

# **Appendix B:** Legislation and Other Government Documents

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# A Foundation for the Future:

## Massachusetts' Plan for

## Excellence in STEM Education

*Science, Technology, Engineering and Mathematics*

*(Version 1.0)*

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Building the pipeline of STEM professionals to fuel  
Massachusetts' innovation economy

September 28, 2010



A Plan from the Governor's STEM Advisory Council

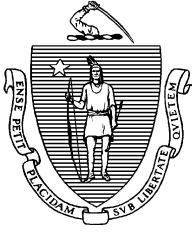
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LIEUTENANT GOVERNOR

September 28, 2010

Dear All,

On behalf of the Governor's STEM Advisory Council, I am pleased to submit "A Foundation for the Future: Massachusetts' Plan for Excellence in STEM Education" at the 7<sup>th</sup> Annual STEM Summit. Over the last year, we have formed a strong partnership to work towards shared goals as we make significant improvements in STEM fields. I thank every single person involved in this process, ranging from professionals in academia, workforce training, and economic development to our partners in the private sector and community organizations. Strengthening and improving education for our future generations is a key priority of mine, the Patrick-Murray Administration, and the Governor's STEM Advisory Council. Once implemented, this plan will serve as a guide as we move forward in our efforts to make long-lasting and critical strides in STEM that will positively impact communities across the Commonwealth.

Developing a pipeline of STEM graduates is not only important for Massachusetts, it is critical to the success of our nation as a whole. With baby boomer retirements expected to deplete the science and technology workforce by 50% over the next decade, we are at risk of losing our leadership in technology and innovation. Eighty percent of jobs created in the next decade will require math and science skills. Creating this new plan is a generational responsibility for the future of our children and the Commonwealth.

This plan includes the operational infrastructure to review best practices with the intention to also scale and sustain them. Additionally, this plan sets five goals with key benchmarks to work towards over the next five years, details new recent partnerships with the National Governors Association's Center for Best Practices, the Innovate+Educate Initiative, and the Massachusetts

Life Sciences Center, and describes how funding from the STEM Pipeline Fund and federal funding from the Race to the Top Award will support STEM.

On October 14, 2009, Governor Deval Patrick signed Executive Order #513 creating the STEM Advisory Council. In less than a year, we have built a diverse statewide coalition among educators, workforce development professionals, economic development specialists, cabinet members, non-profit partners and interagency leaders from state agencies to coordinate and work together on this comprehensive plan. The creation of this Council within the Executive Branch was recognized by the U.S. Department of Education as one of the reasons Massachusetts' Race to the Top application received a 100% score on the STEM component. The Council's collaborative work was also recognized by NASA who selected the Massachusetts Space Grant Consortium as one of only four state consortiums and was awarded \$1.5 million from NASA's Summer of Innovation Program. I am proud of these accomplishments and know many more will come because of the Council's future hard work and dedication.

I want to thank all members of the Council and its six Subcommittees and the staff who supported them. A special thank you to the subcommittee co-chairs for their leadership. I also want to recognize two important leaders in our state and members of the STEM Advisory Council who are moving on to new careers. University of Massachusetts President Jack Wilson and State Representative Daniel Bosley are key leaders whose legacy in and around STEM will live on in our work. I also want to thank Adam Freudberg in the Lt. Governor's Office, David Cedrone and Keith Connors in the Department of Higher Education, and Marissa Cole in the Executive Office of Education for seeing this plan through to completion.

Yours truly,

A handwritten signature in black ink, appearing to read "Timothy P. Murray". The signature is fluid and cursive, with the first name "Timothy" and last name "Murray" clearly legible.

Timothy P. Murray  
Lieutenant Governor  
Chairman, Governor's STEM Advisory Council

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## Executive Summary

Massachusetts has a rich tradition of invention and ingenuity in the areas of scientific discovery and technological innovation. However, our world leadership position is being challenged as a result of rapidly developing global competition. To assert and maintain leadership in knowledge-based and innovation-driven industries, Massachusetts must develop a highly educated and skilled workforce, internationally benchmarked, that is deeply grounded in the subject knowledge and application of science, technology, engineering and mathematics (STEM).

To establish and maintain a diverse, robust and dynamic pipeline of future STEM professionals who are globally competitive, it is necessary to:

- nurture students' innate curiosity at a young age and spark student interest and excitement in STEM subjects through authentic experiential learning, beginning in early childhood and sustained throughout PreK-16 education and beyond;
- further improve Massachusetts' already nationally recognized system of standards, curriculum and assessments to ensure excellence, rigor and coherence in the framework for STEM education;
- effectively prepare teachers to support ALL students as they develop a baseline fluency in STEM subjects as 21<sup>st</sup> century citizens and engage *significantly* more students in pursuit of STEM-based higher education and careers

This challenge must be addressed through the commitment, leadership, and provision of resources by the entire community and be embraced at every level of the system – from state government, to schools, community-based organizations, associations and institutions of informal education. As well as by students, their parents and families, educators (PreK-12, including vocational-technical schools to post secondary university faculty), STEM employers and practicing STEM professionals from *all* industry sectors, as well as state and local government officials.

### ***A Foundation for the Future: Massachusetts' Plan for Excellence in STEM Education (Version 1.0)***

To achieve breakthrough results in the long-standing challenge of preparing *all* students to be fluent in STEM subjects and to engage and prepare a significantly larger and more broadly representative population of students for STEM professional careers requires a commitment to whole-system transformation.

The framework for this transformation is defined by:

1. A Theory-of-Action
2. Quantitative and Qualitative Goals
3. A System of Public/Private Governance
4. STEM Education Policy and Best Practice Initiatives
5. A Timeline for Results
6. Funds and Resources

The **Theory-of-Action** for this plan describes core elements of the PreK-16 education system aligned and integrated with applied “real world” learning opportunities to excite, and sustain student awareness, interest and motivation for STEM applications, and to promote and support rigorous academic preparation for STEM post-secondary education and careers. These elements include: Community Engagement, Academic Coherence, Educator Development and STEM Employer and Professional support.

Five **Quantitative Outcome Goals** frame the intended results of this plan including: Student Interest Student Achievement, College STEM Readiness, STEM College Graduation and Educator Effectiveness. In addition, for each of the five goals, subordinate objectives focus on specific and critical areas that will require targeted program attention.

Massachusetts STEM Key Goals
1. Increase student interest in STEM.
2. Increase STEM achievement of PreK-12 students.
3. Increase the percentage of students who demonstrate readiness for college-level study in STEM fields.
4. Increase the number of students who graduate from a post-secondary institution with a degree in a STEM field.
5. Increase the number/percentage of STEM classes led by effective educators, from PreK-16.

This whole-system transformation of STEM education requires distributed yet coordinated efforts of everyone involved in STEM education and programming from across the Commonwealth. To provide the necessary coordination of funding and institutional resources, a **System of Public/Private Governance** will prioritize, assess and recommend STEM education policies and selected best practice programs for regional or statewide implementation. The Governor’s STEM Advisory Council provides overarching leadership for the plan and will take-up STEM education policy and initiative recommendations for consideration. A subcommittee of the Governor’s STEM Advisory Council – the Statewide STEM Operations Board, will coordinate “best practice” program vetting, funding and implementation evaluation through the Regional STEM Collaboratives. Local adaptations of best practice programs and new innovations led by front-line educators will complete the portfolio of initiatives. Finally, the Goddard Council will oversee a STEM Fundraising Task Force that will pursue federal, corporate and foundation funding sources to support critical initiatives of the plan.

During the months leading up to the announcement of this plan, a number of thoughtful and focused recommendations for **STEM Education Policies and Best Practice Programs** were developed through the work of broadly representative subcommittees convened by the Governor’s STEM Advisory Council. These recommendations and more provide the starting agenda of action initiatives to be taken-up for consideration by the Governor’s STEM Advisory Council in the days ahead.

The **Timeline for Results** highlights currently approved and funded STEM initiatives for this, the first version (V1.0) of the five-year plan. Annual versions of the plan will include phased

implementations of policies, best practice programs and initiatives based upon available funding and resources.

The **Funds and Resources** necessary to support and compliment this initial version of plan include: the STEM Pipeline Fund, the Race to the Top award, a new equipment and supplies program from the Massachusetts Life Science Center, and a grant from Innovate+Educate as part of a new partnership with the National Governors Association's Center for Best Practices.

### ***Education Improvement and Reform: Race to the Top***

With the leadership and support of Governor Patrick and Lieutenant Governor Murray, Massachusetts submitted a robust Race to the Top (RTTT) plan that includes bold and innovative strategies for addressing four required reform assurances and four ambitious objectives:

- Attract, develop, and retain an effective, academically capable, diverse, and culturally competent educator workforce to ensure that every student is taught by a great teacher and every school and district is led by a great leader;
- Provide curricular and instructional resources to ensure that every educator has the tools necessary to promote and support student achievement;
- Concentrate great instruction and supports for educators, students, and families in the Commonwealth's lowest-performing schools to create the conditions needed for improved student achievement; and
- Dramatically increase the number of students who graduate from high school ready for college and career.

The Theory-of-Action and strategies described in the state's RTTT plan now represents the core of the next generation of education improvement and reform in Massachusetts and are aligned with the Theory-of-Action, Quantitative and Qualitative Goals, and recommendations described in the STEM plan. Massachusetts will utilize the RTTT funding over the next four years to implement systemic initiatives that reach every sector within the public education system – which mirrors the importance of utilizing a whole-systems and coherent approach to improve the quality of STEM education for all students. Massachusetts' comprehensive RTTT plan and the funding – coupled with the momentum and new partnerships created by the Governor's STEM Advisory Council – provides Massachusetts with the tools necessary to advance STEM education and achieve multiple goals for PreK-16 students, educators, STEM partners, and communities.

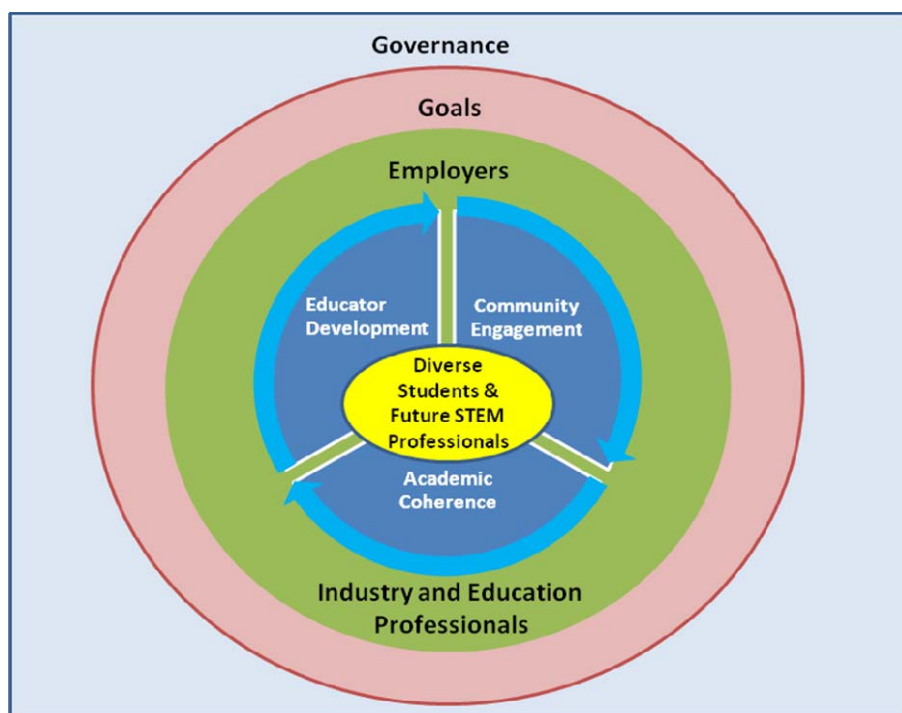
## Theory-of-Action

Massachusetts **Theory-of-Action** for STEM education and workforce development represents a new approach to address the need for whole-system transformation beginning in Pre-Kindergarten and continuing through post-secondary programs leading to STEM careers. This is an important departure from what often has been characterized as the “thousand points-of-light” strategy. In this previous case, many projects, each individually representing good work focused on important challenges, were largely uncoordinated, rarely if ever designed for regional or statewide scale and often not funded for sustained operation. The result was little measurable impact on the diversity and overall quantity of students both interested in and academically prepared to pursue STEM post-secondary programs and careers.

As depicted in Figure 1 the central focus of this Theory-of-Action is to encourage and support a **diverse body of Massachusetts students** to become future STEM professionals. These students will find careers in a wide array of fields - from practicing scientists, technologists, engineers and mathematicians to health professionals, technicians in healthcare, life sciences and renewable energy and in a wide range of information technology jobs including finance, communications media, bioinformatics and in jobs and careers that we cannot envision today. In addition, the Theory-of-Action recognizes that every student, in preparation for 21<sup>st</sup> century citizenship, must be fluent in STEM concepts to make important personal choices and contribute to societal decisions, even though not every student will work in a formally defined STEM profession.

### STEM Theory-of-Action

Figure 1



To engage *all* students in STEM subjects it is necessary to first raise their awareness of how STEM affects their everyday lives via strong **community engagement**. Once aware, individual interest can be sparked and, when properly supported, can spur the self-motivation necessary for students to pursue and succeed in rigorous academic and vocational studies. Developing student awareness, interest and motivation (AIM) requires regular and appropriate experiential learning opportunities, often best supported by practicing professionals in industry and through informal education and community-based programming. To provide this support for *all* students will require a substantial commitment from every STEM employer and every STEM professional.

Student AIM is important but alone is insufficient; **academic coherence** refers to the need to connect and reinforce experiential learning through classroom curriculum, instruction, standards and assessments. Curriculum and instruction must not only integrate and align to experiences that interest and excite students; they must also incorporate the latest pedagogical practices and articulate among grade levels across STEM subjects. As with student AIM, STEM professionals (employers and faculty) can and should inform curriculum and instruction through the perspective of current industry practice and academic research to strengthen the coherence of theory and knowledge with practice.

Experiential learning, combined with academic coherence does not complete the formula to ensure student success. **Educator development** will address the need to prepare all STEM educators with the content knowledge and pedagogy supported by classroom resources to align experiential learning, coherent standards, content rich curriculum and effective assessments to support student learning and motivation.

**Quantitative qualitative goals** frame the expected and measurable student outcomes while describing the scope and character of change that is necessary to achieve whole-systems transformation.

Finally, through the combination of locally distributed and regionally scaled best practice initiatives, a **system of public/private governance** will ensure STEM maintains a heightened priority for the Commonwealth and will complement efforts underway in the Secretariats and Departments to implement aspects of the plan.

## Quantitative Outcome & Qualitative Transformation Goals

### 1. *Quantitative Outcome Goals*

To measure progress toward the mission and charge of this plan, several quantitative outcome measures have been established. These goals and the indicators used to measure progress toward achieving them are outlined below. For each of the five goals, subordinate objectives focus on specific and critical areas that must be highlighted or may require unique programmatic attention (for example, academic achievement of student subgroups).

#### **Goal 1: Increase student interest in STEM.**

- a. *Standard:* Increase interest in STEM college majors among college-going MA public school graduates to 35% by 2016 (from 25% in 2009).
  - Increase interest among the underrepresented gender in fields with a gender-based gap in interest.
  - Increase interest among underrepresented races/ethnicities in fields with a race/ethnicity-based gap in interest.
  - Increase interest in fields where there are anticipated gaps in future employment (from industry growth and/or from retirement of current employees).
  - Increase interest in STEM fields at early ages (including preschool and elementary school) to assist in increasing student motivation to attain higher levels of STEM academic achievement/performance.
- b. *Tool:* SAT Registration Questionnaire
- c. *Reference Data:* SAT Registration Questionnaire. Data Prepared by UMass Donahue Institute.

(Table on next page)

<b>Goal 1: Increase Student Interest in STEM</b>							
<b><i>Student Reported Interest in STEM-Related College Majors on the 2009 SAT and SATII - MA Public School Students</i></b>							
	<b>All</b>	<b>Female</b>	<b>Male</b>	<b>African-American</b>	<b>Asian</b>	<b>Hispanic</b>	<b>White</b>
# SAT & SATII Test-Takers	44,517	23,655	20,862	3,232	2,843	3,316	31,968
# Interested in Agriculture & Natural Resources	348	215	133	*	*	12	302
# Interested in Architecture	610	185	425	27	45	66	439
# Interested in Biological & Biomedical Sciences	1,606	987	619	102	225	83	1,101
# Interested in Computer & Information Sciences	873	91	782	63	88	57	613
# Interested in Engineering & Engineering Technology/Technicians	2,480	341	2,139	173	234	188	1,775
# Interested in Health Professions	4,567	3,660	907	456	407	424	3,045
# Interested in Mathematics & Statistics	335	132	203	18	45	28	229
# Interested in Physical Sciences	321	115	206	16	22	13	256
# Interested in All STEM Majors	11,140	5,726	5,414	858	1,075	871	7,760
<hr/>							
% Interested in Agriculture & Natural Resources	0.8%	0.9%	0.6%	*	*	0.4%	0.9%
% Interested in Architecture	1.4%	0.8%	2.0%	0.8%	1.6%	2.0%	1.4%
% Interested in Biological & Biomedical Sciences	3.6%	4.2%	3.0%	3.2%	7.9%	2.5%	3.4%
% Interested in Computer & Information Sciences	2.0%	0.4%	3.7%	1.9%	3.1%	1.7%	1.9%
% Interested in Engineering & Engineering Technology/Technicians	5.6%	1.4%	10.3%	5.4%	8.2%	5.7%	5.6%
% Interested in Health Professions	10.3%	15.5%	4.3%	14.1%	14.3%	12.8%	9.5%
% Interested in Mathematics & Statistics	0.8%	0.6%	1.0%	0.6%	1.6%	0.8%	0.7%
% Interested in Physical Sciences	0.7%	0.5%	1.0%	0.5%	0.8%	0.4%	0.8%
% Interested in All STEM Majors	25.0%	24.2%	26.0%	26.5%	37.8%	26.3%	24.3%

\*Numbers are too low to report

**Goal 2: Increase STEM achievement among PreK-12 students.**

- a. *Standard:* Increase the percentage of all students scoring *Proficient* or *Advanced* on the MCAS mathematics and science & technology/engineering assessments:
- Increase the percentage of all 5<sup>th</sup> and 8<sup>th</sup> grade students scoring *Proficient* or *Advanced* on mathematics and science & technology/engineering MCAS assessments by 20 percentage points by 2016.
  - Increase the percentage of all high school students scoring *Proficient* or *Advanced* on mathematics and science & technology/engineering MCAS assessments by 10 percentage points by 2016.
  - Reduce the achievement gaps of 5<sup>th</sup> grade, 8<sup>th</sup> grade, and high school students on the mathematics and science & technology/engineering MCAS assessments by 25% between 2010 and 2014, and another 25% between 2014 and 2016.
- b. *Tool:* Massachusetts Comprehensive Assessment System (MCAS) assessments in mathematics and science & technology/engineering.
- c. *Reference data:* MCAS assessment data from DESE.

Goal 2: Increase STEM achievement among PreK-12 students				
% of Students Scoring Proficient or Advanced (P/A) on the MCAS in 2009				
MCAS DATA	Math	Math - Goal 2016	Sci/Tech/Eng (STE)	STE - Goal 2016
<b>Grade 5</b>	54%	74%	49%	69%
<b>Grade 8</b>	49%	70%	39%	59%
<b>High School</b>	74%	85%	62%	72%
<b>All Student (inclusive of the 3 grades)</b>	59%	76% (this matches the RTTT goal for '16)	50%	67%

**Goal 3: Increase the percentage of students who demonstrate readiness for college-level study in STEM fields.**

- a. *Standard:* Increase the percentage of MA public high school students who report taking at least 4 years of math (from 69% in 2009 [SAT]) and 3 years of lab-based science (from 79% in 2009 [SAT]) to 100% in 2016,<sup>1</sup> consistent with MassCORE, as well as increase the percentage of MA public high school students who report taking advanced mathematics (pre-calculus and above) to 55% (from 44% in 2009 [SAT]) by 2016.

<sup>1</sup> This goal also aligns with the goals of Race to the Top.

- Increase STEM course-taking among the underrepresented gender in courses with a gender-based gap in participation.
  - Increase STEM course-taking among underrepresented races/ethnicities in courses with a race/ethnicity-based gap in participation.
- b. *Tool:* SAT Registration questionnaire and SIMS
- c. *Reference Data:* SAT Registration Questionnaire. Data Prepared by UMass Donahue Institute.

<b>Goal 3: Increase the percentage of students who are STEM college-ready</b>							
<b>2009 Reported Course-Taking in STEM fields</b>							
<b>MA Public School Students</b>							
	<b>All</b>	<b>Female</b>	<b>Male</b>	<b>African-American</b>	<b>Asian</b>	<b>Hispanic</b>	<b>White</b>
# SAT & SATII Test-Takers	44,517	23,655	20,862	3,232	2,843	3,316	31,968
# Who report taking at least 4 years of math	30,788	16,383	14,405	1,772	1,747	1,792	23,513
# Who report taking at least 3 years of science	34,977	18,954	16,023	2,177	1,948	2,106	26,360
# Who report taking at least pre-calculus	19,702	10,777	8,925	1,051	1,759	1,113	14,783
# Who report taking chemistry and/or physics	33,069	18,140	14,929	2,111	2,281	2,225	24,653
% Who report taking at least 4 years of math	69.2%	69.3%	69.0%	54.8%	61.4%	54.0%	73.6%
% Who report taking at least 3 years of science	78.6%	80.1%	76.8%	67.4%	68.5%	63.5%	82.5%
% Who report taking at least pre-calculus	44.3%	45.6%	42.8%	32.5%	61.9%	33.6%	46.2%
% Who report taking chemistry and/or physics	74.3%	76.7%	71.6%	65.3%	80.2%	67.1%	77.1%

**Goal 4: Increase the number of students who graduate from a post-secondary institution with a degree in a STEM field.**

- a. *Standard:* Increase the number of students who complete STEM post-secondary degrees at MA public and private institutions by 50% from 2008 to 2016.
- Increase the number of Bachelor's degrees granted in all STEM majors to all students by 50% by 2016.
  - Increase the number of Bachelor's degrees granted in all STEM majors to the underrepresented gender in majors with a gender-based gap in degrees.
  - Increase the number of Bachelor's degrees granted in all STEM majors to the underrepresented gender in majors with a gender-based gap in degrees.
- b. *Tool:* Integrated Postsecondary Education Data System

c. *Reference data:* Integrated Postsecondary Education Data System. Data Prepared by UMass Donahue Institute.

<b>Goal 4: Increase the number of STEM college graduates</b>							
<b>2009 Bachelor's Degrees Granted in STEM Areas by MA Public and Private Institutions</b>							
	<b>All</b>	<b>Female</b>	<b>Male</b>	<b>African-American</b>	<b>Asian</b>	<b>Hispanic</b>	<b>White</b>
# Bachelor's Degrees Granted in All Subjects	54,686	31,559	23,127	2,484	3,607	2,522	33,595
# Bachelor's Degrees Granted in Agriculture & Natural Resources	471	219	252	7	19	14	359
# Bachelor's Degrees Granted in Architecture	421	170	251	9	20	19	313
# Bachelor's Degrees Granted in Biological & Biomedical Sciences	2,567	1,620	947	124	400	100	1,425
# Bachelor's Degrees Granted in Computer & Information Sciences	1,077	182	895	42	123	36	627
# Bachelor's Degrees Granted in Engineering & Engineering Technology/Technicians	2,851	642	2,209	92	319	141	1,685
# Bachelor's Degrees Granted in Health Professions	3,354	2,860	494	152	170	96	1,941
# Bachelor's Degrees Granted in Mathematics & Statistics	904	400	504	22	102	21	516
# Bachelor's Degrees Granted in Physical Sciences	966	451	515	20	109	31	570
# Bachelor's Degrees Granted in All STEM Majors	12,611	6,544	6,067	468	1,262	458	7,436
<b>% Bachelor's Degrees Granted in</b>							
Agriculture & Natural Resources	0.9%	0.7%	1.1%	0.3%	0.5%	0.6%	1.1%
Architecture	0.8%	0.5%	1.1%	0.4%	0.6%	0.8%	0.9%
Biological & Biomedical Sciences	4.7%	5.1%	4.1%	5.0%	11.1%	4.0%	4.2%
Computer & Information Sciences	2.0%	0.6%	3.9%	1.7%	3.4%	1.4%	1.9%
Engineering & Engineering Technology/Technicians	5.2%	2.0%	9.6%	3.7%	8.8%	5.6%	5.0%
Health Professions	6.1%	9.1%	2.1%	6.1%	4.7%	3.8%	5.8%
Mathematics & Statistics	1.7%	1.3%	2.2%	0.8%	3.0%	1.2%	1.7%
Physical Sciences	1.8%	1.4%	2.2%	0.8%	3.0%	1.2%	1.7%
% Bachelor's Degrees Granted in All STEM Majors	23.1%	20.7%	26.2%	18.8%	35.0%	18.2%	22.1%

**Goal 5: Increase the number/percentage of STEM classes led by effective educators, from PreK-16.**

a. *Standard:* TBD

- Future measure of STEM qualifications of Pre-K-16 educators (TBD; likely will vary by level: elementary, secondary, post-secondary)
- Future measure of STEM effectiveness of Pre-K-16 educators (TBD; likely will vary by level: elementary, secondary, post-secondary)

b. *Tool:* TBD, includes DESE’s integrated EPIMS & ELAR databases

Comparison of teacher qualifications to class assignments requires the integration of what are currently two separate ESE databases: EPIMS (the Education Personnel Information Management System) and ELAR (Educator Licensing and Recruitment). DESE has been planning on merging the two systems.

c. *Reference Data:* TBD

**2. Qualitative Goals for Transformation**

The intent of the following qualitative goals is to provide a context for the scope of the change and the increased capacity required to achieve the intended whole-system transformation.

a. Community Engagement

Every Massachusetts community will foster increased student interest in STEM through programming and spreading awareness. To spark and sustain student awareness of, interest in and motivation to pursue advanced STEM education and related careers...

- In every community parents, educators, employers, student leaders and STEM professionals will be informed and enlisted as advocates to influence, support and sustain student commitment to STEM from Pre-K through post-secondary education.
- PreK-16 students will have access to rigorous academic and technical preparation in the STEM subjects and be encouraged to engage in experiential and applied learning opportunities.
- Collaboration is critical. Effective collaboration can enhance existing opportunities and bolster the development of systems at the community level to engage students at various points along the STEM pipeline – from preschool to career.

## b. Academic Coherence

Massachusetts STEM standards, curriculum frameworks, instruction and assessments will...

- Incorporate a balanced focus on deep content knowledge, mathematical and scientific inquiry and problem solving/design, reflecting post-secondary faculty expectations for college and career readiness and employer expectations for STEM careers.
- Align vertically across grade levels and horizontally across subject strands to ensure coherent subject progressions among schools, across districts and through college.
- Connect community-based experiential and project-focused learning resources to PreK-12 curricula and/or through collaborative use of STEM related laboratories in the vocational technical schools.

## c. Educator Development

Every student will learn from highly effective educators in every STEM subject area at every grade level, PreK-16. Massachusetts educators will...

- Possess deep subject matter knowledge that spans grade levels; be skilled in the pedagogy of inquiry and problem solving; and be prepared to incorporate experiential and applied learning that integrates science, technology, engineering and mathematics into coherent classroom instruction.
- Make effective use of technology as a tool for learning, recognizing its application as an essential resource for every 21<sup>st</sup> century STEM profession.
- Seek out innovative ways to further improve their understanding of their student's strengths and weaknesses, through data analysis and the creation of active assessments.

## d. STEM Employers and STEM Professionals

Employers and the community of STEM professionals (from industry and education) can provide an array of opportunities for experiential learning, both inside and outside the classroom by...

- Participating in educator professional development and communicating their expectations for students wishing to pursue a career in their sector. Employers and STEM professionals will serve as mentors, internship/co-op supervisors, leaders of community-based after-school and expanded learning time programs and partner with schools to offer new programming and expand existing programming such as the already state approved STEM programs in vocational technical schools.
- Sponsoring university laboratory research and industry-based teacher externships. They will also serve as collaborative partners in high quality professional development and pre-service programs.

## 1. Governance Structure Outline

The **System of Public/Private Governance** in Figure 2 will serve as a structural framework to prioritize, align and recommend funding for STEM education policy proposals and best practice programs to ensure whole-system transformation, regional adaptations and high quality implementation to achieve the goals of this plan.

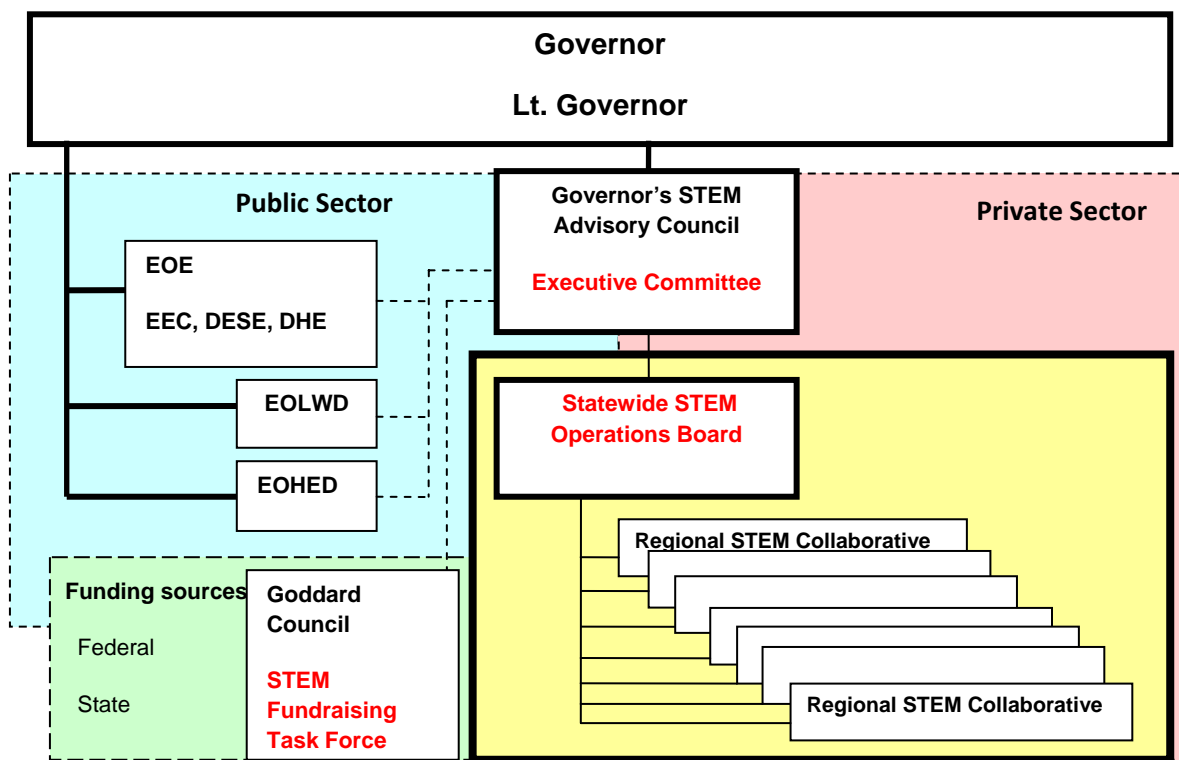


Figure 2

The **Governor's STEM Advisory Council** provides overarching leadership for the development of this plan, and now turns to implementation. As authorized in Governor Deval Patrick's Executive Order #513, an **Executive Committee** of the Council will be formed with voting authority to provide STEM education policy and initiative recommendations. The Secretaries of Education, Labor & Workforce Development and Housing and Economic Development as well as the Commissioners of Early Education, Elementary and Secondary Education and Higher Education are members of the Advisory Council and will work in concert with the Council, along with their respective governing boards to achieve progress toward the aforementioned goals.

A subcommittee of the Governor’s STEM Advisory Council – the **Statewide STEM Operations Board** – will coordinate the review and expansion of “best practice” programs: vetting, funding and evaluating these programs throughout the Regional STEM Collaboratives (formerly known as the Regional STEM Networks). The **Regional STEM Collaboratives**, which are responsible for regional adaptation and implementation of “best practice” programs, and for local program innovations, will now have a central body of representation and participation on the Council – through the Operations Board. This structure will allow the Collaboratives to pursue joint initiatives, share promising practices, and offer programs across multiple regions. This structure is to encourage partnerships and sustained success toward fulfilling the quantitative and qualitative goals. Operators of STEM programs have the ability to choose to partner within the regional system to make shared progress and real impacts in scalable and sustainable ways.

The **Robert H. Goddard Council** will continue to manage the STEM Pipeline Fund as outlined in statute, and will also serve as a fundraising entity to support aspects of this plan. The Goddard Council will seek funding from federal, corporate and foundation sources as part of a newly formed **STEM Fundraising Task Force**.

## ***2. Governance Structure - Roles and Responsibilities***

### **a. The Governor’s STEM Advisory Council:**

- Provides statewide STEM policy direction encompassing the Secretariats of Education, Labor and Workforce Development, and Housing and Economic Development and their respective Commissioners;
- Incorporates input from industry members of the Council to address both workforce pipeline and educational attainment needs;
- Confers with participants and parties from the public and private sector involved with STEM planning and programming;
- Assesses how best to dramatically increase student interest in, and preparation for, careers in STEM;
- Approves establishment criteria and membership for the Statewide STEM Operations Board;
- Approves the five-year STEM Plan, annually updated, that will establish clear goals and objectives for the Commonwealth's STEM efforts over the next five years, including the creation of benchmarks for improvements;
- Provides recommendations regarding a public awareness campaign; helps parents, students, employees and community leaders understand why the STEM disciplines are critical to individual success; and forms subcommittees to focus on particular challenges facing STEM education;
- Investigates and makes funding recommendations to the Governor regarding similar programs throughout the state to eliminate duplication and provide for a coordinated, consolidated statewide network of STEM programs for in-state students;
- Holds an annual public forum to bring together regional STEM Collaboratives and school districts engaged in scale-up efforts.

b. The **Statewide STEM Operations Board:**

- Functions as the operational entity of the Governor’s STEM Advisory Council to provide the regional STEM Collaboratives with a central structure to pursue joint initiatives across all regions;
- Develops a rubric in partnership with state agencies for evaluating potential best practice programs and initiatives;
- Establishes uniformly high performance standards for regional STEM Collaboratives;
- Provides ongoing technical assistance to the regional STEM Collaboratives to insure high performance;
- Screens and recommends evaluators for each best practice program area (Community Engagement; Academic Coherence; Educator Development and STEM Employers and STEM Professionals support);
- Posts a semi-annual report to the Governor’s STEM Advisory Council and the public at-large on [www.mass.gov/governor/stem](http://www.mass.gov/governor/stem) highlighting the progress in achieving the Commonwealth’s STEM goals and the outcomes for each “best practice” program;
- Collaborates with the Executive Office of Education the Department of Elementary and Secondary Education and Department of Higher Education to assure coordination among Regional Readiness Centers, District and School Assistance Centers (DSACs), Institutes of Higher Education and regional STEM Collaboratives.

c. The **Regional STEM Collaboratives:**

- Brings together PreK-16 including vocational and technical schools, early education and care, public and independent higher education colleges and universities, businesses, regional organizations, and community organizations across the spectrum to address the need for systemic change in STEM education;
- Identifies potential best practice programs in each region appropriate to scale up regionally or statewide;
- Submits a detailed plan outlining the role of all state and local partners, and upon approval by the Operations Board, implements the “best practice” program plans in each region;
- Develops new innovative initiatives to meet local needs;
- Secures additional local contributions and funding to expand the number of students, teachers and schools engaged in these expanded programs;
- Provides semi-annual reports to the STEM Operations Board at the Governor’s STEM Council’s annual forum;

d. The **Robert H. Goddard Council:**

- Recommends the awarding of funds held in the STEM Pipeline Trust Fund as administered by DHE and intended to support the scaling of best practice programs.
- Through a designated STEM Fundraising Task Force of the Goddard Council, leads the effort to identify resources from the federal, government, corporations, and foundations (both local and national) to support scaling “best practice” programs and STEM policies;
- Prepares proposals in partnership with state agencies, as well as corporations, seeking funding to support the scaling of best practice programs.

## STEM Education and Workforce Development: Recommendations for Policies, Programs and Initiatives

### Background

In March 2010, the Governor’s STEM Advisory Council convened six broadly representative subcommittees to research key areas of STEM education and recommend education and workforce policies and “best practice” programs to inform *A Foundation for the Future: Massachusetts’ Plan for Excellence in STEM Education (Version 1.0)*. Initial recommendations from the six subcommittees have been categorized to reflect these priority areas included in the Theory-of-Action (Figure 3).



Figure 3

## Shaping the Plan

The work described in the following section of the plan represents the beginning of a critically important statewide conversation to determine the infrastructure, policies and practices that need to be in place to meet the Council's goals for STEM education in the Commonwealth.

Recommendations from the Council's six subcommittees, coupled with additional feedback from the field will help inform the work of the newly developed **STEM Operations Board**. The Council's subcommittee recommendations are organized by the subject areas that match the qualitative goals for transformation. They are:

1. Diverse Students and Future STEM Professionals
2. Community Engagement
3. Academic Coherence
4. Educator Development

Once formally established, this Operations Board will determine a fair and transparent process for vetting the recommendations in these subject areas for policies, programs and initiatives that align with the priority areas outlined in the Theory-of-Action, considering both the quantitative outcome goals and qualitative goals for transformation. The Operations Board will also assess the impact of implementation on various levels of the system – from the state departments to the Regional Collaboratives to individual school districts. Final recommendations for approval and funding will be brought before the Governor's STEM Advisory Committee and voted on by the Executive Committee.

While comprehensive, the recommendations included in the subcommittee section do not represent the totality of proposals and do not limit the development of further recommendations from any source, including the Secretariats and Departments, Regional STEM Collaboratives, and members of the STEM community (industry professionals, educators, etc.).

For further background, detail and the full text of the recommendations submitted by the subcommittees, please refer to the reports which can be accessed online at: [www.mass.gov/governor/stem](http://www.mass.gov/governor/stem).

### ***1. Diverse Students and Future STEM Professionals***

The following recommendations emanate from the belief that encouraging and supporting the engagement of all students and especially underrepresented minorities throughout every aspect of *Massachusetts Plan for Excellence in STEM Education* requires an "all-hands-on-deck" approach.

#### **a. Partnerships**

- Expand upon existing successful partnerships between higher education institutions and industry that promote coordination and collaboration among STEM programs to serve girls and underrepresented minority youth; creating programs whose design is based on evidence of success.
- Engage partners to advocate for public policies and federal resources that support the education and career preparation of students from underrepresented groups.

- Base funding and support on the principle of equity, and make investments to create materials and programs that are multilingual, culturally sensitive and accessible to people with disabilities.

#### **b. Exposure and Awareness**

- Engage employees in the STEM fields to serve as role models and mentors to underrepresented minorities and women.
- Increase outreach and provide culturally relevant materials to guidance counselors, teachers and parents that highlight STEM careers and college majors.

#### **c. After-School Programs and Enrichment**

- Provide high quality after-school and out-of-school time opportunities for girls and minority students with clear program goals, strong leaders, effective managers, skilled and qualified staff, and low adult-to-child ratios, in addition to:
  - **Hands-on learning:** Students learn best through hands-on experiences. This is particularly true with science and technology education, which comes to life when students can conduct their own experiments, do their own programming, and test their own designs.
  - **Working with experts:** In order to inspire students to pursue STEM careers, students must have the opportunity to work directly with experts at the forefront of their fields. By building relationships with real scientists, students are able to envision themselves in STEM careers, and discover the excitement of working in the innovation economy.
  - **Teaching through public displays of learning:** Students learn and retain skills the most powerfully when they have the opportunity to teach what they have learned to others. In addition, presenting their work to an audience inspires students to work hard, and boosts their confidence.
  - **Deeply engaging students and families:** In addition to inspiring students to choose STEM careers, it is also important for parents to learn about the promise of STEM careers so that they can encourage their children to pursue these growing fields.
  - **Ongoing professional development:** Additional development opportunities for after school and out-of-school time staff should be sought after in order to build on capacities to engage students in, and increase their interest in STEM.

#### **d. Mentorship & Role Modeling**

- Support mentorship programs that have a cultural relevancy component and that provide a close working relationship between mentor and student to combat years of negative media depictions of STEM professionals, peer pressure from those that are unable to meet the rigor of STEM educational programs, and proficiency deficits that many students will face even when their interest is high and best intentions are at hand.

- Work towards a design where mentoring and role-modeling is part of a systemic process that is both consistent and long-term thereby creating trust through the building of personal relationships.

## 2. *Community Engagement*

Key to these recommendations is a campaign to build better understanding of the STEM fields by highlighting some of the talented individuals who live in Massachusetts and work in STEM fields. The campaign is designed around a word that is frequently associated with inventions and discoveries in the areas of science, technology, engineering and math and with the people responsible for these remarkable achievements. The word is WOW and the public awareness subcommittee recommends a WOW campaign.

### a. **WOW Campaign**

- Identification and promotion of **12-15 individuals who exemplify the WOW of STEM**. These individuals should be from diverse ethnic backgrounds, diverse regions of the state, and diverse STEM sectors. They should also include both men and women. These STEM professionals are to be interviewed/ videotaped and their pictures and biographies used in a variety of ways to promote awareness of and excitement about STEM.
- **Creation of a WOW YouTube Channel** and student video competition. The Governor/Lt. Governor would be featured in the introductory video. Video interviews of the 12-15 STEM exemplars would also be posted. Students in the target audience – Grades 5-8 - would be challenged to post their own STEM WOW moments or activities (science fairs projects, robotic/Lego league accomplishments, etc.) The videos would be judged and student winners would be highlighted on a periodic basis and given prizes.
- **Implementation of a WOW Campaign**. All content about the 12-15 STEM exemplars would be repurposed for promotional use in both traditional and online media. A Student Advisory Board would be created to work with the Campaign and links would be made to existing campaigns such as the Massachusetts Executive Office of Housing and Economic Development’s “It’s All Here” campaign and NASA’s “Summer of Innovation” camps and activities. Finally, the Subcommittee recommended a sustained effort over the coming years to build on the STEM brand and ensure efforts reach the students of today and the students of tomorrow.

### b. **Engage STEM Employer and Education Professionals**

- Increase relevant internship opportunities for students in an array of STEM fields and encourage greater participation in teacher externship programs.
- Encourage partnerships among industry and institutions of higher education with public schools and afterschool and out of school time community programs to promote STEM careers and STEM majors to all students regardless of background.

### 3. Academic Coherence

To adequately prepare all students, there is a need to implement curricula and instructional practices that develop content knowledge, promote its application in thoughtful ways, enhance the progress of all students in STEM fields, increase students' interest and success in post-secondary study in STEM, and increase the appeal of STEM-related careers.

#### a. Frameworks and Standards:

- In addition to addressing content knowledge, the standards should be studied in collaboration with the National Research Council to improve and promote mathematical and scientific inquiry, engineering design, higher order thinking, and the real-world application of science, technology, engineering and mathematics.
- The STEM Frameworks need to be expansive in their identification of community-based resources that can be of assistance to schools in their pursuit of a high quality STEM experiences for students in and outside of school.

#### b. Curriculum and Instruction:

- The Department of Elementary and Secondary Education (DESE) should identify criteria that help districts map the local curricula to the learning standards.<sup>2</sup> The principles expressed by Grant Wiggins' and Jay McTigue model articulated in *Understanding by Design*" should guide this work. For example, the curricula should:
  - Identify what students will understand, know and be able to do at the conclusion of each unit and lesson (the standards-aligned outcomes/objectives).
  - Identify the performance tasks and other assessments that will be administered to generate evidence of students' understanding/mastery of the outcomes/objectives.
  - Identify the learning experiences, related materials and instruction that will promote students' mastery of the outcomes/objectives.
  - Utilize Bloom's taxonomy to create assessments that incorporate 21<sup>st</sup> century skills to measure higher order thinking.
- The DESE should provide districts with sample scope, sequence and pacing guides to help the districts organize their STEM curricula, and any in-district assessment programs, within and across school years.<sup>3</sup>
- Massachusetts colleges and universities, including schools of engineering, should prepare K-12 technology/engineering teachers to address the needs and circumstances of elementary and secondary schools.

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<sup>2</sup> This aligns with planned activities in Race to the Top.

<sup>3</sup> This aligns with planned activities in Race to the Top.

- Data systems should be developed to track the impacts of PreK-12 STEM education (including After-School and Out-of-School Time) on student engagement, STEM literacy, and interest in STEM fields as a possible career.
- Standards-based, high school Technology/Engineering courses that generate high school credits in science should be considered by the Board of Higher Education as laboratory science courses that can be used to meet state college and university admissions requirements.
- School districts should partner with After-School and Out-of-School Time programs to implement activities that serve as additional tools to complement local schools' STEM efforts and reinforce classroom STEM learning.

**c. Assessment:**

- Consistent with planned activities in the Commonwealth's Race to the Top application, broaden and deepen the Massachusetts Comprehensive
- Assessment System (MCAS) mathematics and science & technology/engineering exams to incorporate discipline-specific practices in addition to content.
- Additionally include one or more performance assessments in the assessment system to provide students opportunities to apply STEM concepts and utilize STEM practices.

#### ***4. Educator Development***

A focus on training, recruitment, and retention are necessary to build and maintain a talented workforce in schools and universities throughout the Commonwealth.

**a. Teacher Training**

- Expand Teacher Residency Programs for Post-baccalaureate Secondary Teacher Preparation in STEM. Support the redesign of secondary teacher preparation programs to align with the national model for Teacher Residency described in the state's Race to the Top application and the US Department of Education (USED) Teacher Quality Partnership Program. This model includes the following features:
  - Post graduate 15 month cohort model resulting in initial MA licensure and masters degree.
  - Practice based residency model built on partnerships with school districts and higher education institutions that places licensure candidates in classrooms full time with high quality mentor teachers and includes authentic performance evaluation.
  - Rigorous coursework that includes emphasis on using data to inform teaching and assessment.
  - One year of post license induction followed by two years of mentoring in partnership with districts and higher education. Online-content specific mentoring is a feature of this phase.
  - Support for candidates through private and public funds such as Noyce Scholarships and USED Teacher Quality Partnership grants, Math for America and the Woodrow Wilson Teaching Fellowship.

- Develop UTeach type programs as an incentive for undergraduate STEM majors to complete teacher licensure programs. UTeach includes the following features:
  - Early credit based mini-courses/internships to explore the teaching profession.
  - Flexible efficient licensure requirements to enable students to earn a teaching license in STEM undergraduate program.
  - Scholarship support for those who teach for at least two years.
  - UTeach expansion was funded in the Race to the Top award.
  
