

Evaluation of the Florida Tax Credit Scholarship Program  
Participation, Compliance and Test Scores in 2011-12

David N. Figlio  
University of Florida  
Northwestern University  
and  
National Bureau of Economic Research

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## **Executive summary**

This is the sixth in a series of reports evaluating the Florida Tax Credit Scholarship (FTC) Program, as required by the Florida Statutes, s. 1002.395(9)(j). This report provides information on private school compliance with program rules regarding required testing, describes the attributes of eligible students who participate in the program, and presents data on student test score levels and gains in the program (as well as school-level gain scores), the performance of participating students prior to their entry into the program, and the performance of participating students once they leave the program to return to the public sector.

During the 2011-12 academic year, David Figlio, the Project Director, collected test score data from private schools participating in the FTC Program in real time. This is the sixth year for which program participants' test score data were collected, and the fifth year in which this data collection occurred in real time.

### Compliance with program testing requirements, 2011-12:

- Compliance with program testing requirements in 2011-12 was at its highest level to date, and private school reporting errors continue to be at very low levels. Private schools provided usable test scores for a record 96.4 percent of program participants in grades 3-10. Another 2.5 percent of participants were ineligible for testing or were not enrolled in the school at the time of testing; this is largely driven by the fact that some students arrived in schools after fall testing (for schools that test in the fall, principally those that administer the Iowa Test of Basic Skills) and some students who began the year in a school left the school prior to the more typical spring testing. The 0.9 percent rate of reported illness/absence remains at a very low level. Test administration compliance errors by participating schools have held steady for the last several years, with reporting problems involving only 0.3 percent of participants in 2011-12.
- A large majority, though lower than prior years (57.5 percent), of test-takers took the Stanford Achievement Test. Other popular tests were the Iowa Test of Basic Skills (22.5 percent) and the TerraNova (12.1 percent). Substantially larger numbers of schools administered Terra Nova in 2011-12 than in prior years.
- Scholarship students whose test scores were received are modestly more advantaged than are those scholarship students whose scores were not received. It is not known whether the gains of those without score reports would have been higher or lower than those with score reports.

### Differential program participation rates for different groups of students and families:

- Program participants tend to come from less advantaged families than other students receiving free or reduced-price lunches.
- As in prior years, program participants tend to come from lower-performing public schools prior to entering the program. Likewise, as in prior years, they tend to be among the lowest-performing students in their prior school, regardless of the performance level

of their public school. The tendency for the weakest prior performers on standardized tests to choose to participate in the FTC Program is becoming stronger over time.

- FTC Program participants who return to the public sector tend to be those who were struggling the most in their private schools. This is consistent with an explanation that families with struggling students are more likely to change schools than do families with thriving students.
- Participating students who return to the public sector appear to be lower-performing than other low-income students, but all available evidence indicates that these differences are not due to participation in the FTC Program. Rather, the evidence suggests that returning students are performing at about the same level as they would have been expected to perform had they not participated in the FTC Program.

Test scores of program participants, 2011-12:

- The typical student in the program scored at the 46th national percentile in reading and the 45th percentile in mathematics, about the same as in the last several years. The distribution of test scores is similar whether one considers the entire program population or only those who took the Stanford Achievement Test in the spring of 2010. The Stanford Achievement Test is the most commonly administered test and is the test most directly comparable to the FCAT.
- The mean gain for program participants is -0.2 national percentile ranking points in reading and -2.4 national percentile ranking points in mathematics. These mean gains are indistinguishable from zero, though the average math gain is lower than in prior years. The difference (though still statistically insignificant) in math gains from prior years can be explained by the fact that a number of schools changed their testing regimes between 2010-11 and 2011-12, and small fallbacks in measured achievement are generally observed in these cases. In other words, the typical student participating in the program gained a year's worth of learning in a year's worth of time. It is important to note that these national comparisons pertain to all students nationally, and not just low-income students.
- Because of changes in public school testing regimes – specifically, no student taking FCAT 2.0 has ever taken a norm-referenced test administered by the state -- it is no longer advisable to directly compare FTC Program participants' test score gains to public school gains.
- This report marks the second time that individual schools' test score gains have been reported for schools with 30 or more students with gain scores. Eighty-eight schools met this criterion in 2011-12.
- It is important to keep in mind recent statistical research that has shown that the FTC Program has improved the performance of Florida public schools to a modest degree. Therefore, the author continues to believe, based on the available evidence, that the FTC Program has been moderately beneficial to students of the state of Florida overall.

## **I. Background**

This is the sixth in a series of reports evaluating the Florida Tax Credit Scholarship Program, as required by the Florida Statutes, s. 1002.395(9)(j). This report provides information on private school compliance with program rules regarding required testing, describes the attributes of eligible students who participate in the program, presents data on student test score levels and gains in the program, as well as school-level gain scores, and presents evidence regarding the performance of program participants once they return to public schools in Florida. Unlike those produced in prior years, this report does not make direct comparisons between test scores of program participants and non-participating students in Florida public schools because public school students no longer take a test that can be credibly compared with the national norm-referenced test scores collected for program participants.<sup>1</sup>

The Florida Department of Education first awarded a contract to the University of Florida as the Independent Research Group and Professor David Figlio as the Project Director in October 2007 to collect program participants' test scores directly from the private schools. Therefore, the first year in which test score data collection could take place in real time was the 2007-08 academic year; data from the 2006-07 academic year, the first year in which testing was required, could only be collected retrospectively from

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<sup>1</sup> Through the 2007-08 school year, all Florida public school students in grades three through ten took both the Florida Comprehensive Assessment Test (FCAT) and a nationally norm-referenced test, the Stanford Achievement Test, which is by far the most dominant norm-referenced test selected by participating private schools. This made it possible to conduct a concordance analysis between FCAT scores and Stanford scores. Now public school students take a different test, the FCAT 2.0, and no students take both the FCAT 2.0 and any national norm-referenced test. While the Florida Department of Education has produced crosswalks between FCAT 2.0 and the original FCAT for the purposes of score comparisons, it is the professional judgment of the author that without a direct concordance between FCAT 2.0 and a national norm-referenced test it is untenable to make direct public versus private school comparisons as was done in prior years.

private schools. It was unclear at the time the degree to which the 2006-07 academic year would make an acceptable baseline for evaluation, but it was decided that to accelerate the possibility of providing concrete information regarding testing and compliance amongst participating schools an attempt would be made to retrospectively collect as complete information from 2006-07 test scores as possible. The results of that effort were presented in the program report dated March 2008. Later reports, released in June 2009, June 2010, August 2011, and August 2012, presented data from the 2007-08, 2008-09, 2009-10, and 2010-11 academic years, with the 2010 report being the first to present gain scores for program participants where all test scores were collected in real time.

This report presents the results of the real-time test score collection in 2011-12. This report details key information about program participation and test scores. By Florida Statute, this report also presents information on test score gains disaggregated to the individual private school level for all schools with a sufficiently large number -- defined statutorily as 30 or more -- gain scores collected.

## **II. Test score collection in 2011-12**

### *Data collection protocol*

As required by s. 1002.395(8)(c)(2), participating schools administered to students an approved nationally norm-referenced test as identified by the Florida Department of Education, including the Stanford Achievement Test, Basic Achievement Skills Inventory, Metropolitan Achievement Test, Iowa Test of Basic Skills, Terra Nova,

or the Preliminary Scholastic Aptitude Test and ACT/PLAN (for students in high school grades) or made provisions for participating students to take the FCAT at a public school in accordance with s. 1002.395(7)(e).

The 2011-12 academic year was the fifth year in which it was possible to collect participant test score data in real time. Pursuant to s. 1002.395(8)(c)(2), in Fall 2011 and again throughout Winter and Spring 2012 the Independent Research Organization contacted the 1,013 private schools that had participating students in grades three through ten during the 2010-11 school year, as reported on the October roster of program participants. The Florida Department of Education and Step Up for Students provided the Project Director with a list of all participating students in 2011-12, as of the December participant roster; of these, 19,284 were in the relevant grades, according to state and Step Up for Students records. Schools were provided lists of the relevant students and were instructed to submit test scores to the Independent Research Organization. Schools were also informed that they must provide explanations for any missing or invalid student test scores.

#### *Private school compliance*

In over 99 percent of cases, schools submitted photocopies of official score sheets provided to them by the relevant testing company (e.g., Pearson Assessments). In a small number of schools, the schools scored the tests themselves and forwarded to the Project Director detailed information regarding the nature of test administration and scoring. The Independent Research Organization followed up with schools that had provided partial or incomplete data, or that did not provide data regarding students who had attended school

in the relevant grades but for whom no valid test score was received. Upon receipt of the test scores, the Project Director and his staff double-entered, audited and reconciled the scores, and once the scores were confirmed, the original score sheets were destroyed and the resulting electronic databases stored in accordance with s. 1002.22(3)(d)(5) of the Florida Statutes. These data were then matched with student FCAT, public schooling, subsidized lunch and disability history, when available, from the Education Data Warehouse, and with information from student scholarship applications provided by the Scholarship Funding Organizations, and then were stripped of individual identifiers such as names, social security numbers or birthdates, for the purposes of analysis.

Of the 1,013 schools with students in the relevant grades in 2011-12, the overwhelming majority provided evidence of test administration according to the specifications of the program. Two participating schools, serving nine testing-eligible students, closed following the 2011-12 school year and did not provide test scores to the Project Director. In a handful of other cases<sup>2</sup>, the schools neglected to administer tests to or report scores for some or all participating students; in the case of the small number of non-compliant schools, the Project Director reported the schools to the Florida Department of Education for disciplinary action.

