ASSESSING CHARTER SCHOOL FUNDING IN 2016

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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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Executive Summary

When the Massachusetts legislature created charter schools in 1993, it set out to fund them equitably. The charter school funding formula in the Commonwealth is based on the principle that school funding should follow the student. Funding charters in this way, legislators believed, would ensure that all students would have sufficient funds attached to their education, no matter what type of school they choose to attend.

Though the principle on which charters are funded seems simple, the implementation of the funding formula has been a source of controversy for more than 20 years. One of the main critiques of charter schools is that they drain resources from districts by luring away students and the funding attached to them. Though charter school supporters vehemently dispute the validity of this criticism, the way in which charter schools are funded remains at the center of the current debate over whether to lift the cap on charter schools in some of the Commonwealth's lowest performing districts.

In 2009, Pioneer Institute published *Follow the Money: Charter School and District Funding in Massachusetts*. The paper explained the charter funding system and analyzed the impact of charters on local districts. It also made clear that the charter funding system is far more complex than it seems at first blush—even many who work in the education sector may not understand the mechanisms that fund all public schools, including charters, or the actual impacts of charter school funding on districts. This report updates the earlier paper, analyzing current data on charter students and charter school funding. It analyzes policies and data to highlight the nuanced impact of charter schools on districts and to make the overall charter funding mechanisms more transparent.

The Commonwealth's charter school funding formula requires school districts to "pay" charter schools the per-pupil amount that they receive for students who would attend school district schools but opt for charters. This requirement was conceived to ensure that funding would follow the child. To offset challenges that districts experience when they lose pupils (and the funding they bring with them) to charters, the Commonwealth also reimburses local districts a set amount of money for a set amount of time. Discussions of charter school funding often incorrectly imply that this reimbursement is the only way the state shares the cost of supporting students who choose charter schools. However, local districts also receive substantial state aid for charter students through the Commonwealth's Chapter 70 formula.

When one considers both reimbursements and the money districts receive through Chapter 70 Aid, it becomes clear that in districts that receive the most state aid, the Commonwealth (not the district) is paying almost the entire amount of the tuition that charters receive for each pupil. This is one reason why proposals for greater reimbursements or for the state to pay per-pupil charter tuitions directly to charter schools are flawed: such proposals violate the principle that school funding should follow students and effectively pay local districts for students that they do not educate. In districts that receive lesser amounts of state aid because they are able to raise more local revenue for schools, the state still shares the cost of educating charter students; the tuition these districts pay to charters represents the same amount of money districts would pay to educate students if they had chosen to stay in district rather than attend a charter school.

To fully understand the complex and somewhat murky system of charter school funding in Massachusetts, it is important to understand that the system does not impact all districts in the same way—any revision to the charter school funding formula should take this into account. This report works from that premise, identifies weaknesses in the current funding system, and recommends several changes.

One recommendation is that charter school tuition should be adjusted for special education

enrollment. Charters currently enroll fewer special education students than sending districts, potentially leaving traditional local districts to fund expensive programs. Adjusting tuition would leave more funding for traditional districts if charter schools do not enroll special needs students and would also provide incentive to charters to enroll special education students. A second recommendation is to increase the tuition payments that charters receive to account for the cost of purchasing and maintaining facilities—the existing charter school facilities payment is insufficient and has not risen for many years. Moreover, the state bears a significant amount of the facilities costs in many districts; charters bear an unfair burden in having to meet facilities costs while trying to adequately educate students at the same per-pupil rate as their district counterparts. A final recommendation is that the state should not provide perpetual tuition reimbursements to district schools. By paying districts for students they have never educated or have not educated for a number of years, the state is diverting millions of dollars in aid ($25 million in FY 2016 alone) that could be directed to supporting struggling schools and districts.

Introduction

Commonwealth charter schools are public schools that operate outside the traditional public system.[1] Commonwealth charters exist on the basis of an agreement with the state (a charter) and are approved by the Massachusetts Board of Elementary and Secondary Education (BESE). As independently operated schools that function as their own district, Commonwealth charters are free from many of the bureaucratic regulations with which traditional public schools have to comply, such as local collective bargaining agreements. They control their own budgets, determine the length of their own school days and years, and have the autonomy to create their own hiring and dismissal policies. Massachusetts grants Commonwealth charters these autonomies and others in exchange for a higher level of accountability. All Commonwealth charter schools must renew their charters regularly and if the BESE (the authorizing body) finds that a school is not living up to the terms of its charter it is obliged to close that school.

Since they were conceived as part of the Massachusetts Education Reform Act (MERA) of 1993, charter schools have been controversial. One of the main critiques of charters is that they drain resources from districts by luring students (and therefore per-pupil allocations) away. This criticism, which charter opponents have launched for over 20 years, continues to fuel current debate over whether to lift the cap on charter schools in some of the Commonwealth's lowest performing districts. In a 2015 *Boston Globe* op ed, Massachusetts Teacher's Association President Barbara Madeloni wrote that "charter schools are not the answer. . . because they siphon much needed public funds from our already underfunded public schools."[2] Madeloni failed to point out, as Paul Grogan did in an op ed just one week later that, as public schools, charter schools are also entitled to public dollars. Moreover, local school districts receive a reimbursement from the Commonwealth every time a student leaves a district for a Commonwealth charter school.[3]

This old debate over charter school funding is emblematic of the Bay State's education politics. It is also evidence that many people, even those who work in the education sector, struggle to understand the legal/financial mechanisms that support charter schools and therefore misunderstand the financial impact of these schools, especially on their traditional public school peers. The confusion stems from several complex funding formulas embedded in the MERA and subsequent amendments to charter school law.

In 2009, Pioneer Institute published *Follow the Money: Charter School and District Funding in Massachusetts* that explained the charter funding system and analyzed its impact on local districts. The report explained several characteristics of the charter funding system:

(1) The system largely ensures that funding follows students.

(2) While principle (1) holds in general, Massachusetts provides significant reimbursement to local districts for lost funding.

(3) The system is complex, which can lead to misunderstandings about the impact of charters on traditional schools.

Since the earlier report, the legislature has changed the laws that govern school finance and charter school enrollment has continued to grow—despite these changes and others, the characteristics above still hold. This paper will explain how charter school funding currently works and explore how the new charter school laws and enrollment patterns have affected local school districts.[4]

Overview of School Funding

Local and regional school districts in Massachusetts receive roughly 90 percent of their revenue from either the state or local governments, with the rest coming from the federal government or private individuals and institutions. The state provides aid directly to school districts for operating expenses,

primarily through what is known as Chapter 70 aid. At the same time, state law calculates the minimum amount that municipalities must provide to school districts — the "required local contribution." Cities and towns often choose to spend more than the minimum. The state also provides separate funds to municipalities through the Massachusetts School Building Authority (MSBA) for capital projects such as school construction or renovation. These funding streams are illustrated in Figure 1 below.

Charter school funding works differently. Charter schools are public schools that are not managed by local districts. Although in some contexts the state treats charters as their own separate districts, this does not hold true in the school funding formulas. State aid and local funds first flow to the local district as in the chart above. The state then requires districts to pay the charters tuition that is roughly based on the average per pupil spending in the local district, and the state provides the districts temporary reimbursement for a portion of the tuition (the tuition and reimbursement calculations will be discussed in detail in a later section of this paper). Figure 2 illustrates funding for charters; the darker arrows indicate the flows specifically related to charters.

We can look at Boston as an example of school funding. The local district serves roughly 64,000 children, and 9,300 of these students attend charter schools. Chapter 70 required the district to spend a minimum of $870 million in FY2016, or $13,500 per pupil. To reach that level, the city must contribute $657 million and the state provided $212 million. For the charter students, the local district pays tuition of $145 million or $15,500 per pupil, which includes $890 per pupil for facilities. According to state law, the state should then have reimbursed the local district $41 million, but because the state budget did not fully fund reimbursement payments the actual reimbursement was $25.5 million.

FIGURE 1. FLOW OF FUNDS TO LOCAL SCHOOL DISTRICTS

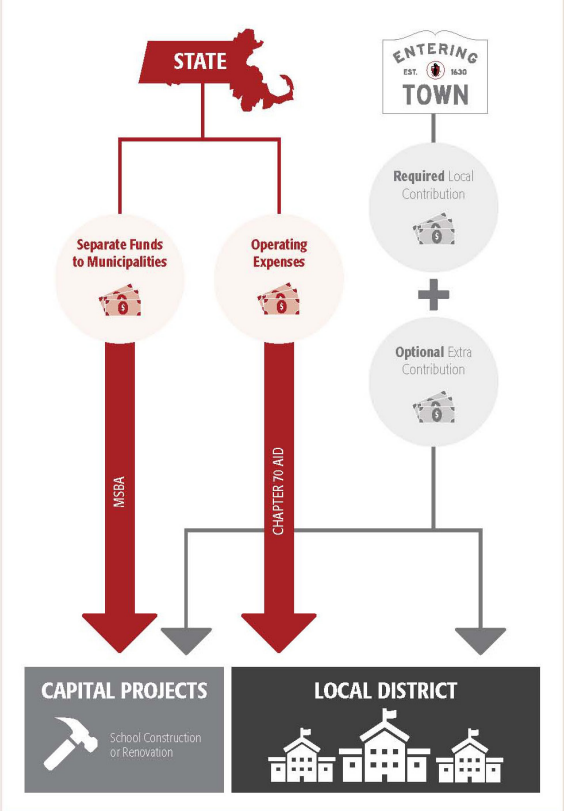
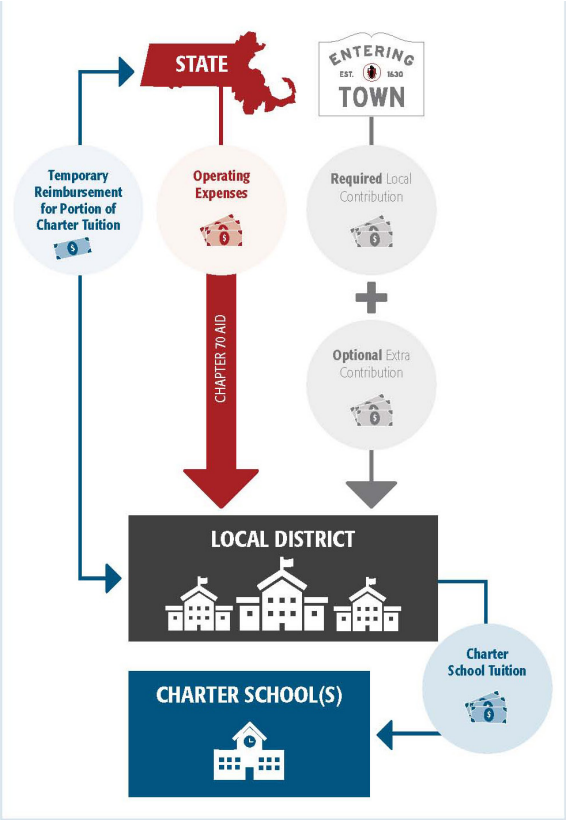


Figure 2. Flow of Funds to Charter Schools



Figures 1 and 2 illustrate several important differences between funding for charter schools and traditional local districts. One is that the charter schools do not receive general operating funds directly from the state. Instead, the state funds local districts and the districts pay tuition for the students who have gone to charters. This separation means that charter school tuition is often seen as a drain on local districts, even though the students for whom the district is paying are no longer being educated in the district. The bottom line is that state aid for charter students is subsumed in the overall Chapter 70 payment and is therefore not readily visible when evaluating the financial impact of charters. The only state aid obviously tied to charter students is the reimbursement, which is provided outside of Chapter 70 in a separate budgetary line item. Continuing the example of Boston, if reimbursement had been fully funded the state would have effectively paid $7,700 per pupil between Chapter 70 aid and

Table 1. Example of School Funding in Boston, FY2016

	Amount ($ millions)	Per Pupil
Local District		
Required Local Contribution	$657	$10,240
State Aid	$212	$3,310
Minimum Spending	$870	$13,550
Charter Schools		
Tuition (Operating)	$136	$14,740
Tuition (Capital)	$8	$890
Tuition (total)	$145	$15,630
Reimbursement – Calculated	$41	$4,410
Reimbursement – Actual	$25.5	$2,750
Reimbursement – Shortfall	($15)	($1,660)

reimbursement, or more than half of the total tuition.