- Strengthen STEM requirements for elementary teacher preparation programs
  - Support the Department of Elementary and Secondary Education recommendation for at least 3 courses (nine credits) of rigorous math for the teacher license at the elementary level (Elementary and SPED).
  - Support the Department of Higher Education recommendation for math diagnostic assessment tests for post baccalaureate elementary license programs.
  
- Begin alignment of Teacher Preparation program curriculum with the national Common Core Standards in STEM (mathematics to be completed by the Department of Elementary and Secondary Education in fall, 2010; science and technology/engineering in progress as of fall, 2010). Strengthen the STEM background of EEC teachers and care providers.
  - Support the Foundation for the Future (Wheelock College) recommendation for two math, two science and two STEM pedagogy courses for all Early Education and Care teacher preparation programs.
  - Recommend that EEC set MassCore as the minimum preparation for child care teachers/providers that do not have postsecondary degrees.
  - Consider providing the equivalent of MassCore preparation for currently employed child care providers through professional development.
  - Consider professional development partnerships between After-School and Out-of-School Time programs and public schools that include mentoring, coaching, and modeling for cross-alignment, complementary learning and transition support.

**b. Teacher Recruiting:**

- Develop and implement a Marketing Campaign to recruit STEM Teachers. Such a campaign must be linked to easily accessible information, efficient licensure pathways, for potential STEM teachers
  - Target undergraduate and graduate students and professionals in STEM fields.
  - Conduct an extensive campaign to raise awareness and attract potential STEM teachers using comprehensive media and social network outlets.
  - Link to the Federal Government’s newly developed teacher recruitment campaign and other national campaigns, including: Tapping America’s Potential, the INDIA/AIA Initiative, Business and Industry STEM Coalition, Change the Equation.

- Building on the existing database systems, GEM and the Massachusetts Education Career Center (MECC), maintained by the Department of Elementary and Secondary Education, create a one-stop clearinghouse for potential and current STEM teachers. Race to the Top includes recommendations on revamping and revising the current system.
  - Widely advertise database.
  - Develop interactive capacity for potential STEM teachers and school systems to be linked directly.
  - Include relevant information about STEM job openings, communities, salary, licensure pathways. Encourage potential teachers to submit resumes and accompanying materials.

### **c. Teacher Retention**

- Create and provide support for teacher mentoring programs within school districts.
  - Develop mentorship programs for new and novice teachers (0-3 years experience teaching) in school districts across the Commonwealth. This type of program would pair more experienced teachers (with 5 years or more experience) as mentors who can identify and connect with newer teachers. Mentoring programs would provide support for 0-3 year teachers in a non-evaluative way, focusing on assisting new teachers with developing techniques for managing classrooms and becoming grounded in STEM curricula.
- Create a structure that recognizes teachers as professionals in their field and provides opportunities for networking among schools, school systems, novice, experienced and veteran teachers.
  - Designate exemplary teachers as model teachers, showcasing their classrooms for other teachers, community members and representatives from other districts to visit.
  - Develop mechanisms for recognizing teachers as important professionals within the community. For example, create Professional Affinity Groups that pair teachers with support groups in their community that can provide resources to build local community relationships.
  - For all teachers provide either district sponsored or DESE sponsored regional discussion groups that model and share best practices being used on the local, regional, state and national levels and opportunities to keep up with new technology and content
  - Use veteran teachers as resources for teaching professional development seminars for other teachers. This could include creating a teacher recognition program and have regional awards with the benefit being able to have a year sabbatical to travel around the district or state as mentor/Professional Development provider.
- Develop a state-wide system of recognition through a career ladder for STEM teachers.

- Provide highly effective veteran teachers with opportunities to assume instructional leadership positions.
- Provide quality professional development programs and opportunities for teachers.
  - Support opportunities for professional development on using new technology, content information, cutting edge best practices and web sites.
  - Provide professional development courses and programs that are designated as best practices. These Professional Development programs need to be appropriate for the level of a teacher's certification, being heavier on STEM content for middle and high school teachers and a combination of methodology and content for elementary teachers. There should be guidelines for what constitutes quality STEM Professional Development programs. These programs may be offered through different venues including institutes of higher education, educational collaboratives, informal education institutions such as museums and technology centers or partnerships between businesses, non-profits and institutes of higher education.
  - Increase relevant internship opportunities for students in an array of STEM fields and encourage greater participation in teacher externship programs.

# Action Timeline and Implementation Plans for Existing Appropriations

## PHASE I - IMPLEMENTATION

### **1. Initial Governance Policy Recommendations:**

- a. Form the Executive Committee of the Governor’s STEM Council.
- b. Form the Statewide STEM Operations Board.
- c. Form the STEM Fundraising Task Force

### **2. Allocation of Race to the Top Funding:**

Massachusetts will receive \$250 million to implement the RTTT plan: 50% will be utilized by the state to support the implementation of systemic initiatives and district activities; and 50% will be allocated to 276 participating districts, those that are committed to implementing RTTT strategies, in proportion to their Title I allocations (these districts include 1,375 schools, serve 74% of K-12 students, and also serve 88% of students living in poverty). The state funding will be allocated as follows:

▪ Standards and Assessments (including college and career readiness)	\$14.2 million
▪ Building an Exceptional Educator Workforce	\$46.7 million
▪ Turning Around Lowest-Performing Schools	\$18.1 million
▪ Robust Data Systems	\$28.1 million
▪ Program Management and Evaluation	\$16.6 million

This funding will strengthen Curricula, Standards, and Assessments, Prepare Students for Career and College Readiness, and Increase the Number of Effective Educators:

- a. Curricula, Standards, and Assessments
  - i. Enable more students to meet high standards by creating an aligned, standards-based teaching and learning system.
  - ii. Design a plan to align state standards with the Common Core Standards that Massachusetts helped to develop and review to ensure rigor and high expectations
  - iii. Develop curriculum maps and units that include curriculum-embedded performance tasks and aligned interim assessments.
  - iv. Create a Digital library that includes engaging, high quality, and relevant resources coded to standards and curriculum maps.
  - v. Develop and implement rigorous interim and formative assessments so that educators can better monitor student progress.

- vi. Create extended performance tasks in multiple curricular areas including mathematics, science, and technology/engineering to build complex skills and elicit demonstrations of knowledge and skill development.
- b. College and Career Readiness
- i. Prepare more students for success after high school through exposure to rigorous curricula and college-level work, particularly in STEM fields.
  - ii. Strengthen the state’s Advanced Placement pipeline by offering pre-AP teacher training in math and science to middle and high schools with a high percentage of first generation, low-income and minority students.
  - iii. Establish STEM-focused Early College High Schools that will each serve approximately 400 students.
  - iv. Adopt MassCore as the default curriculum for all high school students in the Commonwealth and align public 4-year college entrance requirements with MassCore – which will mean that 85% of all students will be required to take at least 4 years of mathematics and 3 years of lab sciences by 2014, and all students will be required to meet these requirements by 2016.
- c. Effective Educators
- i. Increase the number of effective educators in hard-to-staff subjects and specialty areas, specifically STEM fields.
  - ii. Strengthen and expand effective educator preparation programs and improve or close ineffective ones by strengthening approval and accountability processes and providing competitive grants to expand successful programs.
  - iii. Provide high quality, targeted, and differentiated professional development and instructional services to educators using an aligned and coherent system that includes services provided through the Department of Elementary and Secondary Education and their District and School Assistance Centers, the six Readiness Centers, the Regional STEM Collaboratives, and professional learning communities.

In addition to allocating the above funding to support the enhancement of STEM curricula and aligned assessments, and also the development of additional instructional tools, approximately \$6 million will be allocated to support several activities directly in STEM fields such as:

a. **\$1.3 million to establish six STEM-focused Early College High Schools**

- Data from Jobs for the Future, a Boston-based organization focused on workforce development and education reform, indicate that these institutions are effective in preparing lower-income students and also students of color for postsecondary success. Each school will serve approximately 400 students, and three will model a successful institution, the Metro Early College High School, in Columbus, OH (these schools will also be located at public four-year colleges or universities). The other three schools will be located at community colleges or existing high school campuses.

b. **\$1.1 million to better prepare students for success in STEM-related Advanced Placement courses**

- Massachusetts has one of the highest Advanced Placement enrollment rates in the nation, but there are significant participation and performance gaps for lower-income students and students of color. In order to better prepare students to enroll in these courses and strengthen the pipeline, the state will provide pre-Advanced Placement training to middle and high school teachers in mathematics, science, and English Language Arts. Training will be provided for teachers in schools with higher percentages of students of color and also first-generation and lower-income students (approximately 1,000 teachers in 65 schools will receive this training over the next four years).

c. **\$2 million to establish a UTeach program site in Massachusetts to prepare 250 new STEM teachers**

- The UTeach model was developed at the University of Texas at Austin in 1997, and was designed to provide an innovative and systemic approach to preparing secondary science, mathematics, and computer science teachers. The model includes both content-rich learning opportunities and practical experience, and provides different types of students with flexible options for pursuing teacher certification or advanced degrees. In addition, the model is focused on building sustainability over time, so the Massachusetts site will prepare STEM educators beyond the grant period.

d. **\$1.5 million for mathematics targeted assistance in regional District and School Assistance Centers**

- The District and School Assistance Centers are located at the six Readiness Centers, and they provide foundational professional development opportunities and targeted assistance to K-12 educators. Support and resources will include using curricular and assessment tools as well as using student data to improve the quality of instruction.

*Upon final approval of the RTTT budget, the U.S. Department of Education will allocate the state portion of funding to Massachusetts during the fall of 2010. Upon final approval of districts' implementation plans (which will be submitted to the U.S. Department of Education in late November 2010 per federal requirements), Massachusetts will receive the district portion of the RTTT award.*

### **3. STEM Pipeline Fund Planned Initiatives**

The Massachusetts state legislature established the Massachusetts Mathematics, Science, Technology and Engineering Grant Fund (known as the STEM Pipeline Fund) in 2003 under Economic Stimulus legislation and appointed the Department of Higher Education (DHE) as the administrator. The broad purpose of the STEM Pipeline Fund legislation (Section 30 of the Economic Stimulus Act) is to “increase the number of students who participate in programs that

support careers related to science, technology, engineering and mathematics.” This broad purpose has been translated into the following goals of the STEM Pipeline Fund:

- Increase the number of Massachusetts students who prepare for and enter STEM careers;
- Increase the number of qualified STEM teachers in the Commonwealth; and
- Improve the STEM educational offerings.

The STEM Pipeline Fund received an allocation of \$500,000 for fiscal year 2011. During the remainder of the fiscal year the Department of Higher Education, the fund administrator, plans to disburse the funds on these initiatives:

- Support PreK – 16 Regional STEM Networks:** \$40,000 was distributed to each of the six Regional STEM Collaboratives in 2010, with a potential disbursement of additional funding to support broad reach, low cost programming and afterschool learning.
- Develop a Boston PreK-16 Regional STEM Collaborative:** Boston is the only region without a state funded STEM collaborative. The DHE will provide seed money for the establishment of a network.
- Partner with UMass Donahue Institute:** The UMass Donahue Institute has been the statewide evaluator for STEM Pipeline Funded projects since the Fund began its work. The work of the Donahue Institute will be used by the STEM Governance System during the implementation stages outlined in this plan.

In FY 2011, the Fund relies on the Donahue Institute for the following services:

- To research and write a “Best Practices” report on the development, organization, and activities of Regional PreK-16 Networks. The report will be an in-depth, qualitative analysis of best practices in three regional networks (Berkshire, Central and MetroWest) with different pathways to success. The report will include individual interviews with project managers and other key people, a background review of information collected through mid-year and year-end reports, and a review of information captured in the annual online survey of network members.
- To research and write a “promising practices among projects” report focused on increasing student interest in STEM. The report will be an in-depth, descriptive analysis of projects that show promise for increasing student interest in STEM areas (from among both Student Interest grantees and Regional Network grantees). This report will also include a background review of information collected through mid-year and year-end reports as well as information gathered through a targeted questionnaire to project managers.
- To complete the Massachusetts Statewide STEM Indicators Project Report using 2009 data.
- To complete SAT template reports, and to complete academic research and report writing. The Institute will annually assess patterns of interest in STEM majors among Massachusetts public school students who take the SAT (between 45,000 and 50,000 students each year). Data will be analyzed not just at a statewide level, but also regionally (based on the geographic areas served by the Pipeline’s

Regional PreK-16 Networks) as well as locally. This project aims to assist policy-makers and education personnel at the state, regional, and school levels in making programming and other decisions that can increase the number of actual “STEM students.”

- To develop new measures of evaluation.
- d. **Seek Strategic Interventions with Minimal Funding:** Use remaining Pipeline funds to support important and visible STEM issues (math elementary teacher preparation) and pursue most cost-effective collaborations (DHE/EEC/WGBH).
- e. **Pursue Public and Private Grants:** A DHE grant writer will identify collaborative network funding opportunities.

#### ***4. Partnership Initiatives:***

The National Governors Association Center for Best Practices (NGA Center) and Innovate+Educate have committed to support Massachusetts to advance the important work of improving STEM education. Through the creation of a formal partnership, Innovate+Educate allocated \$50,000 in planning grant dollars to support the implementation of the STEM Council’s recommendations.

Over the next year, the NGA Center and Innovate+Educate will work closely with the Governor’s STEM Advisory Council and state agency staff to strengthen STEM education through the sharing of best practices and through leveraging industry investments.

The goals of this partnership are to highlight Massachusetts as a leader in strengthening STEM education; convene key state and business stakeholders to strategically align national and state level industry support to Massachusetts’ STEM plan; and disseminate best practices and lessons learned throughout Massachusetts’ implementation process across a wider range of states.

The National Governors Association Center for Best Practices (NGA Center) supports governors and their staff to strengthen STEM education with the end result of increased workforce and innovation capacity that translates into economic growth. Business and industry are dependent on a qualified workforce and have the intellectual resources needed to inform efforts to strengthen STEM education.

Innovate+Educate is a pre-competitive collaborative of business and industry partners dedicated to strengthening STEM education at the state level. The NGA Center and Innovate+Educate partner to provide a range of resources to comprehensively improve STEM education at the state level.

## ***5. MA Life Science Center Equipment and Supplies Program:***

On September 24, 2010 the Board of Directors of the Massachusetts Life Sciences Center (MLSC) approved the launch of the 2010 Equipment and Supplies Program for Skills Training and Education. Consistent with its commitment to the life sciences industry, the MLSC, through this solicitation, seeks to further the development and institution of life sciences training and education programs at vocational/technical high schools, community colleges, 2-year degree and certificate programs affiliated with 4-year private and public institutions of higher education, regional employment boards, community-based nonprofit organizations, and labor organizations. Members of the Regional STEM Collaboratives will be key organizations within each region to identify needs and work with their members to apply for grants.

By working with these Massachusetts entities and by providing funding up to \$250,000 per institution, with a total of \$2.5 million available for the purpose of purchasing life sciences demonstration and training equipment and supplies for practical laboratory and/or training space, the MLSC will support these institutions and further educate students, clients and trainees in real-world scenarios that will prepare them for opportunities in the life sciences sector. To be eligible for an award, applicants will be required to secure matching funds, in cash or as a donation, from an industry partner that supports the training program for which the equipment and supplies are needed.

Priority will be granted to proposals with an industry partner engaged in the development and implementation of training; regional collaborations between institutions in geographic proximity willing to share expensive equipment; and training programs with demonstrated success in placing students in skilled employment related to the curriculum and training.

## ***6. Federal and state STEM-focused funding***

There are additional federal and state funding programs for STEM. An initial listing includes:

- NCLB Title IIA and IIB: Supporting PreK-12 STEM teacher development (particularly content courses).
- MA Teacher Content Training Line Item (7061-9804): Supporting primarily elementary mathematics teacher training.

## **PHASE II - IMPLEMENTATION**

### ***1. Funding Strategies***

- a. Robert H. Goddard Council will oversee:
  - i. Development of federal funding strategies
  - ii. Development of corporate funding strategies
  - iii. Development of foundation funding strategies

### ***2. System to elevate Best Practices***

- a. Develop rubric for assessing policy/program recommendations
- b. Propose policy and best practice program recommendations for implementation approval
- c. Develop rubric to certify Regional STEM Collaboratives
- d. Certify Regional STEM Collaboratives

## Rollout Schedule

	FY 11			FY 12			
	Q2	Q3	Q4	Q1	Q2	Q3	Q4
<b>STEM Summit</b>							
Announce/Release Statewide STEM Plan							
STEM Summit 2011							
<b>Governors STEM Advisory Council</b>							
Approve V1.0 of STEM Plan							
Form Executive Committee							
Form STEM Operations Board							
Form Fundraising Task Force							
Review/approve Policy Recommendations							
Approve V2.0 of STEM plan							
<b>Statewide STEM Operations Board</b>							
Develop rubric for assessing policy/program recommendations							
Propose policy and "best practice" program recommendations for approval							
Develop rubric to certify Regional STEM Collaboratives							
Certify Regional STEM Collaboratives							
<b>Funding Task Force</b>							
Develop Federal Funding Strategy							
Develop Corporate Funding Strategy							
Develop Foundation Funding Strategy							

## Appendix

- 1. List of All STEM Council Members, Subcommittee Members, and Support Staff.**
- 2. Executive Order #513 Establishing the Governor's Science, Technology, Engineering, and Math Advisory Council.**

## Appendix 1: Governor's STEM Advisory Council Subcommittees

\* Indicates Full Council Member

### **Public Awareness Subcommittee: Creating and Maintaining Student Interest**

#### **Co- Chairs:**

- *Joyce Plotkin, Chair, The DIGITS Project; President Emerita, Massachusetts Technology Leadership Council\**
- *Barnas Monteith, Chair, MA State Science and Engineering Fair; Managing Partner and Co-Founder, Advanced Diamond Solutions, Inc.\**

#### **Members:**

- Christyanna Egun, Director of Boston Partnerships, Massachusetts General Hospital
- Dave Matheson, Massachusetts Technology Leadership Council, Robotics Cluster STEM Education Committee; Managing Partner, Split Rock Partners, Inc.
- Jane Burke, Founder and Executive Director, Flying Cloud Institute
- Joe Dorant, President, Massachusetts Organization of State Engineers and Scientists
- Jon Abbot, President and CEO, WGBH
- Larry Maier, President, Peerless Precision\*
- Marcy Reed, Senior Vice President, National Grid\*
- Mark DiNapoli, President and General Manager, Suffolk Construction\*
- Mary McLaughlin, Senior Vice President, Comcast Cable\*
- Michael Tamasi, Principal, Boston Centerless/AccuRounds\*
- Michael E. Pelletier, Northeast STEM Pipeline Network; Professor Emeritus of Computer Technology & Engineering, Northern Essex Community College
- Sandra Mayrand, Central MA STEM Pipeline Network; Director, Regional Science Resource Center, UMass-Medical School
- Steve Vinter, Engineering and Site Director, Google Inc.\*
- Ted Acworth, Founder and CEO, Artaic Innovative Mosaic\*

### **Teacher Development Subcommittee: Training, Recruitment, and Retention**

#### **Co- Chairs:**

- *Yvonne Spicer, Vice President for Advocacy & Educational Partnerships, Museum of Science\**
- *Lance Hartford, Executive Director, Massachusetts Biotechnology Education Foundation*
- *Janet Slovin, Former Member, Board of Higher Education and City of Worcester School Committee; Economic Development and Education Specialist*

#### **Members:**

- Bruce Johnson, Director, Technology and Innovation, MITRE\*
- Caroline Goode, MA Coordinator, NSTA Science Matters; Christa Corrigan McAuliffe Center for Education and Teaching Excellence, Framingham State College
- Dennis Berkey, President, WPI\*; and Designee: Martha Cyr, Director of K-12 Outreach, WPI
- Daniel Bosley, Massachusetts State Representative, First Berkshire District\*
- Larry Weathers, K-12 Director of Science, Health, and Technology Education, Belmont Public Schools

- Jack Wilson, President, University of Massachusetts\*; and Designee: Pat Plummer, Senior Advisor, University of Massachusetts President's Office
- J.D. Chesloff, Deputy Director, Massachusetts Business Roundtable\*
- Gary DiCamillo, Chairman, Massachusetts Business Roundtable's Education and Workforce Development Task Force; Partner, Eaglepoint Advisors, LLC\*
- Mary Ellen Rancourt, Northeast STEM Pipeline Network; Director of Curriculum, North Shore Technical Regional School District
- Mary Jo Carabatsos, Northeast STEM Pipeline Network; Science Program Advisor, Andover High School
- Sandra Ryack-Bell, Executive Director, Museum Institute for Teaching Science
- Sherri Killins, Commissioner, Massachusetts Department of Early Education and Care
- Richard Bisk, Chair and Professor of Mathematics, Worcester State College
- Rona Kiley, Boston Teacher Residency

### **Infrastructure Subcommittee: Grants, Strategic Partnerships, and Sustainability**

#### **Co- Chairs:**

- *Jim Stanton, Director, Technology Initiative, Metro South/West Regional Employment Board\**
- *Patrick Larkin, Director, John Adams Innovation Institute, Massachusetts Technology Collaborative*

#### **Members:**

- Deborah Andrews, Northeast STEM Pipeline Network; Youth Workforce Program Manager, Merrimack Valley Workforce Investment Board
- Elaine L. Webb, Advocacy Liaison, Reading School Committee
- Gary Kaplan, Executive Director, JFY NetWorks
- Isa Zimmerman, IKZ Advisors, STEM Education and Leadership\*
- James Brosnan, Superintendent, Northern Berkshire Vocational Regional School District\*
- John Werner, Managing Director & Chief Mobilizing Office, Citizen Schools
- Judith Boccia, Northeast STEM Pipeline Network; Assistant Professor and Director, Office of School Partnerships, UMass-Lowell
- Karen Spilka, Massachusetts State Senator, Second Middlesex and Norfolk District\*
- Kevin O'Sullivan, President and CEO, Massachusetts Biomedical Initiatives\*
- Laura Dauphinais, Director, Systems Engineering, Raytheon Company, Integrated Defense Systems
- Mike Looney, Teacher, Technology and Engineering Education, Mashpee Public Schools
- M.S. Vijay Kumar, Senior Associate Dean and Director, Office of Educational Innovation and Technology, MIT
- Sam Figler, Newton Schools Education Foundation
- Susan Gately, Executive Director, Blackstone Valley Chamber of Commerce Education Foundation
- Thomas Conroy, State Representative, Thirteenth Middlesex District\*

## **Data Collection Subcommittee: STEM Metrics, Indicators and Evaluation**

### **Co- Chairs:**

- *John Hodgman, Lecturer, Entrepreneurial Leadership Studies, Tufts Gordon Institute\**
- *Lynn Griesemer, Associate Vice President for Economic Development and Executive Director, UMass-Donahue Institute*

### **Members:**

- Alex Sanchez, Senior Manager, Global Supply Base Optimization, Raytheon Company\*
- Jean Supel, Research Manager, UMass-Donahue Institute
- Laura O'Dwyer, Northeast STEM Pipeline Network; Assistant Professor, Department of Educational Research, Measurement and Evaluation, Boston College
- MacCalvin Romain, Boston College Student, Information Systems & Communications
- Mary Grant, President, MCLA\*; and Designee: Monica Joslin, Dean of Academic Affairs, MCLA; Berkshire STEM Network
- Mary Kate Toomey, Civil Engineer, Jacobs Engineering
- Ronit Carter, Founder and President, The Promise of Excellence

## **Curriculum Framework and Standards Subcommittee: Alignment and Upgrades**

### **Co- Chairs:**

- *Christos Zahopoulos, Executive Director, Northeastern University Center for STEM Education\**
- *Sidney Smith, Superintendent, Malden Public Schools*

### **Members:**

- Charlie Corley, Retired Department Leader, Teacher, and Curriculum Developer, Winchester Public Schools
- Ioannis Miaoulis, President and Director, Museum of Science\*
- Larry Maier, President, Peerless Precision\*
- Marty Schecter, President, Retirees School Volunteer Organization
- Melinda Boone, Superintendent, Worcester Public Schools\*
- Ronit Carter, Founder and President, The Promise of Excellence
- Tracy Callanan, Community Lab Director, Biogen Idec

## **Diversity Subcommittee: Reducing the Achievement Gap and Pursuing Additional STEM Opportunities for Women and Minorities**

### **Co- Chairs:**

- *Zorica Pantić, President, Wentworth Institute of Technology\**
- *Ruth N. Bramson, CEO, Girl Scouts of Eastern Massachusetts*

## **Members:**

- Brenda L. Berube, Associate Professor of Science and Science Education & Interim Chair, Department of Science, Technology, Engineering and Mathematics, University of Massachusetts Dartmouth
- Claudia Alfaro, Chief Civic Engagement Officer, Citizen Schools
- Connie Chow, Executive Director, Science Club for Girls
- DiOnetta Jones, Associate Dean for Undergraduate Education and Director of the Office of Minority Education, MIT
- Edgar R. Cintron, Co-Founder, ENABLE Service Group; Former Region V Chairman, Regional United States Hispanic Chamber of Commerce
- Erika Ebbel, Founder and CEO, Science from Scientists (Formerly WhizKids)
- Julie Joyal Mowschenson, Director, Harvard Medical School Bioscience Program for High School Students
- Larisa Schelkin, CEO, President and Co-Founding Director, Diversity & Outreach in Math and Engineering
- Lisa Derby Oden, Project Director, STEM Career Pathways, Central Massachusetts Regional Employment Board
- Marc Abelard, Director of Partnerships and External Affairs, The Engineering School
- Ray McCarthy, President, MassTEC; Technology Education Teacher
- Rebecca Cusick, 4<sup>th</sup> Grade Teacher, Fall River Public Schools\*
- Reinier Moquete, Founder and President, Latino STEM Alliance
- Shantal Richards, Student, Tufts University
- Stephanie Lee, Regional Director of Public Affairs, Verizon
- Susan Windham-Bannister, President and CEO, Massachusetts Life Sciences Center\*
- Victoria Grisanti, Senior Manager, Community Involvement, EMC\*

## **Staff Support to Subcommittee Members**

- Benjamin Brier, Staff Manager, Massachusetts Technology Collaborative' Innovation Institute
- Carlos Martínez-Vela, Director of Innovation Policy, Massachusetts Technology Collaborative's Innovation Institute
- Claire Duggan, Center for STEM Education at Northeastern University
- Don Landing, MITRE
- Douglas McNally, Frosthollow Associates Educational Consultants
- Erin Bradley, Chief of Staff, Girl Scouts of Eastern Massachusetts
- Feby Kiragu, Center for STEM Education at Northeastern University
- Joyce Malyn-Smith, Director Strategic Initiatives Workforce & Human Development, Pathways to College and Careers, Education Development Center
- Kellyse Hood, Center for STEM Education at Northeastern University
- Rachel Grygorcewicz, Administrative Assistant, National Center for Technological Literacy
- Robert Kispert, Director of Cluster Development, Massachusetts Technology Collaborative's Innovation Institute
- Stephanie Crisp, Center for STEM Education at Northeastern University
- Stephen Herskovitz, President, Hammond Hill LLC

## **Executive Branch and Interagency Administration Staff**

- Adam Freudberg, Director of Operations and Assistant Director of Policy, Office of Lieutenant Governor Timothy P. Murray

- Barbara Libby, STEM Director, Office for Mathematics, Science, and Technology/Engineering, Massachusetts Department of Elementary and Secondary Education
- David Cedrone, Executive Director, Governor’s STEM Advisory Council; Associate Commissioner for Economic and Workforce Development, Massachusetts Department of Higher Education
- David McCauley, Former Deputy Chancellor for Workforce Development, Massachusetts Department of Higher Education
- Maxeme Tuchman, Harvard Fellow, Office of Lieutenant Governor Timothy P. Murray
- Eileen Lee, Director of Educator Policy, Massachusetts Department of Higher Education
- Elizabeth Losee, Massachusetts Department of Elementary and Secondary Education
- Eric Nakajima, Senior Innovation Advisor, Massachusetts Executive Office of Housing and Economic Development
- Jacob Foster, Ph.D., Director, Science & Technology/Engineering, Massachusetts Department of Elementary and Secondary Education
- Jonathan Palumbo, Communications Director, Massachusetts Executive Office of Education
- Keith Connors, STEM Pipeline Fund Program Manager, Massachusetts Department of Higher Education
- Maureen Lally, Massachusetts Department of Elementary and Secondary Education
- Marissa Goldberg Cole, Deputy Chief of Staff, Massachusetts Executive Office of Education
- Saeyun Lee, Ph.D., Policy Director, Massachusetts Executive Office of Education

**By His Excellency**

**DEVAL L. PATRICK**

**GOVERNOR**

**EXECUTIVE ORDER NO. 513**

**ESTABLISHING THE GOVERNOR'S SCIENCE, TECHNOLOGY,  
ENGINEERING AND MATH ADVISORY COUNCIL**

WHEREAS, the Commonwealth of Massachusetts is a worldwide leader in innovation;

WHEREAS, to compete in the global economy and with other states, Massachusetts needs to leverage more effectively its resources in the areas of science, technology, engineering and math ("STEM"); enhance the state's STEM workforce; increase the number of high-skills STEM jobs; and keep high school and college graduates living in the Commonwealth;

WHEREAS, additional coordination at the Executive level will help position Massachusetts for growth in the STEM fields and advocate for and foster increased investment in STEM education;

WHEREAS, it is important for the state to partner with the private sector to promote STEM education and careers; and voluntary cooperation among state agencies, elementary and postsecondary education systems and business and community members will contribute to the success of these efforts;

WHEREAS, the establishment of a STEM Council in the Commonwealth is an important step in creating the alignment that is essential to deliver the high quality education and workforce training needed to prepare each resident for life and work; and

WHEREAS, establishing a statewide STEM Council will increase coordination and efficiency, and enable the state to address more effectively the critical shortage of college graduates choosing a STEM field for their major and/or their profession;

NOW, THEREFORE, I, Deval L. Patrick, Governor of the Commonwealth of Massachusetts, by virtue of the authority vested in me by the Constitution, Part 2, c. 2, § 1, Art. I, hereby order as follows:

Section 1. There is hereby established the Governor's Science, Technology, Engineering, and Math (STEM) Advisory Council. The Council shall advise the Governor and assist in informing the work of the Secretaries of Education, Labor and Workforce Development, and Housing and Economic Development on issues relating to STEM education and STEM careers in the Commonwealth.

Section 2. The Council shall:

(a) Confer with participants and parties from the public and private sector involved with STEM planning and programming;

(b) Assess how best to dramatically increase student interest in, and preparation for, careers in STEM;

(c) Advise concerning the creation and implementation of a statewide STEM Plan that will establish clear goals and objectives for the Commonwealth's STEM efforts over the next five years, including the creation of benchmarks for improvements; and

(d) Provide recommendations regarding a campaign to build public support and help parents, students, employees and community leaders understand why the STEM disciplines are critical to individual success.

Section 3. The Council shall be chaired by the Lieutenant Governor of the Commonwealth or his designee (the "Chair") and shall consist of not more than 40 members, including the chair and ex officio members. Each member, other than the Chair, shall be appointed by the Governor and shall serve at the Governor's pleasure, without compensation, solely in an advisory capacity.

Section 4. Council members shall be persons with demonstrated interest, experience and expertise in STEM education and shall be selected by the Governor from the following groups:

The Massachusetts State Senate Co-Chair from the Robert H. Goddard Council on Science, Technology, Engineering and Mathematics Education (the "Robert H. Goddard Council");

The Massachusetts House of Representatives Co-Chair from the Robert H. Goddard Council;

One (1) member from the Massachusetts State Senate, recommended by the Senate President;

One (1) member from the Massachusetts House of Representatives, recommended by the Speaker of the House;

The following seven (7) state officials, or their designees, as ex officio members: Secretary of Education, Secretary of Labor and Workforce Development, Secretary of Housing and Economic Development, Commissioner of Elementary and Secondary Education, Commissioner of Higher Education, Commissioner of Early Education and Care, and President of the University of Massachusetts;

One (1) member from each of the following nine (9) fields: Biotechnology, Clean Energy, Engineering, Healthcare, Information Technology, Manufacturing, Elementary and Secondary Education, Higher Education, and Vocational Technical Education.

Up to nineteen (19) additional qualifying members as the Governor deems appropriate from the foregoing fields or from other STEM sectors, at least one of whom shall be an educator.

Section 5. The Council shall establish an Executive Committee comprised of up to seven (7) members who shall provide guidance on the recommendations of the Council and plan future meetings and initiatives.

The Chair shall determine the membership of the Executive Committee. Section 6. The administrative operations of the Council shall vest with an Executive Director, who shall be appointed by, and serve at the pleasure of, the Lieutenant Governor. The Executive Director shall be housed within the Executive Office of Education.

Section 7. The Council and its Executive Committee shall meet at such times and places as determined by the Chair.

Section 8. The Chair, or the Executive Director with the Chair's approval, may direct the Council to form subcommittees to focus on particular challenges facing STEM education and the STEM fields in the Commonwealth. The composition and nature of each committee shall be determined by the Chair.

Section 9. All agencies, departments and boards of the Commonwealth shall fully cooperate with the Council. The Council may call and rely upon the expertise and services of individuals and entities outside of its membership for research, advice, support or other functions necessary and appropriate to accomplish its mission.

Section 10. The Council shall report any findings or recommendations, including any recommendations for legislation or regulation(s), to the Governor at such periods as determined by the Chair.

Section 11. This Executive Order shall continue in effect until amended, superseded or revoked by subsequent Executive Order.

Given at the Executive Chamber in  
Boston this 14th day of October in the  
year two thousand and nine and of the  
Independence Of the United States, two  
hundred and thirty-four.

DEVAL L. PATRICK  
GOVERNOR

WILLIAM FRANCIS GALVIN  
Secretary of the Commonwealth

Commonwealth of Massachusetts

GOD SAVE THE COMMONWEALTH OF MASSACHUSETTS

## **Community Colleges: Helping Get People Back to Work**

Governor Patrick has proposed to make community colleges a key component of his efforts to help people get back to work by unifying the fifteen individual community college campuses into a strengthened, state-wide system. A unified community college system will work in coordination with vocational schools, career centers, businesses and other public higher education institutions to ensure that residents can get the skills they need for the jobs that are available now - - and also ensure that we provide students with a strong academic foundation so that they have the ability to meet emerging workforce needs as the economy continues to change. Governor Patrick's proposal calls for each campus to maintain local control and day-to-day management and for the state Board of Higher Education to set performance benchmarks to make sure that community colleges are fully integrated with the state's economic and educational systems.

### ***Why this plan? What's the problem we're trying to solve with this proposal?***

There are 120,000 job openings in Massachusetts right now and 240,000 people looking for work. The challenge before us is to match the talent of job seekers with the skills needed to fill the open jobs. To do that, we need to create an integrated and unified workforce talent pipeline.

When open positions remain unfilled, it is usually because there is a gap between the skills employers need and the skills job seekers have, especially when it comes to jobs that require more than a high school degree but not necessarily a bachelor's degree. This proposal is about closing that gap and making sure residents can get the training they need to get jobs.

The problem we have is the skills gap; the problem is not the community colleges. The community colleges are at the center of the solution. We need to be able to meet the needs that exist today – and have the vision and flexibility to be ready as those needs change with our growing economy.

### ***How does this plan help solve the skills gap?***

This plan builds on the successful programs many community colleges currently offer. It takes the success they have had with some of their local businesses and gives all community colleges the tools they need to replicate that with more employers, especially those with more complex jobs. Our current system of community college organization produces those types of interactions at the local level, but provides no vehicle for parallel collaboration at the regional and state levels.

Under this plan, students will be able to tap into resources, employers and programs across Massachusetts. Employers will know that they can grow in Massachusetts and can count on a well-trained workforce in every region of the state.

Governor Patrick's proposal helps community colleges close the skills gap by increasing state funding, calling on businesses to raise private funds and allowing more state and federal workforce training funds to go directly to community colleges. Integrating this increased funding with greater accountability and efficiencies will help ease the burden on students and keep community colleges accessible to the people who need them.

### ***Does this program take away local control?***

No, this proposal **preserves** local Boards of Trustees to manage the day to day operation of each campus and to develop campus specific strategic plans based on their assessment of local needs.

This plan does establish a “shared governance model,” consolidating some power with the state-wide Board of Higher Education while explicitly preserving local control as outlined above.

The Board of Higher Education will be responsible for allocating funding and holding local campus leadership accountable. To do this, the Board will use clear and public criteria including student enrollment, responsiveness to the changing workforce needs and other performance measures, such as how a given campus is working to meet Vision Project benchmarks and how easy is it for students to transfer to other community colleges, to a state college or to the University of Massachusetts. Campuses won't be “told what to do” by the board; they will be held accountable for how well they are helping close the skills gap in their region.

Even with these changes the Massachusetts community colleges would still be among the most autonomous state-supported community colleges in the country.

### ***What are the benefits to students?***

Students will have more access to relevant, career-focused training programs and high-quality educational opportunities, which will make it easier for them to find a job or move on to a four-year college.

In a unified system, students will have access to world-class skills training at every community college. It will be easier for students to find and access the right program for them, even if it is not at their local campus.

A statewide system will make it easier to transfer credits between different community college campuses as well as state colleges and universities and the UMass system.

### ***Does this proposal mean community college students can't move on to four-year institutions?***

No. This proposal will make it easier for students to go from community college to another community college or a public four-year institution by standardizing core classes and credits.

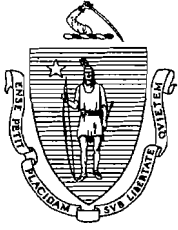
### ***Why not just increase funding for the current system?***

The economy is growing and changing; our community colleges – and all of our economic and educational systems in Massachusetts – must adapt and work together to keep pace.

We must build a comprehensive system that has the capacity to meet constantly evolving workforce needs. With community colleges at the center, the system will include vocational and technical schools, our workforce training system, employers and the public higher education system. No one part can do it on its own.

The jobs available today require more complex skills and training than ever before and Massachusetts companies can recruit talent from around the world. Residents need a strong community college system so that they can compete for those jobs.

Our community college students deserve the chance to attend world-class programs and our community colleges need additional support to build them. We can't ask fifteen small campuses to each compete against the entire state of North Carolina or California. In order to compete on a national level, we need to unify the efforts of our community colleges and make them part of our comprehensive efforts to help people get back to work.



THE COMMONWEALTH OF MASSACHUSETTS  
EXECUTIVE DEPARTMENT  
STATE HOUSE • BOSTON 02133  
(617) 725-4000

DEVAL L. PATRICK  
GOVERNOR

TIMOTHY P. MURRAY  
LIEUTENANT GOVERNOR

**By His Excellency**

**DEVAL L. PATRICK  
GOVERNOR**

**EXECUTIVE ORDER NO. 489**

**Establishing the Readiness Project**

WHEREAS, it is a constitutional obligation of the Commonwealth to provide an education for all her children;

WHEREAS, it is the policy of the Commonwealth to assure that public education at all levels is of such quality to provide every child a fair and full opportunity to reach his or her full potential;

WHEREAS, the Commonwealth has made important progress in education reform over the past fourteen years;

WHEREAS, data on graduation rates, readiness for college study, and the modern labor force indicate that there is significant work to be done to achieve quality public education for all;

WHEREAS, the demands of the global marketplace and the Commonwealth's own high standards and expectations continue to increase; and

WHEREAS, to meet those demands and to ensure that each individual has the opportunity to be a productive, engaged and contributing citizen, it is the policy of the Commonwealth to implement a comprehensive, child-centered public education system that begins before kindergarten, continues through grade 12 and higher

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education, and extends to work force development and lifelong learning;

NOW, THEREFORE, I, Deval L. Patrick, Governor of the Commonwealth of Massachusetts, by virtue of the authority vested in me by the Constitution, Part 2, c.2, § 1, Art. 1, hereby order as follows:

Section 1. There is hereby established the Readiness Project. The Readiness Project will develop a plan to implement fundamental and systemic reforms to public education in the Commonwealth over the next ten years. The plan will include (but not be limited to) recommendations to:

- Deliver universal and high quality early education for three- and four-year-olds as well as Full-Day kindergarten;
- Expand time for teaching and learning in primary and secondary schools;
- Extend education an additional two years beyond secondary school to better prepare students for higher education, work and citizenship;
- Align curricula from pre-Kindergarten through high school, higher education and work force development, including with an emphasis on science, technology, engineering and math as well as other subjects and methods that enhance creativity and problem-solving skills;
- Structure and support a reasonable degree of school choice, including charter and pilot schools, so that all serve as complementary components of a comprehensive system;
- Recruit, retain and develop strong educators and administrators at all levels;
- Streamline and strengthen teacher certification and licensing;
- Improve the Massachusetts Comprehensive Assessment System and introduce additional appropriate standards and assessments to measure other aspects of students' academic development;
- Fund the education system adequately, equitably and reliably, including for students with special educational needs;

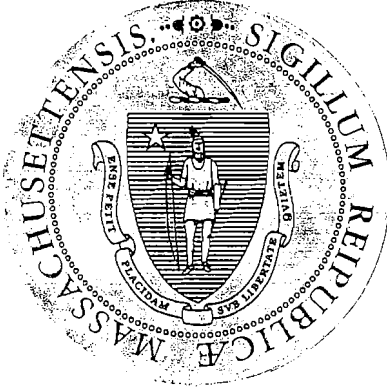
- Facilitate collaboration between and among the Commonwealth's public and private institutions of higher education;
- Strengthen the structure and clarify the mission of the institutions that comprise the University of Massachusetts system and all public higher education institutions in the Commonwealth;
- Implement an effective and efficient accountability system for students, instructors and administrators from pre-Kindergarten through higher education that enables authorities both to review performance and to target assistance where it is most needed; and
- Leverage information technology throughout the system to improve instruction, student acquisition of skills, administrative processes, and the quality of and access to data.

Section 2. The Readiness Project shall have three chairs and a Leadership Council, appointed by the Governor. The chairs and the Leadership Council may create working groups as they deem necessary to focus on particular challenges facing education in the Commonwealth. At a minimum, there shall be a working group on public higher education to support the tasks of the Readiness Project set out above that relate to the structure and mission of public colleges and universities.

Section 3. All members of the Project, including the chairs, the Leadership Council, and any working groups, shall serve without compensation in an advisory capacity and at the pleasure of the Governor. The Project will meet at such times and places as determined by the chairs.

Section 4. The Project shall submit its report and recommendations to the Governor on or before March 31, 2008.

Section 5. This Executive Order shall continue in effect until amended, superseded or revoked by subsequent Executive Order.



Given at the Executive Chamber in Boston this 6th day of August in the year of our Lord two thousand and seven and of the Independence of the United States two hundred and thirty-one.

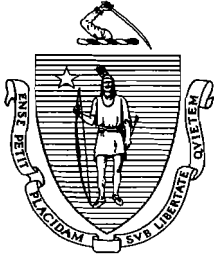
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DEVAL L. PATRICK  
GOVERNOR  
Commonwealth of Massachusetts

A handwritten signature in black ink, appearing to read "William Francis Galvin", written over a horizontal line.

WILLIAM FRANCIS GALVIN  
Secretary of the Commonwealth

**GOD SAVE THE COMMONWEALTH OF MASSACHUSETTS**



OFFICE OF THE GOVERNOR  
**COMMONWEALTH OF MASSACHUSETTS**  
STATE HOUSE • BOSTON, MA 02133  
(617) 725-4000

**DEVAL L. PATRICK**  
GOVERNOR

**TIMOTHY P. MURRAY**  
LIEUTENANT GOVERNOR

**By His Excellency**

**DEVAL L. PATRICK**  
GOVERNOR

**EXECUTIVE ORDER NO. 513**

**ESTABLISHING THE GOVERNOR'S SCIENCE, TECHNOLOGY,  
ENGINEERING AND MATH ADVISORY COUNCIL**

SECRETARY OF STATE  
RECORDS DIVISION  
2009 OCT 14 PM 4:12

WHEREAS, the Commonwealth of Massachusetts is a worldwide leader in innovation;

WHEREAS, to compete in the global economy and with other states, Massachusetts needs to leverage more effectively its resources in the areas of science, technology, engineering and math ("STEM"); enhance the state's STEM workforce; increase the number of high-skills STEM jobs; and keep high school and college graduates living in the Commonwealth;

WHEREAS, additional coordination at the Executive level will help position Massachusetts for growth in the STEM fields and advocate for and foster increased investment in STEM education;

WHEREAS, it is important for the state to partner with the private sector to promote STEM education and careers; and voluntary cooperation among state agencies, elementary and postsecondary education systems and business and community members will contribute to the success of these efforts;

WHEREAS, the establishment of a STEM Council in the Commonwealth is an important step in creating the alignment that is essential to deliver the high quality education and workforce training needed to prepare each resident for life and work; and

WHEREAS, establishing a statewide STEM Council will increase coordination and efficiency, and enable the state to address more effectively the critical shortage of college graduates choosing a STEM field for their major and/or their profession;

NOW, THEREFORE, I, Deval L. Patrick, Governor of the Commonwealth of Massachusetts, by virtue of the authority vested in me by the Constitution, Part 2, c. 2, § 1, Art. I, hereby order as follows:

Section 1. There is hereby established the Governor's Science, Technology, Engineering, and Math (STEM) Advisory Council. The Council shall advise the Governor and assist in informing the work of the Secretaries of Education, Labor and Workforce Development, and Housing and Economic Development on issues relating to STEM education and STEM careers in the Commonwealth.

Section 2. The Council shall:

(a) Confer with participants and parties from the public and private sector involved with STEM planning and programming;

(b) Assess how best to dramatically increase student interest in, and preparation for, careers in STEM;

(c) Advise concerning the creation and implementation of a statewide STEM Plan that will establish clear goals and objectives for the Commonwealth's STEM efforts over the next five years, including the creation of benchmarks for improvements; and

(d) Provide recommendations regarding a campaign to build public support and help parents, students, employees and community leaders understand why the STEM disciplines are critical to individual success.

Section 3. The Council shall be chaired by the Lieutenant Governor of the Commonwealth or his designee (the “Chair”) and shall consist of not more than 40 members, including the chair and ex officio members. Each member, other than the Chair, shall be appointed by the Governor and shall serve at the Governor’s pleasure, without compensation, solely in an advisory capacity.

Section 4. Council members shall be persons with demonstrated interest, experience and expertise in STEM education and shall be selected by the Governor from the following groups:

The Massachusetts State Senate Co-Chair from the Robert H. Goddard Council on Science, Technology, Engineering and Mathematics Education (the “Robert H. Goddard Council”);

The Massachusetts House of Representatives Co-Chair from the Robert H. Goddard Council;

One (1) member from the Massachusetts State Senate, recommended by the Senate President;

One (1) member from the Massachusetts House of Representatives, recommended by the Speaker of the House;

The following seven (7) state officials, or their designees, as ex officio members: Secretary of Education, Secretary of Labor and Workforce Development, Secretary of Housing and Economic Development, Commissioner of Elementary and Secondary Education, Commissioner of Higher Education, Commissioner of Early Education and Care, and President of the University of Massachusetts;

One (1) member from each of the following nine (9) fields: Biotechnology, Clean Energy, Engineering, Healthcare, Information Technology, Manufacturing, Elementary and Secondary Education, Higher Education, and Vocational Technical Education.

