MASSACHUSETTS CHARTER PUBLIC SCHOOLS
BEST PRACTICES IN CURRICULAR INNOVATION

by Cara Stillings Candal
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**Executive Summary**

The ongoing push to raise or eliminate the charter school cap in Massachusetts provides an opportunity to reflect upon the purpose of charter schools. When the legislature created the Commonwealth’s charter school law, as a part of the 1993 Massachusetts Education Reform Act (MERA), it clearly stated a main reason for these new schools was innovation. Charters were expected to provide new curricular and pedagogical options and even experiment with existing school structures, such as grade configurations and the length of the school day and year.

For the first decade of their existence, charter schools innovated in many different ways. As new charter schools were authorized, they offered different school structures, cultures, and rigorous new approaches to curricula. Much as the legislature had hoped, these innovations produced dramatic results: Today many of the Commonwealth’s charters rank among the best public schools in nation. Moreover, public schools, especially those in large urban districts such as Boston, have benefited by adopting some of the practices pioneered in the charter sector.

Although, the authorization of new schools with innovative ideas has slowed in recent years—mainly as the result of a stringent cap on the expansion of charter schools and of regulations that onerously define which charter schools can expand—innovation persists in the charter sector. One way in which some charters innovate is by providing unique curricula or curricula that are more commonly used in the private school sector and experimenting with the structures and pedagogies through which curricula are delivered.

This paper highlights two Massachusetts charter schools that offer curricular opportunities rarely available in other public schools in Massachusetts. Both of these schools enable students to achieve exceptional results in comparison to their peers in traditional district schools.

The Mystic Valley Regional Charter School (MVRCS) consistently ranks among the best schools in Massachusetts and the country. It offers two distinct but complementary curricula — the Core Knowledge Curriculum at the elementary and middle school levels and the International Baccalaureate (IB) curriculum at the high school level. At the elementary level, MVRCS also uses a specific pedagogical approach to reading instruction called Direct Instruction (DI). DI is one of the only approaches to reading instruction that is backed by rigorous, longitudinal research demonstrating that it boosts student achievement. Despite this, schools nationwide employ DI at comparatively low rates. Administrators and faculty members at Mystic Valley view this pedagogical approach as a critical component enabling students to access the Core Knowledge and IB curricula.

At the Advanced Math and Science Academy (AMSA) in Marlborough, MA science and math are the “driving forces” behind much of the curricular content, but students are exposed to holistic and rigorous content in all subject areas. The curriculum is horizontally and vertically aligned and follows a logical, chronological sequence of content from grade to grade, enabling students to make intellectual connections not just within but also among and between content areas. Students at AMSA report not only that they have received a more intentional and rigorous education than they believe they can find in other school settings but also that they derive great joy from being at their school and relish the opportunities they know it will afford them in higher education.

In the current policy environment, understanding some of the important innovations that charter schools offer to students and families can productively inform the debate. The schools profiled here are providing high caliber educational opportunities and interesting curricular options to students and families in the communities that they serve.
**Introduction**

A mere five years after the Massachusetts legislature raised the charter school cap in underperforming districts, charter advocates have initiated a three-pronged attempt to raise the cap again. In October of 2015, the legislature's Joint Committee on Education heard "more than 30 bills related to charter schools, including those filed by Governor Charlie Baker and Boston mayor Marty Walsh." A push to put a question related to the charter school cap on the 2016 ballot is currently underway, as is a class-action lawsuit alleging that the cap on charter schools is denying students their right to an adequate education.

The majority of bills heard by the education committee and the proposed ballot initiative take a cue from the 2010 Act Relative to the Achievement Gap. They propose to raise the cap in chronically underperforming districts, thus framing charter schools as tools for turnaround that should be made available mainly to students who do not have access to high quality public education. Charter schools, which consistently outperform their traditional public counterparts in the Commonwealth, can provide excellent educational opportunities where they do not already exist. But that is not all charter schools can do, nor is it why the Massachusetts legislature conceived charter schools in the first place.

