Evaluation of the Florida Tax Credit Scholarship Program
Participation, Compliance and Test Scores in 2012-13

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Executive summary

This is the seventh 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 2012-13 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, 2012-13:

● Compliance with program testing requirements in 2012-13 remained at high levels, and private school reporting errors (1.2 percent) continue to be at very low levels. Private schools provided usable test scores for 92.3 percent of program participants in grades 3-10, lower than in 2011-12 but comparable to other recent years. Another 6.3 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 0.6 percent rate of reported illness/absence remains at a very low level.

● A majority (54.7 percent) of test-takers took the Stanford Achievement Test. Other popular tests were the Iowa Test of Basic Skills (24.5 percent) and the TerraNova (13.0 percent).

● 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 the 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, 2012-13:

● The typical student in the program scored at the 47th national percentile in reading and the 45th percentile in mathematics, similar to prior 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 2013.

● The mean gain for program participants is 0.1 national percentile ranking points in reading and -0.7 national percentile ranking points in mathematics, both statistically indistinguishable from zero. 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 continues to be inadvisable to directly compare FTC Program participants' test score gains to public school gains.

● This report marks the third time that individual schools' test score gains have been reported for schools with 30 or more students with gain scores. One hundred and ten schools met this criterion in 2012-13.

● Test score gains in private schools are similar regardless of the school's fraction of students participating in the program, or the school's student-teacher ratio. However, private schools with 180 or more days in the school year have significantly greater gains than those with fewer than 180 days in the school year. In addition, non-religious private schools have greater gains in mathematics, though not in reading, than do religious private schools. Catholic private schools, particularly parochial and private religious order schools, have greater reading gains than do non-religious schools, but Catholic private schools (with the exception of private Catholic religious order schools, which have better math gains as well) have weaker math gains than do non-religious schools. These differences should not be construed as quality differences per se, but highlight the variation in gains observed across private schools participating in the FTC program.

I. Background

This is the seventh 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. As in the 2011-12 iteration, 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.[1]

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

[1] 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 the reports prior to 2011-12.

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, August 2012, and July 2013, presented data from the 2007-08, 2008-09, 2009-10, 2010-11, and 2011-12 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 2012-13. 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 2012-13

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 2012-13 academic year was the sixth year in which it was possible to collect participant test score data in real time. Pursuant to s. 1002.395(8)(c)(2), in Winter 2013 and again throughout Spring and Summer 2013 the Independent Research Organization contacted the 1,144 private schools that had participating students in grades three through ten during the 2012-13 school year, as reported on the December roster of program participants.[2] The Florida Department of Education and Step Up for Students provided the Project Director with a list of all participating students in 2012-13, as of the December participant roster; of these, 26,595 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

[2] Prior experience suggested that a December roster, based on actual payments made to schools, would provide a more complete and accurate reflection of private school attendance than rosters collected earlier in the academic year.

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 1,144 schools with students in the relevant grades in 2012-13, the overwhelming majority provided evidence of test administration according to the specifications of the program. Four participating schools, serving 50 testing-eligible students, closed following the 2012-13 school year and did not provide test scores to the Project Director. In five other cases, schools serving 129 testing-eligible students, scores were not reported because the Department of Education suspended the school from the program. In a handful of other cases, the schools neglected to administer tests to or report scores for some or all participating students[3]; 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.

[3] Scores were missing for one or more students in 24 cases, totaling 111 students. In five schools, five or more scores were missing; the maximum number of missing scores for a school was 21.

Of the 26,595 students in relevant grades participating in the program in 2012-13, the Independent Research Organization received valid, legible test scores for 24,534 students, or 92.3 percent of all expected students; all of these scores were from tests administered by the private schools themselves. This is a somewhat lower rate of score reporting than in the prior two years of the program, and the differences can be explained by a number of factors. The biggest change is the fraction of students who either left before testing or arrived after testing at the school; 5.1 percent of the expected students were not enrolled at the time of testing, an uptick from the past two years of testing and comparable to 2009-10 levels of score reporting. The rate of tests missing or unusable also returned to 2009-10 levels of score reporting, at 1.2 percent rather than 0.3 percent as in the most recent two years. Another 1.2 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. The other categories of score reporting (e.g., student illness) remained at levels comparable to those observed in the recent past.

Taken together, the percentage of students in 2012-13 with either legible, valid score reporting or a fully justifiable explanation for missing scores was 98.2 percent, comparable to the prior levels of 98.8 percent in 2011-12, 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 1.4 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.[4] 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.

Table 1: Distribution of score reporting: 2012-13 and prior years

	Academic year						
	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
legible, valid scores received	72.7	92.7	89.8	91.3	93.5	96.4	92.3
not enrolled at time of testing	19.5	2.7	5.6	5.8	3.5	2.1	5.1
ineligible for testing	0.7	0.9	0.6	0.6	0.4	0.4	1.2
school closed/suspended	1.3	0.2	0.9	0.9	0.4	0.1	0.7
student sick/absent	3.4	1	1.9	1.9	0.8	0.9	0.6
missing/unusable test	2.5	2.6	1.2	1.2	0.3	0.3	1.2

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 majority of the students (54.7 percent) took the Stanford Achievement Test, while another 24.5 percent took the Iowa Test of Basic Skills and 13.0 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 2.0 percent of

[4] In 2012-13, for the second consecutive year, no schools administered an unapproved test.

students, the Basic Achievement Skills Inventory, taken by 1.5 percent, the Educational Records Bureau test, taken by 1.0 percent, the Measures of Academic Progress, taken by 0.5 percent, and the Metropolitan Achievement Test, taken by 0.4 percent. 0.4 percent took other approved tests.

The Stanford test, while still by far the most common test administered, was less dominant than was the case historically: The 54.7 percent taking the Stanford test in 2012-13 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 majority is reflected in growth in the Terra Nova test, which was taken by 13.0 percent in 2012-13, as compared with between 3.3 percent and 4.0 percent in 2010-11 and before. Amongst individual students taking the Stanford test in 2011-12 (and remaining in the program in a tested grade in 2012-13), 92.3 percent took the Stanford test again in 2012-13, while 3.9 percent took the Terra Nova test in 2012-13. The major shift from Stanford to Terra Nova occurred in 2011-12: Amongst individual students taking the Stanford test in 2010-11 (and remaining in the program in a tested grade through 2012-13), 78.6 percent took the Stanford test again in 2012-13, while 14.6 percent took the Terra Nova test in 2012-13.

Schools have flexibility as to when they administer their exams, and just under 9 percent of participating students took their exam in the fall months. The tests most typically taken in the fall months are the PSAT/NMSQT (21.7 percent) and the Iowa Test of Basic Skills (57.6 percent). 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. In 2012-13, still fewer (21.0 percent) students took the Iowa Test of Basic Skills in the fall, while 62.4 percent took the test in March, 13.4 percent in April, and 2.7 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. Moreover, the shift from fall to spring administration appears to be consistent now, so gain scores for schools administering the Iowa test will be more easily interpretable than they were last year.

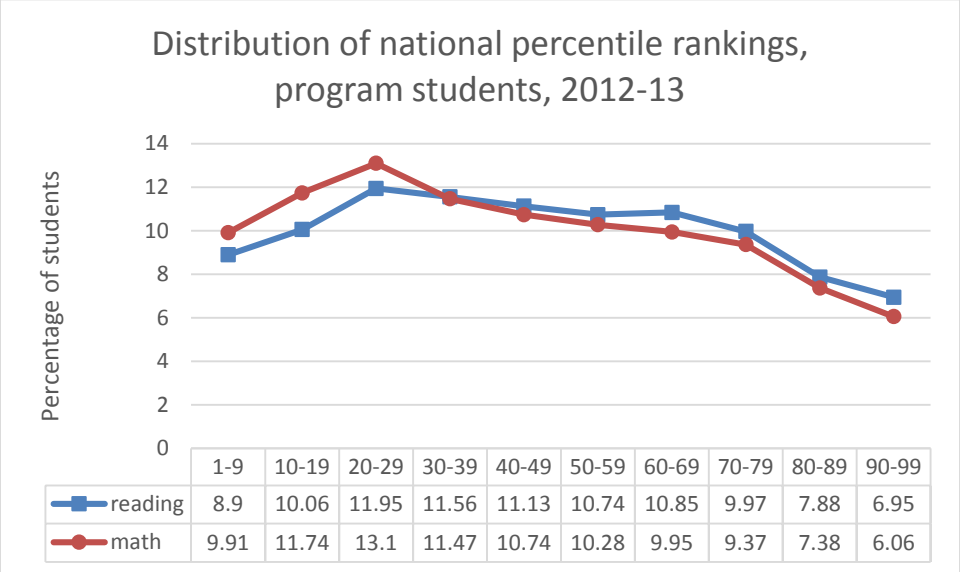
Similarity of students with received legible tests to the overall scholarship population

While the rate of successful score reporting remained high in 2012-13, the rate of untested students or those with reporting problems rose somewhat from the prior two years, with 7.7 percent of expected scores not being received. Although most of this figure is comprised of students arriving at school after testing or – especially -- leaving a school before testing, or to students being sick or absent during the testing period, 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 2012-13.

