



Evaluation of the Florida Tax Credit Scholarship Program

Participation, Compliance and Test Scores in 2020-21

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EXECUTIVE SUMMARY

This report details the 2020-21 academic year evaluation for the Florida Tax Credit Scholarship (FTC) Program, as required by the 2021 Florida Statutes, s. 1002.395(9)(f). The fourteenth in a series of annual reports, this evaluation is the seventh of those conducted by the Florida State University, Learning Systems Institute (LSI). This report provides a summary of key findings, details about test score collection, 2020-21 test score results of program participants, gain scores from 2018-19 to 2020-21 of program participants, school-level average gain scores for schools with at least 30 participating students, attributes of new program participants in 2020-21, and the performance of program participants who return to Florida public schools.

Similar to the several most recent reports, this report also does not compare the performance of FTC students to public school students. Due to the difference in the tests that each group takes, such a comparison may not be valid.

LSI was designated as the independent research organization and was directed to conduct the annual evaluation of the FTC Program. This report presents data collected by LSI for students participating in the 2020-21 academic year. The main findings include:

Participating private school compliance with protocol:

- Compliance with program testing requirements was high in 2020-21. Participating private schools reported test scores for 89.0 percent of program participants in grades 3-10. This was lower than the last year's score reporting (93.3 percent). Compared to the last year, the percentage of students with missing or unusable tests was somewhat higher in 2020-21 at 4.1 percent. This rate was 2.8 percent last year. The higher rate is due to several factors, including schools using tests not listed on the Florida Department of Education (FDOE) list of approved assessments and unresponsive schools.

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

- Newly participating FTC students in 2020-21 were more likely to be black, and less likely to be Hispanic or white than non-participant eligible students. Also, they were less likely to be English-language learners than were non-participants. The share of new FTC students who were free-lunch eligible was somewhat higher than the share of free-lunch eligible, non-participant students. Lastly, compared to eligible non-participant students, new FTC students had poorer test performance both in English Language Arts (ELA) and math before entering the FTC Program and they tended to come from lower-performing public schools.

- Former FTC students who returned to the public schools had poorer test performance in both reading and math during their last year in the FTC Program, compared to FTC students who remained in the FTC Program. Specifically, FTC students who returned to the public schools had a 45.5th normal curve equivalent score in reading and a 40.9th normal curve equivalent score in math, while FTC students who remained in the program scored at the 47.0th normal curve equivalent in reading and the 42.4th normal curve equivalent in math.
- Former FTC students who returned to the public schools also had lower performance in both ELA and math during their first year back in the public schools, compared to low-income public school students who never participated in the FTC Program. Former FTC students who returned to the public schools performed at the 38.6th Florida percentile in ELA and the 36.9th Florida percentile in math, while other subsidized meal-eligible public school students who never participated in the FTC Program performed at the 42.6th Florida percentile in ELA and the 42.9th Florida percentile in math.

Test scores of program participants, 2020-21:

- FTC students scored at the 46.4th normal curve equivalent in reading and the 41.2nd normal curve equivalent in math.
- In terms of gains in math and reading from 2018-19 to 2020-21, the typical FTC student tended to maintain his or her relative position in comparison with all students nationally both in math and reading. It is important to note that the FTC students are being compared to all students nationally and not just students from low-income families.

1. BACKGROUND

This report details the 2020-21 academic year evaluation results of the Florida Tax Credit Scholarship (FTC) Program, as required by the 2021 Florida Statutes, s. 1002.395(9)(f). The fourteenth in a series of annual reports, this evaluation is the seventh of those conducted by the Florida State University Learning Systems Institute (LSI). This report provides a summary of key findings, details about test score collection, 2020-21 test score results of program participants, gain scores from 2018-19 to 2020-21, test score gains of individual schools with at least 30 or more students, attributes of new program participants in 2020-21, and the performance of program participants who return to Florida public schools. Similar to the seven previous reports, this report also does not compare the performance of FTC students to public school students. Due to the difference in the tests that each group takes, such a comparison may not be valid. While FTC students take a nationally norm-referenced test, public school students take the Florida Standards Assessments (FSA) Test. Because there is no correspondence between the FSA and the nationally norm-referenced tests that FTC students take, the independent research organization tasked with this evaluation, LSI, holds that it is not valid to make these comparisons.

Pursuant to the Florida Statutes, s. 1002.395(9)(f) that require an independent evaluation of the FTC Program, LSI has been tasked with conducting these annual evaluations of the FTC Program since the year 2014. This report provides the results of the 2020-21 academic year evaluation of the FTC Program.

2. TEST SCORE COLLECTION IN 2020-21

Data collection protocol

As mandated by the 2021 Florida Statutes, s. 1002.395(8)(b)(1), participating private schools administered a nationally norm-referenced test approved by the Florida Department of Education (FDOE). The state designates an approved list of tests from which to choose: the ACT Aspire, Basic Achievement Skills Inventory, Comprehensive Testing Program, Curriculum Associates i-Ready Assessments, Educational Development Series, Iowa Assessments, Iowa Tests of Basic Skills, Iowa Tests of Educational Development, Kaufman Test of Educational Achievement, NWEA Measures of Academic Progress, Pivot INSPECT Summative Assessment, PSAT/NMSQT, Scantron Performance Series, Stanford Achievement Test, STAR (Math Enterprise, Reading Enterprise), TerraNova, or Wide Range Achievement Test. Alternatively, participating students may be administered the FSA in accordance with 1002.395(7)(e).