The Massachusetts Education Reform Act (MERA) of 1993 enabled charter schools. In crafting the law, the legislature stated several related purposes of charter schooling. Providing families with greater choice and establishing a new model of accountability for educational outcomes were two of the stated purposes of charter schools. The other four purposes outlined in the legislation speak to the possibilities charters hold for educational innovation. Lawmakers conceived charter schools to:

- Stimulate the development of innovative programs within public education
- Provide opportunities for innovative learning and assessments
- Provide teachers with a vehicle for establishing schools with alternative, innovative methods of educational instruction and school structure and management
- Encourage performance-based educational programs

This original focus on leveraging charter schools for innovation matters not only because charters across the Commonwealth have developed innovative educational programs and structures, but also because recent attempts to raise the cap, though well-intentioned, stand to further hamstring charters from innovating in ways the legislature intended. The 2010 legislation limited charter expansion in underperforming districts to "proven providers," or operators with an existing track record. In doing so, it prevented new charter operators from entering certain districts. It has also encouraged the replication of existing models as opposed to encouraging innovative new ideas for turning around under-performing districts. Current efforts to raise the charter cap or lift it entirely are framed in similar language, undermining the potential for charters to serve students in innovative new ways.

In this policy environment it is important to remember how charters schools have innovated in the past. In 1993, for example, structural innovations that many charters have since embraced, such as longer school days and years, supplemental services (such as tutoring for students), and targeted, on-site teacher training were new ideas. What has come to be coined the “No Excuses” model of schooling, one associated with school uniforms, high expectations for student performance and behavior, and the refusal to accept student background or poverty as reasons for underperformance, did not exist in 1993. Now 20 years old, this once innovative model has spread from Massachusetts’s schools to charters and districts nationwide.
Massachusetts charters have also innovated in curriculum and pedagogy. The Academy of the Pacific Rim, one of the first Massachusetts charter schools, was founded on the premise of “combining the best of the East—high standards, discipline and character education, with the best of the West—a commitment to individualism, creativity and diversity.”

The Francis W. Parker Charter Essential School—a member of the Coalition of Essential Schools established by Theodore Sizer at Brown University—re-envisioned an approach to public education, which includes “personalized teaching and curriculum,” heterogeneous classrooms, student-centered classroom activities, and an approach to assessment that is focused on an “exhibition” of student mastery, as opposed to the exclusive use of standardized or other ‘paper and pencil’ assessments.

The availability of alternative curricula and pedagogical approaches has been a hallmark of the charter movement that receives little attention in comparison to the structural innovations that are common to most Massachusetts charter schools. These alternatives provide true choice for students and families, and enable individuals to pursue an education that they find engaging and exciting. Moreover, curricular and pedagogical innovations—when successful—can spread across sectors.

The following paper highlights two Massachusetts charter schools that offer students and families innovative curricula and pedagogical approaches: Mystic Valley Regional Charter School (MVRCS) and Advanced Math and Science Academy (AMSA). These schools have also innovated structurally to accommodate their approaches to curriculum and pedagogy. Both are ranked among the 10 top-performing public schools in the Commonwealth and both are guided by strong missions and visions for what students will be able to do and who they will be upon graduation. Together these two schools provide a window into how similarly rigorous but very different curricula and pedagogical approaches can enable students to achieve.

**Framing Innovation**

Innovation, according to Kim Smith—co-founder of Bellweather Education partners and founder of the Pahara Institute—says that innovation and social change, can take many different forms. At its base, innovation is a new approach that brings an improved result—“innovations can be small or large, mostly recognizable, or entirely new or different.”

The schools described in the following pages represent “sustaining innovations” for school curricula: they are not radically new, but they “build upon an existing architecture (in this case traditional curricular design and content) and make improvements.” Indeed, in some ways the curricula offered at the two schools profiled here are very traditional; they do not emphasize content that is radically different than what one would find in other public schools, nor do they present that content using a radically different pedagogical approach. Rather, they have taken curricular content, refined it, and made structural adjustments and appropriate pedagogical accommodations to come up with something that provides a distinct and new experience for students.

