GIVING KIDS CREDIT
USING SCHOLARSHIP TAX CREDITS TO INCREASE EDUCATIONAL OPPORTUNITY IN MASSACHUSETTS

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This paper is a publication of the Center for School Reform, which seeks to increase the education options available to parents and students, drive system-wide reform, and ensure accountability in public education. The Center's work builds on Pioneer's legacy as a recognized leader in the charter public school movement, and as a champion of greater academic rigor in Massachusetts' elementary and secondary schools. Current initiatives promote choice and competition, school-based management, and enhanced academic performance in public schools.

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Government-sponsored private school choice programs are increasingly common in the US. Currently, 39 programs based on various designs serve over 300,000 students in 19 states plus the District of Columbia. Tax credit scholarship programs are a specific form of private school choice where the state provides tax credits to individuals or corporations that donate to nonprofit K-12 scholarship organizations, allowing those organizations to award partial-tuition scholarships to needy children to attend private schools. Although only 41 percent of the private school choice programs use tax credits as their funding mechanism, over 62 percent of students availing themselves of private school choice are doing so using tax credit scholarships. While government-run school voucher programs garner more publicity, tax credit scholarships are the main gateway through which disadvantaged children access private schools with government-aided support.

Private school choice programs have become more popular in the US as evidence mounts that access to a private school of choice improves educational outcomes for disadvantaged families. Such programs appear to have their largest positive effects on the educational attainment of highly disadvantaged students in the form of high school graduation, college enrollment, and persistence in college. Three recent and rigorous studies of private school choice programs in Washington, DC; New York City, and Milwaukee, Wisconsin; concluded that either all participating students or at least African American students go farther in school as a result of private school choice. Other studies show that private school choice has large and consistent positive impacts on parental satisfaction with schools and smaller and less consistent effects on increasing student achievement.

Although the research base provides good reasons for states and localities to provide private school choice, why do it specifically through the mechanism of tax credit scholarships? Tax credit scholarships differ from school vouchers in several important ways. First, they are funded through the voluntary actions of individuals and companies instead of through the involuntary mechanism of taxation. Second, tax credit scholarship programs administered by nonprofit scholarship organizations tend to place fewer regulations on participating private schools than do government-run voucher programs. As a result, the private school participation rate tends to be higher for tax credit scholarship programs than for voucher programs, making a greater number and diversity of private school seats available to participating families.

One especially attractive feature of tax credit scholarship programs is that they are funded through private donations, induced by government tax credits, and not through direct government revenue. This indirect method of funding private school choice likely stands a better chance of surviving constitutional challenge in the 39 US states with "anti-aid amendments" in their constitutions. Such legal provisions, which are the vestiges of anti-Catholic bigotry in the 19th Century, generally prevent states from providing government assistance to pervasively religious organizations, even if those organizations are serving the public good through activities like running soup kitchens or educating children. The anti-aid amendments in the Massachusetts constitution are among of the most restrictive in the country, especially since state courts have interpreted their reach quite broadly. If Massachusetts residents are to benefit from private school choice, it likely will have to be through the mechanism of a tax credit scholarship program.

Ken Ardon and Jason Bedrick do an excellent job of making the case for a tax credit scholarship program within the legal and policy context of the Commonwealth of Massachusetts. They discuss the likely benefits that Massachusetts residents would realize from such a program, in the areas of the attainment and achievement of participating students, parental satisfaction, improvement of the public schools due to the pressure of competition, and taxpayer savings. Tax credit scholarship programs save money because the value of each scholarship is substantially less than the amount the government spends to educate that same student in

public schools. Even if some of the students served by the scholarship program would have paid for private schooling on their own, these programs still improve the financial bottom line in states. The authors are especially adept at explaining exactly how a tax credit scholarship program should be designed and would work given the intricacies of Massachusetts school funding policies – no small feat to be sure.

Private school choice programs provide many benefits, especially to disadvantaged families. Currently, the citizens of the Commonwealth of Massachusetts are missing out on these advantages experienced in 19 states and DC. Massachusetts could implement an effective tax credit scholarship program to provide more educational options to disadvantaged families. The authors of this important report have shown the way forward.

Executive Summary

While higher-income families have a plethora of K-12 educational options, lower-income families' options are often limited to the local district school to which they are assigned. This paper proposes a constitutional and fiscally responsible method of expanding educational options for low-income families.

Section I describes how a scholarship tax credit program for K-12 education works and why such a program should pass constitutional muster despite Massachusetts' notorious anti-Catholic "Know-Nothing"- type amendments, which forbid giving public funds to parochial schools.

Section II summarizes the existing research on educational choice programs in general and scholarship tax credits in particular. The overwhelming consensus of high-quality research is that educational choice programs increase student achievement, graduation rates, and college matriculation, and that parents of students in such programs report very high levels of satisfaction with their chosen schools. Educational choice also benefits students who remain in the public schools because of the increased competition they create. Every study of the fiscal impact of scholarship tax credit programs has found that they save money for taxpayers.

Section III explains how the Massachusetts school funding formula works and explores the fiscal impact of a scholarship tax credit program. The paper then proposes a model scholarship tax credit program that would expand educational opportunities for tens of thousands of low-income children while remaining revenue neutral or saving money for the commonwealth and only minimally impacting school districts. The program would grant tax credits to individual and corporate taxpayers worth 90 percent of their donations to qualified scholarship organizations. These organizations would provide scholarships worth as much as $4,100 on average to students with a family income that is no more than 200 percent of the federal poverty line. By the fifth year of the program, 50,000 students would be eligible for scholarships.

1. Introduction

1.1 Education and Equality of Opportunity

Massachusetts consistently ranks among the very top performers on the National Assessment of Educational Progress (NAEP), which is commonly referred to as "the nation's report card,"[1] and is internationally competitive in math and science according to TIMSS and PISA testing.[2] However, these aggregate scores obscure the reality that performance varies considerably across districts, particularly along socio-economic lines.

In wealthier towns and cities like Dover and Weston, where the median household income is $184,646 and $180,815 respectively, students perform well.[3] On the most recent MCAS, 99 percent of Dover-Sherborn Regional High School students scored 'proficient' or 'advanced' in math, and 100 percent scored 'proficient' or 'advanced' in English. Likewise, 97 percent of Weston High School students scored 'proficient' or 'advanced' in math and 99 percent scored proficient or advanced in English.[4] By contrast, students from lower-income communities like Chelsea and New Bedford, where the median household income is $43,155 and $37,493 respectively, often do not perform nearly as well.[5] On the most recent MCAS, only 61 percent of Chelsea High School students scored 'proficient' or 'advanced' in math and 77 percent scored 'proficient' or 'advanced' in English. So too, only 49 percent of New Bedford High School students scored 'proficient' or 'advanced' in math, and 76 percent scored 'proficient' or 'advanced' in English.[6] This pattern is repeated across the commonwealth – in the 10 poorest cities and towns in Massachusetts, only 40.6 percent of students scored 'proficient' or 'advanced' on the MCAS score compared to a statewide average of 65.1 percent. In 2013 the percentage of low-income students who scored 'proficient' or 'advanced' in English or math in all grades was approximately 33 points below the percentage for higher-income students.[7]

There is scant evidence that increased school resources lead to increased student performance.[8] Indeed, after adjusting for inflation, K-12 spending in the United States has tripled since 1970, but NAEP scores have remained essentially flat.[9]

Wealthier families already have educational choice. They can afford to live in communities with higher-performing schools, like Dover and Weston, or they can send their children to private schools. Since they have the ability to exit, the public schools must be responsive to their children's needs. By contrast, lower-income families often have only one viable option: the public school to which their children are assigned. They are a captive audience, so their schools become *de facto* monopolies. And while some low-income families are able to send their children to METCO* or charter schools, there are more than 10,000 students on waiting lists for METCO schools[10] and more than 40,000 students on waiting lists for charter schools, demonstrating both the demand for and lack of additional educational options.

Poverty certainly plays a significant role in the varied performance, but as discussed below, studies consistently show that educational choice programs improve academic outcomes for low-income students, often to a greater degree than for higher-income students. While educational choice programs are not a panacea, they are a precondition to ensuring equality of opportunity.

1.2 Educational Choice and the MA Constitution's "Know-Nothing" Amendments

Efforts to expand educational opportunity face a significant legal obstacle: the "Know-Nothing" amendments to the Massachusetts Constitution. As discussed in greater detail in a previous Pioneer white paper,[11] the nativist and anti-Catholic "Know-Nothing" party succeeded in amending the Massachusetts Constitution in 1854 to block the commonwealth from supporting Catholic schools, though at the time the state-supported common schools were *de facto* non-denominational Protestant. Moreover, the commonwealth continued to provide public funding for numerous Protestant private schools.

