2020

AN ANALYSIS OF THE FISCAL AND ECONOMIC IMPACT OF GEORGIA'S QUALIFIED EDUCATION EXPENSE QEE TAX CREDIT SCHOLARSHIP

An Analysis of the Fiscal and Economic Impact of Georgia's Qualified Education Expense (QEE) Tax Credit Scholarship Program

November 2020

EXECUTIVE SUMMARY

Georgia's Qualified Education Expense (QEE) Tax Credit Scholarship Program allows individual and corporate taxpayers to receive a Georgia income tax credit for donating to nonprofit, tax-exempt student scholarship organizations (SSOs). SSOs use these funds to provide scholarships to pre-K through 12th grade Georgia students, where these scholarships offset the cost of attending independent (private) schools.

House Bill 217, which passed in 2018 and became law in 2019, requires that the Georgia state auditor issue an analysis of the performance of the state's QEE program in the year 2023. The analysis shall include: (A) Net change in state revenue; (B) Net change in state expenditures, which shall include, but not be limited to, costs of administering the tax credit; (C) Net change in economic activity; and (D) Net change in public benefit. To facilitate consideration among Georgia state auditors, lawmakers, and SSOs of the best methodologies to analyze performance of the QEE Program, this report provides a fiscal and economic analysis of the QEE Program. For this report, our "fiscal" analysis of the QEE program consists of our analysis of the net changes in state revenues and state expenditures. Our "economic" analysis consists of our analysis of how an increase in educational attainment results in changes in economic activity due to increased lifetime earnings accruing to scholarship recipients and changes in public benefits accruing to others and society. Public benefits that result

Fiscal Analysis

Under the QEE program, the average taxpayer cost of tax credits per scholarship recipient in calendar year 2018 was $3,713 — significantly less than state average per pupil expenditures in public schools and **less than one-third of the total expenditures per public school student**.

Figure A.1 – Total Expenditures and State Expenditures Per Student in Georgia Public Schools and Ta

- Estimate of the percent of scholarship recipients who would have attended a public school if a scholarship had not been available = 90 percent (or 0.90).

- Average <u>state</u> revenues per public school student = $5,717.

- <u>State</u> taxpayer cost to educate 90 percent of these scholarship students in public schools = 0.90 x 13,895 scholarship students x $5,717 = $71.5 million.

- Revenue forgone by the state treasury due to tax credits given to donors = $3,713 x 13,895 scholarship students = $51.6 million.

- Savings to state taxpayers = $71.5 million - $51.6 million =

The details for the above calculation are as follows:
- Number of scholarship recipients in 2018 = 13,895.
- Estimate of the percent of scholarship recipients who would have been enrolled in a

Figure A.2: Four-

Using cautious estimates from the literature on the returns to educational attainment, we find substantial economic impacts of the Georgia GOAL Scholarship Program for the three cohorts of students in our sample. We estimate a combined economic benefit of $46.7 million from increased high school graduation and college entrance for these students, or about $15.6 million per cohort, on average.

Table A.1: Combined Economic Benefit for Sample of GOAL Students

Economic Benefits	
Benefit from High school Graduation	$ 39,984,000
Benefit from College Entrance	$ 6,764,370
Total Benefit	$ 46,748,370

If extrapolated to all scholarship recipients across the entire QEE program, the estimated economic benefits would be $66.4 million for the cohort of ninth grade students starting high school in 2018.

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I. Introduction

With the passage of HB 1133 in 2008, the Georgia General Assembly created the Qualified Education Expense ("QEE") Tax Credit Program.[2] Signed into law by Governor Sonny Perdue, the QEE Program allows individual and corporate taxpayers to receive a Georgia income tax credit for donating to nonprofit, tax-exempt student scholarship organizations (SSOs). SSOs use these funds to provide scholarships to pre-k through 12th grade Georgia students, where these scholarships offset the cost of attending independent (private) schools. While the law has been amended three times since its creation, current law permits students who have been enrolled in a public school for at least six weeks to be eligible for a scholarship. However, this six week prior public school attendance requirement is waived for students who are enrolling in prekindergarten, kindergarten, or first grade as well as for students who live in communities where their assigned public school is deemed "low performing" by the state of Georgia or where the student has been subject to a documented case of school based violence, verbal abuse that threatens physical harm, or who was enrolled for one year in a qualified home study program.