Creating and adapting curricular content—especially content that must align with state standards—starts with a clear idea of what students need to know and be able to do at each grade level. The charter context enables innovation because charter schools are accountable for creating and delivering upon a specific vision for students. Offering curricula or other elements of schooling that are aligned with a distinctive vision is just one strategy that successful charter schools employ to recruit and retain students.

Moreover, charter schools, which are a structural innovation within the traditional public system, have basic features that can foster innovation at the school level. Extended school days and years allow additional opportunities for teachers to collaborate, which can lead to innovations in the
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content and execution of curricula, among other things. Flexibilities around hiring, likewise, can help school leaders attract and retain teachers who are eager and willing to innovate in ways aligned with the school’s mission. Especially in a policy environment marked by transition from Massachusetts Comprehensive Assessment System standards to “MCAS 2.0,” these structural features of charter schools can enable stakeholders to continue to innovate while delivering the required curricula—something that may be more difficult in the traditional public context.

Mystic Valley Regional Charter School

Mystic Valley Regional Charter School was created with the vision of “providing a world class education to every student,” in grades K-12. The school’s founders wanted to ensure that students graduate not only with skills but also with deep knowledge of relevant, rigorous content and with the character traits and manner that will allow them to thrive after high school.

Students at Mystic Valley (MVRCS) consistently earn some of the top standardized test scores in the state. Students come from several communities in the Mystic Valley region, including Everett, Malden, Medford, Melrose, Stoneham, and Wakefield. Drawing from such a wide range of communities, MVRCS attracts a “rich mix” of families that all have “one thing in common,” according to Executive Director Martin Trice: “they see education as key for moving their children to the next level of success.”

The school achieves its results in part through an intentionally conceived curriculum that emphasizes content knowledge. At the K-8 level, students at MVRCS are taught using the Core Knowledge Curriculum, which has been adopted by only three other public schools in Massachusetts. The philosophy behind the Core Knowledge curriculum is that students need both knowledge and thinking skills—the curriculum itself is a reaction to an idea, prevalent in American education in the past 50 years—that teaching for skills acquisition is the best way to make students “college and career” ready.

The school’s adoption of this highly specific curriculum also pre-dated the Massachusetts Comprehensive Assessment System (MCAS), which speaks to the strong belief held by the school’s founders that “students may move at a different pace based on individual needs, but all students, regardless of background or perceived ability, should be exposed to the same curriculum.”

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*Mystic Valley Regional Charter School, 2015 MCAS Results, In Comparison (All Grades)

*In Malden, the district in which MVRCPS is located, assessment participation was low on the 2015 MCAS. The Commonwealth has therefore suppressed “all grades” achievement results and student growth percentiles.

**This school is deemed “demographically comparable” to MVRCS by DESE. Information taken from: http://profiles.doe.mass.edu.

Student Growth Percentile (SGP): a measure of student progress determined by comparing “one student’s progress on MCAS to the progress of other students with similar MCAS performance histories.” See: http://www.doe.mass.edu/mcas/growth/InterpretiveGuide.pdf
Whereas school curricula commonly make broad statements, aligned to standards, about skills or categories of knowledge that students should have, the Core Knowledge Curriculum is specific and intentional: It states exactly what content students should learn in language arts, history, geography, math, science, and the fine arts at each grade level. In this, there is “horizontal integration” of subjects—students commonly work on “multidisciplinary projects” at a given grade level. The curriculum also builds vertically from grade to grade, so that the content students experience at one grade level is explicitly linked to the content they have learned before.

The step-by-step delineation of the content teachers should teach is a critical component of Core Knowledge, which takes the “guess work” out of identifying and prioritizing what students need to know. E.D. Hirsch, the founder of the Core Knowledge Foundation, firmly believes that all students, regardless of family background or ability, should be exposed to content that gives them the ability to succeed in today’s society; he emphasizes the importance of giving children intellectual and cultural capital by exposing them to content that is in many cases only reserved for the most educated Americans.