Data collection took place during the year 2020-21, in which private schools sent students' test scores to LSI. The 1,697 private schools that had participating students in grades 3 through 10 during the 2020-21 school year were contacted by LSI in fall 2020, spring 2021 and again throughout spring and summer 2021 to encourage compliance with score reporting. Schools were provided a roster of participating FTC students in grades 3 to 10, which was obtained in late fall 2020 from the Scholarship Funding Organizations.¹ From the 1,697 private schools with

¹ This roster is based on actual payments made to schools and is thus thought to contain a more precise representation of participating students than rosters from earlier in the school year.

participating FTC students, 64,835 students were enrolled in grades 3 to 10, the grades mandated for testing per the 2021 Florida Statutes, s. 1002.395(8)(b)(1). If schools had any missing or invalid student scores, they were instructed to provide an explanation backed by evidence, most commonly in the form of a notarized letter, for each missing or invalid student score.

Participating private school compliance with protocol

Score reporting in 2020-21

A majority of schools were in compliance with test score reporting for the academic year 2020-21. Regarding test score submission, most schools sent photocopied test score sheets that had been scored by the testing company. In a small number of cases where tests had been hand-scored, schools were instructed to send detailed test administration and scoring procedures. Throughout the spring and summer of 2021, LSI followed up with schools that had sent invalid test score results, including missing or incomplete test scores.

Test score sheets were sent to LSI via a secure, online score portal. As test score data was received, two data entry staff members recorded students' test scores and test information in the secure score portal. The scores were then reconciled with the original scores to ensure the highest accuracy. Test scores are deleted following one year after this double-entry and reconciliation procedure to ensure student privacy as mandated by s. 1002.22(2)(d) of the Florida Statutes.

To obtain information about prior public schooling records, the electronic

database of students' test scores, including information from student scholarship applications provided by the Scholarship Funding Organizations, was sent to the FDOE using its secure file share system. FTC student records were matched to FDOE records in order to include information about students' FSA scores, public schooling history, free/reduced lunch status, limited English proficiency, and disability status. A unique FDOE identification number replaced students' identifying information. The FDOE then returned via secure file share the matched and comparison data that were de-identified and stripped of any personal information. These de-identified data were then used for analysis.

There were 1,697 FTC participating schools with students in the relevant grades in 2020-21. The majority of the FTC participating schools provided evidence of test administration consistent with the specifications of the program. Fifty-nine participating schools, serving 1,206 testing-eligible students, closed or did not report scores for any participating students.² There were 64,835 students in relevant grades participating in the FTC Program in 2020-21. Valid, legible test scores were received for 57,700 FTC students, which represents 89.0 percent of all expected test scores received.

² LSI reported these non-compliant schools to the Florida Department of Education.

Table 1: Distribution of score reporting percentages: 2020-21 and prior ten years

	Academic year										
	09-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	20-21
Legible, valid scores received	91.3	93.5	96.4	92.3	90.0	95.9	95.6	95.8	94.0	93.3	89.0
Not enrolled at time of testing	5.8	3.5	2.1	5.1	0.8	0.4	2.2	1.5	4.0	2.9	2.4
Ineligible for testing	0.6	0.4	0.4	1.2	0.4	0.3	0.3	0.4	0.3	0.2	0.2
School closed/suspended	0.9	0.4	0.1	0.7	0.2	0.2	0.1	0.2	0.3	0.0	1.9
Student sick/absent	1.9	0.8	0.9	0.6	0.7	0.6	0.6	0.9	0.7	0.8	2.5
Missing/unusable test	1.2	0.3	0.3	1.2	7.9	2.5	1.1	1.1	0.8	2.8	4.1
Note: Percentages may not add up to 100 due to rounding.											

The rate of legible, valid scores received was high in 2020-21. As seen in Table 1, private schools reported test scores for 89.0 percent of program participants in grades 3-10. This is lower than the last year's score reporting (93.3 percent). Compared to the last year, the percentage of students with missing or unusable tests was higher in 2020-21 at 4.1 percent (as compared to 2.8 percent last year), as well as an increase in students who were sick/absent (2.5 percent as compared to 0.8 percent last year). Finally, there was an increase in schools that were closed/suspended (1.9 as compared to 0.0 percent last year). Some reasons that we observed an increase in the percentage of students with missing or unusable tests in 2020-21 was due to several factors, including schools using tests not listed on the FDOE list of approved assessments and unresponsive schools. An increase in students

who were sick/absent during testing was also observed. A likely reason for this includes students missing school due to Covid-19 quarantine. The other categories of score reporting remained at levels comparable to those observed in recent years.

Table 2: Distribution of percent and number of students with legible, valid scores: 2020-21 and prior ten years.

Academic Year	Number of students	Number of students with legible, valid scores	Percent of students with legible, valid scores
2009-2010	15,151	13,829	91.3
2010-2011	17,724	16,575	93.5
2011-2012	19,284	18,583	96.4
2012-2013	26,595	24,534	92.3
2013-2014	30,036	27,020	90.0
2014-2015	36,106	34,469	95.9
2015-2016	43,270	41,372	95.3
2016-2017	55,148	52,580	95.8
2017-2018	62,429	58,716	94.0
2018-2019	60,081	56,043	93.3
2020-2021	64,835	57,700	89.0

In 2020-21 the number of students in relevant grades participating in the program was 64,835. This is somewhat higher compared to 2018-19, where the number of students in relevant grades participating in the program was 60,081. As can be seen in Table 2, the number of enrolled students in relevant grades is higher in recent years compared to early years of the program.