In 1917, a constitutional convention amended the provision to its present form so that it reads:

> "[N]o grant, appropriation or use of public money or property or loan of public credit shall be made or authorized by the commonwealth or any political division thereof for the purpose of founding, maintaining or aiding any other school or institution of learning, whether under public control or otherwise, wherein any denominational doctrine is inculcated, or any other school, or any college … or educational, charitable or religious undertaking which is not publicly owned and under the exclusive control, order and superintendence of public officers or public agents authorized by the commonwealth or federal authority or both…"[12]

Under this provision, it would likely be unconstitutional for Massachusetts to enact a publicly funded school voucher program that allowed parents to redeem the vouchers at religiously affiliated schools, though it's also possible that excluding such schools from a voucher program would violate the "Free Exercise" clause of the First Amendment to the U.S. Constitution.[13] The 1917 convention added an additional provision which excluded the "Know Nothing" amendment from the ballot initiative process that allows the public to directly amend the state constitution.[14]

Proponents of educational choice may still have a constitutionally viable option: scholarship tax credits (STC). While the "Know-Nothing" amendments prohibit the "appropriation or use of public money" to parents who may choose religiously affiliated schools, an STC program utilizes only private money. In an STC program, private individuals and corporations receive a tax credit for donating to private, nonprofit scholarship organizations that grant scholarships to the children of low-income citizens to use at nonpublic schools, out-of-district public schools, or even to cover certain homeschooling expenses.

*The Metropolitan Council for Educational Opportunity (METCO) is a voluntary school desegregation program that allows students assigned to lower-performing public schools to attend higher-performing public schools.

The United States Supreme Court ruled in *ACSTO v. Winn* (2011) that private money does not become public money until it has "come into the tax collector's hands."[15] Likewise, the Arizona Supreme Court ruled that an STC program did not violate Arizona's "No-Aid" amendment, which is similar to Massachusetts' "Know-Nothing" amendments, because it did not entail the expenditure of public money:

> [N]o money ever enters the state's control as a result of this tax credit. Nothing is deposited in the state treasury or other accounts under the management or possession of governmental agencies or public officials. Thus, under any common understanding of the words, we are not here dealing with "public money."[16]

Massachusetts already provides tax benefits to religiously affiliated schools and even houses of worship. For example, the commonwealth provides income tax deductions for individual and corporate donors to nonprofit organizations[17] and the nonprofits themselves can take property tax exemptions.[18] In both cases, religiously affiliated nonprofits, including schools and houses of worship, are eligible for the tax breaks, which serve a secular purpose and are neutral with respect to religion. Likewise, a scholarship tax credit program serves the secular purpose of expanding educational opportunities and is entirely neutral with respect to religion since parents can choose among a variety of educational options, both secular and religious.

1.3 Scholarship Tax Credit Programs in the United States

There are currently more than 192,000 students receiving scholarships through 14 scholarship tax credit programs operating in 11 states, including Arizona*, Florida, Georgia, Indiana, Iowa, Louisiana, New Hampshire, Oklahoma, Pennsylvania†, Rhode Island, and Virginia.[19] Additionally, Alabama and South Carolina enacted scholarship tax credit laws in 2013 (the latter for students with special needs)[20] and in 2014, Kansas enacted a scholarship program for low-income students assigned to "failing" public schools.[21]

At their core, the programs are very similar. Taxpayers receive tax credits for contributions to scholarship organizations that fund students attending schools other than their assigned public school. However, their details vary greatly.[22] In some states, only taxpaying citizens are eligible for the tax credits while in others only corporate taxpayers are (this is often because a given state does not have either a personal or a corporate income tax). The amount of the tax credits vary from 50 percent to 100 percent of donations with six of the 14 programs offering credits worth 100 percent of donations and another four offering credits between 75 and 90 percent.

All but two of the 14 programs require would-be scholarship recipients to earn below a certain income threshold to be eligible. These means-testing guidelines vary greatly. Florida requires that scholarship recipients qualify for the federal Free and Reduced Lunch program (185 percent of the federal poverty line) while Oklahoma's threshold is 300 percent of income guidelines of the "Free and Reduced Lunch" program. However, studies have shown that scholarship organizations generally conduct their own means-testing beyond what the law requires. For example, though Arizona's tax credits for individual donations does not have any income-based eligibility criteria, a 2011 study found that more than two-thirds of participating families would have qualified for Arizona's corporate STC program, which requires that families earn no more than 185 percent of the federal poverty line.[23]

Some programs are limited to students who previously attended a public school or to students who would be assigned to a failing public school while others have no such restrictions. Scholarship recipients in some states can only redeem the scholarships at private schools, while recipients in other states may attend out-of-district public schools. In New Hampshire, homeschooling families may use the scholarships to cover certain education-related expenses.

This paper will discuss the implications of these

*Arizona has three STC programs: a means-tested program in which only corporate taxpayers are eligible to receive tax credits; a non-means-tested program in which only individual taxpayers are eligible to receive tax credits; and a non-means-tested program in which only students with disabilities and foster children are eligible to receive scholarships.
†Pennsylvania has two STC programs: one in which all low-income students are eligible and another in which eligibility is limited to students who are assigned to failing public schools.

various policy decisions and propose a model scholarship tax credit program for Massachusetts.

2. Research on Educational Choice

2.1 Effect on Participating Student Outcomes

Educational choice programs are among the most studied education policy interventions, and the overwhelming consensus of high-quality research is that choice and competition improve educational outcomes. In 2013, the Friedman Foundation for Educational Choice published a literature review by Greg Forster that identified 12 random-assignment studies of educational choice programs conducted between 1998 and 2012.[24] Random-assignment studies are the "gold standard" of social science research because they compare two groups that are different only due to the "treatment" (in this case, receiving a scholarship to attend a nonpublic school) and random chance. With a large enough sample, random assignment eliminates the influence of unobservable factors, like parental motivation, on the study's results. That leaves a high degree of confidence that differences between the "treatment" and "control" groups are the result of the treatment.

Of the 12 random-assignment studies, 11 found that educational choice programs had a positive impact on the academic outcomes of some or all of the participating students, including higher standardized test scores, higher graduation rates,[25] and/or higher rates of college enrollment.[26] Only one study found no statistically significant difference, and none found a negative impact. The five studies finding positive impacts for only some students generally found gains among those who had the least educational opportunities at the outset, particularly low-income, African-American students and students who transfer out of very poor-performing public schools. For example, a random-assignment study by researchers at Harvard University and the Brookings Institution found that African-American students in New York who received scholarships were 24 percent more likely to attend college than peers who applied for but did not receive a scholarship.[27] The author of the literature review surmised that "these student groups were served more poorly in their public schools and thus stood to gain the most from the opportunity to choose a new school."[28]

In 2009, Andrew J. Coulson of the Cato Institute published a global literature review that analyzed more than 150 statistical comparisons covering eight educational outcomes* to determine what sort of education system produces superior outcomes: those that are more market-like or those with more centralized government control. The review concluded that it is "the least regulated market school systems that show the greatest margin of superiority over state schooling."[29] Among other outcomes, the more market-like education systems (i.e. – those with minimal regulations and in which parents pay at least part of the tuition) produced higher student achievement, greater parental satisfaction, and higher attainment levels on average than the more centralized education systems.

2.2 Parental Satisfaction

Another key measure of the success of educational choice programs is parental satisfaction. Parents consistently report very high levels of satisfaction with the schools they select for their children through educational choice programs, particularly when compared to their assigned public school.

In a recent survey, 96.8 percent of parents whose children are participating in New Hampshire's scholarship tax credit program expressed satisfaction with the private or home school that their child attended, including 89.5 percent who reported being very satisfied.[30] Likewise, in a recent survey of parents with children participating in Georgia's STC program, 98.6 percent of respondents reported being satisfied or very satisfied with their chosen schools relative to their previous experience in an assigned public school.[31] In 2010, a survey commissioned by the Florida Department of Education found that 95.4 percent of families participating in their STC program reported their schools were "excellent" (75.1 percent) or "good" (20.3 percent).[32]

* Academic achievement (as measured by test scores), efficiency (academic achievement per dollar spent per pupil), parental satisfaction, orderliness of classrooms, condition in which facilities were maintained, subsequent earnings of graduates, attainment, and effects on measured intelligence.

A 2009 study by the Friedman Foundation for Educational Choice asked parents of scholarship recipients about their satisfaction regarding a variety of factors relative to their previous experience in assigned public schools. The report found:

- 80 percent of the parents were "very satisfied" with the academic progress their children are making in their chosen independent schools, compared to 4 percent in their previous public schools.
- 80 percent were "very satisfied" with the individual attention their children received at their chosen schools, compared to 4 percent in public schools.
- 76 percent were "very satisfied" with the teacher quality in their chosen schools, compared to 7 percent in public schools.
- 76 percent were "very satisfied" with their chosen schools' responsiveness to their needs, compared to 4 percent in public schools.
- 62 percent were "very satisfied" with the student behavior in their chosen schools, compared to 3 percent in public schools.

These findings are not inconsistent with surveys showing that roughly half of the public rates their local public school an "A" or a "B."[34] What these findings make clear is that a significant number of parents believe their children's needs are not being met in the public school system. This is not an indictment of public schools since we should not expect that any one school will be able to meet the diverse needs of all the children who happen to live in a given geographic area. Educational choice programs allow parents to choose whichever school best meets the needs of their children.