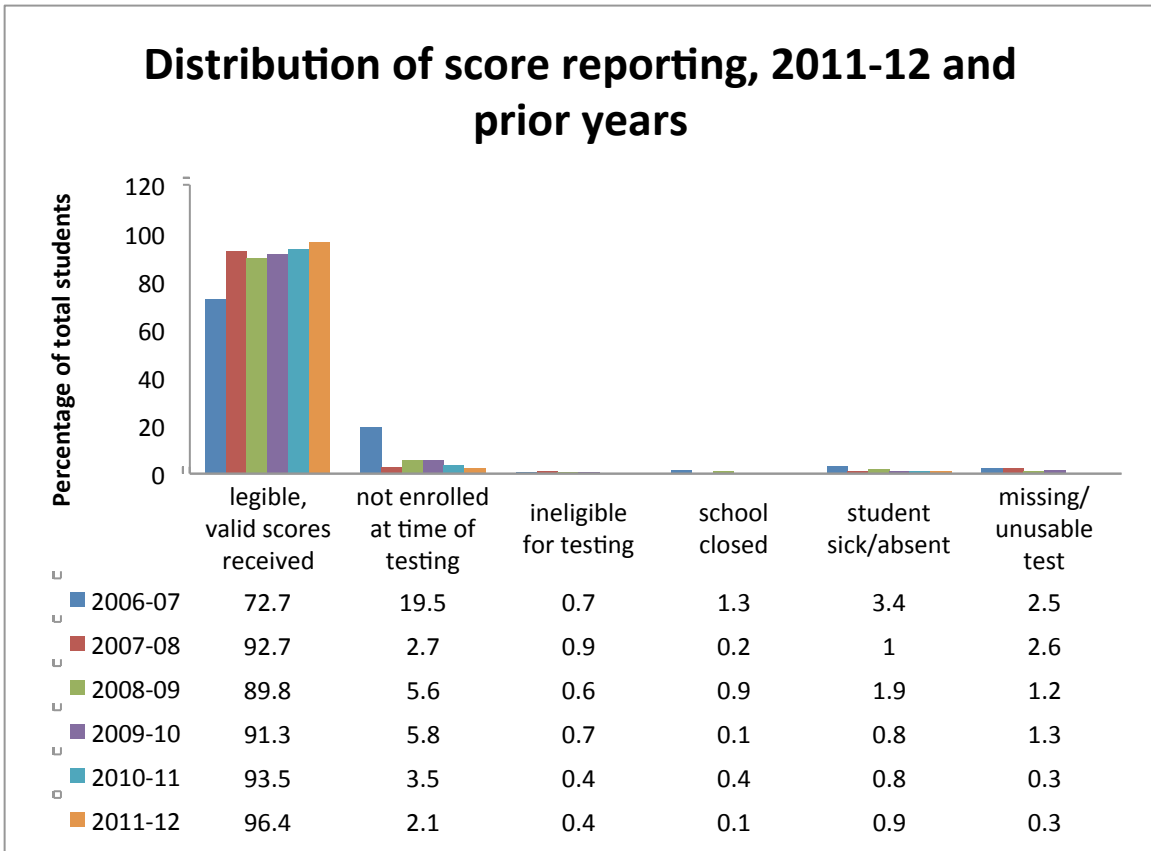
Of the 19,284 students in relevant grades participating in the program in 2011-12, the Independent Research Organization received valid, legible test scores for 18,583 students, or 96.4 percent of all expected students;<sup>3</sup> all of these scores were from tests

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<sup>2</sup> Five schools had reporting errors of any type for three or more students; the maximum was eleven reporting errors. One other school had reporting errors of any type for two students. Twenty-one schools had reporting errors for a single student.

<sup>3</sup> We received three additional test scores following the January 20, 2013 date in which we merged score records with school records. This report considers these three test scores to be “missing/unusable tests” because they cannot be merged with the state records for the purposes of this analysis.

administered by the private schools themselves. This is the highest rate received to date; we suspect that this is due to continuously-improving roster reporting systems put into place by Step Up for Students as well as ever-improving private school understanding of testing and reporting requirements.



Augmenting the 96.4 percent of students for whom we received legible, valid scores in 2011-12 are the 2.1 percent of students who were not enrolled at the time of testing – 1.9 percent left before the school tested students, 0.2 percent arrived after the school tested students -- and the 0.4 percent of students on the official roster who were either deemed ineligible for test score reporting pursuant to s. 1002.395(8)(c)(2) or were not enrolled in the school identified on the official rosters. As in prior years, two schools



(representing less than 0.1 percent of potentially eligible students) closed before reporting their scores in 2011-12. Taken together, the percentage of students in 2011-12 with either legible, valid score reporting or one of these other explanations was 98.8 percent, above the 98.4 percent in 2010-11, 97.9 percent in 2009-10, the 96.9 percent in 2008-09, and the 96.5 percent in 2007-08. Only 1.2 percent of students had either a missing or unusable test or were reported to be sick or absent. The category of "missing or unusable tests" includes the school providing test scores that were illegible, not providing scores that could be compared with national norms, testing students using an unapproved test, or failing to test students at all.<sup>4</sup> The percentage of schools falling into these categories continues to fall with each successive round of testing, implying that private school compliance with the testing requirements continues to improve. The small number of remaining expected scores not accounted for in any of these categories are from schools that the Florida Department of Education removed from the program due to non-compliance in testing or other reasons.

Of the students who have taken tests that were reported to the Independent Research Organization, 100 percent took a test approved by the Florida Department of Education. The plurality of the students (57.5 percent) took the Stanford Achievement Test, while another 22.5 percent took the Iowa Test of Basic Skills and 12.1 percent took the Terra Nova test. The other students took a number of other tests, most notably the PSAT/NMSQT, taken by 2.0 percent of students, the ACT/PLAN, taken by 1.9 percent of students, the Basic Achievement Skills Inventory, taken by 1.6 percent, the Educational Records Bureau test, taken by 1.1 percent, the Measures of Academic Progress, taken by

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<sup>4</sup> In 2011-12, for the first time ever, no schools administered an unapproved test.

0.5 percent, and the Metropolitan Achievement Test, taken by 0.3 percent. 0.5 percent took other approved tests.

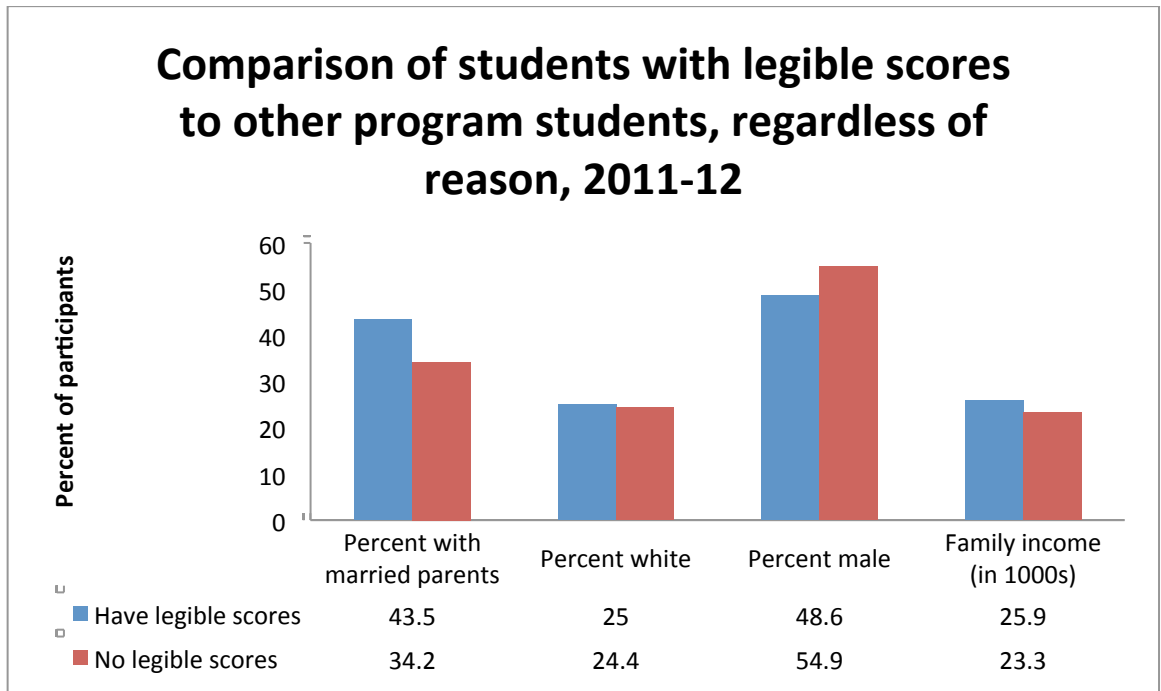
The Stanford test, while still by far the most common test administered, was less dominant than in past years: The 57.5 percent taking the Stanford test in 2011-12 compares with 69.2 percent in 2010-11, 69.0 percent in 2009-10, 68.8 percent in 2008-09, 70.7 percent in 2007-08, and 66.9 percent in 2006-07. Most of the decline in the Stanford test's relative plurality is reflected in growth in the Terra Nova test, which was taken by 12.1 percent in 2011-12, as compared with between 3.3 percent and 4.0 percent in prior years. Amongst individual students taking the Stanford test in 2010-11 (and remaining in the program in a tested grade in 2011-12), 83.0 percent took the Stanford test again in 2011-12, while 13.6 percent took the Terra Nova test in 2011-12

Schools have flexibility as to when they administer their exams, and around 10 percent of participating students took their exam in the fall months. The tests most typically taken in the fall months are the PSAT/NMSQT and the Iowa Test of Basic Skills. This percentage is also a change from prior years; prior to 2011-12, Florida Catholic schools nearly uniformly assessed students in October using the Iowa Test of Basic Skills. In 2011-12, only 23.7 percent of students taking the Iowa Test of Basic Skills took the test in the fall, while 62.1 percent took the test in March, 7.4 percent in April, and 5.6 percent in May. This differs dramatically from 2010-11, when 84.9 percent took the Iowa test in October, while 5.1 percent took the test in March, 5.6 percent in April, and 4.0 percent in May. This change in test administration dates is not a cause for concern, however, because students are nationally normed in the Iowa Test of Basic Skills based on the month in which they took the test; therefore, schools changing the

timing of their testing is not evidence of “gaming” or other manipulative behavior for the purpose of increasing measured gains relative to national norms.

*Similarity of students with received legible tests to the overall scholarship population*

In 2011-12, the rate of successful test reporting remained at the high levels of previous years. However, as mentioned above, 3.6 percent of the potentially-tested population of students was not tested (due in large part to students arriving at school after testing or – especially -- leaving a school before testing, or to students being sick or absent during the testing period), so it is important to gauge whether the students whose test scores were successfully reported are comparable to the overall population of students enrolled in the scholarship program at any time during 2011-12.



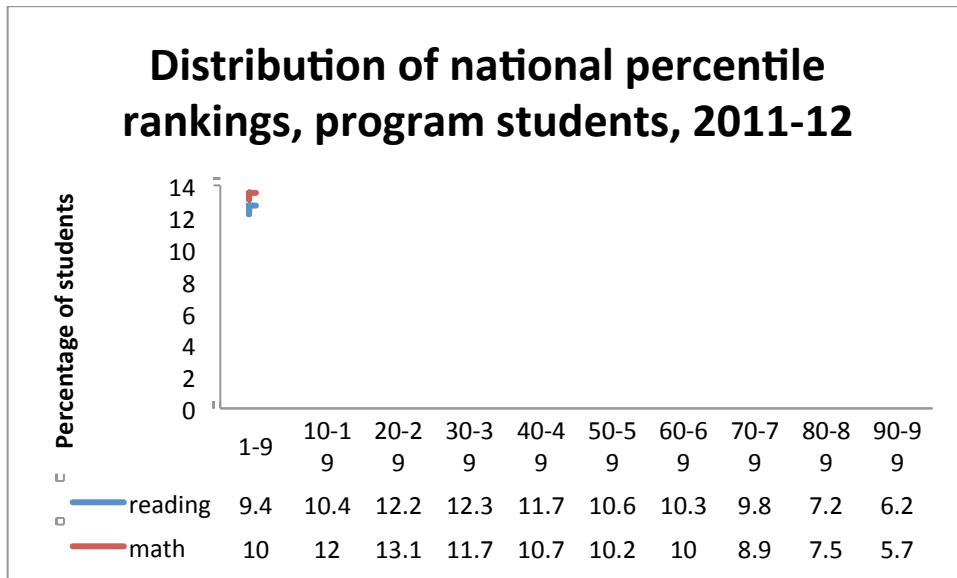
As can be seen from the accompanying figure, there is evidence that students whose test scores were successfully reported are somewhat more advantaged than other program participants whose scores were not successfully reported, based on data from the

families' scholarship applications. Students whose scores were successfully reported come from families with modestly higher incomes, with parents considerably more likely to be married, and are slightly more likely to be white, than are students whose scores were not successfully reported, for whatever reason. Girls are more likely to have legible scores than are boys. These differences may have been expected, as highly transient students are likely to be less advantaged, and are more likely to have not been tested because they changed schools. However, even among students who were still in the school at the time of testing, those missing score reports (either because they were ill or absent or because of another reporting error) tend to be less advantaged (with family incomes averaging \$22,791 versus \$25,904 for those with received tests), with unmarried parents (32 percent married versus 43 percent married), and nonwhite (20 percent white versus 25 percent white). These differences, therefore, underscore the importance both (1) of obtaining as full a collection of test score data as possible, and (2) of measuring student test score gains. It is not obvious that students with missing test scores would have had higher or lower gain scores than those with test scores available. It is also important to note that while public school records do not include data on family income or parental marital status, we observe that those missing public school test scores are also more likely to be nonwhite and eligible for free or reduced price lunches.

