Evidence of a Catholic School Advantage in Nonpublic Scholarship Programs for Low-Income Families
An Essay for the Learning Curve by David Figlio
December 2021

Recently, states and localities have introduced new scholarship programs offering opportunities for students from low-income backgrounds or other groups the opportunity to attend nonpublic schools. Today, programs offering scholarships funded through school vouchers or tax credits operate in 29 states, the District of Columbia, and Puerto Rico, reaching nearly 580,000 students.¹ This is a massive change from a decade ago, when fewer than 200,000 students received tax credit–funded scholarships or vouchers. In most of these programs, students may use their scholarships at either religiously affiliated schools or nonreligious nonpublic schools.

A natural question is whether scholarship students attending different sectors of nonpublic schools fare similarly in the program. This is important because in some programs, Catholic schools enroll a substantially larger share of students than they do in other programs.² To the extent this is caused by differences in program rules or outreach, the answer to this question could inform changes in program implementation and outreach. To address this question, I investigated whether scholarship students attending Catholic schools, the nation’s largest sector of nonpublic schools, perform better or worse on standardized tests than those attending non-Catholic nonpublic schools in the Florida Tax Credit Scholarship Program (FTC Program), the largest and one of the oldest scholarship programs. In doing so, I came to three major conclusions:

◼ Scholarship students attending Catholic schools gained more ground in reading and mathematics relative to their national peers than did scholarship students attending non-Catholic nonpublic schools. This is consistent with other recent research on the FTC Program pointing to a Catholic school advantage in college enrollment and graduation.³

◼ These differences are apparent across the board—regardless of gender, race or ethnicity, household size, parental marital status, family income, and initially observed test score performance—suggesting a consistent Catholic school advantage for all students and families.

◼ Although these results are correlational, they are likely caused by differences across school sectors, rather than differences in the types of scholarship students who attend Catholic versus non-Catholic nonpublic schools.


These results are important because many Catholic schools have different administrative structures than do other nonpublic schools. Given that there appears to be a Catholic school advantage for scholarship recipients, policymakers would be well served to design scholarship programs in a manner that would facilitate, rather than deter, Catholic school participation.

Background on the Florida Tax Credit Scholarship Program

Created by the Florida legislature in 2001 as the Corporate Tax Credit Scholarship Program, the FTC Program offers scholarships to students with household incomes below 185 percent of the federal poverty level (or who are on the direct certification list). Originally, FTC Program participants must have spent the previous year in a Florida public school or be entering kindergarten or first grade, but that requirement was lifted as of the 2017–18 academic year. Students are allowed to continue their scholarships in subsequent years so long as household income remains below a given threshold (originally 200 percent of the federal poverty level, but this threshold has increased and is 260 percent of the federal poverty level as of the 2016–17 academic year). This program has expanded rapidly, increasing from 11,550 FTC scholarship recipients in 2003–04 to 111,219 FTC scholarship recipients in 2019–20. Official reports have consistently found that FTC Program participants tend to be less advantaged and (to the extent measurable) to have scored lower on state examinations before program participation than the general population of eligible students.4

Nonpublic schools are required by law to collect and report scores from the school’s choice of more than 20 nationally norm-referenced tests for every scholarship student in 3rd through 10th grade. To measure test scores in the most comparable manner possible, the official program evaluators (first from the University of Florida and later from Florida State University) collected and recorded national percentile ranks for each student in each year in reading and mathematics. National percentile ranks have unusual properties (e.g., it is easier to gain a large number of percentiles in the middle of the distribution of test scores than it is at the extremes of the distribution), but these ranks are the closest thing to an apples-to-apples comparison across schools, given the structure of the program’s testing requirements. The best interpretation of changes in national percentile rank from year to year is how well a student is keeping pace with their national peers. A change of zero means the student is remaining in the same place in the national distribution from year to year, a positive change means the student has moved up relative to their peers nationally, and a negative change means the student has moved down relative to their peers nationally. I do not observe national distributions for students from low-income backgrounds, so I can measure only changes in test scores relative to the entire distribution.

How Do Catholic School Scholarship Recipients and Non–Catholic School Scholarship Recipients Compare?