2.3 Effects of Competition on Public School Performance

The benefits of educational choice programs are not confined to participating students. Public school students can also benefit because choice programs create an incentive for schools to compete for students. When parents can vote with their feet, schools must work hard to meet children's needs. The aforementioned literature review by Greg Forster reported that 22 of 23 empirical studies found that educational choice programs improve academic outcomes at public schools.[35] None of the studies found a negative impact. The one study finding no statistically significant impact examined Washington, D.C.'s school voucher program, which was designed to insulate public schools from competition.[36]

One of these studies measured the impact of the threat of competition from Florida's scholarship tax credit program.[37] Since state funding of public schools is tied to enrollment, public schools lose money for each student who chooses to leave for another school, thereby creating an incentive to compete. Researchers isolated the effect of competition by comparing the performance of public school students in the year before the STC program was enacted to their performance in the year after it was enacted but before it was implemented,* controlling for factors such as race, gender, and socio-economic status. The study utilized four measures of competition: the *distance* to the nearest private school, the *density* of private schools within a five-mile radius, the *diversity* of private schools in that area, and the *concentration* of different types of private schools in the area. The study concluded that "all four measures of competition (distance, density, diversity, and concentration) are positively related to student performance on state math and reading tests."[38] While the first-year gains were small, they were statistically significant.

2.4 Fiscal Impact of STC Programs

The fiscal impact of a scholarship tax program depends both on how it was designed and how the state funds public education. In states where funding is tied to enrollment, well-designed STC programs produce savings when the reduction in state expenditures resulting from students switching from public to private schools is greater than the total reduction in tax revenue. The main factors that determine an STC program's fiscal

* After the program was implemented, it would be impossible to disentangle the effect of competition from the effect of students switching schools. For example, it's possible that the private schools "cream" the better-performing pupils, leaving poorer-performing students in the public schools, but it is also possible that students with the worst performance in the public schools have a greater incentive to seek out alternatives, thereby leaving the better-performing students in the public schools.

impact include the size of the credit, average scholarship size, number of switchers, and the percentage of switchers who qualify for additional state aid (e.g. – students qualifying for the federal Free and Reduced Lunch program, English language learners, and students with disabilities).

Among existing STC programs, the tax credits range from 50 percent of donations to scholarship organizations to 100 percent of donations. Lower tax credit amounts will produce greater savings, holding all else constant. However, higher tax credit amounts induce taxpayers to contribute more to the program, allowing far more low-income families to receive scholarships. Policymakers must balance the goals of saving money and aiding the greatest number of students.

Most STC programs cap the total or average scholarship size at a figure that is considerably less than the state's average per-pupil expenditure. A lower average scholarship size will produce greater savings but the neediest families require larger scholarships to allow them to afford the school of their choice. As with the tax credit amounts, policymakers must balance the twin goals of saving money and providing aid to the neediest families. Setting a cap on the average scholarship size rather than total scholarship size allows scholarship organizations to better tailor scholarships to the financial needs of individual families.

States only save money when a student switches from a public school to a private or home school. In eight of the 14 existing STC programs, students are only eligible for scholarships if they attended a public school in the previous year (or, in some cases, are entering kindergarten or first grade).[39] A greater proportion of switchers translates into more savings for the state. However, there are numerous low-income families who would otherwise qualify for the scholarships who do not want to send their children to a school that does not meet their needs merely to qualify for a scholarship. They often receive financial aid through private schools or other charitable institutions and it would seem unfair to exclude them entirely from the program. To balance these competing interests, states like New Hampshire require that a certain portion of scholarship recipients be switchers, but allow scholarship organizations to grant the remainder to any qualifying low-income family.

Researchers have calculated the fiscal impact of the three longest-running and largest STC programs. A 2009 study estimated that Arizona's STC program saved between $99.8 million and $241.5 million.[40] Since the state had forgone only $55.3 million in tax revenue as a result of the tax credits, Arizona taxpayers saved between about $2.00 to $4.50 for each $1.00 in forgone revenue.

A 2011 study of Pennsylvania's STC program estimated that it saved the state and districts about $512 million each year while reducing state tax revenue by only about $40 million.[41] That study did not account for the fiscal impact of non-switchers, but Pennsylvania's savings are likely to be substantial since the average scholarship at the time was only $1,040,* which is less than 7.2 percent of the then $14,531 average cost-per-child in Pennsylvania district schools.[42] The average scholarship size is now $990.[43] Moreover, a large majority of scholarship recipients in Pennsylvania come from low-income households. The average household income for scholarship families was only $29,000.[44] Students who qualify for the federal "Free and Reduced Lunch" program cost the state more and are less likely to attend private schools without financial assistance.

In 2010, the Florida legislature's nonpartisan Office of Program Policy Analysis and Government Accountability (OPPAGA) estimated that Florida's STC program saved the state $32.6 million, which is approximately $1.44 in state education funding for every $1.00 reduction in tax revenue.[45] Though there have not yet been any formal evaluations of the fiscal impact of other STC programs, the impact of Florida's program suggests that savings are likely. Florida's STC program offers the maximum possible tax credit (100 percent) and has both the largest average scholarship size ($3,664) and the highest ratio of scholarship size to average public school

*The size of the scholarships may appear small, but they are intended to make up the difference between what the families can afford and the schools' own need-based tuition-breaks. The poorest families often have only small co-payments even though the scholarship by itself is small.

per pupil expenditures (35.6 percent).[46] STC programs in seven of the other 10 states offer only partial credits, as low as 50 percent in Indiana and Oklahoma.

3. Fiscal Impact of an STC Program in Massachusetts

A scholarship tax credit program would affect both state and local finances. The impact has two sides – the loss in tax revenue due to the credits, and the decline in spending on education due to students leaving the public schools. The revenue side of the ledger is straightforward – the state would grant tax credits of a certain amount, which would directly reduce revenue. The impact on spending is more complex and depends on the school funding formula and the details of the STC program. In particular, the results depend on the generosity of the tax credits and scholarships, the number of students leaving public schools, how many of the students are from low-income families, and the geographic distribution of the scholarship recipients. The following sections describe a model STC program which would be revenue neutral for the commonwealth and provide scholarships to more than 20,000 students each year.

3.1 School Funding in Massachusetts

School funding in Massachusetts is determined at the state level by a complex formula called Chapter 70. The funding formula begins with the calculation of the foundation budget, which estimates the per-pupil cost to provide teachers, materials, and other resources in an attempt to calculate the minimum funding necessary to provide an adequate education. The foundation budget varies depending on whether a child attends a vocational school, whether the school is an elementary, middle or high school, and also on factors such as whether a student speaks English or is from a low-income household.* For FY14, the foundation budget per pupil ranged from $7,000 to $19,000, with an average of $10,000 and a median of $9,500. The foundation budget represents the absolute minimum amount a district is required to spend, although some districts are required to spend more than the foundation.

Once the foundation budget is determined, the formula allocates spending between the municipality and the state. The required local contribution measures the amount that each municipality must contribute, and for the most part it is not sensitive to changes in enrollment. More than 95 percent of municipalities choose to spend at least one percent more than required by law, and 72 percent spend at least 10 percent more.[47]

The last part of the formula calculates state aid. The calculation effectively begins with the aid from the prior year and then makes two main adjustments that could increase aid . The first adjustment is foundation aid.* Districts receive foundation aid if the combination of the required local contribution plus the prior year's aid is not enough to reach foundation. Foundation aid is usually more important in lower-income districts.

The second main component of aid is target aid. The commonwealth calculates a target for the percentage of the foundation budget that it will fund. The target percentage depends on each municipality's property wealth and income – higher income and wealth communities are expected to contribute more on their own and receive less aid from the commonwealth. The target percentages range from 17.5 percent in wealthier communities to 86.5 percent in poorer communities. The target aid percentage shows the minimum aid each district is meant to receive; some districts already receive more than this amount while others receive less. In principle, the formula would then provide enough aid to get each district up to the target share. However, the commonwealth has never fully funded this aid component. Instead, in recent years districts have received a portion of the aid to bring them closer to their target aid percentage.

3.2 How an STC Program Impacts School Funding in Massachusetts

A scholarship tax credit program would reduce the number of students in some public schools, with

*The foundation budget measures whether a student is "limited English proficient" (LEP) or receives free or reduced price lunch.

*In addition to the two components described below, the state often provides minimum aid that guarantees that each district's aid will increase by at least a fixed amount per pupil; in FY14 minimum aid was $25 per pupil. Minimum aid is not specified in the state law that governs state aid, but the legislature often chooses to provide it for political purposes.

ramifications for school funding. As explained previously, the state funding formula determines both the required local contribution and state aid. The impact of an STC program on local contributions is complex.

In communities with required contributions above their target share, an STC program would reduce the required local contribution as enrollment and the foundation budget decline.[†] It is impossible to determine how many of these communities would reduce their actual local spending as the required local contribution fell. For the majority of communities, an STC program would have no impact on the required local contribution because the formula is not directly tied to enrollment or the foundation budget. However, many municipalities choose to spend more than required; reductions in enrollment – and in state aid - could lead these cities and towns to change their spending even though the required local contribution does not change.

A scholarship program would have a much clearer impact on state aid. The impact occurs because a decline in enrollment lowers the foundation budget, which then translates into less state aid than the district would have received had the students not transferred.

The actual impact on state aid varies across districts, and it depends primarily on two factors: whether the district is a foundation aid district, and how much aid would have changed had the students not left.

Impact in Foundation and Above Foundation Districts

In foundation aid districts (those that require state aid just to reach the minimum level of spending), a drop in enrollment and foundation has a direct impact on state aid calculations. If a student leaves the district, the district's foundation budget would fall by about $10,000 (depending on the characteristics of the student), and the district would require $10,000 less aid to reach foundation. This is illustrated in the first column of Table 1 – the loss of 50 students would reduce the foundation budget by $500,000 and state aid by the same amount.