Indeed, 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 (averaging $25,654 versus $22,286 for those not reported), with parents considerably more likely to be married (45.6 percent versus 32.3 percent), and are more likely to be white (26.5 percent versus 19.9 percent), than are students whose scores were not successfully reported, for whatever reason. Girls are more likely to have legible scores than are boys – girls make up 51.4 percent of the student body with legible scores and 48.2 percent without legible scores. 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 $22,630 versus $25,654 for those with received tests), with unmarried parents (30.4 percent married versus 45.6 percent married), and nonwhite (14.0 percent white versus 26.5 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 2012-13 program participants

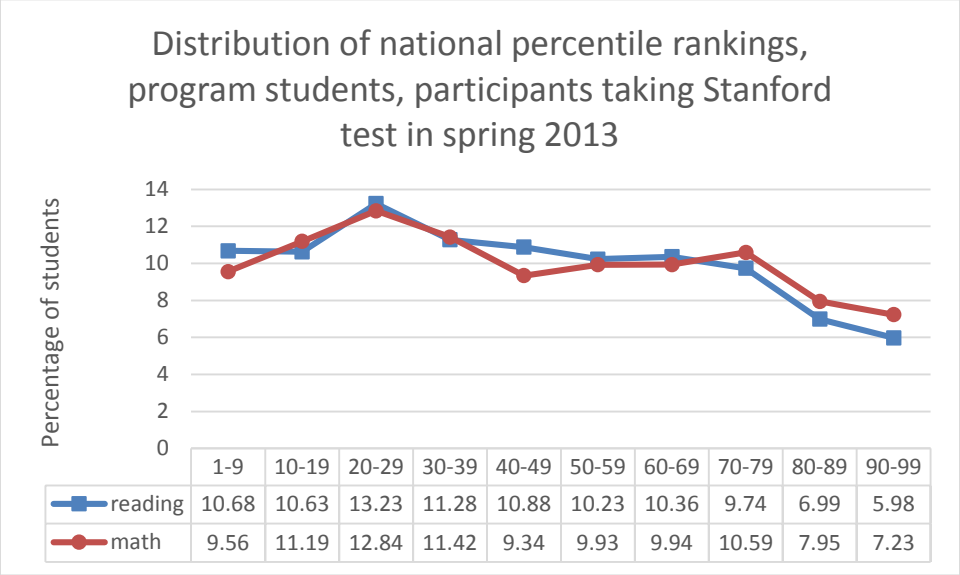
Because program participants may take any number of nationally norm-referenced tests and because private schools have some flexibility in the form in which these test scores are reported and the time of year the test is administered, the only way to ensure reasonable comparability across schools and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



	1-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99
reading	8.9	10.06	11.95	11.56	11.13	10.74	10.85	9.97	7.88	6.95
math	9.91	11.74	13.1	11.47	10.74	10.28	9.95	9.37	7.38	6.06

The chart above presents the basic distribution of national percentile rankings among FTC students participating in the program in 2012-13. The typical student in the program scored at the 47th percentile in reading and the 45th percentile in mathematics. This is unchanged from all prior years of measurement -- 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 45th percentile in reading and the 47th 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 and 2012-13 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.



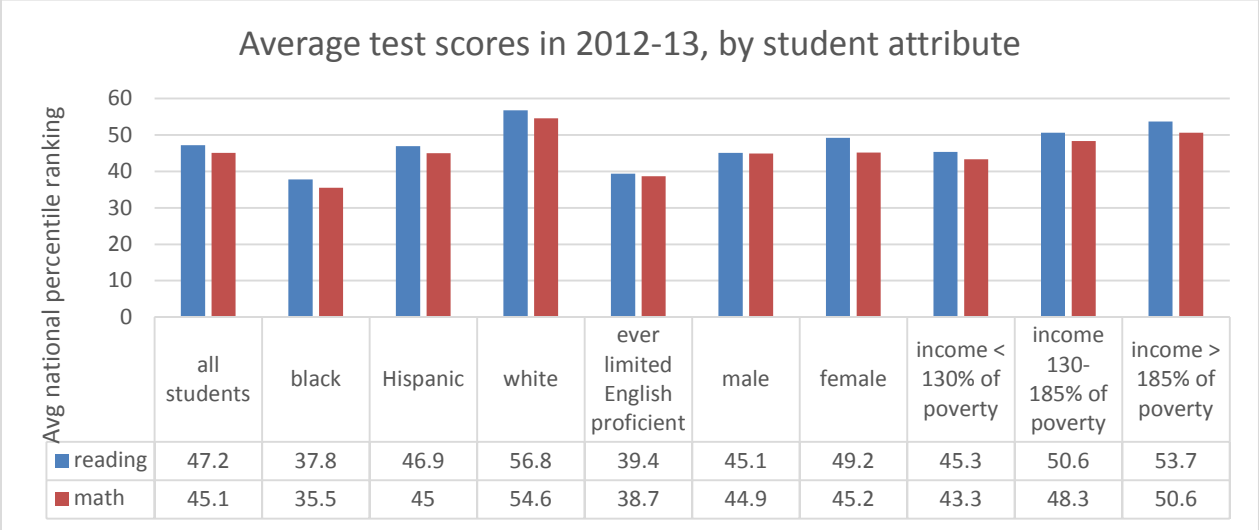
	1-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99
reading	10.68	10.63	13.23	11.28	10.88	10.23	10.36	9.74	6.99	5.98
math	9.56	11.19	12.84	11.42	9.34	9.93	9.94	10.59	7.95	7.23

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 2011-12 to 2012-13 averaged in the 44th percentile in reading and 43rd percentile in math in 2011-12, while those that did not switch tests averaged in the 47th percentile in reading and 46th percentile in math. Looking back to the transition following 2010-11, when most

schools that changed tests did so, shows that schools that switched tests between 2010-11 and 2012-13 averaged in the 48th percentile in reading and 49rd percentile in math in 2010-11, while those that did not switch tests averaged in the 47th percentile in reading and math in 2010-11. 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 2011-12 to Terra Nova in 2012-13 averaged in the 59th percentile in reading and 57th percentile in math in 2011-12, as compared to the 45th percentile in reading and 47th percentile in math for schools that maintained Stanford testing between the two years. (For those switching from Stanford to Terra Nova between 2010-11 and 2012-13, the switchers averaged in the 55th percentile in reading and 56th percentile in math in 2010-11, as compared with the 45th percentile in reading and 47th percentile in math.) Likewise, those schools, largely Catholic, that moved their Iowa testing from the fall to the spring in some period between 2010-11 and 2012-13 averaged in the 49th national percentile in reading and 45th percentile in math in 2010-11, above the 45th percentile in reading and 39th percentile in math for schools that administered the Iowa test in both fall 2010 and fall 2012.[5] Taken together, the evidence suggests that schools that made testing changes between 2010-11 and 2012-13 – either changing the test or the timing of the test – were, if anything, relatively high-scoring, rather than relatively low-scoring. While it is possible that these changes were strategically motivated, the evidence suggests that strategic motivations are relatively unlikely to have been the primary driver in the changes.

[5] Only two schools with three or more tested students moved from Iowa testing in fall 2011 to spring 2013, so almost all of the changes in this regard occurred between the 2010-11 and 2011-12 school years.

