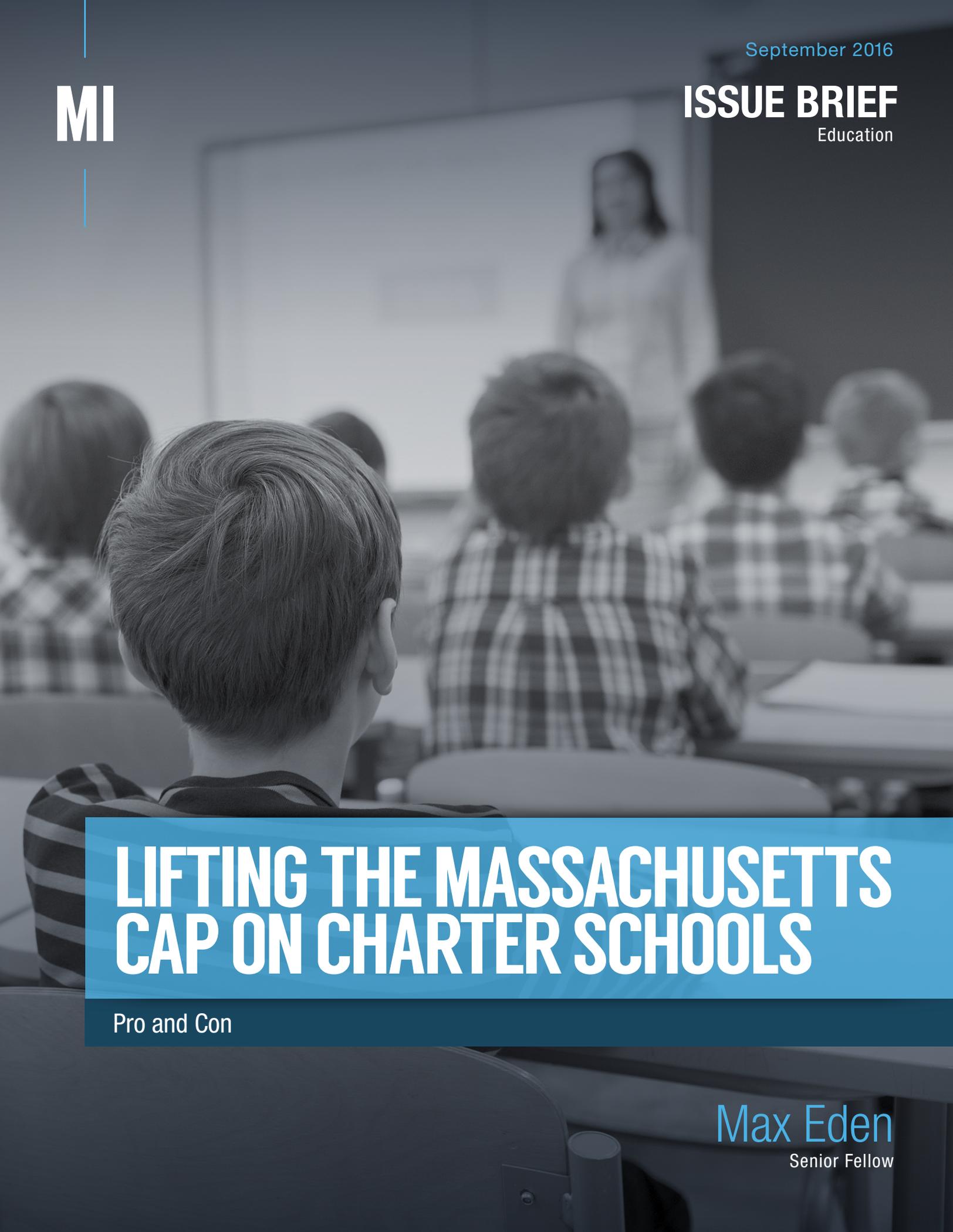


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ISSUE BRIEF

Education



# LIFTING THE MASSACHUSETTS CAP ON CHARTER SCHOOLS

Pro and Con

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## Executive Summary

On November 8, Massachusetts residents will vote on Ballot Question 2, a referendum on whether to lift a statewide cap and allow up to 12 new charter schools to launch each year, with a preference given to charters that would open in low-performing districts. Proponents note that charters in the Bay State show some of the strongest academic results in the country and that lifting the cap would allow more disadvantaged students to attend high-quality charters. Opponents argue that the students who enroll in charter schools drain more than \$400 million a year in state aid that currently goes to traditional public school districts.