To see whether FTC Program scholarship recipients attending Catholic schools gained more ground or less ground relative to their national peers and relative to other scholarship recipients, I compared changes in national percentile ranks using the five most recent years of data, from the 2014–15 through the 2018–19 school years. (Florida waived its testing requirement in 2019–20 because of the COVID-19 pandemic. It has also been impossible for several years to conduct an apples-to-apples comparison of test score changes between program participants and public school students, so I restrict my attention to comparing among FTC Program participants alone.) During this time, Catholic school students in the FTC Program gained more ground than did non-Catholic nonpublic school students (figure 1). Non-Catholic nonpublic school scholarship recipients lost ground relative to national peers (a fraction of 1 national percentile in reading and 2.6 percentiles in math), but Catholic school scholarship recipients gained ground from one year to the next (3.6 national percentiles in reading and 2.1 percentiles in math). These differences between Catholic and non-Catholic school FTC participants (and all differences I discuss subsequently in this essay) are statistically significant at the 99.9 percent level.

FIGURE 1
Average National Percentile Rank Change for Students Participating in the Florida Tax Credit Scholarship Program

<table>
<thead>
<tr>
<th></th>
<th>Non–Catholic school students</th>
<th>Catholic school students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Math</td>
<td>-2.6</td>
<td>2.1</td>
</tr>
<tr>
<td>Reading</td>
<td>-0.3</td>
<td>3.6</td>
</tr>
</tbody>
</table>

Year-to-year change in national percentile rank

Source: Author’s calculations from merged data from the Florida Department of Education, Step Up for Students, and test score data collected by the Learning Systems Institute of Florida State University on behalf of the Florida Department of Education.

That said, it is possible the students who attend Catholic schools are simply different from those who attend non-Catholic schools under the FTC Program, and perhaps these differences explain the disparity in test score improvements between Catholic school students and non-Catholic school
students. Indeed, there are a few apparent differences between the two groups. Catholic school program participants are, for example, more likely to be Hispanic and less likely to be white; are less likely to come from households with six or more members; and are somewhat more likely to be female than are non-Catholic school program participants. In addition, Catholic school program participants are less likely to have started the FTC Program with either exceptionally high or exceptionally low initial observed test scores.

How much of these disparities in test score improvements are caused by the different types of schools as opposed to differences in the students whose families chose Catholic versus non-Catholic nonpublic schools? Social scientists and policymakers often look to experiments to address questions like this. But to the best of my knowledge, no policy or program has ever randomly assigned scholarships to students to attend Catholic versus non-Catholic nonpublic schools. We can, at least, see how much the observed differences in outcomes change when we control for several observable student and family characteristics. Although still fundamentally correlational, this empirical approach of measuring how sensitive results are to selection on observable factors to speculate about how sensitive the results would be to selection on unmeasured factors can increase confidence that these correlations reflect something causal.

To carry this out, the Florida Department of Education and Step Up for Students, the scholarship funding organization administering most FTC Program scholarships, merged test score records with program application data so I could control for a wide array of student and family background characteristics. I was able to determine how much differences in student gender, race or ethnicity, parental marital status, family income, household size, and student initial national percentile rank explain the differences in test score changes (figure 2).
FIGURE 2
Role of Controlling for Observables in the Catholic School versus Non-Catholic School Difference in Average National Percentile Rank Change

Difference in gains net of observables  □  Difference in average gains

Source: Author’s calculations from merged data from the Florida Department of Education, Step Up for Students, and test score data collected by the Learning Systems Institute of Florida State University on behalf of the Florida Department of Education.

The answer, it turns out, is not at all. In reading, the Catholic versus non-Catholic school difference controlling for this range of factors is 3.9 percentiles, the same as the raw difference. In math, the difference controlling for this range of factors is 4.8 percentiles, virtually the same as the 4.7 percentile raw difference. In sum, we do not know for certain that Catholic schools helped FTC Program students gain more ground than did non-Catholic nonpublic schools, but the available signs point toward this conclusion.

Is the Apparent Catholic School Advantage Different for Different Groups of Students?

Average differences can mask variation. Maybe certain groups of students fare better in Catholic schools than do others. The FTC Program’s comparatively large scale, coupled with the matched application test score data, allowed me to directly investigate this question.