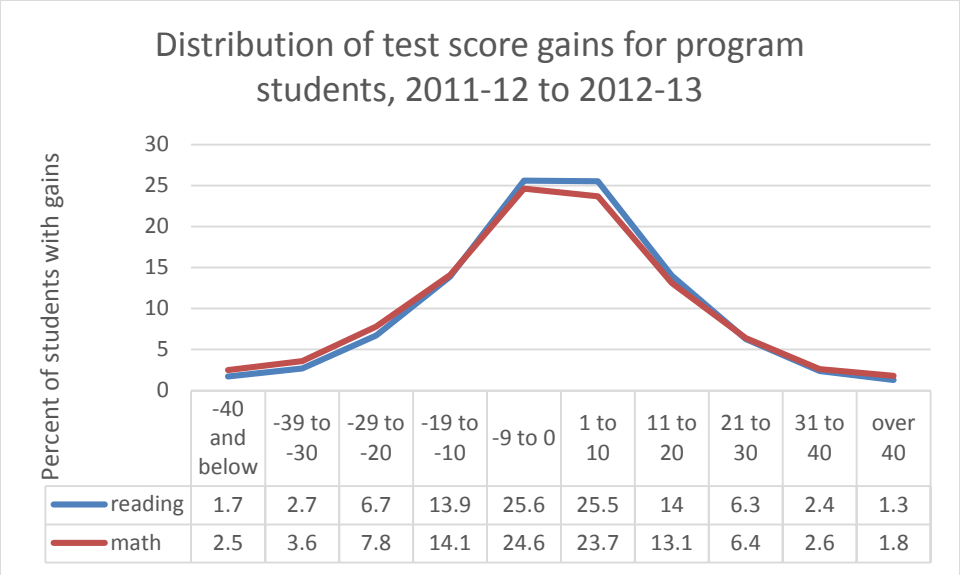
The chart below presents average norm referenced test scores, expressed in terms of national percentile rankings, for various subsets of the FTC Scholarship recipient population, stratified by race, ethnicity, limited English proficiency status (for students previously observed in Florida public schools), 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. 66.8 percent of test-takers have family income below 130 percent of the poverty line, while 28.3 percent are between 130 and 185 percent and 4.8 percent are above 185 percent of the poverty line. Families in this income category are eligible to retain their scholarships so long as their income stays below some critical level. As can be observed in the table, white participants tend to score better than do minority participants, those who were previously identified as limited English proficient score worst of all, females tend to perform better than do males (in reading), 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.



	all students	black	Hispanic	white	ever limited English proficient	male	female	income < 130% of poverty	income 130-185% of poverty	income > 185% of poverty
reading	47.2	37.8	46.9	56.8	39.4	45.1	49.2	45.3	50.6	53.7
math	45.1	35.5	45	54.6	38.7	44.9	45.2	43.3	48.3	50.6

Test score gains for FTC Scholarship program participants

The relevant statutes call for a measurement of test score gains for FTC Scholarship Program students. Because the test scores in both 2011-12 and 2012-13 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.)



	-40 and below	-39 to -30	-29 to -20	-19 to -10	-9 to 0	1 to 10	11 to 20	21 to 30	31 to 40	over 40
reading	1.7	2.7	6.7	13.9	25.6	25.5	14	6.3	2.4	1.3
math	2.5	3.6	7.8	14.1	24.6	23.7	13.1	6.4	2.6	1.8

The chart above presents information on the distribution of program participants' test score gains in reading and mathematics for the set of 12,888 students with legible reading scores and 12,895 students with legible mathematics scores in both 2011-12 and 2012-13. The mean gain for program participants is 0.1 national percentile ranking points in reading and -0.7 national percentile ranking points in mathematics, numbers that are extremely similar in reading and math, and statistically indistinguishable in all cases, from past years' average gains scores.[6] 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 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

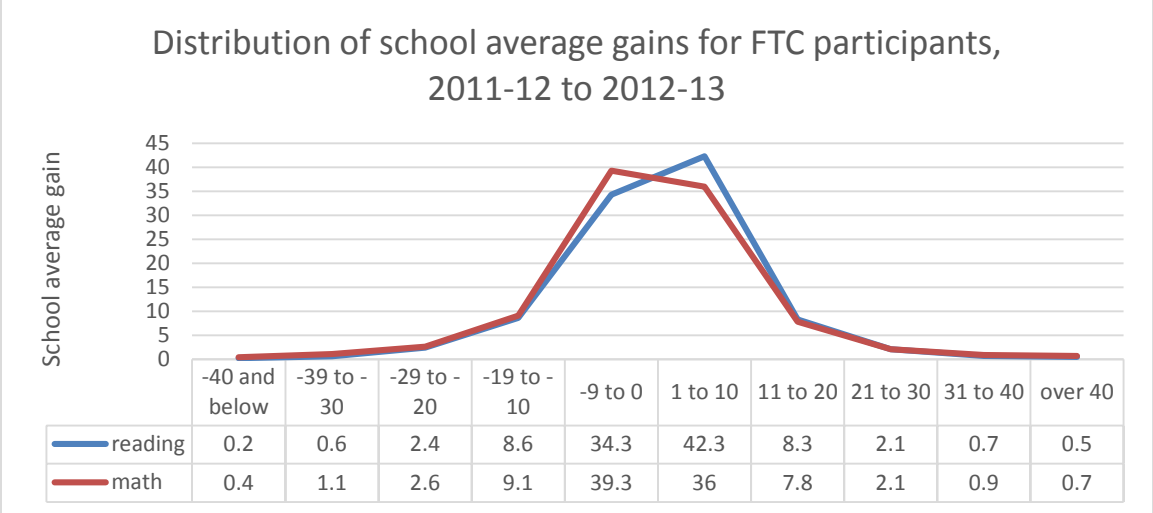
[6] Prior years' average reading gains (from 2008-09, 2009-10, 2010-11, and 2011-12) range from -1.2 to 0.0 national percentile ranking points and prior years' average math gains range from -2.4 to -0.9 national percentile ranking points.

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, 11.1 percent of students participating in the program lost 20 or more percentile points in reading relative to the nation as a whole between 2011-12 and 2012-13, while 10.0 percent of program participants gained more than 20 percentile points in reading over this same time period. The corresponding figures for mathematics are 13.9 and 10.8 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.

IV. School-level differences in average gain scores, 2011-12 to 2012-13

The wide range in gain scores observed in the preceding section reflect two factors – both individual variability (that is, some students do particularly well or particularly poorly in one year relative to the next) and school-level differences. Observed school-level differences still reflect individual variability, because noise in individual test scores is manifested as part of the school-level average gain score; the degree to which school-average gains reflect noise rather than "true" school effects decreases as the number of students represented in the school increases. Nonetheless, it is worthwhile to observe how much of the variation in observed gain scores in the FTC program is seen *across* schools.

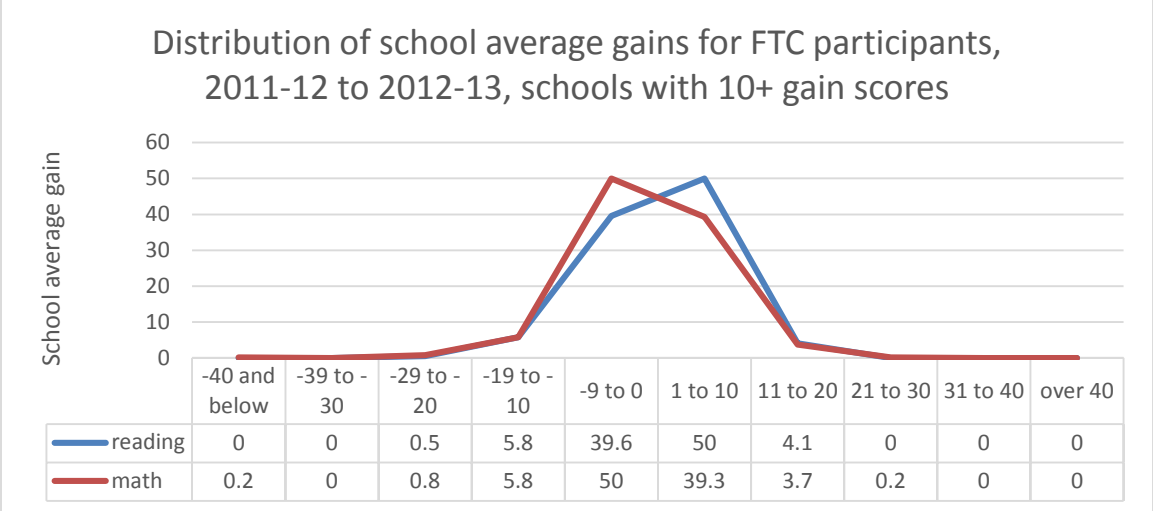
As seen in the figure below, the distribution of school-average gain scores is concentrated in the middle of the distribution. 3.2 percent of schools have observed average reading gains of -20 percentile points or below, and 4.1 percent of schools have observed average math gains of -20 percentile points or below. This contrasts with 11.1 percent and 13.9 percent, respectively, of individual-level gains. At the top of the average score distribution, 3.3 percent of schools have observed average reading gains of 20 percentile points or above, and 3.7 percent of schools have observed average math gains of 20 percentile points or above. This contrasts with 10.0 percent and 10.8 percent, respectively, of individual-level gains. Clearly, much of the observed variability in gain scores is at the individual, rather than the school, level.