Table 1. The Impact of Scholarships for 50 Students ($m)

	Foundation Aid Budget	Above Foundation District
Foundation Budget	20	20
Required Local Contribution	10	14
State Aid	10	10
Required Net School Spending	20	24
Change in Foundation Budget if 50 students get scholarships	0.5	0.5
Impact on Foundation Aid	-0.5	0
Target Share	Not relevant	40%
Impact on Above Foundation Aid	0	-0.2
Total impact on State Aid	-0.5	-0.2

[†]This feature of the formula changes every year – in FY2014 it would have reduced the required contribution in "excess effort" communities by about $1,500 for each student who left.

In contrast, in an above-foundation district, a drop in foundation of $10,000 would have a more limited impact on aid. The impact would be governed by the district's target share – e.g. if a district's target share for state aid is 40 percent of foundation, then the district could in theory require $4,000 less aid. If 50 students left, the district could lose $200,000.

However, there are two additional considerations that could reduce the impact on aid in above-foundation districts. First, target aid has never been fully funded. In FY14 the state provided 25 percent of the aid necessary to close the gap and reach the target share; in the hypothetical example above the state would only provide 25 percent of the $4,000, or $1,000 per student, for a total loss of $50,000. The savings from the scholarship would still show up if the commonwealth continues to fund additional portions of the gap each year, but the lack of full funding for target aid effectively postpones some of the savings from an STC program.

The second factor that reduces aid is that some districts are above both foundation and their target share. This occurs in 220 districts that contain 380,000 students, or 40 percent of the students in the state.* In these districts, the loss of students would not have any substantial impact on state aid.†

In general, the largest impact is in foundation aid districts, with the smaller impact in other districts dependent on the district's income and property values. However, the exact impact depends on a combination of complex details, and several factors can change the fiscal impact over time. Broader changes in enrollment, foundation, and the local contribution affect which districts receive foundation aid (and would be most affected by an STC program). At the same time, higher levels of inflation would lead to larger increases in foundation and more state aid. Additionally, changes to the state aid formula would change the impact of STCs – e.g. the share of the target aid that the commonwealth funds may change, or the commonwealth could provide other categories of aid (although other aid categories are typically less sensitive to enrollment). Finally, the immediate financial impact of an STC program on state aid gets slightly smaller as it serves a larger number of students; if more students leave then some districts would no longer require foundation aid or target aid. At the same time, more communities would see their required local contributions decline. While each district is unique, the most important determinant of the impact is whether a district is a foundation aid community.

Does a Drop in Enrollment Actually Decrease Aid?

In principle, districts with flat or declining enrollment could receive less state aid (whether because the district requires less foundation aid or because the decline in foundation leads to a decrease in target aid).* However, historically the state has almost never actually reduced state aid to districts.† In most years all operating districts receive at least as much aid as the prior year, and often they even receive a small increase due to minimum aid. Thus even if a district did not need aid to reach foundation or their target share, the district would not see their aid reduced.

This reluctance to decrease aid means that when enrollment falls, state aid generally does not. The previous discussion of the impact of an STC program still holds true, with one important adjustment. Districts that lose students to private schools would lose state aid compared to what they would have gotten, but they will never lose aid compared to the prior year – i.e. growth in state aid may slow, but expenditures never fall.

For many districts, this qualification is not relevant. This is true because the foundation budget adjusts for inflation, so even in a district with flat enrollment foundation will typically grow by a few percent. As long as the number of students taking advantage of an STC is not large, the inflation adjustment means that foundation would still increase. In these districts, an STC program would reduce but not eliminate the growth in aid.

*Thirty five of these districts are non-operating districts that have very small enrollments representing students who are sent outside the district.

†The reason that these districts are not affected is that they receive "too much" aid, so that changes in enrollment have no impact. These districts could still lose minimum aid if the state provides any, but because it is so small ($25 per pupil in FY14) the remainder of this paper ignores it.

*Declines in enrollment do not always lead to declines in aid, because the foundation budget is adjusted for inflation and could grow even if enrollment declines.

†The state has cut aid when the budget was tight, but not due to decreases in enrollment.

In some districts – those with declining enrollment – aid could be flat or growing very slowly even without an STC program. If enough students leave for private schools, the district would theoretically receive less aid. However, the commonwealth would most likely hold these districts harmless and maintain aid at the level of the prior year. So long as the commonwealth continues this policy, state taxpayers will not realize savings from declining enrollment associated with the STC program or another cause.

The rationale for maintaining aid when enrollment declines is that schools may face fixed costs that do not change when the number of students changes - e.g. a school needs a principal even if enrollment falls. However, a 2012 analysis by the Friedman Foundation estimated that 73.3 percent of the total costs per pupil in Massachusetts are short-run variable costs.[48] If the majority of costs are variable costs, it would be fiscally prudent for the commonwealth to revisit this "hold harmless" policy. Even if a district faces significant fixed costs initially, in the long run all costs are variable.*[49] If the state aid formula is not adjusted, reductions in enrollment could lead to ever higher levels of state aid per pupil that are unrelated to the costs of educating students.

Do the Savings to the Commonwealth Last?

In addition to the complications mentioned previously, there is one other important caveat about the savings to the commonwealth from an STC program: They can change over time. While scholarships would immediately reduce aid and lead to savings that offset the cost of the tax credits, the impact could either grow or fall over the following years.

Two factors cause the savings to grow over time. One was mentioned previously - the commonwealth has historically only funded a portion of the gap between actual aid and target aid. This delays some of the potential savings from reduced enrollment, so the initial annual savings understate the total savings. If the commonwealth continues to fund 25 percent of the target share gap in future years, savings would grow over time.

The second reason that the savings from scholarships could grow over time is that in some districts the scholarships have no immediate impact because the commonwealth's "hold harmless" provision prevents aid from actually declining. This generally occurs in districts that have had declining enrollment in recent years, meaning that the regular Chapter 70 formula would not provide them with as much aid as they received in the past. The loss of a student in these districts does not have any impact on state aid. However, as time passes inflation (and any future enrollment growth) will push many of these districts above their prior level of state aid. At that point, any scholarships will begin to have an impact on aid – i.e. the savings will grow.

The savings from scholarships could also change over time if the share of scholarships going to non-switchers changes. The share could increase if more families who would have sent their children to private school even without a scholarship apply for and receive scholarships. On the other hand, the share could decrease once the pool of eligible private school students receives scholarships so that growth in the program comes from switchers. The extent of any shift is not clear – many families already sending students to private school have relatively high income and would not be eligible for scholarships. In general, the higher the cap on income eligibility, the more potential non-switchers and the lower the long-term savings.

Example of Fiscal Impact on School Districts

As described above, an STC program would reduce state aid and to a lesser extent the required local contribution from municipalities (although not necessarily the actual local contribution). While districts would receive less state aid and potentially less local funding, they would also have fewer students. A hypothetical example can illustrate the potential overall impact on a district of an STC program that allowed 50 students to transfer to private school.

*The charter school funding formula compromises on this issue and allows that variable costs may be slow to adjust, gradually reducing funding as students leave a district for charter schools.

Table 2. Impact of STC Program on One Foundation Aid District

	Year 1	Year 2 (w/o STC)	Year 2 (w/ STC)	Change
Enrollment	980	1,000	950	
Foundation Per Pupil	10,780	11,000	11,000	
Foundation Budget	10,564,400	11,000,000	10,450,000	(550,000)
Required Local Contribution	6,800,000	7,000,000	6,917,500	(82,500)
Chapter 70 Aid	3,764,400	4,000,000	3,764,400	(235,600)
Net School Spending (NSS)	10,564,400	11,000,000	10,764,400	(235,600)
NSS Per Pupil	10,780	11,000	11,331 331	

Without the program the district would have received $4 million in aid and been required to spend $7 million in local funds. The loss of students reduces the foundation budget by $55,000. This in turn reduces both the local contribution and the state aid amount, although the loss in state aid is restricted so that the district does not lose aid compared to the prior year. The net impact is that the local district is allowed to reduce spending by $82,500 and the state saves $236,000, although because there are fewer students the spending per pupil would rise by $331.

Unequal Fiscal Impact

The impact of an STC program would vary by district. The logic of the changes in state aid is clear – if students do not attend a district, the district should not receive state aid. However, because the state aid formula is moderately progressive and provides larger amounts of aid to poorer districts, those districts would lose more aid per pupil when students left. Since the STC program is targeted toward low-income students, districts with higher concentrations of low-income families are likely to lose more students than richer districts. As students leave public schools, the districts forgo the aid associated with those students, so lower-income districts will be more affected than higher-income districts – many of which would not lose any aid even if they lost students.

It is easy to misinterpret or overstate the importance of this disparate impact for a few reasons. First, the reason higher income districts see little or no reduction in aid is that they would not have received an increase in aid if the student attended the district. Second, the reductions in aid refer to the aggregate aid, but enrollment is also falling; the net effect is to increase spending per pupil. Finally, the reductions in aid discussed in this paper are not reductions in the amount of aid compared to the prior year; no districts actually lose aid. Instead, they only represent a cut when compared to the increase the district would have gotten had a student remained in the district – i.e. less growth in aid. In many cases, districts would be completely unaware of the fiscal impact, particularly if enrollment is growing. In those districts, enrollment and the foundation budget will grow and the district will receive additional state aid, but the growth will be somewhat slower than it would have been absent the STC.