This issue brief finds that:

- While it is true that, under Chapter 70 of Massachusetts' general laws, funding follows students from traditional public district schools to public charter schools, student enrollment in charter schools also effectively increases per-pupil expenditures at district schools.

In 2016, charter enrollment had the effect of increasing per-pupil spending in district schools by approximately \$85 million statewide. Even as the net amount of state aid to Boston Public Schools decreased by \$56 million from FY11 to FY15, the BPS budget actually grew by 23.4% during that time period due to increased local expenditures.

- There is convincing evidence that charter schools have raised the performance of students in them. Multiple “gold-standard” studies have confirmed that enrollment in Boston charter schools has caused significant increases in students’ reading and math proficiency. Boston charters also improve long-term outcomes, including a sharp boost in SAT scores, increased likelihood of AP course taking, and a substantial shift in enrollment from two- to four-year postsecondary institutions.
- There is little evidence that the performance of students in charter schools is dragging down the performance of the traditional local public schools. From 2011 to 2015, English and math scores increased in the 10 districts with the highest local share of charter enrollment. The percentage of students scoring “advanced” or “proficient” in English on the Massachusetts Comprehensive Assessment System increased by nearly 15 points, on average, in these 10 districts. In math, eight of the 10 districts saw a higher percentage of students scoring “advanced” or “proficient,” by nearly five points on average.



## I. Introduction

Massachusetts passed its first charter school law in 1993. Since then, the cap on the number of these public schools has been raised several times: in 1997, 2000, and 2010.<sup>1</sup> Today, the state educates 40,200 students in 78 charter schools, and 32,600 students are on wait lists.<sup>2</sup> This November, Bay State residents will vote by referendum, via Ballot Question 2, on whether to again lift the state’s charter cap—this time, by allowing up to 12 new schools to launch each year, with preference given to charters opening in low-performing school districts.<sup>3</sup>

Charter school supporters argue that lifting the cap will enable more disadvantaged students to attend high-quality schools. In testimony before the Massachusetts legislature, Governor Charlie Baker argued: “Our charter schools are the envy of the nation, delivering amazing results for over 40,000 kids here in the Commonwealth, almost all of whom come from disadvantaged communities and underperforming school districts.” Baker notes that “most of the highest performing schools in the Commonwealth are charter schools that serve students located in some of the state’s lowest performing school districts” and concludes that “our charter schools have leveled the educational opportunity playing field for thousands of kids and their families. We should celebrate their success, and seek to build on it.”<sup>4</sup>

Charter school opponents, however, argue that whatever gains may accrue to charter students, the cost of further charter expansion to district schools would be far too high. Massachusetts Teachers Association president Barbara Madeloni testified: “If passed, this measure would irreparably harm school districts across the Commonwealth for generations to come.” Madeloni claims: “Adding twelve charter schools a year—in perpetuity—would destabilize and eventually undo public education in Massachusetts. Already, Commonwealth charter schools cost local school districts more than \$408 million per year.”<sup>5</sup>

This issue brief seeks to help inform the debate around Ballot Question 2 by evaluating the claims of charter proponents and opponents.