### **III. Test scores of 2011-12 program participants**

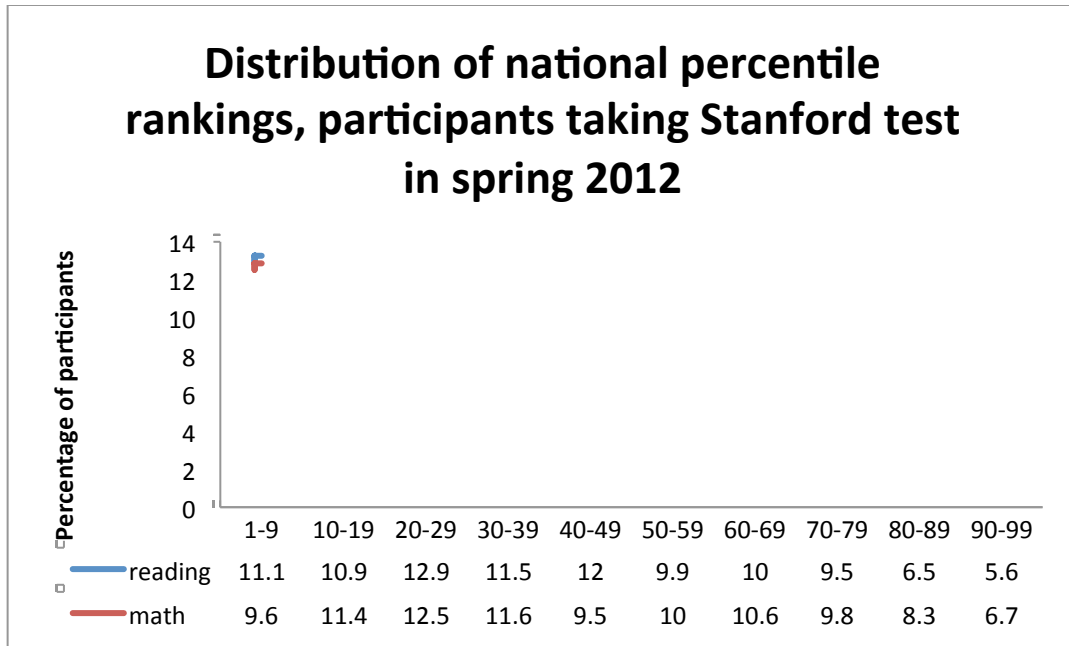
Because program participants may take any number of nationally norm-referenced tests and because private schools have some flexibility in the form in which these test scores are reported and the time of year the test is administered, the only way to ensure reasonable comparability across schools and program participants is to report

national percentile rankings. National percentile rankings are desirable because they are compared against a nationally-representative group of students; so long as the national norms for one test (such as the Stanford Achievement Test) are comparable to the national norms for another test (such as the Iowa Test of Basic Skills) then there is no inherent bias associated with comparing the national percentile rankings of one student taking a certain test to those of another student taking a different test.



The chart above presents the basic distribution of national percentile rankings among FTC students participating in the program in 2011-12. The typical student in the program scored at the 46th percentile in reading and the 45th percentile in mathematics. This is unchanged from 2007-08, 2008-09, 2009-10, or 2010-11 -- the mean national percentile rankings have varied by less than one percentile point in every year since real-time test score collection began. Were the distributions to be limited to those taking the Stanford Achievement Test in the spring -- a distinction made in prior reports because this test was most similar to that taken by public school students -- the typical student would have scored at the 44th percentile in reading and the 46th percentile in mathematics,

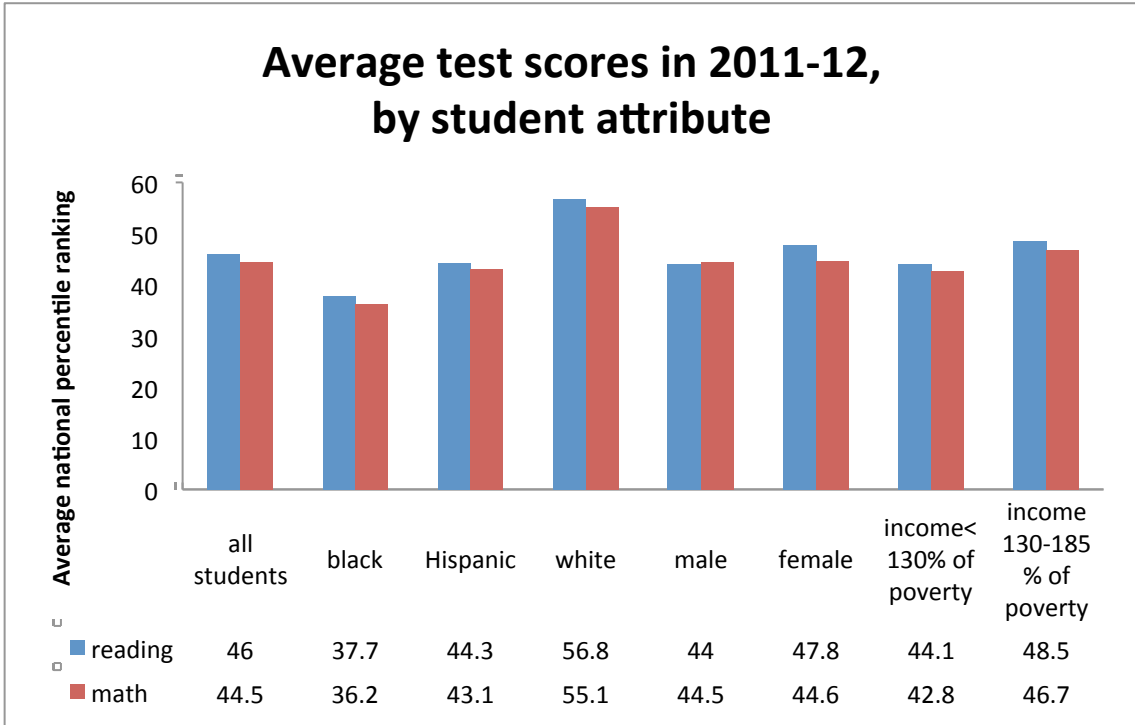
virtually the same as in prior years, despite the change in the percentage of students in the program taking the Stanford test in 2011-12 versus prior years. The fact that these distributions are so similar to prior years lessens the concern that test-switching away from the Stanford test is due to manipulative behaviors on the part of schools.



This sentiment that year-to-year test changes at the school level are not due to schools wishing to “game the system” is reinforced by the similarity of *prior years’* test performance of students in test-switching schools: Schools that switched tests from 2010-11 to 2011-12 averaged in the 48<sup>th</sup> percentile in reading and math in 2010-11, while those that did not switch tests averaged in the 46<sup>th</sup> percentile in reading and 47<sup>th</sup> percentile in math. The schools that switched from the Stanford to Terra Nova – the single biggest change from year to year – tended to be relatively high-scoring schools: Those that switched from Stanford in 2010-11 to Terra Nova in 2011-12 averaged in the 54<sup>th</sup> percentile in reading and 55<sup>th</sup> percentile in math in 2011-12, as compared to the 45<sup>th</sup> percentile in reading and 47<sup>th</sup> percentile in math for schools that maintained Stanford

testing between the two years. Likewise, those schools, largely Catholic, that moved their Iowa testing from the fall to the spring between 2010-11 and 2011-12 averaged in the 50<sup>th</sup> national percentile in reading and 45<sup>th</sup> percentile in math in 2010-11, considerably above the 44<sup>th</sup> percentile in reading and 37<sup>th</sup> percentile in math for schools that administered the Iowa test in fall 2010 and fall 2011. Taken together, the evidence suggests that schools that made testing changes between 2010-11 and 2011-12 – either changing the test or the timing of the test – were relatively *high-performing*, rather than relatively low-performing.

The chart below presents average norm referenced test scores, expressed in terms of national percentile rankings, for various subsets of the FTC Scholarship recipient population, stratified by race, sex, income, and parental marital status. Income is expressed in terms of fraction of the poverty line, to reflect the fact that families of different sizes have different official measures for poverty; those with family incomes below 130 percent of the federal poverty line are eligible for free school meals, while those with incomes between 130 and 185 percent of the poverty line are eligible for reduced-price meals. As can be observed in the next table, white participants tend to score better than do minority participants, females tend to perform better than do males (in reading), students with married parents tend to score better than do students with unmarried parents, and relatively high-income families tend to score better than do relatively low-income families. These averages are quite similar to the figures presented in previous years' reports.

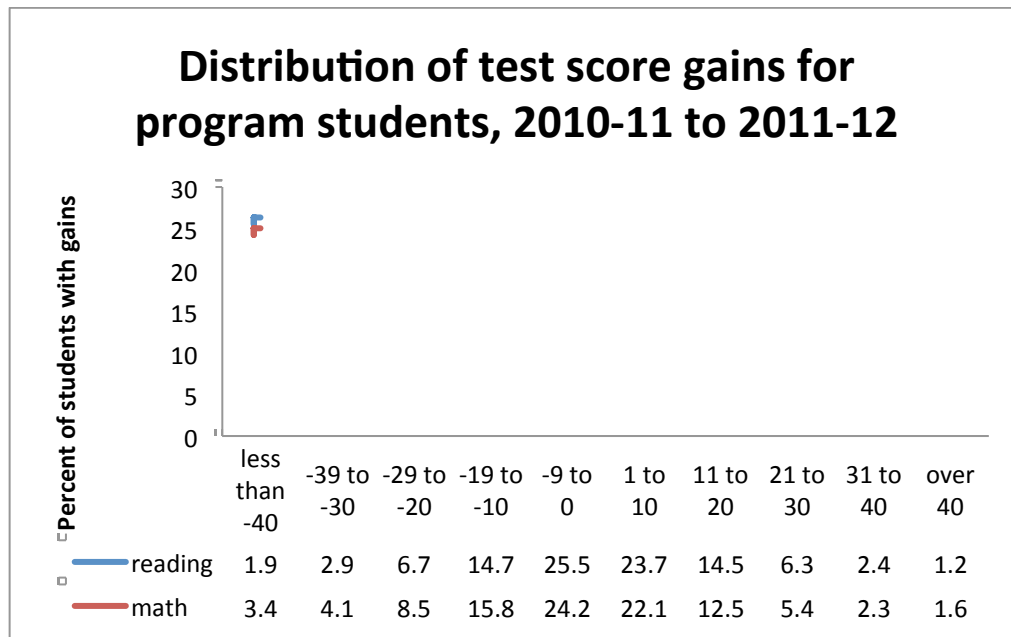


*Test score gains for FTC Scholarship program participants*

The relevant statutes call for comparisons of test score gains for FTC Scholarship Program students to similar students in public schools. Because the test scores in both 2010-11 and 2011-12 are measured in terms of national percentile rankings, gain scores can only be interpreted as changes in national percentile rankings, and are, therefore, subject to issues regarding ceiling effects (where students whose scores are already in the high percentiles cannot gain much more) and floor effects (where students whose scores are already in the low percentiles cannot lose much more ground.) Ceiling and floor effect concerns are mitigated for students whose initial national percentile ranking falls in the middle portions of the initial test score distributions, which is the case for the vast



majority of students participating in the FTC Scholarship Program (as well as in the public schools.)