Thus teachers at Mystic Valley can, in most cases, plan lessons and deliver content as they see fit, but Core Knowledge provides a clear outline of what lessons should include. Of note is that MVRCS adopted the Core Knowledge curriculum even before Massachusetts adopted its own curriculum frameworks; the founders of the school had already identified a need for each and every student to be exposed the same ideas and therefore have the opportunity to cultivate the same skills.

There is one area of instruction in which teachers at Mystic Valley have very limited autonomy. When elementary students are acquiring language and learning to read, MVRCS employs a Direct Instruction (DI) pedagogical model, which is a scripted, systematic approach to teaching. Though not related to Core Knowledge, DI is also an “off the shelf” model of teaching—one in which teachers are given a prescribed, step-by-step approach to teaching literacy. DI groups students according to ability level and is designed to “ensure mastery of content” and allow teachers to “accommodate individual rates of learning.” It also employs frequent assessments in an attempt to ensure “100 percent mastery. . .whether a student is advanced, an “average performer” or requires special instructional supports.

Some balk at the idea of requiring highly trained educators to use a scripted curriculum, but administrators at MVRCS point out that delivering content using DI is a “specialized craft.” “It takes bright, energetic people to engage with kids,” notes Gina Mullin. “With an approach as clear as DI we can focus on the question ‘are the students learning?’ rather than the question ‘is the teacher teaching?’” Moreover, the evidence suggests that DI works: rigorous studies (including six large meta-analyses) comparing DI to other forms of reading instruction have found that no other program shows “such consistently strong effects with students of different ability levels, of different ages, and with different subject matters.”

Evidence also suggests that the K-8 curriculum at Mystic Valley is working—a contention that is supported by Mystic Valley’s high MCAS scores and college-going rates for graduates. MVRCS ninth graders are prepared for rigorous high school work. Notes one administrator:

> Attrition is generally low at our school, so most of the students who finish with us have been here all along. By the time students get to high school, the playing field has been leveled; differences that might have existed when students started school have been minimized, so that all students are prepared for college preparatory work.

In the class of 2015, all 86 MVRCS (100 percent) graduates completed “MassCore,” which requires four years of English math and science, two years of a foreign language, one year of arts courses, and five additional “core” courses. Only two of the MVRCS’s sending districts boast the same
result; four do not. In Malden, the city in which MVRCS is located, only 39 percent of students passed complete MassCore.\textsuperscript{27} MVRCS’s MCAS and SAT results are also so impressive that \textit{U.S. News and World Report} named Mystic Valley one of the top high schools in the nation, and one of the eight best schools in Massachusetts.\textsuperscript{28}

Importantly, the completion of MassCore is a comparatively low bar at Mystic Valley, where students can pursue one of three high school tracks: college prep, honors, and high honors. The differences between these tracks is clearly outlined for students and families: college prep courses are broadly described as a track for students who might require comparatively intensive assistance and who, for example, might still benefit from cultivating certain skills (organizational and otherwise) that will benefit them in college. Honors students focus less on such concrete skills and are challenged on a more analytical level, focusing on reading “at the inferential level,” for example. High honors students move through material at a fast pace “and can expect rigid deadlines, concurrent assignments, and high standards.” They complete “complex writing assignments that prepare them for International Baccalaureate (IB) standards and assessments.”\textsuperscript{29}

The IB is a curriculum and diploma program recognized by top universities around the world, though only nine schools in Massachusetts offer it, and many of them are private.\textsuperscript{30} The IB curriculum comprises six\textsuperscript{31} subjects and focuses on helping students “learn how to learn, develop a strong sense of their own identity and culture, and develop the ability to communicate with and understand people from other countries and cultures.”\textsuperscript{32} At Mystic Valley students have the opportunity to move on to IB courses in the 11th grade. In 2015, 11 of the school’s 96 graduates received the prestigious IB diploma.

Transparency around tracking at Mystic Valley is another feature that separates the school from many of its counterparts. Indeed, sociologists have for decades framed tracking as a rather insidious tool that schools use to "structure inequality"—a tool of which students and families are largely unaware.\textsuperscript{33} At Mystic Valley, parents and students are framed as active participants, who choose the track of study they feel is most suitable, considering, of course, a student’s achievement on assessments and prior coursework.