## II. The Academic Record of Massachusetts Charter Schools

According to Stanford University's Center for Research on Education Outcomes (CREDO), students in Massachusetts's charters receive the equivalent of an extra month and a half of reading instruction and an extra two and a half months of math instruction in a single academic year, relative to their peers in district schools.<sup>6</sup> The state's charter sector is among the best in the nation, and Boston's charter schools are arguably the strongest in the country. Massachusetts secretary of education James Peyser notes: "Boston charter school students are learning at twice the rate of their district-school peers."<sup>7</sup> According to CREDO, students in Boston charters see the largest academic gains in the U.S. relative to their district school peers, scoring 0.32 standard deviations higher in math and 0.24 standard deviations in reading<sup>8</sup>—the equivalent of 230 additional days of math instruction and 172 additional days of reading instruction per year.<sup>9</sup>

Critics sometimes call charter-to-district school comparisons into question, claiming that charter schools see better performance because they teach a different population of students. But the CREDO researchers use a rigorous "Virtual Control Record" matched comparison study design, comparing students with similar observable demographic factors and prior test scores. While the overall composition of charter and district schools can vary from city to city, in Boston the overall demographic differences are not pronounced: 17% of the city's charter students have special needs, compared with 21% of its district school students; and 79% of the city's charter students live in poverty, compared with 75% of its district school students.<sup>10</sup>

At Boston's Helen Y. Davis Leadership Academy charter school, 86% of students are African-American or Caribbean-American, and 13% are Latino. Though 95% of Davis Leadership Academy's students are "high needs," i.e., low-income, English-language learners, and students with disabilities, the charter nevertheless ranked 18 out of 53 Boston district and charter schools for the percentage of its students who are advanced or proficient in math and English. All of the charter's top leaders are African-Americans. "The message from us is that [any student] can be a leader," explains executive director Karmala Sherwood. "I don't think they get that message from other schools.... We really feel our work is not finished when they graduate from eighth grade." Yet the charter cap prevents Sherwood from expanding to a high school campus.<sup>11</sup>

Some critics<sup>12</sup> contend that there may be unobserved characteristics that make charter students more likely to succeed—most importantly, the fact that their parents were involved enough to apply to a charter school. Therefore, higher charter achievement may still be an artifact of teaching a better student body, not proof that charters actually teach students better.

In the case of Boston, however, researchers have demonstrated conclusively that charter schools *cause* higher student achievement. A team of researchers out of MIT examined the results of the Massachusetts Comprehensive Assessment System (MCAS) tests, comparing the results of students who won the lottery for admission to a charter with those who did not. Because charter admissions take place through oversubscribed lotteries from which students are accepted and denied by random, their characteristics can be assumed to be identical for research purposes. This apples-to-apples analysis demonstrated that "the causal impact of attending a year at a Boston charter school is large and positive in both subjects and both school levels.... The positive per-year charter effect on middle school proficiency rates was 12 percentage points in math and 6 percentage points in English. At high school the per-year charter effect was approximately 10 percentage points in both subjects. In high school, the charter effect on reaching the advanced level on the MCAS was especially high, with increases of 18 percentage points in math and 12 percentage points in English, per year of attendance."<sup>13</sup>

Another team of researchers, using the same methodology, concluded that the charter school effect was "large enough to reduce the black-white reading gap in middle school by two-thirds. The even larger estimated math gains ... are more than enough to eliminate the racial gap in math while students are in middle school."<sup>14</sup> The effects in reading and math in high school were strong enough to close the achievement gap in both subjects, assuming four years of charter high school enrollment.<sup>15</sup>

### III. Do Boston Charter Schools Simply Teach to the Test?

Some charter critics remain unimpressed by test results. Richard Stutman, president of the Boston Teachers Union, contends: “They’re teaching to a standardized test. No one is arguing that the kids who [attend charters] are [more] well-rounded.” Barbara Madeloni, president of the Massachusetts Teachers Association, alleges that charters are “hyper-controlled test-prep factories.”<sup>16</sup> There is little evidence to back up these claims.

