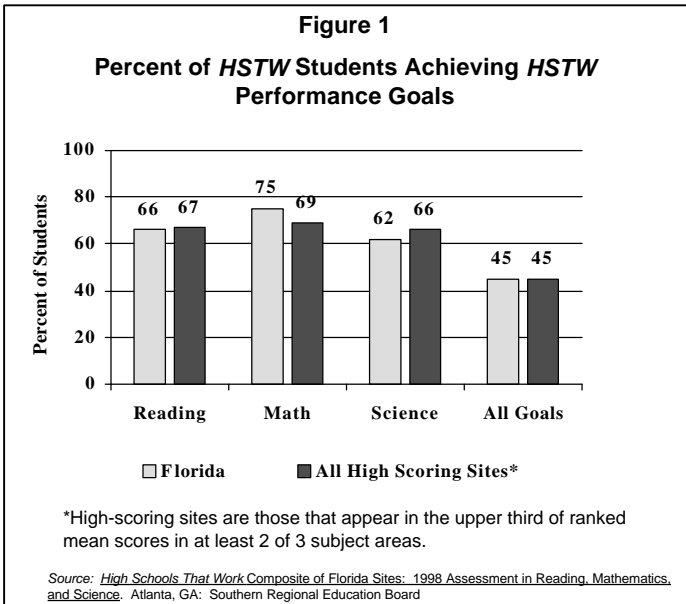
The HSTW Assessment is unique in its focus on career-bound students and the courses they take in high school. Many state leaders use information from the assessment when working

with state boards of education, local school boards, legislators and business leaders to improve high school for career-bound students.

PERFORMANCE AND CURRICULUM GOALS

HSTW seeks to raise expectations for student achievement and to replace the general education track in secondary education, which is no longer adequate to prepare students for work or further education. In keeping with this aim, suggested performance and curriculum goals have been set in each assessment area.

The performance goals are target mean score values for the achievement tests that were set by the SREB-State Vocational Education Consortium for *HSTW*. The goals were intended to both be achievable and represent a satisfactory closing of the gap between career-bound youth and the NAEP sample of seniors who reported they were in an academic curriculum. Following are performance goals in reading, mathematics and science:



Reading goal: 279

Achieving a reading score of 279 means that students have demonstrated an overall understanding and interpretation of what they read. They can make connections between what they read and their personal experiences and can draw conclusions. They are able to use information to perform tasks and follow directions. Figure 1 shows that 66% of Florida students participating in the assessment met the reading goal.

Mathematics goal: 295

Achieving a mathematics score of 295 means that students can apply their understanding of mathematical operations and notation to interpret expressions and solve a variety of problems, including some multi-step problems in algebra and geometry. They can read and use instruments, interpret data from a variety of graphs and find the probability of a simple event. Figure 1 shows that 75% of Florida students participating in the assessment met the mathematics goal.

Science goal: 292

Achieving a science score of 292 means that students can judge whether experiments are designed appropriately and can interpret the results of experiments. These students typically can demonstrate an understanding of key principles from physical and life sciences; can

apply knowledge, skills and reasoning to interpret scientific and technical data from simple tables; and can make inferences about results of experimental procedures. Figure 1 shows that 62% of Florida students participating in the assessment met the science goal.

Florida results were generally favorable compared to all high-scoring sites in the *HSTW* initiative. Figure 1 shows that a higher proportion of Florida students met the mathematics performance goal, 75% versus 66% of all high-scoring sites. In meeting the reading goal, the two groups are about comparable, 66% for Florida versus 67% for all high scoring sites. However, a lesser proportion of Florida students met the science goal, only 62% versus 66% for all high-scoring sites.