Comparison of students with legible, valid test scores to scholarship population

Although the rate of successful score reporting was high in 2020-21 at 89.0 percent, there were 11.0 percent of students whose expected scores were not received. Thus, it was still important to examine whether the students whose test scores were successfully reported are comparable to the population enrolled in 2020-21.

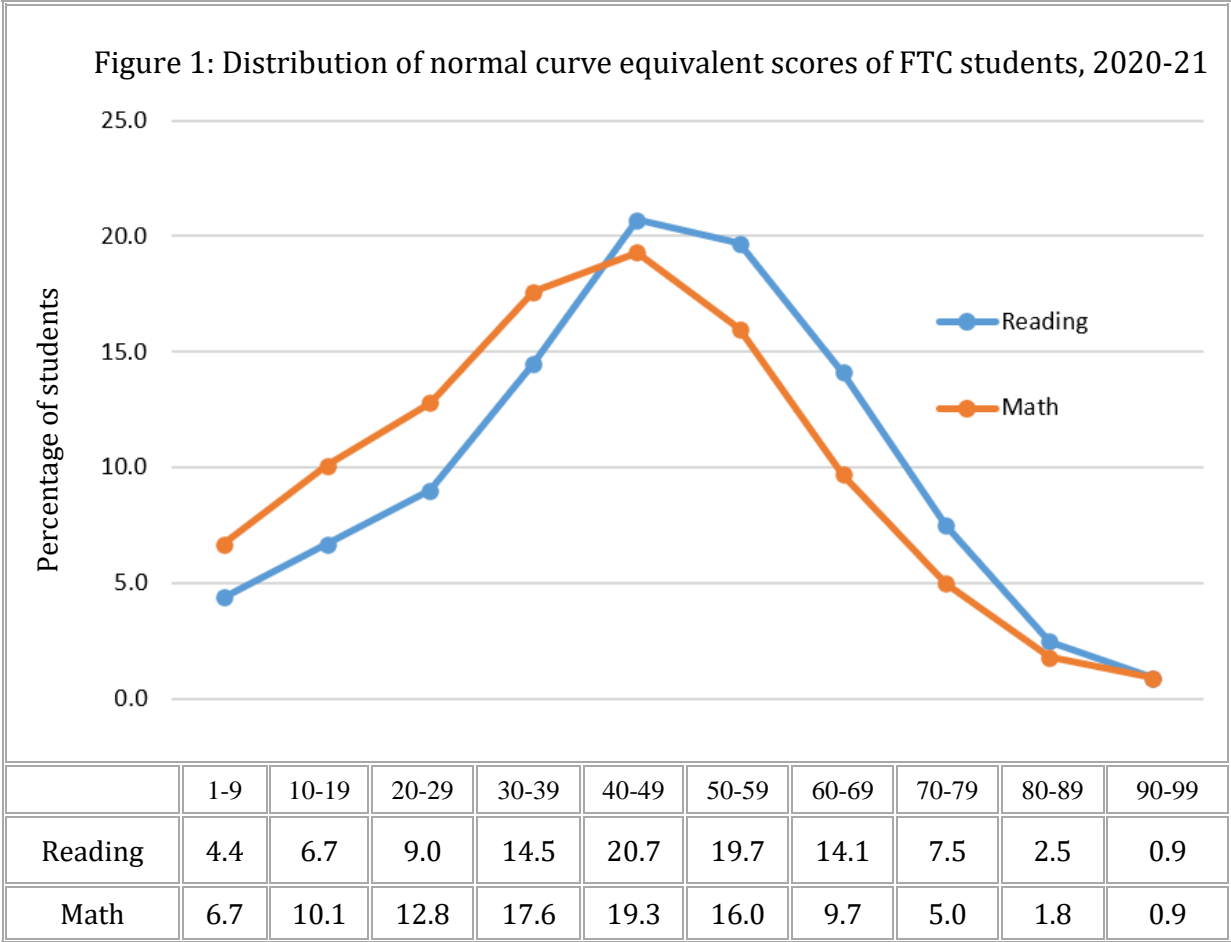
For this analysis, we used data from the families' scholarship applications. We found differences between students whose test scores were successfully reported and those whose scores were not successfully reported in terms of their family incomes, their parents' marital status, their gender and race. This finding was consistent with previous years' findings. Students whose scores were successfully reported come from families with higher incomes (averaging \$35,767 versus \$28,105) and with parents more likely to be married (44.4 percent versus 33.1 percent). Moreover, students whose scores were successfully reported were more likely to be white (28.1 percent) and female (51.2 percent), compared to students with no test scores (21.2 percent white and 49.2 percent female). We cannot make any claims about whether students with missing test scores would have had higher or lower gain scores than those with test scores available.

3. TEST SCORES OF FTC STUDENTS IN 2020-21

We report test scores in the form of the normal curve equivalent (NCE) scores. The NCE is a normalized standard score with a mean of 50 and a standard deviation of 21.06. The scale corresponds to national percentile ranks (NPR) at 1, 50, and 99.

As reported in the previous section, schools administered different nationally norm-referenced tests approved by the FDOE. Reporting test scores as normal curve equivalent scores ensures reasonable comparability across schools and program participants. Moreover, normal curve equivalent scores convey information about students' rankings compared with normal standards.