Columbia University professor Sarah Cohodes set out to empirically test the hypothesis that the success of Boston charter school students was due to standardized test “score inflation.” If score inflation were occurring, one would expect to see evidence of it in a few places: one might expect disproportionate gains in English and math, which are used in state accountability systems, compared with science; one might expect higher performance on more commonly tested standards or question formats (such as multiple choice); one might expect schools to focus on “bubble kids” who test slightly below proficiency, in order to demonstrate gains on statewide evaluations. Cohodes found none of these hypotheses to be true. Charter students score higher across *all* subjects, *all* types of exam questions, and found the largest gains in the students who were the very *furthest* behind.<sup>17</sup>

Another reason to believe that charters do much more than boost state standardized test scores is their college admissions results. The latest Boston Opportunity Agenda report card shows that Boston charter schools send nearly 20% more of their students to college than do Boston Public Schools.<sup>18</sup> In 2016, 98.5% of Boston charter school graduates were accepted into college, and 89% were accepted to a four-year university.<sup>19</sup>

Consider Boston Prep, which serves a student body that is 68% black, 21% Hispanic, and predominantly low-income. For six straight years, that charter has seen 100% of its graduates accepted to college.<sup>20</sup> (Boston Prep, whose motto is “effort determines success,” attributes this perfect record to, among others, holding its students to high expectations, college-oriented coaching, and strong student/community engagement.)<sup>21</sup>

Researchers affiliated with the National Bureau of Economic Research have demonstrated that college-going success is also caused by charter schools, not merely attributable to differences in student populations. Using charter lottery data to compare students who won access to a charter school with students who did not, the researchers found that Boston charter schools doubled the rate of AP test-taking, boosted composite SAT scores by more than 100 points, and increased enrollment in four-year colleges by almost two-thirds.<sup>22</sup>

Given the impressive record of Massachusetts charters, pro-charter advocates see lifting the cap to allow more disadvantaged students to enroll in high-quality charter schools as a moral imperative. Governor Baker summed up the charter advocate stance effectively, saying that he finds it hard to believe that “a state that believes in progressive policies and opportunity for everybody would have so much trouble finding its way to make it possible for kids and families from low-income communities and underperforming school districts to get the same kind of shot at getting the kind of education for their kids as I got for mine.”<sup>23</sup>

### IV. The Financial Impact of Charter Enrollment on District Schools

Charter opponents worry that the successes seen by the few students who enroll in charter schools come at a great cost to the many who remain in district schools. The Campaign to Save Our Public Schools, an anti-charter lobby principally funded by the state and national teacher unions,<sup>24</sup> explains their concerns: “Why wouldn’t we want more charter schools in Massachusetts? Well, imagine a new charter school opens in your community. A good thing? Well, not necessarily. Since the truth is that opening a charter school doesn’t just add a new option for our students. Instead, it drains funding away from all the public schools in the district, leaving each worse off than before.”<sup>25</sup>

“In 2017,” the union group argues, “charter schools will siphon off more than \$450 million in funds that would otherwise stay in public schools. If Question 2 passes, that amount can increase by \$100 million a year.”<sup>26</sup> The campaign gets its numbers from the Massachusetts Teachers Association, which also features an interactive map on its website, highlighting how much charters allegedly siphon off from each school district.<sup>27</sup> Matthew Cregor of the Lawyers’ Committee for Civil Rights and Economic Justice argues that “traditional public school students—particularly those who are underserved by charter schools—suffer immense harm as more and more funds are diverted to charter schools.”<sup>28</sup>

The \$450 million in funding (largely from the Chapter 70 program) that the teachers’ union group says that traditional districts will not see because of students who switch to charter schools misses two important points. It ignores the beneficial per-pupil effect that charter enrollment has for district schools; and it ignores the share of school funding that comes from local government. **(See the adjacent sidebar.)**

#### *Net Cost vs. Per-Pupil Benefit*

While charter funding laws vary from state to state, in general the full value of school funding does not follow the student from the district to the charter school. In many cases, the result is that even as net funding decreases in district schools because of charter enrollment, per-pupil funding rises.