Catholic school program participants are less likely to start the program with especially high or especially low test scores compared with non-Catholic school participants. When I broke down the data based on where in the initial test score distribution students started the program, I found that the apparent Catholic school advantage is stronger for students starting in the middle third or top third of the national test score distribution, but the advantage is present for students starting in the bottom third as well (figure 3).
All families participating in the FTC Program come from low-income backgrounds, but some participating families are experiencing poverty while others have higher levels of income. I grouped families into four categories: (1) those with family incomes less than 80 percent of the federal poverty level ($21,200 for a family of four in 2021), (2) those with family incomes between 80 and 130 percent of the federal poverty level (between $21,200 and $34,450 for a family of four in 2021), (3) those with family incomes between 130 and 185 percent of the federal poverty level (between $34,450 and $49,025 for a family of four in 2021; these students would be eligible for reduced-price school lunches but not free school lunches under the National School Lunch Program), and (4) those with family incomes at or above 185 percent of the federal poverty level (and are therefore eligible only for program renewal). I found an apparent Catholic school advantage that is similar across all income groups eligible for the FTC Program (figure 4).
I found similar patterns—a consistent apparent Catholic school advantage—across every other dimension I investigated: household size, parental marital status, racial and ethnic identification, and student gender identification (appendix figures A.1–A.4). This consistency of findings makes it more likely, in my view, that the observed differences in student test score changes are caused by attending Catholic schools rather than non-Catholic nonpublic schools.

Implications for Policy and Practice

Families choose schools for many reasons, and religious affiliation is just one. But this analysis makes clear that a scholarship program that permits students to use scholarships at religiously affiliated schools should include Catholic schools in program design and implementation and to recruit Catholic schools to participate in the program. Because Catholic school systems often have different administrative structures from other nonpublic schools, it will be easier to ensure Catholic school program participation if care is taken on the front end to facilitate participation.

My results also provide additional evidence that not all nonpublic schools are equal. Like religious affiliation, test scores are just one reason parents might choose a nonpublic school, but test scores are a
salient reason for many families and policymakers. My finding of strong sectoral differences in test score changes in the FTC Program suggests that policymakers interested in the test scores of scholarship recipients may wish to measure test scores at the individual school level for either public release or administrative purposes.

Finally, although this analysis is confined to Florida, the fact that I find such consistent patterns across a wide range of student and family background characteristics makes me relatively confident these results will generalize to contexts outside Florida.

Appendix

**FIGURE A.1**
Catholic School versus Non-Catholic School Differences in National Percentile Rank Change, by Household Size

<table>
<thead>
<tr>
<th>Household Size</th>
<th>Math</th>
<th>Reading</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 people</td>
<td>4.1</td>
<td>4.2</td>
</tr>
<tr>
<td>3 to 5 people</td>
<td>3.9</td>
<td>4.8</td>
</tr>
<tr>
<td>6 or more people</td>
<td>3.5</td>
<td>4.4</td>
</tr>
</tbody>
</table>

*Source: Author’s calculations from merged data from the Florida Department of Education, Step Up for Students, and test score data collected by the Learning Systems Institute of Florida State University on behalf of the Florida Department of Education.*
FIGURE A.2
Catholic School versus Non-Catholic School Differences in National Percentile Rank Change, by Primary Parent Marital Status

Source: Author’s calculations from merged data from the Florida Department of Education, Step Up for Students, and test score data collected by the Learning Systems Institute of Florida State University on behalf of the Florida Department of Education.

FIGURE A.3
Catholic School versus Non-Catholic School Differences in National Percentile Rank Change, by Student Race or Ethnicity

Source: Author’s calculations from merged data from the Florida Department of Education, Step Up for Students, and test score data collected by the Learning Systems Institute of Florida State University on behalf of the Florida Department of Education.
FIGURE A.4
Catholic School versus Non-Catholic School Differences in National Percentile Rank Change, by Student Gender Identification

<table>
<thead>
<tr>
<th></th>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>Math</td>
<td>5.0</td>
<td>4.3</td>
</tr>
<tr>
<td>Reading</td>
<td>4.3</td>
<td>3.5</td>
</tr>
</tbody>
</table>

Source: Author’s calculations from merged data from the Florida Department of Education, Step Up for Students, and test score data collected by the Learning Systems Institute of Florida State University on behalf of the Florida Department of Education.

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