	-40 and below	-39 to -30	-29 to -20	-19 to -10	-9 to 0	1 to 10	11 to 20	21 to 30	31 to 40	over 40
reading	0.2	0.6	2.4	8.6	34.3	42.3	8.3	2.1	0.7	0.5
math	0.4	1.1	2.6	9.1	39.3	36	7.8	2.1	0.9	0.7

The compression of school-average gain scores is even more pronounced when we restrict the analysis to schools with more than just a handful of tested students. As can be seen in the following figure, only 0.5 percent of schools with ten or more gain scores have observed average reading gains of -20 percentile points or below, and 1.0 percent of these schools have observed average math gains of -20 percentile points or below. No schools wih ten or more gain scores have observed average reading gains of 20 percentile

points or above, and only 0.2 percent of these schools have observed average math gains of 20 percentile points or above. That said, there still exists considerable variation in school average gain scores: 6.3 percent of these schools have average reading gains worse than -10 percentile points (6.8 percent in math) and 4.1 percent of these schools have average reading gains better than 10 percentile points (3.9 percent in math). While these differences still certainly reflect a good deal of measurement error (due to small sample sizes at the school level), they do suggest that there exists non-trivial variability in the average gain scores at the school level as well. The next section of this report presents school-by-school average gain scores for schools with 30 or more observed gain scores, as required by statute. While those figures still surely reflect some measurement error, they are more likely to be precisely measured than are average gain scores of schools with fewer observed students.



	-40 and below	-39 to -30	-29 to -20	-19 to -10	-9 to 0	1 to 10	11 to 20	21 to 30	31 to 40	over 40
reading	0	0	0.5	5.8	39.6	50	4.1	0	0	0
math	0.2	0	0.8	5.8	50	39.3	3.7	0.2	0	0

It is also possible to divide schools into groups, based on school attributes, to measure average gain scores. The vast majority of schools participating in the FTC program, representing 82.1 percent of the students with gain scores, also participated in the most recent iteration of the National Center for Education Statistics's Private School

Survey, which provides some basic information about most of the private schools in the United States.[7] The table on page 22 presents average reading and math gain scores for schools stratified along several dimensions: (1) the percentage of the student body participating in the FTC program[8]; (2) the length of the school year; (3) the school's student-teacher ratio; and (4) the school's religious affiliation (for religions whose schools represent at least five percent of the total student body in the program, though not necessarily five percent of the gain scores observed.)

As can be seen in the table, there appears to be no relationship between the fraction of a school's students served by the FTC program and the performance of students in the schools (at least as measured by gain scores.) This is a highly relevant finding because one might be concerned that schools that serve large fractions of pragram students may be systematically different from those that serve few program students, and while this may be the case, it does not appear to be related to student gains. On the other hand, private schools offer a wider range of "school inputs" such as the length of the school year and student-teacher ratios than are observed in the public schools. While there does not appear to be a difference in gain scores between FTC students attending schools with relatively few students per teacher versus those with relatively many students per teacher, there is a strong relationship between length of the school year and gain scores: FTC students in schools with short school years (fewer than 180 days) perform significantly worse than do those with 180 day school years or those with longer

[7] While NCES has carried out a survey as recently as 2011-12, the most recent data currently available for download are from the 2009-10 school year.

[8] Note that since the NCES data come from a survey, while the FTC program participation comes from administrative records, and because the data are collected at different points in time, there is surely measurement error in these calculations, but they should be a reasonable first approximation of the percentage of a school's student body who participate in the FTC program.

than 180 days in the school year. (In the case of math, students perform significantly better in schools with more than 180 days versus those with exactly 180 days; there is no significant difference in reading.)

There are also differences in gain scores depending on the religious orientation of the private school. Religious and non-religious schools have similar gain scores in reading, but religious schools on average have significantly lower gain scores in math than do non-religious schools. These differences mask considerable heterogeneity, however, in religious school differences: Catholic schools on average have higher reading gains than do non-religious schools, and these differential positive gains are concentrated in the parochial and private religious order Catholic schools. Every one of the identified religious schools except for Assembly of God schools have lower math gain scores than do non-religious schools – but Catholic privatre religious order schools have significantly higher math gain scores than any other identified group of schools, including non-religious schools.

Therefore, there are predictable features of private schools that are associated with differentially large or small gain scores in reading and mathematics. While these differences should not be construed per se as quality differences, they are potentially suggestive of differences in school performance.

Table: Average reading and math gain scores, 2011-12 to 2012-13, by school attribute

	Percent of total number of gain scores	Average reading gain score	Average math gain score
I. Schools stratified by percentage participating in the FTC program * denotes significant difference at the 95% confidence level from 0-9.9% group			
0-9.9%	17.8%	-0.40	-0.98
1—24.9%	26.8	0.58	-0.86
25-49.9%	33.2	0.27	-0.36
At least 50%	22.1	0.17	-0.40
II. Schools stratified by length of the school year * denotes significant difference at the 95% confidence level from the <180 day group			
Fewer than 180 days	17.0	-1.61	-3.36
Exactly 180 days	72.2	0.66*	-0.25*
More than 180 days	10.8	0.03*	1.42*
III. Schools stratified by student-teacher ratio * denotes significant difference at the 95% confidence level from the <10 students/teacher group			
Fewer than 10 students per teacher	28.6	0.28	-0.39
Between 10-16 students per teacher	51.3	-0.20	-1.13
More than 16 students per teacher	20.1	1.08	0.40
IV. School religious affiliation * denotes significant difference at the 95% confidence level from the not religious group			
Not religious	10.3	0.64	1.54
Religious	89.7	0.16	-0.84*
Catholic	20.2	1.98*	-0.25*
Parochial schools	8.8	2.62*	-0.66*
Diocesan schools	12.1	1.08	-1.33*
Private order schools	1.6	5.18*	9.80*
Assembly of God	4.7	-0.35	-0.07
Baptist	18.9	-0.56	-0.29*
Christian, not affiliated	22.5	0.40	-1.19*
Seventh-Day Adventist	6.2	0.76	-3.05*
Other religious	17.3	-1.56	-1.10*

V. Individual school average gain scores, 2011-12 to 2012-13

Beginning with the 2010-11 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 110 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 2012-13, the Appendix Table presents the average gain scores over three years, from 2010-11 through 2012-13.

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 2011-12. That school is likely to experience a negative average gain score in 2012-13 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 2011-12, 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.[9]

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 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 2012-13 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 2012-13 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

[9] 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.

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, it 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.

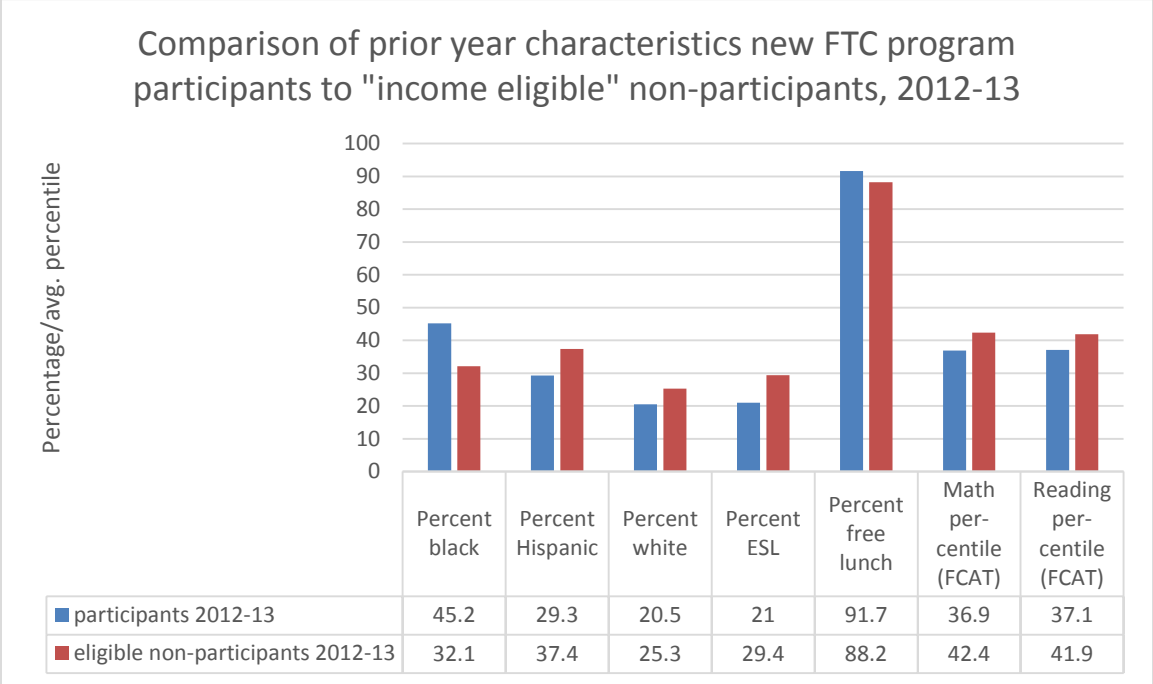
VI. Attributes of New Program Participants in 2012-13

Previous reports detailed the fact that families self-select into the FTC Scholarship Program.[10] These reports demonstrated that participants in the scholarship program are more disadvantaged than presumably eligible non-participants[11] and that they tend to be among the most struggling students in their public schools before they

[10] 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. Selection into the program has followed a very similar pattern in every year since that study was published. A brief summary of the key points of that paper is provided in this report.