This funding system is opaque, making it difficult to identify the amount of aid the state provides for charter school students. However, the setup also serves a purpose: to protect charter school funding from cuts. Including the bulk of aid for charter students in the overall Chapter 70 program makes it difficult to target charter schools or students in a budget cut. In contrast, the reimbursement is a separate line item and it is sometimes underfunded. A recent editorial in the *Boston Globe* made this point, arguing against attempts by the Massachusetts Senate to separate charter school funding from the bulk of Chapter 70, stating that "isolating charters into a separate budget item would surely make them an easy target for cuts the next time there's a budget crunch."[5] It also points out that some legislators "might see a charter budget as a pain-free cut that wouldn't affect their constituents" and that it could "foster the very dynamic that charter opponents say they're against — pitting public schools against one another."

The second major difference in the flow of funds is that municipalities do not build charter schools or otherwise contribute to charters' capital expenses, as they would with traditional public schools. Instead the charter school tuition calculation includes a small per-pupil amount designated for facilities funding. Because the capital payment is substantially less than the expense for most charter schools, this leaves less money available for operating expenses.

The remainder of this paper will provide some background information about charter school enrollment and funding, and then explore some of the details of the funding system.

Charter Schools and Their Students

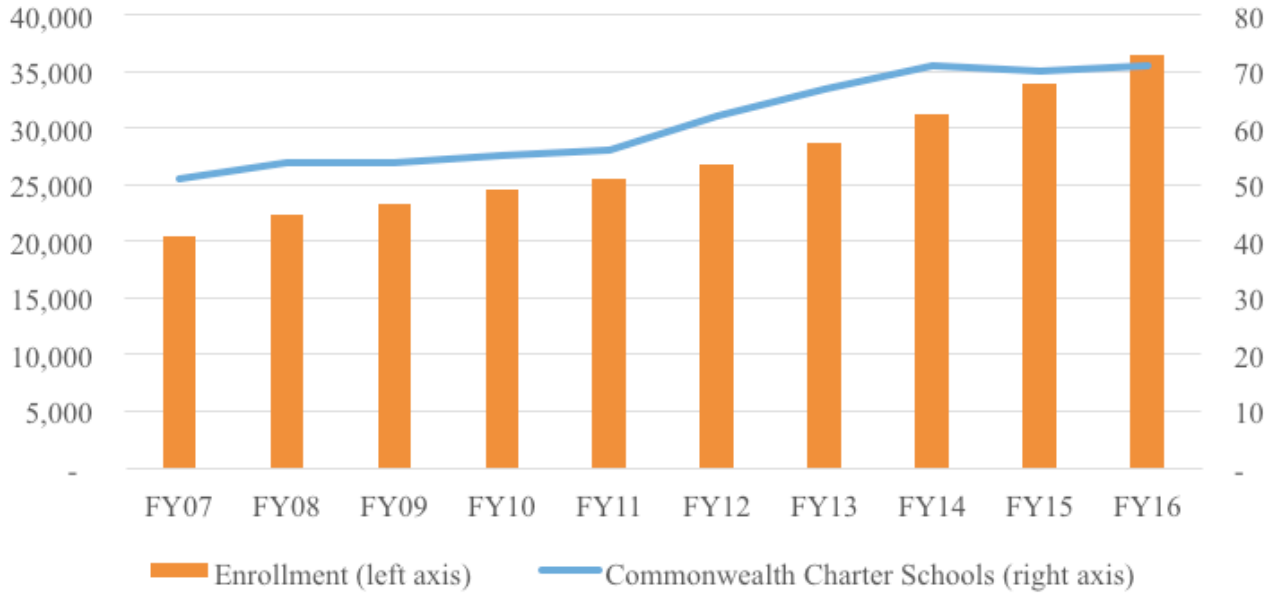
Commonwealth charter public schools draw students from more than 240 local or regional districts. They may not discriminate as to whom they accept. When the number of students who desire to attend a charter school exceeds the number of available seats, the school holds a lottery and admits the students whose names are drawn. In the average district, 4.2 percent of students opt to attend a Commonwealth charter instead of the district school to which they are assigned. In some districts the share is much higher. Thirty-three sending local districts see more than 6 percent of their students choose Commonwealth charters (see Appendix A), with a high of 14 percent in Boston.[6]

In 2015-16, 71 Commonwealth charter schools served 36,500 Massachusetts students, with another 34,500 on waitlists in districts where charter school demand for exceeds the number of schools and seats available. (Figure 3).[7] To put these numbers into perspective, there are 925,000 K-12 students in Massachusetts' 1,860 schools; roughly 4 percent of students across Massachusetts attend Commonwealth charters.

Both the number of charter schools and total enrollment at the schools have grown substantially in the seven years since *Follow the Money* was published, with each year bringing roughly two new charter schools and more than 2,000 additional charter students. Despite the increased number of schools and higher enrollment, the waitlist has also gotten longer, growing from 19,000 in 2007-08 to 34,500 in 2015-16. The waitlist is especially large in urban districts like Boston and Springfield where there is great demand for charter schools. A stringent cap on the number of charters that can exist statewide and in individual districts has prevented the establishment of new schools to meet demand. Even a 2010 update to the charter school law, which raised the charter cap in the lowest performing districts in Massachusetts, has not solved the problem of demand in some of the Commonwealth's neediest communities.[9]

Both the charter school cap and the desire of charter school operators and the state to concentrate charter growth in communities that have historically been underserved results in an uneven charter landscape. The Department

FIGURE 3. COMMONWEALTH CHARTER SCHOOLS AND ENROLLMENT SINCE 2007-08[8]



of Elementary and Secondary Education (DESE) Charter School Fact Sheet lists several characteristics of charter schools:

- Concentrated in urban areas: 63 are urban, 14 are suburban, and only four are in rural areas.
- Relatively small, with an average of roughly 515 students and only 11 schools serving more than 1,000 students. However, the average size has grown by about 100 students in the past decade.
- Typically offer either grades K-8 (30% of charter schools) or middle and high school grades (another 30%).

In addition to questioning charter school funding, critics charge that charters attract and retain more highly motivated and therefore higher performing students, leaving a more 'challenging' population of students for local districts. As Table 2 shows, charter schools have lower shares of low-income students, English language learners (ELL), and special education (SPED) students than the districts sending the students.[10]

The patterns in Table 2 support the contention that charter schools may leave behind students who are more difficult to educate. However, in recent years student demographics in charter schools have changed. In part due to a 2010 requirement that local districts share student information with charter schools for the purposes of recruitment, charters have seen an increase in the number of English language learner and special education students, especially.[13] Indeed, as a forthcoming paper from Pioneer Institute explains, charters are responding not only to this law but also to pressure from the Commonwealth to recruit, enroll, and retain these special populations of students. It is likely that charters will continue become more demographically similar to their district counterparts—some recently authorized charters already enroll greater numbers of ELL and special education students than their district peers.

The current charter school funding formula, which is explained below, does not provide charters with an incentive to recruit SPED students. It may also unfairly remove funding meant to cover SPED costs from local students even if charters do not enroll these students. However, the formula could be changed to ensure that charters enroll more of these populations and also to treat local districts more equitably.

Table 2. Selected Demographics of Students in Charters and Sending Districts[11]

Characteristic	2010 - 11 Charters	2010 - 11 Sending Districts	2010 - 11 Gap	2015 - 16 Charters	2015 - 16 Sending Districts	2015 - 16 Gap
First Language Not English	18%	39%	21%	26%	35%	9%
English Language Learners	5%	24%	18%	11%	17%	6%
Special Education	14%	20%	6%	15%	19%	4%
Economically Disadvantaged/ Free Lunch[12]	46%	64%	18%	35%	44%	9%

Charter School Funding

As discussed earlier, the Commonwealth's school funding system requires that municipalities and the state share the cost of public education. This is true whether a student attends a traditional public school or a charter school. The largest source of revenue for school districts comes from municipalities, followed closely by state aid. Districts also receive smaller amounts in federal funding, grants, and contributions.

The debate about charter school financing centers on the financial impact of charter schools on local districts, but in practice the complexity of state funding formulas makes this impact anything but transparent. The result is that people may not understand how the interaction of tuition payments, reimbursement, and state aid ultimately combine to determine charter students' net financial impact.

The remainder of this section will explore the details of charter school funding. The discussion begins by explaining the primary components of Chapter 70 aid, as well as how tuition is calculated. It then examines both the rationale for tuition reimbursement and how it is calculated and funded. The combination of Chapter 70, tuition, and tuition reimbursement determine the net financial impact of charter schools on local districts. Because the state aid formulas are complex and were designed with different objectives, there is no single measure of the financial impact of charter schools on local districts. Instead, the interaction of the formulas leads to a variety of outcomes that depend on many details. The section ends with several examples to illustrate the potential outcomes.

Chapter 70 Aid

To truly understand the charter school funding system and the impact of charter schools on local districts, we must begin with Chapter 70. This section of the paper explains the calculations embedded in Chapter 70 and how those calculations determine the state's share of educational expenses at traditional and charter schools. The sections that follow discuss tuition and tuition reimbursement, and then combine the funding components to evaluate the actual impact of charter schools on local districts.

Chapter 70 of Massachusetts General Laws determines the minimum amount deemed necessary to provide an adequate education, which is known as the foundation budget. The foundation budget depends on the number of students as well as their grade level and other characteristics. The foundation budget is higher for low income students and English language learners because these students may require more resources to educate. However, it is not higher for special education students. Instead, the foundation budget contains a fixed level of additional funding to cover the higher cost of special education students – roughly a 15 percent increment. This funding is meant to allow for additional costs of special education, but it is not based on the actual number of special education students enrolled or actual special education costs.[14]

Once foundation is determined, the formula calculates the minimum amount that municipalities must spend (the required local contribution), the level of aid the state provides, and also a level of minimum total spending that in some cases is above foundation (required "net school spending").[15] Chapter 70 is broadly progressive, meaning that it generally requires wealthier cities and towns to cover a greater share of the cost while providing additional state aid to poorer areas.