Current law allows those filing their taxes as individuals to donate up to $1,000 of their state income tax liability to an SSO, those filing as married couples to donate up to $2,500, the owners of pass-through entities (S-corporations, LLCs and partnerships) may donate up to $10,000, and C corporations and trusts to donate up to 75 percent of their state income tax liability to SSOs. Per House Bill 217, which passed in 2018 and became effective in 2019, these donation caps are subject to an aggregate annual statewide limit of $100 million in available QEE credits.

II. Fiscal Analysis of Georgia's QEE Tax Credit Scholarship Program

In this section we estimate the fiscal effects of the state of Georgia's Qualified Education Expense (QEE) Tax Credit program on state and local taxpayers for academic year 2018-19. To make these estimates we use publicly available data reported by the Georgia Department of Revenue and the Georgia Department of Education.

1. Fiscal Effects of Georgia's QEE Tax Credit Scholarship Program on State Taxpayers

To estimate the fiscal effects of Georgia's QEE Tax Credit Scholarship Program on state taxpayers, we need to ascertain (i) the reduction in state revenue due to state income tax credits awarded to student scholarship organization (SSO) donors, (ii) the cost to the Georgia Department of Revenue for administering the program, and (iii) the reduction in state taxpayer costs that results from scholarship students not being enrolled in public schools — because they were able to access a scholarship to attend a private school.

Some Basics of Education Finance in Georgia

Public schools in Georgia receive funding from federal, state, and local taxpayers. SSOs receive donations from state taxpayers. The relevant statistic for analyzing fiscal impacts is the total resource cost of the program — which is the total amount of tax credits per scholarship student.[6] Likewise, the relevant statistics for comparison are the total expenditures and revenues per student in public schools.[7]

Given the focus on the total taxpayer cost, we report some basic information on taxpayers' expenditures on Georgia public schools for 2018-19 and taxpayers' expenditures on the QEE program for tax year 2018, where credits are often realized in spring 2019 as taxpayers file their tax returns. Academic year (AY) 2018-19 was the most recent data available on public school finances at the time of writing. FigTfg0 G -0.024 Tc(.)]TJETQq0.00000912 0 612 792 reW*n(sc)4(b 12 Tf1 0 0 1 2

In the next subsection, we draw on the growing body of evidence from school choice lotteries used to allocate scholarships in other states to estimate of the percent of scholarship students who would have been enrolled in a public school i0 g0 G(f)-4(ro)6(m)]Ti0 612 792 re0 g0 G(t)-4(o)7( )]TJETQq0.0

State cost of educating 90% of
Scholarship Students in Public Schools
(0.9 x 13,895 scholarship

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Revenue forgone by the state treasury
due to tax credits given to SSO donors

Also, a

fallen to 8.2 percent.[12] There are myriad reasons for this decline, including the increasing cost of public schools — from 1965 to 2016, real expenditures per student (adjusted for inflation) in American public schools almost tripled.[13] In the absence of choice programs, parents who send their children to private school must pay both the increased federal, state, and local taxes to fund more expensive public schools and

III. Economic Analysis of Georgia GOAL

In this section, we estimate the economic impact of enhanced educational attainment for students receiving a scholarship from the largest participating SSO, Georgia GOAL Scholarship Program, Inc. (GOAL). Unfortunately, student level data for scholarship recipients from all SSOs in the QEE program are not available. For our analysis, GOAL provided us student level data for three cohorts of scholarship students entering ninth grade — the three most recent cohorts for

income data.[19] However, the data provided to us by Georgia GOAL includes a student's household income from their households' tax return which allows us to accurately identify the number of GOAL students who would qualify for FRL. Due to these differences, the data likely overstates the amount of economic disadvantage among students in public schools and does not provide for an equal comparison.

Table 1: Descriptive Data of Public School and GOAL Scholarship Students

	GOAL Students	Public School Students
Race		
African American	25%	38%
Caucasian	62%	43%
Hispanic	7%	12%
Asian	1%	4%
Other	5%	3%
Female	43%	49%
Student qualifying for FRL	40%	55%

Notes: Data on GOAL students was provided by Georgia GOAL and includes a sample of students who entered 9th grade in AY 2013-14, 2014-15, and 2015-2016 and graduated high school in AY 2016-17, 2017-18, and 2018-19. Cohorts adjusted for students who transfer out of the program prior to graduation for a total of 784 students. Data for public school students comes from The Governor's Office of Student Achievement 2016-17 high school graduation report, https://gosa.georgia.gov/report-card-dashboards-data/do31BDC q0.00000912 0 612 792 reW*hBT/F1 9.96 Tf1 0 0

decreased dependency on government services, fewer health care costs, and reduced criminal behavior.