[11] 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.

move to the private sector. This section continues this same analysis for new program participants in 2012-13.



	Percent black	Percent Hispanic	Percent white	Percent ESL	Percent free lunch	Math per-centile (FCAT)	Reading per-centile (FCAT)
participants 2012-13	45.2	29.3	20.5	21	91.7	36.9	37.1
eligible non-participants 2012-13	32.1	37.4	25.3	29.4	88.2	42.4	41.9

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 2011-12 academic year in the Florida public schools, so one can compare the students who entered the FTC Scholarship Program in 2012-13 versus potentially comparable students who did not enter the program in that year but remained free or reduced-price lunch eligible in 2012-13, 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 2011-12; 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 2012-13, so that this reflects the set of students for whom a test score is possible. By these standards, there were 4,402 new students in the FTC Scholarship program from this sample and 666,456 students from this sample who remained in the public schools and continued on subsidized school lunches in 2012-13. For variables that change over time, such as free lunch eligibility, ESL status, and FCAT scores, the 2011-12 value of the variable is reported.

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 be English language learners. 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 2011-12 school year, participants were more likely to qualify for free lunch as of the last survey taken in 2011-12, 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, 2012-13 non-

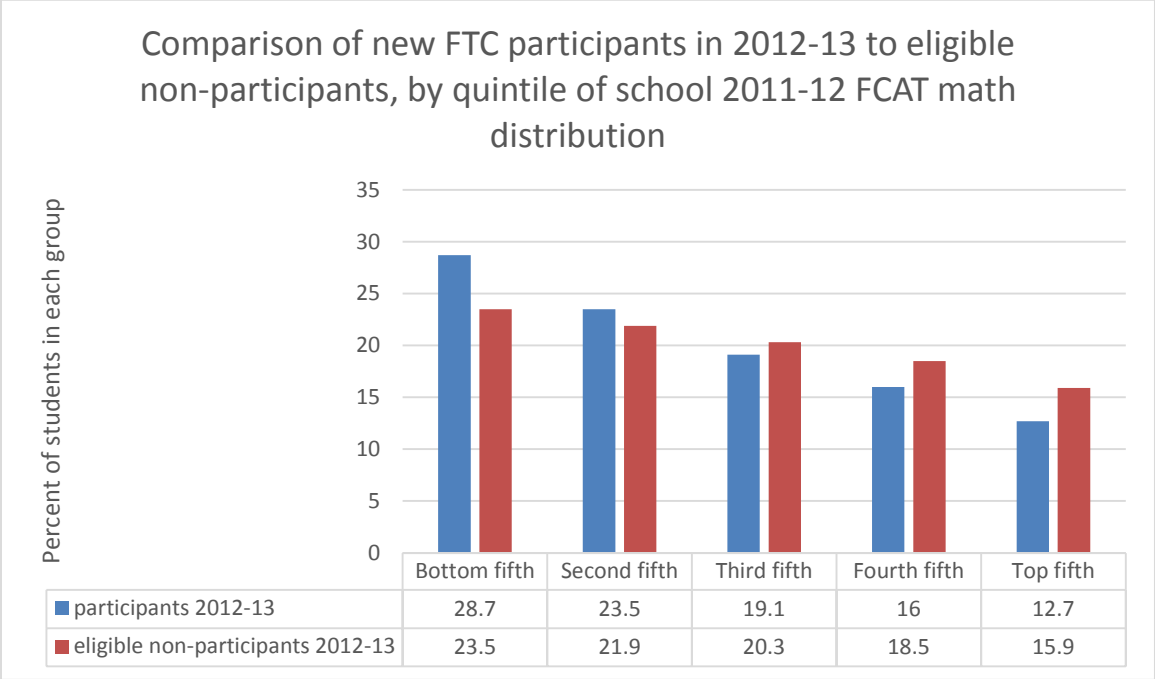
participants out-performed 2012-13 scholarship participants in the 2011-12 school year, when both groups were still attending public schools. All of these differences are large in magnitude and are statistically significant, and indicate that scholarship participants tend to be considerably more disadvantaged 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.[12]

The mean differences in 2011-12 performance between public school students who would ultimately participate in the FTC Scholarship Program in 2012-13 and those who are plausibly income-eligible but who remained in Florida public schools in 2012-13 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 2012-13 FTC Scholarship Program participants came disproportionately from lower-performing schools, according to Florida Department of Education school grades in 2012, as compared to eligible students who did not participate in the program. Amongst the students new to the program in 2012-13, 35.1 percent came from schools graded "A" by the Florida Department of Education in 2012, as compared with 39.6 percent of those public school students eligible

[12] 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, 12.2 percent of new participants came from schools graded "D" or "F" by the Florida Department of Education in 2012, versus 10.3 percent of eligible non-participants.



	Bottom fifth	Second fifth	Third fifth	Fourth fifth	Top fifth
participants 2012-13	28.7	23.5	19.1	16	12.7
eligible non-participants 2012-13	23.5	21.9	20.3	18.5	15.9

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, 28.7 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 23.5 percent of non-participating free- or reduced-price lunch students were in the bottom fifth of the distribution in the prior public school. (On the reading side, 28.0 percent of students who would select into the program were in the bottom fifth of their prior public school's reading distribution, as compared with 23.8 percent of non-participating eligible students.) At the top of the test score distribution, only 12.7 percent of students who would select into the program were in the top fifth of their prior public

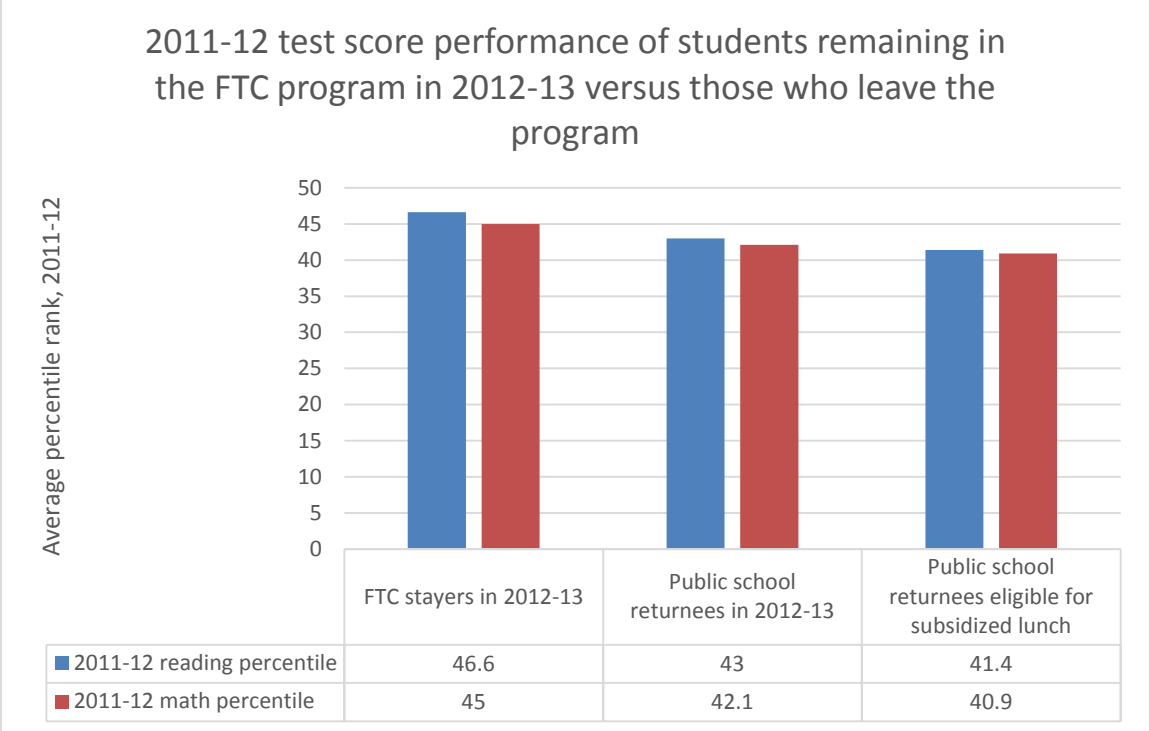
school's mathematics test score distribution, as compared with 15.9 percent of free- or reduced-price lunch students in the top fifth of the distribution in the prior public school. (In the case of reading, the gap is similar – 2.7 percentage points, instead of the 3.2 percentage point gap for math.) 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.