Up to nineteen (19) additional qualifying members as the Governor deems appropriate from the foregoing fields or from other STEM sectors, at least one of whom shall be an educator.

Section 5. The Council shall establish an Executive Committee comprised of up to seven (7) members who shall provide guidance on the recommendations of the Council and plan future meetings and initiatives. The Chair shall determine the membership of the Executive Committee.

Section 6. The administrative operations of the Council shall vest with an Executive Director, who shall be appointed by, and serve at the pleasure of, the Lieutenant Governor. The Executive Director shall be housed within the Executive Office of Education.

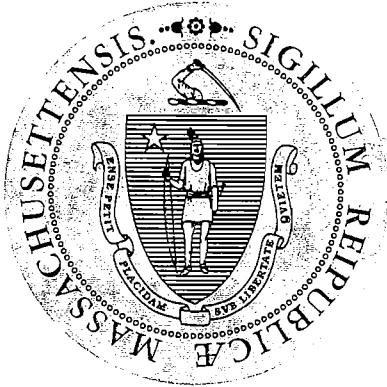
Section 7. The Council and its Executive Committee shall meet at such times and places as determined by the Chair.

Section 8. The Chair, or the Executive Director with the Chair's approval, may direct the Council to form subcommittees to focus on particular challenges facing STEM education and the STEM fields in the Commonwealth. The composition and nature of each committee shall be determined by the Chair.

Section 9. All agencies, departments and boards of the Commonwealth shall fully cooperate with the Council. The Council may call and rely upon the expertise and services of individuals and entities outside of its membership for research, advice, support or other functions necessary and appropriate to accomplish its mission.

Section 10. The Council shall report any findings or recommendations, including any recommendations for legislation or regulation(s), to the Governor at such periods as determined by the Chair.

Section 11. This Executive Order shall continue in effect until amended, superseded or revoked by subsequent Executive Order.



Given at the Executive Chamber in Boston this 14<sup>th</sup> day of October in the year two thousand and nine and of the Independence of the United States, two hundred and thirty-four.

A handwritten signature in black ink, appearing to read "Deval Patrick", written over a horizontal line.

DEVAL L. PATRICK  
GOVERNOR  
Commonwealth of Massachusetts

A handwritten signature in black ink, appearing to read "William Francis Galvin", written in a cursive style.

WILLIAM FRANCIS GALVIN  
Secretary of the Commonwealth

SECTION 46. [Section 21 of chapter 15A](#) of the General Laws, as so appearing, is hereby amended by striking out the first paragraph and inserting in place thereof the following paragraph:-

There shall be a board of trustees consisting of 11 members for each of the institutions named in section 5, other than the University of Massachusetts. Each board of trustees shall elect a chairman; provided, however, that in the case of community colleges, the governor shall appoint the chairman, who shall reside within the geographic region of the community college. Each community college board of trustees shall include a vocational-technical school district trustee, pursuant to [section 4 of chapter 74](#), representing each vocational-technical school in the region, to serve as a non-voting member.

SECTION 47. Said [section 21 of said chapter 15A](#), as so appearing, is hereby further amended by inserting after the second paragraph the following paragraph:-

Each community college board of trustees shall designate a member to serve as a non-voting member of the district trustees for vocational-technical schools that share the same geographic region as the community college. The designated member shall serve as a liaison between the 2 boards for the purposes of sharing information and developing policies that promote greater interaction between the community college and the vocational-technical schools while maximizing the educational resources available to individuals seeking to learn a trade or develop targeted employment skills.

SECTION 48. Said [section 21 of said chapter 15A](#), as so appearing, is hereby further amended by inserting after the word "institution", in line 57, the following words:- ; provided, however, that the council shall appoint 1 voting member to assist the board of trustees in a search for the appointment of the chief executive officer.

SECTION 49. [Section 22 of said chapter 15A](#), as so appearing, is hereby amended by inserting after the word "authority", in lines 7 and 8, the following words:- ; provided further, that the local board of trustees of a community college shall annually submit a report detailing estimates of maintenance, capital outlay budgets and proposed property acquisitions for the institution under its authority to the house and senate committees on ways and means, the secretary of administration and finance and the commissioner of capital asset management and maintenance on or before December 31.

SECTION 50. Clause (o) of said [section 22 of said chapter 15A](#), as so appearing, is hereby amended by adding the following sentence:- Said assessment report shall include an analysis of the collaboration between the community college and vocational technical schools and the training and job development programs implemented by the community college and vocational technical schools.

SECTION 51. Said [chapter 15A](#) is hereby further amended by adding the following section:-

Section 42. The commissioner shall establish in the department of higher education, an office of coordination. The commissioner shall appoint a director to operate and administer the office who shall have experience with workforce development in the public or private sector. The director shall work to establish a clearinghouse for all training opportunities provided by public higher education institutions. The University of Massachusetts, state universities and community colleges shall report to this office every workforce training opportunity the institutions provide for the institutions' students and others in the workforce and all workforce training requests the institutions received but were not able to meet. The director shall maintain a public website listing all training opportunities offered by public higher education institutions and shall provide support for employers with workforce training needs that can be served through public higher education institutions. The director shall provide information to public higher education institutions to help the institutions provide workforce development services in the most efficient manner possible and eliminate redundancies in the commonwealth's public higher education workforce development offerings. The director shall establish a program for employers newly opened in or relocated to the commonwealth to apprise these employers of workforce training programs offered through public higher education institutions and provide assistance in securing workforce development grants through the department of higher education. The office of coordination shall coordinate with existing workforce development programs provided by the commonwealth. The director shall prepare an annual report for publication on progress to improve the effectiveness of the commonwealth's workforce development efforts offered through public higher education institutions and shall report regularly to the public on the progress the office is making towards achieving the stated goals.

The annual report, which shall be in a form and manner prescribed by the commissioner, shall include, but not be limited to: (i) a commissioner-approved plan for the year, including the goals set for the year and the performance measurements by which to evaluate those goals and programs or initiatives to meet those goals; (ii) the number, nature and amount of trainings facilitated and grants awarded to employers assisted by the office; and (iii) a description of technical assistance that the office provided.

The annual report of the office shall be made available to the public on the commonwealth's website not later than December 31 and shall be filed with the clerks of the senate and house of representatives and the chairs of the house and senate committees on ways and means.

## ***Innovation Schools: Using Innovation to Promote Academic Achievement***

The Innovation Schools initiative, a signature component of *An Act Relative to the Achievement Gap* that Governor Patrick signed in January 2010, provides educators and other stakeholders across the state with the opportunity to create new **in-district schools that can implement creative and inventive strategies, increase student achievement, and reduce achievement gaps while keeping school funding within districts**. These unique schools operate with increased autonomy and flexibility in six key areas: curriculum; budget; school schedule and calendar; staffing (including waivers from or exemptions to collective bargaining agreements); professional development; and school district policies.

Innovation Schools can be established by teachers, school and district administrators, superintendents, union leaders, school committees, parents, parent-teacher organizations, colleges and universities, non-profit community-based organizations, non-profit businesses or corporations, non-profit charter school operators, non-profit education management organizations, educational collaboratives, consortia of these groups, or other non-profit groups authorized by the Commissioner of Elementary and Secondary Education.

### **Operation of Innovation Schools**

An Innovation School will operate according to an **innovation plan** which describes the areas of autonomy and flexibility and specific strategies that will be implemented in the school. At least one of the six areas of autonomy and flexibility must be addressed in this plan, and the applicant can determine which additional areas will be utilized in the short- and long-term. An innovation plan must include detailed information about the following:

- Specific **instructional, curricular, and assessment strategies** that will be implemented to improve student achievement and school performance;
- Allocation of **fiscal and other resources**;
- **School schedule and calendar**;
- Specific **recruitment, employment, evaluation, and compensation strategies** for staff members, and if applicable, a description of **proposed waivers from or modifications to collective bargaining agreements**;
- **Professional development opportunities** for all administrators, teachers, and staff members; and
- If applicable, **proposed waivers from district policies**.

The innovation plan must also include **annual measurable goals** that assess factors such as student achievement and school performance. In exchange for the authority to operate the school with increased autonomy, Innovation School operators will be held responsible for advancing student learning and meeting these annual benchmarks. Innovation Schools will receive the **same per pupil allocation** as any other school in the district, and its operators can also secure grant or other types of supplemental funding to implement the innovation plan.

Eligible applicants can create an **Innovation Zone** that may include a set of schools within a district or geographic region, schools that will operate in accordance with particular instructional or curricular themes, or schools that are defined by other factors as determined by the applicants.

**Multiple districts can work together to establish an Innovation School** that would serve students from different communities.

Virtual Innovation Schools can also be established; they must operate in accordance with the Innovation Schools statute as well as additional regulations that were adopted by the Board of Elementary and Secondary Education in July 2010. These regulations are available at <http://www.doe.mass.edu/lawsregs/603cmr48.html?section=05>.

### **Authorization Process**

Innovation Schools are established in accordance with a locally-based authorization process.

1. An eligible applicant **submits an initial prospectus to the district superintendent**. *Within 30 days of receiving the prospectus, the superintendent must convene a screening committee that includes the superintendent or a designee, a school committee member or a designee, and a representative from the local teachers' union; two-thirds approval from the screening committee is required for the applicant to move forward.*
2. An **innovation plan committee** that includes up to 11 school, district, and community representatives develops the innovation plan.
3. Upon completion of the innovation plan, specific steps are required.
  - A **conversion school requires a two-thirds majority vote of educators** in the school.
  - A **new school requires negotiations** among the applicant, teacher's union, and superintendent **if the innovation plan includes proposed waivers from or modifications to the collective bargaining agreement**.
4. The innovation plan is submitted to the school committee, which must hold at least **one public hearing**. A **majority vote** of the full school committee is required for approval.
5. Upon approval, **the Innovation School is authorized for a period of up to five years**, and can be reauthorized by the school committee at the end of each term. *The superintendent will work with the school committee to evaluate the school in accordance with the annual measurable goals included in the innovation plan. In addition, the superintendent can work with the operator of the Innovation School and the school committee to revise the plan as necessary.*

### **Resources to Support the Establishment of Innovation Schools**

The Executive Office of Education (EOE) and the Department of Elementary and Secondary Education will award planning and implementation grants to eligible applicants and partner districts based on availability of funding. Innovation Schools Planning Grants are supported with state Race to the Top funding. The Requests for Proposals (RFPs) for grants will be posted at [www.mass.gov/edu/innovationschools](http://www.mass.gov/edu/innovationschools).

Additionally, technical assistance will be provided to eligible applicants to support the development of innovation plans.

### **Additional Information**

Guidance documents about the Innovation School model and approval process approved initial prospectuses and innovation plans, and information about the planning and implementation grants are available at [www.mass.gov/edu/innovationschools](http://www.mass.gov/edu/innovationschools).

For more information about the Innovation Schools initiative, please contact Bridget Rodríguez, Director of Planning and Collaboration at the Executive Office of Education ([bridget.rodriguez@state.ma.us](mailto:bridget.rodriguez@state.ma.us)) or the Department of Elementary and Secondary Education ([achievement@doe.mass.edu](mailto:achievement@doe.mass.edu)).

## Massachusetts Innovation Schools

There are 47 Innovation Schools in the Commonwealth established in urban, suburban and rural communities. These include schools of varying grade levels (e.g. elementary, middle, and high school) and school types (e.g. new or converted schools or programs within an existing school). Many of these schools are organized around specific themes like **STEM**, **dual language** instruction, **International Baccalaureate (IB)** programs, **alternative education** opportunities (like dropout prevention and dual enrollment at community colleges), **virtual platforms** and **wraparound** services. Many of the schools will also operate with novel schedules that will significantly increase instructional time for students and professional learning opportunities for educators.

### AUBURN

- STEM Academy for Middle School Engineers: conversion school, scheduling, curriculum and professional development autonomies

### BOSTON

- Blackstone School: preK-5 conversion school, turnaround school using multiple autonomies to sustain student gains
- Roger Clap Community Academy: new school, grades K-5, lengthened school day, more professional development, inclusive governing board
- Eliot School: conversion elementary school, seeking to increase individualization of instruction for students
- Madison Park Technical Vocational High School: conversion high school, focused on multiple pathways
- Margarita Muñiz Academy: new school, grades 9 – 12, dual language (English/Spanish) high school
- W.M. Trotter School: K-5 conversion school, turnaround school using multiple autonomies to sustain student gains

### CAPE COD REGIONAL TECHNICAL HIGH SCHOOL

- Cape Cod Tech STEM Academy: new Innovation School academy, propose as a four-year STEM Program

### CENTRAL BERKSHIRE REGIONAL SCHOOL DISTRICT

- Becket Washington Elementary School: conversion school, curricular and scheduling autonomies
- Berkshire Trail Elementary School: conversion school, curricular and professional development autonomies

### DENNIS-YARMOUTH

- Ezra H. Baker Innovation School: conversion elementary school, seeking a broad range of autonomies
- Marguerite E. Small School: conversion school, grades 4-5, extended day for students through staggered teacher schedule
- Nathaniel H. Wixon Innovation School: conversion middle schools, focused on inventive ways to cluster students and provide project-based learning activities

### FALL RIVER

- Edmond Talbot Innovation School: conversion elementary school, STEM, shared leadership model, community partnerships

### FALMOUTH

- Lawrence School: conversion school, grades 7-8, STEM, distributive leadership model

### FITCHBURG

- Fitchburg Arts Academy/McKay Campus School: dual conversion school, expeditionary learning and project based curricular focus

### GLOUCESTER PUBLIC SCHOOLS

- O'Maley Innovation Middle School: conversion middle school, autonomies in the areas of instructional, curricular and assessment strategies, district policies, school schedule, and professional development

### GREENFIELD

- Discovery School at Four Corners: conversion school, grades K-3, environmentally themed curriculum with expanded staff meeting time
- Massachusetts Virtual Academy at Greenfield: new school, grades K-12, offers completely virtual school experience
- GEMS Innovation School: new Innovation academy for 4<sup>th</sup> and 5<sup>th</sup> grades

### HAVERHILL PUBLIC SCHOOLS

- John C. Titlon Innovation School: conversion school, multiple autonomies sought to create partnerships within the community

### LEOMINSTER PUBLIC SCHOOLS

- Center for Technical Education innovation School: Innovation academy, STEM focused program within larger vocational and technical high school
- Leominster Center for Excellence: new high school, alternative educational program, to include complete wrap-around academic, extended academic and therapeutic services

### MAHAR

- Pathways Early College High School: new school, grades 11 and 12, collaboration with Mount Wachusett Community College, students earn a high school diploma and college credits

### MALDEN PUBLIC SCHOOLS

- Linden S.T.E.A.M Innovation School Academy: conversion S.T.E.A.M. school

## MONSON

- Monson New Century High School: conversion school, grades 9-12, individualized programs in 11<sup>th</sup> and 12<sup>th</sup> grade

## NEW BEDFORD

- Renaissance Community School for the Arts: new school, grades K-5, integrated arts program that includes community partners

## NORTHBOROUGH-SOUTHBOROUGH PUBLIC SCHOOLS

- Algonquin Personal Pathways in STEM Partnership: new STEM high school, alternative learning environments delivered through a blended learning model [not yet in operation]

## NORTH MIDDLESEX

- Baccalaureate School of North Middlesex: school-within-a-school, grades 11-12, IB program [not yet in operation]

## QUABBIN REGIONAL SCHOOL DISTRICT

- International Baccalaureate School at Quabbin: new Innovation academy, based on International Baccalaureate Diploma program [not yet in operation]

## QUABOAG

- Quaboag Innovation Early College: conversion, school-within-a-school, grades 11-12, STEM, dual enrollment
- Quaboag Innovation Middle School: conversion school, grades 7-8, STEM
- West Brookfield Elementary Innovation School: conversion S.T.E.A.M. school, exploratory hands-on mathematics
- Warren Community Elementary Innovation School: conversion school, focus on S.T.E.A.M. model, along with project based learning and service learning

## REVERE

- Paul Revere Innovation School: conversion school, grades K-5, creative scheduling to create common planning time, shared leadership model

## SPRINGFIELD

- Springfield Renaissance Innovation School: conversion school, grade 6-12, focus on college and career readiness, Expeditionary Learning

## WEST SPRINGFIELD

- 21st Century Skills Academy: new school, grades 9-12, hybrid virtual and in-school course work, work-based learning

## WORCESTER

- The Chandler Magnet School: conversion school, grades preK-6, dual language program (English/Spanish)
- Goddard Scholars Academy at Sullivan Middle School: conversion school-within-a-school, grades 6-8, accelerated magnet program
- Goddard School of Science and Technology: conversion school, grades preK-6, STEM
- Lincoln Street Early Literacy Innovation School: conversion, focus on literacy, professional development
- University Park Campus School: conversion school, grades 7-12, college preparatory
- Woodland Academy: conversion school, pre-K-6, new staffing autonomies, enhanced governing board
- Worcester East Middle School - Academy of Science, Health and Technology: partial conversion, focus on rigorous academic program for college and career success
- Worcester Technical STEM Early Career & College High School: conversion school, STEM

## SALEM

- Carlton Elementary School: conversion school, grades K-5, individualized learning, continuous progress model, trimester student transitions

## SOMERVILLE PUBLIC SCHOOLS

- Winter Hill Community Innovation School: conversion school collaborative approach to teacher leadership and student engagement

## *Readiness Centers: Activities and Initiatives*

This document provides a summary of the activities and initiatives for each of the six regional Readiness Centers with regard to establishing governance structures and building partnerships with local, regional, and state stakeholders; providing professional development and instructional services to educators; and convening stakeholders to address key education priorities.

### **Berkshire Readiness Center (BRC)**

#### *Governance*

- The lead partners for the BRC, Massachusetts College of Liberal Arts (MCLA), the Berkshire Compact for Education, and Berkshire Community College (BCC) have established an advisory group that is focused on setting strategy, ensuring the alignment of existing and proposed programs with BRC goals, and identifying additional partners and programs as needed.
- This advisory group is leveraging the expertise and resources of existing partnerships with the Berkshire Compact for Education; the Executive Committee for the Compact has been complemented by additional representatives from early childhood, K-12, vocational education, workforce development, and business partners, and also includes the Regional Assistance Director for the District and School Assistance Center (DSAC).

#### *Professional Development and Instructional Services*

- The BRC has begun to offer services that are related to several priority issues: 1) aligning goals and benchmarks to better ensure that students' transitions between grade levels are seamless; 2) developing activities that increase students' aspirations and levels of educational attainment, particularly with regard to higher education; 3) expanding and coordinating professional development activities for educators; and 4) ensuring access to educational resources from early childhood through higher education and beyond.
  - In collaboration with the Superintendents' Roundtable, the BRC offered a session in October 2009 for over 300 educators focused on raising student aspirations and closing participation gaps, and a follow-up session attended by 100 educators was offered in March 2010.
  - Sessions related to increasing students' interest in achievement in STEM fields and student visits to college campuses were organized during the spring of 2010.
  - MCLA will offer a Leadership Academy for school administrators in August 2010.

- A county-wide training program focused on Response to Intervention (RTI) strategies will be offered in October 2010.

### *Convening Stakeholders*

- BCC has convened high school teachers and higher education faculty members to develop high school mathematics classes that will better prepare students for college-level courses, and BCC and MCLA will convene educators to improve students' readiness for college-level courses related to writing.

## **Central Massachusetts Readiness Center (CMRC)**

### *Governance*

- The lead partners for CMRC (Fitchburg State College, Worcester State College, and the Massachusetts Elementary School Principals Association) established a Governing Board that includes all constituents in the region including public and private colleges, pre-K through 12 schools, educational collaboratives, and charter schools.
- Goals and priorities for the CMRC are being refined in collaboration with the members of the Governing Board, and the regional partners are using different data collection methods (including surveys of educators) to identify specific needs across the region.

### *Professional Development and Instructional Services*

- A series of professional development programs related to using educator evaluations to promote student learning, improving literacy instruction, and developing differentiated instructional strategies (among others) have been and will continue to be offered by the primary partners for the CMRC.
- Through the newly established network of CMRC regional partners, professional development offerings are more readily advertised to educators throughout the region; the continued expansion of the network will promote additional collaboration among the partners with regard to the development and implementation of future programs.

### *Convening Stakeholders*

- The members of the Governing Board are working in collaboration with DSAC staff members to continually meet with different stakeholders in the region to assess local and regional needs, articulate the purpose and functions of the CMRC, and refine programmatic priorities for the CMRC.
- The CMRC sponsored a meeting in March 2010 for district superintendents and other stakeholders to discuss the phase 2 application for the Race to the Top program; this meeting resulted in the identification of key issues of concern for the superintendents, and strategies that will be implemented by the CMRC to address these concerns.

## **Greater Boston Readiness Center (GBRC)**

### *Governance*

- The primary partners for the GBRC (Framingham State College as the lead partner, UMASS Boston, Wheelock College, Massachusetts Bay Community College, and the four regional educational collaboratives) have established a Steering Committee that is continually identifying new partners to extend the membership reach of the GBRC so that it includes all districts, educational organizations, and cultural and business partners in the region.
- The Steering Committee includes the Regional Director for the DSAC, superintendents and district administrators from multiple districts across the region, and representatives from the Museum of Science; additional representatives from early education and out-of-school-time programs are being identified for the Committee.

### *Professional Development and Instructional Services*

- The GBRC will provide STEM-focused professional development and instructional services to educators across the continuum, and one of the primary tasks of the Steering Committee has been the establishment of programmatic priorities for the coming year.
- Based on ongoing discussions with Steering Committee members and district representatives as well as the review of student performance data, the GBRC will provide targeted support regarding middle school mathematics instruction as follows:
  - Grades 5 – 8 and higher education curriculum specialists will develop an instrument to identify best practices, particularly with regard to particular subgroups of students such as students receiving special education services; and
  - GBRC regional partners will work with districts to identify specific professional development and instructional needs for grades 5 – 8 educators to develop and implement targeted professional development and mentoring programs.

### *Convening Stakeholders*

- The members of the Steering Committee are convening stakeholders across sectors to determine how best to develop targeted services and activities that will address the priority need for the region – improving the quality of middle school mathematics instruction.

## **Northeast Regional Readiness Center (NRRC)**

### *Governance*

- The NRRC has established a Board of Directors that includes 32 representatives from institutions of higher education, school districts, charter schools, and community-based

organizations, and a small Executive Committee that includes representatives from all sectors.

- Five subcommittees that are aligned to NRRC programmatic priorities have been established, and all of the regional partners serve on one of these subcommittees: Early Childhood/Out-of-School-Time Programs (ECE/OOST); STEM; Communities of Practice; College/Career Readiness; and Assessment and Evaluation.
- Each subcommittee also includes representatives who are not currently members of the Board to ensure that opinions from throughout the region are well represented. The goal of the NRRC is to ensure that for every initiative offered, all stakeholders and sectors are involved in the work.

#### *Professional Development and Instructional Services*

- The subcommittees have been engaged in activities to develop and implement professional development programs.
  - ECE/OOST members are preparing a proposal to respond to the professional development Request for Responses that has been issued by the Department of Early Education and Care (North Shore Community College is the lead partner for this effort, and representatives are working in collaboration with team members from other community colleges, Salem State College, and Merrimack College).
  - The College/Career Readiness team organized a forum for multiple stakeholders in April 2010 to share and assess successful models related to vertical curriculum articulation, teaching 21<sup>st</sup> century skills, working with English language learners, and recovery programs, and a subgroup submitted a Teacher Quality Partnership grant related to improving college readiness in mathematics.
  - The Communities of Practice team members are sharing information about current research and existing initiatives in the region in order to determine how best to serve the needs of school districts.
  - Assessment and Research team members are working with DSAC staff members to identify NRRC activities that will complement DSAC services for targeted districts and schools.
- All teams are conducting inventories of high-quality professional development resources and also researching models for assessing the effectiveness of professional development with respect to teaching and learning.

#### *Convening Stakeholders*

- All subcommittees are identifying additional partners who can contribute to activities and the core functions of the NRRC.

- The NRRC has established a website hosted by Salem State College and also a GoogleGroup site for team members to share information about NRRC priorities and information about programs and resources in the region.

### **Pioneer Valley Readiness Center (PVRC)**

#### *Governance*

- The lead partners for the PVRC (Westfield State College, UMASS Amherst, the Hampshire Educational Collaborative, and the Lower Pioneer Valley Educational Collaborative) have established a Governing Board that includes representatives from different sectors, and also two subcommittees to guide the work: 1) Strategic Planning; and 2) Partnership and Outreach.
- Representatives from Greenfield Community College and Holyoke Community College have recently been added to the Governing Board, and the lead partners will invite additional partners to contribute to the PVRC work.

#### *Professional Development and Instructional Services*

- In collaboration with different stakeholders, the regional partners are conducting an inventory of existing teacher preparation programs, professional development programs, mentoring opportunities, and professional networks in the region to identify key areas of need for educators.
- As funding becomes available, the PVRC will organize learning networks related to the following priority areas of interest: STEM instruction; instruction for English language learners; literacy instruction; increasing connections between early childhood programs and K-12 institutions; and developing innovative educator preparation programs.
- The PVRC will also create a process for evaluating teacher preparation programs and professional development resources, and identify which assets are favored by stakeholders across the region.

#### *Convening Stakeholders*

- Early education has been identified as a key priority, and given the wide range of needs across different types of communities, the PVRC is leveraging robust networks of early childhood providers to identify core strategies, secure grant funding, and align programs and services. The PVRC will also host a regional event for Dr. Sherri Killins, the Commissioner of Early Education and Care.
- The PVRC is convening district representatives and other stakeholders regarding the Race to the Top program, and also working with the DSAC to identify complementary services for districts and schools, particularly related to the use of data to inform instruction.

## **Southeastern Massachusetts Readiness Center (SMRC)**

### *Governance*

- The Governing Board of the SMRC includes representatives from higher education, school districts, collaboratives, and workforce investment boards, including several networks such as the CONNECT Consortium (Bridgewater State College, Bristol Community College, Cape Cod Community College, Massachusetts Maritime Academy, Massasoit Community College, and UMASS Dartmouth) and two K-12 networks (the Lighthouse Superintendents' and Assistant Superintendents' Groups).

### *Professional Development and Instructional Services*

- STEM has been identified as one priority for professional development and instructional services, and SMRC partners will leverage existing partnerships with different stakeholders to continue providing professional development programs and develop new opportunities for educators.
  - With support from Massachusetts Math and Science Partnership grants, Bridgewater State College (BSC) is providing professional development courses for educators in several districts across the region.
  - Faculty members from several partner institutions are offering mathematics courses for educators who need extra content and support with regard to developing lesson plans, and MTEL preparation courses are currently being offered by different institutions.
- An ongoing project is to create a master calendar of professional development sessions across the region to reduce fragmentation and the duplication of programs, and the SMRC will coordinate training sessions for the regional partners regarding the use of the software program.

### *Convening Stakeholders*

- The BRC partners are working with existing regional networks such as the Lighthouse Superintendents' Group to evaluate the needs of districts in the region and expand or create targeted professional development programs.
- BSC is serving as the host for the Curriculum Leadership Center, the primary purpose of which is to serve as a professional network for regional curriculum leaders.
- The CONNECT Consortium and the SMRC will organize a conference during the spring of 2011 for higher education faculty members, K-12 administrators and educators, academic support specialists, curriculum coordinators, and policymakers regarding college readiness and vertical alignment of curricula.

For additional information about the Readiness Centers initiative, please contact Saeyun Lee in the Executive Office of Education at [saeyun.lee@state.ma.us](mailto:saeyun.lee@state.ma.us).

## *Readiness Centers Initiative*

Governor Patrick's Education Action Agenda included a recommendation to establish regional Readiness Centers, multipurpose and collaborative centers focused on improving the quality of teaching both across the education continuum and across Massachusetts. The Executive Office of Education (EOE) established six Readiness Centers in October 2009, and they are managed and operated by regional consortia of partners that include public and private institutions of higher education, school districts, early education and out-of-school-time providers, educational collaboratives, non-profit organizations, and business and community partners.

### **Core Functions of the Readiness Centers**

- Provide high-quality professional development and instructional services to educators in early education and out-of-school-time programs, K-12 institutions, and higher education institutions to address both local/regional needs and statewide priorities
- Convene stakeholders from early education, elementary and secondary education, higher education, and other sectors to collaboratively address key education priorities, leverage resources, build statewide capacity, and increase integration and coherence across the education continuum

The Readiness Centers are beginning to provide professional development and instructional services to address local/regional needs and the following statewide priorities: 1) closing persistent achievement gaps among different groups of students; 2) improving the quality of instruction for English language learners, students receiving special education services, and in STEM courses of study; 3) using data more effectively to assess student progress and inform instruction; and 4) improving the quality of early education and out-of-school-time services in Massachusetts. In addition, they are leveraging existing relationships and building new partnerships among stakeholders to improve the delivery mechanisms through which services are provided to educators and also collaboratively address the following education priorities: 1) developing and implementing a rigorous and aligned P-20 curriculum; 2) developing and retaining an effective educator workforce; 3) improving reading proficiency for children from birth through grade three; 4) increasing college and career readiness; and 5) increasing student engagement and success in STEM fields of study.

Each Readiness Center is also providing a site and basic operational support for a District and School Assistance Center that is providing targeted assistance and focused professional development to selected districts and schools that are identified pursuant to regulations of the Board of Elementary and Secondary Education.

### **Leadership and Governance**

In collaboration with the Departments of Early Education and Care (EEC), Elementary and Secondary Education (ESE), and Higher Education (DHE); the Standing Committee on Professional Education for the State Colleges Council of Presidents (SCOPE); and other partners, the EOE has established an organizational structure to sustain this initiative. The Readiness Centers Network includes all of the regional partners and state representatives, and supports successful partnerships among the Readiness Centers by disseminating information about effective professional development models and instructional

practices and developing strategies that address common needs across all regions. In addition, the Readiness Centers Coordinating Committee, which includes representatives from each region and also state representatives, is the leadership team for this initiative.

The six Readiness Centers and the primary regional partners are as follows.

Berkshire Readiness Center – Massachusetts College of Liberal Arts, Berkshire Community College, and the Berkshire Compact for Higher Education

Central Massachusetts Readiness Center – Fitchburg State College, Massachusetts Elementary School Principals' Association, Worcester State College, Mount Wachusett Community College, Quinsigamond Community College, Ashburnham Westminster Regional School District, Auburn Public School District, Fitchburg Public Schools, Dudley-Charlton Regional School District, Worcester Public Schools, FLLAC Educational Collaborative, and the French River Education Center

Greater Boston Readiness Center – Framingham State College, University of Massachusetts Boston, Wheelock College, Massachusetts Bay Community College, and the Greater Boston Regional Collaboratives Organization

Northeast Regional Readiness Center – Salem State College, University of Massachusetts Lowell, North Shore Community College, Middlesex Community College, Northern Essex Community College, Merrimack College, Endicott College, and Gordon College

Pioneer Valley Readiness Center – Westfield State College, University of Massachusetts Amherst, Hampshire Educational Collaborative, and the Lower Pioneer Valley Educational Collaborative

Southeastern Massachusetts Readiness Center – Bridgewater State College, University of Massachusetts Dartmouth, Bristol Community College, Cape Cod Community College, Massasoit Community College, Massachusetts Maritime Academy, Brockton Workforce Investment Board, New Bedford Workforce Investment Board, Southeast Collaboratives Regional Organization, Lighthouse Superintendents' Group, and the Lighthouse Assistant Superintendents' Group

### **Impact and Added Value**

The Readiness Centers are having positive impact and adding value by:

- Increasing the effectiveness of educators across the continuum and across Massachusetts by increasing the quality, alignment, and coherence of professional development/instructional services;
- Maximizing the power of collaboration and convening local, regional, and state stakeholders to address critical issues in education;
- Building new mechanisms for sharing information about best practices and effective models; and
- Building local, regional, and statewide capacity to create a truly coherent and seamless education system in Massachusetts.

For additional information about the Readiness Centers initiative, please contact Saeyun Lee in the EOE at [saeyun.lee@state.ma.us](mailto:saeyun.lee@state.ma.us).

## *Readiness Centers Network*

The Readiness Centers Network (RCN) is promoting and supporting the development of effective partnerships among the entities that are managing and operating six Readiness Centers in Massachusetts.

### **Primary Functions**

- Disseminate information about best practices and replicable professional development, instructional, and other educational models to the regional partners for the Readiness Centers and other stakeholders across the state
- Establish mechanisms that will promote effective and consistent communication among the regional partners
- Support the development and implementation of strategies that can address common goals across the regions (including increasing the quality, alignment, and coherence of professional development and instructional services; allocating existing resources more efficiently and effectively; and leveraging existing relationships and developing new partnerships among stakeholders to achieve the primary goals of the Readiness Centers initiative)
- Support the assessment of progress to date, both with regard to the establishment of the Readiness Centers and the impact of services and activities on student, educator, and other outcomes

The RCN is also serving as the primary system through which the Executive Office of Education (EOE) and the Departments of Early Education and Care (EEC), Elementary and Secondary Education (ESE), and Higher Education (DHE) are providing technical assistance and support to the regional partners.

### **Leadership and Membership**

The RCN was established and is being managed by the EOE with the support of several partners: representatives from EEC, ESE, and DHE; Carol Keirstead, RMC Research Corporation; Jan Phlegar, Learning Innovations at WestEd; and Frederick Clark, the Standing Committee on Professional Education (SCOPE) for the Council of State College Presidents.

The members of the RCN include representatives from the regional partners for the Readiness Centers, including but not limited to members of the governing boards or executive committees for each region, and the Executive Director for each Readiness Center. Each region must be represented by a diverse array of stakeholders from early education and care, elementary and secondary education, and higher education. Representatives from the EOE, EEC, ESE, DHE, and SCOPE are also serving as members of the RCN.

## **Roles and Responsibilities of the State Partners**

To oversee the establishment and management of the RCN and ensure that stated goals are being achieved, the EOE (in collaboration with state and regional partners) is identifying evolving priorities, defining and coordinating the efforts of the contributing partners, convening the regional partners on a regular basis, and coordinating the delivery of statewide technical assistance and support. In addition, the EOE is actively seeking fiscal and other resources to sustain the Readiness Centers initiative in the short- and long-term.

EEC, ESE, and DHE are supporting the RCN by providing information related to early education and care, elementary and secondary education, and higher education respectively to the regional partners as needed or requested; and working in collaboration with the EOE to achieve stated goals.

Carol Keirstead and Jan Phlegar are supporting the RCN by providing technical assistance to EOE staff members (and EEC, ESE, and DHE staff members as appropriate), assisting with the design of initial RCN meetings, facilitating/documenting RCN meetings, and disseminating the proceedings and products to all participants.

SCOPE is supporting the RCN by leveraging existing partnerships among the state colleges to advance the goals of the Readiness Centers initiative, contributing to the development of a common rubric to evaluate professional development activities, and contributing to the creation and maintenance of the RCN website that will provide information and also link proposed websites for the Readiness Centers. SCOPE will also support the organization of a statewide annual research and practice conference for multiple stakeholders.

The outcomes have included the development of a cohesive vision for the Readiness Centers initiative, increased collaboration among the regional partners and state agencies, the development of strategic plans for meeting the goals of the Readiness Centers initiative and the RCN, and the creation of preliminary outcomes and measures to guide the first phase of implementation.

## **Schedule of RCN Meetings**

The EOE convened the first RCN meeting on Friday, November 13, 2009, and subsequent meetings were convened in December 2009 and also March and April 2010.

The EOE will convene at least three RCN meetings per year, and will also organize an annual conference. In addition, in collaboration with the EEC, ESE, DHE, and other partners, the EOE will continue to disseminate information (including guidance documents and information about best practices) to the RCN members as appropriate.

For more information about the RCN, please contact Saeyun Lee in the EOE at [saeyun.lee@state.ma.us](mailto:saeyun.lee@state.ma.us).

# REQUEST FOR RESPONSES

## READINESS CENTERS



**EXECUTIVE OFFICE OF EDUCATION  
COMMONWEALTH OF MASSACHUSETTS  
ONE ASHBURTON PLACE, SUITE 1403  
BOSTON, MA 02108**

**JULY 2009**

## **INTRODUCTION**

The Executive Office of Education (EOE) is pleased to present this Request for Responses (RFR) to public and private institutions of higher education, educational collaboratives, educational service providers, business and community partners, and other stakeholders to establish regional Readiness Centers in Massachusetts.

### **Background**

In June 2008, Governor Patrick released his blueprint for education reform in Massachusetts, the Education Action Agenda, and called on stakeholders across the Commonwealth to think creatively and innovatively about improving our current education system. In particular, he asserted that we must create a fully integrated, coherent, and seamless education system that will promote high levels of achievement for all students and support our educators throughout their careers.

In order to attract and retain highly qualified teachers and better ensure that all educators are prepared to provide high-quality instruction to our diverse population of students, we must reshape and align existing systems of educator recruitment, preparation, certification, licensure, and ongoing professional development. To that end, the Education Action Agenda included a proposal to establish regional Readiness Centers, multipurpose and collaborative hubs for providing professional development and other instructional services to educators and also targeted assistance to improve districts and schools.

## **DESCRIPTION OF THE READINESS CENTERS**

The Readiness Centers will focus on improving the quality of teaching from birth through higher education and across the Commonwealth, and will offer services and activities that will address local and regional educational needs as well as statewide priorities. The Readiness Centers will also serve as hubs for collaboration among local, regional, and state stakeholders including institutions of higher education, educational collaboratives, educational service providers, business and community partners, state agencies, and other stakeholders. The development of partnerships among these stakeholders will result in the delivery of more targeted, aligned, and coherent services to early education and out-of-school time programs, schools, districts, and communities.

The goals of the Readiness Centers are as follows: 1) improve the quality of teaching across the education continuum by increasing the content knowledge of educators and supporting the development and implementation of effective instructional practices; 2) improve the quality of professional development and learning opportunities for educators; 3) maximize existing resources and deliver professional development and instructional services more effectively and efficiently; and 4) drive policy improvements based on the innovative instructional practices that are developed.

The EOE proposes the establishment of six Readiness Centers in the following regions of the state: Berkshire County, Pioneer Valley, Central, Northeast, Greater Boston, and Southeast/Cape and Islands. Within each region, multiple sites can be established to provide all educators and stakeholders with access to differentiated services as needed.

### **Guiding Principles of the Readiness Centers**

- The Readiness Centers will support the development of more aligned and comprehensive models for teacher induction, professional development, and mentoring for educators across the education continuum from birth through higher education.
- The Readiness Centers will provide focused opportunities for stronger and more consistent collaboration among early education and out-of-school time programs, schools, districts, educational collaboratives, educational service providers, institutions of higher education, state agencies, and other stakeholders.
- The Readiness Centers will leverage and strategically allocate existing institutional and organizational resources to address the needs of early education and out-of-school time programs, schools, and districts more effectively and efficiently.
- The Readiness Centers will help to create a stronger network for disseminating information about best practices, replicable instructional models, and bringing successful instructional practices to scale.

- The Readiness Centers will align local and regional services with rigorous performance evaluation measures and methods.
- The Readiness Centers will build the capacity of local, regional, and state stakeholders to effectively support all educators across the Commonwealth.

### **Primary Functions**

All Readiness Centers will execute several primary functions.

- Support the identification and development of best practices and replicable instructional models that can be utilized throughout the state, especially with regard to several statewide priorities:
  - Addressing achievement gaps among different groups of students;
  - Improving the quality of instruction in literacy, particularly early literacy;
  - Improving the quality of instruction for English Language Learners;
  - Improving the quality of instruction for students who receive special education services;
  - Improving the quality of instruction in science, technology, engineering, and mathematics (STEM) courses;
  - Using data more effectively to assess student progress and performance and also inform instruction;
  - Improving the alignment of instruction across the educational continuum from birth through higher education; and
  - Improving the quality of instruction through the efficient delivery of services to smaller and under-resourced districts and communities.
- Collaborate with local, regional, and state partners to coordinate the delivery of professional development and instructional services that are already being provided and determine how to provide services that may not currently be available by:
  - Conducting an inventory of all service providers and professional development resources in the region;
  - Conducting needs assessments at the local and regional levels to identify gaps and determine which additional services should be provided; and
  - Coordinating statewide “training of trainers” initiatives to embed needed expertise at the local and regional levels.
- Collaborate with other Readiness Centers and state partners to identify statewide trends and coordinate the distribution of professional development and instructional services and other resources.
- With guidance and support from the Department of Early Education and Care (EEC), develop and manage the regional pathway into and through post-secondary education for the early education and out-of-school workforce and provide professional development related to core competencies, the Quality Rating and Improvement System, and child care regulations that meet the needs of EEC’s mixed delivery system of child care centers (including

universal pre-kindergarten programs, out-of-school time programs, family child care homes, public preschool programs, private schools, kindergarten programs, and Head Start programs).

- Provide a site and basic operational support for a District and School Assistance Center (DSAC) that will provide targeted assistance and focused professional development to districts and schools that are identified pursuant to regulations of the Board of Elementary and Secondary Education; the DSAC will fulfill federal and state accountability and assistance responsibilities of the Department of Elementary and Secondary Education (DESE). The DSAC will collaborate with Readiness Center partners and other organizations to design, deliver, and evaluate components of the targeted assistance and focused professional development program.
- With guidance and support from higher education, create professional development and learning opportunities for higher education faculty and staff members, support research activities for higher education faculty members about effective instructional practices and models, and establish partnerships with regional collaboratives (including STEM networks and Workforce Investment Boards), business and community partners, and national professional organizations.
- Disseminate information about best practices and replicable instructional models with early education and out-of-school time educators, school and district educators, and other local, regional, and state stakeholders.
- Develop robust professional development and networking opportunities by convening educators and stakeholders to explore issues related to improving the quality of teaching, including:
  - Using student data to improve the development of instruction, curricula, assessments, and professional development across the education continuum from birth through higher education;
  - Providing differentiated instruction to meet the needs of a diverse student population;
  - Increasing curricular alignment across the education continuum; and
  - Creating more opportunities for reflective practice.
- Evaluate the impact of professional development programs and also district and school improvement services.
- Provide regular reports to the Board of Early Education and Care, the Board of Elementary and Secondary Education, the Board of Higher Education, and the EOE about Readiness Center services and activities and their impact on identified outcomes.

In addition to executing these primary functions, each Readiness Center could serve as a statewide center for an identified area of specialization. For example, a Readiness Center could provide services and activities related to a specific area of work and disseminate information

about best practices and replicable instructional models to stakeholders across the Commonwealth.

### **Leadership and Governance**

During the development phase of this initiative, the EOE will oversee the establishment of the Readiness Centers and will partner with EEC, DESE, the Department of Higher Education (DHE), and other entities as appropriate to support and guide the work.

Each Readiness Center will be managed by a consortium of regional partners. A public institution of higher education (IHE) must serve as the lead partner or one of the lead partners; this institution will work in collaboration with public or private IHEs (including community colleges), educational collaboratives, educational service providers, and other entities in the region such as business and community partners to develop, coordinate, and deliver services to educators and other stakeholders. In addition, another partner within the consortium must serve as the fiscal agent; this partner will manage all fiscal and budgetary concerns for the Readiness Center.

Each Readiness Center will be governed by a Board of Directors (with members appointed by the consortium of regional partners) that will develop the strategic plan for the work, oversee the budget, secure funding and other resources, and implement strategies to maintain the short- and long-term sustainability of the Center. The Board will have the authority to hire an executive director and other staff members to operate the Readiness Center and sites within the region. The Board must be comprised of representatives (number to be determined by the consortium of partners) from the lead partner(s), the fiscal agent, early education, elementary and secondary education, higher education, educational collaboratives, and other local and regional partners.

The DSAC within each Readiness Center will be led by a Regional Assistance Director who will be hired, trained, and supervised by DESE. Targeted assistance and focused professional development will be provided by DESE staff members, contracted service providers who are identified, trained, and evaluated by DESE, the Regional Assistance Director, and the consortium of Readiness Center partners as appropriate.

The Associate Commissioner for Workforce Development at EEC, staff members at existing EEC regional offices, and other staff members will collaborate with Readiness Center staff members to identify and coordinate existing resources and provide targeted assistance and professional development to educators in early education and out-of-school time programs.

The Deputy Commissioner for P-16 Policy and Collaborative Initiatives at DHE and other staff members will disseminate information about different resources that are available to advance teaching and learning at institutions of higher education, and will also provide Readiness Center staff members with reports and analyses of different types of school-to-college data.

## **Core Capacities of the Regional Partners**

The regional partners will 1) improve the quality of teaching across the education continuum so that all educators will be able to meet the needs of our diverse population of students, 2) improve the quality of professional development and learning opportunities for educators, 3) maximize existing resources and deliver instructional and professional development services more effectively and efficiently, and 4) drive policy improvements based on the innovative instructional practices that are developed.

As such, the consortium of regional partners must have the following core capacities:

- Demonstrated experience in providing professional development and other instructional services (including induction, preparation, and mentoring services) to educators across the education continuum;
- Demonstrated experience of active and ongoing engagement with early education and care and out-of-school time providers, K-12 schools and districts, educational collaboratives, and other educational service providers in the region;
- Demonstrated experience of active and ongoing engagement with business and community partners;
- Willingness to engage with educators across the continuum to identify and respond to instructional needs in the region;
- Demonstrated capacity to assess the impact of all Readiness Center services and activities on student, teacher, and other outcomes;
- Demonstrated capacity to research best practices in improving the quality of instruction and also district and school improvement.

The consortium of regional partners must demonstrate that there are sufficient facilities to support the provision of all Readiness Center services, including office space for Readiness Center staff members across the region, access to technology to support Readiness Center staff members and facilitate the provision of services, appropriate meeting spaces, and accessible parking as needed.

In addition to designating a site for the DSAC, the consortium of regional partners must provide office space for the Regional Assistance Director and other staff members and demonstrate that there are sufficient facilities to support the provision of targeted assistance and focused professional development to districts and schools. Each DSAC must be operational by October 31, 2009.

## **DESCRIPTION OF THE RFR PROCESS**

### **Purpose**

The purpose of the RFR is to invite institutions of higher education, educational collaboratives, educational service providers, business and community partners, and other stakeholders to submit proposals to establish the regional Readiness Centers.

Regional partners that establish Readiness Centers will have the opportunity to improve the quality of teaching by enhancing the delivery system for professional development, instructional, and other services for educators. In addition, these partners will 1) build stronger relationships with early education and out-of-school time providers, schools, districts, and other stakeholders, 2) increase alignment and coherence among local and regional partners, and 3) maximize existing resources.

The RFR process does not include the allocation of funds to establish a regional Readiness Center or sites within a region. Therefore, applicants are required to identify existing and potential resources that could be utilized to provide Readiness Center services and activities. However, funding to support the implementation of Readiness Center proposals may become available through the American Recovery and Reinvestment Act and from other sources. If additional funding becomes available, the EOE will establish mechanisms to allocate funding to regional partners.