Second, estimating the economic benefits associated with increased educational attainment requires many assumptions on the growth of the economy, the length of time people remain in

Estimated Economic Return for Each Additional High School Graduate

Commonly cited in education policy cost-benefit analyses regarding public education programs and policies, Levin (2008) estimates that the total economic benefit from each additional high school graduate is, on average, $572,200 with $288,000 coming from the present value of lifetime earnings and $284,200 coming from associated positive externalities including increased tax revenue as well as decreased health care costs, criminal behavior, and welfare costs.[22] However, Levin's estimates represent the upper bound of the economic .

- Number of students who graduated high school and <u>qualify for FRL</u>: 310.
- Student-reported college entrance rate for high school graduates: 743/775 = 0.9587 or 95.87%.
- Student-reported college entrance rate for <u>non-FRL students</u>: 445/465 = 0.9570 or 95.70%.
- Student-reported college entrance rate for <u>FRL students</u>: 298/310 = .9613 or 96.13%.
- "Summer melt" downward adjustment for <u>non-FRL students:</u> -0.10 or -10%.
- "Summer melt downward adjustment for <u>FRL students</u>: -0.15 or -15%.
- "Gap year" upward adjustment for all students: +0.03 or +3%.
- Adjusted college entrance rate for GOAL students:
    o "Summer melt" downward adjustment for FRL students: 0.9613 x 0.85 = 0.8171
    o "Summer melt" downward adjustment for non-FRL students: 0.9570 x 0.90 = 0.8613
    o "Summer melt" downward adjustment for FRL and non-FRL students:
      (465 non-FRL students x 0.8613) + (310 FRL students x 0.8171) / 775 = 0.8436
    o "Gap year" upward adjustment for all students: 0.8436 x 1.03 = 0.8689.
    o

stop short of a degree.[24] It is important to note, that their estimates only include the increase in labor market earnings and do not account for any positive externalities that are associated with college attendance; therefore, our analysis continues to provide a cautious economic return.

Giani, Attewell, and Walling estimate that students who enroll in a 2-year institution but do not complete a degree experience a 6.5 percent increase in earnings, on average, and students who enter a four-year institution experience a 5.8 percent increase in earnings, on average. [25] The estimated returns vary greatly for different types of students, particularly for economically disadvantaged students who experience the greatest benefits from enrolling in some college. Economically disadvantaged students who enroll, but do not complete a degree, in a two-year institution experience an 8.1 percent increase in earnings and a 22.6 percent increase in earnings from enrolling in a four-year institution, on average. The substantial variation among the estimated returns for some college complicate our methods, as there is not one estimated return that makes the most sense to use in our models and choosing an estimate requires us to make assumptions on which type of colleges, two- or four -year, students enroll without data on their actual enrollment.

In order to simplify our estimates and to cautiously estimate the economic impact of the GOAL program, we use Giani and colleagues' lowest estimated average return of some college. That is, we assume an average return of 5.8 percent on yearly earnings for all students as a result of attending some college. We also do not calculate the estimated returns for students who qualify for and those who do not qualify for FRL separately. This decision continues to cautiously estimate the economic benefit as the returns for some college are much higher for economically disadvantaged students, and GOAL students who qualify for FRL enter college at a much high rate than similar students in public schools. If we had made different choices as to rates of return and separating the data, our estimates of economic returns to some college would have been larger than those reported here.[26] In Appendix B, we include alternative estimates where we estimate the return in earnings separately for students who qualify for FRL.

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[24] Giani, Attewell, and Walling use a longitudinal data set on high school graduates in Texas. They use Augmented Inverse Probability Weighting (AIPW) to reduce the threat of selection bias to produce reasonable estimated returns.

[25] For Giani, Attewell, and Walling's (2019) estimated earnings returns for some college see Table 5 in their full paper.

[26] Given the large variation in the estimated returns GIQq4(r)-11-4(o)-2(r)-2(00000)mT/F1 9II, and

In Georgia, the median annual income for a high school graduate is $27,587, assuming a 3.5 percent discount rate, a 1.5 percent increase in yearly wages, and assuming people work 40 years, the net present value of lifetime earnings for a high school graduate is $747,372.[27] Using Giani, Attewell, and Walling's estimated 5.8 percent return in yearly earnings, a person with some college earns an estimated $45,938 more over there their lifetime as compared to someone with a high school diploma but never attends any college. This $45,938 estimate is the increase in the present value of lifetime earnings for students who attend some college relative to students who stopped their education after earning a high school diploma.