The calculations embedded in Chapter 70 are generally based on state aid and local contributions from the prior year. This means that inequities or peculiar spending patterns can persist for many years, so similar cities and towns may not have similar required local contributions or receive similar levels of state aid. The reliance on prior years also means that the formula does not always handle changes in enrollment smoothly. For example, if a student leaves one district and moves to another, Chapter 70 generally does not adjust the required local contribution in either municipality. At the same time, it may or may not adjust state aid in the two districts – the actual impact in both districts depends on many factors.

The idiosyncratic features in the law and its application each year mean the impact of one additional student can vary significantly across districts, and that districts with growing enrollment can be treated quite differently than districts with declining enrollment. These aspects of Chapter 70 have significant consequences for charter school finance.

As Figure 2 illustrated, charter schools do not receive Chapter 70 aid directly. Instead, the students attending charter schools are counted in the local or regional district enrollment. In most districts these students do generate additional state aid, but because Chapter 70 does not segregate the aid it can appear that the state is not contributing towards the cost of charter schools (beyond the temporary reimbursement that is discussed later). State aid and the local contribution are meant to support all students, but it can appear that they only provide for traditional schools (as illustrated earlier in Figure 1). The lack of transparency can lead to an overestimate of the net impact of charter schools in many districts, particularly those that receive substantial Chapter 70 aid.

The amount of state aid generated by one additional student under Chapter 70 depends on several factors, and it could range from a low of $25 to a high of more than $13,000.[16] Some of the differences in aid reflect the characteristics of the specific student, such as whether she is an English language learner or from a low-income family. However, the primary reason for differing aid amounts is that Chapter 70 calculates aid based on a measure of the district's need.

Approximately 100 districts across the state, known as foundation aid districts, receive the largest aid increment when enrollment rises. This occurs when the combination of the required local contribution and the prior year's state aid are too low to get to foundation, necessitating additional aid to ensure that the district reaches the minimum spending level. There are two main reasons that a district would receive foundation aid. For many lower income cities and towns, the required local contribution is relatively low and state aid fills the gap to foundation. Other districts become foundation aid districts when enrollment grows quickly, causing the foundation budget to grow more quickly than the local contribution.

For these districts, one extra student will generate from $7,000 to $13,000 per year depending on the student's characteristics (low income students, for example, will command a higher per pupil rate). The state effectively bears the entire incremental cost to reach the minimum spending level, and the required local contribution from the student's home city or town does not change. In these foundation aid districts, Chapter 70 funding covers almost the entire cost of tuition (as explained in the next section, tuition may be slightly higher or lower than the foundation

budget). For example, the local district might receive $11,000 in state aid for a student and be required to pay $12,000 in tuition.

There are 56 districts that send students to charter schools that received foundation aid in FY2016; students from these districts account for roughly half of all charter students. The foundation aid districts are typically larger districts; of the 15 districts sending the most students to charter schools, only Boston, Lowell, and Plymouth are not foundation aid districts. This can be seen in the list of districts sending a large share of their students to charter schools in Appendix A; of the 33 districts listed, 15 districts serving 50 percent of the charter students received foundation aid in FY16.

The share of charter school students coming from foundation aid districts has increased tremendously in recent years. When *Follow the Money* was published seven years ago, only 18 percent of charter students came from foundation aid districts, and the figure is now close to half. There are two reasons for the increase. One is that substantial cuts in aid during FY2010 dropped many districts below foundation. The second is that several large urban districts that send many students to charter schools have seen their foundation budgets increase faster than local revenues in recent years, leading to the need for foundation aid.

For above-foundation districts the state should in theory pay a smaller but still substantial share of the cost. For these districts, Chapter 70 contains a progressive "target" share of the foundation budget that the state is meant to pay. The state target shares range from 17.5 percent to 82 percent of foundation, with higher state shares in lower-income communities and those with lower property values.[17] This means that if one extra student causes the foundation budget to rise by $10,000, these communities could receive between $1,750 and $8,200 in additional state aid. This incremental aid would mean that the state would be sharing the cost of all new students, regardless of what type of school they attend.

Unfortunately, target aid is typically the last type of aid to be funded so that districts often do not receive the aid called for in the formula. In FY16, the state did not fund target aid to districts.

Finally, many districts receive almost no additional aid for an additional student. This occurs for above foundation districts that already receive more than their target share of aid, and it also occurs when the state does not fund the target aid. For these districts, the only increase in aid for an additional student is $25 in "minimum" aid, meaning that the city or town is responsible for virtually all of the incremental cost for the student. This is true whether a student attends a charter school or a traditional local school. In FY16, half of all charter students came from districts that received only trivial increases in aid for each an additional student.

For non-foundation aid districts, and particularly for districts where state aid does not vary with enrollment, the state's share of the cost of educating each student is open to interpretation. Boston is one such district. As Table 1 showed, the required local contribution in Boston is over $650 million and the district receives $212 million in state aid, but because Boston is above foundation state aid does not vary with enrollment. One could readily argue that because the state covered 24 percent of the overall cost of education, it effectively pays 24 percent of the cost for each student. However, one could also plausibly argue that because changes in enrollment do not affect aid, the state does not share the cost of educating additional students. Both statements are true – the state funds 24 percent of net school spending in Boston while at the same time paying none of the incremental cost. However, the choice of how to interpret this situation can affect whether one views the charter school funding system as "fair" to local districts; i.e. when a student enrolls in a charter school, has the state already paid 24 percent of the cost or has it paid 0 percent? If state aid were tied more closely to enrollment, no district would be in this situation.

Charter School Tuition

Chapter 71 of the General Laws directly governs funding for charter schools. Section 89 paragraph (ff) states that "*Tuition amounts for each sending district shall be calculated … to reflect, as much as practicable, the actual per pupil spending amount that would be expended in the district if the students attended the district schools*."[18] In other words, when a student attends a charter, the student's home district pays tuition that is approximately equal to what the local district would have spent; in practice this is usually close to the average amount the district spends per pupil. The rationale behind the law is that a municipality should spend roughly the same amount on children who go to traditional schools or those who go to charter schools – i.e. that money should follow the student.

Charter schools receive the majority of their revenue from these tuition payments, which are the source of most of the charter school funding controversy. The tuition calculation itself is relatively straightforward and is meant to satisfy the language from Chapter 71. Per-pupil tuition is based primarily on the district's net school spending per pupil from Chapter 70, with several adjustments.[19] Tuition payments vary depending on whether a student is in elementary, middle, or high school, and they are also larger for English language learners (ELL) and economically disadvantaged students to adjust for the greater resources needed to education some types of students. These adjustments mean that charters that do not serve low income or ELL students will receive less funding, leaving more resources with the local district.

Tuition is *not* higher for special education students. The lack of adjustment, which is based on the way that the foundation budget treats SPED students, creates two related problems. One is that charter schools do not have financial incentive to enroll special education students. The second is that if charter schools do not enroll as many special education students as their sending districts, they effectively receive funds to cover SPED costs that they do not face. This also implies that tuition can drain local districts of funds that were meant for special education students that remain in the district.

One additional modification to net school spending is that tuition includes a facilities payment – roughly $880 per student in recent years. This payment is meant to cover the cost of operating facilities because charter schools generally must lease space. There are two noteworthy facts about the facilities portion of the tuition. First, the facilities payment is meant to be paid by the state through the reimbursement formula. This means that it should have no impact on local finances. Second, the facilities payment has historically been substantially less than the actual cost of space and leaves charters comparatively less funding for actual operating expenses. If a charter school serves 210 students, e.g. 30 students in grades 6 through 12, it would receive about $187,000 for facilities. This is unlikely to be enough to cover leasing space for an entire school. This was true when *Follow the Money* was published, as Commonwealth charter schools spent about $500 more per student than the $874 per student facilities tuition payment. As a point of comparison, charter schools in Washington D.C. received roughly $3,000 per student for facilities at that time. In the eight years since, the facilities tuition payment grew by only $14 per student or less than 2 percent, leaving it well below the actual cost.

For FY16, per-pupil charter school tuition (excluding the facilities payment) averaged $12,600. This is slightly higher than the foundation budget, which averaged $10,700 per student, and slightly lower than actual net school spending per pupil of $13,400. Average tuition per pupil ranged from under $10,000 to more than $25,000. The primary reason for the large variation in tuition is the equally large variation in net school spending; municipalities that spend large amounts on students in traditional local schools are required to spend similar amounts on charter students. This is most obvious in

Cambridge, which has historically had very high spending levels.

Tuition Reimbursement

The tuition calculation requires funds to follow the students – if students leave a district, more funds flow from the district to charter schools. District officials often argue that many education costs are fixed or quasi-fixed, meaning that the costs do not decrease when students leave. For example, the number of teachers, principals, administrators, or staff, are unlikely to change with small changes in enrollment, and the same holds true for maintenance and capital costs. The existence of costs that are temporarily or permanently fixed implies that districts could be financially squeezed by rising tuition payments.[20]

A second potential problem with the tuition formula is that districts must pay tuition immediately, while Chapter 70 aid is typically based on the prior year's enrollment. In other words, if a student arrives in a district in fall of 2016, the district generally will not receive Chapter 70 aid until the fall of 2017.

Chapter 71 addresses these issues by providing tuition reimbursement from the state. There are three components in the reimbursement formula. The first ensures that the state covers the facilities charge for all students. The rationale for this piece is that the state and local municipalities do not provide funding for school facilities (and charters do not receive MSBA funds). The second piece is for students who were not previously in a traditional local or regional school, and the final component covers students who had been at a traditional school. For the first group of students, such as those who were home schooled or in a private school, the state reimburses the district for the entire tuition payment during the first year and thereafter there is no reimbursement. The single year of reimbursement makes up for the delay in Chapter 70 aid; after the first year the local municipality will be responsible for paying for the student using a combination of local resources and state aid, just as if the student attended a local district. The reimbursement does not continue after the first year because district had no fixed costs (because the student was never enrolled in the district).

For students who switch from a traditional local school, the formula provides more generous, but still temporary, reimbursement. The temporary payments allow local districts to adjust to any changes in charter school tuition, not only those which are driven by increased charter school enrollment. When tuition payments increase, the state provides 100 percent reimbursement in the first year, and then 25 percent reimbursement for the next five years. After that, reimbursement continues to cover the approximately $900 per student facilities charge. The impact on tuition and reimbursement of sending one extra student to a charter school is illustrated in Table 3. The table ignores increases in tuition over time, which will be explored separately.

Table 3. Sample of Tuition Reimbursement[21]

Year	Tuition	Increase in Tuition	Reimbursement
0	0	NA	0
1	13,500	13,500	13,500
2	13,500	0	4,050
3	13,500	0	4,050
4	13,500	0	4,050
5	13,500	0	4,050
6	13,500	0	4,050
7+	13,500	0	900

Reimbursement only applies to growth in tuition. Tuition grows for two reasons: increases in charter enrollment and increases in spending per pupil. While per-pupil spending typically rises each year, large changes in tuition are generally driven by enrollment. Once charter enrollment levels off, tuition generally changes relatively slowly – it tracks changes in per-pupil spending in sending districts each year. This means that reimbursement fades away as in year seven in the table above, although a more realistic example would include annual increases in tuition and continued reimbursement (this will be illustrated separately below). The phase-out is intentional

as the reimbursement is meant to allow districts time to adjust fixed costs.