The chart above presents information on the distribution of program participants' test score gains in reading and mathematics for the set of 11,173 students with legible reading scores and 11,175 students with legible mathematics scores in both 2010-11 and 2011-12. The mean gain for program participants is -0.2 national percentile ranking points in reading and -2.4 national percentile ranking points in mathematics, numbers that are extremely similar in reading and slightly worse in math, but statistically indistinguishable in all cases, from past years' average gains scores.<sup>5</sup> In other words, the typical student participating in the program tended to maintain his or her relative position in comparison with others nationwide. A test score gain of zero, in this context, means that the typical student in the FTC Scholarship Program achieved a year's worth of learning in a year's time. It is important to note that these national comparisons pertain to

<sup>5</sup> Prior years' average reading gains (from 2008-09, 2009-10, and 2010-11) range from -1.2 to 0.0 national percentile ranking points and prior years' average math gains range from -1.7 to -0.9 national percentile ranking points.

all students nationally, and not just low-income students -- the students eligible to participate in the FTC Scholarship Program. It is also important to note that while the typical gain in national percentile rankings compared with the nation as a whole is essentially zero for program participants, this statistic masks considerable variation in individual students' gains. For instance, 11.5 percent of students participating in the program lost 20 or more percentile points in reading relative to the nation as a whole between 2010-11 and 2011-12, while 9.9 percent of program participants gained more than 20 percentile points in reading over this same time period. The corresponding figures for mathematics are 16.0 and 9.3 percent, respectively. Furthermore, these comparisons are extremely similar to past years when limited to students taking the Stanford Achievement Test during the spring: 0.3 national percentiles in reading and -0.2 national percentiles in mathematics. Put differently, no matter how one aggregates the test score gains, the typical participating student gained approximately a year's worth of learning in a year's time.

Even though the average math gain is statistically indistinguishable from prior years' math gains, the fact that it is numerically modestly smaller than in years past raises questions about potential explanations for the slight decline. One potential explanation is the substantial change in testing that took place in 2011-12; if schools moved to tests with moderately different national distributions, this could be reflected in the gain scores. There is reason to believe that this is the case, as Stanford gain scores are virtually identical to the previous year (2011-12 gain scores average 0.3 percentiles in reading and -0.2 percentiles in math, nearly the same as 0.3 percentiles in reading and -0.5 percentiles in math in 2010-11) and slightly better than the years prior (reading gains on the Stanford

test were -1.5 in 2009-10 and -0.2 in 2008-09, and math Stanford gains were -1.1 in 2009-10 and -1.0 in 2008-09.) On the other hand, average gains for schools that switched from Stanford to Terra Nova were -1.7 percentiles in reading and -7.9 percentiles in math. Likewise, schools that maintained the Iowa test at the same time of the year gained an average of -0.3 percentiles in reading and -1.3 percentiles in math, while those that moved their Iowa testing from fall to spring gained an average of 0.1 percentile in reading and -6.2 percentiles in math. In summary, it appears that the slightly (though statistically insignificantly) more negative gains in math in 2011-12 as compared with prior years can be explained by a sizable number of schools changing their testing regimes in 2011-12, and therefore being considered against new national norms. This will be an area to watch in 2012-13; it will take several years to see whether this explanation is completely accurate.

#### **IV. Individual school average gain scores, 2010-11 to 2011-12**

Beginning with last year's report, the Florida statutes require that average student gain scores be reported for schools with 30 or more participating students with gain scores. Average gain scores are only a single indicator of a school's quality, so should not be interpreted as definitive measures of a school's performance, but rather as one of a large number of ways in which a school could be evaluated. The Appendix Table reports the average gain scores for the 88 schools with sufficiently large numbers of students to qualify them for public reporting. School average gain scores are reported for reading, mathematics, and combined (the average of reading and mathematics.) The combined score is especially informative in cases such as this where average scores are based on a

reasonably small number of observations. In addition to presenting the one-year gain scores for 2011-12, the Appendix Table presents the average gain scores over three years, from 2009-10 through 2011-12.

The rationale behind including the three-year moving average of gain scores is that while an average gain score in a single year is one potential indicator of school quality, it is an extremely noisy measure of a school's contribution to student test scores, and the likelihood that noise is dominating the measured gain scores increases the smaller the number of student gains that are being considered. As an example of how average gain scores in a single year can be misleading, consider a school whose students performed idiosyncratically well in 2010-11. That school is likely to experience a negative average gain score in 2011-12 because it is doubtful that the school will have an idiosyncratically positive performance two years in a row. (The same is true, of course, in reverse for schools with students who performed unusually poorly in 2010-11, and for whom we expect a "bounce back.") This phenomenon is called "regression to the mean," and it is very prevalent in situations such as this.<sup>6</sup>

There are no sure-fire solutions to the faulty inference caused by regression to the mean, but one way to minimize the effects of the phenomenon is to average gain scores across several years. Doing so both adds extra observations -- reducing the potential for a small number of student gain scores to drive the average -- as well as balances out idiosyncratically positive and idiosyncratically negative scores over time. A multi-year moving average, therefore, provides a more accurate measure of a school's contribution to student test scores than a single gain score measure in cases where relatively small

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<sup>6</sup> Regression to the mean is less of a concern in the case of public schools because public schools tend to have many more measured gain scores than do the private schools participating in the FTC Scholarship Program.

number of gains scores are evaluated. The benefit of presenting both the one-year average gain score and the three-year average of gain scores becomes apparent when one observes that there are occasionally schools with very strong gain scores in 2011-12 that do not reflect the longer-term sustained gain scores of students in the school, as well as schools with very weak gain scores in 2011-12 that are unrepresentative of the longer-term averages. Therefore, one-year average gain scores should be treated extremely cautiously.

Because the three-year moving average is the more reliable measure of a school's average gain scores, the schools are rank-ordered from highest average combined gain in reading and mathematics to lowest average combined gain using the three-year measure. It is important to note that schools near one another in the ranking cannot be statistically differentiated from one another. Rather, we identify the schools with average gain scores that are statistically distinguishable from zero (at the 95 percent level of confidence in a two-tailed test), either positively or negatively, by highlighting the cell where the average gain score is reported. Put differently, if a school is reporting having statistically positive estimated gains, that means that one can be at least 95 percent confident that the school's students achieved more than a year's gain in a year's time. (For schools with statistically negative estimated gains, this suggests that one can be at least 95 percent confident that the school's students achieved less than a year's gain in a year's time.) Beside every school's average combined gain score is its average math gain score and its average reading gain score. Recall that an average gain score of zero does not imply that students are not gaining; rather, an average gain score of zero means that students are maintaining

their position relative to the national average, or, in other words, achieving a year's gain in a year's time.

## **V. Attributes of New Program Participants in 2011-12**

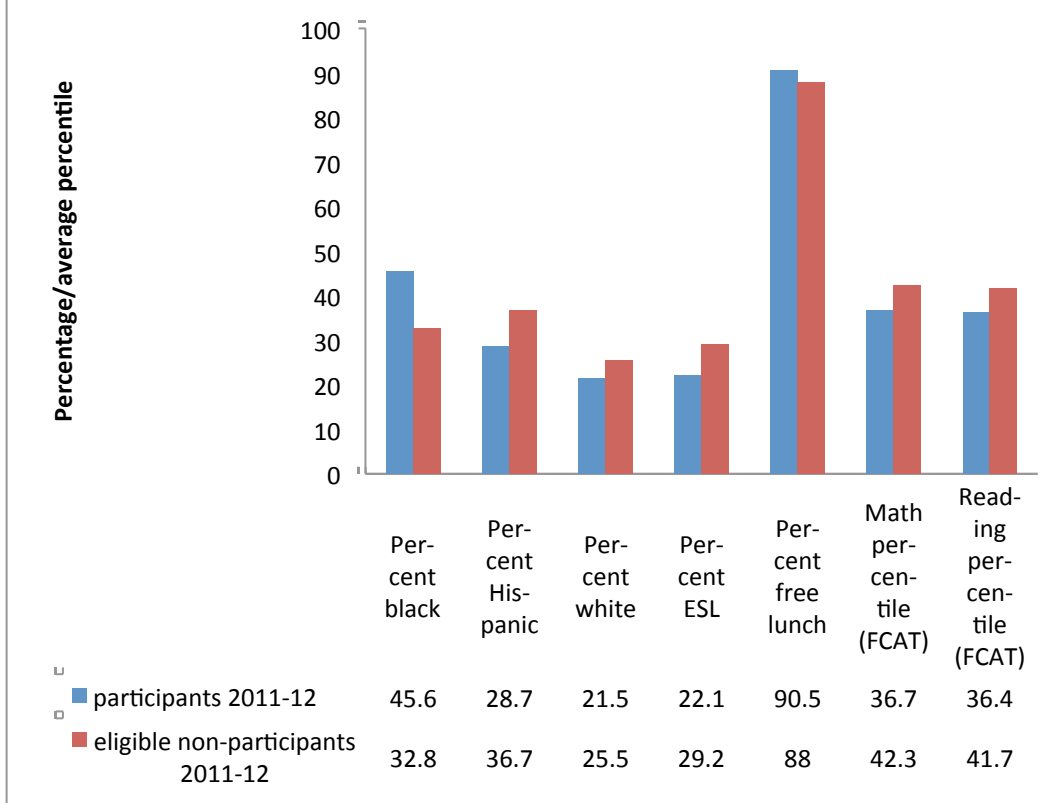
Previous reports detailed the fact that families self-select into the FTC Scholarship Program.<sup>7</sup> These reports demonstrated that participants in the scholarship program are more disadvantaged than presumably eligible non-participants<sup>8</sup> and that they tend to be among the most struggling students in their public schools before they move to the private sector. This section continues this same analysis for new program participants in 2011-12.