There are not good estimates in the academic literature on the public benefits — the benefits to others — from college enrollment. Thus, we do not attempt to estimate the public benefits that accrue from increased college enrollment in the QEE program. Surely, there are benefits to others when more individuals enroll in college, which means our report is underestimating the economic benefits of the QEE program by not estimating the public benefits of college enrollment. In future work, once more QEE scholarship students have had time to finish college, we plan to include the public benefits of college graduation. These benefits would be positive if and only if scholarship students display higher college graduation rates relative to public school students.

- Estimated economic benefit for each additional high school graduate compared to non-graduates = $300,000, where this figure includes both "economic activity" (i.e., the present value of lifetime earnings) as well as the "public benefit" including: increased tax revenues, reduced criminal behavior, fewer healthcare costs, and reduced dependency on welfare programs.
- Estimated increase in economic and public benefit for GOAL students compared to public school students: 784 scholarship students x 0.17 x $300,000 = $39,984,000.

Table 2: Estimated Economic Return from High School Graduation

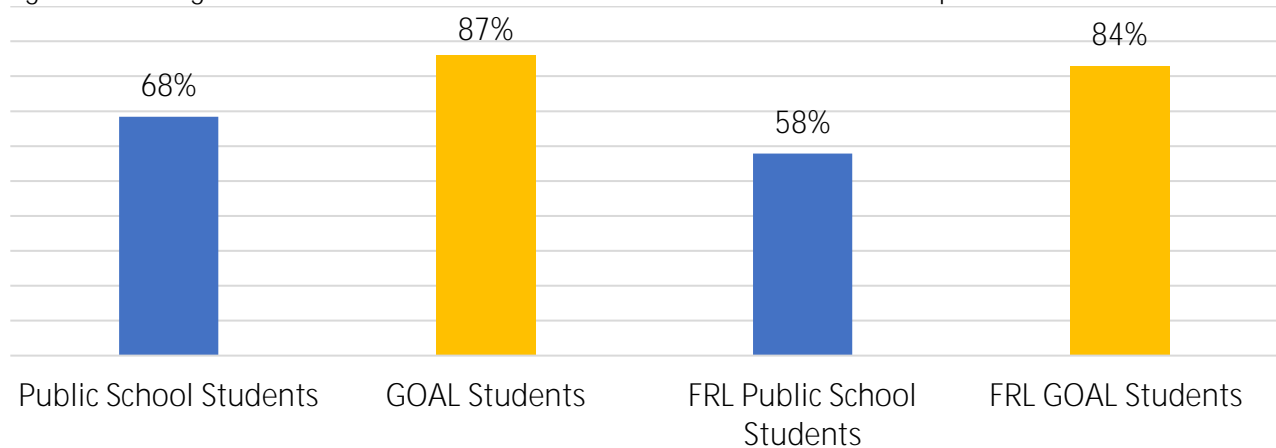|	
GOAL Students High School Graduation	0.99
Public School Students High School Graduation	0.82
Difference (GOAL-Public School)	0.17
# GOAL Students in Adjusted Cohort	784
Increase in lifetime earnings and public benefits per student	$300,000
Economic Benefit	$39,984,000

Notes: GOAL Cohorts are adjusted for students who transfer out of the program prior to graduation. Estimated economic benefit for each additional high school graduate comes from Vining and Weimer (2019). High School graduation rates for public school students come from The Governor's Office of Student Achievement. We use the graduation rate from AY 2018-2019. The graduation rate for 2016-17 was 81% and 82% in 2017-18.

College Entrance

Figure 5 shows the college entrance rates for GOAL and public school students. GOAL students enter college at a rate 19 percentage points higher than students in traditional public schools, with 87 percent of GOAL students and 68 percent of public school students entering college.[28] Limiting the sample to only students who qualify for FRL, 84 percent of GOAL students enter college compared to 58 percent of public school students; a difference of 26 percentage points.