Massachusetts’s charter school funding formula requires school districts to “pay” charter schools approximately a per-pupil amount consistent with what the student would have received at a district school. Yet Massachusetts is one of five states where districts are granted reimbursements by the state for students who have enrolled in charter schools. The state reimburses districts 100% of the per-pupil value for the student no longer served in the first year, and 25% of the per-pupil value for the next five years. Furthermore, a reimbursement of \$900 is provided each year to cover the per-pupil costs of school facilities. Although the state has not always fully met its tuition reimbursement funding obligations, this is the most generous reimbursement program in the country.<sup>30</sup>

Thus, even as charter enrollment means a decline in *net* Chapter 70 aid—that is, the money that follows students to charter schools minus the state reimbursement to school districts for those students—it also represents a significant increase in per-pupil spending. To gauge the per-pupil effect, **Figure 1** takes 2016 spending data posted by the Massachusetts Teachers Association and calculates the cumulative per-pupil effect of charter enrollment on district schools in the 10 districts with the largest share of charter students.

## CALCULATING CHAPTER 70 AID

Chapter 70 aid aims to ensure an adequate public education for all schools in Massachusetts, district and charter. It does not aim to fully fund public schools with state funding, but rather to make education funding more equitable across districts where property-tax revenue may vary greatly. To determine a school district’s Chapter 70 aid, the Massachusetts Department of Elementary and Secondary Education (DESE) first tallies the number of students a district is financially responsible for on October 1 of each year, including district students, charter students, and students who attend charter or special-education schools in other districts. Next, DESE uses district data to calculate a “foundation budget” based on student characteristics including grade level, English-language status, and student poverty. DESE then uses the school district’s aggregate property values, aggregate personal income, and a “revenue growth factor” (set by the Department of Revenue) to determine the school district’s required funding contribution for the year, which cannot exceed 82.5% of the foundation budget. Whatever portion of the budget is not covered by the school district is covered by “foundation aid,” which makes up the majority of Chapter 70 aid. Importantly, a district’s Chapter 70 aid cannot decrease from the previous year. Boston has benefited from that because its Chapter 70 aid exceeds the difference between the local contribution and the foundation budget (by over \$60 million in FY16).<sup>29</sup>

FIGURE 1. DISTRICT LOSSES AND GAINS FROM CHARTER ENROLLMENT, FY16

DISTRICT	Percent of Students in Charter Schools	Overall Number of Students in District	Students Served by Charter Schools	Overall District Spending	Net District Payment to Charter Schools	District Spending Per-Pupil Before Charter Enrollment	District Per-Pupil Spending After Charter Enrollment	Aggregate Increase in Spending for District Students
Boston	14.4%	64,196	9,251	1,027,548,133	120,273,092	16,006	16,512	27,805,782
Holyoke	12.5%	6,639	827	81,942,300	9,572,068	12,342	12,453	642,216
Up-Island	11.9%	365	43	10,447,844	901,550	28,624	29,685	341,020
Springfield	11.3%	28,970	3,282	345,063,798	31,449,476	11,911	12,209	7,651,774
Malden	11.1%	7,395	818	86,965,740	8,406,133	11,760	11,945	1,219,158
Fall River	10.6%	11,317	1,197	131,663,001	9,836,479	11,634	12,039	4,094,549
Chelsea	10.2%	6,924	705	85,818,771	6,453,572	12,394	12,762	2,287,778
Lawrence	9.9%	15,186	1,499	186,066,551	16,887,478	12,252	12,361	1,483,855
Lowell	9.7%	15,300	1,490	184,295,664	14,859,188	12,045	12,269	3,088,282
Marlborough	9.6%	4,976	476	74,936,186	4,799,689	15,059	15,587	2,372,345
Massachusetts	4.20%	875,780	36,420	11,608,233,754	412,810,702	13,254	13,338	85,715,671

Source: Author's calculations based on MTA data. See "District Funds Lost to Charter Schools," Massachusetts Teachers Association (accessed Aug. 17, 2016).