Figure 1 presents the basic distribution of reading and math scores of FTC students participating in the program in 2020-21. Most of the students were in the middle of the test score distributions. The average normal curve equivalent score for FTC students was 46.4th in reading and 41.2nd in math in 2020-21. In terms of corresponding national percentile rankings, the typical student in the FTC Program scored at the 45.5th national percentile in reading and the 38.0th national percentile in math.

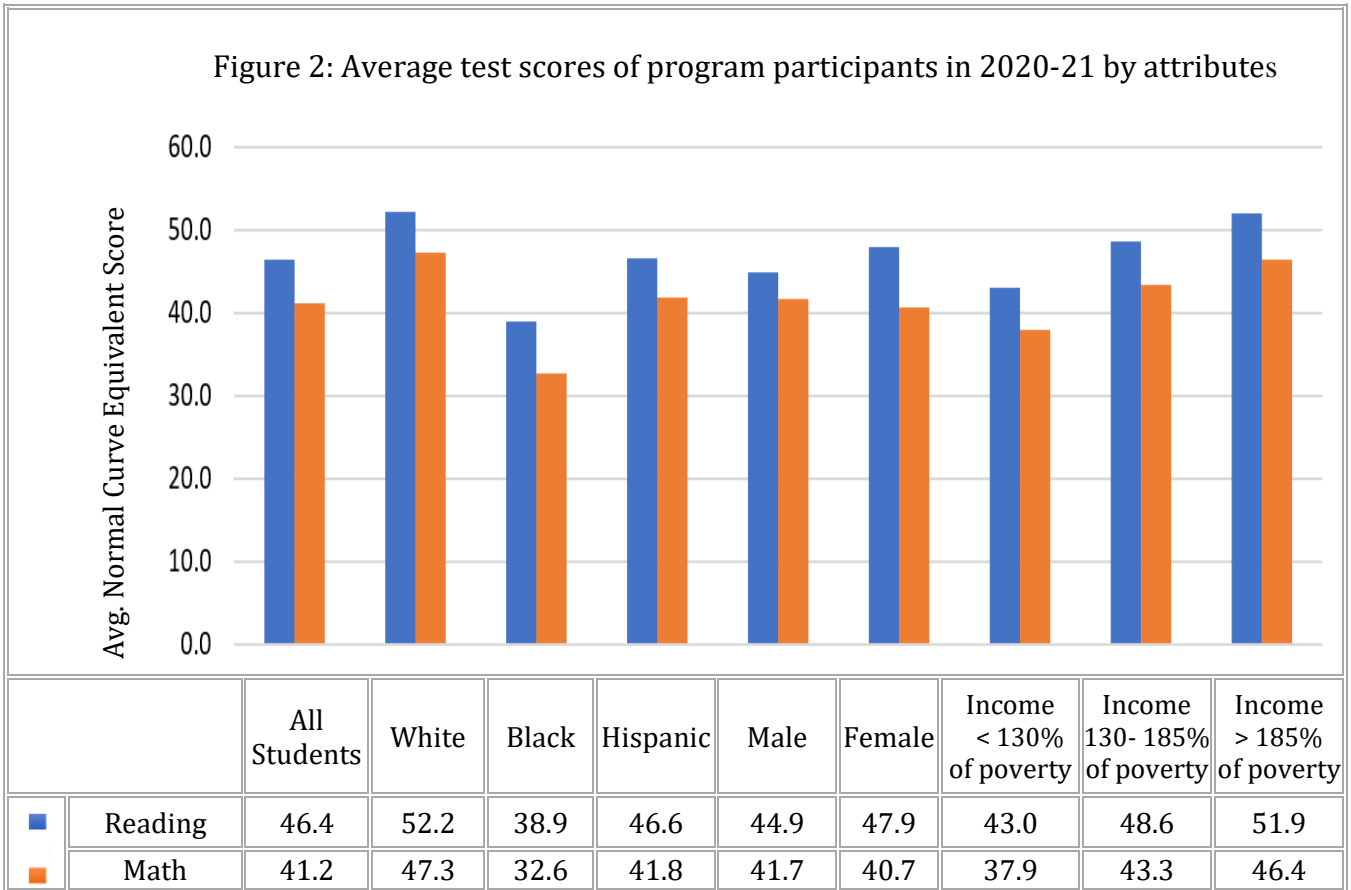


Average test scores in 2020-21 by attributes of program participants

We provided a breakdown of test scores of 2020-21 program participants by race/ethnicity, gender, and family income. Family income is expressed in terms of likely eligibility for the federal free or reduced lunch program based upon self-reported income collected from the Scholarship Funding Organizations (SFOs).³ Students from families who have incomes below 130 percent of the federal poverty line are eligible for free school meals, while those from families with incomes between 130 and 185 percent of the poverty line are eligible for reduced-price meals.

³ LSI used data from the SFOs for these analyses.

Figure 2: Average test scores of program participants in 2020-21 by attributes



As seen in Figure 2, white participants had higher mean scores than black and Hispanic participants. While mean scores of males are slightly higher than that of females in math, females tended to perform better than males did in reading. Lastly, relatively higher-income families tended to score better than relatively lower-income families. In general, these trends are similar to the trends found in previous years.