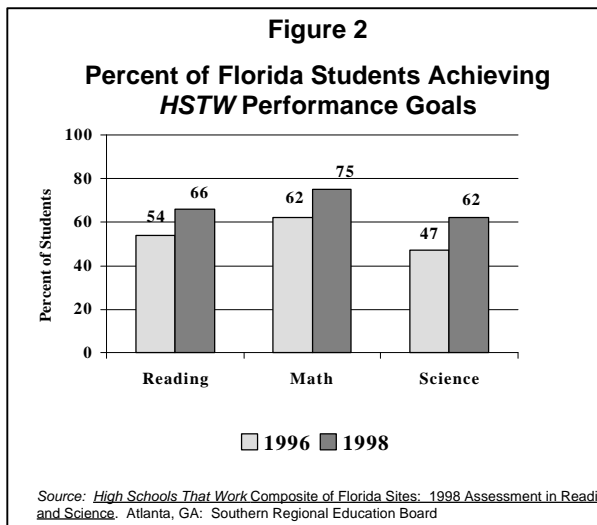
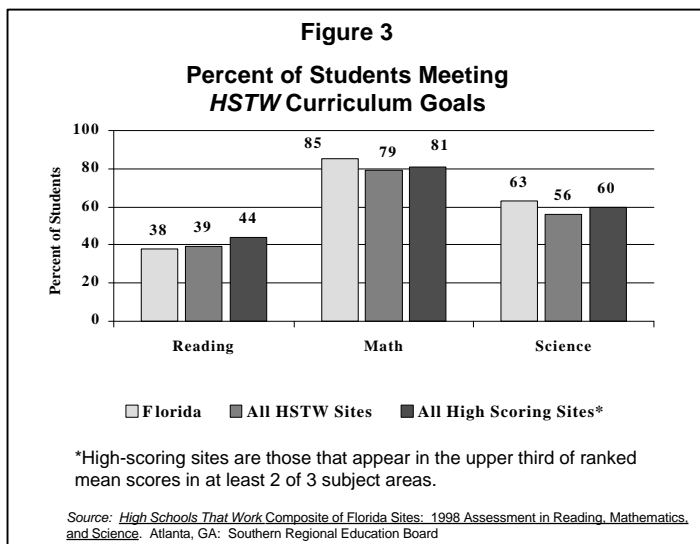


Figure 2 compares Florida’s performance on the 1998 and 1996 assessments. The good news is that from 1996 to 1998, the percent of Florida students meeting the goals in each of the three performance areas – reading, mathematics and science – has increased. Even so, in 1998, one-third of Florida students assessed are not meeting the reading and/or science performance goals. This is an important challenge for *HSTW* in Florida.

either a vocational or technical field of study or further academic studies. The suggested curriculum goals are as follows:

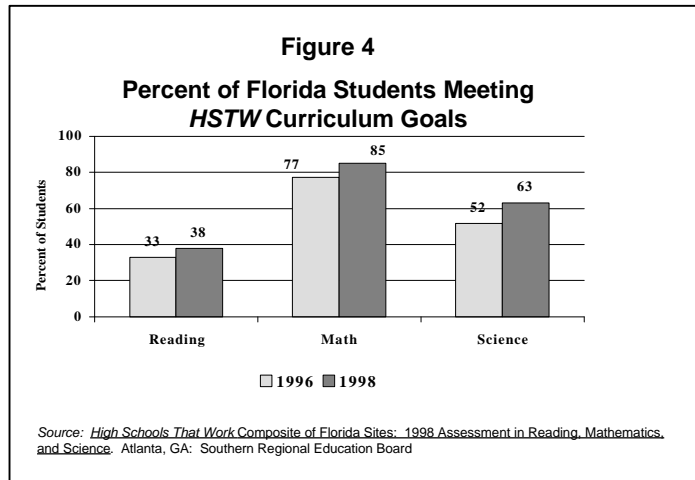
- Four units of college-preparatory-level English;
- Three units of mathematics, including two units in college-preparatory-level courses such as Algebra I, Algebra II, geometry, integrated mathematics, etc.;
- Three units of science, including two units in college-preparatory-level courses, such as lab biology, lab chemistry, physics and principles of technology.