Whereas from that data set, the Massachusetts Teachers Association chooses to highlight that charter enrollment meant that approximately \$412 million (on net) followed students from district public schools to public charter schools, charter enrollment also effectively raises per-pupil district spending by approximately \$85 million.<sup>31</sup>

#### *Local Contribution: Spotlight on Boston Public Schools*

There is a second reason that the exclusive focus on net funding under Chapter 70 aid is misleading: it doesn't account for local funding. Consider Boston Public Schools (BPS), which has seen a net Chapter 70 aid decrease of \$56 million from FY11 to FY15; according to the MTA's analysis, BPS lost a total of \$120 million to charter schools in FY16. Since FY11, however, the BPS overall budget has increased by 23.4% even as its enrollment decreased by 0.6%. How can this be?

Charter school funding is deducted from Boston's state aid, meaning that the state covers the full cost of tuition at the city's charter schools. Since 2011, the charter tuition assessment has increased by 111.4%, and enrollment has increased by 75.6%. However, this hasn't adversely affected BPS because even as more Chapter 70 state aid has gone to charter schools, the city of Boston has spent more of its own revenues on BPS. So even though fewer Chapter 70 funds are being spent on BPS, BPS is suffering no financial harm from charter enrollment.

"While the growth in charter schools does have a direct correlation to appropriations to the in-district system in some districts, this has not been the case in Boston," explains the Boston Municipal Research Bureau. "The City has continued to support the BPS despite growing charter school assessments. The true cost of charter expansion has not been a matter of revenue, but rather the struggle of eliminating excess capacity and rightsizing an urban school district."<sup>32</sup>

The difficulty that traditional district school systems have in efficiently restructuring is an important concern. Unlike charter schools, which enjoy relative administrative autonomy, district schools face rigid collective-bargaining agreements, work rules, vendor agreements, and various other regulations that make structural changes more difficult. As Daniel Warwick, superintendent of Springfield District Schools, has said, "If I'm only losing a few kids out of a school, truly, all my expenses are the same. So even if I get a reimbursement, it's a significant loss of revenue."<sup>33</sup>

If district schools had more administrative flexibility, charter enrollment would present a clearer win-win proposition. But because of the constraints that district leaders face, one can't necessarily conclude that the per-pupil increases yield a clear benefit. One can, however, conclude that the exclusive focus on net funding under Chapter 70 presents an incomplete picture of the financial effects of charter enrollment and that their impact on district schools is less dire than charter critics may allege.

## V. Do Charter Schools Improve or Harm Neighboring District Schools?

A quick review of the achievement record in the 10 districts with the highest percentage of students enrolled in charter schools should bely the fear that charter expansion is doing significant harm to district schools (**Figure 2**). On the Massachusetts Comprehensive Assessment System, the percentage of district school students who are advanced or proficient in English has gone up in all of Massachusetts's 10 most charter-rich districts, nearly 15 points on average. In math, the percentage has risen in eight of the 10 districts, nearly five points on average.

**FIGURE 2. PERCENTAGE OF STUDENTS SCORING PROFICIENT OR ADVANCED IN ENGLISH LANGUAGE ARTS (ELA) AND MATH IN THE 10 MOST CHARTER-RICH MASSACHUSETTS SCHOOL DISTRICTS, 2011–15**

District	ELA %, 2011	Math %, 2011	ELA %, 2012	Math %, 2012	ELA %, 2013	Math %, 2013	ELA %, 2014	Math %, 2014	ELA %, 2015	Math %, 2015	ELA, % Point Change, 2015 v. 2011	Math, % Point Change, 2015 v. 2011
Boston	67	62	73	65	79	64	76	64	82	67	+15	+5
Holyoke	61	56	63	47	74	54	72	55	75	53	+14	-3
Springfield	60	41	69	45	74	45	71	43	75	46	+15	+5
Malden	76	71	85	77	82	69	84	76	90	75	+14	+4
Fall River	67	52	71	56	80	57	78	54	83	57	+16	+5
Chelsea	59	51	68	54	74	57	77	56	78	49	+19	-2
Lawrence	48	31	55	34	66	44	63	44	67	47	+19	+16
Lowell	74	64	77	68	85	68	80	65	83	68	+9	+4
Marlborough	77	75	82	78	86	77	85	76	88	75	+11	0
Somerville*	68	61	74	59	85	69	82	68	85	73	+17	+12

\*Up-Island was excluded from this table because of lack of data and was replaced with Somerville, the district with the next largest share of charter enrollment for which data were available.