While large changes from one year to the next in reimbursement are usually driven by changes in enrollment, the growth due to rising per-pupil spending has become more important. This is particularly true in districts with large tuition bills. For example, Boston currently spends more than $145 million in charter school tuition. If charter enrollment stays the same but the city increases spending per pupil on local schools by 1 percent next year, the tuition bill will likely rise by $1.45 million. This would generate tuition reimbursement of $1.45 million immediately and $360,000 per year for the following five years. Because per-pupil spending is likely to continue to rise each year, reimbursement payments will essentially continue forever even if enrollment does not.

Table 4 illustrates a hypothetical district sending 100 students to a charter school each year, with 3 percent annual growth in spending (roughly the actual growth in tuition per pupil over the past decade). The table is meant to illustrate the impact of annual growth in tuition and therefore ignores the reimbursement for the facilities portion of tuition. The continued reimbursement for growth in tuition amounts to 6 percent of total tuition payments. The impact of this perpetual reimbursement has become substantial. With total tuition payments in FY2016 above $450 million, reimbursement for increases in tuition that are not based on growth in enrollment was more than $25 million.

There is a logic to providing reimbursement when students leave for charter schools to allow for temporarily fixed costs (and also for the facilities payment). However, these arguments do not apply to tuition changes not caused by changing enrollment – i.e. there are no fixed costs because the students left the district many years ago. With no change in enrollment there is little justification for continued reimbursement.

Tuition Reimbursement Data

Over the past decade the number of Commonwealth charters has increased by 40 percent and charter enrollment has increased by 80 percent (Table 5). At the same time, local per-pupil payments have increased by 33 percent. The combination of dramatically higher enrollment and higher cost per pupil has caused total local payments to more than double, with an annual growth rate of 10 percent since 2006-07. With local payments to Commonwealth charter schools approaching $500 million per year, it is not surprising that charter schools generate controversy.

While payments by local municipalities have grown rapidly, state reimbursement has not kept up (Figure 4), with annual growth of 3.4 percent over the past decade. Because the increase in enrollment and tuition outpaced the growth in state payments, the state's direct share of the total tuition bill fell from 30 percent a decade ago to 16 percent in FY16. As will be discussed below, looking only at tuition reimbursement understates the state's share of the cost of charter schools because the state offers additional aid to local districts. However, the reimbursement payments are the only payment that is clearly

Table 4. Continued Reimbursement with Flat Enrollment and 3% Annual Tuition Growth[22]

Year	Enrollment	Tuition Per Pupil	Tuition	Increase in Tuition	Reimbursement	Reimbursement % of Tuition
2012	100	$11,069	$1,106,886	$32,239	$69,151	6.2%
2013	100	$11,401	$1,140,093	$33,207	$71,226	6.2%
2014	100	$11,743	$1,174,296	$34,203	$73,362	6.2%
2015	100	$12,095	$1,209,525	$35,229	$75,563	6.2%
2016	100	$12,458	$1,245,810	$36,286	$77,830	6.2%

Table 5. Commonwealth Charter Schools, Enrollment, and Local Tuition Payments

Year	Schools	Enrollment	Local Payment Per Pupil	Local District Payments ($m)
2006-07	51	20,476	10,067	206.1
2007-08	54	22,438	10,560	236.9
2008-09	54	23,380	11,113	259.8
2009-10	55	24,550	11,225	275.6
2010-11	56	25,471	11,539	293.9
2011-12	62	26,840	11,697	314.0
2012-13	67	28,682	12,220	350.5
2013-14	71	31,235	12,758	398.5
2014-15	70	33,892	13,004	440.7
2015-16*	71	36,470	13,413	489.2
Total Growth	39.2%	78.1%	33.2%	137.3%
Annual Growth	3.7%	6.6%	3.2%	10.1%

tied to charter school enrollment. Because the other aid is less visible, charter school opponents point to these or similar figures and argue against further expansion.

A significant problem with the reimbursement formula is that the payments are subject to appropriation each year. This means that during difficult fiscal years, the legislature may not provide full payments to local districts. State budgets in FY13 and FY14 initially underfunded the reimbursements before supplemental budgets filled the gap (Figure 5). In FY15 and FY16 the problem grew worse; the state provided less than 70 percent of calculated reimbursement, costing local districts $32 million in FY15 and $47 million in FY16.[23]

The uncertainty over whether reimbursements will actually be paid and the lack of the calculated payment contribute to dissatisfaction with charter school funding. The reimbursement payments, like other local aid, will always be subject to appropriation and cannot be guaranteed. However, the likelihood of underfunding might be reduced if the

Figure 4. State and Local Payments to Charter Schools, FY07 – FY16

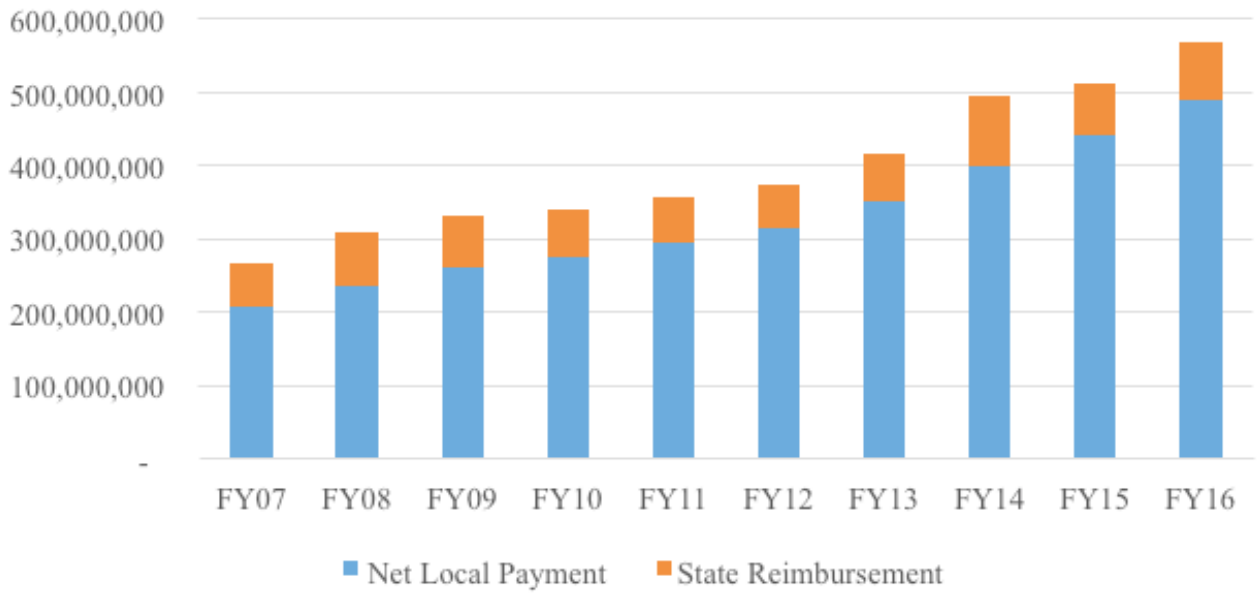
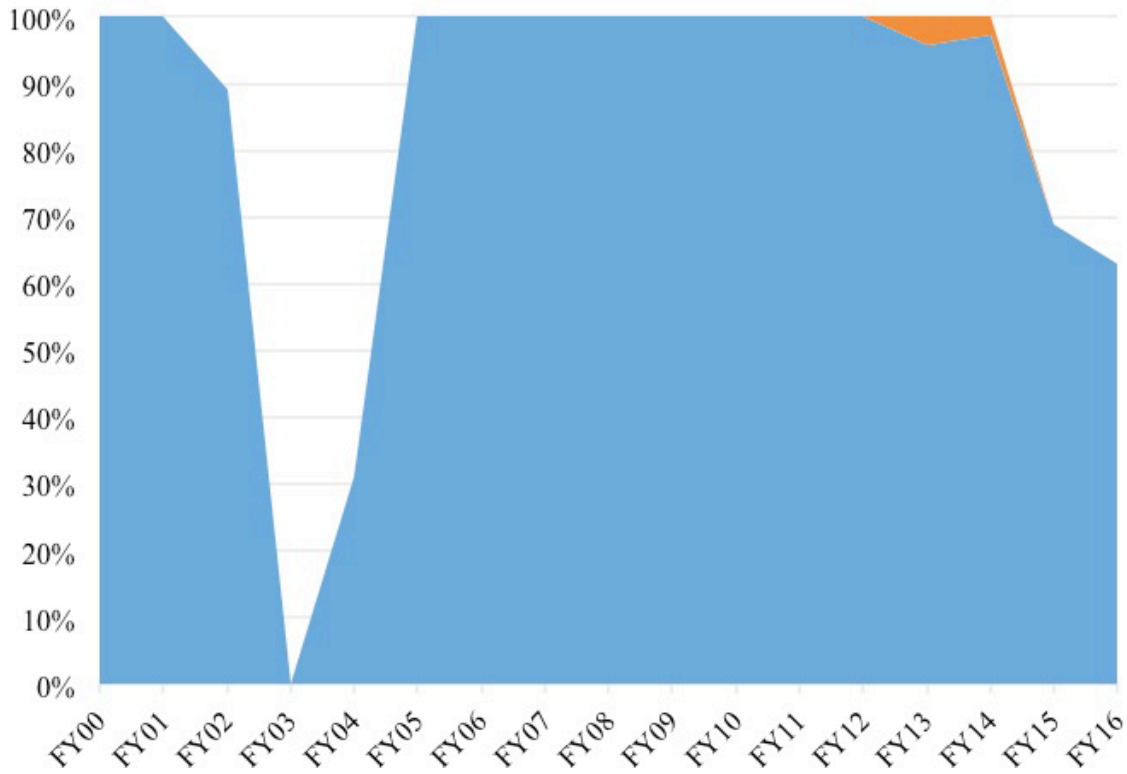


Figure 5. Percent of Tuition Reimbursement Funded Since 2000



reimbursements were built directly into Chapter 70 formula; the current separate line item may be more vulnerable to cuts. Unfortunately this change would make the already cumbersome Chapter 70 formula even more complex. It could also have unintended consequences – e.g. what is meant to be temporary aid in Chapter 70 often becomes permanent. It would also make the payments less transparent, leading to more confusion about the financial impact of charter schools.

At first glance, the tuition and reimbursement figures above seem to indicate that the state pays only a small share of the cost of charter schools. However, tuition reimbursement does not represent the state's entire contribution towards the cost of educating charter students. For most districts, Chapter 70 aid supports charter school students in the same way that it supports the cost of traditional schools. The following section attempts to illustrate the actual financial impact of charter schools on local districts, as well as how the impact can vary.

What is the Net Impact of Charter Schools?