Figure 3 shows the percentage of students tested in 1998 who met the curriculum goals (based on the student course survey) in reading, mathematics, and science. As compared to all high-scoring *HSTW* sites, greater percentages of Florida

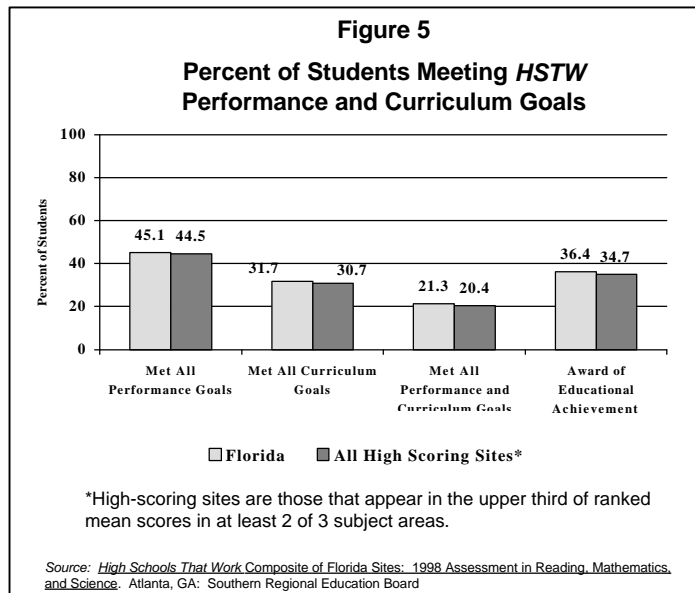


students met the math curriculum goal, 85%, and the science curriculum goal, 63%. In English, however, only 38% of Florida students met the curriculum goal, compared to 44% at all high-scoring *HSTW* sites.

Figure 4 shows that Florida increased the percent of students meeting the curriculum goals in all three subject areas between 1996 and 1998. The greatest gain was in science, which rose from 52% in 1996 to 63% in 1998.



The data in Figure 5 illustrate the challenge of comprehensively achieving the goals for students of completing an upgraded curriculum and excelling on the reading, mathematics and science tests. At both Florida *HSTW* sites and all high-scoring *HSTW* sites, fewer than half of students (45%) have met all performance goals (regardless of courses taken). Similarly, less than one-third – 32% for Florida and 31% for all high-scoring sites - met all curriculum goals (regardless of performance on the tests). Only 21% of Florida students met all the performance goals and all the curriculum goals.



The Award of Educational Achievement is presented to students who meet or exceed the performance goals in reading, mathematics and science and meet two of three curriculum goals. More than 36% of Florida *HSTW* students tested qualified for this award.

READING

Table 1 shows the mean reading score, with the standard error in parenthesis, for key *HSTW* comparison groups. Florida's 1998 mean score of 286.8 is higher than the *HSTW* average, Florida's 1996 average, and the *HSTW* goal. However, Florida's mean score is lower than that of All High-Scoring *HSTW* Sites (287.7) and the NAEP Academic Sample (302.4).

Table 1. Reading Achievement	
Comparison Group	Mean Score (Standard Error)
<i>High Schools That Work</i> Performance Goal	279
NAEP Academic Sample	302.4 (0.4)
All High-Scoring <i>HSTW</i> Sites	287.7 (0.2)
Florida Composite	286.8 (0.7)
1996 Florida Composite	277.5 (0.9)
All <i>HSTW</i> Sites	277.1 (0.2)

Table 2 shows Florida’s reading performance disaggregated by student demographic group. With the exception of African-Americans, Florida student subgroups are performing above the *HSTW* reading performance goal of 279. Female students performed better than male students, with a mean score of 290.3 versus 283.2 for males. Raising the performance of African-American students is a key challenge for Florida’s *HSTW* schools. The mean reading score for African-American students, 276.6, is more than 10 points below the Florida average and several points below the *HSTW* performance goal.