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<sup>7</sup> A technical description of selection into the FTC Scholarship Program is provided in David Figlio, Cassandra Hart, and Molly Metzger, "Who Uses a Means-Tested Scholarship, and What Do They Choose?" published in the *Economics of Education Review* in 2009. A brief summary of the key points of that paper is provided in this report.

<sup>8</sup> We identify students receiving subsidized school meals as presumably eligible because we cannot measure income for public school students in the more precise and audited manner in which program participant family income is measured.

## Comparison of new FTC program participants to "income eligible" non-participants, 2011-12



The most natural way to make comparisons is to consider a set of students who all spent the prior year in Florida public schools and who received subsidized school meals, making them plausibly eligible to participate in the program. This report employs the most recent data available at the time of writing -- students who spent the 2010-11 academic year in the Florida public schools, so one can compare the students who entered the FTC Scholarship Program in 2011-12 versus potentially comparable students who did not enter the program in that year but remained free or reduced-price lunch eligible in 2011-12, according to Department of Education records. We exclude students with disabilities who could participate in the McKay Scholarship Program. The chart above

presents some basic facts about FTC Scholarship Program participants relative to other potentially income-eligible students. In order to compare similar populations across bars, we restrict analysis to students who had taken either a reading or math test in public school in 2010-11; prior research suggests that this is very similar to the overall population of potential program participants who spent the prior year in a public school. We also limit the analysis to students who would be in grade 10 or below in 2011-12, so that this reflects the set of students for whom a test score is possible. By these standards, there were 3,462 new students in the FTC Scholarship program from this sample and 634,403 students from this sample who remained in the public schools and continued on subsidized school lunches in 2010-11.

One observes that FTC Scholarship Program participants differ from non-participants on all of the characteristics easily observed in the administrative record. Scholarship participants are more likely than non-participants to be black, and less likely to be Hispanic or white, and participants are less likely than are non-participants to speak English as a second language. Scholarship participants are more economically disadvantaged than are non-participants on average. While all children in both the participant and non-participant groups were self-reported to be eligible for subsidized lunch at some point in the 2010-11 school year, participants were more likely to qualify for free lunch as of the last survey taken in 2010-11, while non-participants were more likely to qualify only for reduced-price lunch, indicating that scholarship participants were relatively disadvantaged, even conditional on reported income eligibility. Finally, and perhaps most importantly, scholarship participants have significantly poorer test performance in the year prior to starting the scholarship program than do non-



participants. On both the FCAT mathematics and FCAT reading tests, 2011-12 non-participants out-performed 2011-12 scholarship participants in the 2010-11 school year, when both groups were still attending public schools. All of these differences are large in magnitude and are statistically significant, and indicate that scholarship participants tend to be considerably more disadvantaged and lower-performing upon entering the program than their non-participating counterparts. These differences are very similar to those observed in years past and reported in prior program reports.<sup>9</sup>

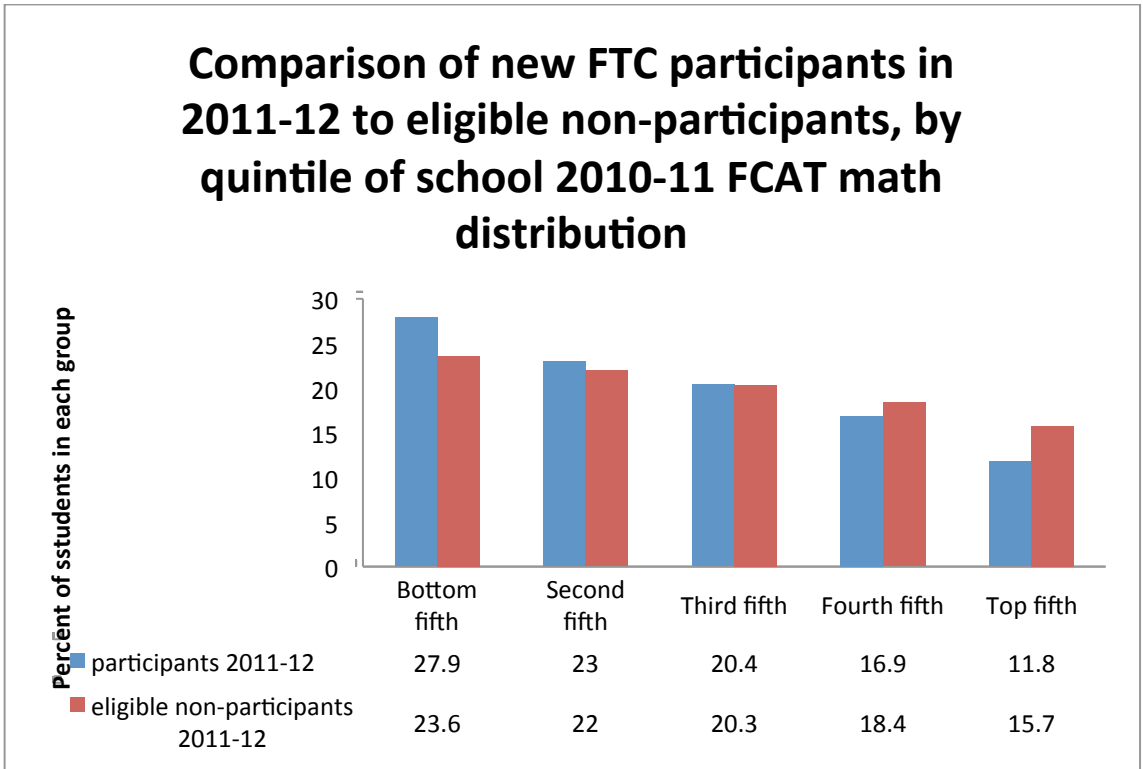
The mean differences in 2010-11 performance between public school students who would ultimately participate in the FTC Scholarship Program in 2011-12 and those who are plausibly income-eligible but who remained in Florida public schools in 2011-12 are compelling, but there are numerous remaining selection questions. For instance, these results are consistent both with the idea that relatively high-performing students from low-performing schools are the ones selecting into the scholarship program, as well as with the idea that relatively low-performing students, regardless of school, are the ones selecting into the program. It is clear that these two possibilities have very different implications for the interpretation of differential selection into the program.

Consistent with all but one prior year, in 2011-12 FTC Scholarship Program participants came disproportionately from lower-performing schools, according to Florida Department of Education school grades in 2011, as compared to eligible students who did not participate in the program. Amongst the students new to the program in 2011-12, 43.2 percent came from schools graded "A" by the Florida Department of Education in 2011, as compared with 48.8 percent of those public school students eligible

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<sup>9</sup> In the first several reports, I reported norm-referenced test national percentiles rather than FCAT percentiles, but norm-referenced tests are no longer available for public school students in the state of Florida. The results are qualitatively extremely similar regardless of the test used for this exercise.

for free or reduced-priced lunches who did not participate. At the other extreme, 9.3 percent of new participants came from schools graded "D" or "F" by the Florida Department of Education in 2011, versus 6.2 percent of eligible non-participants.



Also consistent with prior years is the fact that regardless of the performance level of the public school that FTC Scholarship Program participants came from, these students tended to be lower-performing before they entered the program. As can be seen in the above table, 27.9 percent of students who would select into the program were in the bottom fifth of their prior public school's mathematics FCAT test score distribution, while only 23.6 percent of non-participating free- or reduced-price lunch students were in the bottom fifth of the distribution in the prior public school. This gap of 4.3 percentage points is somewhat smaller than the differences reported in the past several reports than the 6.7 percentage point difference in last year's report, but is still substantial and

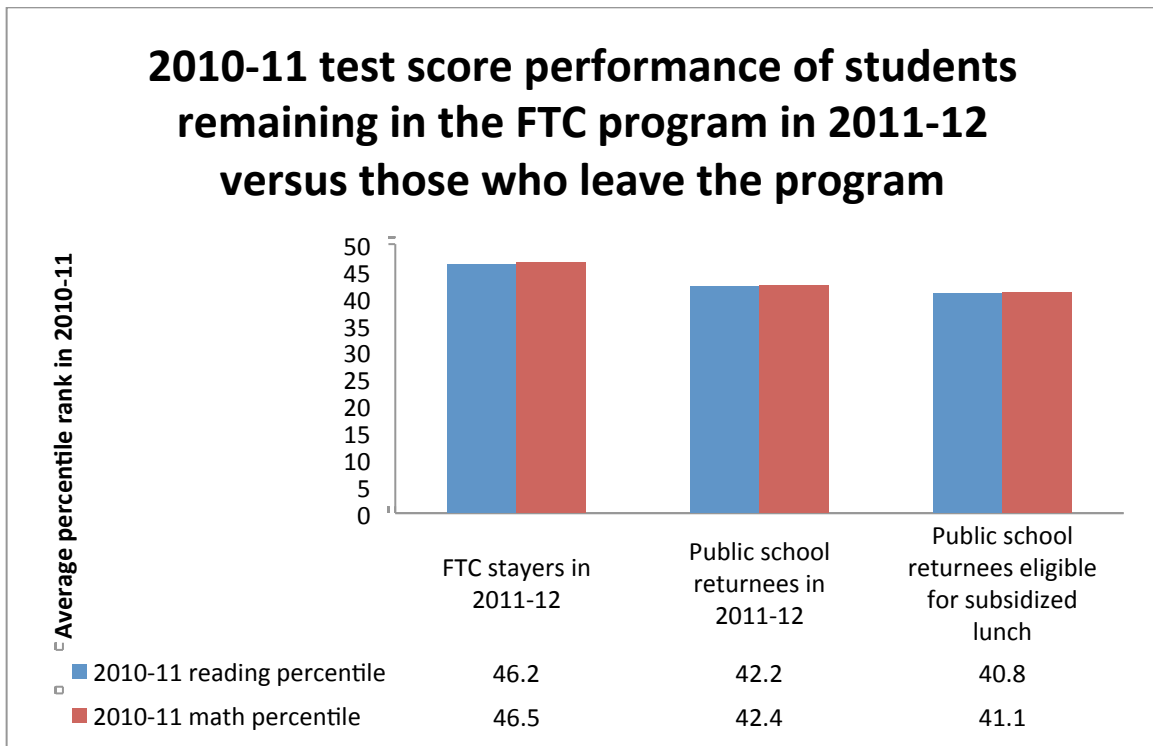
educationally meaningful. (Similar differences are present in terms of reading scores, where the same gap is 5.5 percentage points.) At the top of the test score distribution, only 11.8 percent of students who would select into the program were in the top fifth of their prior public school's mathematics test score distribution, as compared with 15.7 percent of free- or reduced-price lunch students in the top fifth of the distribution in the prior public school; the 3.9 percentage point gap is in line with the previously-reported gaps. Clearly, public school students who ultimately became program participants are more likely to be the relatively lower-performing students in their schools, a fact that has not changed over time.