### **Eligibility**

The following criteria must be met to submit a proposal to establish a regional Readiness Center:

- A consortium of regional partners (representing multiple sectors and stakeholders) must submit one proposal for the region, with the understanding that these partners can establish multiple sites within the region;
- The lead partner or co-lead partner within the consortium of regional partners must be a public institution of higher education; and
- One of the partners must serve as the fiscal agent and manage all fiscal and budgetary concerns for the Readiness Center.

### **Criteria for Review of Proposals**

Successful proposals will include the following types of information:

- 1) The clear articulation of the goals of the Readiness Center, a description of the content and scope of proposed services and activities, and a description of how these services and activities will address local and regional needs as well as statewide priorities;

- 2) A detailed description of how the consortium of regional partners will work collaboratively to develop a more coherent and aligned system for delivering high-quality services to educators in the region;
- 3) A detailed description of how the consortium of regional partners currently has the core capacities necessary to operate a Readiness Center;
- 4) A detailed description of the governance structure that will be established by the consortium of regional partners to effectively oversee and manage the provision of all Readiness Center services and activities;
- 5) A detailed description of how the consortium of regional partners will leverage existing relationships and resources to manage and operate the Readiness Center;
- 6) A detailed description of how the consortium of regional partners will engage other stakeholders in the establishment of the Readiness Center;
- 7) A detailed description of how the consortium of regional partners will disseminate information about best practices and instructional models to educators and other stakeholders across the Commonwealth; and
- 8) A detailed description of how the consortium of regional partners will sustain the Readiness Center in both the short- and long-term.

**Time Frame for Review and Approval of Proposals**

<b>RFR Deadlines</b>	
RFR Release Date	July 31, 2009
Deadline for Submission of Proposals	September 23, 2009
Announcement of Approved Proposals	September 30, 2009

**Proposals must be sent via e-mail to Saeyun Lee in the EOE at [saeyun.lee@state.ma.us](mailto:saeyun.lee@state.ma.us) by 6:00 p.m. on Wednesday, September 23, 2009.** Proposals will be reviewed by a committee comprised of representatives from EEC, DESE, DHE, and EOE in accordance with the aforementioned criteria. As necessary, the review committee will request additional information or refinement of submitted proposals.

**Development of the Memorandum of Understanding (MOU)**

The consortium of partners for each approved Readiness Center will develop a MOU with the EOE. Issues related to the governance, management, and funding of the Readiness Center will be addressed in the MOU, including among others: 1) the responsibilities of the lead partner or lead partners; 2) the responsibilities of the fiscal agent; 3) establishing the Board of Directors and the governance structure among the partners; 4) appointing Board members; 5) inviting additional partners to join the consortium; 6) establishing new sites within a region, and

7) restricting the percentage of grant or other types of funding that may be retained for administrative/overhead costs (for example, the portion of funding that may be retained could be restricted to no more than 10 percent).

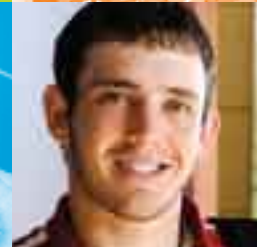
## COMPONENTS OF THE PROPOSAL

- **Letter of Intent**: One letter of intent per region, signed by representatives from each proposed partner within the regional consortium, must be sent via e-mail to Saeyun Lee at [saeyun.lee@state.ma.us](mailto:saeyun.lee@state.ma.us) by Friday, August 21, 2009.
- **Project Abstract** (2 – 3 pages)
- **Narrative** (15 – 20 pages)
  - Identification of the priority issues and concerns that will be addressed by the Readiness Center
  - Description of the content and scope of proposed Readiness Center services and activities and specifically how these services and activities will address local and regional needs as well as statewide priorities
  - Description of measurable successes and achievements of the consortium of partners with regard to the provision of proposed services and activities
  - Description of an area of specialization (as applicable), the services and activities that would be provided, and the strategies that would be used to disseminate information about best practices and replicable instructional models to stakeholders
  - Identification of the Readiness Center site(s) within the region, description of the services and activities that would be provided, and available facilities and resources
  - Description of the roles and responsibilities of each partner within the regional consortium, including information about the capacity of each partner to fulfill proposed responsibilities
  - Description of existing partnerships among regional partners, including information about joint programs that have been implemented and evidence demonstrating the success of these initiatives
  - Description of how new relationships will be developed among regional partners, including information about efforts to engage different partners in the establishment of the Readiness Center
- **Implementation Plan** (2 – 3 pages)
  - Description of the proposed implementation plan for providing Readiness Center services and activities

- **Governance Structure**
  - Description of the governance structure that will be established by the consortium of partners (at multiple sites if applicable) to support the provision of all Readiness Center services and activities
  - Identification of the proposed members of the Board of Directors
- **Evaluation Plan**
  - Description of the proposed plan for assessing the impact of Readiness Center services and activities on student, teacher, and other outcomes, including preliminary information about the indicators and benchmarks that will be utilized
- **Proposed Budget**
  - Description of the institutional and organizational resources that could be committed by the consortium of partners to manage and operate the Readiness Center
  - Description of the estimated costs related to the management and operation of the Readiness Centers
- **Letters of Support (as desired)**

## **PRIMARY CONTACT**

All inquiries about the Readiness Centers initiative and the RFR process should be directed to Saeyun Lee in the EOE ([saeyun.lee@state.ma.us](mailto:saeyun.lee@state.ma.us) or 617.979.8351).



# READY FOR 21ST CENTURY SUCCESS

THE NEW PROMISE OF  
PUBLIC EDUCATION

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## DEAR FELLOW CITIZENS:

I am delighted to present the results of the Commonwealth Readiness Project, an unprecedented discussion on the future of public education in the Commonwealth of Massachusetts. For nine months, a dedicated and distinguished group of educators, experts and stakeholders has given its time and counsel to help define and initiate the next chapter in education reform in our great state. The following report, *Ready for 21st Century Success*, is founded on their insightful and informative work.

Education is transformative. My life, like the lives of so many others, was changed deeply, dramatically and positively through the power of a high-quality education. As we contemplate the future of our Commonwealth, and the future of our country and world, we must think differently and act more creatively about how we create consistent excellence throughout public education.

We must break down the silos that characterize our approach to public education. Instead, we must create a continuum of teaching and learning dedicated at every turn to the academic and personal success of each individual student. As we do so, we must hold fast to what works and change what does not.

The following report outlines the challenges, opportunities, needs and imperatives in public education today. Most notably, it provides an action agenda for establishing universal excellence over the next decade. Recognizing that no one idea will transform the system, the agenda leverages the relationships within the education sector and among all sectors of society. As we implement these action items, my administration will continue its commitment to the collaboration and cooperation that are the hallmarks of the Commonwealth Readiness Project. Taken together, and with all stakeholders working together, I am confident that we can deliver on a new 21st century promise of high-quality public education for all Massachusetts residents.

Throughout the history of this remarkable nation, Massachusetts has been the leader in public school innovation. I believe that the path we begin to travel today will keep us at the vanguard of serving our children, families and communities — as well as our future — extraordinarily well. Doing so will assure that we will meet and exceed the revolutionary demands of this bright new century.

Sincerely,

A handwritten signature in black ink, appearing to read "Deval Patrick". The signature is fluid and cursive, with a large initial "D".

Deval Patrick

# THE NEW PROMISE OF PUBLIC EDUCATION: READY FOR 21ST CENTURY SUCCESS

"I ask you to see what I see about what's possible here in the Commonwealth and indeed essential to be ready for our future. And I ask each of you to join with me in working to make that vision real. A decade of hard work, focus, discipline and accountability. A decade of 'no excuses' leadership, starting with me. A decade to get ready — so that we can master and shape our own future."

**Governor Deval Patrick**  
*Commencement Address, UMass Boston, June 2007*

Massachusetts is at a crossroads. Fifteen years after the passage of landmark education reform legislation, the Commonwealth is a national education leader. Standards-based reforms have yielded significant results. Massachusetts students perform better than their national peers, securing top scores on the National Assessment of Educational Progress (NAEP) and on the SAT. Overall, student scores on the Massachusetts Comprehensive Assessment System (MCAS) continue to rise, with 84 percent of the class of 2008 passing on the first try.<sup>1</sup>

At the same time, this success masks persistent, complex problems that demand immediate attention. Despite quantum leaps in academic rigor, our existing education system is not adequately preparing every student for success in life and work. As a source of workers, it doesn't meet the needs of employers. As a public investment, it doesn't deliver the return it should for taxpayers. Most importantly, as an entry point to the American dream, it remains too selective. All too often, a student's chances for success are determined not by her intellect or ability to learn, but by her ZIP code and circumstances beyond her control.

These failures speak to the unfinished business of 1990s education reform — lessons learned from implementing bold, large-scale change — and to the evolving nature of what it means to be an educated citizen in a fast-paced, technologically driven world economy.

Ours is not a 21st century education system. Its structure and underlying assumptions are holdovers from another century, when the goal of public education was to prepare only a fraction of students for higher education. High school graduation rates were low, and that was okay because low-skilled manufacturing jobs could support a family. Times have changed and so must the fundamental promise of public education. Today, our schools must ensure that high school graduates know and are capable of much more than ever before.

## LOSING STUDENTS ALONG THE EDUCATION PIPELINE

For every 10 high school freshmen ...



8 graduate from high school



6 enroll in college



3-4 earn a degree



Source: Nellhaus, Jeffrey and Patricia Plummer. "Facing the Challenge of Increasing College and Career Readiness." Massachusetts College and Career Readiness Summit, 2008.



Meeting this challenge requires the creation of a fully integrated, coherent and seamless education system. Learning must begin before and extend beyond the traditional kindergarten through 12th grade timeframe. A high school diploma is no longer enough. The new baseline of educational attainment is an associate degree or the equivalent. And our approach to education, fully committed to the same high standards for all, will proceed only by serving the *individual* needs of each student.

This report outlines an education reform strategy that will help transform our public schools over the next decade. It assesses the state’s advantages and makes the case for reform based on four specific challenges: growing international competition and an outdated curriculum; a stubborn achievement gap; an education workforce crisis; and a century-old system. The action agenda that follows offers specific steps for creating a world-class education system that will promote high levels of student achievement, outstanding teaching and educational leadership, full access to postsecondary opportunities and workforce preparedness, and systemic innovation that will move our public education system into the 21st century.

## THE NEW PROMISE OF PUBLIC EDUCATION IN MASSACHUSETTS

*We will prepare all students to be lifelong learners and successful, contributing citizens in a world economy and global society by creating a 21st century education system that is fully integrated, coherent and seamless — serving children from birth through higher education and beyond.*

continue business as usual, complacent with where we are compared to other states. Or we can forge ahead, leading to a new, dynamic era of reform that responds to pressing global realities. As we move headlong into another decade of unprecedented innovation and change, our challenge — our obligation — is to ensure that all Massachusetts students have the skills, knowledge and dispositions they need to take full advantage of all the opportunities that this new, post-industrial information age presents.

### WIDESPREAD BENEFITS OF QUALITY EDUCATION

**\$1.1 million**

Additional lifetime earnings for each bachelor’s degree recipient compared to high school dropouts

**\$180,000**

Lifetime benefits to government of each high school graduate

**\$275,000**

Lifetime costs to government of each high school dropout

Source: Khatiwada, Ishwar, Joseph McLaughlin, Andrew Sum. “The Fiscal Economic Consequences of Dropping Out of High School: Estimates of the Tax Payments and Transfers Received by Massachusetts Adults in Selected Educational Subgroups.” March 2007. Center for Labor Market Studies. Northeastern University.

Importantly, these ideas reflect the economic and social realities of our time — not of times past. Taken together, they constitute a new promise for public education in Massachusetts, one that deals honestly with our advantages, addresses our deficits and keeps faith with our belief that an excellent education remains society’s great equalizer.

Our future, and that of our children, depends on what we do and set in motion today. The choices — and responsibilities — belong to us. We can

# OUR STARTING POINT

## A foundation of strength

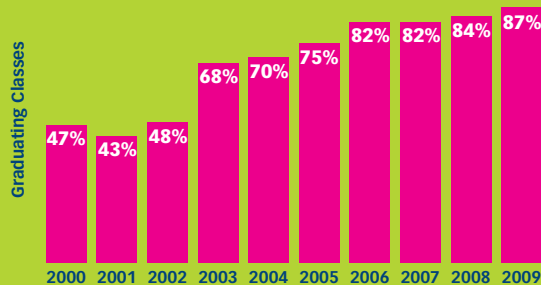
In many respects, Massachusetts is fortunate. Unlike many states, we can build our future on a firm foundation of success. Fifteen years after landmark education reform legislation, we can claim unmatched accomplishments in demonstrating that high expectations and high standards can work for students. Our students top the nation on several indicators of education achievement, we have the lowest dropout rates in the country, and the MCAS is heralded as the “gold standard” of state exams for its rigor, coherence and connections to the classroom curriculum.<sup>2</sup>

### A STRONG FOUNDATION

- Massachusetts’ 4th and 8th graders have been first or tied for first on all four examinations of NAEP since 2005.
- Massachusetts students have one of the best records of performance on the SAT.
- Massachusetts is the best-performing state in the nation in the percentage of adults ages 25 to 64 with a college degree.

### MCAS PASSING RATES ARE UP

Percentage of students passing MCAS on their first try



Sources: “The Nation’s Report Card: State Snapshot Reports for Massachusetts.” 2007. Institute of Education Sciences; “2007 College-Bound Seniors Total Group Profile Report.” 2007. The College Board; “ADDING IT UP: State Challenges for Increasing College Access and Success.” 2007. The National Center for Higher Education Management Systems; Massachusetts Department of Elementary and Secondary Education.

The Commonwealth also is a leader in the drive toward high-quality early education and care and universal prekindergarten.<sup>3</sup> We boast a first-in-the-nation Department of Early Education and Care that connects multiple child and youth service planning, funding and implementation functions. And we continue to make steady progress toward high-quality pre-K experiences for all children.

Complementing our strength in early education and K–12 performance, Massachusetts has a rich network of vocational technical and agricultural schools. Our 38 technical schools prepare students for smooth entry into professional trades while providing an esteemed high school education. Our vocational education schools have lower dropout rates than the state average.<sup>4</sup> We have a robust community college system that is integral to our state capacity to meet the evolving needs of business and industry.

Finally, Massachusetts is a destination state for those in pursuit of a first-rate postsecondary education. And our commitment to lifelong learning is demonstrated by our strong and continuously improving state workforce development system. The graduates of our broad array of public and private higher education institutions fuel the state’s knowledge economy. They stimulate and energize the research, ideas and inventions that create



new products, companies and future industries. Students, whether born and raised in Massachusetts or who come from other states and nations, who choose to make Massachusetts their permanent home contribute to our economic development and culture of citizen engagement.

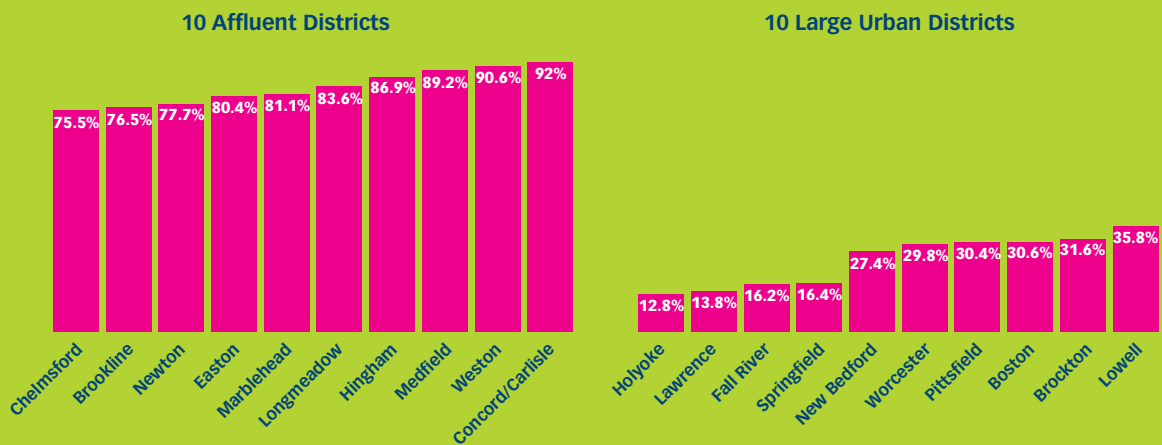
As we steer our system of schooling forward, we must ensure that the effective approaches and practices at every successful school make their way into *all* our public schools. All the while, we must continuously strengthen our adult education and workforce development systems. For example, we should ensure that we are leveraging well our vocational technical infrastructure to extend the reach of postsecondary education opportunities, particularly community college courses and programs and degrees, to students in every community. They must be connected to the elementary, secondary and postsecondary segments of our system as well as to the existing and emerging needs and interests of our state's businesses and industries.

We have achieved significant accomplishments for which we should be proud. More importantly, we must view our accomplishments as significant advantages on which we can build.

### **And build we must.**

## **ENSURING THAT MORE STUDENTS GO TO COLLEGE**

Percentage of students who graduated on time and planned to attend a four-year college or university in 2007



Source: Sum, Andrew, Ishwar Khatiwada, Joseph McLaughlin. "On-Time High School Graduation Rates and College Enrollment Rates for Massachusetts High School Graduates Class of 2006 and 2007: The Existence of Large Disparities Between Affluent Suburban and Central City School Districts Across the Commonwealth." May 2008. Center for Labor Market Studies. Northeastern University.

# OUR CHALLENGES

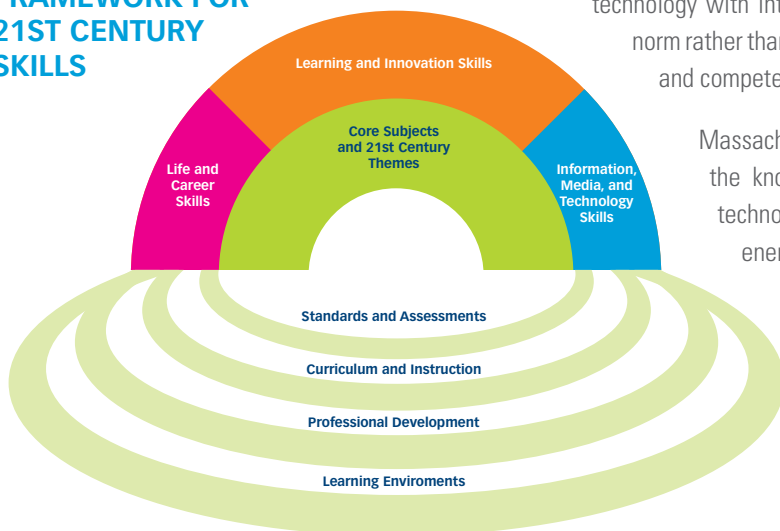
## International competition, an outdated curriculum

Although Massachusetts continues to outpace the other 49 states academically, we cannot afford complacency. That is because much of the rest of the world has caught up and, in too many cases, surpasses U.S. achievement. Between 2000 and 2006, American students dropped from 18th to 25th place among industrialized countries in math and from 14th to 21st in science.<sup>5</sup> Meanwhile, U.S. 8th graders were outperformed by students in nine countries: five from Asia (Chinese Taipei, Hong Kong SAR, Japan, Korea and Singapore) and four from Europe (Belgium, Estonia, Hungary and the Netherlands) on the 2003 TIMSS exam.<sup>6</sup> We used to lead the world in the percentage of students earning college degrees; we now rank 10th among industrialized nations in the percentage of 25–34-year-olds with an associate degree or higher, and we stand as one of the only nations where older adults are more educated than younger adults.<sup>7</sup> Many Massachusetts young people — despite having earned their high school diplomas — have to take remedial math and English classes to handle college-level work. In 2005, our public higher education system found that 37 percent of incoming freshmen from Massachusetts public high schools needed remedial assistance.<sup>8</sup>

This problem is exacerbated by an outdated curriculum and too heavy a reliance on 20th century tools and teaching strategies. We must strengthen and modernize the curriculum in science, math and engineering, while increasing our focus on world languages, geography, civics and the arts. We must emphasize 21st century themes such as global awareness, financial, business and entrepreneurial literacy, and health and civics literacy. Heightened attention to these topics, using modern information technology with interdisciplinary, collaborative hands-on learning as the norm rather than the exception, will enable students to master the skills and competencies that work, life and active citizenship require.

Massachusetts employers are struggling to find workers with the knowledge needed for high-growth jobs, including the technology-dependent fields of life sciences, renewable energy and health care.<sup>9</sup> The number of students from Massachusetts colleges and universities studying science, technology, engineering and

### FRAMEWORK FOR 21ST CENTURY SKILLS





mathematics declined from 1993 to 2007, while the number rose nationally.<sup>10</sup> Employers also report a shortage of potential employees who possess fundamental skills and competencies needed in every field, including communication, collaboration, self-direction and motivation.<sup>11</sup>

These facts alone are enough to warrant a call to action, but there is more: The skills challenge is not confined to young people advancing along the traditional education path. There is a growing population of Massachusetts adults who are seeking employment who also lack content knowledge and 21st century skills. Of the Commonwealth’s current 92,021 job vacancies, 46 percent require an associate degree or better.<sup>12</sup> National forecasts suggest that some two-thirds of all new jobs will require some education after high school.<sup>13</sup>

The implications of integrating 21st century skills into what and how students learn extend to every aspect of our education system — from standards and assessments, curriculum and instruction, to professional development and learning environments.

## A stubborn achievement gap, inadequate external supports

Educational attainment correlates closely with economic status, here and across the country. Let’s be clear: Our public education system cannot get all students to a high standard if we pretend that they all have the same learning needs and that these needs can be met in the same way.

Poverty is pernicious. Its effects are seen in the stubborn achievement gap that exists between African American and Latino students and white and Asian students. In 2007, for instance, 73 percent of African American students and 67 percent of Latino students passed both math and English exams on their first try, compared to 91 percent of white students and 90 percent of Asian students.<sup>14</sup>

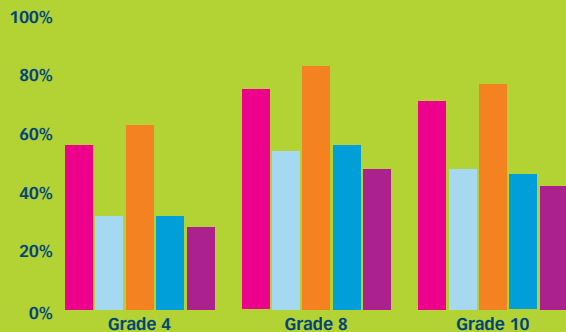
### FALLING BEHIND INTERNATIONALLY

<b>25th</b>	<b>21st</b>	<b>10th</b>
U.S. rank in math	U.S. rank in science	U.S. rank in college degrees earned

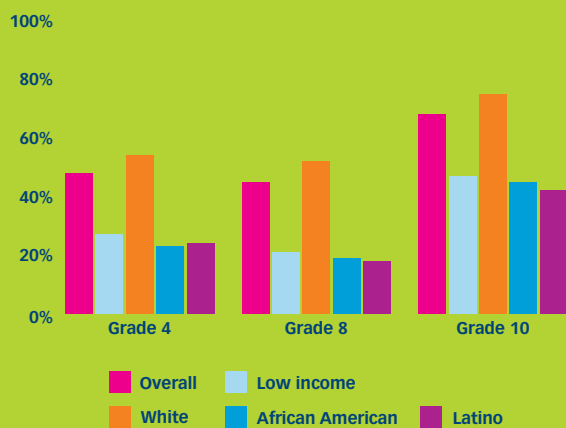
Sources: Programme for International Student Assessment (PISA). 2000 and 2006 Results. Organisation for Economic Co-operation and Development (OECD); “ADDING IT UP: State Challenges for Increasing College Access and Success.” 2007. The National Center for Higher Education Management Systems.

## SIGNIFICANT ACHIEVEMENT GAPS REMAIN

Percentage of students scoring proficient or higher on MCAS English Language Arts, 2006–07



Percentage of students scoring proficient or higher on MCAS Mathematics, 2006–07



Source: "MCAS Tests Summary of State Results," 2007. Massachusetts Department of Elementary and Secondary Education. 4 June 2008. [www.doe.mass.edu/mcas/2007/results/summary.pdf](http://www.doe.mass.edu/mcas/2007/results/summary.pdf).

The disparity in dropout rates is another sign that equality continues to elude us. In the 2007 four-year cohort, nearly 16 percent of African American students and nearly 23 percent of Hispanic students dropped out of high school, compared to only 6.6 percent of white students.<sup>15</sup> Nearly half of our nation's African American students, nearly 40 percent of Latino students, but only 11 percent of white students attend high schools in which graduation is not the norm.<sup>16</sup>

We know now that much of what impacts a student's ability to learn happens outside of school — in the years before kindergarten or in the hours after school, on weekends and during the summer.

Educators, administrators, schools and institutions of higher learning work hard to take advantage of the opportunities presented when students are physically present in schools — from offering free lunch and health screenings to counseling services and more. However, the reality is that the capacity of the public education system to address these external influences is limited by time, resources and convention.

These opportunity gaps will be addressed only when we offer these children educational resources and interventions on par with those available to middle-class families, including more preschool education as well as expanded summer and after-school learning opportunities.

Our system of standards and accountability does a great job of exposing our challenges. Now, we must find new strategies to address them.



## IMAGINATION MATTERS

“The school, the state, the country that empowers, nurtures, enables imagination among its students and citizens, that’s who’s going to be the winner.”

*Author and columnist Thomas L. Friedman, Journal of the American Association of School Administrators, February 2008*

## An education workforce crisis

Without question, any improvement in education depends on knowledgeable and effective teachers in every classroom, strong and visionary school leaders guiding safe and efficient schools, and world-class faculty at our colleges and universities. Yet in 2008, Massachusetts was given a “C” for K–12 teacher quality,<sup>17</sup> our early education and care workforce development system is in its infancy, and far too many of our public colleges and universities are increasingly staffed by part-time, adjunct faculty.

### We need to act quickly.

Research often shows that teacher quality affects student achievement.<sup>18</sup> Students taught by well-trained, experienced teachers achieve at demonstrably higher levels than students who have inexperienced, untrained teachers.<sup>19</sup> Moreover, the effects of a very good (or very poor) teacher last long beyond a single year, influencing a student for life.<sup>20</sup>

In key disciplines — including science and math and at some grade levels, particularly middle and high school — teachers in Massachusetts are increasingly in short supply, and the projections for the future supply hold little promise of improvement. Data suggest that after just five years, between 40 and 50 percent of all beginning teachers nationwide have left teaching altogether.<sup>21</sup> In Boston alone, 194 teachers in their first three years of employment left the system in the 2004–05 school year — an attrition rate of 47 percent.<sup>22</sup> And over the next five years, roughly 20 percent of longtime teachers are expected to retire from Massachusetts public schools.<sup>23</sup>

By seeking a system that educates all students to the high levels of achievement and attainment required for successful futures, we are placing

## STATE TEACHER POLICIES

The 2008 Quality Counts report identified the following areas, among others, where Massachusetts has room for improvement.

	YES	NO
State requires substantial formal coursework in subject area(s) taught		✓
Prospective teachers must pass written test in subject-specific pedagogy		✓
State has ban or cap on number of out-of-field teachers		✓
Teacher education programs accountable for graduates’ performance in classroom settings		✓
State provides incentives to teachers who work in targeted teaching-assignment areas		✓
State provides incentives for National Board Certified teachers to work in targeted schools		✓
State finances professional development for all districts		✓

*Source: Excerpts from Quality Counts 2008, Education Week, 10 January 2008.*

our educational aspirations squarely on the shoulders of teachers in the classroom and the leadership teams in our schools. We need to provide them with the time, expertise and support to reach the Commonwealth's ambitious goals. In this new phase of education reform, therefore, we must work with teachers and education leaders to reshape and align our systems of educator recruitment, preparation, certification, licensure, support and professional development. Our approach must be inclusive, comprehensive and innovative.

## CHANGING NEEDS

**70%**

School-aged children enrolled in a formal early education and care program

**31%**

Students who are "latchkey children"

**22%**

Prekindergarteners with access to a program accredited by the National Association for the Education of Young Children

**15.1%**

Students in public K–12 schools who claim English as a second language — this number is only expected to increase over the next decade

Sources: "Momentum Grows: Early Education in Massachusetts. Early Education for All. 6 March 2008; "A Report on the Cost of Universal, High-Quality Early Education in Massachusetts." Early Education for All. October 2006. 2008 State Profile. Massachusetts Department of Elementary and Secondary Education. 2008; New Survey Data: Massachusetts Latchkey Kids from Working Families Vastly Outnumber Those in Afterschool Program." Afterschool Alliance. 24 March 2005.

We must recognize and promote teaching and education leadership as critical and valuable professions capable of drawing the most qualified candidates into the field. Then, we need to provide steady support so that each teacher and administrator can advance his own content knowledge and continuously refine his craft.

## A century-old system

*Imagine driving the same car your parents and grandparents drove last century.*

*Imagine using the same appliances.*

*Imagine the same medical treatments.*

Frightening, right? And yet, our students are learning in an education system designed to meet the social and economic needs of the early 20th century.

One of the biggest errors in the conception and early implementation of 1990s education

reform was to think that setting high standards, creating the curriculum frameworks to achieve those standards and strengthening accountability for results would be enough. We focused far too little attention on the system itself. We see now that we would have achieved greater success over the last 15 years if we also had taken commensurate action to strengthen our schools' capacity to meet the dramatically increased demands we



set. We set the right goal — “all students at proficiency.” However, we left schools operating as they have for more than a century, when educational attainment was distributed based on the traditional bell curve — a few students at proficiency, many in the mediocre middle, and a handful or more (depending on the school system) failing.

This mass-production, “batch-processing”<sup>24</sup> approach to education no longer works in an economy in which the skills needed for college and a job that will support a family of four are virtually identical.<sup>25</sup> That means we need tailored instructional strategies that help all students meet the same high standards, recognizing that they will reach these goals in many different ways. The first phase of education reform failed to differentiate the quantity and quality of instruction required to give each student — as opposed to groups of students — the skills and knowledge they need to succeed.

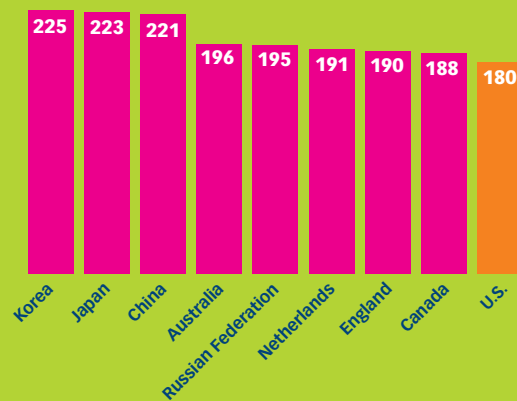
In addition, as we implemented the first wave of reform, we underestimated the time required to get all students to proficiency in core subjects, while at the same time providing a well-rounded education in the arts and other subjects. This has left schools trying to cram 21st century expectations into last century’s school structure and schedule. Longer school days and longer school years are just two options to consider as we rethink how to meet heightened expectations.

Importantly, school administrators and teachers need much more assistance if they are to educate 100 percent of students to proficiency. We are asking more of our schools than ever before: world-class achievements in core subjects, knowledge-economy skills, a well-rounded education, and the development of character and civic virtues. We have created a system of standards and accountability that does an excellent job of identifying and reporting on underperformance, yet we have not created the capacity to use those data to provide adequate assistance.

***That must change. Starting now.***

## OUR STUDENTS SPEND LESS TIME IN SCHOOL

Average number of instructional days in the school year



Source: Trends in International Mathematics and Science Study (TIMSS). Institute of Education Sciences. 2003.

# THE PATRICK ADMINISTRATION ACTION AGENDA

Massachusetts is ready for the next phase of education reform. We value our strengths. We understand our challenges. We know what we want to achieve. And now we present an agenda developed with broad-based input from education, government, business, civic leaders and citizens.

Four broad goals, all integrally linked, shape the specific steps in our action agenda:

**First, we must raise the achievement of all students.** That involves not only improvements in teaching and curriculum, but also addressing the external factors that impede success, teaching 21st century skills, and introducing learning opportunities and a heightened attention to quality care beginning in the earliest years of life.

**Second, fulfilling the new promise of public education demands that we genuinely and deliberately elevate teaching to a recognized profession capable of attracting the most highly qualified candidates to the field.** Teachers deserve the opportunity to build their own content knowledge and skills. They, along with administrators, need high-quality mentoring, professional development, supervision and evaluation.

**Third, we must broaden and deepen our commitment to public education so that every student is prepared to take advantage of higher education, employment and lifelong learning opportunities.** That means extending our definition of a basic public education to include at least two years of postsecondary learning. And it means aligning the curriculum with 21st century knowledge and skills.

**Finally, we must unleash innovation broadly, allowing the power of new ideas and new approaches to transform the system.** We have to muster the collective courage to ask provocative questions and answer them honestly. Do our students and teachers have enough time during the day and during the year to meet the necessarily high expectations that we have set? Does our system of district governance allow us to maximize resources and generate the best possible results? How can we improve our record of recruiting, hiring and retaining educators? Are we maximizing the use of our vocational and technical infrastructure and facilities? Are we leveraging technology well? What best practices from successful charter and other schools here in the Commonwealth and across the country and the world can we bring to *all* Massachusetts schools?

To move forward, we must confront old constraints and move innovations from the margin to the mainstream. Effectiveness must trump ideology. Mission must triumph over tradition. Children's learning needs must be paramount, notwithstanding any inconvenience to adults inside and outside of our schools.



As always, the network of people invested in our long tradition of excellence in education will drive this critical effort. Parents, policymakers, educators, business people and citizens must join forces and resources — human and financial — to keep pushing us forward. We are off to a strong start. Over the past 18 months, the Commonwealth has:

- Made strategic investments in early education and care, full-day kindergarten, expanded time for teaching and learning, and higher education facilities;
- Increased Chapter 70 funding to record levels, including targeted increases for special education students and English language learners;
- Created a new Executive Office of Education — a single point of access and coordination for statewide education policy;
- Initiated the first comprehensive survey of the state’s teachers;
- Invested historic levels of funding in youth and workforce development;
- Passed a \$1 billion life sciences bill; and
- Inaugurated the Commonwealth Corps and the Statewide Youth Council, two new initiatives that will give youth in our state a voice in their government and opportunities to actively engage in projects and service to address challenges in our communities.

The following action agenda, rooted in the good work of the past 15 years and the groundbreaking partnership that is the Commonwealth Readiness Project, outlines actions and strategies that will allow students, teachers, communities and Massachusetts to achieve more than ever before. While we offer detail on several signature initiatives in the following pages, let the release of this action agenda mark the beginning of an unprecedented decade of collaborative policymaking in education.

***No single actor can generate the scale of reform required, and no single action included here will yield the scope of advancement needed. Working together, however, we can press ahead, implementing actions and strategies that will help get us all ready for success in the 21st century.***

# GOAL 1: STUDENTS

*Meet the learning needs of each student and provide the understanding, encouragement, support, knowledge and skills each requires to exceed the state's high expectations and rigorous academic standards*

## Administration Action Agenda

### Short term (2008–11)

- Continue support for high-quality early education and care by establishing a schedule of incremental increases in annual funding to achieve universal prekindergarten, beginning with the fiscal year 2010 budget.
- Continue state support for high-quality, full-day kindergarten in every high-needs district by amending the Kindergarten Expansion Grant program in the fiscal year 2010 budget to allow state funds to be used for the transition from half-day to full-day programs, quality enhancements in all full-day programs in high-needs districts, and to cover the gap year between grant funding and funding provided through Chapter 70.
- Immediately create, by means of an executive order, a Task Force to establish a statewide birth-to-school-age strategy to ensure the healthy development of children, particularly those from low-income families. This strategy should include various service agencies, link multiple funding streams, and align preschool and school-age care.

## BY 2020:

- Massachusetts will have a coordinated plan to provide high-quality education and care for all children beginning at birth, which will smooth their transitions to school.
- Students of every age will be able to access the individualized education they need when they need it.
- All students will receive sufficient high-quality instruction to ensure mastery of 21st century content, skills and competencies.

- Establish a Commonwealth Child and Youth Readiness Cabinet, an inter-governmental agency cabinet chaired by the secretaries of Education and Health and Human Services, and including a stakeholder advisory group, responsible for developing and implementing a shared vision to advance the health and well-being of all children and youth.
- Launch an Urban Schools Early Warning and Dropout Prevention Pilot in qualifying districts to identify students at risk of dropping out of high school and to implement tailored and appropriate interventions.



## SPOTLIGHT: CHILD AND YOUTH READINESS CABINET

There is widespread awareness that children do not develop and learn in schools alone. Instead, they mature across many dimensions — physical, social, emotional, ethical and intellectual — within networks of families, schools, neighborhoods, communities and our larger society. Consequently, government agencies charged with fostering children’s development and working with families must incorporate these dimensions and networks into their service delivery systems and improve their coordination.

The Commonwealth Child and Youth Readiness Cabinet will be charged with breaking down silos by bringing together at one table state leaders who oversee the agencies working most closely with children and families. The Cabinet will be jointly chaired by the Secretary of Education and the Secretary of Health and Human Services. It will include the state secretaries of Housing and Economic Development, Labor and Workforce Development, and Public Safety. In addition, a stakeholder group, made of leaders from the legislative and judicial branches, as well as from the provider community and statewide youth community, will advise the Cabinet.

The Cabinet’s mission will be to set priority areas and identify and implement improvements that will address

the roots of systemic challenges. It will achieve this by first establishing common terms, a shared vision, and the baseline measures and benchmarks that will document progress over time. To drive service improvements, the Cabinet will be able to link and leverage funding.

A featured initiative of the Cabinet will be to offer recommendations for developing a statewide child and youth data reporting system. This initiative will include suggestions for developing a “Readiness Passport” for every child and youth enrolled in Massachusetts schools. This tool will summarize and document the delivery of educational and health and human services, which will help facilitate a smooth transition for those who move to different schools or communities. Consistent with any privacy constraints established by applicable federal and state laws, the Passport will be accessible to parents, guardians, teachers, providers and, as appropriate, students.

Additionally, the Cabinet will oversee the creation of the Urban Schools Early Warning and Dropout Prevention Pilot, which will identify students at risk of dropping out of high school and provide timely interventions in qualifying districts.

- Place one or more Student Support Coordinators in every low-income school to assist teachers; connect students and their families to appropriate, noneducational, state and community-based services, including those related to health, mental health, housing and social services; and to provide ongoing guidance and assistance with coordinating and integrating those services.
- Develop a comprehensive, statewide child and youth data and reporting system that will enable development of a “Readiness Passport” for every child and youth enrolled in Massachusetts schools. The Readiness Passport will provide parents, guardians and agencies with a simple tool to document key elements of a child’s educational experiences as well as to chronicle various services, interventions, supports, data and performance evaluations related to that child. Consistent with any privacy constraints established by applicable federal and state law, the Passport will be accessible to parents, guardians, teachers, providers and, as appropriate, students. The data and reporting system as well as the Readiness Passport will increase the efficiency, effectiveness and collaboration of the schools, state agencies and community youth organizations.

### ***Mid term (2012–15)***

- Increase the availability of and accessibility to state Adult Basic Education (ABE) and English for Speakers of Other Languages (ESOL) programs.
- Reduce class size in K–2 classrooms in high-needs school districts.



## GOAL 2: TEACHERS AND EDUCATION LEADERS

*Ensure that every student in the Commonwealth is taught by highly competent, well-educated, strongly supported and effective educators*

### Administration Action Agenda

#### Short term (2008–11)

- Establish differentiated pay for qualifying teachers in high-needs districts and schools, in high-demand disciplines, and for those who possess highly needed, extraordinary skills and knowledge, or who volunteer for particularly challenging responsibilities.
- Launch a competitive grant program with funding for qualified districts (as determined by the Department of Elementary and Secondary Education) to pilot intensive, systemic induction and mentoring in the first three years of teacher service.
- Establish the Readiness Science and Math Teaching Fellowship Program to increase the Commonwealth's supply of qualified math and science teachers.
- The Department of Elementary and Secondary Education will accelerate efforts to make available to teachers an online, formative assessment system that will provide "real-time" data on student performance as measured against state standards. This data-driven instruction system will help teachers to analyze current student performance and continuously modify teaching practice to meet evolving student learning needs.
- Maintain the current MCAS graduation requirement and strengthen the system by adding complementary measures of student growth and 21st century skills. This could include a culminating, multidisciplinary senior project on a student-selected topic of interest.

### BY 2020:

- Massachusetts will have a robust educator development system.
- Educators, as well as students, will be expected to learn throughout their careers. Teachers will be devoted to the continuous advancement of their content knowledge and teaching skills.
- All Massachusetts teachers will enter schools with realistic expectations of the realities of the classroom, based on practical field experiences during their training.
- Teacher preparation programs will be equally strong in delivering 21st century content, instructional skills, and field experiences that provide preservice teachers with opportunities for observation, analysis and practice.
- Teaching will be recognized as a profession of stature.
- All Massachusetts public schools will be led by superintendents and principals who nurture all students and successfully apply instructional and managerial expertise to foster continuous schoolwide improvement.

## SPOTLIGHT: RECRUITMENT AND RETENTION OF TEACHERS AND SCHOOL LEADERS

Our commitment to continuous improvement in education requires a commensurate commitment to attracting and retaining the best possible teachers and education leaders at all levels of our education system and particularly in essential content areas.

The Readiness Science and Math Fellowship Program is an important opportunity annually to offer 60 math and science majors the opportunity to earn their master's degrees while teaching in school districts with significant numbers of low-income students. In addition, we will work with teacher preparation programs at colleges and universities to create a statewide teacher residency network. Similar to medical residency programs and modeled after the successful Boston Teacher Residency Program, the initiative will combine rigorous academic coursework with enriching field experiences. In addition, the commissioner and Department of Elementary and Secondary Education should take immediate action to bring more teachers into classrooms by streamlining and strengthening state certification and licensure policies and procedures.

To help draw the best and brightest into teaching, we must address the compensation gap between positions in the private sector and teaching positions in high-demand disciplines. Through a new program of differentiated pay, we will initially focus on several priorities:

- Science and math educators;
- Educators with dual certification in a content area and special education;
- Educators with significant professional development credits teaching English language learners or special education students; and

- Educators who elect to teach in high-needs, low-income schools and districts.

Recruitment efforts must be complemented by efforts to reduce the unacceptably high attrition rates of beginning teachers. Comprehensive initial and ongoing support is essential. Through a competitive grant program for qualifying high-needs school districts, the Commonwealth will pilot a systemic induction and mentoring program for teachers in their first three years of teaching.

Further, we propose regional Readiness Centers — multi-purpose, collaborative hubs for content and professional development as well as school improvement. The centers will be governed by diverse boards of representatives from higher education, elementary and secondary schools, and early education. They will be staffed by both content and instructional experts charged with bringing the latest research to educators; facilitating the exchange of best practices between teachers and school leaders; and fostering local partnerships among students, schools, educators, businesses and community organizations. The Commonwealth Readiness Centers will be part of our state's new accountability and assistance system.

As part of the effort to keep outstanding educators in our schools and classrooms, we will establish a statewide career ladder that rewards educators who advance along a career path — for example, from novice to professional to coach. Finally, those schools that demonstrate consistent improvements in overall student achievement will be rewarded as we redouble our effort to foster a culture of collaboration and cooperation in education.



- Establish and support a statewide career ladder for educators pre-K through 12, creating a path of professional advancements with commensurate salary increases for educators who assume instructional mentoring and leadership positions within our schools and school districts.
- Reform the state teacher certification and licensure processes as well as other teacher development policies to eliminate bureaucratic barriers and build state capacity to attract, prepare, develop and retain a high-quality, culturally diverse and inspiring teaching force for Commonwealth students.

### ***Mid term (2012–15)***

- Close the compensation gap between faculty at Massachusetts’ higher education institutions and peer institutions in other states, particularly the New England states.
- Reward outstanding school performance by providing financial rewards for “whole school improvement,” defined as continuous advances in overall student achievement.
- Partner with the state’s teacher colleges to develop a statewide teacher residency program similar to medical residency programs that would combine rigorous coursework, practical training in diverse settings, and certification and licensure.
- Foster an intensive approach to ongoing teacher development and data-driven instruction, especially in schools with significant achievement gaps, through a pilot program that emphasizes dramatically improving early literacy achievement in kindergarten through 3rd grade.

### ***Long term (2016–20 and beyond)***

- Establish regional Readiness Centers dedicated to the continuous improvement of education at all levels of our public education system. These centers could be located at state colleges or universities but would be directed by boards comprised of regional pre-K through 12, higher education, business and community organization leaders.
- Update Massachusetts’ teacher preparation programs for 21st century teaching and learning by providing: 1) subject-matter knowledge that is aligned with the state’s academic standards; 2) instructional knowledge and skills tailored to the student body teachers will be serving; and 3) field experiences that engage pre-service teachers in observation, analysis and practice in varied school and district settings.

# GOAL 3: COLLEGE, CAREER AND LIFE SUCCESS

*Prepare every student for postsecondary education, career and lifelong economic, social and civic success*

## Administration Action Agenda

### Short term (2008–11)

- Develop a comprehensive statewide strategy for integrating 21st century skills into all aspects of public education: standards and assessments, curriculum and instruction, professional development and learning environments. These reforms will be guided by the work of task forces of the Boards of Early Education and Care, Elementary and Secondary Education, Higher Education, and the University of Massachusetts Board of Trustees.

## BY 2020:

- Massachusetts will be educating its students to compete effectively for jobs with the world's top students.
  - The state assessment system will effectively measure each student's mastery of the skills and knowledge necessary to be a full and active participant in 21st century higher education, work and society.
  - The state's high school dropout rate will be reduced to less than 10 percent.
  - At least 90 percent of Massachusetts students will finish high school ready for college — including community college — without having to take any remedial courses.
  - The Massachusetts public education system will effectively serve a diverse student body and be responsive to the evolving workforce needs of the state's businesses and industries.
  - Personal or family financial constraints will not be a barrier to achieving an associate degree or the equivalent training in a professional trade.
- Beginning with the fiscal year 2010 budget, increase needs-based financial aid for higher education to low-income students and extend and pro-rate the same benefit to part-time students.
  - Create a pilot program to provide community college opportunities to: 1) existing and aspiring early education and care educators in exchange for several years of service in the Commonwealth's early education and care workforce; and 2) parents or guardians of income-eligible students in our pre-K through 12 system.
  - Provide opportunities for accelerated graduation and early entry into college for qualifying students who at age 16 or over pass an internationally benchmarked exam, such as the International Baccalaureate, Programme for International Student Assessment (PISA) or Advanced Placement exams to bypass all other requirements, graduate from high school and enter college.