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Figure 5: College Entrance Rates for Public School and GOAL Scholarship Students

Notes: GOAL college entrance rates are conditional on students having graduated high school. We downwardly adjust the student-reported college entrance rates of GOAL students to provide a better comparison to the institution confirmed college entrance of public schools students; see the methods section of the economic analysis for more details. College entrance rates for public school students are also conditional on students graduating from high school and come from the Governor's Office of Student Achievement post-secondary report for FY2018-19, https://gosa.georgia.gov/report-card-dashboards-data/downloadable-data. Students in the FY2018-19 report graduated high school in 2017. At the time of writing this is most recent available data.

Table 3 details the estimated present value of increased lifetime earnings associated with the higher college entrance rates we observe for GOAL students. We estimate a return of $6.7 million (775 students * 0.19 * $45,938) of additional lifetime earnings (in present value terms) for students who received a GOAL scholarship compared to students who attended Georgia public schools.

The details for the above calculation are as follows:
- Number of GOAL students in adjusted cohort who graduated high school = 775.
- GOAL Students college entrance rate = 0.87 or 87%.
- Georgia public school college entrance rate = .68 or 68%.
- Difference between the GOAL and public school college entrance rate = 0.19.
- Estimated present value of lifetime earnings for some college (5.8% return) compared to a high school diploma = $45,938.
- Estimated increase in the present value of lifetime earnings for GOAL students compared to public school students: 775 scholarship students x 0.19 x $45,938 = $6,764,370.

scholarship from participating SSOs in 2018. Approximately eight percent of students who receive a scholarship from GOAL are incoming ninth grade students. If we assume that eight percent of all students in the QEE are also ninth graders, that means there were 1,112 ninth grade students participating in the QEE program in 2018. If these 1,112 students graduate high school and enroll in college at the same rate that GOAL students in our sample do, then the estimated economic benefit would be $66.4 million for the cohort of ninth grade students starting high school in 2018, with $56.7 million (1,112 students * 0.17 * $300,000) as a result of increased high school graduation and $9.7 million from increased college entrance (1,112 students * 0.19 * $45,938).

The details for the above calculation are as follows:
- Number of scholarship recipients in 2018: 13,895 students.
- Proportion of 9th grade students receiving scholarships via GOAL who are in the 9th grade: 0.08.
- Estimated number of 9th grade scholarship users in 2018 = 13,895 students x 0.08 = 1,112 students.
- Difference between GOAL and public school high school graduation rate: 0.17.
- Difference between GOAL and public school college entrance rate: 0.19.
- **If** these students graduate high school at the same rate as the sample of GOAL students, **then**:
   o Estimated increase in economic benefit from increased high school graduation: (1,112 students x 0.17 x $300,000) = $56.7 million.
- **If** these students enter college at the same rate as the sample of GOAL students, **then**:
   o Estimated increase in the present value of lifetime earnings from increased college entrance: (1,112 students x 0.19 x $45,938) = $9.7 million.
- Estimated economic benefit from increased high school graduation and college entrance: $56.7 million + $9.7 million = $66.4 million.

The high school graduation estimate is much higher than the figure for increased college entrance for two main reasons. First, the high school graduation estimate includes both the impact of increased economic activity (i.e. lifetime earnings and public benefits to others), whereas the estimated returns to college entrance only include the impact of increased earnings. Second, the economic benefit for college entrance only estimates the impact of enrolling in college and not graduating with a degree.

Caveats

There are some limitations to our analysis that are important to consider when interpreting these results. First, as previously mentioned, our models assume that, without the QEE program, students receiving a GOAL scholarship would have continued to enroll in Georgia public schools and had similar outcomes to public school students. Unfortunately, we are unable to account for potential selection bias into the program. It is possible that students in GOAL would have graduated high school and entered college at the same rates as they have regardless of them attending a private school. In other words, the state would have enjoyed the economic benefits of these students even if they had attended public schools. If true, this situation would generate upwardly biased estimates of the economic impacts of the program. On the other hand, it is possible that our estimates could be downwardly biased. Students who apply for a GOAL scholarship are possibly more likely to be struggling in public schools compared to students who do not apply for a scholarship, generating an underestimate of the economic impact GOAL students' experience.

Although we are not able to account for selection bias in our models, we use cautious estimates of the economic benefits associated with high school graduation and college entrance. We only estimate the economic activity from entering college and not earning a degree. The returns to some college are quite low compared to the returns of a bachelor's degree. Levin (2008), for example, estimates the economic benefit of a bachelor's degree or higher to be around $1 million in lifetime earnings.[29] If the difference between GOAL and public school students persist and GOAL students earn a degree at a higher rate, then the associated return in lifetime earnings for our sample of 775 students who graduated high school could be as high as $147 million.