The school designed its Course of Study, which clearly describes the course requirements and options at each level of high school, in an effort to inform students and parents of the “important [curricular] choices” that can “enable or limit future opportunities” in a given subject area. In providing such clear description of each track and its “consequences,” MVRCS attempts to provide students with the flexibility to move among tracks, all the while reminding them that mastery of coursework at a given level is a pre-requisite for progression.

This structure and its transparency are, perhaps, what makes MVRCS’s curriculum so innovative. The school has taken several widely available (though not necessarily widely used) curricular approaches and married them in a way that is entirely new. Its approach not only enables academic success but also provides unique opportunities for students and parents. When they graduate from Mystic Valley, most students go on to four-year colleges, many of them high-ranking. They take with them a wealth of content knowledge and experience that many of their fellow graduates do not.

**Advanced Math and Science Academy (AMSA)**

Like Mystic Valley, the Advanced Math and Science Academy Charter School, located in Marlborough, MA, enables students to perform at very high levels. The school, which opened in 2005, serves grades 6-12. For a young school, AMSA boasts many accomplishments, including being named the “fourth best charter school in the Commonwealth” by \textit{U.S. News and World Report}.\textsuperscript{34}
AMSA is commonly referred to as a STEM school, because of its strong focus on science, technology, and mathematics, but these emphases aren’t what make AMSA or its curriculum innovative. There are content and structural features of the curriculum at AMSA that set the school apart from others, but the key is an overall focus on providing a rigorous curriculum, one that emphasizes the learning of “complex, abstract concepts from an early age.” AMSA’s founders noted in their initial charter application the desire to provide every student with a “world class education.” AMSA has a reputation for doing just that: parents can access an excellent college preparatory education more commonly found in expensive private schools than in the public school sector. Executive Director Joe McCleary notes that the “less advanced students (at AMSA) are more challenged than the most advanced students in many other public schools.”

Families are drawn from several towns around Marlborough because of this reputation: the school also draws students from Hudson, Maynard and Clinton, and since its founding many of the families that AMSA has attracted have been immigrants to the United States with one or both parents working in the technology sector. The rigor of the school’s curriculum, especially in comparison to the well-supported perception that American public schools are “behind” in math and science education, is one reason why AMSA attracts these families. The demographics of the school are shifting, however; as the school has built its reputation for excellence, more Marlborough families, many of whom do not have backgrounds or jobs in science and technology, are enrolling their students at AMSA.

When students enter AMSA in the sixth grade they embark upon a course of study that will prepare them for graduation requirements that go far beyond what is required in a typical public school. Algebra, trigonometry, geometry, and calculus are all ‘core subjects,’ usually completed by the time a student enters 11th grade. Juniors and seniors are able to choose from a variety of “capstone courses in mathematics,” such as honors and AP calculus, multivariate calculus, linear algebra, and financial math. As a point of comparison, a student could pass the MCAS—a high school graduation requirement—showing proficiency in content no more rigorous than algebra. Pre-calculus is considered an “advanced pathway” in the Massachusetts Curriculum Frameworks.

Providing students with the content knowledge and skills required for success at this level is no small feat; it requires a structured curricular approach, individualized student support, frequent targeted assessments, and highly effective teaching. All these things, notes

| Advanced Math and Science Academy, 2015 MCAS Results, In Comparison (All Grades) |
|-------------------------------------|----------------|----------------|----------------|
|                                     | English Language Arts | Math          |
| % Proficient or Higher              | Student Growth Percentile | % Proficient or Higher | Student Growth Percentile* |
| Advanced Math and Science Academy   | 93%   | 55%   | 85%   | 54%   |
| Marlborough (district)              | 63%   | 51%   | 54%   | 48%   |
| Francis W. Parker Essential School* | 89%   | 36%   | 77%   | 45%   |