Table 2. 1998 Reading Achievement by Demographic Groups	
Demographic Group	Mean Score (Standard Error)
<i>High Schools That Work</i> Performance Goal	279
White Students	291.8 (0.9)
Female Students	290.3 (0.9)
All Students	286.8 (0.7)
Hispanic Students	284.0 (2.0)
Male Students	283.2 (1.2)
African-American Students	276.6 (1.6)

Figure 6 shows the percentage of Florida students performing at each of the *HSTW* reading proficiency levels: basic, proficient, and advanced. These are defined levels of performance as determined by NAEP subject matter experts and depict the behaviors and skills characteristic of students performing at each level. (For summary information on the proficiency levels, see Appendix B.)

At the basic proficiency level, students demonstrate overall understanding and can make some interpretation of text. As shown in

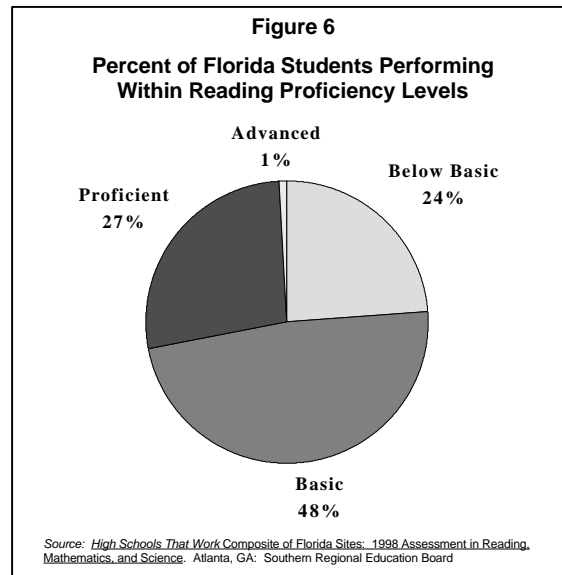


Figure 6, almost half of Florida *HSTW* students tested are reading at the basic level, and almost one-quarter are below basic.

Fewer than one-third of the students tested are proficient in reading, and only 1% are at the advanced level, where they can describe abstract ideas and analyze both the meaning and the form of text.

Students were asked how often they were given challenging assignments by their teachers that emphasized reading. Following is the percent of students who indicated they were given these assignments at least “several times a year”:

<i>Reading technical manuals to complete assignments</i>	68%
<i>Reading a book outside class and reporting major ideas</i>	50%
<i>Reading an assigned book or article on science</i>	41%
<i>Writing a major research paper</i>	24%

When asked their perception about the importance given to reading by their vocational teachers, almost half (47%) of the students indicated that it was never or seldom stressed, indicating that reading is not emphasized enough and that expectations of students need to be higher.

It was noted earlier that fewer than 40% of students are meeting the curriculum goals in English. However, in the 1998 assessment, students who took academic English score higher than students who took basic, general, or applied English. As more students are encouraged to complete an upgraded academic core curriculum, reading performance should improve.

MATHEMATICS

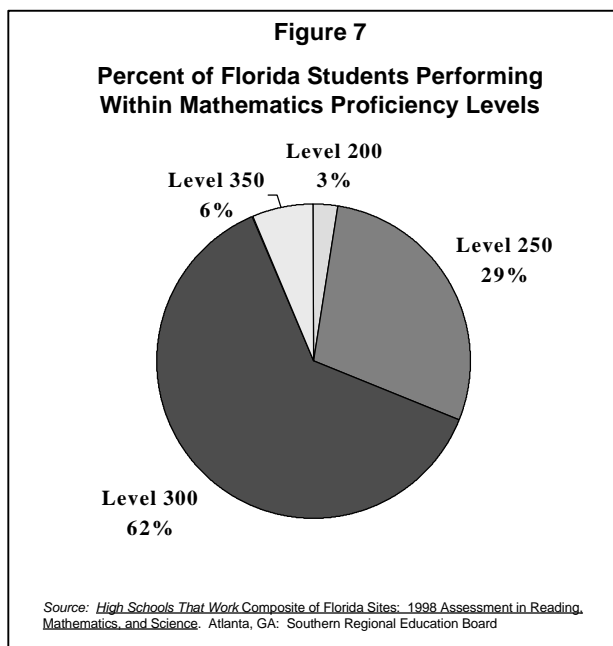
Table 3 shows the mean mathematics score, with the standard error in parenthesis, for key *HSTW* comparison groups. Overall, Florida’s performance in mathematics is strong. Florida’s mean score of 310.8 compares favorably with a score of 297.9 in 1996. The State’s average is higher than the *HSTW* performance goal, significantly higher than that of all high-scoring *HSTW* sites, and only 6 points lower than the NAEP academic sample mean of 316.8.