It is important to recognize that the impact of an STC on school finances is exactly the same as if a student graduated or moved out of a district, or

if a child enrolled in a private school or was home schooled rather than attending a public school. In all of these cases, the district does not educate the student and will not receive state aid for the student. The only difference in these situations is the reason that a student leaves the district.

While some districts would lose some state aid, the ultimate fiscal impact of an STC program on local districts is likely to be small. Their total budgets would not shrink, they would only grow more slowly than they would have, and districts that lose the most aid would also be the ones losing the most students, so that spending per pupil also rises. Additionally, as discussed in Section 2.3, the overwhelming consensus of the research literature shows a positive response to increased choice and competition.

3.3 The Potential Impact of an STC Program

Because STC programs generally target lower-income students, the participation would likely reflect the distribution of low-income students around the commonwealth – i.e. districts with more low-income students would most likely see more students accept scholarships and move to private schools. This pattern means that participants would be concentrated in larger urban districts that have higher percentages of low-income students.

If an STC provided 5,000 public school students with scholarships in FY2015, state aid would fall by $30 million, or $6,000 per student.* As long as the tax credits were for less than this amount, the state government would save money while improving educational opportunities. The average loss in aid per student transferring masks tremendous variation. The amount of aid lost ranges as high as $17,000 per student, but about 75 percent of the districts with more than 100 students would not lose aid either because they did not lose students or because the formula prevented them from losing state aid. Larger urban districts are much more likely to lose students and aid – among the 10 largest districts only Newton would lose fewer than 100 students and only Boston would not lose aid.

This hypothetical STC program would lead to a $30 increase in required spending per pupil statewide – required spending per pupil rises despite the reduction in aid because the fall in enrollment means that the spending is spread over fewer students. The impact on per pupil spending also varies across districts. Some districts lose enough aid that their required per-pupil spending stays roughly constant, while other districts such as Boston lose students but no aid and would see required spending per pupil rise.

These estimates focus on the savings to the commonwealth and impact on required total spending. As explained previously, required local spending is only loosely tied to enrollment - an STC program has a marginal impact in some cities and towns and no impact in others. At the same time, many cities and towns spend more than required and are free to change spending. If an STC reduces enrollment, these municipalities could choose to reduce spending.

The impact of an STC program does not scale evenly as it grows. If the STC were increased to 10,000 students the savings would rise by less than 100 percent. The reason for the slower growth in savings is that as more students accept scholarships, more districts are protected by the "hold harmless" provision of the state aid formula that prevents them from losing aid.

3.4 How a Model STC Program Could Work

As discussed in Section 2.4 above, policymakers must balance various competing considerations when crafting a scholarship tax credit program. This proposal aims to aid as many low-income families as possible while reducing state expenditures as much or more than the concurrent loss in state revenue. The proposal is tailored for Massachusetts. When crafting an STC program, policymakers in other states should consider their particular circumstances, especially the peculiarities of their own funding formulae.

*This figure reflects savings to the state if all scholarship recipients transferred from public schools. Later in the paper we discuss the impact if students not in public school receive scholarships.

Means-testing: We propose setting eligibility to receive a scholarship at 200 percent of federal poverty line, which is $47,700 for a family of four in 2014.[50] All but two STC programs (Georgia's and Arizona's individual-contributor STC) have a means-testing provision and of those, all but Pennsylvania's peg their income threshold relative to the federal poverty line (FPL) or the federal Free and Reduced Lunch program, which is 185 percent of the FPL. To be eligible for scholarships in Louisiana, families may earn no more than 250 percent of the FPL while Iowa, New Hampshire, and Virginia set their income thresholds at 300 percent of the FPL. The FPL guidelines are already used for numerous state and federal programs, and the federal government adjusts them annually. Moreover, the guidelines take family size into account. As discussed below, this measure would also ensure greater savings to the commonwealth due to Massachusetts' funding formula.

Scholarship tax credit amount: We propose a tax credit worth 90 percent of taxpayer donations to scholarship organizations. In order to maximize the number of students that the STC program can aid, the credit amount should be as high as possible while still producing fiscal savings. A smaller credit could hurt fundraising, but previous research has indicated that setting the tax credit amount at this level would not significantly impact the fundraising efforts of scholarship organizations.[51]

Average scholarship cap: As discussed above, a cap on the average scholarship amount rather than the total amount gives scholarship organizations greater flexibility to tailor scholarships to the financial situation of individual families. The scholarships are intended to bridge the gap between what families can afford and the cost of tuition, therefore the average scholarship cap should be as high as possible without sacrificing fiscal savings. Based on the estimates discussed in Section 3.5 below, we propose an average scholarship cap starting at $4,100 per student and rising with inflation. According to Private School Review, the median tuition for private schools in Massachusetts was $12,175 during the 2013-14 school year.[52] However, the tuition that most low-income students face is much lower. In the five lowest-income cities among the commonwealth's ten most populous cities (Springfield, Fall River, New Bedford, Brockton, and Lynn), the median tuition was $4,470 for kindergarten, $4,173 for grades 1-5, $4,510 for grades 6-8, and $9,125 for high school. (See Appendix A.) Moreover, these figures do not include the tuition aid that such schools offer low-income families. The proposed scholarship amount would likely cover a significant portion of tuition at many schools.

Total credit cap: Total credit caps are often imposed to limit the impact of the program on public school funding, since states like Massachusetts provide funding to public schools based in part on enrollment. If enough families accept scholarships and leave the public school system, the budgets of some public schools have the potential to decline. If lawmakers decide to impose a total credit cap, the scholarship program should include an "escalator" provision that automatically raises the cap over time.

Scholarship programs without an escalator often remain stuck at the same maximum funding level for several years, despite growing demand and the fact that the real value of the scholarships diminishes over time due to inflation. Because Florida's STC program includes an escalator provision, it has more than doubled in the last five years.[53]

3.5 Fiscal Impact of Proposed STC Program

What is the fiscal impact of an STC program as described above? The design of an STC program would determine several important factors that influence the fiscal impact on the commonwealth such as the number of low-income and other recipients, amount of the scholarship, the percentage tax credit, etc. However, the consequences also depend on two important assumptions:*

- The geographic distribution of scholarship recipients.

*The financial impact also depends on overall growth in enrollment across districts and inflation. However, the impact of these factors on total state aid is much greater than the impact on an STC.

- The share of recipients who would not have attended public schools.

The first element can be modeled based on existing data. For example, low-income scholarship recipients are probably more likely to come from districts with more low-income students. Statistics on household income around Massachusetts are certainly not a perfect predictor of the number of students who would receive scholarships. Other factors such as the availability of nearby private schools and the satisfaction with public schools would most likely also affect the number of parents who apply for scholarships. However, it is not clear how to adjust for these other factors and our estimates are based on the distribution of income.

The second element – the share of scholarship recipients who would not have attended public schools – is difficult to predict. The reason that these "non-switchers" are important is that the commonwealth's savings rely on a reduction in public school enrollment. If a student uses a scholarship to leave homeschooling, or if the student would have attended a private school without the scholarship, the state does not realize any savings.

The best basis for estimating the number of non-switchers is probably the experience of the scholarship program in Washington, DC.[54] During the first two years of the program approximately 30 percent of eligible applicants were non-switchers.*

The share of non-switchers in Massachusetts could be higher or lower than 30 percent. The Washington, DC figure may overstate the number of non-switchers because the number of eligible applicants from private schools fell after the first year. On the other hand, the drop-off could have occurred because the DC program gave lower priority to students already in private school – had it not the number of private school applicants may have remained strong. At the same time, data from the Current Population Survey suggest that 20,000 private school students could be eligible for the STC, representing 40 percent of the proposed number of slots.[55]

The estimates below evaluate the impact of a scholarship program based on the following assumptions:

- 50 percent of scholarships go towards low-income students (those eligible for free and reduced price lunch).
- 50 percent go towards non-low-income students with family income up to 200 percent of poverty line.
- The STC phases in such that it allows 50,000 scholarships by the 5th year.
- 30 percent of the students are non-switchers who would have attended private school without a scholarship.

As stated previously, an STC program would have very little impact on the *required* local contribution in cities and towns. However, if large numbers of students left for private schools, municipalities could choose to adjust their spending.

Table 3 summarizes the financial impact of an STC program with these parameters. The estimates are based on assumptions meant to reflect past experience: 2 percent annual inflation, 3 percent growth in local revenue, flat enrollment, and 25 percent of target aid and 15 percent of the reduction in excess effort being funded each year, with no minimum aid.*

Most importantly, it also assumes that 35,000 of the scholarships are awarded to "switchers" from public schools and 15,000 are awarded to students who would not have attended public schools, and that participation from both groups phases in gradually over 5 years. It is possible that students already in private school would move more quickly to apply for scholarships, which would reduce savings in the initial years.

By FY2019, 50,000 students would receive scholarships and the annual savings to the commonwealth would be approximately $222

*22% of eligible applicants (888 out of 4047) were in private schools, although an unknown number of them may have returned to public school without the scholarships. An additional 11% of public school applicants chose to attend private school despite losing a scholarship lottery.

*Inflation and enrollment growth determine the overall growth in the foundation budget, while growth in local revenue affects the need for state aid. The impact of these assumptions is discussed in the appendix. See http://www.doe.mass.edu/finance/chapter70/ to compare these figures with past experience.