To evaluate the overall impact of charter schools on local districts, one must first decide what the alternative would be. In other words, should we evaluate the financial impact of a student attending a charter school compared to the impact if the student leaves the district entirely, or simply compared to the situation that would exist if the student remained in the traditional local school? The discussion that follows considers both alternatives, and also evaluates the impact if the state funded charter schools directly rather than through Chapter 70 and reimbursements.

The impact of charter schools depends not only on which comparison case is chosen, but also on the level of state aid a district receives – in general the impact is smaller if the state provides more aid. Thus this section begins by looking at the impact in a foundation aid district, both for a student who had been attending a local school and then for a student coming from a private

school or another district. It then explores the impact in districts not receiving foundation aid.

When people think about the impact of charter schools, the most common scenario they think about probably involves a student enrolled in a traditional local school who switches to a charter school. Previously Table 3 illustrated the immediate impact – tuition payments rise and the district receives temporary reimbursement. Table 6 extends the example to include Chapter 70 aid. Specifically, it illustrates the impact on a foundation aid community if a student leaves a local district to attend a charter school for 6th through 12th grade.[24] The first few columns replicate the tuition and reimbursement outlined previously, illustrating the net payment from the district to the charter school. During the first year at the charter school, the state reimburses the entire cost of tuition, while the district still receives Chapter 70 aid. In the five subsequent years, the district receives Chapter 70 aid and partial reimbursement, and in the sixth year the reimbursement ends.

Because this example looks at a foundation aid district, the state pays almost the entire cost of educating the student and state aid is roughly equal to the tuition payment. However, this does not mean the sending district is not affected – the district loses the tuition payments. This is illustrated in the second to last column of the table (column F). Compared to the alternative where the student did not enroll in the charter *and instead remained in the traditional local school*, the district faces lower enrollment and reduced funding. If schools or districts face significant fixed costs, the loss of students to charter schools could negatively affect the traditional local schools (after the initial year of reimbursement). Over time as the local schools are able to adjust their costs, the impact should fade.

However, the interpretation of Table 6 is different if we consider what happens when a student moves from one district to another, or goes to a private school instead of a charter. If the student leaves the traditional local schools but does not enroll in a charter, the district would not pay the tuition but it would also not receive the reimbursement. More importantly, the district would also not receive Chapter 70 aid.[25] The end result may be surprising: in a foundation aid community, a student leaving for a charter school may have less impact than a student moving out of the district or enrolling in private school (or even a student who graduates from high school).

Regardless of whether a student attends a traditional or a charter school, the state shares the cost of education through Chapter 70 aid. At the same time, charter school opponents are correct when they state that charter schools divert funds from traditional schools. However, the same could be said when a student leaves one district to transfer to another, graduates, or

Table 6. Financial Impact of Loss of One Student in a Foundation Aid District

A	B	C	E	F	G
				Net Cost to Local District if…	
Grade	Tuition	Reimbursement	Chapter 70 Aid	Student Switches to Charter	Student Leaves District
5	0	0	11,700	NA	NA
6	12,600	12,600	11,700	0	0
7	12,600	3,150	11,700	-9,450	-11,700
8	12,600	3,150	11,700	-9,450	-11,700
9	12,600	3,150	11,700	-9,450	-11,700
10	12,600	3,150	11,700	-9,450	-11,700
11	12,600	3,150	11,700	-9,450	-11,700
12	12,600	0	11,700	-12,600	-11,700

moves out of state – the original district often loses state aid. For foundation aid districts the loss in aid is likely to be almost as large as the tuition payment, although the tuition payment is visible and directly attributable to the charter school while a loss in aid is more nebulous. It is hard to imagine policymakers arguing that districts should continue to receive aid for students who graduate or move out of state, yet this is essentially the argument for some charter students.

Opponents of the current charter school funding scheme sometimes argue that the state should pay the entire cost of tuition. This argument seems flawed on two levels. Most fundamentally, municipalities in Massachusetts generally fund public education for resident children, and it is not clear why a child attending a different type of public school should be denied that support. If the state paid the entire tuition, local municipalities would effectively abrogate their responsibility to educate local children.

Beyond basic questions about equitably sharing the cost of a child's education, some advocates of direct state funding may misunderstand how the school finance system currently functions. If the state were to pay the tuition, it would also stop providing Chapter 70 aid to the district for that student. For half of all charter students, the combination of foundation aid and the reimbursement is roughly equal to tuition – i.e. effectively the state already pays tuition. This does not mean that charter schools do not represent a diversion of funding away from traditional schools, but it does imply that having the state pay tuition would have little net impact in many districts.[26]

The situation is somewhat different if the student did not attend a local school before joining the charter school, as shown in Table 7. The district would be required to pay tuition when the student enrolls in the charter school, but the local district would not receive Chapter 70 aid until the year after the student arrives.[27] The reimbursement covers the entire cost during the first year, after which foundation aid covers most of the cost. The reimbursement then stops and the local district doesn't face any lingering fixed costs. There is no change in the number of students in the local district, and the increase in state aid is approximately equal to the increase in tuition. This means that the local district sees almost no impact, and also that the city or town pays very little of the cost of educating this student.

For the 185 districts that send half of all students to charter schools but do not receive foundation aid the results are different, but the interpretation again depends on the comparison that is used. Tuition does not depend on state aid, meaning that a student leaving for a charter school results in the same diversion of funds away from the local schools as in a foundation aid district (Table 8).

Table 7. Impact of a Charter School Student Who Had Not Attended the Local District[28]

A	B	C	E	F
Grade	Tuition	Reimbursement	Chapter 70 Aid	Net Cost to Local District
5	0	0	0	NA
6	12,600	12,600	0	0
7	12,600	0	11,700	-900
8	12,600	0	11,700	-900
9	12,600	0	11,700	-900
10	12,600	0	11,700	-900
11	12,600	0	11,700	-900
12	12,600	0	11,700	-900

Table 8. Financial Impact of One Student Leaving an Above Foundation District[29]

A	B	C	E	F	G	H
				Net Cost to Local District if…		
Grade	Tuition	Reimbursement	Chapter 70 Aid	Student Switches to Charter	Student Leaves District	Student Switches to Charter & State Pays Tuition
5	0	0	0	NA	NA	NA
6	12,600	12,600	0	0	0	-4,000 (?)
7	12,600	3,150	0	-9,450	0	-4,000 (?)
8	12,600	3,150	0	-9,450	0	-4,000 (?)
9	12,600	3,150	0	-9,450	0	-4,000 (?)
10	12,600	3,150	0	-9,450	0	-4,000 (?)
11	12,600	3,150	0	-9,450	0	-4,000 (?)
12	12,600	0	0	-12,600	0	-4,000 (?)

Compared to the alternative where the student remained in the traditional local school, the district faces exactly the same situation as the foundation aid district -- lower enrollment and reduced funding (as seen in column F). Once again, if the districts face significant fixed costs, the loss of students to charter schools could negatively affect the traditional local schools.

While tuition is the same, the impact and the interpretation change if we consider the alternative of the student leaving for another district. In a foundation aid district the loss of the student causes a loss in aid, but an above foundation district would lose enrollment but not a significant amount of state aid. Thus a student leaving for a charter school reduces funding for the local district, while a student moving out of town has no effect on the local district's finances (column G). While the local district loses funding in this situation, the impact on the schools again depends on the extent to which schools or districts face fixed costs. If costs are mostly variable, they will fall when the student leaves for a charter school. If costs are fixed, the local district is squeezed by tuition payments.

It is not easy to compare the impact in these above foundation districts with the situation if the state were to fund tuition directly rather than requiring local districts to pay. The difficulty stems from two sources of uncertainty: how the transition to state-paid tuition would affect state aid and how it would affect the local contribution.

Although these districts are above foundation and receive only marginal additional state aid when enrollment changes by one student, they nonetheless receive significant state aid overall. In total, they receive state aid equal to 34 percent of foundation. If the state were to assume responsibility for tuition payments, it would presumably also claw back the state aid it already provides for these students. This would mean that districts would immediately lose approximately $4,000 per student.

If the state funded the entire tuition payment, the $4,000 per student would be the extent of the loss to local districts. However, as discussed previously, the state and local governments share responsibility for the costs of education for all public school students regardless of which school they attend. Requiring the state to pay the entire tuition violates this shared commitment. At the same time, it would also require cities and towns to continue to contribute to local districts for students the districts do not educate.[30]

As the scenarios discussed above illustrate, charter school funding in Massachusetts is quite complex and the impact on local districts can vary across the state. However, rather

than get lost in the details of obscure state aid formulas, it may be helpful to consider a more fundamental question: whether funding should follow students or whether local districts should have a protected monopoly on public education. Charter school opponents question whether the growth of charter schools hurts traditional local schools, both through reductions in revenue and by leaving behind students who are more difficult to educate. On the other hand, charter school supporters argue that the government should pay for education regardless of the choice of public school. They also point to research that shows that there are important advantages to competition to argue that school choice can help not only the students who enroll in a new school but also those who stay in the traditional public schools.[31]

Data Analysis

The previous discussion involved the theoretical impact of charter school funding. This section explores actual patterns of enrollment, tuition, revenue, and spending. As previously shown in Table 5 and Figures 3 and 4, the number of charter schools, enrollment, and charter school tuition payments has been growing rapidly in the past decade.

The growth has not been distributed equally. Table 9 lists the districts that faced the largest growth in charter school enrollment over the past decade (as measured by percent of total enrollment in FY16). These are the districts that faced the fastest growth in tuition and the largest adjustments (and therefore they also received the most reimbursement aid). The table also indicates which of these districts were foundation aid districts in 2016 – for these districts having the state pay for tuition would have little impact.

The bulk of revenue to Commonwealth charter schools comes from tuition: 83 percent or $404 million in 2014-15.[32] The schools also received $27 million from government grants and an additional $25 million from private grants and contributions. In total, Commonwealth charters collected $486 million, or $15,600 per pupil.

Table 9. Districts with Fastest Growth in Charter Enrollment as % of Total Enrollment, 2007-16

Sending District	Charter Enrollment 2016	Charter Enrollment 2007	Change in enrollment	Change/Total 2016	Foundation Aid District 2016
Chelsea	706	111	595	8.6%	Y
Marlborough	485	103	382	7.7%	Y
Boston	9,260	4,509	4,751	7.4%	N
Amherst	86	1	85	7.1%	N
New Bedford	917	5	912	6.9%	Y
Lynn	1,211	292	919	5.7%	Y
Springfield	3,299	1,812	1,487	5.1%	Y
Hadley	39	8	31	5.0%	N
Sandwich	199	49	150	5.0%	N
Fall River	1,210	654	556	4.9%	Y
South Hadley	102	12	90	4.7%	N
Tyngsborough	88	7	81	4.6%	N
Bourne	106	14	92	4.6%	N
Ayer Shirley	78	-	78	4.5%	N
Dracut	193	36	157	4.0%	N
Malden	859	561	298	4.0%	Y
Lawrence	1,503	895	608	4.0%	Y

Commonwealth charter schools spend about $2,000 per pupil on capital and facilities expenses, including leases for space. This is significantly more than the $893 of state-funded payments for capital expenses, leaving less funding for operating expenses. On the operating side, charter schools spent $14,500 in FY2014, or $800 per pupil less than their students' home districts. This gap is much smaller than it was seven years ago when Follow the Money was published; at that time charter schools spent $3,000 less per student (Figure 7).