Table 3. Mathematics Achievement	
Comparison Group	Mean Score (Standard Error)
<i>High Schools That Work</i> Performance Goal	295
NAEP Academic Sample	316.8 (0.4)
Florida Composite	310.8 (0.7)
All High-Scoring <i>HSTW</i> Sites	306.6 (0.2)
All <i>HSTW</i> Sites	298.9 (0.2)
1996 Florida Composite	297.9 (1.1)

Table 4 shows Florida’s mathematics performance disaggregated by student demographic group. Female, Hispanic, and African-American sub-groups scored lower than average in mathematics. White and male student sub-groups scored higher than average. While African Americans students are performing to the *HSTW* goal, their average at 294.8 is much lower than other student groups in Florida.

Demographic Group	Mean Score (Standard Error)
<i>High Schools That Work</i> Performance Goal	295
White Students	317.5 (0.9)
Male Students	314.2 (1.2)
All students	310.8 (0.7)
Female Students	309.4 (0.9)
Hispanic Students	308.1 (1.8)
African-American Students	294.8 (1.6)

Florida’s strong showing in mathematics is also reflected in Figure 7, which gives the percent of students performing at each of the four mathematics proficiency levels. (For summary information on the proficiency levels, see Appendix B.) Almost two thirds, or 62%, of Florida students who participated in the assessment are performing at the third proficiency level, which encompasses reasoning and problem solving with fractions, decimals, and percents as well as basic concepts in Geometry, Statistics, and Algebra. Only 6% of students, however, scored at the highest proficiency level.



Students were asked how often they were given various tasks or assignments by their mathematics teachers. Following is the percent of students who indicated they were given these tasks or assignments at least “several times a year”:

<i>Completed a math project using math in ways similar to a work setting</i>	23%
<i>Used a computer to complete math assignments</i>	16%
<i>Used math to solve actual problems from a vocational class</i>	10%
<i>Made presentation in class about a special math project</i>	8%

As in reading, completing a rigorous academic curriculum is related to better performance on the mathematics achievement test. Students who had taken four or more mathematics courses scored higher on average than students who had taken fewer courses, and students who had taken higher-level algebra, trigonometry, or pre-calculus courses scored higher on average than those who had not. It is interesting to note, however, that fewer than half of students – 43.% - agreed with the statement “I was encouraged to take more challenging math courses.”

SCIENCE

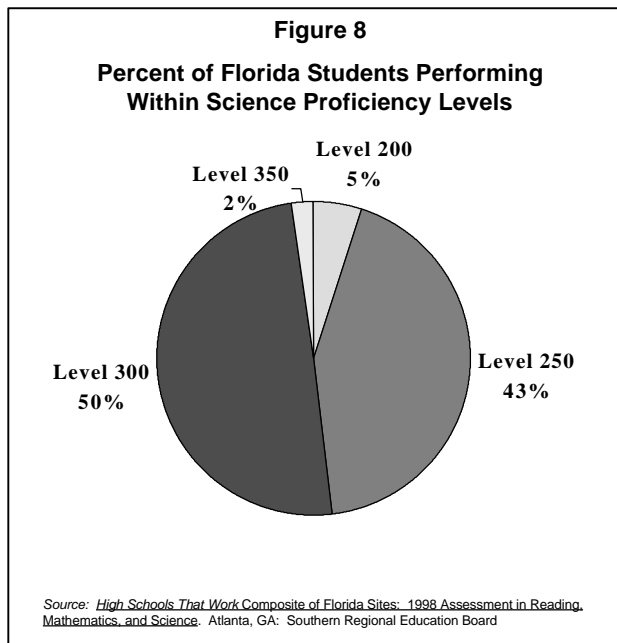
Table 5 shows the mean science score, with the standard error in parenthesis, for key *HSTW* comparison groups. Overall, Florida’s performance in science is improving, with a mean score of 299.5 in 1998 compared to 284.8 in 1996. Florida’s performance is close to that of all high-scoring *HSTW* sites but lower than the NAEP academic sample.