Table 3. Impact of STC for 50,000 of Students

	FY15	FY16	FY17	FY18	FY19
Students	10,000	20,000	30,000	40,000	50,000
Savings ($m)	41	84	130	173	222
Savings per scholarship	$4,100	$4,200	$4,300	$4,300	$4,400

million, or $4,400 per student. The impact of changes in the number of non-switchers is discussed in Appendix B.

Based on these estimates, an STC program could provide scholarships starting at an average of $4,100 per student and remain revenue neutral for the commonwealth while growing with inflation each year.

4. Conclusion

The overwhelming consensus of high-quality research is that educational choice programs increase student achievement, graduation rates, and college matriculation, and parents of students in such programs report very high levels of satisfaction with their chosen schools. Educational choice also benefits students who remain in the public schools because of increased competition.

The model scholarship tax credit program proposed in this paper would expand educational opportunities for tens of thousands of low-income children while remaining revenue neutral or saving money for the state and only minimally impacting school districts. The program would grant tax credits to individual and corporate taxpayers worth 90 percent of their donations to qualified scholarship organizations. The scholarship organizations would provide scholarships worth as much as $4,100 on average to students with a family income that is no more than 200 percent of the federal poverty line. By the fifth year of the program, 50,000 students would be eligible for scholarships.

A scholarship tax credit program would help provide low-income families with a level of opportunity that is more like their higher-income peers who already have a plethora of educational options. Low-income families often have no choice but their assigned public school. A scholarship tax credit program would allow these families to choose the school that best meets the individual needs of their children.

Appendix A: Posted Tuition at Private Schools in the Poorest Half of the Ten Most Populous Cities in Massachusetts

The following table contains tuition information from all the K-12 private schools[56] in the five cities with the lowest income per capita[57] among the ten most populous cities[58] in Massachusetts: Springfield, Fall River, New Bedford, Lynn, and Brockton. The sample does not include day care, adult education, or special education schools.

Where possible, the sample uses the tuition that low-income families would actually pay, including all posted annual fees (e.g. – activity fees and technology fees but not specific sport fees or one-time admissions fees) as well as tuition breaks based solely on income. In many cases, however, the school only informs potential students that "financial aid is available" without specifying an amount. In such cases, the sample uses the publicized tuition, therefore the tuition amounts in the sample are upwardly biased relative to the actual tuition that low-income families would pay.

Schools often tailor financial aid based on the income and financial situation of a particular family, sometimes through third parties such as FACTS Tuition Management. Likewise, though schools often offer tuition breaks for parishioners or families with multiple enrolled students, the sample only includes the tuition offered to a single child from an unaffiliated family. Kindergarten tuition assumes five full days, without extended hours.

Springfield

School	Grades	Tuition[59]	Financial Aid	Comments
Academy Hill	Kindergarten	$11,950	Yes	
"	1 - 5	$13,100	Yes	
"	6 - 8	$13,500	Yes	
Cathedral High	9 - 12	$9,300	Yes	Parishioner tuition: $8,600. Tuition loan program.
Commonwealth Academy	9 - 12	$8,000	Unknown	
Pioneer Valley Christian	Kindergarten	$8,150	Yes	
"	1 - 5	$8,700	Yes	
"	6 - 8	$9,900	Yes	
"	9 - 12	$11,300	Yes	
Pioneer Valley Montessori	Kindergarten	$9,880	Yes	
"	1 - 6	$10,800	Yes	
St. Michael's Academy	K - 8	$3,850	Yes	Sibling and parishioner discounts.

Fall River

School	Grades	Tuition[60]	Financial Aid	Comments
Antioch	Kindergarten	$4,688	Unknown	Includes annual fees of $275. Sibling discounts (10% second child, 15% subsequent children).
"	1 - 4	$4,663	"	"
"	5 - 8	$4,963	"	"
Bishop Connolly High School	9 - 12	$9,125	Yes	Includes annual registration/re-enrollment fees (averaged).
East Gate Christian Academy	K - 5	$4,550	Yes	Includes $150 curriculum/resource fee.
"	6 - 8	$4,775	Yes	Includes $225 curriculum/resource fee.
"	9 -12	$5,300	Yes	Includes $300 curriculum/resource fee.
Espirito Santos	K - 8	$3,600	Yes	Parishioner tuition: $3,300. Scholarships also available for students with serious illnesses.
Holy Name School	7 - 8	$7,225	Yes	Includes fees for extracurricular activities, technology, and parents' association dues.
"	9 -12	$7,755	Yes	"
Holy Trinity School	K - 8	$3,700	Yes	
St. Michael School	K - 8	$3,500	Yes	Includes $250 fundraising obligation and $150 academic fee. Parishioner discount of $300. Families contribute 8 hours of community service.
St. Stanislaus	K - 8	$3,975	Unknown	Includes $400 fundraising obligation and $275 book fee. Fundraising fee waived for additional children. Parents must volunteer 8 hours.

New Bedford

School	Grades	Tuition[61]	Financial Aid	Comments
All Saints Catholic School	K - 8	$3,725	Yes	
Holy Family-Holy Name	Kindergarten	$4,470	Yes	Includes $150 annual registration fee and $320 fundraising obligation.
"	1 - 8	$4,070	Yes	"
Nativity Prep School	5 - 8	$ 0	Yes	All low-income students receive full scholarships.
Nazarene Christian Academy	K - 6	$4,275	Yes	Includes technology/materials fee of $225. 3rd child: 25% discount. 4th child: 50% discount. $100 parishioner discount.
"	7 - 12	$4,400	Yes	Includes technology/materials fee of $250. 3rd child: 25% discount. 4th child: 50% discount. $100 parishioner discount.
Our Sister's School	5 - 8	$13,000	Yes	All low-income families receive scholarships.
St. James St. John's School	Kindergarten	$4,100	Yes	Includes $300 fundraising obligation.
"	1 - 8	$3,850	Yes	"

Lynn

School	Grades	Tuition[62]	Financial Aid	Comments
North Shore Christian School	K - 5	$7,650	Yes	Sibling discounts ($6,900 for 2nd child, $6,150 for 3rd and beyond).
"	6 - 8	$8,740	Yes	Sibling discounts ($7,890 for 2nd child, $7,040 for 3rd and beyond).
St. Pius V Elementary	K - 8	$4,510	Yes	Parishioner tuition: $3,980 for first child. Sibling discounts.
St. Mary's High School	6 - 8	$7,600	Yes	Includes $150 annual registration fee.
"	9 - 12	$11,600	Yes	Includes $150 annual registration fee.
The Hathaway School	Kindergarten	$5,175	Unknown	$575/month (tuition column for 9 months)

Brockton

School	Grades	Tuition[63]	Financial Aid	Comments
Cardinal Spellman High School	9 - 12	$10,935	Yes	Includes $175 comprehensive fee and $160 technology fee. Sibling discounts.
Trinity Catholic Academy	K - 8	$4,695	Yes	Sibling discounts.
Brockton-Area Seventh-Day Adventist Academy	K - 8	$2,430	Unknown	$270/month (tuition column for 9 months)

The combined tuition statistics exclude Nativity Prep School, which does not charge tuition.

Combined Tuition Statistics

	Kindergarten	Grades 1-5	Grades 6-8	High School
Average Tuition	$5,199	$6,032	$5,905	$8,635
Median Tuition	$4,470	$4,173	$4,510	$9,125
Lowest Tuition (excluding $0)	$2,430	$3,500	$2,430	$4,400

Appendix B: Sensitivity Analysis

The estimates above depend on many assumptions; below we will explore the impact if the assumptions prove to be incorrect. The assumptions fall into several categories – (1) variables affecting the entire state such as inflation, growth in local revenue, statewide enrollment growth, etc.; (2) the distribution of scholarships; and (3) the number of non-switchers – scholarship recipients who would not have attended public schools.

The estimates in Table 3 assume 2 percent inflation and flat enrollment. Higher inflation or faster enrollment growth would both increase savings, but the exact impact is impossible to quantify. They both raise the foundation budget and the potential savings from each scholarship student. However, they would also significantly raise the overall cost of Chapter 70 aid, which would make it less likely the state would fund target aid.* On balance the impact is probably positive – higher inflation or faster enrollment growth would increase the savings. Similarly, lower inflation or slower enrollment growth would reduce the savings from an STC program.

Growth in local revenue drives faster growth of the required local contribution, which in turn would reduce the amount of foundation aid. With less foundation aid, the savings from providing a scholarship would also decline. The cost model assumed local revenue growth of 3 percent per year, which is roughly in line with recent changes to the required local contribution. If municipal revenue grows more slowly, the cost savings from scholarships would rise.

The distribution of scholarships can have a relatively large impact on the savings and the net cost of the program. The savings from each scholarship range from zero to more than $17,000. The estimates assume that scholarships are given out across the state in line with enrollment patterns—e.g. if 1 percent of the low-income students in the state attend a district, 1 percent of the low-income scholarship recipients would come from that district. Changes in the location of scholarship recipients could either raise or lower the savings from the program.

One item of particular importance is the number of scholarship recipients who would not have attended public schools. Table 3 was based on the assumption that 15,000 scholarships would be used by students who would not have attended public schools – this includes both students already in private schools as well as students who would go to a private school even if they did not get a scholarship. Changes in these estimates have a large impact on the financial model, as illustrated in Table 4.