VII. Performance of Program Participants Who Return to Florida Public Schools

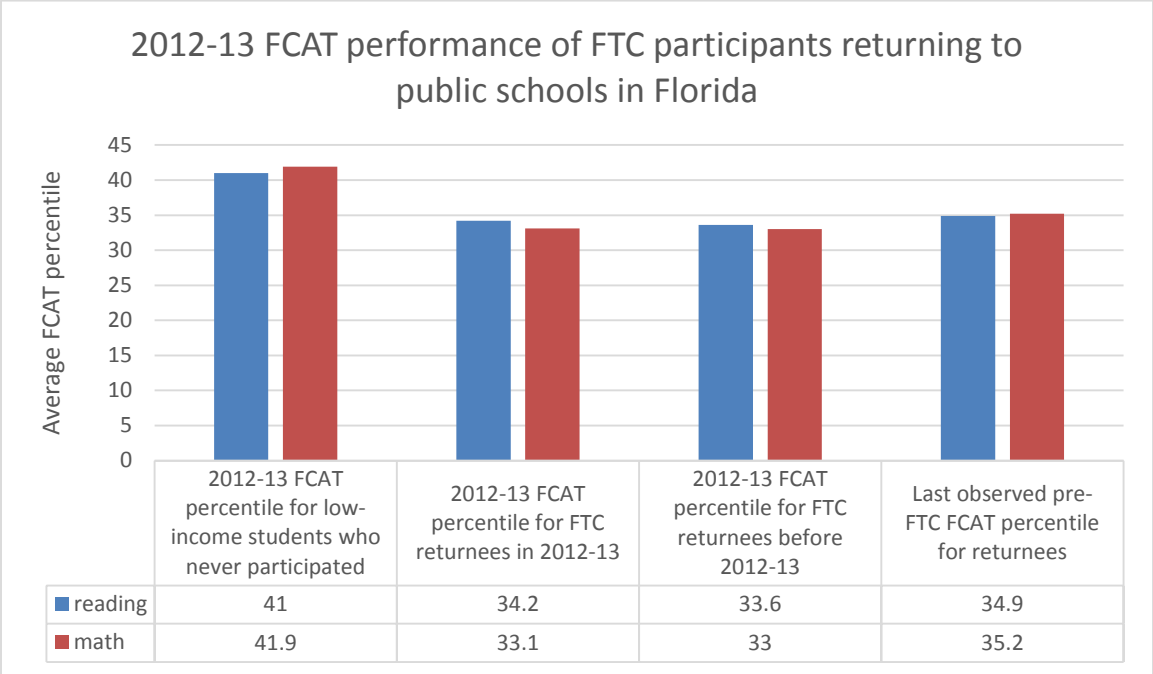
It is also possible to compare FTC students who return to public schools after some time in the program to those who remain in the FTC program, and to compare program returnees to other Florida public school students who never left the public sector. While these comparisons should not – for several reasons -- 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 2011-12 national norm-referenced test performance for students who returned to the public school system in Florida in 2012-13 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 somewhat 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 2012-13 scored at the 46.6th national percentile in reading (45th in math) in 2011-12, but the typical student who left the program scored modestly lower -- in the 43rd percentile in reading and 42.1st 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 2012-13, and therefore closer to the same income range as those who continue in the FTC program, the average returnee was in the 41.4th national percentile in reading and 40.9th national percentile in math – providing additional evidence supporting the notion that the low-income students who leave the program were disproportionately those who were struggling in their private school.



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.[13]



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 appear to perform worse on the FCAT than did other subsidized-meals recipients who never participated in the program. For returnees to the public schools in 2012-13, former FTC scholarship recipients performed at the 34.2nd Florida percentile in reading

[13] 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.

and 33.1st percentile in math in 2012-13, as compared with never-leavers who performed at the 41st percentile in reading and 41.9th percentile in math. Those who returned to the public schools from the FTC program in earlier years performed at approximately the same level as did those whose first year back in Florida public schools was 2012-13.

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 34.9th Florida percentile in reading and the 35.2nd percentile in math. These are not exactly apples-to-apples comparisons, as some returnees

with FCAT scores do not have a prior FCAT score, and vice versa. When we limit the analysis to those with both an FCAT score in the year prior to entering the FTC program as well as in 2012-13 (while still being eligible for subsidized school meals in 2012-13), we observe that the typical returnee scored in the 36.1st percentile in his or her last FCAT math exam before the FTC program and in the 34th percentile in the first year back to Florida public schools in 2012-13. For reading, the typical returnee scored in the 37.7th percentile in reading in his or her last year in Florida public schools before entering the program and in the 34.7th percentile in 2012-13. Similar patterns are observed, but with fewer observations, if we look at students in their second, third, or fourth years after returning to the public sector from the FTC program.

In summary, while returnees to the public schools performed slightly worse (though not statistically different) than these levels when they returned to the public schools, it is evident that the performance of returnees from the FTC program should not be directly compared to that of students who never participated in the program, as they represent different populations of students. Rather, the evidence strongly points 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.

VIII. 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 2012-13, 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. While a modestly smaller percentage of student scores were reported in 2012-13 than in the prior two years of reporting, there remains strong evidence of high degrees of compliance with testing requirements for program participants and little evidence of strategic reporting behavior.

As in prior years, newcomers to the FTC program tend to be disproportionately low-performing prior to their arrival into the program, and, indeed, those who return to the public sector were students who were the most struggling in the private schools. While FTC students who return to the public schools in Florida have substantially lower test scores than other students eligible for free or reduced-price lunches who never participated in the program, the weight of the evidence suggests that this is due to selection of students into and out of the program, rather than differential performance of students as a consequence of the program.

On the performance side, while it is no longer possible to directly compare FTC participants' test scores or gains to their Florida public school counterparts, it is possible to see how FTC participants fare relative to national norms. Students in some private schools gain considerable ground relative to peers nationally, while students in other private schools lose considerable ground relative to national peers. On average, FTC participants on average keep pace with national norms, suggesting that they neither gain ground nor lose ground on average relative to a national peer group that includes not just low-income families but also higher-income families.

Appendix Table: Average gain scores in 2012-13 and three-year moving average of gain scores from 2010-11 to 2012-13 for schools with 30 or more gain scores in 2012-13, ranked by average three-year combined gain score.

SCHOOL NAME	CITY	NUMBER OF GAIN SCORES OBSERVED		AVERAGE GAIN SCORE IN 2012-13			AVERAGE GAIN SCORE FROM 2010-11 TO 2012-13		
		2012-13 SCHOOL YEAR	BETWEEN 2010-11 AND 2012-13	READING+ MATH COMBINED	READING	MATH	READING+ MATH COMBINED	READING	MATH
PENTAB ACADEMY	MIAMI	36	85	5.8	2.0	9.5	6.2	3.5	9.0
ALAZHAR SCHOOL	TAMARAC	40	78	10.1	9.9	10.2	5.7	5.5	5.8
VICTORY CHRISTIAN ACADEMY	ORLANDO	52	164	11.7	12.3	11.2	5.5	4.9	6.1
WORSHIPERS' HOUSE OF PRAYER ACADEMY (TN)	MIAMI	44	132	1.6	3.6	-0.4	5.1	7.8	2.1
NUR UL-ISLAM ACADEMY	COOPER CITY	92	237	3.9	2.8	5.0	4.3	2.8	5.8
SAINT MICHAEL THE ARCHANGEL (IT)	MIAMI	42	106	6.5	7.5	5.5	3.9	6.4	1.4
BRITO MIAMI PRIVATE SCHOOL	MIAMI	32	100	-1.8	0.6	-4.4	3.8	4.4	3.4
PATHWAYS SCHOOL	ORLANDO	45	134	1.4	3.4	-0.6	3.8	6.2	1.4
ACADEMY PREP CENTER OF ST. PETERSBURG	SAINT PETERSBURG	43	114	2.4	0.6	4.1	3.5	1.7	5.4
MUSLIM ACADEMY OF GREATER ORLANDO	ORLANDO	40	105	3.8	3.6	4.1	3.3	4.0	2.6
ACADEMY PREP CENTER OF TAMPA INC.	TAMPA	57	169	5.3	5.2	5.4	2.9	2.1	3.7
LINCOLN-MARTI COMMUNITY AGENCY 17	HIALEAH	85	230	5.7	2.7	9.6	2.9	1.4	4.5