Charter schools spend significantly more per pupil on administration, $1,700 compared to $500 in the sending districts (Table 10).

FIGURE 6. REVENUE BY SOURCE FOR COMMONWEALTH CHARTER SCHOOLS, FY2014

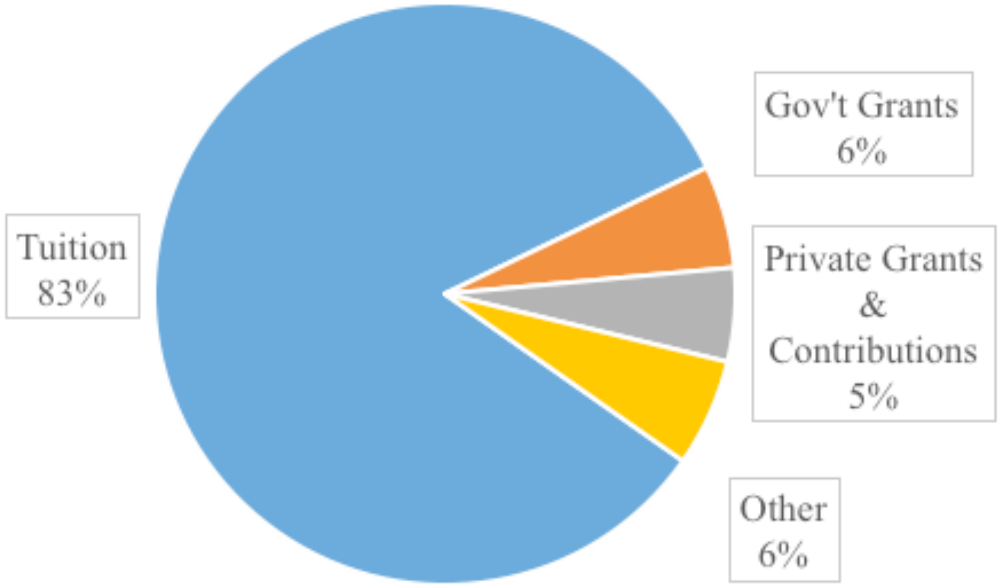


FIGURE 7. OPERATING EXPENDITURES PER PUPIL, FY07 AND FY14[33]

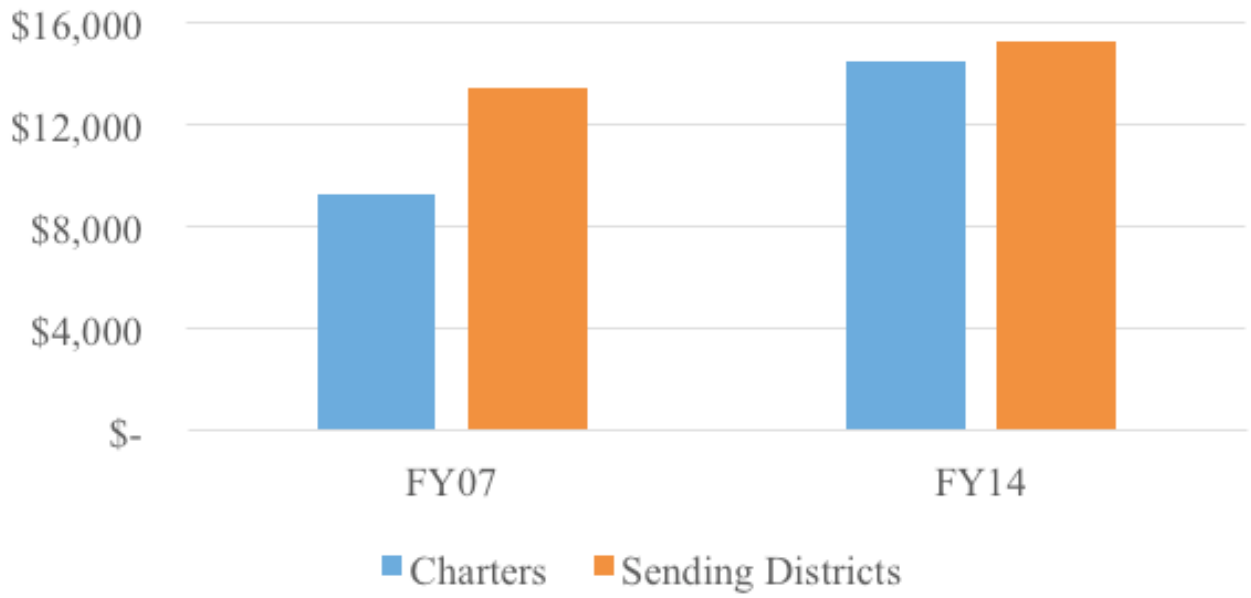


Table 10. Operating Expenditures per Pupil by Function, FY14

	Commonwealth Charters	Sending Districts
Total	$14,502	$15,332
Administration	$1,738	$502
Classroom Specialists and Teachers	$5,173	$5,591
Other Teaching Services	$893	$1,333
Guidance, Counseling, and Testing	$521	$384
Insurance & Retirement	$1,519	$2,718
Professional Development	$174	$368
Other	$4,484	$4,435

For the state as a whole there is a slight negative correlation between district size and administrative spending per pupil, which could indicate that larger districts are able to spread administrative costs over more students while small districts and charter schools are not.

Charter schools tend to spend about 8 percent less on classroom specialists and teachers than sending districts, and they also spend less on other teaching services and professional development. The primary reason that charter schools spend less per pupil on teachers and specialists is that they pay their teachers lower salaries than traditional public schools do. According to DESE data, Commonwealth charter schools paid teachers an average of $64,300 in 2014. This is significantly less than the $80,600 earned by teachers in Horace Mann charter schools and the $76,600 in sending districts. The pay gap has closed slightly since *Follow the Money* was published. From 2007 to 2014, teacher salaries at charter schools rose by 26 percent while statewide averages rose only 15 percent. The faster growth narrowed the pay gap; charters paid 20 percent less in 2007 but by 2014 the gap was down to 13 percent.

Finally, one of the largest differences in expenditures is that charter schools spend significantly less on insurance and retirement expenses. This gap probably reflects much higher spending in traditional districts on areas such as health insurance for retired teachers.

Recent Charter Proposals

Governor Baker recently proposed changing the reimbursement formula. The administration's proposal would raise reimbursement to 50 percent in the 2nd year (from 25 percent), but decrease the number of years of reimbursement to three, resulting in 100 percent-50 percent-25 percent reimbursement rates. This would move the formula closer to the previous version that provided 100 percent-60 percent-40 perent rates. More substantially, the proposal would also restrict reimbursement after the first year to districts sending many students to charter schools. This change could reduce reimbursement from the state significantly, both because each new charter student would generate less reimbursement funding and because fewer districts would be eligible for the entire reimbursement. Of course, any reduction in reimbursements would not only save the state money but presumably also increase dissatisfaction among local officials with charter school funding.

Governor Baker also proposed raising the cap on charter schools in low-performing districts. Raising the cap (without changing the reimbursement formula) would of course lead to higher tuition payments and additional reimbursement, but it would have no impact on Chapter 70 aid. For every additional charter student leaving a local district, tuition payments would increase by roughly $12,600 per year. Thus allowing charter enrollment to grow by 1,000 students would lead to $12.6

million in tuition payments, as well as the same amount in reimbursement during the first year (if reimbursement is fully funded). Because the proposal would only raise the cap in low-performing districts, the effect would be concentrated in relatively few areas such as the mostly urban areas listed in Appendix A. Over the next few years these districts could see the loss of many students and dramatically higher tuition.

Charter Schools Outside Massachusetts

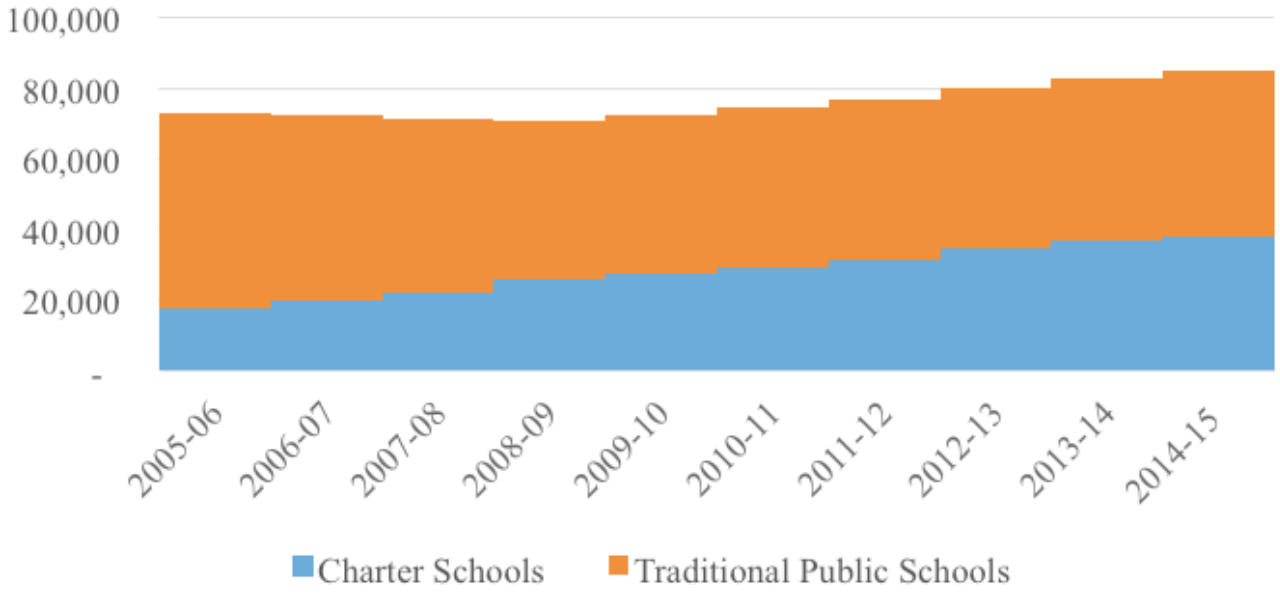
Charter schools, and the arguments about their funding, exist around the country. The two areas where the largest share of students attend charter schools are Washington, DC and New Orleans. In Washington, almost 40,000 students or 44 percent of all public school students, attend charter schools. In New Orleans the drastic changes ushered in a decade ago by Hurricane Katrina led to a massive expansion of charter schools so that 90 percent of students now attend more than 70 charter schools.

In both Washington, DC and Louisiana, charter school funding laws parallel the Massachusetts system embodied in Chapter 71 – the laws attempt to provide charter schools with funding similar to traditional local schools. In New Orleans virtually all local schools are charter schools, so there is little institutional resistance to charter schools. However, in Washington, DC the diversion of funds away from traditional schools generates controversy; much as in Massachusetts, charter school opponents argue that diverting funds to charter schools can harm traditional local schools.[34]

While the Uniform Per Student Funding Formula in Washington DC is meant to fund all students at the same level regardless of the school they attend, ambiguities in the formula have led to disputes over charter school funding. Charter school supporters claim that the municipal government has underfunded charter schools while providing additional (illegal) funds to traditional local schools. In 2014 several Washington, DC charter schools filed a lawsuit asking the courts to enforce the equal funding requirement; the courts have allowed the case to move forward but have not ruled on the core claim. Despite the supposed underfunding, charter enrollment in Washington, DC has grown rapidly (Figure 8).