*This school is deemed “demographically comparable” to AMSA by DESE. Information taken from: http://profiles.doe.mass.edu.
Student Growth Percentile (SGP): a measure of student progress determined by comparing “one student’s progress on MCAS to the progress of other students with similar MCAS performance histories.” See: http://www.doe.mass.edu/mcas/growth/InterpretiveGuide.pdf
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high school math teacher, Lauren Galiardi, are important throughout a student’s career at AMSA. She says that the school does an especially good job of “leveling” differences in math ability that are often apparent when students enroll: “Not all students come to us with the same background or abilities, but they are largely on equal footing when the reach high school.” For Galiardi, AMSA’s results are evidence of what the right curriculum and teachers who are experts in their content areas can do for students.42

This is not to suggest that all students graduate AMSA with equal exposure to content or with the same skills in a given subject area. Much like at Mystic Valley, AMSA students can choose from one of several tracks, which are meant to be “permeable.”43 Students take the college prep, honors, or advanced track in each subject area, and they have access to Advanced Placement (AP) courses in certain subject areas.44 In 2015, 292 AMSA students took a total of 553 AP exams across subject areas, and most handily outscored national averages.45

Other unique curricular content at AMSA include the requirement that all students take computer science courses every year in grades 6 through 11.46 While some students will take “advanced electives in engineering or AP computer science,” all students are exposed to critical computer science content by the time they graduate from AMSA, including networking, computer-aided design and drafting, and robotics.47

Beyond the “driving forces” of math and science content, there are structural features of the AMSA curriculum that make the school unique. Specifically, there is a logical, chronological sequence of content from grade to grade, so that from grades 6 to 11 students progress from Greek literature to Roman literature, all the way up to the modern period in European and world literature.48 Moreover, at each grade level there is very intentional horizontal alignment between the art, history, and literature curricula: students might be studying Greek history, reading the Iliad, and learning about Greek art simultaneously.49 Students also take three years of Latin in grades 6-8 before choosing among other foreign languages at the high school level. Exposure to Latin, notes one AMSA senior, is an experience Massachusetts students don’t typically have and that makes a critical difference in the ability to study math and science at very high levels. “It’s so great that we have Latin,” she remarks. “I don’t have many friends outside of AMSA that get to take Latin.”50

The delivery of rigorous content in an intentional way requires that staff have content area expertise, and hiring decisions are made with this in mind.51 Faculty within and across departments also have time to work together in content area and grade level teams to ensure curricular alignment and leverage student-level data that informs key decisions about courses of study and individualized supports for students. “We do emphasize outcomes, such as test scores,” notes history department chair and AP teacher, Anders Lewis, “but more importantly we want to see students grow and we want to ensure that our students are challenged. As an AP teacher, some of my greatest moments have been watching students go from a 1 (on the AP test) to a 4.”52 Students at AMSA understand that they are cared for and supported, and this stands out to them as a unique feature of the school’s culture.

We are perfectionists here and everybody is smart. I might have been in the top 10 percent at [my district school] but here I am in the top 50 percent. We work because we like the challenge and we know that are teachers enjoy being here. The teachers are always available, and they believe in us a lot.53

This student comment on the school’s culture of support is important to understanding AMSA’s success. In recent years the school has attracted press for being one of only a handful of Massachusetts charter schools where teachers have decided to unionize, due to what some have described as poor management and a “culture of intimidation” among the school’s administration.54 The hiring of a new executive
director, Joseph McCleary, in 2015 along with other high-level administrative staff is an attempt to change the adult culture in the school. Positive reports from students who have been at AMSA throughout this time speak to the idea that the dedication of an excellent teaching staff coupled with unique curricula and other opportunities for learning serve students and families very well.

Conclusions and Recommendations

In a policy environment that is increasingly constraining educational innovation, it is important to recognize and highlight innovation where it exists. The two schools profiled in this report seem, at first blush, traditional in their approaches to teaching and learning, but the content and structure of their curricula suggest otherwise. Moreover, what these curricular approaches are enabling students to do is remarkable. The results that students at Mystic Valley and AMSA achieve are setting a high bar for schools across Massachusetts.