Source: "2015 MCAS Report (District) for Grade 10 All Students," Massachusetts Department of Elementary and Secondary Education

However, one can't conclude that this increase in district school performance is attributable to the presence of charter schools. The methodological difficulties in evaluating this issue yielded relatively few robust studies. In 2010, Yongmei Ni of the University of Utah and David Arsen of Michigan State University reviewed the academic literature evaluating this question.<sup>34</sup> Of 11 sufficiently rigorous studies of school districts across the U.S., five such studies found that charters positively affected reading or math scores in nearby district schools; three found that charters negatively affected nearby district schools; and three found that charters had no effect on nearby district schools. In most of these studies, the effect was small.<sup>35</sup> They conclude that the existing research does not support any strong claim about the effects of charter competition on district schools.<sup>36</sup>

Perhaps the most rigorous study of the question was conducted by Temple University professor Sarah Cordes. Whereas much of the literature examines district-level performance effects, Cordes studied school-level "spillover effects" of charter schools on their closest district school neighbors in New York City. She notes a mixture of effects

on traditional district schools. On the one hand, district schools located within a mile of a charter school tended to have less experienced teachers and higher percentages of low-income and minority students. On the other, she finds evidence of higher academic expectations, better communications practices, increased parent and student engagement, lower student-to-teacher ratios, and higher per-pupil spending. Cordes finds that charter schools increase the performance of nearby district schools by 0.02 standard deviations in reading and 0.06 in math.<sup>37</sup>

The research certainly isn't comprehensive enough to make conclusive predictions about the effect of future charter expansion, but there is little evidence that lifting the charter school cap would do significant academic harm to district schools.

## V. Conclusion

Massachusetts's charter sector is among the strongest in the country. In Boston, students in charter schools learn twice as much in a year as students in the city's district schools. The success of Massachusetts charter schools has not done demonstrable academic harm to traditional district schools; indeed, student achievement has risen significantly across the 10 districts with the highest local share of charter enrollment.

The enrollment in Massachusetts's charter schools means that local school districts lose more than \$400 million in aid under Chapter 70. But that figure ignores the role of local contributions and the fact that charter enrollment also effectively increases per-pupil spending by over \$85 million. On the whole, the evidence lends far more support to the arguments of charter proponents than those of charter opponents.