Perhaps more notable than the similarities between New Orleans and Washington, DC

Figure 8. Charter and Traditional Enrollment in Washington DC, 2005-06 to 2014-15



on one hand and Massachusetts on the other are two major differences. One is that unlike Massachusetts, both systems provide charters with additional funds for special education students. This more closely allocates funding to where it is needed. At the same time, neither locality reimburses local districts for students "lost" to charter schools. This is especially important in the case of Washington, DC, where charters don't have nearly the market share of students as they do in New Orleans. In DC, as in New Orleans, funding follows students more completely than in Massachusetts. This means that growth in charter schools has an immediate budgetary impact on local schools, for good or ill. If the local schools face fixed costs, they could struggle to adjust to the loss of students. On the other hand, the lack of reimbursement could intensify the impact of competition on traditional public schools, forcing them to innovate and improve—even in the area of budgetary practices—to attract and retain students.

Reimbursing districts when students choose charter schools makes Massachusetts an outlier, and the $80 million in reimbursements that districts receive each year are, in essence, additional monies to educate students who are already being educated elsewhere. While it is clear that districts do feel the budgetary burden of losing students to charters because per-pupil allocations are used to make entire systems run, perpetuating a system that allows sometimes cumbersome and ineffective bureaucratic and budgetary practices to exist benefits neither the district, the charter school, or the broader community.

A potential remedy to the current charter school funding dilemma could be to make the overall school finance system more transparent. The United States is one of the only nations that rely heavily on local property taxes to fund schools. While there are historical reasons for funding schools with local monies, various negative impacts of this school finance system have been well documented over the years. A detailed description of those impacts is beyond the scope of this work. Suffice it to say that one of the reasons the Chapter 70 formula is so complicated is because it attempts to make more equitable a system that is inherently inequitable. In doing so, the well-intended formula becomes not only confusing but, to some extent, wasteful.

There are examples of school systems in which per pupil allocations actually follow the child. The Netherlands is one of those systems. In the Netherlands, the central government distributes money for education directly to "boards" that manage a school or group of schools. The amount of money a board receives for each school is determined by a centrally devised formula that accounts for enrollment at each school and the characteristics, or level of need, of each child enrolled. In practice, though the board receives the centrally allocated money, it doesn't retain funding to support a centralized bureaucracy (like a school district). The money allocated to each school is rather viewed as money allocated to the enrolled children. It has been referred to as "funding in a backpack" because the money follows the child.

If it is determined that a certain child has greater need than his or her peers (need can be defined as anything from socio-economic disadvantage to being a non-native speaker to having a cognitive or other disability), that child and his or her school will receive a greater allocation. It is up to the school to spend the money attached to each child to meet not only his or her needs but to run the school effectively and efficiently.

Another major and important difference between the Netherlands and the US is the amount of choice that families have. Dutch families can choose from a variety of schools: secular, faith-based, and otherwise unique in mission and character, and choices are not geographically contingent, meaning a family is not bound to choose from schools within a specific neighborhood or catchment area. Because such choice is the norm in the Netherlands, schools see one another as competitors for students and families, not funding, and different types

of schools are not pitted against one another for "siphoning" resources that belong to an institution rather than to students or families.

Although some U.S. districts engage in funding practices that are similar to the Netherlands in that they 'weight' per-pupil allocations according to need, implementing such a system at the state level in the United States would be complicated at best; schools are presently funded through multiple revenue streams and by multiple levels of government. The idea, however, that money could truly follow a child, instead of flowing to and through various stakeholders who all feel entitled to their "piece of the pie" could be a model to strive for when it comes to charter school funding and school funding in general in the Commonwealth. At the very least, such a model would be clearer to the stakeholders involved and could mitigate against the confusion that exists in the current system.

Conclusion

Charter schools now serve more than 40,000 students in Massachusetts, or about 4 percent of all public school enrollment. This is much lower share than in a place like Washington, DC, but in seven Massachusetts districts more than 10 percent of local students enroll in charter schools. The schools receive revenue from local districts as dictated by state law, and it is broadly similar to the amount that traditional local districts receive. The charters spend their funds differently than local districts, with more spent on facilities and slightly less spent directly on teaching.

The number of students attending charter schools has grown by more than 6 percent per year, often constrained by legal caps on charter schools and enrollment. The growth of charter schools has been controversial for 20 years. The arguments typically center around two points: (1) charter schools attract more successful students and leave the traditional schools to struggle with those left behind; (2) that charter schools divert funding away from traditional local schools. This paper did not examine the first point, except to note that in recent years charter schools attracted students with characteristics closer to the districts they draw from.

The school funding system is meant to ensure that funding follows students, and that all students are treated equitably regardless of what school they attend. Under the law it should not matter whether a student attends a charter school or a traditional local school – in either case the burden of funding the cost of education should be shared between the state and the local community. Charter school opponents do not agree with this premise, at least in practice. Instead they often argue that funding charter schools has a negative impact on the students in traditional schools. For people with this point of view, allowing funding to follow the students is not a desirable outcome.

Funding for charter school students depends on the tuition calculation, the reimbursement formula, and Chapter 70. All three components could be improved. As discussed earlier, the tuition formula does not adequately account for special education students. Charter schools enroll lower percentages of SPED students than the sending districts. While the gap has closed in recent years, changes to the tuition formula could both protect local districts if the gap persists and provide incentives to charter schools to close the gap.

An important but probably intractable problem with the reimbursement formula is that the legislature or governor may not appropriate money to fund the reimbursement. This has happened each of the past two years. Unfortunately it may be impossible to come up with a mechanism that protects reimbursement appropriations during a budget crunch. The same can be said for Chapter 70; even a perfectly equitable formula may not be adequately funded. Fortunately, some of the other problems with the reimbursement formula and Chapter 70 can in principle be addressed.

Perhaps the first thing that becomes evident when examining charter school funding is that

the system, and particularly Chapter 70, is very complex. While it may not be possible to simplify the formula without unintended consequences, the effect of charter students on Chapter 70 aid could be communicated more clearly. Many local officials and policymakers may not understand how charter students affect state aid. Requiring the state to pay charter school tuition would have little impact in some districts as Chapter 70 aid would fall almost dollar for dollar with tuition; the state already pays virtually the entire cost of charter school tuition for almost half of charter school students.

The Chapter 70 formula, or at least the way that it is typically applied, contains a more fundamental flaw that leads to inequities for districts sending students to charter schools. The central problem is that the state does not fund the target share aid that is meant to cover the state's fair share of the cost of educating a student. Thus the Chapter 70 formula may determine that it would be fair for the state to contribute 40 percent of the increase in the foundation budget to a community, but in many years the state contributes nothing. If the state funded target share aid for changes in enrollment, it would be easier to argue that funding should follow the student.

The reimbursement formula currently lasts long after a student leaves the local district. The old formula provided 200 percent of the annual tuition spread over three years, but the current formula expanded reimbursement to 225 percent over five years. It is not clear why a district should continue to receive funding five years after a student leaves. Local districts in Washington, DC and Louisiana do not receive any reimbursement when students leave. Massachusetts should move closer to a system in which funding follows students.

Finally, the reimbursement formula also provides reimbursement for annual increases in tuition that are not driven by enrollment growth. This means that a district with students in charter schools receives slightly more funding every year than a similar district that does not have students in charter schools. This problem is related to the shortcomings of Chapter 70. If the state fails to fund the target share, then schools (both traditional and charter) do not receive additional funding when enrollment rises. A better system would provide the target share but not the reimbursement, so that all students are treated equally.

Charter schools take students and resources away from traditional local districts, and they will always cause tension. However, the current system can be improved. The recommendations below address some of these problems with the charter school funding system. With the exception of the first recommendation, the rest would bring both winners and losers but would move Massachusetts closer to a system where funding follows students. Many, particularly those dealing with reimbursement, would undoubtedly be contentious but they could lead to a more equitable system.

Recommendations

1. *Publish the amount of additional Chapter 70 aid to local districts that is generated by charter school students.* It would cost little to provide this information, but it could allow for a more productive discussion of the impact of charter schools on local budgets.
2. *Maintain funding for charter students within Chapter 70.* Public school students should be treated equitably, regardless of the type of school they attend. Segregating funding for charter schools serves little purpose other than to make it more vulnerable to cuts. It also has unintended consequences – e.g. it would make the calculation of the local contribution more complex and potentially inequitable.
3. *Tie Chapter 70 aid more closely to enrollment.* Under the current system many districts receive virtually no additional funding when enrollment increases, meaning that the state is not sharing the marginal or incremental cost of education. The state

could remedy this by ensuring that when enrollment increases, aid would increase by at least the target share of the foundation budget.[35] Funding for this provision could easily be made available with two other changes to Chapter 70 calculations. First, aid should respond when enrollment falls as well as when it rises – i.e. if enrollment and the foundation budget decrease, aid to districts should be reduced by the target share.[36] Second, minimum aid should be repealed, or at least it should receive the lowest priority among the different types of aid and only funded during years of strong revenue growth. The current Chapter 70 formula calculates which districts receive less than a fair amount of aid (as measured by the target share) and then ignores the calculation; in FY16 the state provided $14 million in minimum aid while providing no target share aid. Minimum aid may placate local districts or legislators by providing every district with a small increase in aid, but it shortchanges more deserving districts and perpetuates inequities.

4. *Only provide reimbursement for growth in tuition caused by changes in enrollment* (not growth caused by general increases in spending). This would have reduced the calculated reimbursement by more than $25 million in FY16, allowing reimbursement driven by enrollment to be more fully funded.
5. *Increase facilities tuition rates to $1,500 per student.* The facilities tuition has been inadequate for many years and has not grown with inflation. It is substantially below actual costs and also lower than rates in other states. Increasing it to $1,500 would increase tuition payments by approximately $22 million, and the increase would be paid by the state.
6. *Change the tuition calculation to provide higher tuition for special education students.* Charter schools that enroll low numbers of special education students should receive less in tuition, leaving more funding for the traditional districts. Charter schools that recruit or otherwise enroll high numbers of special needs students would receive additional funding.[37]

An example can clarify how this could work. Tuition could be reduced by $1,500 per pupil, but increased for special education students by $7,500.[38] If a charter school enrolled 20 percent special education students, which is roughly the share in sending districts, it would receive the same funding as it does under the current system. However, if a charter enrolled only 10 percent special education students, tuition would drop by $750 per pupil or $375,000 in a charter serving 500 students. This change has two benefits. First, it would leave local districts with additional funding if charter schools do not enroll special needs students. At the same time, it would provide incentive to the charters to enroll additional special education students and cover the higher costs in charters that do. Given FY 2016 enrollment, this change would have reduced tuition by roughly $13 million because charters enrolled fewer special education students than sending districts.