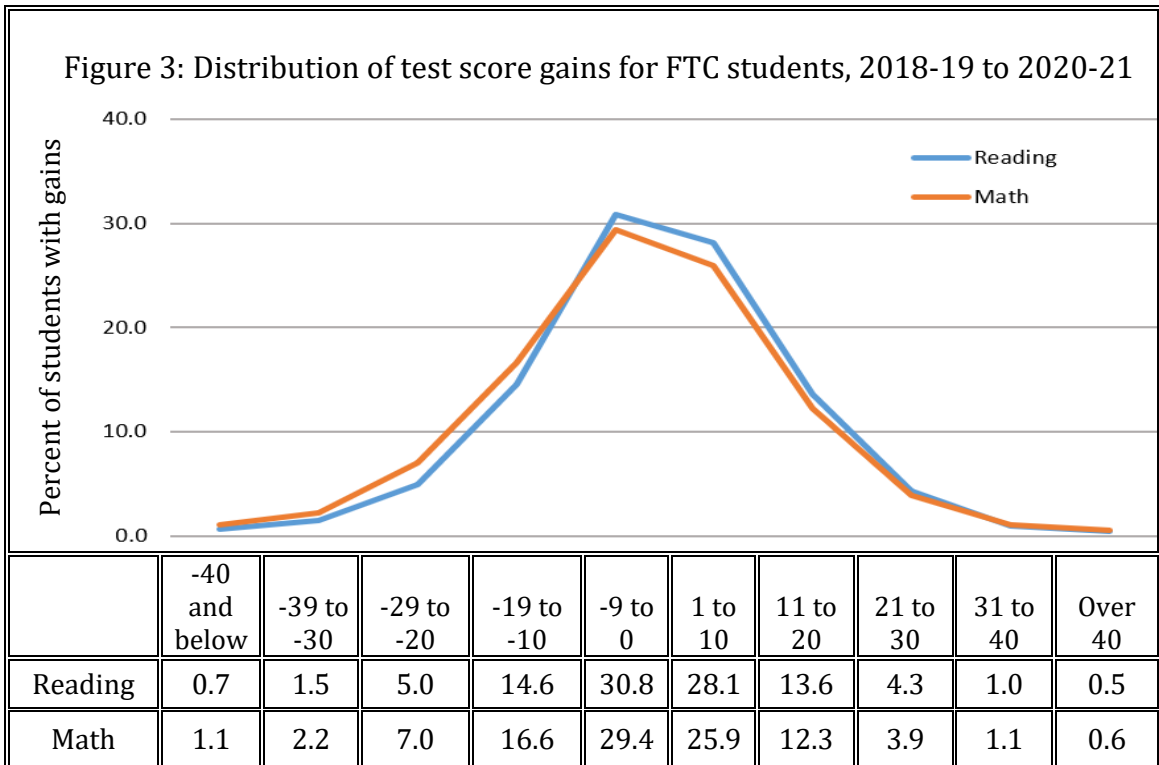
4. GAIN SCORES FROM 2018-19 TO 2020-21

Test score gains for FTC students

Test score gains for FTC students are calculated as required by the 2021 Florida Statutes, s. 1002.395(9)(f). Due to the Florida Department of Education’s

Emergency Order (DOE Order No. 2020-E0-01) waiving the 2019-20 statewide assessment requirements, we used the most recent data available to us, which was from the 2018-19 academic year.

Gain scores can be interpreted as changes in normal curve equivalent scores for program participants from 2018-19 to 2020-21 since test scores in both years are measured in terms of normal curve equivalent scores. We should note that this analysis is vulnerable to ceiling effects (where students whose scores were high in 2018-19 cannot gain much more) and floor effects (where students whose scores were low in 2018-19 cannot lose much more ground). Ceiling and floor effects were of less concern for students whose initial score falls in the middle portions of the initial test score distributions, which was the case for the majority of students participating in the FTC Scholarship Program.



Gain scores were calculated for 28,539 FTC students with legible reading scores and 28,492 FTC students with legible math scores in both 2018-19 and 2020-21. Figure 3 presents the basic distribution of reading and math gain scores of FTC students participating in the program in 2020-21. While most of the students were in the middle of the gain score distributions, considerable variation in the individual student gain scores was observed. The mean gain score for FTC students was -0.2 normal curve equivalent in reading and -1.6 normal curve equivalent in math. The normal curve equivalent score corresponds to about a 0.8 national percentile rank score in reading and a -1.7 national percentile rank score in math. This means that the typical FTC student tended to maintain his or her relative position in comparison with others nationwide. It is important to note that these national comparisons pertain to all students nationally, and not just students from low-income families. However, we cannot make any claims about whether gain scores of FTC students would have been higher or lower if they were compared against only students from low-income families nationally.

School-level differences in average gain scores, 2018-19 to 2020-21

We calculated average gain scores from 2018-19 to 2020-21 at the school level as well. Individual level variation in the gain scores examined in the preceding section was composed of both individual and school level differences. By using gain scores aggregated to the school level, we examined the variation in gain scores across schools.