## **VI. Performance of Program Participants Who Return to Florida Public Schools**

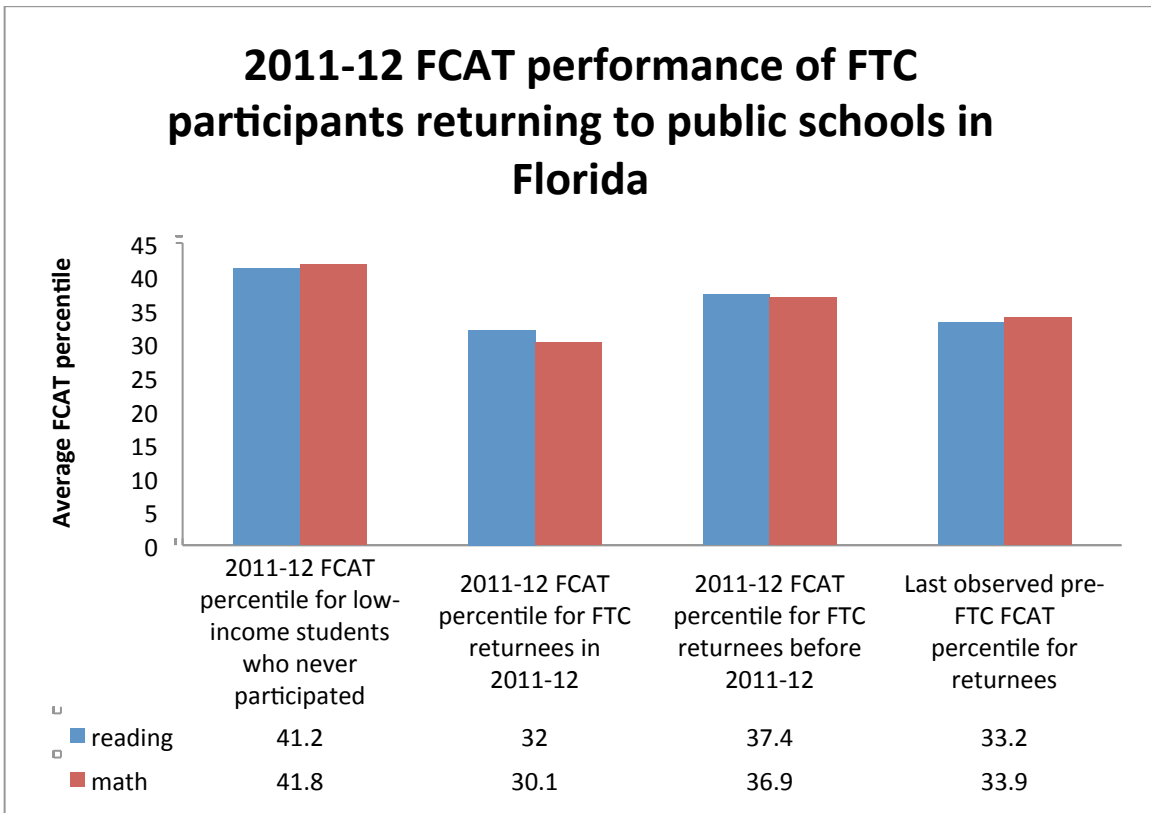
It is also possible to compare FTC students who return to public schools after some time in the program to those who remain in the FTC program, and to compare program returnees to other Florida public school students who never left the public sector. While these comparisons should not – for several reasons -- be interpreted as the effects of participation in the FTC program, they still contribute to painting a more comprehensive and systematic picture of the performance of the students who participate in the FTC program.

We begin by comparing the 2010-11 national norm-referenced test performance for students who returned to the public school system in Florida in 2011-12 versus those who remained in private schools under the FTC program. The first thing that is apparent is that, just like the fact that the students who struggle the most in the public sector are more likely to leave their public schools to attend a private school under the FTC

program, we also observe that the students who are struggling the most in their private schools are more likely to leave their private schools to return to the public sector. As seen in the graph below, the typical FTC program student who remained in the program in 2011-12 scored at the 46.2<sup>nd</sup> national percentile in reading (46.5<sup>th</sup> in math) in 2010-11, but the typical student who left the program scored in the 42.2<sup>nd</sup> percentile in reading and 42.4<sup>th</sup> in math. Moreover, this is an understatement of the difference between these two groups, since all students who remained in the FTC program were still income-eligible to participate while some students who left the program did so because their families were on an upward income trajectory, making this comparison less apples-to-apples than is possible. If we limit the public school returnees to those participating in the National School Lunch Program in 2011-12, and therefore closer to the same income range as those who continue in the FTC program, the average returnee was in the 40.8<sup>th</sup> national percentile in reading and 41.1<sup>st</sup> national percentile in math.



How do the FTC program returnees perform once they return to the public schools? Given that the program returnees tend to be those who are performing worse than average amongst program participants, and given that poorly-performing students were those who were especially likely to participate in the program in the first place, one would expect to see program participants who return to the public schools perform worse on the FCAT than do low-income students who never participated in the program.<sup>10</sup>



As can be seen from the chart above, and as expected, given the prior performance levels of FTC program participants in general and those who return to Florida public schools in particular, FTC program participants who return to the public sector perform worse on the FCAT than did other subsidized-meals recipients who never participated in the program. The gap is particularly pronounced for students returning to

<sup>10</sup> An additional reason for this difference could occur if Florida public schools teach a curriculum more closely aligned to the content areas assessed on the FCAT than do private schools in Florida.

the public schools in 2011-12, who performed at the 32<sup>nd</sup> Florida percentile in reading and 30.1<sup>st</sup> percentile in math in 2011-12, as compared with never-leavers who performed at the 41.2<sup>nd</sup> percentile in reading and 41.8<sup>th</sup> percentile in math.

The difference in FCAT performance between FTC program returnees and low-income students who never left the public schools could be explained by several different possibilities. One possibility, of course, is that participation in the FTC program damaged the returning students. Another possibility is that the returning students would have performed more poorly than the typical low-income student in Florida public schools regardless of their program participation. A third possibility is that the differences can be explained by curricular differences between the public schools, whose curriculum is more closely aligned with the FCAT assessment, and the private schools that had previously educated these students. While it is impossible to know the degree to which this third explanation is valid, the first two explanations can be investigated.

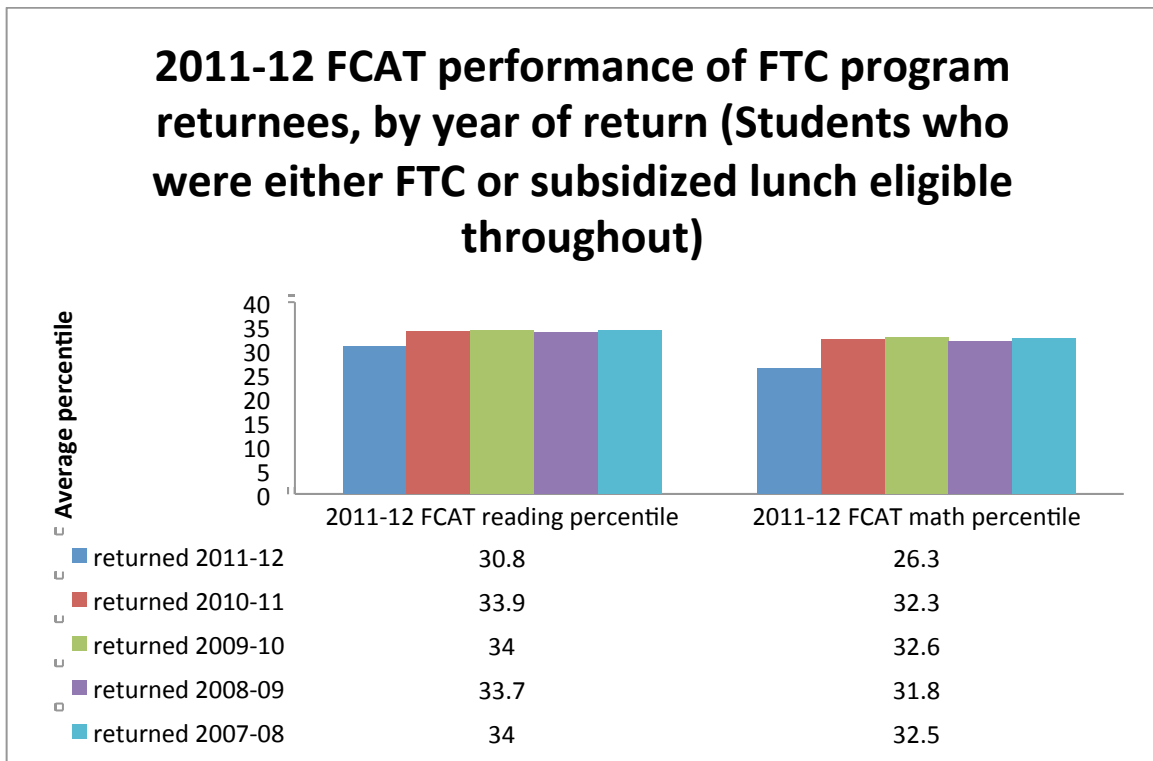
Given what we know about the performance of students who select into the FTC program and what we know about the performance of FTC program participants who return to the public schools, there is strong reason to believe that the explanation that the program returnees would have been expected to perform more poorly than the typical low-income public school student is the most valid explanation. If we compare returning students to their *own* prior performance on the FCAT *before they left Florida public schools to attend private schools under the FTC program*, we observe that these same students historically averaged in the 33.2<sup>nd</sup> Florida percentile in reading and the 33.9<sup>th</sup> percentile in math. The first-year returnees perform modestly lower than these levels, but

it is well-documented in the scholarly literature that students experience a temporary downward blip in performance in the year they switch schools, especially for reasons other than natural grade progression. Indeed, an analysis of low-income public school students in Florida suggests that when students change *public schools* at times other than natural year progressions, these students lose an average of approximately two percentile points in the year they changed schools. These pieces of evidence strongly point to an explanation that the poor apparent FCAT performance of FTC program returnees is actually a result of the fact that the returning students are generally particularly struggling students.

The notion that a first-year-in-a-new-school dip is partially at work here is supported by the fact that when we look at the FCAT performance level of former FTC program students who returned to the public schools *before* 2011-12, we observe that the average Florida FCAT percentile of these students in 2011-12 was the 37.4<sup>th</sup> percentile in reading and 36.9<sup>th</sup> percentile in math – a bit higher than their FCAT performance levels prior to their leaving the public schools to enroll in the private sector via the FTC program. In other words, FTC participants who return to the public sector performed, after their first year back in the public schools, in the same ballpark but perhaps slightly better on the FCAT than they had before they left the Florida public schools. The most careful reading of this evidence indicates that participation in the FTC program appears to have neither advantaged nor disadvantaged the program participants who ultimately return to the public sector.