## Endnotes

- <sup>1</sup> “Charter School Enrollment Data Annual Report,” Massachusetts Department of Elementary and Secondary Education, Feb. 2016.
- <sup>2</sup> “Charter School Facts at a Glance,” Massachusetts Department of Elementary and Secondary Education, Aug. 2016.
- <sup>3</sup> “An Act to Allow Fair Access to Public Charter Schools,” Mass.gov.
- <sup>4</sup> “Governor Baker Testifies on Legislation to Improve and Expand Educational Opportunity and Charter Schools,” The Official Website of the Governor of Massachusetts, Oct. 13, 2015.
- <sup>5</sup> “Testimony of MTA President Barbara Madeloni on Charter School Ballot Initiative,” Massachusetts Teachers Association, Mar. 7, 2016. Of course, charter schools are public schools, so the premise of Madeloni’s claim that charter schools would “destabilize” and “undo” public education is false.
- <sup>6</sup> “Charter School Performance in Massachusetts,” Center for Research on Education Outcomes, Stanford University, Feb. 28, 2013.
- <sup>7</sup> James A. Peysner, “Boston and the Charter School Cap,” *Education Next* 14, no. 1 (Winter 2014): 14–20.
- <sup>8</sup> “Urban Charter School Study Report on 41 Regions,” Center for Research on Education Outcomes, 2015.
- <sup>9</sup> Ibid.
- <sup>10</sup> There is, however, a significant difference in the percentage of English-language learners: 8% in Boston charter schools and 30% in Boston Public Schools, according to the 2015 CREDO study referenced in n. 8 above. James Peysner notes in “Boston and the Charter School Cap” that Boston charter schools have increased recruitment efforts for English-language learners and that their enrollment numbers are rising.
- <sup>11</sup> Richard Whitmire, “All Over the Cap: The Fight for the Future of Massachusetts’ Charter Schools,” *The 74*, June 17, 2016.
- <sup>12</sup> See, e.g., the Shanker Institute’s Matt DiCarlo’s critique of CREDO results in New Orleans, “The Test-Based Evidence on New Orleans Charter Schools,” Apr. 27, 2012.
- <sup>13</sup> Sarah R. Cohodes et al., “Charter School Demand and Effectiveness: A Boston Update,” The Boston Foundation, Oct. 2013.
- <sup>14</sup> Atila Abdulkadiroğlu et al., “Accountability and Flexibility in Public Schools: Evidence From Boston’s Charters and Pilots,” *Quarterly Journal of Economics* 126, no. 2 (May 2011): 699–748.
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- <sup>16</sup> Matt Barnum, “Boston Charters Post Huge Test Gains, but Discipline Debate Could Hinder Expansion,” *The 74*, Dec. 1, 2015.
- <sup>17</sup> Sarah R. Cohodes, “Teaching to the Student: Charter School Effectiveness in Spite of Perverse Incentives,” May 2014.
- <sup>18</sup> “Fourth Annual Report Card, Jan. 2015,” The Boston Opportunity Agenda.
- <sup>19</sup> “New Data Shows 98% of 2016 Boston Charter High School Graduates Have Been Accepted to College,” The Center for Education Reform, June 22, 2016.
- <sup>20</sup> “Prepared For College. Prepared For Life,” Boston Prep.
- <sup>21</sup> Ibid.
- <sup>22</sup> Joshua D. Angrist et al., “Stand and Deliver: Effects of Boston’s Charter High Schools on College Preparation, Entry, and Choice,” *Journal of Labor Economics* 34, no. 2 (Apr. 2016): 275–318.
- <sup>23</sup> Lauren Camera, “Progressives in Massachusetts Shortchange Poor Kids, Governor Says,” *U.S. News & World Report*, May 3, 2016.
- <sup>24</sup> See Joshua Miller, “Charter School Opponents Kick Off TV Blitz,” *Boston Globe*, Aug. 1, 2016.
- <sup>25</sup> “No on 2—Bad for Our Schools,” Campaign to Save Our Public Schools.
- <sup>26</sup> Ibid.
- <sup>27</sup> Massachusetts Teachers Association, “District Funds Lost to Charter Schools.”
- <sup>28</sup> Lawyers’ Committee for Civil Rights and Economic Justice, “Lawyers’ Committee Moves to Intervene in Charter Cap Case on Behalf of Students of Color, Students with Disabilities, and English Language Learners.”
- <sup>29</sup> Boston Municipal Research Bureau, “The True Cost of Boston’s Charter Schools,” Apr. 3, 2016.
- <sup>30</sup> Ken Ardon and Cara Candal, “Assessing Charter School Funding in 2016,” Pioneer Institute, April 2016.
- <sup>31</sup> Boston Municipal Research Bureau, “The True Cost.”
- <sup>32</sup> Ibid.
- <sup>33</sup> Michael Levenson, “Money Is at the Heart of the Mass. Charter Debate,” Apr. 2, 2016, *Boston Globe*, Apr. 2, 2016.
- <sup>34</sup> Yongmei Ni and David Arsen, “The Competitive Effects of Charter Schools on Public School Districts,” in Christopher A. Lubienski and Peter C. Weitzel, eds., *The Charter School Experiment: Expectations, Evidence, and Implications* (Cambridge, MA: Harvard Education Press, 2010).
- <sup>35</sup> Ibid., p. 115.
- <sup>36</sup> Ibid., p. 118.
- <sup>37</sup> Sarah Cordes, “The Spillovers of Charter Schools on Neighborhood Public Schools: Evidence From New York City,” Institute for Education and Social Policy, June 17, 2014.



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