SCHOOL NAME	CITY	NUMBER OF GAIN SCORES OBSERVED		AVERAGE GAIN SCORE IN 2012-13			AVERAGE GAIN SCORE FROM 2010-11 TO 2012-13		
		2012-13 SCHOOL YEAR	BETWEEN 2010-11 AND 2012-13	READING+ MATH COMBINED	READING	MATH	READING+ MATH COMBINED	READING	MATH
CHAMPAGNAT CATHOLIC SCHOOL OF HIALEAH	HIALEAH	70	203	19.0	13.2	24.7	2.9	0.7	4.9
HERITAGE CHRISTIAN SCHOOL	KISSIMMEE	101	291	2.2	0.1	4.4	2.7	0.9	4.5
PLEASANT HILL ACADEMY	KISSIMMEE	68	197	4.8	5.6	4.1	2.6	3.1	2.2
SOUTHLAND CHRISTIAN SCHOOL	KISSIMMEE	63	128	1.2	1.7	0.8	2.4	2.3	2.6
LIGHTHOUSE CHRISTIAN ACADEMY	DELAND	40	113	1.0	0.3	1.6	2.3	3.2	1.4
LINCOLN-MARTI COMMUNITY AGENCY 10	MIAMI	120	333	0.1	-0.8	0.9	2.2	1.6	2.8
HOLY FAMILY CATHOLIC SCHOOL (IT)	NORTH MIAMI	62	190	1.2	1.3	1.1	1.9	3.8	-0.5
ABUNDANT LIFE CHRISTIAN ACADEMY	MARGATE	57	132	0.8	1.6	0.2	1.9	2.4	1.7
IBN SEENA ACADEMY (TN)	ORLANDO	32	69	3.4	1.0	5.5	1.9	1.5	1.9
NORTH FLORIDA CHRISTIAN SCHOOL	TALLAHASSEE	47	121	3.4	4.0	2.8	1.8	2.7	1.0
BEACON OF HOPE CHRISTIAN SCHOOL	SAINT AUGUSTINE	32	87	0.2	0.9	-0.5	1.8	2.6	1.0
AZALEA PARK BAPTIST SCHOOL	ORLANDO	30	86	4.1	5.7	2.6	1.7	2.1	1.2

SCHOOL NAME	CITY	NUMBER OF GAIN SCORES OBSERVED		AVERAGE GAIN SCORE IN 2012-13			AVERAGE GAIN SCORE FROM 2010-11 TO 2012-13		
		2012-13 SCHOOL YEAR	BETWEEN 2010-11 AND 2012-13	READING+ MATH COMBINED	READING	MATH	READING+ MATH COMBINED	READING	MATH
UNIVERSAL ACADEMY OF FLORIDA	TAMPA	79	188	1.5	0.1	2.6	1.6	1.5	1.6
CHRIST-MAR PRIVATE SCHOOL	HIALEAH	33	90	-4.2	-2.8	-5.6	1.6	-0.1	3.4
IMMACULATE CONCEPTION CATHOLIC SCH (IT)	HIALEAH	36	75	5.3	6.1	4.3	1.6	4.4	-1.4
HOLY CROSS LUTHERAN SCHOOL	NORTH MIAMI	42	83	-1.9	2.1	-6.0	1.5	4.4	-2.0
TAMPA ADVENTIST ACADEMY (IT)	TAMPA	38	83	0.4	3.7	-2.9	1.3	1.8	0.6
ALTAMONTE CHRISTIAN SCHOOL	ALTAMONTE SPRINGS	31	77	-2.3	-3.6	-1.1	1.2	0.6	1.7
BROWARD JUNIOR ACADEMY (IT)	PLANTATION	37	76	-0.1	1.7	-1.4	1.1	2.6	-0.2
ST HELEN CATHOLIC SCHOOL (IT)	FORT LAUDERDALE	59	140	0.6	7.7	-6.5	1.1	4.3	-2.1
ZION LUTHERAN CHRISTIAN	DEERFIELD BEACH	37	73	1.2	0.7	1.7	1.1	2.5	-0.4
SOUTH ORLANDO CHRISTIAN ACADEMY	ORLANDO	60	158	-5.2	-3.7	-6.8	1.0	0.0	2.1
MEADOWBROOK ACADEMY INC.	OCALA	36	85	4.1	4.1	4.2	0.7	-0.4	1.9
BRUSH ARBOR CHRISTIAN SCHOOL	ORLANDO	46	104	-3.3	-3.0	-3.7	0.4	0.0	1.0
SALAH TAWFIK ELEM/MIDDLE SCHOOL	SUNRISE	37	94	0.9	-0.4	2.2	0.4	0.2	0.6

SCHOOL NAME	CITY	NUMBER OF GAIN SCORES OBSERVED		AVERAGE GAIN SCORE IN 2012-13			AVERAGE GAIN SCORE FROM 2010-11 TO 2012-13		
		2012-13 SCHOOL YEAR	BETWEEN 2010-11 AND 2012-13	READING+ MATH COMBINED	READING	MATH	READING+ MATH COMBINED	READING	MATH
ELFERS CHRISTIAN SCHOOL	NEW PORT RICHEY	40	107	0.5	-2.9	2.8	0.4	0.0	0.3
LIBERTY CHRISTIAN ACADEMY	TAVARES	31	80	-0.5	-2.6	1.7	0.3	-0.1	0.6
SAINT JOHNS EPISCOPAL SCHOOL	HOMESTEAD	31	80	2.1	0.6	3.5	0.3	0.2	0.3
EASTLAND CHRISTIAN SCHOOL	ORLANDO	38	116	0.9	3.8	-2.1	0.2	0.9	-0.4
ST. ELIZABETH ANN SETON CATHOLIC SCHOOL (IT)	PALM COAST	30	63	5.0	5.0	5.0	0.1	1.7	-1.4
GREATER MIAMI ACADEMY (IT)	MIAMI	73	155	-1.1	2.1	-4.5	0.1	0.5	-0.4
GARDEN OF THE SAHABA ACADEMY (TN)	BOCA RATON	36	75	-1.8	-1.9	-1.8	0.1	2.0	-1.8
TREASURE OF KNOWLEDGE CHRISTIAN ACADEMY	ORLANDO	32	97	-2.1	-4.1	-0.1	0.0	-1.1	0.8
NORTH KISSIMMEE CHRISTIAN SCHOOL	KISSIMMEE	40	98	-1.3	-3.5	1.0	-0.1	-1.3	1.1
CALVARY CHRISTIAN ACADEMY	ORMOND BEACH	31	103	3.0	2.1	4.9	-0.2	0.6	-0.6
LEADERS PREPARATORY SCHOOL	ORLANDO	41	113	2.2	-0.6	5.1	-0.2	-1.9	1.6
SAINT JAMES CATHOLIC SCHOOL (IT)	MIAMI	93	249	1.3	4.3	-1.7	-0.2	2.3	-2.7

SCHOOL NAME	CITY	NUMBER OF GAIN SCORES OBSERVED		AVERAGE GAIN SCORE IN 2012-13			AVERAGE GAIN SCORE FROM 2010-11 TO 2012-13		
		2012-13 SCHOOL YEAR	BETWEEN 2010-11 AND 2012-13	READING+ MATH COMBINED	READING	MATH	READING+ MATH COMBINED	READING	MATH
THE POTTER'S HOUSE CHRISTIAN ACADEMY ELEM	JACKSONVILLE	51	191	-2.5	2.0	-7.3	-0.2	1.5	-2.1
SACRED HEART (IT)	JACKSONVILLE	45	102	1.4	4.1	-1.4	-0.3	3.0	-3.5
TRINITY CHRISTIAN ACADEMY	JACKSONVILLE	84	217	0.4	-0.4	1.2	-0.4	0.0	-0.8
ORLANDO JUNIOR ACADEMY (IT)	ORLANDO	31	54	-0.5	2.8	-3.8	-0.4	2.8	-3.8
CEDAR CREEK CHRISTIAN SCHOOL	JACKSONVILLE	33	120	7.4	7.8	7.0	-0.4	0.4	-1.3
SAINT JOHN THE APOSTLE SCH (IT)	HIALEAH	67	184	3.7	6.0	1.4	-0.6	2.1	-3.3
OUR LADY OF CHARITY SCHOOL (TN)		35	35	-0.6	2.0	-3.3	-0.6	2.0	-3.3
SAINT LAWRENCE SCHOOL (IT)	NORTH MIAMI BEACH	33	81	-0.3	2.7	-3.2	-0.8	0.6	-1.9
SAINT MARYS CATHEDRAL (IT)	MIAMI	113	291	-1.2	-0.9	-1.6	-0.8	0.6	-2.1
KINGSWAY CHRISTIAN ACADEMY	ORLANDO	101	274	0.6	1.7	-0.6	-0.8	-1.1	-0.4
OCALA CHRISTIAN ACADEMY	OCALA	59	152	7.3	6.8	7.8	-0.8	0.5	-2.2
LA PROGRESIVA PRESBYTERIAN SCHOOL INC.	MIAMI	98	287	-0.8	0.3	-1.8	-0.9	0.9	-2.5
TALLAVANA CHRISTIAN SCHOOL	HAVANA	32	96	0.2	0.9	-0.6	-1.0	1.3	-3.2