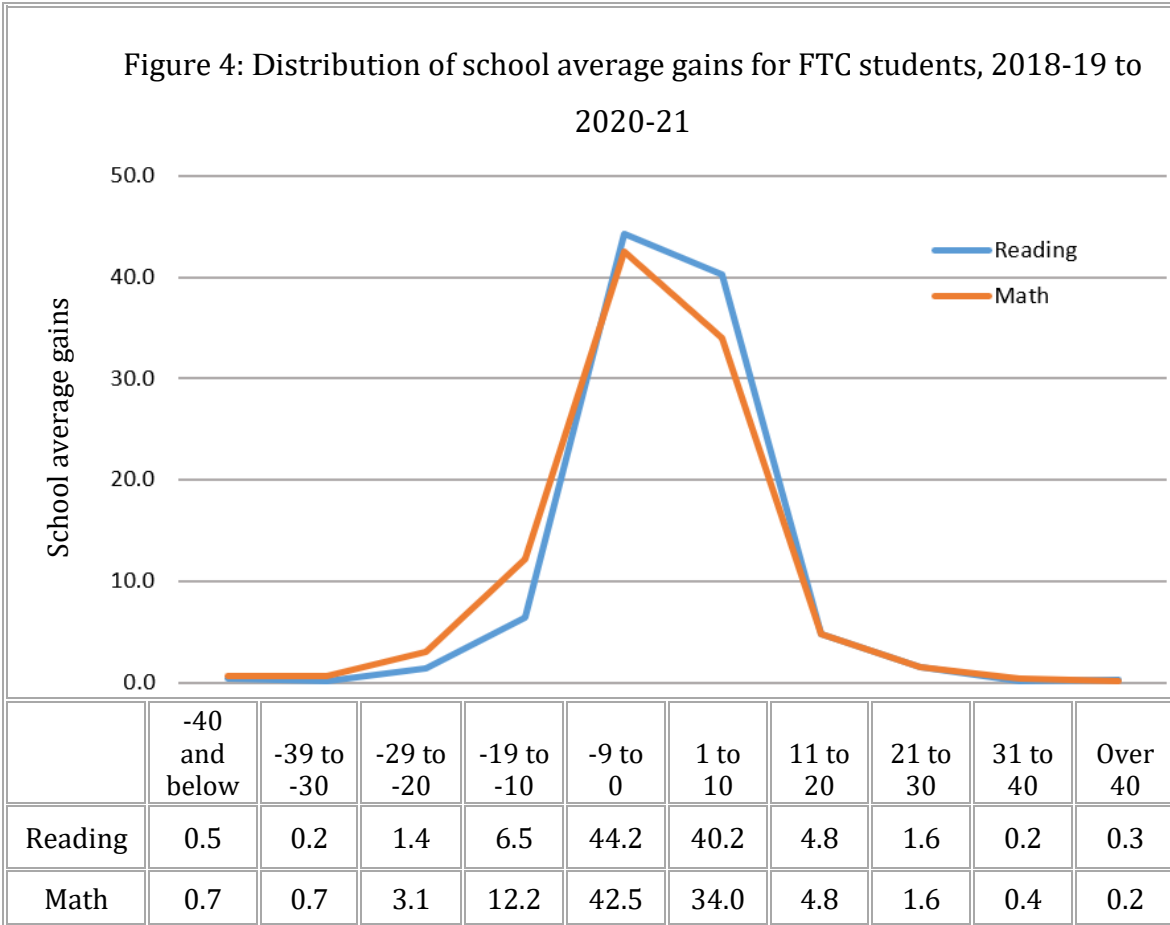
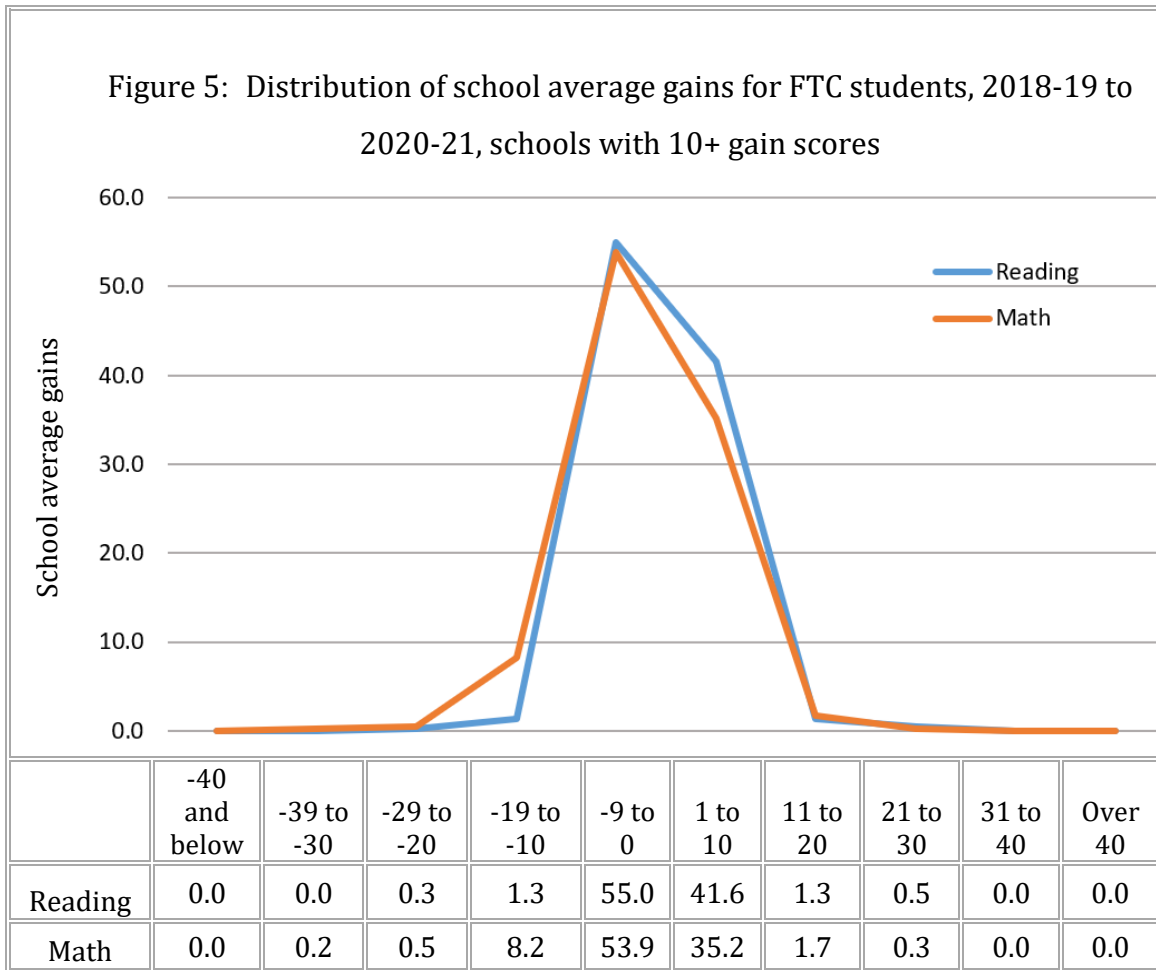