Additionally, the estimated economic benefits of some college do not account for other benefits associated with higher educational attainment. Students with higher educational attainment are not only more economically productive, but they also have healthier and longer lives (Day & Newburger, 2002; Meara, Richards & Cutler, 2008; Muennig, 2005; Muennig, 2008) resulting in fewer healthcare costs and less dependence on government assistance. These outcomes all generate substantial public benefits to individuals and the state of Georgia that we do not account for in our estimated economic benefits of college entrance. Though, these additional benefits are included in our estimates for the returns to a high school diploma.

Similarly, research on other private school choice programs have found a reduction in crime among participating students (DeAngelis & Wolf, 2020; DeAngelis & Wolf, 2019). The reduction in crime among private school students could be due in part to the higher educational attainment enabled by attending private schools, o

IV. Concluding Remarks

We find significant fiscal and economic benefits from the state of Georgia's QEE Tax Credit Scholarship Program. The QEE program provides scholarships to students at a lower taxpayer cost relative to the cost of educating those students in public schools, and the scholarship students graduate and enter college at higher rates than their public school peers.

Georgia taxpayers experience an estimated $19.9 million in savings to the state treasury plus an additional $33.3 million in savings to local public school systems, for a total **fiscal savings** of $53.2 million for AY 2018-19 alone. While we do not quantify the savings, we also find suggestive evidence that Georgia's QEE Program has aided in keeping private schools from closing, thereby keeping some non-scholarship students from enrolling in the public education sector, providing even more savings to taxpayers. In prior work, Lueken (2019) estimated that the QEE program saved Georgia taxpayers a total of $179 million during the AY 2010-11 to AY 2017-2018 time period. Estimated savings — on an annual basis — have been increasing over time because public school expenditures per student have been increasing while tax credits per scholarship student have been flat or declining over time.

We also find significant **economic benefits** for a sample of three cohorts of students receiving a GOAL scholarship. GOAL students in our sample graduate high school and enter college at a higher rate than students in public schools. This benefit is even more substantial and prevalent for economically disadvantaged students, as GOAL students qualifying for free or reduced-price lunch graduate high school 21 percentage points higher and enter college 26 percentage points higher than their public school peers. As a result, from the higher educational attainment of the 784 GOAL students in our sample, we estimate a combined (including increased economic activity and public benefits) economic benefit of $46.7 million dollars, or about $15.6 million per cohort. If scholarship students at all SSOs graduate high school and enroll in college at the same rate that GOAL students in our sample do, then the estimated economic benefit from the entire QEE program would be $66.4 million for the cohort of ninth grade students starting high school in 2018.

Our analyses have certain limitations. First, we chose to use myriad cautious approaches in both our fiscal and economic analyses and may be understating fiscal savings and economic benefits. Second, there are many potential benefits to a tax-credit scholarship program that we do not consider. For example, while we estimate the economic return from entering college, we do not estimate the return for increased degree attainment, which is much higher than college entrance alone, as data are not yet available. Further, we do not estimate the public benefits from increased college enrollment. The Education Economics Center plans to update these analyses in future years, as there will be significantly more students using these scholarships from which to analyze outcome data. We invite state officials, researchers, and anyone else to contact the Center at educationeconomics@kennesaw.edu to make suggestions as to how we can refine our analysis in order to make more accurate estimates of the fiscal and economic effects of this tax credit scholarship program.

REFERENCES

Bifulco, R. and Reback, R. (2014). Fiscal impacts of charter schools: lessons from New York. Education Finance and Policy, 9(1), 86-107.

Castleman, B. L., & Page, L. C. (2013). A trickle or torrent? Understanding the extent of summer "melt" among college-intending high school graduates. Social Science Quarterly, 95 (1), 202-220.

Day, J., & Newburger, E. (2002). The big payoff: Educational attainment and synthetic estimates of work-life earnings. Washington, D.C.: US Census Bureau.