Table 4. Impact of Changes in the Share of Non-Switchers

Share of Non-Switchers	10%	20%	30%	40%
Number of Non-Switchers	5,000	10,000	15,000	20,000
Initial Savings Per Scholarship	$5,300	$4,700	$4,100	$3,500

Because the number of students switching out of public school has important implications for the state's savings and the net cost of the program, the STC could be structured to guarantee a certain percentage of scholarships were offered to switchers or otherwise provide incentive to direct scholarships towards switchers. Alternatively, the program could make scholarships less generous for non-switchers. The more easily the STC allows non-switchers to participate, the lower the cap on scholarships would have to be to ensure that the program is revenue neutral.

*The state could also lower the target shares for each district rather than funding a smaller share of the gap, but the end result would still be less aid and less savings from scholarships.

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Endnotes

1. National Center for Education Statistics. 2013. "NAEP: State Profiles." Accessed November 21, 2013. http://nces.ed.gov/nationsreportcard/states/.

2. National Center for Education Statistics. 2013. "Program for International Student Assessment." Accessed June 3, 2014. http://nces.ed.gov/surveys/pisa/pisa2012/pisa2012highlights_8b.asp

3. U.S. Census Bureau. "2011 American Community Survey 5-Year Estimates." Accessed November 20, 2013. http://factfinder2.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t

4. Douglas, Craig. 2013. "MCAS 2013: The top school districts in Massachusetts (BBJ DataCenter)." *Boston Business Journal*, Sep 20. Accessed November 20, 2013. http://www.bizjournals.com/ boston/blog/bbj_research_alert/2013/09/mcas-2013-the-top-school-districts-in.html

5. U.S. Census Bureau. "2011 American Community Survey 5-Year Estimates."

6. Douglas, Craig. "MCAS 2013: The top school districts in Massachusetts (BBJ DataCenter)."

7. Massachusetts Department of Elementary and Secondary Education. "Summary of 2013 MCAS Results." Accessed June 3, 2014. http://www.doe.mass.edu/mcas/results.html?yr=2013

8. Glewwe, Paul W., Eric A. Hanushek, Sarah D. Humpage, and Renato Ravina. "School Resources and Educational Outcomes in Developing Countries: A Review of the Literature from 1990 to 2010." Working Paper 17554, National Bureau of Economic Research, 2011. http://faculty.apec. umn.edu/pglewwe/documents/Edinput7.pdf.
   Hanushek, Eric A. "Assessing the Effect of School Resources on Performance: An Update," Educational Evaluation and Policy Analysis. June 20, 1997. Vol. 19, No. 2. Pages 141-164. http://epa.sagepub.com/content/19/2/141.short

9. Coulson, Andrew. 2013. "New NAEP Scores Extend Dismal Trend in U.S. Education Productivity." *Cato-at-Liberty Blog*, June 28. http://www.cato.org/blog/new-naep-scores-extend-dismal-trend-us-education-productivity.

10. "Metropolitan Council for Educational Opportunity," Community Resources Information, Inc. http://www.massresources.org/metco.html.
    See also: Howell, William and Mindy Spencer. "School Choice Without Vouchers: Expanding Education Options Through Tax Benefits." (Pioneer Institute White Paper no. 41, October 2007). Page 4.

11. Chapman, Cornelius. "The Know-Nothing Amendments: Barriers to School Choice in Massachusetts." (Pioneer Institute White Paper no. 46, April 2009).

12. Massachusetts Constitution, Article XVIII, Section 2

13. Lupu, Ira "Chip." "The Blaine Game: Controversy Over the Blaine Amendments and Public Funding of Religion." Pew Research: Religion & Public Life Project. July 24, 2008. http://ww.pewforum.org /2008/07/24/the-blaine-game-controversy-over-the-blaine-amendments-and-public-funding-of-religion/.
    See also: Institute for Justice. "Arizona Parents Defend School Choice From Education Establishment's Third Legal Attack." Accessed November 21, 2013. http://www.ij.org/arizona-corporate-tax-credit-scholarships-background.

14. Chapman, Page 11.

15. *Arizona Christian School Tuition Organization v. Winn*, 131 S. Ct. 1436 (2011).

16. *Kotterman v. Killian*, 972 P.2d 606 (Ariz. 1999)

17. Massachusetts Department of Revenue. 2001. "830 CMR 62.3.2 Deduction for Charitable Contributions." Accessed November 19, 2013. http://www.mass.gov/dor/businesses/help-and-resources/legal-library/regulations/62-00-income-tax/830-cmr-6232-deduction-for-charitable.html

18. Massachusetts Department of Revenue. 2011. "Taxpayer's Guide to Local Property Tax Exemptions: Religious and Charitable Organizations." Accessed November 19, 2013. http://www.mass.gov/dor/docs/dls/publ/brochures/charity.pdf.

19. The Alliance for School Choice. 2014. "Yearbook 2013-14." Page 14. http://createonline.com/AFC_2013-14_Yearbook.pdf
The Friedman Foundation for Educational Choice. 2013. "The ABCs of School Choice." http://www.edchoice.org/CMSModules/EdChoice/FileLibrary/965/The-ABCs-of-School-Choice---2013-edition.pdf

20. Friedman Foundation for Educational Choice. "Alabama Accountability Act of 2013 Tax Credits for Contributions to Scholarship Granting Organizations" http://www.edchoice.org/School-Choice/Programs/Alabama-Accountability-Act-of-2013-School-Choice-Scholarships.aspx
Friedman Foundation for Educational Choice. "South Carolina - Educational Credit for Exceptional Needs Children"
http://www.edchoice.org/School-Choice/Programs/Educational-Credit-for-Exceptional-Needs-Children.aspx

21. Chartier, Michael. "Governor Signs Tax-Credit Scholarships, Makes Kansas the 24th School Choice State," Friedman Foundation for Educational Choice. April 22, 2014.
http://www.edchoice.org/Blog/April-2014/Kansas-Tax-Credit-Scholarships-Reach-Governor-s-De

22. For a more complete discussion of the provisions in each state: DeGrow, Benjamin, "A Scholarship Tax Credit Program for Colorado," Independence Institute. February 2013.
http://education.i2i.org/wp-content/uploads/2013/02/IP_2_2013_a.pdf

23. Murray, Vicki, Ph.D. "An Analysis of Arizona Individual Income Tax-credit Scholarship Recipients' Family Income, 2009-10." Spring 2011. http://www.hks.harvard.edu/pepg/PDF/Papers/PEPG10-18_Murray.pdf

24. Forster, Greg. "A Win-Win Solution: The Empirical Evidence on School Choice," Friedman Foundation for Educational Choice, April 17, 2013. http://www.edchoice.org/Research/Reports/A-Win-Win-Solution--The-Empirical-Evidence-on-School-Choice.aspx

25. Peterson, Paul E. "Graduation Rates Higher at Milwaukee Voucher Schools," *Education Next*, January 10, 2011.
http://educationnext.org/graduation-rates-higher-at-milwaukee-voucher-schools/

26. Brown Center on Education Policy & Harvard University's Program on Education Policy and Governance, Matthew Chingos and Paul E. Peterson, "The Effects of School Vouchers On College Enrollment: Experimental Evidence from New York City," August 2012.
http://www.hks.harvard.edu/pepg/PDF/Impacts_of_School_Vouchers_FINAL.pdf

27. ibid.

28. Forster, page 7.

29. Coulson, Andrew J. "Comparing Public, Private, and Market Schools: The International Evidence," *The Journal of School Choice*, Volume 3, Issue 1. 2009.

30. Bedrick, Jason. "Live Free and Learn: A Case Study of New Hampshire's Scholarship Tax Credit Program," Show-Me Institute, February 2014. Page 15. http://showmeinstitute.org/document-repository/doc_view/461-live-free-and-learn-a-case-study-of-new-hampshires-scholarship-tax-credit-program.html

31. Kelly, James P., and Benjamin Scafidi. "More Than Scores: An Analysis of Why and How Parents Choose Private Schools," Friedman Foundation for Educational Choice, November 13, 2013. http://www.edchoice.org/Research/Reports/More-Than-Scores--An-Analysis-of-Why-and-How-Parents-Choose-Private-Schools.aspx

32. Figlio, David. "Evaluation of the Florida Tax Credit Scholarship Program: Participation, Compliance, Test Scores and Parental Satisfaction." University of Florida, June 2010.

33. Forster, Greg and Christian D'Andrea. "An Empirical Evaluation of the Florida Tax Credit Scholarship Program," Friedman Foundation for Educational Choice. August 2009. http://www.edchoice.org/Research/Reports/An-Empirical-Evaluation-of-the-Florida-Tax-Credit-Scholarship-Program.aspx

34. Henderson, Michael and Paul E. Peterson. "The 2013 Education Next Survey." *Education Next*. August 2013. http://educationnext.org/the-2013-education-next-survey/

35. Forster, Greg. "A Win-Win Solution: The Empirical Evidence on School Choice," Friedman Foundation for Educational Choice, April 17, 2013. http://www.edchoice.org/Research/Reports/A-Win-Win-Solution--The-Empirical-Evidence-on-School-Choice.aspx

36. Greene, Jay P., and Marcus Winters. "An Evaluation of the Effect of D.C.'s Voucher Program on Public School Achievement and Racial Integration After One Year," Education Working Paper 10, Manhattan Institute for Policy Research, 2006. http://www.manhattan-institute.org/html/ ewp_10.htm.