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Endnotes

1. There are two types of charter schools: Commonwealth charter schools and Horace Mann charter schools. Commonwealth charters require approval only from the Board of Elementary and Secondary Education, while Horace Mann schools must also have their charters approved by the local school committee and the local teachers' union. Horace Mann employees also remain members of the local unions and benefit from salary scales established under collective bargaining agreements.
2. Madeloni, Barbara, "charter schools are not the answer," *The Boston Globe*, December 9, 2015.
3. Grogan, Paul "Charter schools are not private schools," *The Boston Globe*, December 17, 2014
4. Opposition to charter schools also involves non-financial questions, such as whether growth in charter schools will leave behind the students who are the most difficult to educate. This paper does not directly address this issue, but it does provide a recommendation to alleviate the problem.
5. "A bad idea on charter schools." *The Boston Globe*, March 18, 2016.
6. This percentage is calculated using the 2016 estimated FTEs at Commonwealth charter schools divided by the FY16 foundation enrollment. Foundation enrollment may be slightly different from actual FY16 enrollment, but the differences have little effect on the percentages.
7. Waitlist data from Charter School Factsheet, Department of Elementary and Secondary Education, downloaded from http://www.doe.mass.edu/charter/about.html on February 20, 2016. Figures for 2015-16 are estimates. Waitlist includes both Commonwealth and Horace Mann charter schools.
8. Data from Summary of Historical Commonwealth Charter School FTE, Tuition and Reimbursements, available at http://www.doe.mass.edu/charter/finance/tuition/.
9. ibid.
10. Averages mask higher levels of enrollment of special populations in some charter schools compared to the local district.
11. DESE Charter School Factsheet and Selected Populations Report (http://profiles.doe.mass.edu/state_report/selectedpopulations.aspx) with sending districts weighted by the number of students they send to charter schools.
12. DESE changed how income is measured. This table uses the DESE measure of economically disadvantaged for the 2015-16 year and the number of students receiving a free lunch for 2010-11.
13. See Candal, Cara (2013) "Preserving Charter School Autonomy," Pioneer Institute White Paper No. 99
14. One reason not to base funding on the actual number of students is to avoid giving districts financial incentive to classify additional students as special education or to penalize those that do not classify as many students as SPED.
15. These components are described more completely in *Follow the Money*, and also on the DESE website.
16. These figures assume the student was not at a vocational school.
17. These targets are somewhat arbitrary – e.g. they are based on the state paying 41% of the statewide foundation budget. However, they currently establish what is considered a fair allocation of expenses between the state and municipalities.
18. Language taken from https://malegislature.gov/Laws/GeneralLaws/PartI/TitleXII/Chapter71.
19. The adjustments are discussed in more detail in *Follow the Money*.
20. The existence of fixed costs also implies that districts may not require additional state aid when enrollment grows, a fact rarely if ever mentioned in discussions of school funding.
21. For a student who switches from a traditional school, and excluding the facilities charge.
22. Reimbursement based solely on growth in tuition – i.e. excluding reimbursement for facilities payments.

23. When reimbursement is partially funded, the state generally pays the full reimbursement on the facilities charge but only partial reimbursement on the growth in tuition payments.
24. To keep the analysis simple, the table ignores inflation as well as the differential costs by grade. $12,600 is the average charter school tuition statewide (excluding capital funds), and $11,700 is the weighted average foundation budget for all sending districts. As discussed previously, tuition is higher than foundation for several reasons, in part because many districts choose to spend more than foundation. The average foundation budget is higher in the sending districts than the statewide average because they have larger numbers of non-English speaking students and low-income students.
25. The impact on Chapter 70 is delayed because the formula uses enrollment from October to determine aid the following year. The precise impact on Chapter 70 aid is further complicated because it could be different in a foundation aid district where enrollment falls substantially. If enrollment declines quickly enough, the district would cease to be a foundation aid community and aid would not change if enrollment continued to decline. Unfortunately in any discussion of Chapter 70 there are almost endless permutations that make generalizations almost impossible.
26. This is not true for all foundation aid districts. In some districts, if enough students were removed from the foundation budget the district would no longer receive foundation aid – i.e. aid would stop falling or at least fall more slowly at some point as students left.
27. The delay occurs because Chapter 70 is based on the prior year's enrollment. However, this also means that the district would continue to receive state aid for this student the year after she graduates.
28. This table ignores details that marginally affect tuition and Chapter 70 aid, as explained in the prior footnote.
29. This table ignores minimum aid ($25 per pupil in FY16) and assumes that target aid is not funded. It also illustrates the incremental aid that one student generates, not the average aid per pupil.
30. Theoretically an equitable system could treat charter schools as separate districts with funding from both the state and local governments. Thus Chapter 70 aid and the local contribution would no longer flow through the local districts but would instead flow directly to the charter schools. However, transitioning to this type system would be incredibly difficult to manage equitably and would create new problems.
31. For example, see "Does Competition among Public Schools Benefit Students and Taxpayers?" Caroline Hoxby, *American Economic Review*, 2000, or "Competition with Charters Motivates Districts," *Education Next*, 2013.
32. The data in this section is primarily from the Charter School End of Year Financial Report Summary, downloaded from http://www.doe.mass.edu/charter/finance/revexp/ on February 20, 2016.
33. Amounts have not been adjusted for inflation.
34. For example, see "D.C. Debates Growth of Charter Schools," Emma Brown, *Washington Post*, February 10, 2013.
35. If the increment in aid applies to changes in foundation budget driven by changes in enrollment and excludes increases driven by inflation, districts receiving more than their target share would move closer to the target share.
36. In districts that receive less than their target share, aid could be maintained to bring them closer to the target.
37. It is impossible for the tuition formula to accurately reflect the cost of special education because each special education student has different needs and generates different expenses. However, directing more funding towards schools or districts with more special education students would be an improvement over the current system.
38. According to DESE data, districts serve an average of 17 percent special education students and spend 21 percent of their operating budget on special education expenses. These figures imply a larger adjustment to tuition than the figures used in the example – roughly $2,500 per student.

Appendix A: Districts Sending the Largest Share of Local Students to Commonwealth Charters

Sending District	Charter Students	% of Total Enrollment	Foundation Aid in FY2016
Boston	9,260	14.4%	N
Holyoke	843	12.7%	Y
Up-Island	45	12.3%	N
Malden	859	11.6%	Y
Springfield	3,299	11.4%	Y
Fall River	1,210	10.7%	Y
Chelsea	706	10.2%	Y
Lawrence	1,503	9.9%	Y
Lowell	1,494	9.8%	N
Marlborough	485	9.7%	Y
Edgartown	38	9.4%	Y
Somerville	476	8.8%	N
Williamsburg	16	8.6%	N
Salem	402	8.6%	N
Everett	573	7.7%	Y
Lynn	1,211	7.6%	Y
Worcester	2,055	7.5%	Y
Northampton	203	7.3%	N
Amherst	86	7.2%	N
Cambridge	489	7.1%	Y
Franklin	430	7.1%	N
Medford	344	7.0%	N
Plymouth	564	7.0%	N
New Bedford	917	6.9%	Y
Melrose	258	6.9%	N
Sandwich	199	6.7%	N
Nauset	83	6.5%	N
Hadley	39	6.4%	N
Newburyport	156	6.4%	N
Frontier	36	6.4%	N
Tisbury	24	6.3%	Y
Randolph	203	6.2%	Y
Gill Montague	67	6.2%	N

Appendix B: Foundation Aid Districts Sending Students to Charter Schools in FY2016

Sending District	Charter Students	Foundation Enrollment	% charter	Foundation Budget per pupil	Tuition per pupil (w/o Capital)
Arlington	8	5,318	0.2%	9,459	12,468
Ashburnham Westminster	12	2,253	0.5%	9,615	10,522
Attleboro	306	6,292	4.9%	10,861	9,203
Avon	9	531	1.7%	10,373	14,754
Barnstable	234	5,492	4.3%	10,112	11,861
Belmont	2	4,156	0.0%	9,430	15,573
Beverly	10	4,426	0.2%	10,158	13,460
Braintree	18	5,559	0.3%	9,940	12,038
Brockton	378	17,694	2.1%	11,840	11,244
Brookline	3	7,343	0.0%	9,725	14,906
Cambridge	489	6,888	7.1%	11,548	24,695
Canton	4	3,224	0.1%	9,839	12,446
Chelsea	706	6,924	10.2%	12,180	11,708
Chicopee	192	7,852	2.4%	11,429	10,753
Clinton	52	1,979	2.6%	10,682	9,513
Concord	3	2,040	0.1%	9,056	15,373
Edgartown	38	406	9.4%	9,755	22,683
Everett	573	7,490	7.7%	11,973	11,096
Fall River	1,210	11,317	10.7%	11,573	10,255
Fitchburg	179	5,491	3.3%	11,359	11,052
Framingham	332	8,641	3.8%	11,067	13,646
Haverhill	309	8,105	3.8%	10,536	9,058
Holbrook	20	1,168	1.7%	10,663	11,442
Holyoke	843	6,639	12.7%	12,142	11,545
Hudson	84	2,759	3.0%	10,221	13,986
Lawrence	1,503	15,186	9.9%	12,258	11,682
Lexington	2	6,849	0.0%	9,793	15,651
Lunenburg	40	1,647	2.4%	9,321	11,812
Lynn	1,211	16,036	7.6%	11,971	11,577
Malden	859	7,395	11.6%	11,368	10,557
Marlborough	485	4,976	9.7%	11,137	11,550
Maynard	29	1,384	2.1%	10,016	12,540
Methuen	75	7,112	1.1%	10,614	11,457
Milford	5	4,221	0.1%	10,526	9,467
New Bedford	917	13,211	6.9%	11,317	11,277
Newton	6	12,711	0.0%	9,938	15,883
North Andover	5	4,834	0.1%	9,407	12,755
Oak Bluffs	23	434	5.3%	9,948	19,820
Old Rochester	3	1,180	0.3%	9,687	13,035
Pittsfield	179	6,192	2.9%	11,130	11,809
Randolph	203	3,295	6.2%	11,056	14,258
Revere	171	7,135	2.4%	11,814	11,976

Sending District	Charter Students	Foundation Enrollment	% charter	Foundation Budget per pupil	Tuition per pupil (w/o Capital)
Rockland	83	2,326	3.6%	10,834	10,523
Rowe	2	70	2.9%	9,815	20,580
Springfield	3,299	28,970	11.4%	11,930	10,865
Stoughton	86	3,724	2.3%	10,334	12,538
Swansea	7	2,076	0.3%	9,908	10,390
Taunton	10	7,916	0.1%	10,966	10,821
Tisbury	24	378	6.3%	9,968	20,135
Wachusett	39	7,052	0.6%	9,312	9,961
Waltham	22	5,298	0.4%	11,746	16,137
Ware	4	1,375	0.3%	10,465	10,666
Webster	9	1,990	0.5%	10,760	11,398
West Springfield	69	3,938	1.8%	10,894	12,458
Worcester	2,055	27,452	7.5%	12,002	11,022
Worthington	1	115	0.9%	10,222	11,471

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