## SPOTLIGHT: FULL ACCESS TO COMMUNITY COLLEGE AND POSTSECONDARY EDUCATION

Success in a 21st century global economy requires more than a high school diploma. That's why the Commonwealth is expanding its commitment to public education to include full access to community college for anyone who seeks it. Our long-term goal is to establish a public education system that guarantees access to free community college or the equivalent postsecondary or vocational education. To move us in that direction — and help us quickly achieve related objectives — we will focus first on existing and aspiring early education and care educators and the parents or guardians of income-eligible students in our pre-K through 12 system.

Creating a statewide system of early education and care that includes universal, high-quality prekindergarten is a pillar of our action agenda. To meet this goal, we must build the quality of our early education teaching force and encourage more talented teachers to enter this system. To encourage new entrants into the field and provide career pathways and higher education access to those already in the field, we will seek competitive proposals from collaborative teams. Teams might include a vocational high school with an early education track, a community college and a four-year institution of higher education. Priority will be given to applicants from areas with underperforming schools and districts and/or areas where children and families face multiple risks, such as poverty and inadequate health care.

These teams will craft agreements to facilitate rapid, easy access to higher education for early education providers

and potential providers. Teams will reduce bureaucratic barriers to education and training, while providing supports and mentoring to help aspiring early educators achieve their degrees. Teams will help students receive credit for prior equivalent courses and educational experiences.

Teams will provide each student the time needed to earn her or his degree as well as ongoing mentoring, career counseling and academic advising. In addition, they may provide ABE and ESOL courses as well as resources and supports to help staff currently in the field transition successfully into postsecondary institutions.

Qualifying students who benefit from these programs will be required to stay in the early education field in Massachusetts for a specified length of time after earning an associate degree. They will be expected to help pay for their educations within the limits of their abilities. And they will be expected to maintain a good academic standing to remain eligible for financial support.

Early education programs that actively partner to advance the education of their employees could be eligible for an increase in Universal Pre-K grant funds or other incentives. Employers will have to agree in advance to flexible scheduling and could be required to contribute to the cost of tuition in exchange for the student's commitment to stay employed in the program while attending college.

- Support legislation to allow children of undocumented immigrants to attend a public college or university in the Commonwealth at the in-state tuition rate if they have attended Massachusetts' schools, passed the MCAS, received a high school diploma and are on a path toward citizenship.
- Prioritize the state's commitment to and investment in a robust high school-to-college Web portal by supporting and advancing the existing partnership among the Department of Elementary and Secondary Education, the Department of Higher Education, and the Massachusetts Educational Financing Authority. The Web portal will improve student, parent and counselor access to information and tools about postsecondary education opportunities.
- Develop and make available a state diagnostic College Readiness Assessment for all 11th graders to inform their course selection and senior-year activities. These assessments may be similar to those currently given to entering college freshmen.
- Provide students with maximum flexibility and mobility to earn a college degree by guaranteeing transfer of course credit between and among the state's public higher education institutions.

### ***Mid term (2012–15)***

- Annually increase the investment in and availability of dual enrollment opportunities for all students. We will focus initially on first-generation college-goers, students interested in science, technology, engineering and mathematics disciplines, and concurrent enrollment programs for students with special needs.
- Build on the Connecting Activities work of the Executive Office of Labor and Workforce Development and the Department of Elementary and Secondary Education to place a Career Readiness Counselor first in every high-needs high school, and then in every high-needs middle school.

### ***Long term (2016–20 and beyond)***

- Increase high school graduation rates and college readiness, particularly among minority and low-income youth, by increasing the number of Early College High Schools in the Commonwealth. These high schools provide a unique and proven opportunity for traditionally underserved students to earn simultaneously a high school diploma and two years of college credit that can be applied toward an associate degree or a bachelor's degree.
- To capitalize on the critical role of community colleges in our education and workforce development system and to enhance the ability of Massachusetts' students and businesses to compete internationally, the public education system should include guaranteed access to free community college or the equivalent postsecondary or vocational education.



## GOAL 4: INNOVATION AND SYSTEMIC REFORM TO CREATE A 21ST CENTURY PUBLIC EDUCATION SYSTEM

*Unleash innovation and systemic change throughout the Commonwealth's schools, school districts, colleges and universities as well as in the partnerships and collaborations among education institutions, communities, businesses and nonprofits*

### Administration Action Agenda

#### Short term (2008–11)

- Establish a Readiness Finance Commission to recommend short-term education investments for the fiscal year 2010 budget, including further adjustments to the Chapter 70 foundation budget and modifications to alleviate the burden on property tax. In addition, this commission will: 1) recommend systemic cost savings and efficiencies; 2) project costs/cost savings for each Readiness Project Initiative and a 21st century system of education; 3) identify potential sources of additional revenue; and 4) outline options for a comprehensive overhaul of the state's education finance system.
- Launch a new high-autonomy, in-district school model — the Readiness School — to facilitate teacher ownership, innovation, choice and responsiveness to student and family needs.
- Charge each of the education sector boards with strengthening, clarifying and improving accountability and linking the functions of accountability and assistance.
- Continue investing in the state's Expanded Learning Time Program.

### BY 2020:

- The Massachusetts education system will include district schools with high levels of autonomy and flexibility to educate all students for the 21st century.
- The school day and school year will be structured to match the demands on students, teachers and families.
- Any student of any age who is interested in pursuing postsecondary education will have access to an affordable opportunity to do so.
- Massachusetts will have a higher education system distinguished by unprecedented cooperation and collaboration among the state's public and private institutions, attracting top students and faculty from around the world.
- Massachusetts' 21st century education system will be equitably, adequately and reliably financed for the long term.

## SPOTLIGHT: READINESS SCHOOLS

Readiness Schools promise a new kind of teaching and learning experience — one built on the fundamental characteristics of all successful schools: strong leadership, educator ownership, innovation and high expectations for student achievement. It is time to extend those core principles of high-performing schools — and the benefits they enable — to dramatically more students in the Commonwealth.

Readiness Schools will challenge our mainstream schools and district leaders to embrace the flexibility and independence typically found in the charter sector. These would be high-autonomy public schools in which students, faculty, parents and the community share responsibility and ownership for results. Readiness Schools would:

- Be contract schools, launched or managed by a team authorized by and accountable to the local school committee. School committees would award contracts under procedures set by the state Board of Elementary and Secondary Education.
- Operate under performance contracts that hold them accountable for improving student learning.
- Be funded by the school district, using a weighted student formula, with more funds allocated for students who are more expensive to educate.
- Typically be staffed by union members who bargain collectively only for wages, benefits and due process dismissal procedures.

Importantly, Readiness Schools would have increased autonomy in five areas: staffing, budget, curriculum and

assessment, governance and policies, and school schedule and calendar. The leadership of each Readiness School would establish the operating standards in each of these five areas, with significant input from faculty and staff.

School committees could convert existing schools to Readiness status or develop new schools. Readiness Schools could be proposed by a team of teachers, a principal, a superintendent, unions, qualified educational management organizations, a group of parents, community-based organizations or qualified charter school operators. For example, a group of teachers could, in effect, create their own “educational private practice,” assuming management and operational responsibility for their own school under terms authorized by the local school committee.

Readiness Schools also could be proposed by the superintendent, subject to a faculty vote. Alternatively, in extreme instances of chronic local underperformance, the state Board of Elementary and Secondary Education might require the school committee to create a Readiness School by selecting a preferred provider that has demonstrated success with similar children. Districts opposed to such decisions could appeal to the state board.

By 2013, we hope to have at least 40 Readiness Schools throughout the state. Over time, we believe Readiness Schools will not only be high-performance centers of excellence, but also working examples of a new approach to education governance. Local school committees would act as contracting bodies with responsibility for and oversight of diverse providers of education services.



- Establish incentives to encourage expansion of the school year and launch a competitive grant program to support high-impact summer programming, tutoring and mentoring opportunities in high-needs communities.
- Ensure access to high-quality after-school and out-of-school time programming in every high-needs community by streamlining responsibility, funding, authority and accountability of all state after-school and out-of-school-time programs.
- Allow tuition retention for both state-supported and continuing education courses.
- Establish the Commonwealth Education Innovation Fund, a public-private fundraising partnership to strengthen our collective capacity to meet pressing, statewide education challenges. Building on a modest annual investment, the state will seek additional funds from the business and nonprofit communities, as well as individual donors and philanthropists. Based on recommendations from the Executive Office of Education — developed in consultation with the Boards and Commissioners of Early Education and Care, Elementary and Secondary Education, and Higher Education, and the president and Board of Trustees of the University of Massachusetts — the Fund will establish a discrete list of evolving funding priorities to foster innovation in policy, practice, research, professional development and other capacity-building measures.
- Leverage information technology to expand student access to courses, content and credit by establishing Mass Online University and Mass Virtual High School.
- Close the home-family technology gap by establishing a state framework for low-cost, district-driven, home-computer lease programs.
- Provide incentives for information technology partnerships to improve teaching and learning, education administration and management, or the delivery of education services and support.

### **Mid term (2012–15)**

- Fully fund the Department of Higher Education funding formula.
- Provide incentives for regional pre-K through higher education purchasing and service delivery partnerships beginning with legislation to provide full funding for districts that participate in regional partnerships for transportation of special education students.

- Better align the public education system to real-world needs by analyzing and communicating the academic, skill and training needs of emerging and high-growth business and industry sectors by providing public schools and higher education institutions with easy access to labor market analysis and information that will inform programming and planning decisions.
- Introduce legislation to allow state and municipal agencies to lease available space in state-owned facilities at below-market rates to qualified early education and care program providers.
- Introduce legislation to provide incentives to businesses that provide space at below-market rates for high-quality early education and care programs, or that give community residents access to the company's early education and care programs.
- Market licensable intellectual property generated at state-supported colleges, universities, research and other institutions to businesses located in and out of the state.

### ***Long term (2016–20 and beyond)***

- Launch a Statewide Master Teacher Contract Initiative that would start a critical conversation about transforming the educator compensation and benefit structure to attract top talent into teaching by, for example, offering flexibility for teachers to receive different pay and benefit packages at different stages of their careers. In this kind of scenario, new teachers might have the option of choosing higher compensation in lieu of longer-term benefits. Such a contract might also provide for more equitable distribution of teachers throughout the state while creating the possibility of various cost savings. For example, the Master Teacher Contract would provide a vehicle for addressing escalating health care costs, disparities in pay across regions of the state, pension portability and other issues. Such a contract would achieve the efficiency of eliminating contract negotiations in more than 300 separate school districts.
- Increase the size while reducing the number of the Commonwealth's current school districts to streamline administration and management structures, which will expand opportunities to ensure strong oversight and leadership and improve teaching and learning.
- Develop a statewide Research and Development Co-facilities Plan.
- Work with the Massachusetts federal congressional delegation to explore options for advocating for the reallocation of federal Title I and special education funds for early education and care programs.



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# APPENDIX: THE READINESS PROJECT REPORT

## About the Readiness Project

Nine months ago, Governor Patrick called on a diverse group of education, business and civic leaders to look to the future of public education in the Commonwealth and offer a set of recommendations to transform our state system of public education into a comprehensive, integrated, student-centered education system that begins before kindergarten and continues through grade 12 and beyond.

The Governor's specific charge to the Readiness Project was to focus not on those changes that will bring incremental improvement but rather on dramatic, widespread improvements.

Governor Patrick named three individuals to lead an 18-member Readiness Project Leadership Council: Jackie Jenkins-Scott, president of Wheelock College; Thomas Payzant, former superintendent of the Boston Public Schools; and Joe Tucci, president, chairman and chief executive officer of EMC Corporation. Additionally, the Project formed 13 subcommittees to lean on and leverage the expertise of more than 200 Massachusetts citizens.

The work of the Readiness Project was informed by the research, debate and discussions of the subcommittees as well as by the perspectives of citizens across Massachusetts. Parents, teachers, students, professors, administrators, practitioners, experts, advocates and other community members shared their ideas at more than a dozen public forums, in town hall meetings with the Governor, and during countless smaller gatherings and conversations.

All of this work has resulted in a clear vision and set of recommendations with the success of every student — no matter her ZIP code, age or socioeconomic status — at the center. These recommendations provide a platform for the Commonwealth of Massachusetts to be not only a *national* education leader, but also a 21st century *world* education leader.

The Readiness Project goals and recommendations follow. These documents represent a portion of the Project's work. The 13 subcommittee reports are available online, as are additional details related to our recommendations and ideas for implementation. Please visit [www.mass.gov/governor/education](http://www.mass.gov/governor/education).

### AT A GLANCE

- 10-year horizon
- Three co-chairs
- 18-member Leadership Council
- 13 subcommittees with a collective membership of more than 200
- More than a dozen public meetings in 14 cities and towns, drawing more than 2,000 people into the conversation
- More than 700 grassroots leaders (Readiness Reps)
- Four final goals
- 24 final recommendations

## Dear Governor Patrick:

At the onset of the Readiness Project, you challenged us and the people of Massachusetts to set aside the constraints of the day to think creatively about the future of public education. We took your challenge seriously. On behalf of the members of the Readiness Project Leadership Council and the more than 200 people who volunteered their time and expertise by serving on Readiness Project subcommittees, we are pleased to offer the following findings and recommendations.

Through our own work and professional experience, we know just how much opportunity emerges by looking to the future to define a clear, strategic vision to drive decisions and inform actions. We commend you for leading the Commonwealth toward a comprehensive, integrated and student-centered public education system. We must build on successes gained through the most recent era of statewide education reform to propel the Commonwealth into the 21st century. To generate the dramatic and widespread improvement in education necessary, we must work to transform our system of public education to:

- Meet the learning needs of each student and provide the understanding, encouragement, support, knowledge and skills each requires to exceed the state's high expectations and rigorous academic standards;
- Ensure that every student in the Commonwealth is taught by highly competent, well-educated, strongly supported and effective educators;
- Prepare every student for postsecondary education, career and lifelong economic, social and civic success; and
- Unleash innovation and systemic change throughout the Commonwealth's schools, school districts, colleges and universities as well as in the partnerships and collaborations among education institutions, communities, businesses and nonprofits.

We know that such a transformation is complex and challenging. We also believe that if we fail, we will limit the prospects for the lifelong success of individuals, the vitality of communities and the economic strength of our state. We stand ready to continue working with you, your administration and all those in the Commonwealth who believe as we do that a strong public education system is the gateway to opportunity.

Respectfully,

Jackie Jenkins-Scott  
*Chair*

Thomas Payzant  
*Chair*

Joe Tucci  
*Chair*



## Readiness Project Goals and Recommendations

### **Readiness Goal 1**

*To transform public education in the Commonwealth, we must meet the learning needs of each student and provide the understanding, encouragement, support, knowledge and skills each requires to exceed the state's high expectations and rigorous academic standards.*

#### **Recommendations**

- Establish a fully integrated and adequately funded state system of early education and care that begins at birth.
- Engage and mobilize families and all sectors of society to provide the education, social, emotional, health and human services each student needs to be ready to learn and succeed in school.
- Increase adult learning opportunities to help families engage in their children's education.

### **Readiness Goal 2**

*To transform public education in the Commonwealth, we must ensure that every student is taught by highly competent, well-educated, strongly supported and effective educators.*

#### **Recommendations**

- Provide intensive, systemic induction and mentoring for all educators in their first three years of service.
- Accelerate the entry of highly qualified teachers into public schools, particularly in high-needs districts and high-priority disciplines such as science, technology, engineering and math.
- Improve teaching in science, technology, engineering and math disciplines by strengthening content knowledge and teaching strategies.

- Maintain the current MCAS test as a graduation requirement and strengthen the system to include measures of individual student growth and college readiness, which would complement but not replace the current measures.
- Recruit and retain world-class faculty to the Commonwealth's public higher education institutions.
- Create regional partnerships, resources and capacity to improve education at every level.

### **Readiness Goal 3**

*To transform public education in the Commonwealth, we must prepare every student for postsecondary education, career and lifelong economic, social and civic success.*

#### **Recommendations**

- Align the Commonwealth's standards, frameworks and curriculum with the demands of 21st century life, work and citizenship.
- Engage students in their learning by broadly integrating 21st century tools into teaching and learning as well as increasing interdisciplinary, hands-on and project-based learning.
- Provide students with multiple pathways to postsecondary education and the workforce that are based on high, internationally benchmarked academic and employment standards.
- Make college accessible and affordable for all Commonwealth students.
- Provide two years of postsecondary education or the equivalent in a professional trade as the new baseline of our state education system.
- Guarantee transfer of credits between and among the state's public higher education institutions.
- Increase the state's production of postsecondary degrees.



## **Readiness Goal 4**

*To transform public education in the Commonwealth, we must unleash innovation and systemic change throughout the Commonwealth's schools, school districts, colleges and universities as well as in the partnerships and collaborations among education institutions, communities, businesses and nonprofits.*

### **Recommendations**

- Structure the school day and school year to match the needs of students, teachers and families.
- Bring the proven benefits of the charter school movement into mainstream schools and classrooms throughout the Commonwealth.
- Provide sufficient resources to support the development of a truly 21st century public education system.
- Create a statewide master teacher contract.
- Actively partner with all segments of society to efficiently and effectively fund innovations and systemic improvements in education.
- Increase the efficiency and effectiveness of education governance and services to students by dramatically reducing the number of school districts in the Commonwealth.
- Leverage information technology to support innovations in teaching and learning.
- Strengthen the connections among the Commonwealth's education and economic development strategies and initiatives.

## ACKNOWLEDGMENTS FROM GOVERNOR DEVAL PATRICK

First and foremost, sincere thanks to Bridgewater State College President Dr. Dana Mohler-Faria, who served as my special advisor for education for 18 intensive months. Dr. Mohler-Faria tirelessly gave his time, expertise and good will to help shape the vision for the future of education in the Commonwealth and, as such, has helped lay the foundation for a transformed, 21st century public education system in Massachusetts. Thanks also to the members of the staff in the Office of the Special Advisor for Education: Caitlin Fahey, Colleen Harkins, Rob Leshin and Christina Wu, with special thanks to Michele Norman, Sydney Asbury and Kendra Medville for their extraordinary commitment and leadership.

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Finally, I would like to thank Commonwealth Secretary of Education Paul Reville for his guidance and counsel during the final phase of the Commonwealth Readiness Project. I look forward to working with Secretary Reville, his team and all those committed to transforming the Massachusetts public education system into a truly 21st century system.



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Massachusetts Department of  
ELEMENTARY & SECONDARY  
EDUCATION

## **Report to the Legislature** *Implementation and Fiscal Impact of Innovation Schools*

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In January 2010, Governor Patrick signed Chapter 12 of the Acts of 2010, Section 8 into law, which authorized the creation of Innovation Schools. These unique, in-district schools will operate with increased autonomy and flexibility to establish the school conditions that will lead to improved teaching and learning. In exchange, the operators of Innovation Schools will be held accountable for meeting annual benchmarks for student achievement and school performance. The statute requires an annual report to the Legislature on the implementation and fiscal impact of Innovation Schools.

June 2013

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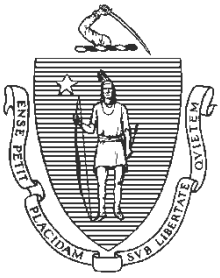
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June 2013

Dear Members of the General Court:

We are pleased to submit this 2012 Report to the Legislature: *Implementation and Fiscal Impact of Innovation Schools* pursuant to Chapter 12 of the Acts of 2010, Section 8. The Innovation School initiative is an important component of An Act Relative to the Achievement Gap that allows in-district schools to operate with increased autonomy and flexibility and create custom-made solutions to their particular student needs. Through a collaborative, local approval process, schools may use autonomy and flexibility in the areas of curriculum, budget, school schedule, staffing, school district policies, and professional development.

In the three years since the Innovation Schools legislation was signed into law, there has been growing interest in the initiative. Currently, there are 47 approved Innovation Schools across the Commonwealth serving approximately 17,000 students in 26 school districts. Eighteen Innovation Schools are located in Gateway Cities. About one-third of Innovation Schools are level three schools that are using the model to significantly improve outcomes for their students. About one-fourth of the schools are STEM themed schools; while other Innovation Schools are implementing dual language immersion programs and programs that incorporate multiple pathways to college and career success.

New this year is the Innovation Schools Network. The Department of Elementary and Secondary Education, in collaboration with the Executive Office of Education, has actively focused on developing the Innovation Schools Network in order to provide support to operators of Innovation Schools across the Commonwealth. This will continue to be an area of focus in the coming year, along with continued technical assistance to Innovation School planners.

Finally, within this report you will find an overview of the Innovation Schools model, information about the efforts this past year to support implementation of Innovation Schools including information on grant recipients, and demographic and achievement data for schools that have been in operation for one year or more.

We look forward to our continued collaboration in supporting this initiative.

Sincerely,

Handwritten signature of Matthew H. Malone in blue ink.

Matthew Malone, Ph.D.  
Secretary of Education

Handwritten signature of Mitchell D. Chester in blue ink.

Mitchell D. Chester, Ed.D.  
Commissioner of Elementary and Secondary

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## Introduction

The Department of Elementary and Secondary Education (ESE) respectfully submits this Report to the Legislature: *Implementation and Fiscal Impact of Innovation Schools* pursuant to Chapter 12 of the Acts of 2010, Section 8, which established M.G.L. Chapter 71, Section 92(p), which states, in part:

*(p) The commissioner of elementary and secondary education shall, to the extent practicable, be responsible for the following: (i) the provision of planning and implementation grants to eligible applicants to establish Innovation Schools; (ii) provision of technical assistance and support to eligible applicants; (iii) the collection and publication of data and research related to the Innovation Schools initiative; (iv) the collection and publication of data and research related to successful programs serving limited English-proficient students attending Innovation Schools; and (v) the collection and dissemination of best practices in Innovation Schools that may be adopted by other public schools. The board of elementary and secondary education shall promulgate regulations necessary to carry out this section. Annually, the commissioner shall report to the joint committee on education, the house and senate committees on ways and means, the speaker of the house of representatives and the senate president on the implementation and fiscal impact of this section.*

This report includes the following: 1) an overview of the Innovation School model and approval process; 2) a description of the implementation of the Innovation Schools initiative to date; 3) information about the availability of resources to establish and operate these schools; and 4) an update on data collection, research, and dissemination of best practices related to Innovation Schools.

# 1. Overview of the Innovation School Model

The Innovation Schools initiative, a signature component of *An Act Relative to the Achievement Gap* that Governor Patrick signed in January 2010, provides educators and other stakeholders across the state with the opportunity to create new **in-district and autonomous schools that can implement creative and inventive strategies, increase student achievement, and reduce achievement gaps while keeping school funding within districts**. These unique schools operate with increased autonomy and flexibility in six key areas: curriculum; budget; school schedule and calendar; staffing (including waivers from or exemptions to collective bargaining agreements); professional development; and school district policies.

Innovation Schools can be established by teachers, school and district administrators, superintendents, union leaders, school committees, parents, parent-teacher organizations, colleges and universities, non-profit community-based organizations, non-profit businesses or corporations, non-profit charter school operators, non-profit education management organizations, educational collaboratives, consortia of these groups, or other non-profit groups authorized by the Commissioner of Elementary and Secondary Education.

## Operation of Innovation Schools

Innovation Schools operate according to an **innovation plan** which describes the areas of autonomy and flexibility and specific strategies that will be implemented in the school. At least one of the six areas of autonomy and flexibility must be addressed in this plan, and the applicant can determine which additional areas will be utilized in the short- and long-term. An innovation plan must include detailed information about the following:

- Specific **instructional, curricular, and assessment strategies** that will be implemented to improve student achievement and school performance;
- Allocation of **fiscal and other resources**;
- **School schedule and calendar**;
- Specific **recruitment, employment, evaluation, and compensation strategies** for staff members and, if applicable, a description of **proposed waivers from or modifications to collective bargaining agreements**;
- **Professional development opportunities** for all administrators, teachers, and staff members; and
- If applicable, **proposed waivers from district policies**.

The innovation plan must also include **annual measurable goals** that assess factors such as student achievement and school performance. In exchange for the authority to operate the school with increased autonomy, Innovation School operators are held responsible for advancing student learning and meeting these annual benchmarks. Innovation Schools receive the **same**

**per pupil allocation** as any other school in the district, and their operators can also secure grant or other types of supplemental funding to implement the innovation plan.

Eligible applicants can create an **Innovation Zone** that may include a set of schools within a district or geographic region, schools that will operate in accordance with particular instructional or curricular themes, or schools that are defined by other factors as determined by the applicants.

**Multiple districts can work together to establish an Innovation School** that would serve students from different communities.

### **Authorization Process**

Innovation Schools are established in accordance with a locally-based authorization process.

1. An eligible applicant **submits an initial prospectus to the district superintendent**. *Within 30 days of receiving the prospectus, the superintendent must convene a screening committee that includes the superintendent or a designee, a school committee member or a designee, and a representative from the local teachers' union; two-thirds approval from the screening committee is required for the applicant to move forward.*
2. An **innovation plan committee** that includes up to 11 school, district, and community representatives develops the innovation plan.
3. Upon completion of the innovation plan, specific steps are required.
  - A **conversion school requires a two-thirds majority vote of educators** in the school.
  - A **new school requires negotiations** among the applicant, teachers' union, and superintendent **if the innovation plan includes proposed waivers from or modifications to the collective bargaining agreement**.
4. The innovation plan is submitted to the school committee, which must hold at least **one public hearing**. A **majority vote** of the full school committee is required for approval.
5. Upon approval, **the Innovation School is authorized for a period of up to five years**, and can be reauthorized by the school committee at the end of each term. *The superintendent will work with the school committee to evaluate the school in accordance with the annual measurable goals included in the innovation plan. In addition, the superintendent can work with the operator of the Innovation School and the school committee to revise the plan as necessary. Any revisions that propose changes to the collective bargaining agreement require a two-thirds vote of approval from the teachers in the Innovation School.*

## **2. Implementation of the Innovation Schools Initiative to Date**

### *Information Sharing, Outreach, and Technical Assistance*

ESE, in collaboration with the Executive Office of Education (EOE), has continued to share information across the state on the Innovation Schools initiative through the ongoing use of the Innovation School website, webinars, and communications with educators and stakeholders in the field.

This past year has seen an unprecedented interest in the Innovation Schools model. An additional 26 Innovation Schools have been approved, bringing the total number of approved Innovation Schools to 47 with another half-dozen in the planning process.

ESE and EOE have worked closely to continue to develop new guidance documents and regulations to further clarify the approval process for Innovation Schools. Additionally, technical assistance has been provided by ESE and EOE staff, as well as by consultants working in the field with Innovation School planners.

Additionally, the Innovation Schools Network (ISN) was launched this past year. The ISN brings together Innovation School educators and planners across the state to share best practice and build relationships between those working in Innovation Schools. The ISN held a statewide convening in June 2012 and four school site visits this past year.

### *Virtual Innovation Schools*

While Virtual Innovation Schools were a component of the original Innovation School legislation, a recent change in law has changed the manner in which virtual schools may be established in Massachusetts. The establishment of Commonwealth Virtual Schools is now governed by Chapter 379 of the Acts of 2012 and may not be established as Innovation Schools. A complete text of An Act Establishing Commonwealth Virtual Schools can be found at <http://www.malegislature.gov/Laws/SessionLaws/Acts/2012/Chapter379>.

### *Innovation Schools Advisory Groups*

EOE, in collaboration with ESE, has continued to convene the Innovation Schools Advisory Group on a regular basis in order to gather feedback from the various education associations in the state as to how best to continue to support the Innovation Schools initiative.

The Innovation Schools Advisory Group members are:

- Cliff Chuang, Associate Commissioner, Office of Charter Schools and School Redesign, ESE
- Joan Connolly, former superintendent, consultant
- Michael Contompasis, City of Boston
- Sheika Edmond, Office of Charter Schools and School Redesign, ESE
- Dan French, The Center for Collaborative Education
- Linda Hayes, Massachusetts Association of Secondary School Administrators

- Nadya Higgins, Massachusetts Elementary School Principals Association
- Lyle Kirtman, Future Management Systems
- Glenn Koocher, Massachusetts Association of School Committees
- Jed Lippard, Marc Kenen and Janine Matho - Massachusetts Charter Public School Association
- Daniel Murphy, Tom Gosnell, and Edward Doherty - American Federation of Teachers Massachusetts
- Emily Raine, National Center on Time and Learning
- Bridget Rodriguez, Director of Planning and Collaboration, EOE
- Tom Scott, Massachusetts Association of School Superintendents
- Paul Toner, Kathie Skinner - Massachusetts Teachers Association

### *Updated Innovation Schools Regulations*

The Innovation Schools statute, M.G.L. Chapter 71, Section 92 (p) states, in part: *The board of elementary and secondary education shall promulgate regulations necessary to carry out this section.*

Through the experiences of the now 47 schools that have gone through the Innovation School approval process, it has become apparent that there continue to be areas that require further clarification to assist applicants and stakeholders to move smoothly through the approval process.

At the January 29, 2013 meeting, the Board of Elementary and Secondary Education voted to approve proposed amendments to the Innovation School regulations, 603 CMR 48.00 to further clarify the approval process.

The approved amendments included three main provisions:

- (1) expand the definition of “teacher,” which would provide greater clarity and certainty in the innovation schools approval process;
- (2) require that the innovation plan establish a process and schedule for seeking approval of the plan by the teachers who must approve the plan; and
- (3) establish a process by which amendments may be made to an innovation plan during its 5-year operating period.

All of these changes to the regulations will contribute to a smoother approval process for all parties involved. Companion guidance documents are being developed to ensure that the field is aware of these regulatory changes.

### 3. Resources to Support the Establishment of Innovation Schools

The Innovation School model is cost-neutral with regard to the longer-term operation of an Innovation School. However, to support initial planning activities and the successful implementation of new strategies for one year, ESE and EOE have awarded planning and implementation grants to eligible applicants and partner districts.

Two primary types of funding, \$1.5 million from Massachusetts’ Race to the Top (RTTT) award and \$600,000 from EOE through a grant provided by the Gates Foundation were available to support the establishment of Innovation Schools in communities across Massachusetts.

These funds will be expended by the end of FY13. ESE and EOE are exploring other possible sources of ongoing funding to support the initiative. Governor Patrick has included a new Innovation School line item in his FY14 budget proposing \$1,465,000 in funds to support the initiative in FY14.

#### **Race to the Top Funded Innovation Schools Planning and Implementation Grants**

A total of \$1.5 million in RTTT funding has been allocated to support eligible applicants and participating districts (those that submitted a Memorandum of Understanding to ESE to indicate their commitment to implementing RTTT initiatives) to support the establishment of Innovation Schools.

Three rounds of RTTT funded planning grants have been awarded (March 2011, February 2012, February 2013) and two rounds of implementation grants (August 2011 and August 2012). There are no longer RTTT funds available to support another round of implementation grants. Availability of implementation grants this coming summer will depend on availability of additional funds. A new Innovation Schools line item has been proposed in Governor Patrick’s FY14 budget, which, if included in the final adopted budget, would provide funds to support implementation grants for the coming fiscal year.

<b>RTTT Funded Innovation School Grants</b>		
<b>Type of Award and Eligibility</b>	<b>Funding Priorities</b>	<b>Amount of Award</b>
<b>Planning Grants</b> - awarded to eligible applicants and RTTT participating districts that successfully completed the first step of the Innovation School authorization process, the approval of an initial prospectus.	Priority will be given to proposals to establish Innovation Schools in Level 3 and 4 districts and STEM-focused Innovation Schools.	Up to \$10,000 per school
<b>Implementation Grants</b> -awarded to eligible applicants and RTTT participating districts that successfully completed the last step of the approval process, the authorization of the Innovation School by the local school committee.	Priority will be given to proposals to operate Innovation Schools in Level 3 and 4 districts and STEM-focused Innovation Schools.	Up to \$40,000 per school based on the size of the school and the scope of the initiatives

**RTTT Funded Innovation School Planning Grants  
Awarded February 2012**

<b>Proposed Innovation School</b>	<b>Partner District</b>	<b>Amount</b>
STEM Academy for Middle School Engineers	Auburn	\$10,000
Eliot K-8 School	Boston	\$10,000
Mildred Avenue School	Boston	\$10,000
Paige Academy	Boston	\$10,000
Renaissance Hope Academy	Boston	\$10,000
Maurice J. Tobin School	Boston	\$10,000
Ezra H. Baker School	Dennis-Yarmouth Regional School District	\$10,000
Nathaniel H. Wixon School	Dennis-Yarmouth Regional School District	\$10,000
McKay Campus School/Fitchburg Arts Academy	Fitchburg	\$10,000
O'Malley Middle School	Gloucester	\$10,000
GEMS Academy	Greenfield	\$10,000
John C. Tilton School	Haverhill	\$10,000
Center for Excellence	Leominster	\$10,000
Center for Technical Education Innovation	Leominster	\$10,000
Washington Elementary	Lynn	\$10,000
STEM/21 <sup>st</sup> Century Elementary School	Marlborough	\$10,000
International Baccalaureate School of Quabbin	Quabbin Regional School District	\$7,000
Worcester East Middle Academy of Science, Technology and Health	Worcester	\$10,000
Lincoln Street School	Worcester	\$10,000
Worcester Technical High School STEM Early College	Worcester	\$10,000
Winter Hill Community School	Somerville	\$10,000
<b>Total</b>		<b>\$207,000</b>

<b>RTTT Funded Innovation School Implementation Grants Awarded August 2012</b>		
<b>Innovation School</b>	<b>Partner District</b>	<b>Amount</b>
Winter Hill Community School	Somerville	\$35,000
Leominster Center for Excellence	Leominster	\$25,000
Tilton Elementary School	Haverhill	\$35,000
Auburn Middle School	Auburn	\$25,000
McKay/ FAAS PreK-8 Pathways Innovation School	Fitchburg	\$35,000
O'Maley Middle School	Gloucester	\$35,000
Ezra H. Baker School	Dennis-Yarmouth Regional School District	\$25,000
Nathaniel H. Wixon School	Dennis-Yarmouth Regional School District	\$25,000
<b>Total</b>		<b>\$240,000</b>

<b>RTTT Funded Innovation School Planning Grants Awarded February 2013</b>		
<b>Proposed Innovation School</b>	<b>Partner District</b>	<b>Amount</b>
Blackstone Elementary School (preK-5, proposed conversion of existing school)	Boston Public Schools	\$10,000
William Monroe Trotter School (K-8, proposed conversion of existing school)	Boston Public Schools	\$10,000
John F. Kennedy Innovation School (K-5, proposed conversion of existing school)	Boston Public Schools	\$10,000
Fall River Innovation Academy (proposed new school, 7th-12th)	Fall River Public Schools	\$10,000
Esperanza School of Language and Culture (proposed new school, K-8)	New Bedford Public Schools	\$10,000
Renaissance Community School for the Arts (proposed new school, PK-5)	New Bedford Public Schools	\$10,000
Kennedy Innovation School (K-8, proposed conversion of existing school)	Somerville Public Schools	\$10,000
Somerville STEAM Academy (proposed new school, 9th-12th)	Somerville Public Schools	\$10,000
<b>Total</b>		<b>\$80,000</b>

**Next Generation Learning Models Planning and Implementation Grants**

In addition to the grants funded through RTTT, ESE and EOE have awarded a total of \$600,000 with funds that have been awarded to the EOE from the Gates Foundation, to support eligible applicants of any school district in Massachusetts to plan Innovation Schools which will be implementing Next Generation Learning Models.

Innovation Schools that are established with this funding must implement Next Generation Learning Models (NGLM) which are characterized by the following: 1) greater flexibility with regard to instruction, the allocation of fiscal and human resources, and the use of instructional time; 2) differentiated content and multiple modes of instruction to boost student achievement; 3) real-time and ongoing assessment of each student’s learning needs and progress; 4) opportunities for teachers and school leaders to take on different instructional and leadership roles; and 5) the inventive use of technology in classrooms, schools, and districts. NGLMs also emphasize adding value at all levels of the education system and are directly aligned with the core principles of the Innovation Schools initiative.

Three rounds of NGLM Innovation School planning grants have been awarded (March 2011, February 2012, February 2013) and two rounds of NGLMs implementation grants (August 2011 and August 2012).

These NGLM grants have now been expended. Availability of implementation grants this coming summer will depend on availability of additional funds. A new Innovation Schools line item has been proposed in Governor Patrick’s FY14 budget, which, if included in the final adopted budget, would provide funds to support implementation grants for the coming fiscal year.

<b>Next Generation Learning Models Innovation School Grants</b>		
<b>Type of Award and Eligibility</b>	<b>Funding Priorities</b>	<b>Amount of Award</b>
<b>Planning Grants</b> will be awarded to eligible applicants and partner districts that have successfully completed the first step of the Innovation School authorization process, the approval of an initial prospectus.	Priority will be given to proposals to establish Innovation Schools in Level 3 and 4 districts.	Up to \$15,000 per school
<b>Implementation Grants</b> will be awarded to eligible applicants and any partner districts that have successfully completed the last step of the authorization process, the establishment of the Innovation School by the local school committee.	Priority will be given to proposals to operate Innovation Schools in Level 3 and 4 districts.	Up to \$40,000 per school based on the size of the school and the scope of the initiatives

<b>Next Generation Learning Models Innovation School Planning Grants</b> <b>Awarded February 2012</b> <i>[funds provided to the EOE by the Bill &amp; Melinda Gates Foundation]</i>		
<b>Proposed Innovation School</b>	<b>Partner District</b>	<b>Amount</b>
Crocker Farm Elementary School	Amherst	\$10,000
Cape Cod Tech STEM Academy	Cape Cod Regional Technical High School	\$10,000
Becket Washington	Central Berkshire Regional School District	\$10,000
Berkshire Trail	Central Berkshire Regional School District	\$10,000
Linden STEAM Academy	Malden	\$10,000
Algonquin Personal Pathways in STEM (APPS)	Northborough-Southborough	\$10,000
Warren Community Elementary School	Quaboag Regional School District	\$7,000
West Brookfield Elementary School	Quaboag Regional School District	\$7,000
<b>TOTAL</b>		<b>\$74,000</b>

<b>Next Generation Learning Models Innovation School Implementation Grants</b> <b>Awarded August 2012</b> <i>[funds provided to the EOE by the Bill &amp; Melinda Gates Foundation]</i>		
<b>Proposed Innovation School</b>	<b>Partner District</b>	<b>Amount</b>
Carlton Elementary School	Salem	\$45,000
Linden School	Malden	\$30,000
Madison Park	Boston	\$40,000
Worcester Technical STEM Early College High School	Worcester	\$40,000
Academy of Science, Health and Technology at Worcester East Middle School,	Worcester	\$25,000
Margarita Muñiz Academy	Boston	\$30,000
Lincoln Street Early Literacy/Content Literacy, Cradle to College/Career Ready Innovation School	Worcester	\$25,000
Cape Cod Tech STEM Academy,	Cape Cod Technical Regional School District	\$25,000
Berkshire Trail Elementary School	Central Berkshire Regional School District	\$15,000
Center for Technical Education Innovation	Leominster	\$25,000
Eliot K-8 Innovation School	Boston	\$30,000
Becket Washington Elementary	Central Berkshire Regional School District	\$15,000
<b>Total</b>		<b>\$345,000</b>

### *Race to the Top (RTTT) Optional Project 4F*

In addition to the competitive planning and implementation grants, districts that participated in Race to the Top were able to select the planning and establishment of Innovation Schools as an optional project, Project 4F, as a part of their district RTTT plan. In total, these districts have elected to use just over \$3.1 million in their discretionary RTTT funds to support the establishment of Innovation Schools. Below is a list of current participating districts that selected Innovation Schools as an optional project.

- Boston
- Falmouth
- Greenfield
- Monson
- North Middlesex
- Quabbin
- Quaboag
- Salem
- Worcester

### *The Boston Foundation Funding*

EOE also received generous funding in the amount of \$100,000 from The Boston Foundation. This funding has been and will continue to be used to provide ongoing technical assistance to school, district, and community teams that are interested in establishing Innovation Schools as well as to support the establishment of the Innovation Schools Network.

## 5. Data, Research, and Dissemination of Best Practices

M.G.L. Chapter 71, Section 92(p), states, in part:

*(p) The commissioner of elementary and secondary education shall, to the extent practicable, be responsible for ... (iii) the collection and publication of data and research related to the Innovation Schools initiative; (iv) the collection and publication of data and research related to successful programs serving limited English-proficient students attending Innovation Schools; and (v) the collection and dissemination of best practices in Innovation Schools that may be adopted by other public schools.*

### *Demographic Data on Innovation Schools*

As you will see from the chart included in the appendix on page 18, a complete listing of each of the established Innovation Schools and their demographic data is displayed along with information about district averages. Also included are the aggregate figures for all 47 approved Innovation Schools across the Commonwealth.

There are currently approximately 17,000 students being served by Innovation Schools in 47 schools in 26 districts across the state. In general, Innovation Schools serve a significantly higher percentage of students who are English Language Learners and who are from low income families than the state average.

- Innovation Schools serve a higher percentage of students whose first language is not English as compared to state averages; 25 percent of Innovation School students' first language is not English as compared to the statewide average of 17 percent.
- Innovation Schools serve twice the percentage of students classified as Limited English Proficient than the state LEP average. Statewide 8 percent of students are categorized as LEP. Sixteen percent of Innovation School students statewide are classified as LEP.
- In the area of special needs, Innovation Schools mirror the state averages with 16 percent of Innovation Schools' students receiving special needs services as compared with the state average of 17 percent.
- Innovation Schools are serving higher levels of low income students at 57 percent than the state average. Statewide 37 percent of students are low income.
- The newly introduced high needs category also shows Innovation Schools serving more of the state's most underprivileged student population. Sixty-three percent of Innovation School students are in the high needs category as compared to the state average of 48 percent. The high needs group is an unduplicated count of all students in a school or district belonging to at least one of the following individual subgroups: students with disabilities, English language learners (ELL) and former ELL students, or low income students (eligible for free/reduced price school lunch).

In general, Innovation Schools serve significantly higher levels of students who are categorized as Limited English Proficient, students who are low income, and students listed as having high needs as compared to their respective district averages. Students who have special needs are enrolled at Innovation Schools in comparable levels to the state averages.

### *Innovation Schools Network (ISN)*

As mentioned, the Innovation Schools Network was launched in June 2012 with a statewide convening at the Museum of Science in Boston. Over 100 educators and stakeholders from Innovation Schools across the state attended. The event included an opening session with comments from Governor Patrick and top state education officials followed by breakout sessions focused on areas of particular interest for those working in Innovation Schools. The event was underwritten through a generous donation from The Boston Foundation.

This fall and spring, ISN events have included multiple Innovation School visits, webinars and the launch of a network group specifically designed for Innovation School principals. An Innovation Schools LinkedIn group has also been established to allow educators and stakeholders to stay in touch virtually as well as to provide an online location to post multimedia items relevant to Innovation Schools.

Feedback has been collected from each of these sessions for the purposes of evaluating and improving the offerings. Participants have consistently rated the sessions very positively and are eager to come to future events.

### *Innovation Schools Annual Report/Measurable Annual Goals*

By statute, Superintendents are required to review Innovation Schools in their district for progress against their Measureable Annual Goals (MAGs). Annual reports are then required to be submitted to the local school committee and the Commissioner of Elementary and Secondary Education. For the first time this year, Innovation Schools that have been in operation for a year or more, submitted their Annual Reports to ESE. These reports include information about the progress of individual Innovation Schools in meeting their goals, including areas required by law such as achievement data based on MCAS and other measures that capture progress on goals a school may have included in their Innovation School plan. Many Innovation Schools have goals that address areas such as school climate, staff morale, and community involvement. The annual reports also provide information to ESE and EOE about the particular challenges and success Innovation Schools are facing. This information is vital to ESE and EOE for the planning of technical support to those working in the field on the initiative.

Performance profiles for each of the 17 schools that were in operation for one year or more are included in the appendix of this report. The profiles include performance on Spring 2012 MCAS exams and summaries of the progress made toward meeting the MAGs included in each school's Innovation School Plan. Given there is only one year of data from only about a quarter of approved Innovation Schools, it is too early to do a comprehensive data analysis of the progress of schools in meeting their MAGs. However, from the 17 schools reported on this year, there are mixed results with some very promising early indicators. Some of these promising early

indicators include an elementary school posting a 78 percent SGP for their students in the area of mathematics; a high school achieving 100 percent college acceptance for its graduating class for the third year in a row, and a school with 76 percent of its students categorized as LEP with a 16 percent increase in students making progress on the Massachusetts English Proficiency Assessment. Additionally, Innovation Schools across the board anecdotally report that staff morale, family satisfaction, and student engagement have increased. As the initiative matures and when there is multi-year data on a larger number of schools, ESE and EOE will conduct further analysis of school outcome data.

## Appendix A: Approved Innovation Schools

### Massachusetts Innovation Schools

There are 47 Innovation Schools in the Commonwealth established in urban, suburban and rural communities. These include schools of varying grade levels (e.g., elementary, middle, and high school) and school types (e.g., new or converted schools or programs within an existing school). Many of these schools are organized around specific themes like **STEM**, **dual language** instruction, **International Baccalaureate (IB)** programs, **alternative education** opportunities (like dropout prevention and dual enrollment at community colleges), **virtual platforms** and **wraparound** services. Many of the schools will also operate with novel schedules that will **significantly increase instructional time** for students and **professional learning opportunities** for educators.