37. Figlio, David and Cassandra Hart. "Does Competition Improve Public Schools?" Education Next, Winter, 2011. http://educationnext.org/does-competition-improve-public-schools/

38. ibid.

39. DeGrow, Benjamin, "A Scholarship Tax Credit Program for Colorado," Independence Institute. February 2013. Page 6. http://education.i2i.org/wp-content/uploads/2013/02/IP_2_2013_a.pdf

40. North, Charles M. "Estimating the Savings to Arizona Taxpayers of the Private School Tuition Tax Credit," Baylor University. November 2009. http://www.azpolicy.org/sites/azpolicy.org/files/downloads/ArizonaSTOTaxCreditCMNorth.pdf

41. LeFevre, Andrew. "A Decade of Success: Pennsylvania's Education Improvement Tax Credit," Commonwealth Foundation. *Policy Brief*, Vol. 23, No. 8. August 2011.

42. National Center for Education Statistics, Digest of Education Statistics. 2011. "Total and current expenditures per pupil in fall enrollment in public elementary and secondary education, by function and state or jurisdiction: 2007-08." http://nces.ed.gov/programs/digest/d11/tables/dt11_193.asp

43. The Friedman Foundation for Educational Choice. 2013. "The ABCs of School Choice." http://www.edchoice.org/CMSModules/EdChoice/FileLibrary/965/The-ABCs-of-School-Choice---2013-edition.pdf

44. Pennsylvania Legislative Budget and Finance Committee. "Pennsylvania's Tax Credit Programs," June 2010. Page 31. http://lbfc.legis.state.pa.us/reports/2010/49.PDF

45. Office of Program Policy Analysis and Government Accountability. "Florida Tax Credit Scholarship Program: Fiscal Year 2008-09 Fiscal Impact," March 1, 2010. http://www.oppaga.state.fl.us/MonitorDocs/Reports/pdf/0868_1rpt.pdf

46. Bedrick, Jason. "Live Free and Learn: A Case Study of New Hampshire's Scholarship Tax Credit Program," Show-

Me Institute, February 2014. Page 5. http://showmeinstitute.org/document-repository/doc_view/461-live-free-and-learn-a-case-study-of-new-hampshires-scholarship-tax-credit-program.html

47. Massachusetts Department of Elementary and Secondary Education. "Compliance with Net School Spending Requirements." Accessed June 1, 2014. http://www.doe.mass.edu/finance/chapter70/compliance.html

48. Scafidi, Benjamin "The Fiscal Effects of School Choice Programs on Public School Districts," Friedman Foundation for Educational Choice. March 2012. Page 13. http://www.edchoice.org/CMSModules/EdChoice/FileLibrary/796/The-Fiscal-Effects-of-School-Choice-Programs.pdf

49. Vernimmin, Pierre et al. "Corporate Finance: Theory and Practice." John Wiley & Sons. June 2005. Page 179.

50. U.S. Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation, "2014 Poverty Guidelines," http://aspe.hhs.gov/poverty/14poverty.cfm

51. Bedrick, Jason. "Choosing to Learn: Scholarship Tax Credit Programs in the United States and Their Implications for New Hampshire," Josiah Bartlett Center, March 2012. http://www.jbartlett.org/schoolchoiceweek

52. Moss, Misti (privateschoolreview.com), e-mail message to Mark Houser (Cato Institute research assistant), June 19, 2014.
Private School Review's website lists average private school tuition data in each state, but the average for Massachusetts ($19,607) is skewed by the presence of numerous expensive boarding schools, which is why the median tuition is significantly lower. See: http://www.privateschoolreview.com/tuition-stats/private-school-cost-by-state

53. Florida Department of Education. "FTC Scholarship Program," September 2013.
http://www.floridaschoolchoice.org/Information/CTC/files/Fast_Facts_FTC.pdf

54. Richard Wolf et al. "Evaluation of the DC Opportunity Scholarship Program: Impacts After Three Years." U.S. Department of Education, National Center for Education Evaluation, March 2009.

55. "NBER CPS Supplements," Current Population Survey (CPS) Data Supplements at the NBER, accessed June 25, 2014. http://www.nber.org/data/current-population-survey-data.html.

56. "Massachusetts Department of Elementary and Secondary Education," Mass.gov, accessed June 25, 2014.
http://profiles.doe.mass.edu/search/search.aspx?leftNavId=11238.

57. "United States Census Bureau," Massachusetts QuickFacts from the US Census Bureau, accessed June 25, 2014.
http://quickfacts.census.gov/qfd/states/25000.html.

58. "USA: Massachusetts." Massachusetts (USA): State, Major Cities, Towns & Places. Accessed June 25, 2014.
http://www.citypopulation.de/USA-Massachusetts.html

59. Springfield private school tuition:
"Tuition and Fees," Academy Hill School Nurturing and Challenging Bright Minds, accessed June 25, 2014.
http://www.academyhill.org/files/_tRAdr_/610a4e3e3590a1893745a49013852ec4/Tuition_and_Fees_2013_2014_FINAL_Website.pdf.
"Admission," Cathedral Developing Tomorrow's Leader, accessed June 25, 2014.
http://www.cathedralhigh.org/admission/.
Commonwealth Academy, phone conversation with Sarah Allison (Cato Institute), June 25, 2014.
"Pioneer Valley Christian School," accessed June 25, 2014.
http://www.pvcs.org/files/PDF/Admissions/Tuition%20and%20Fees%202014-15%20for%20RenWeb.pdf.
"2013-2014 Tuition Schedule," Pioneer Valley Montessori School, accessed June 25, 2014.

http://www.pvms.org/Data/admissions/tuitionrates2/tuitionrate_sheet2013-14.pdf.
"St. Michael's Academy- Springfield MA- Tuition and Tuition Assistance," *St. Michael's Academy*, accessed June 25, 2014. http://www.smaspringfield.org/admissions/tuition/.

60. Fall River private school tuition:
"Enrollment," *Antioch School*, accessed June 25, 2014. http://www.antioch-school.org/.
"Tuition and Fees," *Bishop Connolly High School*, accessed June 25, 2014.
http://www.bishopconnolly.com/admissions/tuition-and-fees/.
"East Gate Christian Academy- Tuition," *East Gate Christian Academy- Tuition*, accessed June 25, 2014.
http://www.mbministries.org/eastgatechristian/index.html.
Carla Sousa of Espirito Santos School, phone conversation with Sarah Allison (Cato Institute), June 20, 2014.
"Tuition and Financial Aid- Holy Name Junior Senior High School," *Holy Name Junior Senior High School*, accessed June 25, 2014. http://www.holyname.net/admissions-office/tuition-financial-aid/.
Michelle Soares of Holy Trinity School, phone conversation with Sarah Allison (Cato Institute), June 20, 2014.
"Tuition and Financial Assistance," *smsfr.org*, accessed June 25, 2014, http://smsfr.org/.
"St. Stanislaus School Per Pupil Cost 2014-2015," *St. Stanislaus School*, accessed June 25, 2014.
http://ststansfr.com/wp-content/uploads/2014/02/Per-pupil-costs-2014-2015.pdf.

61. New Bedford private school tuition:
Virginia Camara of All Saints Catholic School, phone conversation with Sarah Allison (Cato Institute), June 20, 2014.
"Tuition and Fees for Preschool through Grade 8," *Holy Family- Holy Name School*, accessed June 25, 2014.
http://www.hfhn.org/wp-content/uploads/Registration-1415-tuition-and-fees.pdf.
Gladys Aleida of Nativity Prep School, phone conversation with Sarah Allison (Cato Institute), June 20, 2014.
"Tuition/Fees," *Nazarene Christian Academy*, accessed June 25, 2014.
http://www.ncacademy.org/Apply_Now_files/Tuition%20Info%202014_15.pdf.
Blanca Santiago of Our Sister's School, phone conversation with Sarah Allison (Cato Institute), June 20, 2014.
"Admissions Information," *St. James St. John School*, accessed June 25, 2014.
http://www.sjsjschool.com/information.html.

62. Lynn private school tuition:
"Financial Information," *North Shore Christian School*, accessed June 25, 2014.
http://nschristian.org/admissions/financial.html.
"Tuition and Brochure Downloads," *St. Pius V School*, accessed June 25, 2014. http://stpiusvschool.schoolfusion.us/modules/cms/pages.phtml?pageid=120707&sessionid=dbace712e502baaf5356ca1240767df8&sessionid=dbace712e502baaf5356ca1240767df8.
"2014-15 Tuition," *St. Mary's*, accessed June 25, 2014, http://www.stmaryslynn.com/page.cfm?p=7.
"Kindergarten," The Hathaway School, accessed June 25, 2014, http://www.hathawayschool.com/kindergarten.html.

63. Brockton private school tuition:
"Tuition & Fees and Financial Assistance," Cardinal Spellman High School, accessed June 25, 2014.
http://www.spellman.com/s/190/index.aspx?sid=190&gid=1&pgid=1564.
"Tuition for the 2014-2015 Academic Year," Trinity Catholic Academy, Brockton, MA, accessed, June 25, 2014.
http://tcabrockton.org/TUITION_2014-2015.pdf.
Linda Spiegel of the Brockton-Area Seventh Day Adventist Academy, phone conversation with Sarah Allison (Cato Institute), June, 23, 2014.

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