Table 5. Science Achievement	
Comparison Group	Mean Score (Standard Error)
<i>High Schools That Work</i> Performance Goal	292
NAEP Academic Sample	306.8 (0.6)
All High-Scoring <i>HSTW</i> Sites	301.2 (0.2)
Florida Composite	299.5 (0.7)
All <i>HSTW</i> Sites	292.2 (0.2)
1996 Florida Composite	284.8 (0.9)

Table 6 shows that performance in science varies considerably for different student demographic groups. Female, Hispanic, and African-American sub-groups scored lower than average in science. White and male student sub-groups scored higher than average. African American students’ average achievement in science is below the *HSTW* goal and much lower than other student groups in Florida.

Table 6. Science Achievement by Demographic Group	
Demographic Group	Mean Score (Standard Error)
<i>High Schools That Work</i> Performance Goal	292
White Students	307.3 (0.9)
Male Students	304.4 (1.2)
All Students	299.5 (0.7)
Female Students	296.8 (0.9)
Hispanic Students	293.9 (2.0)
African-American Students	282.8 (1.6)

Figure 8 gives the percent of students performing at each of the four science proficiency levels. (For summary information on the proficiency levels, see Appendix B.) At the second proficiency level (250), students can apply general scientific information. Of the students tested, 43% scored at this level. Half of the students (50%) performed at the third proficiency level, where students are able to analyze scientific procedures and data. Only 5% of students performed at the highest proficiency level in science, where they are able to integrate specialized scientific information.



Students were asked how often they were given various tasks or assignments by their science teachers. Following is the percent of students who indicated they were given these tasks or assignments at least “several times a year”:

<i>Completed a science lab assignment concerning a problem in a community or work setting</i>	37%
<i>Prepared a written report about a science subject</i>	29%
<i>Made a presentation in class about a science project</i>	24%

As in reading and mathematics, completing a rigorous academic curriculum is related to better performance on the science achievement test. Students who had taken four or more science courses scored higher on average than students who had taken fewer courses, and students who had taken higher-level algebra, trigonometry, or pre-calculus courses scored higher on average than those who had not. It is interesting to note, however, that fewer than half of students – 41% - agreed with the statement “I was encouraged to take more challenging science courses.”

CONCLUSION

While there is still much progress to be made, the 1998 assessment results show that efforts by Florida *HSTW* schools are paying off in improved student achievement. Florida has increased student achievement in all three subjects: reading, mathematics and science, as shown below:

Test Area	Mean Score		% Meeting Performance Goal		% Meeting Curriculum Goal	
	1998	1996	1998	1996	1998	1996
Reading	286.8 (0.7)	277.5 (0.9)	66%	54%	38%	33%
Mathematics	310.8 (0.7)	297.9 (1.1)	75%	62%	85%	77%
Science	299.5 (0.7)	284.8 (0.9)	62%	47%	63%	52%

Some key strengths shown by the assessment results include:

- Mathematics is Florida's strongest area. Students show the highest proficiency in mathematics, and more students meet the curriculum goals in mathematics. Florida's mean score in mathematics is closer to the NAEP academic sample than in reading or science.
- In general, Florida's performance compares favorably to high-scoring sites in *High Schools That Work*.

Some key challenges are apparent from the 1998 assessment results, including:

- Reading is the weakest area. Many students are reading at basic or below-basic proficiency levels. Fewer students are meeting the English curriculum goals.
- Too little progress is being made in advancing the achievement of some groups of students. The average scores of female students in mathematics, male students in reading, and African-American students in all subject areas are not improving. In particular, the needs of African-American students, as compared to other groups, are not being met.
- In addition to emphasizing more higher-level courses for students, students need to be given more challenging assignments and be taught in more relevant ways.