DeAngelis, C. A., & Wolf, P. J. (2020). Private school choice and character: More evidence from Milwaukee. The Journal of Private Enterprise

Appendix A

Estimating the Variable Costs of Educating Students in Public Schools

Basic Mechanics of Public School Funding

To estimate the fiscal effect of Georgia's QEE Tax Credit Scholarship Program, we need to know the variable costs of educating students in public schools — because these are the cost reductions that accrue to local public school systems when they do not have to educate students whose families have chosen to access scholarships — for the students who otherwise would have been enrolled in public schools. To be cautious, we are estimating short-run variable costs — cost reductions that accrue from one year to the next. To estimate short-run variable costs of public school systems, it is first necessary to understand some basic mechanics regarding how public schools are funded and how dollars flow when students transfer in and out of public school districts.

Revenue sources

Public school districts receive funding from state, local, and federal taxpayers. While the percentages vary significantly across states, Georgia public schools receive 8.5 percent of their funding from the federal government, on average, and 43.7 percent from locally generated funds. The remaining funds come from the Georgia state government (43.3 percent) and "other sources", which are mostly private funds (4.4 percent). For the 2018-19 school year, the dollar amounts of these fund sources and the corresponding percentages are listed in the two charts below.

Figure A2. – Georgia Public Schools, Taxpayer Funding by Source (Percentage)

As compared to the national average, Georgia public school systems receive slightly more in funding from federal taxpayers and private sources and slightly less from state and local taxpayers.[30] Total revenues to local public school systems are not exactly equal to total expenditures — for technical reasons and because in a given year local school systems may add

Whether local taxpayers face a fiscal burden when they gain or lose students — for any reason, including via choice programs — depends on whether the revenue that public school systems actually gain or lose is greater or less than the short-run variable cost of educating the students who came or left. An example of this issue is how much do public school systems costs increase when they experience an increase in students — the increase in costs would be the variable cost of educating those new students, the costs that actually increase as a result of their enrollment increase. To demonstrate this issue, we describe the relevant basic principles of Accounting and Economics below.

Scafidi (2017) showed that public school districts around the nation — and including Georgia — have behaved over the last several decades **as if**

Appendix B

Additional Estimates of the Economic Returns from College Entrance

As mentioned in the methods section of the economic analysis, the estimated economic benefits to attending some college vary greatly across type of post-secondary institutions (two- or four-year colleges) and across student subgroups. Giani, Attewell, and Walling's (2019) find that the average return for some college is greater for students who enter two-year colleges (6.5 percent) compared to four-year colleges (5.8 percent). They also find that the return is greater for women, racial minorities, and students who are economically disadvantaged. They observe the largest variation in returns for economically disadvantaged students where these students see an 8.1 percent return in yearly earnings from attending a two-year college and see a 22.6 percent return in yearly earnings from attending a four-year college. This heterogeneity complicates our estimated economic benefits given that we do not have data on the type of colleges GOAL students entered.

In the interest of caution given the heterogeneity of the estimates, in the main body of this paper, we employ the lowest estimated return–a 5.8 percent return to some college for all students in our sample, regardless of if they qualify for FRL. In this appendix, we present multiple estimates for the economic benefits (1) assuming all students in our sample entered a two-year year college, (2) assuming all student entered a four-year college, and (3) estimating separate returns for students who qualify for and those who do not qualify for FRL to capture the larger economic return for FRL students.

First, Table B1 summarizes the estimated economic benefits if we assume that all students in our sample enter a two-year college. The average benefit for entering a two-year college for all students is 6.5 percent or $48,579 in increased lifetime earnings (in present value) compared to someone who never enters any college. Using these figures, we estimate an increase of $7.1 million dollars of lifetime earnings for GOAL students in our sample compared to their public school peers. If we account for the differential returns of entering a two-year college for FRL students (8.1 percent) and non-FRL students (5.6 percent), we estimate an increase of $7 million dollars of lifetime earnings for GOAL students.

Table B1: Estimated Value of Lifetime Labor Market Earnings from Some College, Two-Year Institutions

	All Students (6.5% Return)	FRL Students (8.1% Return)	NON-FRL Students (5.6% Return)
Return from Two-Year College Entrance	$48,579	$60,537	$41,853
GOAL Entrance Rate	0.87	0.84	0.89
Public School Entrance Rate	0.68	0.58	0.78
Difference (GOAL-Public)	0.19	0.26	0.11
# of students who graduated high school in			

ABOUT THE AUTHORS

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QEE Policy Brief: https://coles.kennesaw.edu/education-economics-center/docs/QEE-policy-brief.pdf

QEE Full Report: https://coles.kennesaw.edu/education-economics-center/docs/QEE-full-report.pdf

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