#### AUBURN

- STEM Academy for Middle School Engineers: conversion school, scheduling, curriculum and professional development autonomies

#### BOSTON

- Blackstone School: preK-5 conversion school, turnaround school using multiple autonomies to sustain student gains
- Roger Clap Community Academy: new school, grades K-5, lengthened school day, more professional development, inclusive governing board
- Eliot School: conversion elementary school, seeking to increase individualization of instruction for students
- Madison Park Technical Vocational High School: conversion high school, focused on multiple pathways
- Margarita Muñiz Academy: new school, grades 9-12, dual language (English/Spanish) high school
- W.M. Trotter School: K-5 conversion school, turnaround school using multiple autonomies to sustain student gains

#### CAPE COD REGIONAL TECHNICAL HIGH SCHOOL

- Cape Cod Tech STEM Academy: new Innovation School academy, proposed as a four-year STEM Program

#### CENTRAL BERKSHIRE REGIONAL SCHOOL DISTRICT

- Becket Washington Elementary School: conversion school, curricular and scheduling autonomies
- Berkshire Trail Elementary School: conversion school, curricular and professional development autonomies

#### DENNIS-YARMOUTH

- Ezra H. Baker Innovation School: conversion elementary school, seeking a broad range of autonomies
- Marguerite E. Small School: conversion school, grades 4-5, extended day for students through staggered teacher schedule
- Nathaniel H. Wixon Innovation School: conversion middle school, focused on inventive ways to cluster students and provide project-based learning activities

#### FALL RIVER

- Edmond Talbot Innovation School: conversion elementary school, STEM, shared leadership model, community partnerships

#### FALMOUTH

- Lawrence School: conversion school, grades 7-8, STEM, distributive leadership model

#### FITCHBURG

- Fitchburg Arts Academy/McKay Campus School: dual conversion school, expeditionary learning and project-based curricular focus

#### GLOUCESTER PUBLIC SCHOOLS

- O'Maley Innovation Middle School: conversion middle school, autonomies in the areas of instructional, curricular and assessment strategies, district policies, school schedule, and professional development

## GREENFIELD

- Discovery School at Four Corners: conversion school, grades K-3, environmentally themed curriculum with expanded staff meeting time
- Massachusetts Virtual Academy at Greenfield: new school, grades K-12, offers completely virtual school experience
- GEMS Innovation School: new Innovation academy for 4<sup>th</sup> and 5<sup>th</sup> grades

## HAVERHILL PUBLIC SCHOOLS

- John C. Titlon Innovation School: conversion school, multiple autonomies sought to create partnerships within the community

## LEOMINSTER PUBLIC SCHOOLS

- Center for Technical Education Innovation School: Innovation academy, STEM focused program within larger vocational and technical high school
- Leominster Center for Excellence: new high school, alternative educational program, to include complete wrap-around academic, extended academic and therapeutic services

## MAHAR

- Pathways Early College High School: new school, grades 11 and 12, collaboration with Mount Wachusett Community College, students earn a high school diploma and college credits

## MALDEN PUBLIC SCHOOLS

- Linden S.T.E.A.M Innovation School Academy: conversion S.T.E.A.M. school

## MONSON

- Monson New Century High School: conversion school, grades 9-12, individualized programs in 11<sup>th</sup> and 12<sup>th</sup> grade

## NEW BEDFORD

- Renaissance Community School for the Arts: new school, grades K-5, integrated arts program that includes community partners

## NORTHBOROUGH-SOUTHBOROUGH PUBLIC SCHOOLS

- Algonquin Personal Pathways in STEM Partnership: new STEM high school, alternative learning environments delivered through a blended learning model [not yet in operation]

## NORTH MIDDLESEX

- Baccalaureate School of North Middlesex: school-within-a-school, grades 11-12, IB program [not yet in operation]

## QUABBIN REGIONAL SCHOOL DISTRICT

- International Baccalaureate School at Quabbin: new Innovation academy, based on International Baccalaureate Diploma program [not yet in operation]

## QUABOAG

- Quaboag Innovation Early College: conversion, school-within-a-school, grades 11-12, STEM, dual enrollment
- Quaboag Innovation Middle School: conversion school, grades 7-8, STEM
- West Brookfield Elementary Innovation School: conversion S.T.E.A.M. school, exploratory hands-on mathematics
- Warren Community Elementary Innovation School: conversion school, focus on S.T.E.A.M. model, along with project-based learning and service learning

## REVERE

- Paul Revere Innovation School: conversion school, grades K-5, creative scheduling to create common planning time, shared leadership model

## SALEM

- Carlton Elementary School: conversion school, grades K-5, individualized learning, continuous progress model, trimester student transitions

## SOMERVILLE PUBLIC SCHOOLS

- Winter Hill Community Innovation School: conversion school collaborative approach to teacher leadership and student engagement

#### SPRINGFIELD

- Springfield Renaissance Innovation School: conversion school, grade 6-12, focus on college and career readiness, Expeditionary Learning

#### WEST SPRINGFIELD

- 21st Century Skills Academy: new school, grades 9-12, hybrid virtual and in-school course work, work-based learning

#### WORCESTER

- The Chandler Magnet School: conversion school, grades preK-6, dual language program (English/Spanish)
- Goddard Scholars Academy at Sullivan Middle School: conversion school-within-a-school, grades 6-8, accelerated magnet program
- Goddard School of Science and Technology: conversion school, grades preK-6, STEM
- Lincoln Street Early Literacy Innovation School: conversion school, focus on literacy, professional development
- University Park Campus School: conversion school, grades 7-12, college preparatory
- Woodland Academy: conversion school, pre-K-6, new staffing autonomies, enhanced governing board
- Worcester East Middle School - Academy of Science, Health and Technology: partial conversion, focus on rigorous academic program for college and career success
- Worcester Technical STEM Early Career & College High School: conversion school, STEM

## *Appendix B: Demographic Data for Innovation Schools*

<b>Massachusetts Innovation School Demographics</b>								
Notes: The data represented below was largely derived from the Department of Elementary and Secondary Education's Student Information Management System (SIMS).								
1 - The demographic data for academies within a larger school are self reported due to the configuration of the program.								
2 - These schools are approved but not yet operating as Innovation Schools.								
3 - The High Needs group is an unduplicated count of all students in a school or district belonging to at least one of the following individual subgroups: students with disabilities, English language learners (ELL) and former ELL students, or low income students (eligible for free/reduced price school lunch).								
4 - Commonwealth Virtual Schools are now governed by Chapter 379 of the Acts of 2012.								
<b>District</b>	<b>School Name</b>	<b>Grades Served</b>	<b>Total Enrollment</b>	<b>First Language not English (%)</b>	<b>Limited English Proficient (%)</b>	<b>Low Income (%)</b>	<b>Special Education (%)</b>	<b>High Needs (%)<sup>3</sup></b>
AUBURN	STEM Academy for Middle School Engineers	6-8	577	4.3	2.6	27.2	12.8	35.4
<b>AUBURN DISTRICT</b>			2,339	4.5	3.1	23.3	12.2	32.8
BOSTON	Roger Clap Community Academy	PK-5	174	31.6	22.4	62.1	17.8	75.3
BOSTON	Eliot School	PK-8	351	29.3	21.7	42.7	21.4	57.8
BOSTON	Madison Park Technical Vocational High School	9-12	1,160	51.1	32.5	87.8	35.1	95.0
BOSTON	Blackstone School <sup>2</sup>	PK-5	599	65.1	56.3	80.0	19.0	95.5
BOSTON	Margarita Muñiz Academy	9-12	82	76.8	48.8	79.3	12.2	95.1
BOSTON	W. M. Trotter School <sup>2</sup>	PK-5	399	11.3	8.3	82.7	9.5	84.5
<b>BOSTON DISTRICT</b>			55,114	45.4	30.7	71.7	19.2	82.3
CAPE COD	Cape Cod Tech STEM Academy <sup>1</sup>	9-12	15	0.0	0.0	0.0	13.0	60.0
<b>CAPE COD DISTRICT</b>			654	1.2	1.1	36.7	24.3	52.1
CENTRAL BERKSHIRE	Becket Washington Elementary School	PK-5	108	0.0	0.0	38.9	23.1	50.9
CENTRAL BERKSHIRE	Berkshire Trail Elementary School	PK-5	87	0.0	0.0	23.0	17.2	32.2
<b>CENTRAL BERKSHIRE DISTRICT</b>			1,782	0.2	0.2	31.5	14.1	39.7
DENNIS-YARMOUTH	Ezra H. Baker Innovation School	PK-3	408	8.1	6.6	55.4	17.6	63.7
DENNIS-YARMOUTH	Marguerite E. Small School	4-5	338	14.5	9.2	42.6	17.5	55.6
DENNIS-YARMOUTH	Nathaniel H. Wixon Innovation School	4-8	428	7.9	6.3	36.4	19.9	49.5
<b>DENNIS-YARMOUTH DISTRICT</b>			3,097	10.4	6.6	44.6	17.0	54.2
FALL RIVER	Edmond Talbot Innovation School	6-8	598	40.5	18.7	83.9	23.6	87.3
<b>FALL RIVER DISTRICT</b>			10,138	22.0	7.1	77.9	22.4	81.5
FALMOUTH	Lawrence School	7-8	521	4.8	1.3	29.9	20.7	44.3
<b>FALMOUTH DISTRICT</b>			3,536	3.4	1.2	28.3	18.1	39.3

District	School Name	Grades Served	Total Enrollment	First Language not English (%)	Limited English Proficient (%)	Low Income (%)	Special Education (%)	High Needs (%) <sup>3</sup>
FITCHBURG	McKay Arts Academy	PK-8	651	28.6	11.8	71.3	20.9	77.1
<b>FITCHBURG DISTRICT</b>			4,915	32.0	13.2	76.9	21.1	81.2
GLOUCESTER PUBLIC SCHOOLS	O'Maley Innovation Middle School	6-8	659	6.4	2.7	44.0	20.8	52.2
<b>GLOUCESTER DISTRICT</b>			3,016	5.1	2.7	42.5	22.2	52.6
GREENFIELD	Discovery School at Four Corners	K-3	211	4.7	4.3	38.4	12.8	44.1
GREENFIELD	Massachusetts Virtual Academy at Greenfield <sup>4</sup>	K-12	473	0.0	0.0	49.0	3.4	52.0
GREENFIELD	GEMS Innovation School <sup>1</sup>	4-5	Not Received	Not Received	Not Received	Not Received	Not Received	Not Received
<b>GREENFIELD DISTRICT</b>			2,146	6.7	2.1	58.2	17.5	63.9
HAVERHILL PUBLIC SCHOOLS	John C. Titlon Innovation School	K-4	502	21.5	12.0	77.1	19.3	80.7
<b>HAVERHILL DISTRICT</b>			7,052	16.7	7.2	54.6	21.8	62.3
LEOMINSTER PUBLIC SCHOOLS	Center for Technical Education Innovation School	9-12	705	19.4	2.3	46.7	21.7	57.0
LEOMINSTER PUBLIC SCHOOLS	Leominster Center for Excellence <sup>2</sup>	Not yet open	N/A	N/A	N/A	N/A	N/A	N/A
<b>LEOMINSTER DISTRICT</b>			6,183	18.2	5.9	46.3	18.0	55.1
MAHAR	Pathways Early College High School	11-12	35	0.0	0.0	11.4	0.0	11.4
<b>MAHAR DISTRICT</b>			788	0.1	0.1	44.2	15.1	49.8
MALDEN PUBLIC SCHOOLS	Linden S.T.E.A.M Innovation School Academy	K-8	888	42.3	13.0	57.5	17.3	66.4
<b>MALDEN DISTRICT</b>			6,573	45.5	17.9	60.0	14.4	70.1
MONSON	Monson Innovation High School	9-12	359	2.8	0.0	19.5	10.9	27.6
<b>MONSON DISTRICT</b>			1,255	2.3	0.6	26.8	14.9	36.4
NEW BEDFORD PUBLIC SCHOOLS	Renaissance Community School for the Arts	Not yet open	N/A	N/A	N/A	N/A	N/A	N/A
<b>NEW BEDFORD DISTRICT</b>			12,616	21.6	4.6	73.4	22.2	78.6
NORTHBOROUGH - SOUTHBOROUGH PUBLIC SCHOOLS	Algonquin Personal Pathways in STEM Partnership <sup>2</sup>	Not yet open	N/A	N/A	N/A	N/A	N/A	N/A
<b>NORTHBOROUGH - SOUTHBOROUGH DISTRICT</b>			1,482	4.7	0.7	4.9	10.7	15.6
NORTH MIDDLESEX	Baccalaureate School of North Middlesex <sup>2</sup>	Not yet open	N/A	N/A	N/A	N/A	N/A	N/A
<b>NORTH MIDDLESEX DISTRICT</b>			3,608	1.3	0.6	17.9	17.6	31.4
QUABBIN	International Baccalaureate School at Quabbin <sup>2</sup>	Not yet open	N/A	N/A	N/A	N/A	N/A	N/A
<b>QUABBIN DISTRICT</b>			2,589	0.6	0.2	23.2	17.1	34.4

District	School Name	Grades Served	Total Enrollment	First Language not English (%)	Limited English Proficient (%)	Low Income (%)	Special Education (%)	High Needs (%) <sup>3</sup>
QUABOAG	Quaboag Innovation Early College <sup>1</sup>	11-12	32	0.0	0.0	28.0	6.0	3.0
QUABOAG	Quaboag Innovation Middle School <sup>1</sup>	7-8	231	0.0	0.4	45.0	16.0	12.0
QUABOAG	West Brookfield Elementary Innovation School	PK-6	310	0.0	0.0	28.4	13.2	35.8
QUABOAG	Warren Community Elementary Innovation School	PK-6	471	0.6	0.6	52.4	17.8	58.0
<b>QUABOAG DISTRICT</b>			1,352	1.1	0.4	42.7	16.8	49.6
REVERE	Paul Revere Innovation School	K-5	444	48.6	17.1	76.1	14.2	80.2
<b>REVERE DISTRICT</b>			6,648	50.8	11.4	75.8	15.7	80.8
SALEM	Carlton Elementary School	K-5	221	31.2	20.8	74.2	23.5	81.4
<b>SALEM DISTRICT</b>			4,395	26.6	13.0	55.9	22.2	65.3
SOMERVILLE PUBLIC SCHOOLS	Winter Hill Community Innovation School	K-8	418	62.7	22.2	86.8	29.2	94.5
<b>SOMERVILLE DISTRICT</b>			4,922	51.1	15.2	69.2	20.9	75.6
SPRINGFIELD	Springfield Renaissance Innovation School	6-12	681	11.6	4.0	63.9	10.4	66.2
<b>SPRINGFIELD DISTRICT</b>			25,283	26.1	16.9	87.5	19.2	89.8
WEST SPRINGFIELD	21st Century Skills Academy <sup>1</sup>	9-12	26	0.0	0.0	46.1	11.5	50.0
<b>WEST SPRINGFIELD DISTRICT</b>			3,882	24.7	6.5	52.8	21.2	61.3
WORCESTER	The Chandler Magnet School	PK-6	417	77.9	76.3	83.7	21.8	93.3
WORCESTER	Goddard Scholars Academy at Sullivan Middle School <sup>1</sup>	6-8	143	28.0	0.7	54.5	1.4	61.5
WORCESTER	Goddard School of Science and Technology	PK-6	598	64.2	60.4	94.6	16.2	97.8
WORCESTER	Lincoln Street Early Literacy Innovation School	PK-6	256	52.0	47.3	88.7	16.0	94.1
WORCESTER	University Park Campus School	7-12	253	64.0	26.5	81.0	10.3	86.2
WORCESTER	Woodland Academy	PK-6	523	74.6	69.4	97.5	14.5	99.6
WORCESTER	Worcester East Middle School - Academy of Science, Health and Technology <sup>1</sup>	7-8	101	22.8	22.7	91.0	11.9	96.0
WORCESTER	Worcester Technical STEM Early Career & College High School	9-12	1,355	33.8	15.0	62.9	18.4	71.6
<b>WORCESTER DISTRICT</b>			24,740	44.0	34.3	73.1	20.7	81.7
<b>Innovation Totals</b>	<b>26 Districts with Innovation Schools</b>		<b>16,808</b>	<b>25.4</b>	<b>16.2</b>	<b>57.1</b>	<b>16.1</b>	<b>63.0</b>
<b>Massachusetts Totals</b>	<b>47 Total Innovation Schools</b>		<b>954,773</b>	<b>17.3</b>	<b>7.7</b>	<b>37.0</b>	<b>17.0</b>	<b>47.9</b>

## ***Appendix C: Innovation Schools Performance Profile Sheets***

Innovation Schools are required by statute to be evaluated by the Superintendent at least annually. The Performance Profiles for each Innovation School that was in operation for one year or more provide a summary of each school's progress toward meeting its stated Measurable Annual Goals as reported in its annual report. In addition, Performance Profiles include overall student performance on spring 2012 MCAS exams. NOTES: Performance level percentages are not calculated for groups with fewer than 10 students. Median Student Growth percentiles are not calculated if the number of students included in the aggregated SGP is less than 20. MCAS performance data for academy models were provided by the schools.

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<b>District:</b> Boston	<b>School Name:</b> Roger Clap Community Academy	<b>Total Enrollment:</b> 174
	<b>Grades Served:</b> PK-5	<b>Level:</b> 3

### **Mission**

The mission of the Roger Clap Innovation School is to ensure that every student, regardless of his/her socio-economic, linguistic and academic history, is educated to the highest level through a rigorous and comprehensive curriculum. In addition, the Roger Clap Innovation School educates students to become knowledgeable of, civically engaged in, and involved in the service of their school, the local community, and the global community while being at the forefront of educational innovations and preparing its students for the demands of tomorrow's world.

### **Theories of Action**

To realize its mission and vision, the Roger Clap Innovation School Plan outlined an overarching "Theory of Action," which includes:

1. The establishment of a true "Community School"
2. Formalized and increased family involvement and communication
3. Development of a professional culture of data analysis and collaboration to improve student achievement.
4. Integration of rigorous, innovative curriculum, instruction, and assessment in the fourth and fifth grades.

### **Summary of Autonomies**

#### **Curriculum, Instruction, and Assessment**

Roger Clap Innovation School uses some of the district's curriculum for ELA, mathematics, and other core subjects, as an Innovation School, it was granted the autonomy to deviate from these requirements. During the 2011-12 school year, the school exercised its autonomy in these areas by increasing curricula and instructional rigor. In addition, a key part of the school's innovation plan was the establishment and implementation of authentic assessments to regularly assess and monitor progress on a variety of learning goals.

### **Schedule and Calendar**

As part of the RCIS Innovation Plan teachers hired into the school agreed to the working conditions and uses of time that were negotiated in an agreement with the BTU. This flexibility expanded instructional time for students in the following ways, instructional day for students was extended for 30 minutes per day

(90 hours/year); a two-week summer “Spring Board” program was implemented for Grade 1-5 students; acceleration academies that provided a series of interventions for a targeted group of struggling students were offered on Saturdays and during school vacation times; and other before- and after- school intervention programs provided through the use of flexible scheduling and engagement of key community partners.

**Staffing**

Roger Clap Innovation School was granted the autonomy to hire a diverse and highly qualified staff who best meets the focus and mission of the school, and more importantly, the needs of its students.

**Professional Development**

The school has developed an annual plan that makes strategic use of the additional 50 PD hours. In addition, the school makes use of its flexible scheduling to ensure that all teacher teams have at least two hours of common planning time per week.

**District Policies**

The Innovation Plan authorized the school to replace the School Site Council with a Governing Board made up of 13 elected members.

**Budget**

Roger Clap Innovation School was granted the autonomy to develop its annual school budget using a variety of flexibilities that have the potential to save the school money that can in turn be re-invested in the school. During the 2012-2013 school year, Roger Clap Innovation School began the process of developing its annual budget based on the actual salaries of teachers, rather than the average salary of all teachers in the district.

**Progress on Measurable Annual Goals**

Roger Clap Community Academy reported that 80 percent (up from 52 percent the prior year) of first grade students met the DIBELS benchmark by 2013. Similarly, students at the school achieved a 78 percent student growth percentile in mathematics, up from 64 percent the prior year. The school indicated that the average on grade 4 Long Composition was 12.52 percent, which resulted in a gain of 21.8 percent in the average score. Additionally, Roger Clap reported that 87.5 percent of English language learners made progress on the MEPA assessment. In the area of students with disabilities, the school reported academic growth in ELA and mathematics.

**MCAS Performance Data-Spring 2012**

	<b>Proficient or Higher (%)</b>	<b>CPI</b>	<b>SGP</b>
All Grades ELA	35	65.0	45.0
All Grades Mathematics	42	67.5	78.0
All Grades Science-Tech/Eng	17	48.6	N/A

<b>District:</b> Dennis- Yarmouth	<b>School Name:</b> Marguerite E. Small School	<b>Total Enrollment:</b> 338
	<b>Grades Served:</b> 4-5	<b>Level:</b> 2

**Mission**

The Marguerite E. Small community embraces the development of successful students. Our students will have a strong foundation in academic skill development, individual strength to enable ongoing inclusion in co-curricular activities, and a strong inner character leading to a sense of belonging and self advocacy that fosters broad participation and continued academic success in middle and secondary educational experiences. Our intermediate foundation firmly begins our students’ journey down the “path of educational success.”

**Summary of Autonomies**

**Curriculum, Instruction, and Assessment**

Through autonomies granted in Curriculum, Instruction, and Assessment, the school instituted flexible grouping of students based on assessment data that has assisted in the closure of skill gaps. In addition, the school notes that flexible grouping has provided students on or above grade level opportunities to move ahead at their own pace. Educator professional development supports a focus on best educational practices for all students, but particularly for subgroups.

**Schedule and Calendar**

An MOA was created with the teacher’s union as one hundred percent of the faculty voted affirmatively to flex their schedules to allow for the implementation of expanded learning time.

The flexibility of the schedule has allowed the student day to be increased by 40 minutes. The result is approximately 17 additional days of school. The additional time has allowed for students to receive additional instruction in core content areas, will providing other students with the opportunity to move more quickly through the curriculum. The additional time provides for the opportunity for all students to explore co-curricular interests that will connect them to school and ensure a sense of belonging.

The autonomies discussed above support the school’s mission to develop well-rounded students who are academically successful with strong character, sense of belonging, and ability to advocate for themselves. To date the school has been extremely successful in retaining all its students in the program and currently has 18 students from a neighboring town in its district whose families have opted for this school’s education program.

**Progress on Measurable Annual Goals**

The Marguerite E. Small School reported an annual attendance rate of 96.3 percent. In addition to increased student attendance and decreased suspension rates, the school reported positive trends in MCAS data, professional development, and continuous improvement of students in need of special education services. The school noted that gains made in MCAS were attributed to the additional 40 minutes added to the daily school schedule; which is equivalent to 17 additional school days. Additionally, the school stated that the focus on professional development translated to strengthened curriculum in the areas of language arts, writing, science, and mathematics.

**MCAS Performance Data-Spring 2012**

	<b>Proficient or Higher (%)</b>	<b>CPI</b>	<b>SGP</b>
All Grades ELA	46	76.2	39.0
All Grades Mathematics	52	79.3	44.5
All Grades Science-Tech/Eng	33	70.4	N/A

<b>District:</b> Falmouth	<b>School Name:</b> Lawrence School	<b>Total Enrollment:</b> 521
	<b>Grades Served:</b> 7-8	<b>Level:</b> 1

**Mission**

The Lawrence School, in partnership with families and community, provides rigorous and relevant learning experiences for students, ensuring that all reach their unique potential as learners and as respectful members of the local and global communities.

**Summary of Autonomies**

**Curriculum, Instruction, and Assessment**

Through autonomies granted in Curriculum, Instruction, and Assessment, the Lawrence School reported the implementation of new initiatives. The school established a Literary Initiative in which all teachers were trained to proctor practice Open Response Question prompts related to their respective disciplines. In addition, the school noted the implementation of Reading Lab and Math Lab courses, taught by subject certified teachers. The courses are designed and developed for students whose progress does not meet school expectations and state curriculum standards. The autonomy granted in this area has allowed for the integration of technology in all areas of the curriculum to support and engage students. Students in grade 7 now have access to courses in Digital Literacy and 21<sup>st</sup> Century Skills; grade 8 students now have access to an engineering course; and both grade 7 and 8 students now have expanded access to foreign language curriculum through the addition of Exploratory Language.

**Schedule**

Through autonomies in the area of school schedule; faculty are provided with opportunities for peer observation through scheduled learning walks to share best practices. Additionally, department based curriculum planning time has been embedded into the school day to allow for common planning.

**Professional Development**

Teachers were provided with relevant professional development focused in the areas of Literacy and Technology to enhance engagement and learning through differentiated content and multiple modes of instruction.

**Staffing**

The school reorganized its resources and developed a new staffing pattern to create smaller class sizes; continue the house/learning collaborative structure; and add a specialist in mathematics and reading.

**District Policies and Procedures**

Implementation of a distributive leadership model for students based on the Falmouth representative town meeting model. In addition, the faculty and staff meetings follow the structure of an open town meeting model.

**Budget**

Through the autonomies granted in this area, the school seeks to ensure that the budget remains level funded. The school also seeks to create a Lawrence School Innovation revolving account to accumulate unspent money as a fund for managing unexpended monies and grants received for future use based on the goals of the Innovation Plan.

**Additional Innovation Plan Details**

The areas of autonomy and flexibility discussed above were structured with measurable annual goals and benchmarks in four key priority areas.

**Key Priority Areas:**

Key Priority #1: Increase academic achievement for all Lawrence School students and significantly reduce achievement gaps with a strong focus on literacy and the integration of technology throughout the curriculum.

Key Priority #2: Social Competency that boosts community participation and engagement in learning for all Lawrence School students.

Key Priority #3: Student, Family, and Community Partnerships that enrich learning opportunities for all Lawrence School students.

Key Priority #4: Professional Development and Distributive Leadership that recognizes the essential role that Lawrence School teachers play in student engagement and academic achievement of all students.

**Published description of the Distributive Leadership Model for Faculty/Staff and Students**

The Lawrence School, in order to form a more perfect replication of our Falmouth town government, experience the democratic process, promote a positive learning environment, provide a voice for the faculty, staff, and student body, and pursue excellence in our education, implemented a Distributive Leadership plan. The plan created three branches of school governance: Representative Student Town Meeting, Open Faculty and Staff Meeting, and Lawrence School Council. At the beginning of each school year the faculty/staff and students each elect a moderator, warrant committee members, and students elect homeroom representatives. This body of representation is responsible for creating warrant articles based on issues brought forth from faculty/staff and students, as well as, participate in the School Town Meetings.

**Literacy Initiative**

Lawrence School took on a school-wide literacy initiative based on MCAS data that showed our students were performing between one and four percent below the state average in the area of open-response writing prompts. All Lawrence School faculty members were trained to become an active teacher of literacy through learning the common goals of skill development in the areas of reading, writing, speaking, and reasoning. A literacy sub-committee was formed with faculty members representing each content area and met on a monthly basis to oversee the implementation of our school-wide literacy initiative. The main focus of the literacy committee was to create and implement a training program. The training included a script for teachers to read when administering the practice open-response, as well as the use of a grading rubric as a tool for giving students specific and frequent feedback based on practice sessions. Through the course of the school year, students practiced their open-response reading and writing skills ten times. The committee also created classroom posters that outline strategies students can use for key literacy areas of active reading and writing. These posters were printed and hung in each learning space in Lawrence School.

**Progress on Measurable Annual Goals**

Lawrence School reported an attendance rate of 94.8 percent, with 14.8 percent of students chronically absent and 8.5 percent of students receiving one or more in-school suspensions. The Lawrence School has set an annual goal to decrease the percent of students who are chronically absent, as well as those who receive both an in-school and out-of-school suspension while also increasing the overall student attendance rate.

The school noted the implementation of a school-wide literacy initiative by which teachers were trained to become “active teachers of literacy.” This initiative provided training to teachers in targeted areas of skills development. The school reported that due to the school-wide literacy initiative, students were provided with ten open-response practice sessions and credits the initiative with aiding in the closure of achievements gaps.

The school made progress in closing the achievement gap in areas of academic underperformance (low-income and special education). The MAGs indicate that the students in these subgroups scoring in the “warning/failing” category decreased from 2011.

### **MCAS Performance Data-Spring 2012**

	<b>Proficient or Higher (%)</b>	<b>CPI</b>	<b>SGP</b>
All Grades ELA	86	95.7	56.0
All Grades Mathematics	66	85.5	54.0
All Grades Science-Tech/Eng	47	78.1	N/A

<b>District:</b> Greenfield	<b>School Name:</b> Discovery School at Four Corners	<b>Total Enrollment:</b> 211
	<b>Grades Served:</b> K-3	<b>Level:</b> Level 2

**Mission**

The Innovation School plan on file does not contain a mission statement.

**Summary of Autonomies**

Discovery School at Four Corners made modifications to its school day, teacher negotiated contract, curriculum, professional development, school district policies and procedures, and staffing.

Through innovation status, Discovery School at Four Corners plans to develop a thematic school with curriculum that utilizes school-wide thematic learning, with one theme introduced each trimester. Chosen themes are intended to increase student knowledge, increase depth of engagement, and create a school-wide learning community. In addition to developing and implementing thematic units of study during the year, the school also intends to focus on environmental studies, which will allow students to participate in hands-on activities which will include gardening, harvesting, and recycling with complementing lessons in sustainability and related research. The school also noted its plans to implement the Responsive Classroom social curriculum in an effort to teach students lessons in civility, tolerance, and respect within a democratic model. Data informed Individualized Learning Plans for students will be created and the school will strive to create a community school which actively engages family and community partners.

In addition to the areas noted above, the school plans to redesign the school day for teachers in an effort to provide weekly common planning time. The 60-90 minute common planning time will enable classroom teachers to be collaborative instructional leaders for school-wide thematic initiatives and individualized instruction.

**Progress on Measurable Annual Goals**

The Department of Elementary and Secondary Education has not received the required annual report for the Discovery School at Four Corners.

**MCAS Performance Data-Spring 2012**

	<b>Proficient or Higher (%)</b>	<b>CPI</b>	<b>SGP</b>
All Grades ELA	75	93.8	N/A
All Grades Mathematics	80	88.8	N/A
All Grades Science-Tech/Eng	-----	-----	N/A

<b>District:</b> Greenfield	<b>School Name:</b> Massachusetts Virtual Academy at Greenfield	<b>Total Enrollment:</b> 473
	<b>Grades Served:</b> K-12	<b>Level:</b> N/A

**Progress on Measurable Annual Goals**

The Department of Elementary and Secondary Education has not received the required annual report for Massachusetts Virtual Academy at Greenfield. The Massachusetts Virtual Academy at Greenfield is in the process of considering a transition from Innovation School status to Commonwealth Virtual School status as outlined by the new Commonwealth Virtual Schools Act signed into law on January 2, 2013 (Chapter 379 of the Acts of 2012).

**MCAS Performance Data-Spring 2012**

	<b>Proficient or Higher (%)</b>	<b>CPI</b>	<b>SGP</b>
All Grades ELA	62	82.9	29.0
All Grades Mathematics	33	63.1	25.0
All Grades Science-Tech/Eng	37	68.6	N/A

<b>District:</b> Mahar	<b>School Name:</b> Pathways Early College Innovation School	<b>Total Enrollment:</b> 35
	<b>Grades Served:</b> 11-12	<b>Level:</b> N/A

**Mission**

Pathways Early College Innovation School (PECIS) is based on academic rigor and relevance, combining the opportunity to experience college, save time and money, and simultaneously graduate with a high school diploma and a two year college degree from Mount Wachusett Community College (MWCC). The fusion of wrap-around academic support and free college credits, earned in the adult environment of a college campus, is a powerful incentive for motivated students who are eager for intellectual challenges. Additionally, Pathways prepares all students for lifelong learning in the areas of academics, civic engagement and social responsibility. Outcomes for graduates of MWCC and Pathways include: the ability to effectively access, analyze, utilize and communicate information through diverse means. Students also demonstrate respect and are responsible members of society, express emotions appropriately, and practice intelligent decision making. These are all necessary skills as Pathways students progress into the work force and four year degree programs.

**Key Aspects of Innovation School Plan**

Under the current Mount Wachusett Community College-Mahar partnership agreement with the Gateway to College, Dual Enrollment and Middle College programs, issues of autonomy and flexibility have been addressed. Existing flexibility includes utilizing Mahar faculty as MWCC contract instructors, applying MWCC credits toward a Mahar diploma, and for Gateway students, the revision of credit requirements and the allowance of an MWCC Career Research, Development and Portfolio Design course to substitute for a 35-credit hour school to career requirement.

Initial staffing will include one director who will be 25 percent funded through the Innovation School, and one part-time resource specialist, both based out of MWCC, who will manage the student caseload and teach two of the PECHS core curriculum courses: First Year Seminar and Career Research, Development and Portfolio Design, both of which are three-credit MWCC courses designed to equip students with sound academic skill sets and a career path knowledge base for continuous lifelong learning.

**Progress on Measurable Annual Goals**

The PECIS provides students with the opportunity to participate in a dual enrollment model. Students enrolled in the program attend classes for two complete years, which include attending classes during Winter Intersession, Spring, Maymester, and Summer Sessions 1 and 2.

PECIS reported that May 2012 marked its inaugural graduating class comprised of 16 students. The school reports that of the 16 students that graduated, 12 did so with an Associate’s Degree from MWCC. To date, students enrolled at PECIS have earned a total of 1,795 college credits with 1,019 credits earned in Fall 2010; 151 credits earned in Spring 2011; and 625 credits earned in Fall 2011. In addition, the school reported that some students remained at MWCC following the completion of their high school requirements, and that several graduates transferred to four year postsecondary institutions. Finally, the school reports that 15 students from the fall 2011 cohort are projected to graduate in May 2013.

*Due to the grade span offered, Pathways Early College Innovation School is not required to administer MCAS exams.*

<b>District:</b> Monson	<b>School Name:</b> Monson Innovation High School	<b>Total Enrollment:</b> 359
	<b>Grades Served:</b> 9-12	<b>Level:</b> 2

**Mission**

The Innovation School plan on file does not contain a mission statement.

**Public Statement**

The Monson Innovation High School plan seeks to make changes in the structure of the current high school. The restructuring will give students in grades 11 and 12 the opportunity to participate in an individualized educational model comprising of options in the areas of Project-Based Education; Community/Work-Based Experiences; Dual Enrollment; Traditional Model; and Virtual Education. Students in grades 9 and 10 will engage in a traditional approach to instruction and learning. Their goal will be the successful completion of all required assessments. In addition, through the established mentoring program, students will be guided in making informed decisions regarding which model will meet their individual needs.

**Progress on Measurable Annual Goals**

The Department of Elementary and Secondary Education has not received the required annual report for Monson Innovation High School.

**MCAS Performance Data-Spring 2012**

	<b>Proficient or Higher (%)</b>	<b>CPI</b>	<b>SGP</b>
All Grades ELA	92	98.0	50.0
All Grades Mathematics	75	87.8	39.0
All Grades Science-Tech/Eng	50	80.9	N/A

<b>District:</b> Quaboag	<b>School Name:</b> Quaboag Early College High School	<b>Total Enrollment:</b> 32
	<b>Grades Served:</b> 9-12	<b>Level:</b> N/A

**Mission**

The mission of the Quaboag STEM Early College High School (Bridges) program is to provide a highly supportive and academically challenging learning environment for students in the STEM disciplines to enable them to graduate prepared for college and to compete globally in careers related to science, technology, engineering, and mathematics.

**Overview of Innovation School Model**

The Quaboag Innovation STEM Early College High School (Bridges) program focuses on the following key elements:

1. STEM-focused curriculum to prepare students with 21<sup>st</sup> century skills, specifically pathways in the engineering and biomedical fields.
2. Intelligent integration of technology use in all classrooms.
3. “Smart” classrooms for core and STEM disciplines.
4. School-wide advisory for all students.
5. Rigorous college level and AP courses in core and STEM subjects.
6. Professional development in data use, new technologies introduced to the school, and opportunities for high school teachers to work with college faculty to articulate college level curriculum, and/or participate in AP instruction.
7. Collaboration with Quinsigamond Community College to improve college readiness and create articulation agreements for prerequisite and engineering and biomedical courses on the Quaboag campus.

**Summary of Autonomies**

**Curriculum and Instruction**

Through the autonomies granted in the areas of curriculum and instruction, Quaboag provides advanced placement courses in core content areas and provides prerequisites in engineering and biomedical courses. Through a partnership with Quinsigamond Community College, the school offers an Electrical Engineering course to students. In addition, the school is in the process of articulating the prerequisites in computer science and college orientation courses.

**Policy**

Enrolled students will receive high school and college credits from their Quinsigamond Community College course.

**Schedule**

Students participate in an extended block in engineering and after-school learning to ensure adequate contact hours in college level courses.

**Staffing**

Quinsigamond Community College faculty instruct college level courses to Quaboag Early College High School students enrolled in college level courses at the conclusion of the regular school day. Additionally, high school faculty is provided with the opportunity to apply for adjunct level faculty positions at Quinsigamond Community College in order to teach college level courses to Quaboag Early College High School students.

### **Progress on Measurable Annual Goals**

During the course of school year 2011-2012 Quaboag Early College High School made significant changes to its Innovation School Plan that were intended to increase the success of its Early College High School model. Of the changes made, the most substantial pertained to the school's point of entry which now begins in grade 9, with students being recruited during the spring of their 8<sup>th</sup> grade year. Recruitment activities included information sessions for prospective students and their families, collaboration with the Guidance Department, and an application process which required students to select one of the two STEM program options, biomedical or engineering. As a result of the changes, Quaboag Early College High School noted that the class of 2016 will consist of a cohort of 24 students (an increase from the first cohort of 11). Additional changes included a requirement that grade 9 students participate in two science courses (a new practice for the district), and advanced course work. The school also noted that modifications were made to the master schedule to allow student cohorts to participate in three courses as a group, as well as the implementation of an after school tutorial program with National Honor Society tutors.

Quaboag Early College High School also reported that significant upgrades were made to the technology and infrastructure to improve the area of "school and community resources." As with the Middle School, some of the upgrades reported included, the acquisition of desktops, laptops, and 200 Apple iPad II's, the increase of internet bandwidth, network projectors and MIMIO teach interactive teach bars.

*Due to the grade span of the school during initial implementation, MCAS was not required.*

<b>District:</b> Quaboag	<b>School Name:</b> Quaboag Innovation Middle School	<b>Total Enrollment:</b> 228
	<b>Grades Served:</b> 7-8	<b>Level:</b> N/A

**Mission**

The mission of the Quaboag Regional Innovation Middle School is to form a vibrant partnership with parents and the community to inspire and equip our students to succeed in an “information age” world and a constantly evolving global landscape. We recognize students’ varying learning styles and set high expectations for every student allowing them to see themselves as life-long learners taking ownership of their education and their meaningful role in local and global society.

**Summary of Autonomies**

**Curriculum/Instruction**

Quaboag Innovation Middle School integrates STEM, bio-technology, robotics, and solar energy into its curriculum. In an effort to increase student engagement and broaden technology throughout the curriculum, the school has focused on implementing a cross-curriculum, hands-on and project-based learning environment that not only engages students, but also fosters critical thinking. The school has created “smart classrooms,” and is currently piloting blended-learning models.

**Schedule**

The school has modified its daily school schedule to expand learning time and developed enrichment opportunities to increase student achievement. The modifications made to the daily school schedule provide the school with the opportunity to connect its curriculum to meaningful experiences outside the classroom for its students. These experiences include, but are not limited to expert/practitioner visits and presentations, extra-curricular activities, competitions, museums, and exhibitions.

**Staffing**

The school opted to exercise its staffing autonomies by working with outside partners to promote cultural competencies to ensure a balanced education.

**Progress on Measurable Annual Goals**

Quaboag Innovation Middle School reported that its first year of implementation focused on the development of after-school learning opportunities for students; providing science data collection technology; and the integration of technology into the curriculum by creating “smart classrooms.” The school reported that significant upgrades were made to the technology and infrastructure to improve the area of “school and community resources.” Some of the upgrades reported included, the acquisition of desktops, laptops, and 200 Apple iPad II’s, the increase of internet bandwidth, network projectors and MIMIO teach interactive teach bars. In addition, the school reported that it instituted a STEM-focused after-school program that includes flight/aerospace, green and sustainability, and forensics clubs, and noted a partnership with the Mass Academy of Sciences intended to provide after school mentoring services to enrolled students by UMASS college students.

During the course of the 2011-2012 school year, Quaboag Innovation Middle School made changes to its Innovation School Plan that were intended to sustain and expand the program. Particularly, students are now recruited into the Quaboag Early College High School during the spring of their 8<sup>th</sup> grade year (recruitment originally began in grade 11). In addition, grade 8 students now have an optional engineering course and have cross-curriculum projects for science and mathematics. The school also noted that through its partnership with the Mass Academy of Sciences, teachers at the middle school have access to free professional development from the Massachusetts State Science and Engineering Fair.

## MCAS Performance Data-Spring 2012

	<b>Proficient or Higher (%)</b>	<b>CPI</b>	<b>SGP</b>
All Grades ELA	69	86.0	34.0
All Grades Mathematics	42	71.0	38.0
All Grades Science-Tech/Eng	47	N/A	N/A

<b>District:</b> Revere	<b>School Name:</b> Paul Revere Innovation School	<b>Total Enrollment:</b> 444
	<b>Grades Served:</b> K-5	<b>Level:</b> 2

**Mission**

The Paul Revere Innovation School partners with families and the community to ensure every child is a scholar and citizen who contribute meaningfully to our local and global community.

**Summary of Autonomies**

The Paul Revere Innovation School sought to use autonomies in the areas of staffing, budget, curriculum/ instruction/ assessment, and schedule. Through the use of the listed autonomies, the school seeks to strengthen teaching and learning for all students by focusing on the following key areas:

1. Develop a structured advisory to improve social-emotional engagement.
2. Develop new assessments, to include PRS progress reports and exhibitions.
3. Utilize ANET to organize student progress data to inform instruction.
4. Develop project-based learning opportunities to prepare students with 21st skills and knowledge.
5. Develop an inclusion model to increase achievement for students with special needs.

**Progress on Measurable Annual Goals**

The Paul Revere Innovation School reported continued efforts toward improving academic outcomes for all students, and the establishment of new programming and instructional approaches for English language learners and students with disabilities. The school reported that all Level 1 English language learners progressed beyond Level 2, and 20 percent of Level 2 English language learners gained a minimum of one proficiency level. The school also reported that by the spring of 2011, 94 percent of Level 4 and 83 percent of Level 5 English language learners increased their performance or exited the program.

Additionally, the school met its goals to increase common planning time, and the use of data to inform small group instruction. The school noted the implementation of Open Circle curriculum as well as the increase of English language learner students enrolled in summer support programs.

**MCAS Performance Data-Spring 2012**

	<b>Proficient or Higher (%)</b>	<b>CPI</b>	<b>SGP</b>
All Grades ELA	58	82.0	54.0
All Grades Mathematics	51	78.8	44.0
All Grades Science-Tech/Eng	60	82.7	N/A

<b>District:</b> Springfield	<b>School Name:</b> Springfield Renaissance Innovation School	<b>Total Enrollment:</b> 681
	<b>Grades Served:</b> 6-12	<b>Level:</b> 3

**Mission**

To provide a rigorous academic program for college bound students in a small, personalized setting that impels and supports students to use their minds well, care for themselves and each other, and rise to the duties and challenges of citizenship.

**Summary of Autonomies**

The autonomies in the areas of curriculum, assessment, schedule, policy, and professional development have enabled Springfield Renaissance Innovation School to depart from district mandates and expectations and fully implement the Expeditionary Learning model. Springfield Renaissance has used its core beliefs, guiding principles, and core structures to create a school that continues to promote and provide academic excellence for all its students.

With the autonomies noted above, Springfield Renaissance has enacted the following structures and systems below which it feels are the core of its demonstrated success.

1. Standards-based grading
2. Passage Portfolios
3. Required completion of college applications
4. Interdisciplinary learning expeditions
5. School schedule that supports a daily advisory course and school-designed formative assessments
6. School-based workshops and professional development sequences
7. Heterogeneous groupings in grades 6-10 and mini-courses at the end of the semester

**Progress on Measurable Annual Goals**

The Springfield Renaissance Innovation School stated that substantial progress was achieved in grade 10 MCAS scores with 93 percent of grade 10 students scoring proficient or advanced in English language arts, and 81percent of grade 10 students scoring proficient or advanced on Mathematics. Additionally, the school continues to implement its Expeditionary Learning School design model, for which they have received awards. The school reported that it achieved the 95 percent attendance rate for students and teachers, and a 100 percent college acceptance rate for graduates for the third year in a row.

**MCAS Performance Data-Spring 2012**

	<b>Proficient or Higher (%)</b>	<b>CPI</b>	<b>SGP</b>
All Grades ELA	71	88.2	54.0
All Grades Mathematics	40	68.1	38.0
All Grades Science-Tech/Eng	39	71.1	N/A

**Dissemination**

To date, the Springfield Renaissance Innovation School has hosted five demonstration days for nearly one hundred visiting educators. Additionally, the school reports that it will be hosting its first national site seminar in April 2013 for colleagues from throughout the region and country.

<b>District:</b> West Springfield	<b>School Name:</b> 21 <sup>st</sup> Century Skills Academy	<b>Total Enrollment:</b> 26
	<b>Grades Served:</b> 9-12	<b>Level:</b> N/A

**Mission**

The mission of the 21<sup>st</sup> Century Skills Academy is to link learning with student interests and career preparation. Through the integration of rigorous academics, relevant technical and work-based learning, and comprehensive student supports, the 21<sup>st</sup> Century Skills Academy leads to higher graduation rates, increased college enrollments and higher earning potential for all graduates. 21<sup>st</sup> Century Skills Academy serves high school students in Hampden County, including LPVEC member districts, with a focus on recruiting students who are economically disadvantaged and from districts with dropout rates that exceed the state average.

**Guiding Principals**

Based on the Linked Learning model, the 21<sup>st</sup> Century Skills Academy integrates the following four guiding principles that ground teaching and learning at the school in its Innovation plan.

1. Students are prepared for success in postsecondary education and careers.
2. Students are prepared for a wide range of postsecondary education options including two and four year colleges, apprenticeships, certificate programs, and military service.
3. Educators connect academics to real world applications through the development and implementation of 21<sup>st</sup> Century curricula.
4. Educators have high expectations of student achievement.

**Summary of Autonomies**

**Curriculum**

21<sup>st</sup> Century Skills Academy emphasizes flexible instructional delivery to support personalized instruction. Students are provided with curriculum and instruction in a number of formats, including blended learning, work-based learning, and cooperative education placements. In addition, students are provided with flexible schedules which allows for increased engagement. Graduation requirements at 21<sup>st</sup> Century Skills Academy meet those for entry into one of the Commonwealths Community College systems. Further, students may elect to fulfill the requirements for entrance to a four year institution should they choose to do so.

**Budget, Policy, and Staffing**

21<sup>st</sup> Century Skills Academy is a West Springfield Public School that is operated by the Lower Pioneer Valley Educational Collaborative. This unique structure provides the school with increased flexibility in the areas of budget, policy, resource allocation, and staffing. Through this structure, staffing decisions are not subject to negotiations or contract provisions as are other West Springfield Public Schools.

**Progress on Measurable Annual Goals**

21<sup>st</sup> Century Skills Academy reported that it achieved the 100 percent student enrollment rate in hybrid, online, and traditional enrollment, and 100 percent student participation in career and technical education or work-based learning. Additionally, 21<sup>st</sup> Century Skills Academy reported an attendance rate of 58.9 percent, retention rate of 83 percent, and a graduation rate of 75 percent. Further, 21<sup>st</sup> Century Skills Academy noted its adoption of a social development/discipline model that focuses on problem solving and productive dialogue to manage conflict.

## MCAS Performance Data-Spring 2012

	<b>Proficient or Higher (%)</b>	<b>CPI</b>	<b>SGP</b>
All Grades ELA	4	N/A	N/A
All Grades Mathematics	4	N/A	N/A
All Grades Science-Tech/Eng	----	N/A	N/A

<b>District:</b> Worcester	<b>School Name:</b> The Chandler Magnet School	<b>Total Enrollment:</b> 417
	<b>Grades Served:</b> PK-6	<b>Level:</b> 3

**Mission**

Chandler Magnet School is committed to partnering with our stakeholders to ensure every child is met with high expectations and support. We will guide our students along a rigorous academic path toward becoming adept speakers, lifelong readers, competent writers and critical thinkers. Our diverse multilingual community of learners will be well prepared for the demands and rigors of middle and high school, college or career. In addition, we pledge to uphold a culture of collegiality, rigor and accountability for the adult learners in our community, which includes teachers, administrators, and support staff. These attributes will allow everyone to successfully navigate our expanding global society.