This report has presented summary findings from the full report on the *High Schools That Work* 1998 student assessment. The full report (see References) is a rich source of data on student achievement and experiences, and the reader is encouraged to refer to that report for further information and study. For questions or comments regarding this report, please contact the Institute for Workforce Competitiveness at Florida International University.

REFERENCES

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APPENDIX A: FLORIDA SCHOOLS IN THE 1988 ASSESSMENT¹

District	School	Volume Ordered ²
Broward	Dillard High School	60
Broward	Fort Lauderdale High School	60
Broward	Miramar High School	60
Broward	South Broward High School	60
Broward	J. P. Taravella High School	60
Broward	Flannagan High School	60
Charlotte	Charlotte High School	60
Charlotte	Lemon Bay High School	60
Charlotte	Port Charlotte High School	60
Dade	Miami Beach Senior High School	60
Escambia	Pine Forest High School	60
Hamilton	Hamilton County High School	60
Hillsborough	Leto High School	80
Hillsborough	Tampa Bay Tech High School	100
Indian River	Sebastian River High School	160
Indian River	Vero Beach High School	60
Manatee	Manatee High School	80
Marion	Bellevue High School	60
Marion	Forest High School	60
Marion	North Marion High School	60
Martin	Martin County High School	60
Martin	South Fork high School	60
Okeechobee	Okeechobee High School	60
Orange	Apopka High School	60
Orange	William R. Boone high School	60
Orange	Colonial High School	60
Orange	Dr. Phillips High School	60
Orange	University High School	60
Orange	West Orange High School	60
Orange	Winter Park High School	60
Orange	Maynard Evans High School	60
Orange	Jones High School	60
St. Lucie	Fort Pierce Central High School	60
St. Lucie	Fort Pierce Westwood High School	60
St. Lucie	Port St. Lucie High School	60
St. Lucie	Lincoln Park Academy	20
Wakulla	Wakulla High School	69
	TOTAL	2369

¹ Most of these schools also participated in the 1996 *HSTW* assessment. St. Cloud, Frostproof, Mainland, New Smyrna, Osceola, Lyman, and McArthur participated in the 1996, but not in 1998. Forest, North Marion, Maynard Evans, Jones, Lincoln Park, and Flannagan were new *HSTW* sites in the 1998 assessment.

² This column gives the number of tests ordered by each *HSTW* site. The total is greater than the 1,554 vocational completers reported in the *Composite of Florida Sites* report because some schools may not have used all tests ordered, and/or may have tested other students than vocational completers, and/or may have had unusable test data.

APPENDIX B: LEVELS OF PROFICIENCY

The proficiency levels are defined levels of performance for each of the three subject areas in the *HSTW* assessment, as determined by NAEP subject matter experts. Following are brief descriptions of the proficiency levels. A more detailed description of skills at each proficiency level is given in the 1998 Assessment Report.

Reading Proficiency Levels:

Basic Level (269) - Overall understanding and make some interpretation of text

Proficient Level (304) - Overall understanding of text including inferential and literal information

Advanced Level (348) - Describe abstract themes and ideas - analyze both meaning and form of text and extend information to new situations

Mathematics Proficiency Levels:

Level 200 - Addition and Subtraction, and Simple Problem Solving with Whole Numbers.

Level 250 - Multiplication and Division, Simple Measurement, and Two-Step Problem Solving.

Level 300 - Reasoning and problem solving involving fractions, decimals, and percents, and elementary concepts in Geometry, Statistics and Algebra

Level 350 - Reasoning and problem solving involving geometric relationships, Algebra, and Functions

Science Proficiency Levels:

Level 200 - Understands Simple Scientific Principles

Level 250 - Applies General Scientific Information

Level 300 - Analyzes Scientific Procedures and Data

Level 350 - Integrates Specialized Scientific Information