The curricula that these schools use could be adopted and/or adapted in any school context, but it is not the curricular content alone that is innovative. In both of the schools profiled here, administrators and teachers have paid careful attention to curricular structure and deployment, something that schools seeking to understand “best practices” should consider. In this regard, the charter context is very important; both Mystic Valley and AMSA help students achieve by “getting them early” and “leveling the playing field” in elementary and middle school. Moreover, both schools have greater flexibility when hiring teachers and planning for their professional development—they need not consider the same union constraints that hamstring many of their district counterparts.

Recommendations

• State policies should encourage innovation as opposed to replication in the charter sector: The state should continue to encourage “proven providers” to replicate, but it should also encourage those providers

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*AP Tests are scored on a scale of 1-5, 1 being the lowest score awarded and 5 being the highest.
to differentiate programming in order to provide families with additional choices.

- **DESE should encourage charter applications that offer innovative curricula and curricular structures:** In the age of “MCAS 2.0” parents have limited choices for alternative curricula in the public school sector. The schools profiled here not only provide innovative curricula that align with state requirements, they also provide curricula that help students to exceed state requirements and expectations. Using schools like these as models, DESE should encourage charter applicants and district schools to view the state mandated curriculum as a floor rather than a ceiling and something that can be adapted rather than simply adopted.

- **Policymakers should consider how school structures impact student outcomes:** Many charter schools have come to realize that enrolling students earlier can enable better opportunities and outcomes. Creating more K-12 and 6-12 schools in traditional districts can ensure greater continuity for students and greater opportunity for schools to structure intentional, comprehensive curricula.
About the Author

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About Pioneer

Pioneer Institute is an independent, non-partisan, privately funded research organization that seeks to change the intellectual climate in the Commonwealth by supporting scholarship that challenges the “conventional wisdom” on Massachusetts public policy issues.

Recent Publications


*How PARCC’s False Rigor Stunts the Academic Growth of All Students*, White Paper, October 2015

*Bay State Specialists and Dentists Get Mixed Reviews on Price Transparency*, White Paper, August 2015


Endnotes

5. Massachusetts Education Reform Act, Chapter 71, Section 89.
13. ibid
15. In October 2015 Commissioner of Education, Mitchell Chester, announced that Massachusetts would likely not use the PARCC assessment but would create an assessment that leveraged PARCC standards but created something new, specific to Massachusetts. He referred to it as MCAS 2.0. See, for example, Fox, Jeremy, “Education chief suggests a blend of assessment tests,” The Boston Globe, October 20, 2015.
19. Interview with Chris Finn, Lower School Principal, Mystic Valley Regional Charter Public School., Sept. 30, 2015
20. Interview with Gina McKinnon, Professional Development Coordinator, Mystic Valley Regional Charter Public School., Sept. 30, 2015
21. Hirsch, E.D. The Schools We Need And Why We Don't Have Them, p. 20.
22. Interview with Chris Finn
24. Interview with Gina McKinnon
26. Interview with Jennifer Mullen, Professional Development Coordinator, Mystic Valley Regional Charter High School, September 30, 2015
30. [http://www.k12academics.com/national-directories/ib-school/Massachusetts#.VkLFhemFtUQ](http://www.k12academics.com/national-directories/ib-school/Massachusetts#.VkLFhemFtUQ)
31. Language, second language, individuals and societies, experimental sciences, mathematics and computer sciences and the arts
36. *ibid*
37. Interview with Joseph McCleary, Executive Director, Advanced Math and Science Academy, September 28, 2015.
40. Interview with Joseph McCleary
42. Interview with Lauren Giliardi, September 28, 2014.
43. Interview with Joseph McCleary.
44. Advanced Math and Science Academy Charter School, Program of Study
45. Advanced Math and Science Academy, AP 2015 Year Score Summary
46. Interview with Joesephy McCleary
47. Advanced Math and Science Academy Charter School, Program of Study
49. Interview with Dr. Anders Lewis, September 28, 2015.
50. Interview with AMSA senior, (name withheld), September 28, 2015.
51. Interview with Dr. Anders Lewis
52. *ibid*
53. Interview with AMSA senior, (name withheld), September 28, 2015.