**Summary of Autonomies**

The Chandler Magnet School’s autonomies include *curriculum and instruction, schedule and calendar, staffing and professional development*. Each one of these autonomies supports the school’s mission and vision by empowering the Instructional Leadership Team (ILT) to plan it’s instruction, select new staff, and assess efforts, as well as work collegially to support the needs of each Chandler Magnet School student.

**Curriculum and Instruction**

Autonomies in this area have provided Chandler Magnet School with the opportunity to teach students using best practices that are researched and responsive to its specific learning community. The identified best practices are approved by the ILT while remaining aligned to the Massachusetts Curriculum Frameworks (Common Core). Additionally, autonomies in these areas have provided the school with the opportunity to select materials that it has determined to be appropriate for its diverse learners.

**Professional Development**

Professional development is carefully planned and follows the schedule and calendar developed during the summer months to ensure delivery and implementation of new information and strategies. Data is continually used when the school revisits its long-term professional development plan by making sure teachers have the resources, tools and capacity needed to provide the best instruction possible for students.

**Schedule**

The school’s learning community uses block scheduling designed to ensure that all classrooms and grade levels have an uninterrupted 90 – 120 minute English language arts block and a 90 minute mathematics block. Special classes are scheduled in grade level clusters to allow time for grade level meetings and common planning time. Dual language classrooms are scheduled to allow for equal time in both English and Spanish instruction in core subject areas.

**Staffing**

While abiding by contract limitations for the selection of staff, this autonomy provides the school with the opportunity to attract and retain qualified teaching professionals who have the desire and commitment to teach the school’s diverse learners.

**Progress on Measurable Annual Goals**

The Chandler Magnet School reported on the progress of its “Literacy for All” initiative and noted that a consistent Guided Reading format in English and Spanish was incorporated in all K-4 classrooms. The school noted that MCAS data comparing 2011-2012 indicates progress was made in the reading comprehension of primary grade students, as well increased gains in Mathematics for English language learners. From 2011-2012, students in grades K-2 increased scores by 16 percent. Additionally, the school noted that teachers continued to be trained in Positive Behavior Intervention Supports (PBIS), and

discussed the implementation of “Second Step” curriculum in all classrooms. PBIS was implemented as a means to augment the social curriculum and reward positive behavior.

**MCAS Performance Data-Spring 2012**

	<b>Proficient or Higher (%)</b>	<b>CPI</b>	<b>SGP</b>
All Grades ELA	24	51.7	62.0
All Grades Math	15	43.5	56.5
All Grades Science-Tech/Eng	9	41.8	N/A

<b>District:</b> Worcester	<b>School Name:</b> Goddard Scholars Academy at Sullivan Middle School	<b>Total Enrollment:</b> 143
	<b>Grades Served:</b> 6-8	<b>Level:</b> N/A

**Mission**

The Goddard Scholars Academy is the middle school component of a college preparatory program conducted in collaboration with South High School and Clark University. The Goddard Scholars Academy, comprised of middle school students from throughout the city of Worcester, provides a rigorous and accelerated academic program in a safe, nurturing, and personalized atmosphere.

**Summary of Autonomies**

**Curriculum, Instruction, and Assessment**

The Goddard Scholars Academy curriculum aligns with the Massachusetts Frameworks and the Common Core Standards in all content areas. With autonomies in the areas of Curriculum, Instruction, and Assessment, Goddard Scholars Academy embeds several best practices within its Innovation Plan to improve student learning. An example of embedding best practices throughout its plan, the school has ensured the consistent implementation of reading and writing across the curriculum, which supports greater fluency in students’ language, written and oral proficiencies.

**Schedule**

Through scheduling autonomies, time on learning is maximized and allows for flexible groupings of students. Flexible student grouping allows for students to receive the individualized attention they need in addition to providing them with opportunities to participate in activities such as, weekly gifted and talented class, guest speakers, field trips, and many other school-wide events. Modifications to the school schedule have also allowed students to take part in enrichment classes and opportunities offered by teachers from the Sullivan Middle School on a weekly or quarterly basis. Developing 21<sup>st</sup> Century skills in digital literacy was included as an enrichment class to provide students with access to digital resources for research and skill development. Foreign language instruction has enabled students to communicate with an increased range of populations while utilizing skills in reading, writing, speaking and listening. All Goddard Scholars Academy students learn to play an instrument for the school band, which reflects the school’s vision for students to become confident learners and reach their full potential through the opportunity of creative expression through music education.

Modifications to the school schedule have also allowed for teacher common planning time and professional learning communities. Teachers collaborate with one another to teach skills that can then be implemented with consistency across curricula and in interdisciplinary lessons or units of study. Development and usage of common rubrics have allowed for assessment alignment for all classrooms.

**Professional Development**

Goddard Scholars Academy staff participate in course work, workshops, and conferences that meet the needs of the school’s unique student population while expanding knowledge in content and pedagogy. Professional Development Plans include topics such as technology, Pre-AP, implementation of Common Core standards, Model U.N., Improving teacher quality, Gifted and Talented Education, and content specific courses or workshops.

**Budget**

Autonomy in this area has allowed the school to purchase books and supplies that meet its unique needs by expending the district’s per pupil allowance on supplies and instructional materials. Purchases include, book sets for classes, summer common read initiative, band music, instrument supplies and repairs, materials for science labs, graphing calculators, student agendas, art supplies, pencils, paper, and toner, among others. In 2011-2012, the \$40,000 Implementation Grant was managed by the GSA.

**Staffing**

The autonomies gained in this area were not exercised during the first year of implementation. During the second year of implementation (school year 2012-2013), this autonomy assisted the school in hiring four highly qualified and experienced teachers, two from within the Worcester Public Schools and two from outside of the district. The Hiring Committee, which included current teachers, parents, students, and school administration reviewed applications, scheduled interviews, and offered teaching positions to individuals who are committed to its mission and vision and who bring additional diversity and expertise to the teaching staff.

**Progress on Measurable Annual Goals**

Goddard Scholars Academy reported that academic achievement was strengthened by the successful alignment of instructional curriculum by teachers to the Massachusetts Curriculum Frameworks and Common Core State Standards, and common planning time for teachers in the content areas of English language arts and mathematics. The Academy reports a student growth percentile of 79 percent for English language arts. The Academy reported that all students developed Digital Literacy skills via participation in a technology class, and that teachers would continue to develop rubrics to assess growth needs when students are not enrolled in the technology class.

The Goddard Scholars Academy provided leadership opportunities for students through its Student Ambassadors program, as well as opportunities for teachers through increased teacher-led initiatives. Further, Goddard Scholars Academy noted increased parental involvement in school-wide initiatives.

**MCAS Performance Data-Spring 2012**

	<b>Proficient or Higher (%)</b>	<b>CPI</b>	<b>SGP</b>
All Grades ELA	99	100	79
All Grades Mathematics	97	98.7	67
All Grades Science-Tech/Eng	62	88.3	N/A

<b>District:</b> Worcester	<b>School Name:</b> Goddard School of Science and Technology	<b>Total Enrollment:</b> 598
	<b>Grades Served:</b> PK-6	<b>Level:</b> 3

**Mission**

As a school, The Goddard School of Science and Technology challenges all of our students to achieve academic excellence as they begin their journey in the Main South Promise Learning Community to college and career.

**Summary of Autonomies**

Goddard School of Science and Technology sought autonomies and flexibilities in the areas of curriculum, instruction, assessment, staffing, budget and scheduling in an effort to strengthen teaching and learning for all students. The school notes its strong culture and established track record of shared leadership and professional collaboration teams will improve teaching and learning and believes that the autonomies established will continue to strengthen these areas, while providing essential services to students and families within the Promise Neighborhood.

**Progress on Measurable Annual Goals**

The Goddard School of Science and Technology reported growth in MEPA scores of English language learner students. The school reported that its focus on writing in grades 3 and 4 attributed to the percentage of students previously scoring “warning” in this area, and noted that 67 percent of students demonstrated proficiency on its monthly Read, Write, and Score internal assessment. In the area of mathematics, the school reported that teachers completed vertical alignment and developed mathematics scope and sequence to Common Core standards.

Additionally, the Goddard School of Science and Technology reported a decrease of behavioral referrals by 22 percent, and increased parental communication and involvement. A school administered survey revealed that 90 percent of parents noted that the school is a good place for their students to learn and that 97 percent believe that parent/teacher conferences are important. The school stated that faculty developed a standards-based reporting tool, differentiated by grade level as a mode of communication with families and noted multiple engagement activities. The school continued to make progress with the implementation of its communication system.

**MCAS Performance Data-Spring 2012**

	<b>Proficient or Higher (%)</b>	<b>CPI</b>	<b>SGP</b>
All Grades ELA	27	56.8	49.0
All Grades Mathematics	23	49.0	45.0
All Grades Science-Tech/Eng	11	46.7	N/A

<b>District:</b> Worcester	<b>School Name:</b> Woodland Academy	<b>Total Enrollment:</b> 544
	<b>Grades Served:</b> PK-6	<b>Level:</b> 3

**Mission**

Woodland Academy, in partnership with Clark University and Main South Promise Neighborhood will focus unwaveringly on empowering students with the strategies and skills necessary for college readiness, character development and community responsibility.

**Summary of Autonomies**

Through the approval of the Innovation School plan, the principal of Woodland Academy has been granted direct oversight of “special permission” enrollment to the school. To that end, Main South Promise Neighborhood students have the opportunity to participate in our full day pre-school program.

**Curriculum, Instruction, and Assessment**

Woodland Academy’s autonomies in the areas of curriculum, instruction, and assessment facilitate the education of the whole child while ensuring that students are engaged in problem solving, critical thinking, and teambuilding activities. Teachers will develop curriculum in English language arts and mathematics that are aligned to the Massachusetts Curriculum Frameworks and Common Core state standards. In an effort to engage students, instruction at Woodland Academy is differentiated to meet the unique needs of students. The school’s Innovation plan includes a robust assessment component capable of providing formative data relative to student progress on discrete skills. In addition, the plan ensures that adjustments and refinements are made in an effort to diagnose and prescribe appropriate core instruction and interventions. Woodland Academy will explore models of inclusive education to serve its students with demonstrated difficulties as well as students with Individualized Education Plans

**Schedule and Calendar**

Autonomies in this area have allowed the school to modify its schedule to include professional development sessions that are 3.8 hours in length once a month for 10 months.

**Staffing and Hiring Practices**

The school has the ability to recruit and retain highly effective teachers who meet its unique professional expectations. Flexibilities in this area of autonomy include the adoption of a hiring timeline to recruit and train staff in advance of the academic year. In a targeted effort to provide a structured student support system, the school hired a Wrap-Around Coordinator who develops support plans and connects students and families with appropriate support services. In addition, the school has established a Governance Board comprised of administration, staff, parents and community members, such as Clark University, as well as the school based EAW representative.

**Budget**

Woodland Academy continues to work with district personnel to establish increased flexibility and autonomy over the use of the funds allocated to the school. Through the use the budget autonomy, Woodland Academy intends to receive a proportion of the Title I and Title III monies appropriate to its student identified needs.

**Progress on Measurable Annual Goals**

Woodland reported a 95 percent attendance rate; 92 percent of kindergarten students reading at or above grade level (an increase of 67 percent over the prior year); and 92 percent of students adhering to the established core values. The school also reported that 98 percent of students in grades K-6 made progress in reading fluency and comprehension. Additionally, MEPA and MELA-O data indicated that progress was made for English language learners, and noted that 50 percent of staff have completed Category

training. In the area of family engagement, Woodland noted that 90 percent of parents of students in grades PK-3 and 70 percent of parents of students in grades 4-6, attended parent teacher conferences.

**MCAS Performance Data-Spring 2012**

	<b>Proficient or Higher (%)</b>	<b>CPI</b>	<b>SGP</b>
All Grades ELA	26	61.2	54.0
All Grades Mathematics	21	52.1	45.0
All Grades Science-Tech/Eng	4	42.6	N/A

<b>District:</b> Worcester	<b>School Name:</b> University Park Campus School	<b>Total Enrollment:</b> 253
	<b>Grades Served:</b> 7-12	<b>Level:</b> 1

**Mission**

The mission at University Park Campus School is to produce students who are confident and who understand that desire and hard work beat adversity.

**Summary of Autonomies**

**Curriculum, Instruction, and Assessment**

The autonomies granted to University Park Campus School in the areas of curriculum, instruction, and assessments have enabled classroom teachers to methodically develop the content for their students while also enabling teachers to foster a shared definition of high quality teaching and learning. Additionally, instructional coherence have provided students with a consistent approach to learning in all classes irrespective of course content. Formative and summative assessments are used to assess student learning and acquisition of key content and habits of mind, and a number of additional assessments are used to ensure that the school is addressing the core values, and realizing its stated mission and vision.

**Budget**

Autonomy in the area of budget has provided the school with the opportunity to make critical resource decisions that best meet the needs of its students.

**Schedule**

The daily schedule has been modified to ensure maximum time on learning for students at all levels. Moreover, the daily schedule was developed to ensure that identified classes where students demonstrate more need are longer than others.

**Staffing**

University Park Campus School exercises important staffing autonomies that allow the school to determine who will be hired when openings exist. Panels of teachers, parents, and students are involved in interviewing and vetting potential teacher candidates. Further, while evaluation of teachers follows the current collective bargaining agreement, teachers will also receive feedback on their use of the school’s common instructional framework and definition of high quality teaching and learning.

**Professional Development**

The school has a strong, embedded professional development program. Teachers are valued as professionals. Teaching as a reflective art where professionals observe one another and provide feedback on practice is the norm. Workshops on the common instructional framework, developed by colleagues, are the source of professional development for current teachers.

**Progress on Measurable Annual Goals**

University Park Campus School reported growth in a majority of the six areas identified in its plan. In addition, the school achieved a daily attendance rate of 96 percent and a four-year adjusted cohort graduation rate of 91 percent with a dropout rate of 2.6 percent. Grade 8 University Park Campus School students saw gains on students scoring proficient/advanced from 53 percent last year to 67 percent this year on the MCAS math portion of the exam. In the area of College Readiness the school reported the following:

- 91 percent of graduates participated in dual enrollment or AP courses
- 100 percent of graduates have been accepted into postsecondary education
- 77 percent of the class of 2012 matriculated into a four-year institution

- 88 percent of alumni are on track to graduate within 6 years of matriculation

**MCAS Performance Data-Spring 2012**

	<b>Proficient or Higher (%)</b>	<b>CPI</b>	<b>SGP</b>
All Grades ELA	83	93.4	67.0
All Grades Mathematics	63	82.5	67.0
All Grades Science-Tech/Eng	43	72.7	N/A



Acts  
2010

**CHAPTER 12** AN ACT RELATIVE TO THE ACHIEVEMENT GAP.

*Whereas*, The deferred operation of this act would tend to defeat its purpose, which is to provide forthwith innovation into school districts and turnaround underperforming schools, therefore it is hereby declared to be an emergency law, necessary for the immediate preservation of the public convenience.

*Be it enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same as follows:*

**SECTION 1.** Chapter 7 of the General Laws is hereby amended by striking out section 22A, as appearing in the 2008 Official Edition, and inserting in place thereof the following section:-

Section 22A. Notwithstanding any general or special law relating to collective purchasing, but subject to all other laws regulating public purchases and competitive bidding, the commonwealth and 1 or more of its cities, towns, districts, counties, authorities or commonwealth or Horace Mann charter schools, or 2 or more cities, towns, districts, counties, authorities or commonwealth or Horace Mann charter schools, hereinafter called political subdivisions, may make purchases of materials, supplies, equipment or services through the state purchasing agent subject to such rules, regulations and procedures as may be established from time to time by the purchasing agent; provided, however, that the political subdivision shall accept sole responsibility for any payment due the vendor for its share of such purchase.

**SECTION 2.** Chapter 40 of the General Laws is hereby amended by striking out section 4E, as so appearing, and inserting in place thereof the following section:-

Section 4E. Two or more school committees of cities, towns and regional school districts and boards of trustees of charter schools may enter into a written agreement to conduct education programs and services which shall complement and strengthen the school programs of member school committees and charter schools and increase educational opportunities for children. The school committees and boards of trustees of charter schools shall collaborate to offer the programs and services; provided, however, the association of school committees and board of trustees of charter schools which is formed to deliver the programs and services shall be known as an education collaborative. The education collaborative shall be managed by a board of directors which shall be comprised of 1 person appointed by each member school committee and 1 person appointed by each member charter board of trustees. All appointed persons shall be either a school committee member or his designee, the superintendent of schools or his designee or a member of the charter board of trustees.

Members of the board of directors shall be entitled to a vote according to the terms of the education collaborative agreement. The department of education shall appoint an individual to serve in an advisory capacity to the education collaborative board of directors. The individual shall not be entitled to vote on any matter which comes before the board of directors of the education collaborative. The written agreement which shall form the basis of the education collaborative shall set forth the purposes of the program or service, the financial terms and conditions of membership of the education collaborative, the method of termination of the education collaborative and of the withdrawal of member school committees and charter schools, the procedure for admitting new members and for amending the collaborative agreement, the powers and duties of the board of directors of the education collaborative to operate and manage the education collaborative and any other matter not incompatible with law which the member committees and charter schools consider advisable. The agreement shall be subject to the approval of the member school committees and the commissioner of education.

Each board of directors of an education collaborative shall establish and manage a trust fund, to be known as an Education Collaborative Trust Fund, and each such fund shall be designated by an appropriate name. All monies contributed by the member municipalities and charter schools and all grants or gifts from the federal government, state government, charitable foundations, private corporations or any other source shall be paid to the board of directors of the education collaborative and deposited in the fund.

The board of directors of the education collaborative shall appoint a treasurer who may be a treasurer of a city, town or regional school district belonging to the collaborative. The treasurer may, subject to the direction of the board of directors of the education collaborative, receive and disburse all monies of the trust fund without further appropriation. The treasurer shall give bond annually for the faithful performance of his duties as collaborative treasurer in a form approved by the department of revenue and in the sum, not less than the amount established by the department, as shall be fixed by the board of directors of the education collaborative. The board of directors of the education collaborative in its discretion may pay compensation to the treasurer for his services. No member of the board of directors of the education collaborative shall be eligible to serve as treasurer of the collaborative. The treasurer of the education collaborative board of directors shall have the authority to make appropriate investments of the monies of the Education Collaborative Trust Fund consistent with section 54 of chapter 44.

The board of directors of an educational collaborative may borrow money, enter into long-term or short-term loan agreements or mortgages and apply for state, federal or corporate grants or contracts to obtain funds necessary to carry out the purpose for which such collaborative is established; provided, however, that the board of directors has determined that any borrowing, loan or mortgage is cost-effective and in the best interest of the collaborative and its member municipalities and charter schools. The borrowing, loans or mortgages shall be consistent with the written agreement and articles of incorporation, if any, of the educational collaborative and shall be consistent with standard lending practices.

The board of directors of the education collaborative may employ an executive officer who shall serve under the general direction of the board and who shall be responsible for the care and supervision of

the education collaborative.

The board of directors of the education collaborative shall be considered to be a public employer and have the authority to employ personnel, including teachers, to carry out the purposes and functions of the education collaborative. No person shall be eligible for employment by the board of directors as an instructor of children with severe special needs, teacher of children with special needs, teacher, guidance counselor or school psychologist unless the person has been granted a certificate by the board of education under section 38G of chapter 71 or section 6 of chapter 71A or an approval under the regulations promulgated by the board of education under chapter 71B or chapter 74 with respect to the type of position for which he seeks employment; provided, however, that nothing herein shall be construed to prevent a board of directors of an education collaborative from prescribing additional qualifications. A board of directors of an education collaborative may, upon its request, be exempted by the board of education for any 1 school year from the requirements of this section to employ certified or approved personnel when compliance therewith would in the opinion of the board constitute a great hardship.

The education collaborative shall be considered to be a public entity and shall have standing to sue and be sued to the same extent as a city, town or regional school district. An education collaborative, acting through its board of directors, may enter into contracts for the purchase of supplies, materials and services and for the purchase or leasing of land, buildings and equipment as considered necessary by the board of directors.

A school committee of a city, town or regional school district or board of trustees of a charter school may authorize the prepayment of monies for an educational program or service of the education collaborative to the treasurer of an education collaborative, and the city, town or regional school district or charter school treasurer shall be required to approve and pay the monies in accordance with the authorization of the school committee or board of trustees.

**SECTION 3.** Chapter 69 of the General Laws is hereby amended by striking out sections 1J and 1K, as so appearing, and inserting in place thereof the following 2 sections:-

Section 1J. (a) The commissioner of elementary and secondary education may, on the basis of student performance data collected pursuant to section 1I, a school or district review performed under section 55A of chapter 15, or regulations adopted by the board of elementary and secondary education, designate 1 or more schools in a school district other than a Horace Mann charter school as underperforming or chronically underperforming. The board shall adopt regulations establishing standards for the commissioner to make such designations on the basis of data collected pursuant to section 1I or information from a school or district review performed under section 55A of chapter 15. Upon the release of the proposed regulations, the board shall file a copy thereof with the clerks of the house of representatives and the senate who shall forward the regulations to the joint committee on education. Within 30 days of the filing, the committee may hold a public hearing and issue a report on the regulations and file the report with the board. The board, pursuant to applicable law, may adopt final regulations making revisions to the proposed regulations as it deems appropriate after consideration of the report and shall forthwith file a copy of the regulations with the chairpersons of the

joint committee on education and, not earlier than 30 days of the filing, the board shall file the final regulations with the state secretary. Schools that score in the lowest 20 per cent statewide among schools serving common grade levels on a single measure developed by the department that takes into account student performance data and, beginning on July 1, 2011, improvement in student academic performance, shall be deemed eligible for designation as underperforming or chronically underperforming. Not more than 4 per cent of the total number of public schools may be designated as underperforming or chronically underperforming at any given time.

In adopting regulations allowing the commissioner to designate a school as underperforming or chronically underperforming, the board shall ensure that such regulations take into account multiple indicators of school quality in making determinations regarding underperformance or chronic underperformance, such as student attendance, dismissal rates and exclusion rates, promotion rates, graduation rates or the lack of demonstrated significant improvement for 2 or more consecutive years in core academic subjects, either in the aggregate or among subgroups of students, including designations based special education, low-income, English language proficiency and racial classifications.

Before a school is designated chronically underperforming by the commissioner, a school must be designated underperforming and fail to improve.

An underperforming or chronically underperforming school described in the following subsections shall operate in accordance with laws regulating other public schools, except as such provisions may conflict with this section or any turnaround plans created thereunder. A student who is enrolled in a school at the time it is designated as underperforming or chronically underperforming shall retain the ability to remain enrolled in the school while remaining a resident of the district if the student chooses to do so.

(b) Upon the designation of a school as an underperforming school in accordance with regulations developed pursuant to this section, the superintendent of the district, with approval by the commissioner, shall create a turnaround plan for the school, under subsections (b) to (e), inclusive. The commissioner may allow for an expedited turnaround plan for schools that have been previously designated as underperforming and where the district has a turnaround plan that has had a public comment period and approval of the local school committee.

Before the superintendent creates the turnaround plan required in this subsection, the superintendent shall convene a local stakeholder group of not more than 13 individuals, for the purpose of soliciting recommendations on the content of such plan to maximize the rapid academic achievement of students at the school. The superintendent shall provide due consideration to the recommendations of the stakeholder group. The group shall include: (1) the commissioner, or a designee; (2) the chair of the school committee, or a designee; (3) the president of the local teacher's union, or a designee; (4) an administrator from the school, who may be the principal, chosen by the superintendent; (5) a teacher from the school chosen by the faculty of the school; (6) a parent from the school chosen by the local parent organization; (7) representatives of applicable state and local social service, health and child welfare agencies, chosen by the superintendent; (8) as appropriate, representatives of state and local workforce development agencies, chosen by the superintendent; (9) for elementary schools,

a representative of an early education and care provider chosen by the commissioner of the department of early education and care and, for middle schools or high schools, a representative of the higher education community selected by the secretary; and (10) a member of the community appointed by the chief executive of the city or town. If the school or district does not have a parent organization or if the organization does not select a parent, the superintendent shall select a volunteer parent of a student from the school. The superintendent shall convene such group within 30 days of the commissioner designating a school as underperforming and the group shall make its recommendations to the superintendent within 45 days of its initial meeting. Meetings of the local stakeholder group shall be open to the public and the recommendations submitted to the superintendent under this subsection shall be publicly available immediately upon their submission.

(c) In creating the turnaround plan in subsection (b) the superintendent shall include, after considering the recommendations of the local stakeholder group, provisions intended to maximize the rapid academic achievement of students at the school and shall, to the extent practicable, base the plan on student outcome data, including, but not limited to: (1) data collected pursuant to section 11 or information from a school or district review performed under section 55A of chapter 15; (2) student achievement on the Massachusetts Comprehensive Assessment System; (3) other measures of student achievement, approved by the commissioner; (4) student promotion and graduation rates; (5) achievement data for different subgroups of students, including low-income students as defined in chapter 70, limited English-proficient students and students receiving special education; and (6) student attendance, dismissal rates and exclusion rates.

The superintendent shall also include in the creation of the turnaround plan, after considering the recommendations of the local stakeholder group, the following: (1) steps to address social service and health needs of students at the school and their families, to help students arrive and remain at school ready to learn; provided, however, that this may include mental health and substance abuse screening; (2) steps to improve or expand child welfare services and, as appropriate, law enforcement services in the school community, in order to promote a safe and secure learning environment; (3) steps to improve workforce development services provided to students and their families at the school, to provide students and families with meaningful employment skills and opportunities; (4) steps to address achievement gaps for limited English-proficient, special education and low-income students; and (5) alternative English language learning programs for limited English proficient students, notwithstanding chapter 71A; and (6) a financial plan for the school, including any additional funds to be provided by the district, commonwealth, federal government or other sources.

The secretaries of health and human services, labor and workforce development, public safety and other applicable state and local social service, health and child welfare officials shall coordinate with the superintendent regarding the implementation of strategies under clauses (1) to (3), inclusive, of the second paragraph that are included in a final turnaround plan and shall, subject to appropriation, reasonably support such implementation consistent with the requirements of state and federal law applicable to the relevant programs that each such official is responsible for administering. The secretary of education and the commissioner of elementary and secondary education shall assist the superintendent in facilitating the coordination.

To assess the school across multiple measures of school performance and student success, the

turnaround plan shall include measurable annual goals including, but not limited to: (1) student attendance, dismissal rates and exclusion rates; (2) student safety and discipline; (3) student promotion and graduation and dropout rates; (4) student achievement on the Massachusetts Comprehensive Assessment System; (5) progress in areas of academic underperformance; (6) progress among subgroups of students, including low-income students as defined by chapter 70, limited English-proficient students and students receiving special education; (7) reduction of achievement gaps among different groups of students; (8) student acquisition and mastery of twenty-first century skills; (9) development of college readiness, including at the elementary and middle school levels; (10) parent and family engagement; (11) building a culture of academic success among students; (12) building a culture of student support and success among school faculty and staff and; (13) developmentally appropriate child assessments from pre-kindergarten through third grade, if applicable.

(d) Notwithstanding any general or special law to the contrary, in creating the turnaround plan required in subsection (b), the superintendent may, after considering the recommendations of the group of stakeholders: (1) expand, alter or replace the curriculum and program offerings of the school, including the implementation of research-based early literacy programs, early interventions for struggling readers and the teaching of advanced placement courses or other rigorous nationally or internationally recognized courses, if the school does not already have such programs or courses; (2) reallocate the uses of the existing budget of the school; (3) provide additional funds to the school from the budget of the district, if the school does not already receive funding from the district at least equal to the average per pupil funding received for students of the same classification and grade level in the district; (4) provide funds, subject to appropriation and following consultation with applicable local unions, to increase the salary of any administrator, or teacher in the school, to attract or retain highly-qualified administrators, or teachers or to reward administrators, or teachers who work in underperforming schools that achieve the annual goals set forth in the turnaround plan; (5) expand the school day or school year or both of the school; (6) for an elementary school, add pre-kindergarten and full-day kindergarten classes, if the school does not already have such classes; (7) following consultation with applicable local unions, require the principal and all administrators, teachers and staff to reapply for their positions in the school, with full discretion vested in the superintendent regarding his consideration of and decisions on rehiring based on the reapplications. (8) limit, suspend or change 1 or more provisions of any contract or collective bargaining agreement, as the contract or agreement applies to the school; provided, that the superintendent shall not reduce the compensation of an administrator, teacher or staff member unless the hours of the person are proportionately reduced; (9) limit, suspend or change 1 or more school district policies or practices, as such policies or practices relate to the school; (10) include a provision of job-embedded professional development for teachers at the school, with an emphasis on strategies that involve teacher input and feedback; (11) provide for increased opportunities for teacher planning time and collaboration focused on improving student instruction; (12) establish a plan for professional development for administrators at the school, with an emphasis on strategies that develop leadership skills and use the principles of distributive leadership; (13) establish steps to assure a continuum of high-expertise teachers by aligning the following processes with a common core of professional knowledge and skill: hiring, induction, teacher

evaluation, professional development, teacher advancement, school culture and organizational structure; (14) develop a strategy to search for and study best practices in areas of demonstrated deficiency in the school; (15) establish strategies to address mobility and transiency among the student population of the school; and (16) include additional components based on the reasons why the school was designated as underperforming and the recommendations of the group of stakeholders in subsection (b).

If the superintendent does not approve a reapplication submitted by an employee pursuant to clause (7) for a position in the school or if an employee does not submit a reapplication for a position in the school, the employee shall retain such rights as may be provided under law or any applicable collective bargaining agreement in relation to the employee's ability to fill another position in the district; provided, however, that the employee shall not have the right to displace any teacher with professional teacher status in any other school during a school year.

A teacher with professional teacher status in a school declared underperforming or chronically underperforming may be dismissed for good cause; provided, however, that the teacher receives 5 days written notice of the decision to terminate which shall include, without limitation, an explanation of the reason why the superintendent is not retaining the teacher in the school; provided, further, that the teacher may seek review of a termination decision within 5 days after receiving notice of the teacher's termination by filing a petition for expedited arbitration with the commissioner; provided, further, that except as otherwise provided herein section 42 of chapter 71 shall apply to a petition filed pursuant to this section; provided, further, that the commissioner shall cause an arbitrator to be selected pursuant to the procedures in section 42 of chapter 71 within 3 days of receipt of petition and shall conduct and complete a hearing within 10 days of receipt of the petition; provided, further, that in reviewing dismissal decisions, the arbitrator shall consider the components of the turnaround plan and shall also consider any personnel evaluations conducted that are consistent with the guidelines established pursuant to section 1B; and provided, further, that the arbitrator's decision shall be issued within 10 days from the completion of the hearing.

For a school with limited English-proficient students, the professional development and planning time for teachers and administrators identified in clauses (10) to (12), inclusive, shall include specific strategies and content designed to maximize the rapid academic achievement of limited English-proficient students at the school.

(e) Within 30 days of the local stakeholder group making recommendations under subsection (b), the superintendent shall submit a turnaround plan to the local stakeholder group, the school committee and the commissioner, all of whom may propose modifications to the plan. The superintendent shall make such plan immediately available to the public upon the submission. The stakeholder group, the school committee and the commissioner shall submit any proposed modifications to the superintendent not more than 30 days after the date of submission of the turnaround plan and the proposed modifications shall be made public immediately upon their submission to the superintendent. The superintendent shall consider and may incorporate the modifications into the plan if the superintendent determines that inclusion of the modifications would further promote the rapid academic achievement of students at the school or may alter or reject the proposed modifications

submitted under this subsection. Within 30 days of receiving any proposed modifications under this subsection, the superintendent shall issue a final turnaround plan for the school and the plan shall be made publicly available.

(f) Within 30 days of the issuance of a final turnaround plan under subsection (e) a school committee or local union may appeal to the commissioner regarding 1 or more components of the plan, including the absence of 1 or more modifications proposed under subsection (e). The commissioner may, in consultation with the superintendent, modify the plan if the commissioner determines that: (1) such modifications would further promote the rapid academic achievement of students in the applicable school; (2) a component of the plan was included, or a modification was excluded, on the basis of demonstrably-false information or evidence; or (3) the superintendent failed to meet the requirements of subsections (b) to (e), inclusive. The decision of the commissioner regarding an appeal under this subsection shall be made within 30 days and shall be final. (g) If, after considering the recommendations of the group of stakeholders, the superintendent considers it necessary to maximize the rapid academic achievement of students at the applicable school by altering the compensation, hours and working conditions of the administrators, teachers, principal and staff at the school or by altering other provisions of a contract or collective bargaining agreement applicable to the administrators, teachers, principal and staff, the superintendent may request that the school committee and any union bargain or reopen the bargaining of the relevant collective bargaining agreement to facilitate such achievement. The bargaining shall be conducted in good faith and completed not later than 30 days from the point at which the superintendent requested that the parties bargain. The agreement shall be subject to ratification within 10 business days by the bargaining unit members in the school. If the parties are unable to reach an agreement within 30 days or if the agreement is not ratified within 10 business days by the bargaining unit members of the school, the parties shall submit remaining unresolved issues a joint resolution committee for dispute resolution process on the next business day following the end of the 30-day bargaining period or failure to ratify. The joint resolution committee shall be comprised of 3 members, 1 of whom shall be appointed by the employee organization within 3 business days following the submission of unresolved issues to the joint resolution committee, 1 of whom shall be appointed by the school committee within 3 business days following the submission of unresolved issues to the joint resolution committee and 1 who shall be selected through the American Arbitration Association who shall forthwith forward to the parties a list of 3 conciliators, each of whom shall have professional experience in elementary and secondary education, from which the parties may agree upon a single conciliator provided, however, that if the parties cannot select a conciliator from among the 3 within 3 business days, the American Arbitration Association shall select a conciliator from the remaining names. The joint resolution committee shall conduct a dispute resolution process to be concluded within 10 business days of selection. This process shall be conducted in accordance with the rules of the American Arbitration Association and consistent with this section. The fee for the process shall be shared equally between the 2 parties involved.

The joint resolution committee shall consider the positions of the parties, the designation of the school as underperforming and the needs of the students in the school. Notwithstanding any other provision of this chapter, the decision of the joint resolution committee shall be dispositive of all the issues in

dispute and shall be submitted to the parties within 10 business days of the completion of the process. Under no circumstance, shall a time extension be granted beyond 10 business days of the completion of the process. If a decision is not submitted to the parties within 10 business days, the commissioner will resolve all outstanding issues.

(h) The superintendent may select an external receiver to operate the school and implement the turnaround plan or to assist the superintendent with the implementation. The superintendent may appoint the receiver if the superintendent determines that conditions exist in the district that are likely to negatively affect his ability to implement the plan successfully. A school committee may appeal to the commissioner the decision of the superintendent to appoint an external receiver. The commissioner may reverse such decision only if he determines that the superintendent made the decision on the basis of demonstrably-false information or evidence. A receiver shall be a non-profit entity or an individual with a demonstrated record of success in improving low-performing schools or the academic performance of disadvantaged students. A receiver shall be subject to section 11A ½ of chapter 30A and chapter 66. A receiver who is an individual shall also be subject to chapter 268A.

(i) An external receiver selected by the superintendent to operate a school shall have full managerial and operational control over the school as provided in the turnaround plan. For all other purposes, the school district in which the school is located shall remain the employer of record.

(j) Each turnaround plan shall be authorized for a period of not more than 3 years, subject to subsection (k). The superintendent or external receiver, as applicable, may develop additional components of the turnaround plan pursuant to subsections (b) to (g) inclusive and shall develop annual goals for each component of the plan, in a manner consistent with subsections (b) to (g), inclusive. The superintendent or external receiver, as applicable, shall be responsible for meeting the goals of the plan.

(k) Each school designated by the commissioner as underperforming under subsection (a) shall be reviewed by the superintendent, in consultation with the principal of the school, at least annually. The purpose of the review shall be to determine whether the school has met the annual goals in its turnaround plan and to assess the overall implementation of the turnaround plan. The review shall be in writing and shall be submitted to the commissioner and the relevant school committee not later than July 1 for the preceding school year. The review shall be submitted in a format determined by the department of elementary and secondary education.

If the commissioner determines that the school has met the annual performance goals stated in the turnaround plan, the review shall be considered sufficient and the implementation of the turnaround plan shall continue. If the commissioner determines that the school has not met 1 or more goals in the turnaround plan and that the failure to meet the goals may be corrected through reasonable modification of the plan, the superintendent may amend the turnaround plan in a manner consistent with the provisions of subsection (b) to (g) inclusive. If the commissioner determines that the school has substantially failed to meet 1 or more goals in the plan, the commissioner may appoint an examiner to conduct an evaluation of the school's implementation of the turnaround plan.

If the commissioner determines that the school has substantially failed to meet multiple goals in the plan, the commissioner may require changes to the turnaround plan to be implemented by the superintendent in the following year or the appointment of an external partner to advise and assist the

superintendent in implementing the plan the following year. If the changes to the turnaround plan require changes in a collective bargaining agreement applicable to administrators, teachers or staff in the school, the bargaining procedure in subsection (g) shall be used. If an underperforming school is operated by an external receiver, the commissioner may require the superintendent to terminate the receiver and develop a new turnaround plan; provided, however, that the superintendent shall not terminate the receiver before the completion of the first full school year of the operation of the underperforming school.

(l) Upon the expiration of a turnaround plan, the commissioner shall conduct a review of the school to determine whether the school has improved sufficiently, requires further improvement or has failed to improve. On the basis of such review, the commissioner may determine that: (1) the school has improved sufficiently for the designation of the school as underperforming to be removed; (2) the school has improved, but the school remains underperforming, in which case the superintendent may, with the approval of the commissioner, renew the plan or create a new or modified plan for an additional period of not more than 3 years, consistent with the requirements of subsections (a) to (g); or (3) consistent with the requirements of subsection (a), the school is chronically underperforming. The commissioner may recommend the appointment of an external receiver by the superintendent if the commissioner believes that a new or modified turnaround plan implemented by the superintendent will not result in rapid improvement. In carrying out this subsection, the superintendent shall: (1) in the case of a renewal of a turnaround plan, determine subsequent annual goals for each component of the plan with the input of the local stakeholder group as defined in subsection (b); or (2) create a new or modified turnaround plan as necessary, consistent with the requirements of this section.

(m) Upon the designation of a school as a chronically underperforming school in accordance with the regulations developed under this section, the commissioner shall create a turnaround plan for the school under this subsection and subsections (n) to (p), inclusive.

Before creating the turnaround plan required in this subsection, the commissioner shall convene a local stakeholder group of not more than 13 individuals for the purpose of soliciting recommendations on the content of such plan in order to maximize the rapid academic achievement of students. The commissioner shall provide due consideration to the recommendations of the stakeholder group. The group shall include: (1) the superintendent, or a designee; (2) the chair of the school committee, or a designee; (3) the president of the local teacher's union, or a designee; (4) an administrator from the school, who may be the principal, chosen by the superintendent; (5) a teacher from the school chosen by the faculty of the school; (6) a parent from the school chosen by the local parent organization; (7) representatives of applicable state and local social service, health and child welfare agencies, chosen by the commissioner; (8) as appropriate, representatives of state and local workforce development agencies, chosen by the commissioner; (9) for elementary schools, a representative of an early education and care provider chosen by the commissioner of the department of early education and care and, for middle schools or high schools, a representative of the higher education community selected by the secretary of education; and (10) a member of the community appointed by the chief executive of the city or town. If the school or district does not have a parent organization or if the organization does not select a parent, the commissioner shall select a volunteer parent of a student

from the school. The commissioner shall convene the group within 30 days of the designation of a school as chronically underperforming and the group shall make its recommendations to the commissioner within 45 days of its initial meeting. Meetings of the local stakeholder group shall be open to the public and the recommendations submitted to the commissioner under this subsection shall be publicly available immediately upon their submission.

(n) In creating the turnaround plan required in subsection (m), the commissioner shall include, after considering the recommendations of the local stakeholder group, provisions intended to maximize the rapid academic achievement of students at the school and shall, to the extent practicable, base the plan on student outcome data, including, but not limited to: (1) data collected under section 11 or information from a school or district review performed under section 55A of chapter 15; (2) student achievement on the Massachusetts Comprehensive Assessment System; (3) other measures of student achievement, approved by the commissioner, as appropriate; (4) student promotion and graduation rates; (5) achievement data for different subgroups of students, including low-income students as defined by chapter 70, limited English-proficient students and students receiving special education; and (6) student attendance, dismissal rates and exclusion rates.

The commissioner shall include in the creation of the turnaround plan, after considering the recommendations of the local stakeholder group, the following: (1) steps to address social service and health needs of students at the school, and their families, in order to help students arrive and remain at school ready to learn; provided, however, that this may include mental health and substance abuse screening; (2) steps to improve or expand child welfare services and, as appropriate, law enforcement services in the school community, in order to promote a safe and secure learning environment; (3) steps to improve workforce development services provided to students at the school, and their families, in order to provide students and families with meaningful employment skills and opportunities; (4) steps to address achievement gaps for limited English-proficient, special education and low-income students; (5) alternative English language learning programs for limited-English proficient students, notwithstanding chapter 71A; and (6) a financial plan for the school, including any additional funds to be provided by the district, commonwealth, federal government or other sources.

The secretaries of health and human services, labor and workforce development, public safety and other applicable state and local social service, health and child welfare officials shall coordinate with the secretary of education and the commissioner regarding the implementation of strategies under clauses (1) to (3), inclusive, of the second paragraph that are included in a final turnaround plan and shall, subject to appropriation, reasonably support the implementation consistent with the requirements of state and federal law applicable to the relevant programs that each official is responsible for administering.

In order to assess the school across multiple measures of school performance and student success, the turnaround plan shall include measurable annual goals including, but not limited to, the following: (1) student attendance, dismissal rates and exclusion rates; (2) student safety and discipline; (3) student promotion and graduation and dropout rates; (4) student achievement on the Massachusetts Comprehensive Assessment System; (5) progress in areas of academic underperformance; (6) progress among subgroups of students, including low-income students as defined by chapter 70, limited English-proficient students and students receiving special education; (7) reduction of

achievement gaps among different groups of students; (8) student acquisition and mastery of 21st-century skills; (9) development of college readiness, including at the elementary and middle school levels; (10) parent and family engagement; (11) building a culture of academic success among students; (12) building a culture of student support and success among school faculty and staff; and (13) developmentally appropriate child assessments from pre-kindergarten through third grade, if applicable.

(o) Notwithstanding any general or special law to the contrary, in creating the turnaround plan required in subsection (m), the commissioner may, after considering the recommendations of the group of stakeholders: (1) expand, alter or replace the curriculum and program offerings of the school, including the implementation of research-based early literacy programs, early interventions for struggling readers and the teaching of advanced placement courses or other rigorous nationally or internationally recognized courses, if the school does not already have such programs or courses; (2) reallocate the uses of the existing budget of the school; (3) provide additional funds to the school from the budget of the district, if the school does not already receive funding from the district at least equal to the average per pupil funding received for students of the same classification and grade level in the district; (4) provide funds, subject to appropriation, to increase the salary of an administrator, or teacher in the school, in order to attract or retain highly-qualified administrators or teachers or to reward administrators, or teachers who work in chronically underperforming schools that achieve the annual goals set forth in the turnaround plan; (5) expand the school day or school year or both of the school; (6) for an elementary school, add pre-kindergarten and full-day kindergarten classes, if the school does not already have such classes; (7) limit, suspend, or change 1 or more provisions of any contract or collective bargaining agreement, as the contract or agreement applies to the school; provided, however, that the commissioner shall not reduce the compensation of an administrator, teacher or staff member unless the hours of the person are proportionately reduced; and provided further, that the commissioner may require the school committee and any applicable unions to bargain in good faith for 30 days before exercising authority pursuant to this clause; (8) following consultation with applicable local unions, require the principal and all administrators, teachers and staff to reapply for their positions in the school, with full discretion vested in the superintendent regarding his consideration of and decisions on rehiring based on the reapplications; (9) limit, suspend or change 1 or more school district policies or practices, as such policies or practices relate to the school; (10) include a provision of job-embedded professional development for teachers at the school, with an emphasis on strategies that involve teacher input and feedback; (11) provide for increased opportunities for teacher planning time and collaboration focused on improving student instruction; (12) establish a plan for professional development for administrators at the school, with an emphasis on strategies that develop leadership skills and use the principles of distributive leadership; (13) establish steps to assure a continuum of high expertise teachers by aligning the following processes with the common core of professional knowledge and skill: hiring, induction, teacher evaluation, professional development, teacher advancement, school culture and organizational structure; (14) develop a strategy to search for and study best practices in areas of demonstrated deficiency in the school; (15) establish strategies to address mobility and transiency among the student population of the school; and (16) include additional components, at the discretion of the commissioner, based on

the reasons the school was designated as chronically underperforming and the recommendations of the local stakeholder group in subsection (m).

If the commissioner does not approve a reapplication submitted by an employee pursuant to clause (7) for a position in the school or if an employee does not submit a reapplication for a position in the school, the employee shall retain such rights as may be provided under law or any applicable collective bargaining agreement, in relation to the employee's ability to fill another position in the district; provided, however, that the employee shall not have the right to displace any teacher with professional teacher status in any other school during a school year.

A teacher with professional teacher status in a school declared underperforming or chronically underperforming may be dismissed for good cause; provided, however, that the teacher receives 5 days written notice of the decision to terminate which shall include without limitation an explanation of the reason why the commissioner or superintendent is not retaining the teacher in the school; provided, further, that the teacher may seek review of a termination decision within 5 days after receiving notice of the teacher's termination by filing a petition for expedited arbitration with the commissioner; provided further, that except as otherwise provided herein section 42 of chapter 71 shall apply to a petition filed pursuant to this section; provided further, that the commissioner shall cause an arbitrator to be selected pursuant to the procedures in section 42 of chapter 71 within 3 days of receipt of petition and shall conduct and complete a hearing within 10 days of receipt of the petition; provided, further, that in reviewing dismissal decisions, the arbitrator shall consider the components of the turnaround plan and shall also consider any personnel evaluations conducted that are consistent with the guidelines established pursuant to section 1B; and provided, further, that the arbitrator's decision shall be issued within 10 days from the completion of the hearing.

For a school with limited English-proficient students, the professional development and planning time for teachers and administrators identified in clauses (10) to (12), inclusive, shall include specific strategies and content designed to maximize the rapid academic achievement of the limited English-proficient students.

If the commissioner proposes to reallocate funds to the school from the budget of the district under clause (3), the commissioner shall notify the school committee, in writing, of the amount of and rationale for the reallocation.