SCHOOL NAME	CITY	NUMBER OF GAIN SCORES OBSERVED		AVERAGE GAIN SCORE IN 2012-13			AVERAGE GAIN SCORE FROM 2010-11 TO 2012-13		
		2012-13 SCHOOL YEAR	BETWEEN 2010-11 AND 2012-13	READING+ MATH COMBINED	READING	MATH	READING+ MATH COMBINED	READING	MATH
FAITH LUTHERAN SCHOOL	HIALEAH	32	75	3.1	-1.3	7.5	-1.0	-1.0	-1.1
JOSHUA CHRISTIAN ACADEMY	JACKSONVILLE	43	175	0.4	2.0	-1.0	-1.0	-0.9	-1.1
VICTORY CHRISTIAN ACADEMY	LAKELAND	33	90	-0.4	-0.9	0.2	-1.0	-0.7	-1.3
BETESDA CHRISTIAN SCHOOL (TN)	OPA-LOCKA	55	143	3.6	1.9	5.3	-1.0	-1.2	-0.9
SAINT ANDREW CATHOLIC SCH (IT)	ORLANDO	32	112	-0.8	1.8	-3.7	-1.1	1.3	-3.5
SAINT JOSEPH CATHOLIC SCH (IT)	WINTER HAVEN	33	69	1.9	3.8	0.0	-1.2	2.0	-4.3
FAITH OUTREACH ACADEMY	TAMPA	37	77	-1.5	-1.9	-1.0	-1.2	0.3	-2.6
EDISON PRIVATE SCHOOL	HIALEAH	74	194	-2.6	-0.9	-4.3	-1.2	-0.9	-1.5
LIFE ASSEMBLY OF GOD LIFE ACADEMY	KISSIMMEE	54	174	1.5	1.7	1.3	-1.3	0.3	-2.9
PHYL'S ACADEMY	LAUDERDALE LAKES	33	73	-2.6	-4.4	-0.8	-1.4	-1.5	-1.3
WEST HERNANDO CHRISTIAN SCHOOL	SPRING HILL	40	87	-2.5	0.0	-5.1	-1.5	-0.7	-2.2
MIAMI UNION ACADEMY (IT)	NORTH MIAMI	90	264	-2.6	-1.5	-3.8	-1.6	0.0	-3.0
LAKESIDE CHRISTIAN SCHOOL	CLEARWATER	40	81	5.5	7.8	3.3	-1.6	0.1	-3.1
TRINITY CHRISTIAN ACADEMY	DELTONA	69	177	-1.5	-1.0	-2.1	-1.7	0.7	-4.1

SCHOOL NAME	CITY	NUMBER OF GAIN SCORES OBSERVED		AVERAGE GAIN SCORE IN 2012-13			AVERAGE GAIN SCORE FROM 2010-11 TO 2012-13		
		2012-13 SCHOOL YEAR	BETWEEN 2010-11 AND 2012-13	READING+ MATH COMBINED	READING	MATH	READING+ MATH COMBINED	READING	MATH
HERITAGE PREPARATORY SCHOOL	ORLANDO	49	149	-3.4	-0.6	-6.2	-1.7	-1.5	-2.1
FOREST LAKE EDUCATION CTR (IT)	LONGWOOD	59	149	-0.4	1.7	-2.2	-1.7	-0.4	-3.3
PENIEL BAPTIST ACADEMY	PALATKA	30	86	-0.9	1.8	-3.7	-1.8	-0.4	-3.1
NORTHWEST CHRISTIAN ACADEMY (TN)	MIAMI	51	132	-0.9	-2.7	1.0	-1.8	-0.8	-2.7
TEMPLE CHRISTIAN ACADEMY (BA)	JACKSONVILLE	32	89	-5.4	-6.2	-4.5	-1.8	-3.5	-0.8
OUR LADY OF LOURDES CATHOLIC SCHOOL (IT)	DAYTONA BEACH	40	106	-1.6	1.0	-4.1	-1.9	0.4	-4.2
ESPRIT DE CORPS CENTER FOR LEARNING (TN)	JACKSONVILLE	47	134	0.0	1.3	-1.3	-1.9	0.3	-4.3
LINCOLN-MARTI COMMUNITY AGENCY 01-931	MIAMI	55	210	4.2	4.5	5.6	-1.9	0.2	-3.9
COLONIAL CHRISTIAN SCHOOL	HOMESTEAD	40	92	0.5	0.0	0.9	-2.0	-0.4	-3.7
CITY OF LIFE CHRISTIAN ACADEMY (TN)	KISSIMMEE	57	172	-3.2	-1.8	-4.7	-2.1	-1.0	-3.2
COMMUNITY CHRISTIAN LEARNING CENTER	APOPKA	33	81	-7.2	-7.0	-7.4	-2.1	-1.2	-3.0

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		2012-13 SCHOOL YEAR	BETWEEN 2010-11 AND 2012-13	READING+ MATH COMBINED	READING	MATH	READING+ MATH COMBINED	READING	MATH
POTTER'S HOUSE ACADEMY	ORLANDO	31	54	-1.8	-2.3	-1.5	-2.2	-0.4	-4.1
VENICE CHRISTIAN SCHOOL (TN)	VENICE	32	69	-3.6	-4.2	-3.1	-2.5	-2.8	-2.3
TORAS EMES ACADEMY OF MIAMI	NORTH MIAMI BEACH	31	75	-7.0	-6.3	-7.6	-2.5	-2.2	-3.6
FIRST COAST CHRISTIAN SCHOOL	JACKSONVILLE	66	153	-7.1	-7.6	-6.5	-2.6	-2.3	-3.0
UNIVERSITY CHRISTIAN SCH (TN)	JACKSONVILLE	31	85	-2.9	-0.5	-5.2	-2.7	0.1	-5.0
SUNFLOWERS ACADEMY (IT)	MIAMI	111	280	5.2	-2.3	12.4	-2.8	-3.1	-2.7
BLESSED TRINITY (IT)	OCALA	49	100	-2.9	0.2	-5.9	-2.9	0.9	-6.7
EAGLE'S VIEW ACADEMY	JACKSONVILLE	34	90	-5.7	-3.9	-7.8	-3.1	-2.2	-4.0
AGAPE CHRISTIAN ACADEMY	ORLANDO	54	174	-5.0	-2.7	-7.4	-3.1	-4.5	-1.8
HOPE ACADEMY	HOMESTEAD	32	66	-0.4	0.7	-1.5	-3.3	-4.8	-1.8
HIGHLANDS CHRISTIAN ACADEMY	POMPANO BEACH	33	91	-7.8	-9.2	-6.5	-3.3	-3.4	-3.2
CORNERSTONE CHRISTIAN SCH (TN)	JACKSONVILLE	71	150	-3.2	-2.3	-4.0	-3.5	-1.1	-6.0
WARNER CHRISTIAN ACADEMY (TN)	SOUTH DAYTONA BCH	74	175	-2.3	0.1	-4.7	-3.5	-0.8	-6.2
LANDOW YESHIVA CENTER (IT)	MIAMI	95	231	-4.3	-7.8	-0.8	-4.0	-4.6	-3.3
FAITH CHRISTIAN ACADEMY (TN)	ORLANDO	74	209	-8.8	-5.1	-12.5	-4.0	-1.9	-5.9

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		2012-13 SCHOOL YEAR	BETWEEN 2010-11 AND 2012-13	READING+ MATH COMBINED	READING	MATH	READING+ MATH COMBINED	READING	MATH
MELODY CHRISTIAN ACADEMY	LIVE OAK	43	128	-2.3	1.9	-6.6	-4.1	-1.8	-6.4
NORTHSIDE CHRISTIAN ACADEMY	STARKE	31	61	-5.0	-6.7	-3.6	-4.9	-5.4	-4.6
LINCOLN-MARTI COMMUNITY AGENCY 23	MIAMI	40	71	3.8	8.7	-0.8	-5.6	-2.5	-8.7
ARCHBISHOP CURLEY/NOTRE DAME HIGH SCH (AC)	MIAMI	54	134	-3.5	-1.3	-5.6	-6.6	-6.1	-7.1
MONSIGNOR EDWARD PACE HIGH SCHOOL (PS)	MIAMI GARDENS	53	157	-5.5	-3.2	-7.8	-7.1	-7.4	-6.8
RJ HENDLEY CHRISTIAN COMMUNITY SCHOOL	RIVIERA BEACH	39	94	-13.6	-13.1	-14.2	-10.8	-10.8	-10.7
AMERICAN YOUTH ACADEMY INC. (ER)	TAMPA	82	248	-34.0	-28.1	-40.1	-12.7	-10.6	-14.6
JOSE MARTI SCHOOL 3RD CAMPUS	MIAMI	32	89	-8.2	-3.5	-12.8	-13.6	-12.6	-14.8

Notes: Cells report average gain scores. Cells (in the three-year moving average columns) that are 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.