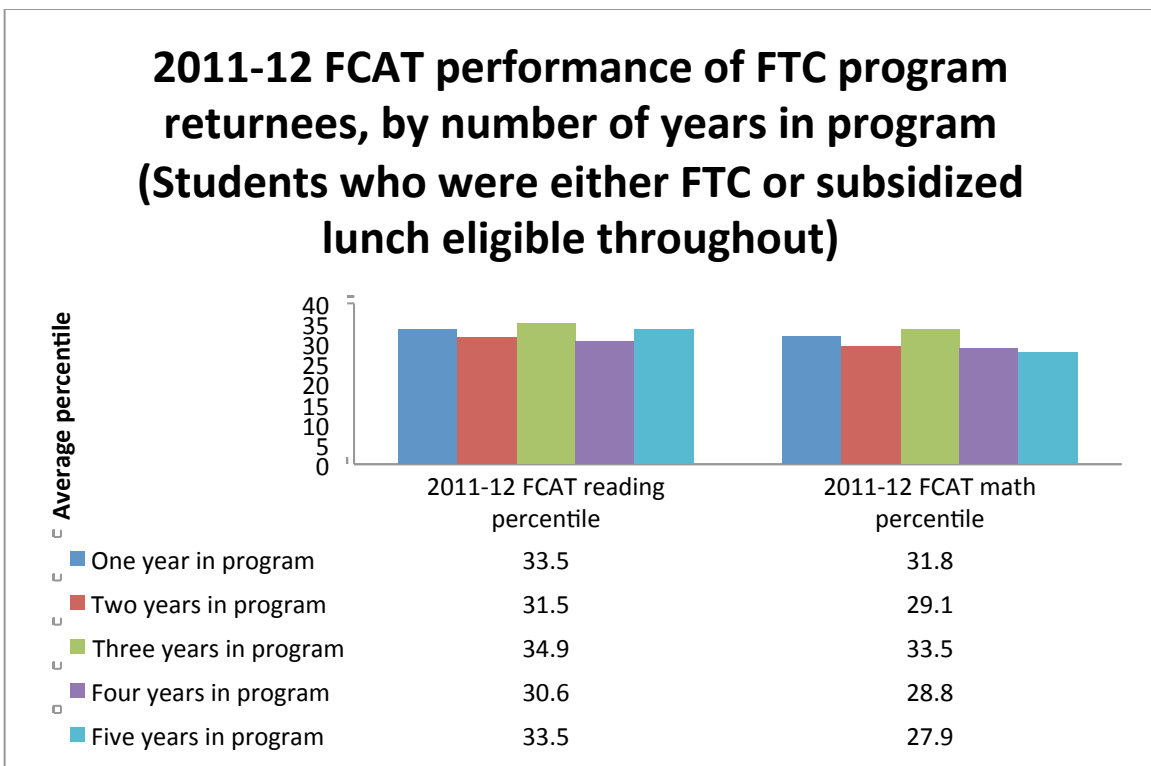
As a further indication of the veracity of this statement, one can compare the FCAT performance in 2011-12 of FTC program returnees by their year of return to the

public sector. If program participants were either particularly disadvantaged (or particularly advantaged) by their time in the private schools, one would expect to see a pattern of improvement (or degradation) in performance in the years following their return to the public sector. In the chart below, we compare the 2011-12 FCAT performance of FTC program returnees based on their year of return. (To help to ensure comparability of the findings, we limit the analysis to students who were low-income – either participating in the FTC program or receiving free or reduced-price lunch -- in all years from 2006-07 through 2011-12.) Again, we observe that 2011-12 returnees perform worse than all others – most likely due to the school-change effect – but all other cohorts of returnees perform at nearly identical levels in 2011-12. This provides further evidence that the choice to participate in the FTC program likely had little effect on returning students’ FCAT performance upon their return to the public sector.





As a final check, we compare these same students – those who were either in the FTC program or subsidized lunch eligible in every year from 2005-06 through 2011-12 – based on the number of years the student participated in the program. As can be seen in the chart below, there is no apparent pattern between “exposure” to the FTC program and subsequent FCAT performance. Taken together with the previous results, the weight of the evidence is consistent with a finding that FTC program participation neither substantially advantaged nor disadvantaged the participating students who returned to Florida public schools after participating in the program. That said, one should not read this as a definitive causal statement, but rather as solely forensic evidence.



**VII. Conclusion**

This report presents empirical evidence on the compliance and performance of private schools that participate in the Florida Tax Credit Scholarship Program. The report analyzes data from 2010-11, and compares these data to prior years of test score

collection and public school data from the Education Data Warehouse of the Florida Department of Education. There is strong evidence of high degrees of compliance with testing requirements for program participants.

Simple comparisons of the distribution of test score gains between FTC Scholarship Program participants and plausibly-eligible non-participants indicate that the test score gains in both populations are comparable in magnitude between program participants and eligible non-participants. But we must recognize that these populations are not equivalent. Program participants enter the program with lower academic performance and with substantially lower household incomes, which makes comparison more problematic. In addition, these are not causal estimates of differences, and the true effect of program participation may be more positive or more negative than the simple means comparisons. There is strong and compelling evidence that relatively low-performing students from relatively low-performing schools tend to be the students to participate in the FTC Scholarship Program, and causal analysis of these differences would need to take this differential selection into account. It is, therefore, wisest to interpret the similar test score gain performance between program participants and eligible non-participants as suggestive, but not definitive, evidence of similar performance across the sectors.

Finally, there exists compelling causal evidence indicating that the FTC Scholarship Program has led to modest and statistically significant improvements in public school performance across the state. Therefore, a cautious read of the weight of the available evidence suggests that the FTC Scholarship Program has boosted student performance in public schools statewide, that the program draws disproportionately low-

income, poorly-performing students from the public schools into the private schools, and that the students who moved perform as well or better once they move to the private schools.

Appendix Table: Average gain scores in 2011-12 and three-year moving average of gain scores from 2009-10 to 2011-12 for schools with 30 or more gain scores in 2011-12, ranked by average three-year combined gain score.

SCHOOL NAME	CITY	NUMBER OF GAIN SCORES OBSERVED		AVERAGE GAIN SCORE IN 2011-12			AVERAGE GAIN SCORE FROM 2009-10 TO 2011-12		
		2011-12 SCHOOL YEAR	BETWEEN 2009-10 AND 2011-12	READING+ MATH COMBINED	MATH	READING	READING+ MATH COMBINED	MATH	READING
PENTAB ACADEMY	MIAMI	32	63	7.9	9.5	3.9	<b>6.7</b>	<b>9.5</b>	<b>3.9</b>
NUR UL-ISLAM ACADEMY	COOPER CITY	76	182	4.2	6.3	4.1	<b>5.2</b>	<b>6.3</b>	<b>4.1</b>
PATHWAYS SCHOOL	ORLANDO	50	111	1.3	3.1	6.8	<b>4.9</b>	<b>3.1</b>	<b>6.8</b>
WORSHIPERS' HOUSE OF PRAYER ACAD (TN)	MIAMI	52	116	4.9	1.3	8.3	<b>3.9</b>	1.3	<b>8.4</b>
BRUSH ARBOR CHRISTIAN SCHOOL	ORLANDO	35	74	1.9	3.9	2.4	<b>3.1</b>	<b>3.9</b>	2.4
SOUTHLAND CHRISTIAN SCHOOL	KISSIMMEE	37	88	3.8	3.0	2.7	<b>2.9</b>	3.0	2.7
MUSLIM ACADEMY OF GREATER ORLANDO	ORLANDO	34	96	2.1	2.6	3.0	<b>2.8</b>	2.6	<b>3.0</b>
ACADEMY PREP CENTER OF ST. PETERSBURG	ST. PETERSBURG	42	78	5.4	3.6	1.6	2.6	<b>3.6</b>	1.6
CHRIST-MAR PRIVATE SCHOOL	HIALEAH	35	69	13.3	4.5	0.1	2.3	<b>4.5</b>	0.1
NORTH KISSIMMEE CHRISTIAN SCHOOL	KISSIMMEE	30	85	-0.1	2.1	2.2	2.2	2.1	2.2
ABUNDANT LIFE CHRISTIAN ACADEMY	MARGATE	41	99	1.7	2.9	1.3	2.0	2.9	1.3
LINCOLN-MARTI COMM AGENCY 10	MIAMI	134	263	3.1	4.3	2.1	<b>1.9</b>	<b>2.6</b>	1.1

SCHOOL NAME	CITY	NUMBER OF GAIN SCORES OBSERVED		AVERAGE GAIN SCORE IN 2011-12			AVERAGE GAIN SCORE FROM 2009-10 TO 2011-12		
		2011-12 SCHOOL YEAR	BETWEEN 2009-10 AND 2011-12	READING+ MATH COMBINED	MATH	READING	READING+ MATH COMBINED	MATH	READING
ST. MICHAEL THE ARCHANGEL (IT)	MIAMI	32	89	2.2	-0.9	5.2	1.8	0.3	<b>3.3</b>
LIGHTHOUSE CHRISTIAN ACADEMY	DELAND	38	97	2.8	1.7	3.8	1.8	1.2	2.4
UNIVERSAL ACADEMY OF FLORIDA	TAMPA	61	151	2.5	1.4	3.5	1.6	1.1	2.1
ESCAMBIA CHRISTIAN SCHOOL	PENSACOLA	30	95	2.7	6.3	-0.9	1.4	0.7	2.2
GREATER MIAMI ACADEMY (IT)	MIAMI	65	104	2.2	5.5	-1.0	1.3	<b>3.1</b>	-0.5
WEST HERNANDO CHRISTIAN SCHOOL	SPRING HILL	31	60	-2.1	0.6	-4.8	1.0	1.1	0.9
THE POTTER'S HOUSE CHRISTIAN ACADEMY	JACKSONVILLE	58	215	2.4	4.3	0.3	1.0	-1.0	<b>2.9</b>
BRITO MIAMI PRIVATE SCHOOL	MIAMI	36	96	-3.3	-3.0	-3.6	0.9	2.6	-0.6
PLEASANT HILL ACADEMY	KISSIMMEE	66	176	-0.1	-1.8	1.8	0.9	-0.4	<b>2.1</b>
ST HELEN CATHOLIC SCHOOL	FT. LAUDERDALE	50	99	-0.7	-2.8	1.3	0.5	0.2	0.8
HERITAGE CHRISTIAN SCHOOL	KISSIMMEE	111	255	1.9	2.3	1.5	0.4	1.9	-1.0
TALLAVANNA CHRISTIAN SCHOOL	HAVANA	34	88	-0.6	-4.9	3.7	0.3	-1.2	1.9
FIRST COAST CHR SCH	JACKSONVILLE	54	113	1.1	1.4	0.8	0.3	-0.8	1.5