Figure 4 presents the basic distribution of school average reading and math gain scores for FTC students participating in the program in 2020-21. The average gain scores were concentrated in the middle of the distribution. Of the average gain scores, 84.4 percent of the schools had an average gain score in reading between -10 to 10 points. In math, although relatively less average gain scores were concentrated in the middle of the distribution compared to reading, the majority of the scores (76.5 percent) were still between -10 to 10 points.



It is important to note that observed between-school variation in Figure 4 doesn't reflect "true" school-level differences since noise in individual test scores is still manifested as part of the school-level average gain scores. The degree to which school-average gains reflect "true" school effects increases as the number of students in the school increases. For example, when we looked at the same distribution only including schools with more than ten FTC students, the distribution of school-average gains became more compressed. As can be seen in Figure 5, 96.6 percent of school average gains in reading and 89.1 percent of school average gains in math were between -10 to 10 points. In Figure 4, these numbers were 84.4 percent and 76.5

percent, correspondingly. These findings suggest that there was a non-trivial contribution of the noise to the between-school variability observed in Figure 4, especially in reading.

Individual school average gain scores, 2018-19 to 2020-21

We calculated average gain scores for schools with 30 or more participating students as required by the relevant Florida statutes. It is important to note that average gain scores are not a definitive measure of a school's performance. They only serve as one among many other indicators of a school's performance.

The average gain score for a school in a single year can be an extremely noisy measure of a school's contribution to student test scores. As discussed in the previous section, this measure is less reliable for schools where a small number of students contribute to the average school gain score. As the number of students gets smaller in a given school, the likelihood of noise dominating the average gain score increases. Examining average gain scores only for schools with 30 or more participating students increased the likelihood of getting a more precise measure of average gain scores of individual schools.

In addition to the average gain scores for 2020-21, we also calculated average gain scores over three years from 2017-18 through 2020-21. This added extra observations for schools and hence provided more accurate average gain scores for individual schools. Moreover, school gain scores calculated by a three-year moving average of gain scores is less likely driven by "regression to the mean" compared to one-year average gain scores. Regression to the mean is the phenomenon that if a variable, such as a test score, is extreme on its first measurement, it will tend to be

closer to the average on its second measurement and, if it is extreme on its second measurement, it will tend to have been closer to the average on its first. In this context, if a school had particularly high average scores in 2018-19, the likelihood of observing a negative average gain score for that school in 2020-21 increases. On the other hand, if a school had particularly low average scores in 2018-19, the likelihood of observing a positive average gain score in 2020-21 for that school increases. Using average gain scores across the last three years balances out particularly positive and particularly negative scores over time, and thus helps to lessen the likelihood of making faulty inferences driven by regression to the mean. The risk of having faulty observed results due to regression to the mean is another reason to treat one-year average gain scores for individual schools extremely cautiously.

Average gain scores for the 334 schools that submitted valid test scores for 30 or more students in both 2018-19 and 2020-21 are reported in the Appendix. Gain scores are reported for reading, math, and combined reading and math (by averaging schools' average reading and math scores) for 2020-21 as well as for the last three years' average. Since a three-year moving average is a more reliable measure of a school's average gain scores than one year's gain scores, we based inferences on the three-year average gain scores. We identified schools with average gain scores that are statistically distinguishable from zero (at the 95 percent confidence level in a two-tailed test). We highlighted the cells if the three years average gain score—either positively or negatively—was statistically significant from zero.

When interpreting gain scores, one should keep in mind that an average gain score of zero means that, on average, students in that school are maintaining their

position relative to the national distribution. It doesn't mean that students in that school are not gaining. If a school has statistically positive average gain, it means that, on average, students in that school improved their position in the national distribution (with 95% certainty). If a school has statistically negative average gain, it means that, on average, students in that school worsened their position in the national distribution (with 95% certainty).

5. ATTRIBUTES OF NEW PROGRAM PARTICIPANTS IN 2020-21

Previous reports noted that newly participating FTC students tended to be lower achieving and more disadvantaged than students who were eligible for the program but did not participate. We examined attributes of new FTC students in 2020-21 in order to see whether they were systematically different from eligible non-participant students before participating in the FTC Program in 2020-21 as well.