SCHOOL NAME	CITY	NUMBER OF GAIN SCORES OBSERVED		AVERAGE GAIN SCORE IN 2011-12			AVERAGE GAIN SCORE FROM 2009-10 TO 2011-12		
		2011-12 SCHOOL YEAR	BETWEEN 2009-10 AND 2011-12	READING+ MATH COMBINED	MATH	READING	READING+ MATH COMBINED	MATH	READING
AZALEA PARK BAPTIST SCHOOL	ORLANDO	30	79	1.6	1.6	1.5	0.3	0.2	0.4
VICTORY CHRISTIAN ACADEMY	LAKELAND	32	73	-2.5	-5.8	0.8	0.2	-0.1	0.5
ST BARTHOLOMEW SCHOOL (IT)	ORLANDO	34	91	0.8	6.4	-4.7	0.2	-0.2	0.2
ACADEMY PREP OF TAMPA	TAMPA	59	151	2.1	4.4	-0.2	0.0	1.0	-1.0
CITY OF LIFE CHRISTIAN ACADEMY	KISSIMMEE	35	95	-0.2	-3.9	3.5	-0.2	-1.5	1.1
TRINITY CHRISTIAN AC	DELTONA	59	135	0.3	2.2	-1.7	-0.3	1.0	-1.5
ELFERS CHRISTIAN SCH	NEW PORT RICHEY	56	165	1.1	0.5	1.7	-0.3	-0.6	0.0
CORNERSTONE CHRISTIAN SCH (TN)	JACKSONVILLE	53	146	-1.4	-6.0	3.2	-0.4	-2.0	1.2
HIGHLANDS CHRISTIAN ACADEMY	POMPANO BEACH	42	82	1.1	-0.9	3.2	-0.4	-1.9	0.3
JOSHUA CHRISTIAN ACADEMY	JACKSONVILLE	47	118	0.6	-2.1	2.9	-0.5	-0.5	0.8
TEMPLE CHRISTIAN ACADEMY (BA)	JACKSONVILLE	32	70	-1.7	-1.8	-1.7	-0.6	-2.2	-0.6
LA PROGRESIVA PRESBYTERIAN SCH	MIAMI	54	187	-2.9	-3.4	1.7	-0.6	-1.3	-0.8
AMERICAN YOUTH ACADEMY (ER)	TAMPA	34	76	-2.0	0.4	3.2	-0.7	-0.1	0.2

SCHOOL NAME	CITY	NUMBER OF GAIN SCORES OBSERVED		AVERAGE GAIN SCORE IN 2011-12			AVERAGE GAIN SCORE FROM 2009-10 TO 2011-12		
		2011-12 SCHOOL YEAR	BETWEEN 2009-10 AND 2011-12	READING+ MATH COMBINED	MATH	READING	READING+ MATH COMBINED	MATH	READING
SALAH TAWFIK SCHOOL	SUNRISE	32	81	-6.0	-10.0	-2.1	-0.7	-0.8	-0.6
NORTH FLORIDA CHRISTIAN SCHOOL	TALLAHASSEE	36	103	1.3	2.0	0.6	-0.8	-1.2	-0.4
EDISON PRIVATE SCH	HIALEAH	66	158	0.1	2.2	-2.0	-0.8	0.1	-1.8
EASTLAND CHRISTIAN	ORLANDO	41	118	-2.5	-1.9	-3.2	-0.9	-0.3	-1.4
SOUTH ORLANDO CHRISTIAN ACADEMY	ORLANDO	52	149	2.3	5.1	-0.5	-0.9	-0.5	-1.0
FAITH CHRISTIAN ACAD	ORLANDO	69	182	0.1	-0.2	0.9	-0.9	-1.4	-0.1
ST MARY'S CATHEDRAL (IT)	MIAMI	96	216	-2.2	-4.3	-0.0	-1.1	<b>-2.7</b>	0.7
EAGLE'S VIEW ACAD	JACKSONVILLE	32	73	-1.4	-2.7	-0.3	-1.3	-1.0	-1.5
LIFE ASSEMBLY OF GOD	KISSIMMEE	63	163	-0.0	-2.6	2.4	-1.4	<b>-3.1</b>	0.4
TRINITY CHRISTIAN ACADEMY	JACKSONVILLE	70	191	0.5	-1.0	2.1	-1.4	-2.2	-0.7
OASIS CHRISTIAN ACADEMY (TN)	WINTER HAVEN	30	62	-4.6	-8.1	-1.0	-1.5	-3.3	0.2
HERITAGE PREPARATORY SCHOOL	ORLANDO	45	149	0.8	-0.1	1.1	-1.6	-0.1	<b>-3.2</b>
SACRED HEART (IT)	JACKSONVILLE	34	77	-2.0	-7.6	3.6	-1.6	<b>-4.3</b>	1.0
HOLY ROSARY CATHOLIC SCHOOL (IT)	JACKSONVILLE	35	107	-0.8	-0.8	-1.3	-1.7	-1.9	-1.7
ST JAMES CATHOLIC SCHOOL (IT)	MIAMI	82	211	-0.2	-2.1	1.7	<b>-1.8</b>	<b>-4.4</b>	0.8
ESPRIT DE CORPS CTR FOR LEARNING (TN)	JACKSONVILLE	47	122	-7.4	-12.4	-2.6	-1.9	<b>-3.8</b>	-0.2

SCHOOL NAME	CITY	NUMBER OF GAIN SCORES OBSERVED		AVERAGE GAIN SCORE IN 2011-12			AVERAGE GAIN SCORE FROM 2009-10 TO 2011-12		
		2011-12 SCHOOL YEAR	BETWEEN 2009-10 AND 2011-12	READING+ MATH COMBINED	MATH	READING	READING+ MATH COMBINED	MATH	READING
MIAMI UNION ACADEMY (IT/AC)	NORTH MIAMI	88	241	-2.1	-4.4	0.1	<b>-2.0</b>	<b>-3.8</b>	0.0
CALVARY CHR AC (TN)	ORMOND BC	41	97	-4.2	-7.4	-0.9	-2.0	<b>-3.6</b>	-0.4
BETESDA CHR SC (TN)	OPA-LOCKA	46	112	-7.0	-10.3	-3.6	-2.0	<b>-3.9</b>	-0.1
LINCOLN-MARTI COMM AGENCY 17	HIALEAH	75	204	4.4	5.0	3.1	<b>-2.2</b>	-1.9	<b>-2.8</b>
ST ANDREW CATH (IT)	ORLANDO	43	113	-3.1	-7.3	1.1	-2.2	<b>-4.3</b>	-0.0
PENIEL BAPTIST ACAD	PALATKA	33	75	-4.7	-5.2	-4.2	-2.2	-2.3	-2.1
FOREST LAKE EDUCATION CTR (IT)	LONGWOOD	49	133	-4.1	-5.9	-3.4	<b>-2.3</b>	<b>-3.8</b>	-1.2
SL JONES CHRISTIAN AC	PENSACOLA	36	106	-3.0	-7.1	1.1	<b>-2.5</b>	<b>-4.4</b>	-0.5
BLESSED TRINITY (IT)	OCALA	33	57	-3.7	-9.4	2.0	-2.6	<b>-6.3</b>	1.2
HOLY FAMILY CATH (IT)	N. MIAMI	61	180	0.2	-4.5	4.9	<b>-2.6</b>	<b>-5.9</b>	-0.0
ST JOHN THE APOSTLE (IT)	HIALEAH	63	145	-6.9	-11.7	-2.0	<b>-2.6</b>	<b>-5.2</b>	0.0
DOWNEY CHRISTIAN SC	ORLANDO	33	75	-3.1	-6.9	0.6	<b>-2.8</b>	-3.5	-2.1
NORTHWEST CHR S (TN)	MIAMI	43	107	-2.9	-7.8	1.9	<b>-2.9</b>	<b>-6.0</b>	0.3
KINGSWAY CHRISTIAN	ORLANDO	102	224	-1.5	-0.6	-2.1	<b>-3.0</b>	<b>-2.4</b>	<b>-3.6</b>
SUNFLOWERS ACAD (IT)	MIAMI	97	216	-7.4	-16.6	1.4	<b>-3.1</b>	<b>-6.7</b>	0.3
LINCOLN-MARTI COMM AGENCY 01-931	MIAMI	52	200	-4.9	-6.8	-3.0	<b>-3.1</b>	<b>-2.6</b>	<b>-3.6</b>
WARNER CHR SC (TN)	S. DAYTONA	55	136	-8.2	-11.9	-4.5	<b>-3.3</b>	<b>-5.4</b>	-1.2
LEADERS PREP SCHOOL	ORLANDO	35	95	-2.0	-2.7	-1.3	<b>-3.4</b>	-3.0	<b>-3.7</b>
ST PIUS V CATH SC (IT)	JACKSONVILLE	30	74	-7.3	-5.8	-9.2	<b>-3.6</b>	<b>-5.5</b>	-2.6
COLONIAL CHRISTIAN S	HOMESTEAD	32	63	-9.5	-13.3	-5.6	<b>-3.6</b>	<b>-7.1</b>	-0.2



SCHOOL NAME	CITY	NUMBER OF GAIN SCORES OBSERVED		AVERAGE GAIN SCORE IN 2011-12			AVERAGE GAIN SCORE FROM 2009-10 TO 2011-12		
		2011-12 SCHOOL YEAR	BETWEEN 2009-10 AND 2011-12	READING+ MATH COMBINED	MATH	READING	READING+ MATH COMBINED	MATH	READING
CHAMPAGNAT CATHOLIC SCHOOL	HIALEAH	75	170	-2.9	-3.1	-3.2	<b>-3.7</b>	<b>-3.3</b>	<b>-4.4</b>
OUR LADY OF LOURDES CATHOLIC SCHOOL (IT)	DAYTONA BEACH	32	91	-8.4	-12.4	-4.3	<b>-4.1</b>	<b>-5.0</b>	-2.9
CEDAR CREEK CHRISTIAN SCHOOL	JACKSONVILLE	43	125	-9.9	-9.4	-10.5	<b>-4.1</b>	<b>-4.8</b>	<b>-3.5</b>
LANDOW YESHIVA (IT)	MIAMI	70	172	-4.4	-6.4	-2.3	<b>-4.2</b>	<b>-5.7</b>	<b>-2.7</b>
MELODY CHRISTIAN	LIVE OAK	41	118	-5.3	-7.0	-3.6	<b>-4.2</b>	<b>-4.0</b>	<b>-4.4</b>
THUMBELINA DBA MASTERS PREP	HIALEAH	59	111	-3.6	-2.8	-4.5	<b>-5.0</b>	<b>-5.5</b>	<b>-4.6</b>
RJ HENDLEY CHRISTIAN COMMUNITY SCHOOL	RIVIERA BEACH	33	62	-3.7	-3.5	-3.9	<b>-5.3</b>	<b>-4.2</b>	<b>-6.5</b>
OCALA CHRISTIAN AC	OCALA	58	111	-9.5	-13.2	-6.2	<b>-5.5</b>	<b>-7.7</b>	<b>-3.4</b>
AGAPE CHRISTIAN AC	ORLANDO	62	181	-3.2	0.4	-7.4	<b>-5.5</b>	<b>-3.6</b>	<b>-7.7</b>
ARCHBISHOP CURLEY/NOTRE DAME (AC/PS)	MIAMI	49	97	-10.0	-8.6	-11.4	<b>-7.6</b>	<b>-8.2</b>	<b>-6.9</b>
MONSIGNOR EDWARD PACE HS (PS)	MIAMI GARDENS	50	135	-14.7	-15.2	-14.1	<b>-8.3</b>	<b>-8.6</b>	<b>-7.9</b>
JOSE MARTI SCHOOL CAMPUS 3	MIAMI	33	69	-19.0	-21.6	-17.2	<b>-10.7</b>	<b>-10.3</b>	<b>-11.4</b>

Notes: Cells report average gain scores. Cells (in the three-year moving average columns) that are bolded and highlighted are statistically distinct from the national average at the 95 percent level of confidence. All schools administered the Stanford Achievement Test except as marked beside school name: AC=ACT; BA=Basic Achievement Skills Inventory; ER=Educational Records Bureau test; IT=Iowa Test of Basic Skills; PS=PSAT; TN=TerraNova.