In order to make plausible comparisons among students who spent the 2018-19 academic year in Florida public schools, we compared students who entered the FTC Scholarship Program in 2020-21 to subsidized school meal eligible students who did not enter the program in that year but stayed free or reduced-price lunch eligible in 2020-21. We excluded students with disabilities who could participate in the McKay Scholarship Program. We limited the analysis to students who had taken either a reading or math test in public school in 2018-19. We also restricted analysis to students who would be in grade 10 or below in 2020-21.⁴ With these criteria, we

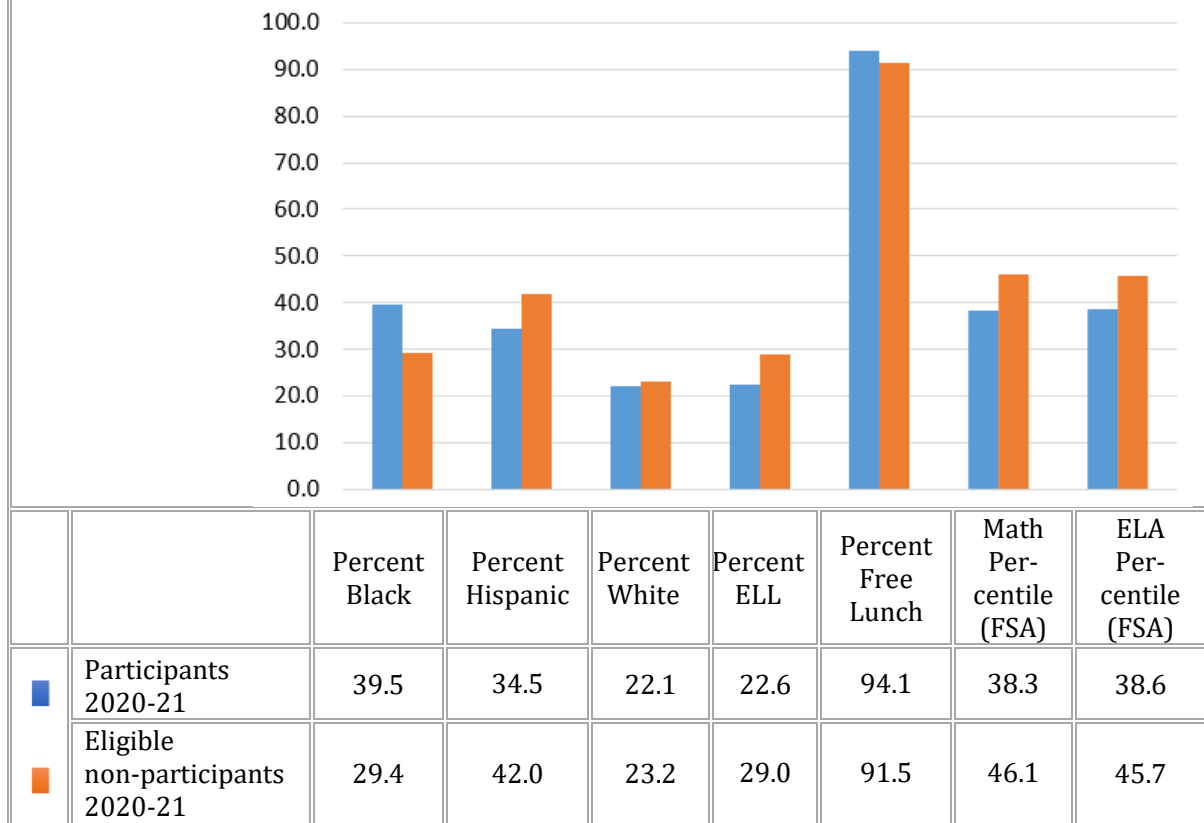
⁴ Students who were in grades 9 and 10 in 2018-19 are excluded since they are not tested in 2020-21.

compared 5,456 new students in the FTC Scholarship Program in 2020-21 to 533,676 students who remained in the public schools and continued on subsidized school lunches in 2020-21. We used FDOE records for these comparisons.

Comparison of characteristics of new FTC students and non-participant students

Newly participating FTC students in 2020-21 were more likely to be black and less likely to be Hispanic or white than students who were eligible but did not participate as seen in Figure 6. Also, they were slightly less likely to be English-language learners (ELL) than were non-participants. While both new FTC students and non-participant students were eligible for subsidized lunch in the 2018-19 school year, the share of new FTC students who were free-lunch eligible was somewhat higher than the share of free-lunch eligible, non-participant students. Lastly, compared to eligible non-participant students, new FTC students had poorer test performance both in ELA and math before entering the FTC Program.

Figure 6: Comparison of prior year characteristics of new FTC students to "income eligible" non-participant students, 2020-21



Comparison of new FTC students and non-participant students in terms of performance of their schools in 2018-19

In Florida, each public school is assigned a school grade (A-F) based on student performance. We compared new FTC students and eligible non-participant students in terms of the performance of the schools that they attended in the 2018-19 school year. We observed that the percentage of new FTC students who came from high performing public schools is lower than the percentage of eligible non-participant students. On a scale of A-F, with A being the highest performing schools, 22.4 percent of new FTC students were in schools graded "A", before attending a school in the FTC