(p) Within 30 days of the local stakeholder group making recommendations under subsection (m), the commissioner shall submit a turnaround plan to the local stakeholder group, the superintendent and the school committee, all of whom may propose modifications to the plan. The commissioner shall make the plan immediately available to the public upon submission. The stakeholder group, the superintendent and the school committee shall submit any proposed modifications to the commissioner within 30 days after the date of submission of the turnaround plan and the proposed modifications shall be made public immediately upon their submission to the commissioner. The commissioner shall consider and incorporate the modifications into the plan if the commissioner determines that inclusion of the modifications would further promote the rapid academic achievement of students at the applicable school. The commissioner may alter or reject modifications submitted pursuant to this subsection. Within 30 days of receiving any proposed modifications, the commissioner

shall issue a final turnaround plan for the school and the plan shall be made publicly available.

(q) Within 30 days of the issuance of a final turnaround plan under subsection (p), a superintendent, school committee or local union may appeal to the board of elementary and secondary education regarding 1 or more components of the plan, including the absence of 1 or more modifications proposed under subsection (p). A majority of the board, may vote to modify the plan if the board determines that: (1) such modifications would further promote the rapid academic achievement of students in the applicable school; (2) a component of the plan was included, or a modification was excluded, on the basis of demonstrably-false information or evidence; or (3) the commissioner failed to meet the requirements of subsections (m) to (p), inclusive. The decision of the board regarding an appeal under this subsection shall be made within 30 days and shall be final.

(r) In the case of a chronically underperforming school, the commissioner may, under the circumstances described in this subsection, send a targeted assistance team to the school to assist the superintendent with the implementation of the turnaround plan, require the superintendent to implement the turnaround plan, or select an external receiver to operate the school and implement the turnaround plan. The commissioner may appoint such receiver if the commissioner determines that: (1) the superintendent is unlikely to implement the plan successfully; or (2) conditions exist in the district that are likely to negatively affect the ability of the superintendent to implement such plan successfully. A receiver shall be a non-profit entity or an individual with a demonstrated record of success in improving low performing schools or the academic performance of disadvantaged students. A receiver shall be subject to section 11A½ of chapter 30A and chapter 66. A receiver who is an individual shall also be subject to chapter 268A.

The commissioner may select the external receiver upon the designation of a school as chronically underperforming. The external receiver may serve as the commissioner's designee for the purpose of creating a school's turnaround plan under subsections (m) to (p), inclusive.

(s) An external receiver selected by the commissioner to operate a chronically underperforming school shall have full managerial and operational control over the school as provided in the turnaround plan. For all other purposes, the school district in which the school is located shall remain the employer of record.

(t) Each turnaround plan shall be authorized for a period of not more than 3 years, subject to subsection (v). The superintendent or external receiver, as applicable, may develop additional components of the plan and shall develop annual goals for each component of the plan in a manner consistent with subsection (n), all of which must be approved by the commissioner. The superintendent or external receiver, as applicable, shall be responsible for meeting the goals of the turnaround plan.

(u) The commissioner or external receiver, as applicable, shall provide a written report to the school committee on a quarterly basis to provide specific information about the progress being made on the implementation of the school's turnaround plan. One of the quarterly reports shall be the annual evaluation under subsection (v).

(v) The commissioner shall evaluate each chronically underperforming school at least annually. The purpose of the evaluation shall be to determine whether the school has met the annual goals in its turnaround plan and assess the implementation of the plan at the school. The review shall be in

writing and shall be submitted to the superintendent and the school committee not later than July 1 for the preceding school year. The review shall be submitted in a format determined by the department of elementary and secondary education.

If the commissioner determines that the school has met the annual performance goals stated in the turnaround plan, the review shall be considered sufficient and the implementation of the turnaround plan shall continue. If the commissioner determines that the school has not met 1 or more goals in the plan, the commissioner may modify the plan in a manner consistent with subsection (n).

If the commissioner determines that the school has substantially failed to meet multiple goals in the plan, the commissioner may: (1) if the school is operated by a superintendent, appoint an external receiver, as defined in subsection (r), to operate the school; or (2) if the school is operated by an external receiver terminate the contract of the external receiver; provided, however, that the commissioner shall not terminate the receiver before the completion of the first full school year of the operation of the chronically underperforming school.

(w) Upon the expiration of a turnaround plan for a chronically underperforming school, the commissioner shall conduct a review of the school to determine whether the school has improved sufficiently, requires further improvement or has failed to improve. On the basis of such review, the commissioner may: (1) on the basis of a superintendent's or external receiver's success in meeting the terms of the plan, renew the plan with the superintendent or external receiver for an additional period of not more than 3 years; (2) if a school that is operated by a superintendent and remains chronically underperforming, appoint an external receiver, as defined in subsection (r), to operate the school; (3) if a chronically underperforming school that is operated by an external receiver and remains chronically underperforming, transfer the operation of the school from the receiver to the applicable superintendent or to another external receiver; or (4) determine that the school has improved sufficiently for the designation of chronically underperforming to be removed. The commissioner shall: (1) in the case of a renewal of an turnaround plan, jointly determine subsequent annual goals for each component of the plan with the superintendent or external receiver, as applicable; or (2) create a new or modified turnaround plan as necessary, consistent with the requirements of this section.

(x) Notwithstanding any general or special law to the contrary, any underperforming or chronically underperforming school operating a limited-English proficient program or programs for limited English proficient students in any 1 language group shall establish a limited English proficient parent advisory council. The parent advisory council shall be comprised of parents or legal guardians of students who are enrolled in limited English proficient programs within the school. Each parent advisory council shall have at least 1 representative from every language group in which a program is conducted in a given school. Membership shall be restricted to parents or legal guardians of students enrolled in limited English proficient programs within the school. The duties of the parent advisory council shall include, but not be limited to, advising the school on matters that pertain to the education of students in limited English proficient programs, meeting regularly with school officials to participate in the planning and development of a plan to improve educational opportunities for limited English proficient students, and to participate in the review of school improvement plans established under section 59C of chapter 71 as they pertain to limited English proficient students. Any parent advisory council may, at its request,

meet at least once annually with the school council. The parent advisory council shall establish by-laws regarding officers and operational procedures. In the course of its duties under this section, the parent advisory council shall receive assistance from the director of limited English proficient programs for the district or other appropriate school personnel as designated by the superintendent.

(y) The board of elementary and secondary education shall adopt regulations regarding: (1) the conditions under which an underperforming or chronically underperforming school shall no longer be designated as an underperforming or chronically underperforming school; and (2) the transfer of the operation of an underperforming or a chronically underperforming school from a superintendent or an external receiver, as applicable, to the school committee. The regulations shall include provisions to allow a school to retain measures adopted in an turnaround plan for a transitional period if, in the judgment of the commissioner, the measures would contribute to the continued improvement of the school. Such regulations shall also include provisions that clearly identify the conditions under which such a transitional period shall end and the powers granted to the commissioner and board under this section shall cease to apply to a district previously designated as chronically underperforming.

(z) The commissioner shall report annually to the joint committee on education, the house and senate committees on ways and means, the speaker of the house of representatives and the senate president on the implementation and fiscal impact of this section and section 1K. The report shall include, but not be limited to, a list of all schools currently designated as underperforming or chronically underperforming, a list of all districts currently designated as chronically underperforming, the plans and timetable for returning the schools and districts to the local school committee and strategies used in each of the schools and districts to maximize the rapid academic achievement of students.

Section 1K. (a) A district shall be deemed eligible for designation as chronically underperforming upon a determination by the board of elementary and secondary education, pursuant to regulations adopted by the board, that a school district, other than a single school district, has scored in the lowest 10 per cent statewide when compared to other districts of the same grade levels based on a single measure developed by the department that takes into account student achievement data collected pursuant to 1I, and, beginning on July 1, 2011, improvement over time in student academic achievement.

Following such determination, the commissioner shall appoint a district review team pursuant to section 55A of chapter 15 to assess and report on the reasons for the underperformance and the prospects for improvement, unless such an assessment has been completed by a district review team within the previous year that the commissioner considers adequate. The district review team shall include at least 1 person with expertise in the academic achievement of limited English-proficient students. Upon review of the findings of the district review team, the board may declare the district chronically underperforming.

Following such a declaration, the board shall designate a receiver for the district with all the powers of the superintendent and school committee. The receiver shall be a non-profit entity or an individual with a demonstrated record of success in improving low-performing schools or districts or the academic performance of disadvantaged students who shall report directly to the commissioner. An external receiver designated by the board to operate a district under this subsection shall have full managerial

and operational control over such district; provided, however, that the school district shall remain the employer of record for all other purposes. A receiver shall be subject to section 11A ½ of chapter 30A and chapter 66. A receiver who is an individual shall also be subject to chapter 268A.

Not more than 2.5 per cent of the total number of school districts may be designated as chronically underperforming at any given time.

In adopting regulations allowing the board to designate a district as chronically underperforming, the board must ensure that the regulations account for multiple indicators of district quality including student attendance, dismissal rates, exclusion rates, student promotion and graduation rates in the district, or the lack of demonstrated significant improvement for 2 or more consecutive years in core academic subjects, either in the aggregate or among subgroups of students, including designations based on special education classification, low-income, English language proficiency and racial classifications.

(b) The commissioner and the receiver shall jointly create an turnaround plan to promote the rapid improvement of the chronically underperforming district. The plan shall specifically focus on the school or schools in the district that have been designated as chronically underperforming under section 1J and the district policies or practices that have contributed to chronic underperformance.

Before creating the turnaround plan required in this subsection, the commissioner and receiver shall convene a local stakeholder group of not more than 13 individuals for the purpose of soliciting recommendations on the content of such plan in order to maximize the rapid improvement of the academic achievement of students. The commissioner shall provide due consideration to the recommendations of the local stakeholder group. The group shall include: (1) the superintendent, or a designee; (2) the chair of the school committee, or a designee; (3) the president of the local teacher's union, or a designee; (4) a selection of administrators from the district, chosen by the commissioner from among volunteers from the district; (5) a selection of teachers from the district, chosen by the local teacher's union; (6) a selection of parents from the district chosen by the local parent organization; (7) representatives of applicable state and local social service, health, and child welfare agencies chosen by the commissioner; (8) as appropriate, representatives of state and local workforce development agencies chosen by the commissioner; (9) a representative of an early education and care provider chosen by the commissioner of the department of early education and care, or for middle or high schools, a representative of the higher education community selected by the secretary of education; and (10) a member of the community appointed by the chief executive of the city or town. If the district does not have a parent organization or if the organization does not select a parent, the commissioner shall select a volunteer parent of a student from the district. The commissioner and receiver shall convene the group within 30 days of the board designating a district as chronically underperforming and the group shall make its recommendations to the commissioner and receiver within 45 days of its initial meetings. Meetings of the local stakeholder group shall be open to the public and the recommendations submitted to the commissioner and receiver shall be publicly available immediately upon their submission.

(c) In creating the turnaround plan, the commissioner and receiver shall include measures intended to maximize the rapid improvement of the academic achievement of students in the district and shall, to the extent practicable, base the plan on student outcome data, including, but not limited to: (1) data

collected pursuant to section 11, or information from a school or district review performed under section 55A of chapter 15; (2) student achievement on the Massachusetts Comprehensive Assessment System; (3) other measures of student achievement, approved by the commissioner;; (4) student promotion and graduation rates; (5) achievement data for different subgroups of students, including low-income students as defined in chapter 70, limited English-proficient students and students receiving special education; and (6) student attendance, dismissal rates and exclusion rates. In creating the turnaround plan required in subsection (b), the commissioner and receiver shall include, after considering the recommendations of the local stakeholder group, the following: (1) steps to address social service and health needs of students in the district and their families in order to help students arrive and remain at school ready to learn; provided, however, that this may include mental health and substance abuse screening; (2) steps to improve or expand child welfare services and, as appropriate, law enforcement services in the school district community, in order to promote a safe and secure learning environment; (3) as applicable, steps to improve workforce development services provided to students in the district and their families in order to provide students and families with meaningful employment skills and opportunities; (4) steps to address achievement gaps for limited English-proficient, special education and low-income students, as applicable; (5) alternative English language learning programs for limited-English proficient students, notwithstanding chapter 71A; and (6) a budget for the district including any additional funds to be provided by the commonwealth, federal government or other sources.

The secretaries of health and human services, public safety, labor and workforce development and other applicable state and local social service, health and child welfare officials shall coordinate with the secretary of education and the commissioner regarding the implementation of strategies pursuant to clauses (1) to (3), inclusive, of this subsection that are included in an turnaround plan and shall, subject to appropriation, reasonably support the implementation consistent with the requirements of state and federal law applicable to the relevant programs that each such official is responsible for administering.

In order to assess the district across multiple measures of district performance and student success, the turnaround plan shall include measurable annual goals including, but not limited to, the following: (1) student attendance , dismissal rates and exclusion rates; (2) student safety and discipline; (3) student promotion and graduation and dropout rates; (4) student achievement on the Massachusetts Comprehensive Assessment System; (5) progress in areas of academic underperformance; (6) progress among subgroups of students, including low-income students as defined by chapter 70, limited English-proficient students and students receiving special education; (7) reduction of achievement gaps among different groups of students; (8) student acquisition and mastery of 21st-century skills; (9) development of college readiness, including at the elementary and middle school levels; (10) parent and family engagement; (11) building a culture of academic success among students; (12) building a culture of student support and success among faculty and staff; and (13) developmentally appropriate child assessments from pre-kindergarten through third grade, if applicable.

(d) Notwithstanding any general or special law to the contrary, in creating the turnaround plan under subsection (b), the commissioner and the receiver may, after considering the recommendations of the

group of stakeholders: (1) expand, alter or replace the curriculum and program offerings of the district or of a school in the district, including the implementation of research-based early literacy programs, early interventions for struggling readers and the teaching of advanced placement courses or other rigorous nationally or internationally recognized courses, if the district or schools in the district do not already have such programs or courses; (2) reallocate the uses of the existing budget of the district; (3) provide funds, subject to appropriation, to increase the salary of an administrator, or teacher in the district working in an underperforming or chronically underperforming school, in order to attract or retain highly-qualified administrators, or teachers or to reward administrators or teachers who work in chronically underperforming districts that achieve the annual goals set forth in the turnaround plan; (4) expand the school day or school year or both of schools in the district; (5) limit, suspend or change 1 or more provisions of any contract or collective bargaining agreement in the district, including the adoption of model provisions identified by the commissioner from among existing contracts or collective bargaining agreements in the commonwealth; provided, however, that the commissioner shall not reduce the compensation of an administrator, teacher or staff member unless the hours of the person are proportionately reduced; (6) add pre-kindergarten and full-day kindergarten classes, if the district does not already have the classes; (7) following consultation with applicable local unions, require the principal and all administrators, teachers and staff to reapply for their positions in the district, with full discretion vested in the receiver regarding any such reapplications. turnaround plan; (8) limit, suspend or change 1 or more school district policies or practices, as such policies or practices relate to the underperforming schools in the district; (9) include a provision of job-embedded professional development for teachers in the district, with an emphasis on strategies that involve teacher input and feedback; (10) provide for increased opportunities for teacher planning time and collaboration focused on improving student instruction; (11) establish a plan for professional development for administrators in the district, with an emphasis on strategies that develop leadership skills and use the principles of distributive leadership; (12) establish steps to assure a continuum of high expertise teachers by aligning the following processes with the common core of professional knowledge and skill: hiring, induction, teacher evaluation, professional development, teacher advancement, school culture and organizational structure; (13) develop a strategy to search for and study best practices in areas of demonstrated deficiency in the district; (14) establish strategies to address mobility and transiency among the student population of the district; and (15) include additional components, at the discretion of the commissioner and the receiver, based on the reasons the district was designated as chronically underperforming and based on the recommendations of the local stakeholder group in subsection (b).

If the commissioner does not approve a reapplication submitted by an employee pursuant to clause (7) for a position in a school or if an employee does not submit a reapplication for a position in a school, the employee shall retain such rights as may be provided under law or any applicable collective bargaining agreement in relation to the employee's ability to fill another position in the district; provided, however, that the employee shall not have the right to displace any teacher with professional teacher status in any other school during a school year.

A teacher with professional teacher status in a school declared underperforming or chronically

underperforming may be dismissed for good cause; provided, however, that the teacher receives 5 days written notice of the decision to terminate which shall include without limitation an explanation of the reason why the commissioner/superintendent is not retaining the teacher in the school; provided, further, that the teacher may seek review of a termination decision within 5 days after receiving notice of the teacher's termination by filing a petition for expedited arbitration with the commissioner; provided, further, that except as otherwise provided herein section 42 of chapter 71 shall apply to a petition filed pursuant to this section; provided further, that the commissioner shall cause an arbitrator to be selected pursuant to the procedures in section 42 of chapter 71 within 3 days of receipt of petition and shall conduct and complete a hearing within 10 days of receipt of the petition; provided further, that in reviewing dismissal decisions, the arbitrator shall consider the components of the turnaround plan and shall also consider any personnel evaluations conducted that are consistent with the guidelines established pursuant to section 1B; and provided, further, that the arbitrator's decision shall be issued within 10 days from the completion of the hearing.

For a district with limited English-proficient students, the professional development and planning time for teachers and administrators identified in clauses (9) to (11), inclusive, shall include specific strategies and content designed to maximize the rapid academic achievement of limited English-proficient students in the district.

(e) if, after considering the recommendations of the group of stakeholders, pursuant to subsection (d) the commissioner considers it necessary to maximize the rapid academic achievement of students at an underperforming or chronically underperforming school by altering the compensation, hours and working conditions of the administrators, teachers, principals and staff at the school or by altering other provisions of a contract or collective bargaining agreement applicable to the administrators, teachers, principals and staff, the commissioner may request that the school committee and any union bargain or reopen the bargaining of the relevant collective bargaining agreements to facilitate such achievement. The bargaining shall be conducted in good faith and completed not later than 30 days from the point at which the commissioner requested that the parties bargain. The agreement shall be subject to ratification within 10 business days by the bargaining unit members in the school. If the parties are unable to reach an agreement within 30 days or if the agreement is not ratified within 10 business days by the bargaining unit members of the school, the parties shall submit remaining unresolved issues to a joint resolution committee for dispute resolution process on the next business day following the end of the 30 day bargaining period or failure to ratify.

The joint resolution committee shall be comprised of 3 members, 1 of whom shall be appointed by the employee organization within 3 business days following the submission of unresolved issues to the joint resolution committee, 1 of whom shall be appointed by the school committee within 3 business days following the submission of unresolved issues to the joint resolution committee and 1 who shall be selected through the American Arbitration Association who shall forthwith forward to the parties a list of three conciliators, each of whom shall have professional experience in elementary and secondary education, from which the parties may agree upon a single conciliator; provided, however, that if the parties cannot select a conciliator from among the 3 within 3 business days, the American Arbitration Association shall select a conciliator from the remaining names. The joint resolution committee shall conduct a dispute resolution process to be concluded within 10 business days of

selection. This process shall be conducted in accordance with the rules of the American Arbitration Association and consistent with this section; provided however, that all members of the joint resolution committee must agree to any resolution. The fee for the process shall be shared equally between the 2 parties involved.

The joint resolution committee shall consider the positions of the parties, the designation of the school as underperforming or chronically underperforming, the designation of the district as chronically underperforming, and the needs of the students in the school. Notwithstanding any other provision of this chapter, the unanimous decision of the joint resolution committee shall be dispositive of all the issues in dispute and shall be submitted to the parties within 10 business days of the close of the hearing. Under no circumstance, shall a time extension be granted beyond 10 business days of the close of the hearing. In the event that a unanimous decision is not submitted to the parties within 10 business days, the commissioner will resolve all outstanding issues.

(f) The turnaround plan shall be authorized for a period of not more than 3 years, subject to subsection

(g). The commissioner and receiver may jointly develop additional components of the plan and shall jointly develop annual goals for each component of the plan in a manner consistent with the provisions of subsection (d). The receiver shall be responsible for meeting the goals of the turnaround plan.

(g) The commissioner and receiver shall provide a written report to the school committee on a quarterly basis to provide specific information about the progress being made on the implementation of the district's turnaround plan. One of the quarterly reports shall be the annual evaluation required in subsection (g).

(h) The commissioner shall evaluate the performance of the receiver on not less than an annual basis. The purpose of such evaluation shall be to assess the implementation of the turnaround plan and determine whether the district has met the annual goals contained in the turnaround plan. The evaluation shall be in writing and submitted to the board and the local school committee no later than July 1 for the preceding school year.

If the commissioner determines that the district has met the annual performance goals stated in the turnaround plan, the evaluation shall be considered sufficient and the implementation of the turnaround plan shall continue.

If the commissioner determines that the receiver has not met 1 or more goals in the plan and the failure to meet the goals may be corrected through reasonable modification of the plan, the commissioner may amend the turnaround plan, as necessary. After assessing the implementation of the turnaround plan in the district, the commissioner may amend the plan if the commissioner determines that the amendment is necessary in view of subsequent changes in the district that affect 1 or more components of the plan, including, but not limited to, changes to contracts, collective bargaining agreements, or school district policies, in manner consistent with the provisions of subsection (d). If the commissioner determines that the receiver has substantially failed to meet multiple goals in the turnaround plan, the commissioner may terminate such receiver; provided, however, that the termination shall not occur before the completion of the first full school year of the receivership of the district.

(i) After the period of receivership, there shall be a reevaluation of a district's status under this section. The board of elementary and secondary education shall adopt regulations providing for: (1) the

removal of a designation of a district as chronically underperforming; and (2) the transfer of the operation of a chronically underperforming district from an external receiver to the superintendent and school committee, based on the improvement of the district. The regulations shall include provisions to allow a district to retain measures adopted in a turnaround plan for a transitional period if, in the judgment of the commissioner, the measures would contribute to the continued improvement of the district. Such regulations shall also include provisions that clearly identify the conditions under which such a transitional period shall end and the powers granted to the commissioner and board under this section shall cease to apply to a district previously designated as chronically underperforming. At any time after a chronically underperforming district has been placed in receivership, the school committee of the district may petition the commissioner for a determination as to whether the turnaround plan adopted under subsection (b) should be modified or eliminated and whether the school district shall no longer be designated as chronically underperforming. The decision of the commissioner shall be based on regulations adopted by the board. A school committee may seek review by the board of elementary and secondary education of an adverse determination.

(j) If, on the basis of the regulations adopted by the board pursuant to subsection (h), a district has not improved sufficiently to remove the designation of the district as chronically underperforming, the commissioner may: (1) jointly determine subsequent annual goals for each component of the turnaround plan with the receiver and renew the turnaround plan for an additional period of not more than 3 years; or (2) create a new turnaround plan, consistent with the requirements of this section.

(k) If a municipality has failed to fulfill its fiscal responsibilities pursuant to chapter 70, the commissioner may declare the school district as chronically underperforming, subject to the approval of the board. The municipality's mayor or chairman of the board of selectmen shall have the opportunity to present evidence to the board. A vote by the board that a school district is chronically underperforming for fiscal reasons shall authorize the commissioner to petition the commissioner of revenue to require an increase in funds for the school district, alleging that the amount necessary in the municipality for the support of public schools has not been included in the annual budget appropriations. The commissioner of revenue shall determine the amount of any deficiency pursuant to the sums required pursuant to chapter 70, if any, and issue an order compelling the municipality to provide a sum of money equal to such deficiency. If the municipality does not provide a sum of money equal to such deficiency, the commissioner of revenue, pursuant to section 23 of chapter 59, shall not approve the tax rate of the municipality for the fiscal year until the deficiency is alleviated. Nothing in this subsection shall be construed as creating a cause of action for educational malpractice by students or their parents, guardians or persons acting as parents.

If the district is designated as chronically underperforming pursuant to this subsection, the provisions of this subsection shall supersede those in subsections (a) to (j), inclusive.

**SECTION 4.** Subsection (b) of section 15 of chapter 70B of the General Laws, as so appearing, is hereby amended by adding the following paragraph:-

Before the sale or lease of an assisted structure or facility or a portion of that structure or facility, the school district in control of the structure or facility shall submit to the authority a district-wide school

facility use plan that shall include, but not be limited to, a listing of all school facilities under the control of the school district, a detailed description of both the current use and proposed use of each school facility, the most recent enrollment data, by school facility, then available to the school district, a detailed floor plan of each school facility that shows and labels each space in the facility and whether it is used as a classroom or has some other use and any other information that may be required by the authority to understand the district's school facility use plan. If the plan includes the closure, sale or lease of a school facility or any part of a school facility, the authority may conduct, with the full cooperation of the district, an analysis of district-wide enrollment capacity and future enrollment trends for the district. If the capacity analysis and enrollment projection indicate an extended period of significant excess capacity within the district's educational facilities, the district may, prior to consideration of any other disposition of the identified excess capacity, make a good faith offer to sell or lease at fair market value the identified excess capacity to a commonwealth charter school established pursuant to section 89 of chapter 71 or an applicant for a commonwealth charter school pursuant to said section 89 of said chapter 71 that serves or is seeking to serve students who live in the school district. The authority shall not recapture commonwealth and authority assistance for any such excess capacity that is sold or leased to a commonwealth charter school or applicant for a commonwealth charter school.

**SECTION 5.** Section 2 of chapter 71 of the General Laws, as so appearing, is hereby amended by inserting after the word "government", in line 4, the following words:- and a program relating to the flag of the United States of America, including, but not limited to, proper etiquette, the correct use and display of the flag ,the importance of participation in the electoral process and the provisions of 36 U.S.C. 170 to 177, inclusive.

**SECTION 6.** Section 61 of said chapter 71, as so appearing, is hereby amended by adding the following paragraph:-

A town may terminate its participation in a union by a majority vote of the school committee of the town; provided, however, that said termination shall only be for the purpose of forming an innovation school pursuant to section 92 or establishing different school governance structures. Termination shall be independent of any pending votes regarding dissolution of the union or pending votes by another town regarding its participation.

**SECTION 7.** Said chapter 71 is hereby further amended by striking out section 89, as so appearing, and inserting in place thereof the following section:-

Section 89. (a) As used in this section the following words shall, unless the context clearly requires otherwise, have the following meanings:-

"Board", the board of elementary and secondary education.

"Charter school", commonwealth charter schools and Horace Mann charter schools unless specifically stated otherwise.

"Commissioner", the commissioner of elementary and secondary education.

“Department”, the department of elementary and secondary education.

“District”, or “school district”, the school department of a city, town, regional school district, or county agricultural school.

“Superintendent”, the superintendent of the district.

(b) The purposes of establishing charter schools are: (i) to stimulate the development of innovative programs within public education; (ii) to provide opportunities for innovative learning and assessments; (iii) to provide parents and students with greater options in selecting schools within and outside their school districts; (iv) to provide teachers with a vehicle for establishing schools with alternative, innovative methods of educational instruction and school structure and management; (v) to encourage performance-based educational programs; (vi) to hold teachers and school administrators accountable for students' educational outcomes; and (vii) to provide models for replication in other public schools.

(c) A commonwealth charter school shall be a public school, operated under a charter granted by the board, which operates independently of a school committee and is managed by a board of trustees. The board of trustees of a commonwealth charter school, upon receiving a charter from the board, shall be deemed to be public agents authorized by the commonwealth to supervise and control the charter school.

A Horace Mann charter school shall be a public school or part of a public school operated under a charter approved by the school committee and the local collective bargaining unit in the district in which the school is located; provided that all charters shall be granted by the board of elementary and secondary education. A Horace Mann charter school shall have a memorandum of understanding with the school committee of the district in which the charter school is located which, at a minimum, defines the services and facilities to be provided by the district to the charter school and states the funding of the charter school by the district. A Horace Mann charter school established as a conversion of an existing public school shall not require approval of the local collective bargaining unit, but shall require a memorandum of understanding agreement regarding any waivers to applicable collective bargaining agreements; provided further, that the memorandum of understanding shall be approved by a majority of the school faculty; provided further, that Horace Mann charter schools that are conversion of existing public schools shall not be subject to clause (1) of subsection (i). A vote by the school faculty shall be held and finalized within 30 days of submission of the charter school application to the board of elementary and secondary education. A Horace Mann charter school shall be operated and managed by a board of trustees independent of the school committee which approved the school. The board of trustees may include a member of the school committee.

(d) Persons or entities eligible to submit an application to establish a charter school shall include, but not be limited to: (i) a non-profit business or corporate entity; (ii) 2 or more certified teachers; or (iii) 10 or more parents; provided, however, that for profit business or corporate entities shall be prohibited from applying for a charter. The application may be filed in conjunction with a college, university, museum or other similar non-profit entity. Private and parochial schools shall not be eligible for charter school status. The board may authorize a single board of trustees to manage more than 1 charter school; provided, however, that each school is issued its own charter. The commissioner shall provide technical assistance to public school districts to assist in the development of proposals for Horace Mann charter schools.

(e) The board shall establish the information needed in an application for the approval of a charter school; provided that the application shall include, but not be limited to, a description of: (i) the mission, purpose, innovation and specialized focus of the proposed charter school; (ii) the innovative methods to be used in the charter school and how they differ from the district or districts from which the charter school is expected to enroll students; (iii) the organization of the school by ages of students or grades to be taught, an estimate of the total enrollment of the school and the district or districts from which the school will enroll students; (iv) the method for admission to the charter school; (v) the educational program, instructional methodology and services to be offered to students, including research on how the proposed program may improve the academic performance of the subgroups listed in the recruitment and retention plan; (vi) the school's capacity to address the particular needs of limited English-proficient students, if applicable, to learn English and learn content matter, including the employment of staff that meets the criteria established by the department; (vii) how the school shall involve parents as partners in the education of their children; (viii) the school governance and bylaws; (ix) a proposed arrangement or contract with an organization that shall manage or operate the school, including any proposed or agreed upon payments to such organization; (x) the financial plan for the operation of the school; (xi) the provision of school facilities and pupil transportation; (xii) the number and qualifications of teachers and administrators to be employed; (xiii) procedures for evaluation and professional development for teachers and administrators; (xiv) a statement of equal educational opportunity which shall state that charter schools shall be open to all students, on a space available basis, and shall not discriminate on the basis of race, color, national origin, creed, sex, ethnicity, sexual orientation, mental or physical disability, age, ancestry, athletic performance, special need, proficiency in the English language or academic achievement; (xv) a student recruitment and retention plan, including deliberate, specific strategies the school will use to ensure the provision of equal educational opportunity as stated in clause (xiv) and to attract, enroll and retain a student population that, when compared to students in similar grades in schools from which the charter school is expected to enroll students, contains a comparable academic and demographic profile; and (xvi) plans for disseminating successes and innovations of the charter school to other non-charter public schools.

(f) The student recruitment and retention plan required under clause (xv) of subsection (e) shall include, but not be limited to, a detailed description of deliberate, specific strategies the school will use to maximize the number of students who successfully complete all school requirements and prevent students from dropping out. The student recruitment and retention plan shall be updated annually and shall include annual goals for: (i) recruitment activities; (ii) student retention activities; and (iii) student retention.

(g) To ensure that a commonwealth charter school shall fulfill its obligations under its recruitment and retention plan, the school district or districts from which the commonwealth charter school is expected to enroll students shall annually provide, at the request of a commonwealth charter school, to a third party mail house authorized by the department, the addresses for all students in the district eligible to enroll in the school, unless a student's parent or guardian requests that the district withhold that student's information; provided, however, that the department may require the charter school to send

the mailing in the most prevalent languages of the district or districts that the charter school is authorized to serve.

At the request of a school district from which a commonwealth charter school enrolls students, the charter school shall provide to a third party mail house the addresses for all students currently enrolled in the commonwealth charter school from the district; provided, however, that the information shall not be provided if a student's parent or guardian requests that the school withhold that student's information. Each district shall be permitted to supply a mailing to the third party mail house and pay for it to be copied and mailed to families of students from said district enrolled in the commonwealth charter school.

(h) An application submitted for the establishment of a commonwealth charter school shall: (i) be submitted to the board for approval under this section; and (ii) be filed with the local school committee for each school district from which the charter school is expected to enroll students. Before final approval to establish a commonwealth charter school, the board shall hold a public hearing on the application in the school district in which the proposed charter school is to be located and solicit and review comments on the application from the local school committee of each school district from which the charter school is expected to enroll students and any contiguous districts. At least 1 member of the board shall attend the public hearing. A comprehensive written summary of all materials prepared by the department or its administrative subdivisions, which evaluates or recommends approval or disapproval of a charter application must be delivered to the members of the board, the applicant, in support of, or in opposition to, the school submitted not later than 3 days before any board vote on the charter application.

All material in support of, or in opposition to, the school submitted to the department or the board shall be made available to the applicant and affected school districts before a vote by the board on a commonwealth charter school application.

(i) (1) Not more than 120 charter schools shall be allowed to operate in the commonwealth at any time, excluding those approved pursuant to paragraph (3); provided, however, that of the 120 charter schools, not more than 48 shall be Horace Mann charter schools; provided, however, notwithstanding subsection (c) the 14 new Horace Mann charter schools shall not be subject to the requirement of an agreement with the local collective bargaining unit prior to board approval; provided, further, that after the charter for these 14 new Horace Mann charter schools have been granted by the board, the schools shall develop a memorandum of understanding with the school committee and the local union regarding any waivers to applicable collective bargaining agreements; provided, further, that if an agreement is not reached on the memorandum of understanding at least 30 days before the scheduled opening of the school, the charter school shall operate under the terms of its charter until an agreement is reached; provided, further, that not less 4 of the new Horace Mann charter schools shall be located in a municipality with more than 500,000 residents; and not more than 72 shall be commonwealth charter schools. The board shall not approve a new commonwealth charter school in any community with a population of less than 30,000 as determined by the most recent United States Census estimate, unless it is a regional charter school.

Applications to establish a charter school shall be submitted to the board annually by November 15. The board shall review the applications and grant new charters in February of the following year.

(2) In any fiscal year, no public school district's total charter school tuition payment to commonwealth charter schools shall exceed 9 per cent of the district's net school spending; provided, however, that a public school district's total charter tuition payment to commonwealth charter schools shall not exceed 18 per cent of the district's net school spending if the school district qualifies under paragraph (3). The commonwealth shall incur charter school tuition payments for siblings attending commonwealth charter schools to the extent that their attendance would otherwise cause the school district's charter school tuition payments to exceed 9 per cent of the school district's net school spending or 18 per cent for those districts that qualify under said paragraph (3).

Not less than 2 of the new commonwealth charters approved by the board in any year shall be granted for charter schools located in districts where overall student performance on the statewide assessment system approved by the board under section 11 of chapter 69 is in the lowest 10 per cent statewide in the 2 years preceding the charter application.

In any fiscal year, the board shall approve only 1 regional charter school application of any commonwealth charter school located in a school district where overall student performance on the statewide assessment system is in the top 10 per cent in the year preceding charter application. The board may give priority to applicants that have demonstrated broad community support, an innovative educational plan, a demonstrated commitment to assisting the district in which it is located in bringing about educational change and a record of operating at least 1 school or similar program that demonstrates academic success and organizational viability and serves student populations similar to those the proposed school seeks to serve.

(3) In any fiscal year, if the board determines based on student performance data collected pursuant to section 11, said district is in the lowest 10 per cent of all statewide student performance scores released in the 2 consecutive school years before the date the charter school application is submitted, the school district's total charter school tuition payment to commonwealth charter schools may exceed 9 per cent of the district's net school spending but shall not exceed 18 per cent. For a district qualifying under this paragraph whose charter school tuition payments exceed 9 per cent of the school district's net school spending, the board shall only approve an application for the establishment of a commonwealth charter school if an applicant, or a provider with which an applicant proposes to contract, has a record of operating at least 1 school or similar program that demonstrates academic success and organizational viability and serves student populations similar to those the proposed school seeks to serve, from the following categories of students, those: (i) eligible for free lunch; (ii) eligible for reduced price lunch; (iii) that require special education; (iv) limited English-proficient of similar language proficiency level as measured by the Massachusetts English Proficiency Assessment examination; (v) sub-proficient, which shall mean students who have scored in the "needs improvement", "warning" or "failing" categories on the mathematics or English language arts exams of the Massachusetts Comprehensive Assessment System for 2 of the past 3 years or as defined by the department using a similar measurement; (vi) who are designated as at risk of dropping out of school based on predictors determined by the department; (vii) who have dropped out of school; or (viii) other at-risk students who should be targeted to eliminate achievement gaps among different groups of students. For a district approaching its net school spending cap, the board shall give preference to applications from providers building networks of schools in more than 1 municipality.

The recruitment and retention plan of charter schools approved under this paragraph shall, in addition to the requirements under subsections (e) and (f), include, but not limited to: (i) a detailed description of deliberate, specific strategies the charter school shall use to attract, enroll and retain a student population that, when compared to students in similar grades in schools from which the charter school shall enroll students, contains a comparable or greater percentage of special education students or students who are limited English-proficient of similar language proficiency as measured by the Massachusetts English Proficiency Assessment examination and 2 or more of the following categories: students eligible for free lunch; (ii) students eligible for reduced price lunch; students who are sub-proficient, those students who have scored in the "needs improvement", "warning" or "failing" categories on the mathematics or English language arts exams of the Massachusetts Comprehensive Assessment System for 2 of the past 3 years or as defined by the department using a similar measurement; (iii) students who are determined to be at risk of dropping out of school based on predictors determined by the department; (iv) students who have dropped out of school; or (v) other at-risk students who should be targeted in order to eliminate achievement gaps among different groups of students. A charter school approved under this section shall supply a mailing in the most prevalent languages of the district the charter is authorized to serve to a third party mail house and pay for it to be copied and mailed to eligible students. If a school is or shall be located in a district with 10 per cent or more of limited English-proficient students, the recruitment strategies shall include a variety of outreach efforts in the most prevalent languages of the district. The recruitment and retention plan shall be updated each year to account for changes in both district and charter school enrollment.

If a district is no longer in the lowest 10 per cent, the net school spending cap shall be 9 per cent, unless the district net school spending was above 9 per cent in the year prior to moving out of the lowest 10 per cent in which case the net school spending cap shall remain at the higher level plus enrollment previous approved by the board. The department shall determine and make available to the public a list of the school districts in said lowest 10 per cent.

(j) The board shall make the final determination on granting charter school status and may condition charters on the applicant's taking certain actions or maintaining certain conditions. The board shall establish criteria for the approval of a charter application and recommendations to the board shall be based upon and reference those criteria.

If a final application is deemed inadequate by the department, the department may provide feedback to the applicant and invite it to submit a stronger application subsequently. Once a final application has been filed, only minor, non-substantive amendments shall be allowed. The department shall maintain a written detailed summary of interviews it conducts with final charter applicants and include that summary with the final application materials that are provided to the board, local school officials and the public.

(k) A charter school established under a charter granted by the board shall be a body politic and corporate with all powers necessary or desirable for carrying out its charter program, including, but not limited to, the power to:

(1) adopt a name and corporate seal; provided that any name selected must include the words

“charter school”;

(2) sue and be sued, but only to the same extent and upon the same conditions that a municipality can be sued;

(3) acquire real property, from public or private sources, by lease, lease with an option to purchase or by gift, for use as a school facility; provided, however, in the case of a Horace Mann charter school, the approval of the local school committee shall be obtained before acquisition of any such real property owned or controlled by the body;

(4) receive and disburse funds for school purposes;

(5) make contracts and leases for the procurement of services, equipment and supplies; provided, however, that if the charter school intends to procure substantially all educational services under contract with another person, the terms of such a contract must be approved by the board either as part of the original charter or by way of an amendment thereto; provided, further that the board shall not approve any such contract terms, the purpose or effect of which is to avoid the prohibition of this section against charter school status for private and parochial schools;

(6) incur temporary debt in anticipation of receipt of funds; provided that a Horace Mann school shall obtain the approval of the local school committee and appropriate local appropriating authorities and officials relative to any proposed lien or encumbrance upon public school property or relative to any financial obligation for which the local school district shall become legally obligated; and provided further, that notwithstanding any general or special law to the contrary, the terms of repayment of any charter school's debt shall not exceed the duration of the school's charter without the approval of the board;

(7) solicit and accept grants or gifts for school purposes; and

(8) have such other powers available to a business corporation formed under chapter 156B that are not inconsistent with this chapter.

(l) Charter schools shall not charge a public school for the use or replication of a part of their curriculum subject to the prescriptions of a contract between the charter schools and any third party providers.

(m) Charter schools shall be open to all students, on a space available basis, and shall not discriminate on the basis of race, color, national origin, creed, sex, ethnicity, sexual orientation, mental or physical disability, age, ancestry, athletic performance, special need, or proficiency in the English language or a foreign language or academic achievement. Charter schools may limit enrollment to specific grade levels and may structure curriculum around particular areas of focus such as mathematics, science or the arts. There shall be no application fee for admission to a charter school. There shall be no tuition charge for students attending charter schools.

(n) Preference for enrollment in a commonwealth charter school shall be given to students who reside in the city or town in which the charter school is located. Priority for enrollment in a Horace Mann charter school shall be given first to students actually enrolled in the school on the date that the application is filed with the board and to their siblings; second to other students actually enrolled in the public schools of the district where the Horace Mann charter school is to be located; and third to other resident students.

If the total number of students who are eligible to attend and apply to a charter school and who reside

in the city or town in which the charter school is located or are siblings of students already attending said charter school, is greater than the number of spaces available, an admissions lottery, including all eligible students applying, shall be held to fill all of the spaces in that school from among the students. If there are more spaces available than eligible applicants from the city or town in which the charter school is located and who are siblings of current students and more eligible applicants than spaces left available, a lottery shall be held to determine which of the applicants shall be admitted; provided, however, that a lottery conducted for Horace Mann charter schools shall reflect the enrollment priorities of this section. Notwithstanding this subsection, upon application by the board of trustees of a charter school or by the persons or entities seeking to establish a charter school, the board may amend or grant a charter designating such school a regional charter school; provided, however, that such regional charter school shall be exempt from the local preference provision of this paragraph; provided further, that such regional charter school shall continue to grant a preference of siblings of currently enrolled students; and provided further, that if the number of applicants remaining is greater than the number of spaces available, such regional charter school shall conduct a single lottery to determine which applicants shall be admitted.

In any instance where a charter school approved after January 1, 2011 enrolls more than 20 per cent of its total enrollment from school districts not included in its original charter pursuant to subsection (h) for 2 consecutive years, the charter school shall submit an application to the board for an amendment to its charter that reflects its actual enrollment patterns; provided further that upon renewal of a charter school approved prior to January 1, 2011, the board shall establish a timeline of not less than 5 years for the charter to comply with this requirement.

Nothing in this section shall be construed to require a charter school to unenroll any student currently in attendance at the time this act takes effect.

When a student stops attending a charter school for any reason, the charter school shall fill the vacancy with the next available student on the waitlist for the grade in which the vacancy occurs and shall continue through the waitlist until a student fills the vacant seat. If there is no waitlist, a charter school shall publicize an open seat to the students of the sending district or districts and make attempts to fill said vacant seat. Charter schools shall attempt to fill vacant seats up to February 15, provided, however, that charter schools may but are not required to fill vacant after February 15. If a vacancy occurs after February 15, such vacancy shall remain with the grade cohort and shall be filled in the following September if it has not previously been filled. A vacancy occurring after February 15 shall not be filled by adding a student to a lower grade level. Charter schools shall attempt to fill vacant seats up to February 15, excluding seats in the last half of the grades offered by the charter school, and grades 10, 11 and 12. Within 30 days of a vacancy being filled, the charter school shall send the name of the student filling such vacancy to the department for the purposes of the department updating its waitlist.

The names of students who entered the lottery but did not gain admission shall be maintained on a waitlist, which shall be forwarded to the department not later than June 1 in the year in which the lottery is held. In addition to the names of students, the school shall supply to the department each student's home address, telephone number, grade level and other information the department deems necessary. The department shall maintain a consolidated waitlist for each municipality in order to

determine the number of individual students in each municipality seeking admission to charter schools.

(o) Each charter school shall annually, not later than April 1, notify each public school district in writing of the number and grade levels of students who will be attending the charter school from that district the following September as well as the number of new students who will be transferring from that district to the charter school in the following September. Tuition for charter school students shall only be paid for the number of students for whom notification has been reported by April 1. Tuition for charter school students shall be paid only for students actually enrolled in the school.

(p) A student may withdraw from a charter school at any time and enroll in another public school where the student resides.

A student may be expelled from a charter school based on criteria determined by the board of trustees, and approved by the board, with the advice of the principal and teachers; provided, however, that charter school policies shall be consistent with sections 37H and 37H $\frac{1}{2}$ .

(q) A charter school may be located in part of an existing public school building, in space provided on a private work site, in a public building or any other suitable location; provided, however, that no school building assistance funds authorized under chapter 70B shall be awarded to a commonwealth charter school for the purpose of constructing, reconstructing or improving a commonwealth charter school.

(r) The school committee of each district where a Horace Mann charter school is located shall develop a plan to disseminate innovative practices of the charter school to other public schools within the district subject to the provisions of any contract between the Horace Mann charter school and any third party provider.

The commissioner shall facilitate the dissemination of successful innovation programs of charter schools and provide technical assistance for other school districts to replicate such programs. Each charter school shall collaborate with its sending district on the sharing of innovative practices.

(s) A charter school shall operate in accordance with its charter and the provisions of law regulating other public schools; provided, however, that sections 41 and 42 shall not apply to employees of commonwealth charter schools. Charter schools shall comply with the chapters 71A and 71B; provided, however, that the fiscal responsibility of a special needs student currently enrolled in or determined to require a private day or residential school shall remain with the school district where the student resides. If a charter school expects that a special needs student currently enrolled in the charter school may be in need of the services of a private day or residential school, it shall convene an individual education plan team meeting for the student. Notice of the team meeting shall be provided to the special education department of the school district in which the child resides at least 5 days in advance. Personnel from the school district in which the child resides shall be allowed to participate in the team meeting concerning future placement of the child.

(t) Horace Mann charter schools shall be exempt from local collective bargaining agreements to the extent provided by the terms of its charter; provided, however, that employees of the Horace Mann charter school shall continue to be members of the local collective bargaining unit and shall accrue seniority and shall receive, at a minimum, the salary and benefits established in the contract of the

local collective bargaining unit where the Horace Mann charter school is located. Employees of Horace Mann charter schools shall be exempt from all union and school committee work rules to the extent provided by the school's charter. Employees in Horace Mann charter schools shall be required to work the full work day and work year to the extent provided by the terms of the school's charter.

(u) Notwithstanding this section or any other general or special law to the contrary, for the purposes of chapter 268A: (i) a charter school shall be deemed to be a state agency; and (ii) the appointing official of a member of the board of trustees of a charter school shall be deemed to be the commissioner.

Members of boards of trustees of charter schools operating under the this section shall file a disclosure annually with the state ethics commission, the department and the city or town clerk wherein such charter school is located. The disclosure is in addition to the requirements of said chapter 268A and a member of a board of trustees must also comply with the disclosure and other requirements of said chapter 268A. The form of the disclosure shall be prescribed by the ethics commission and shall be signed under penalty of perjury. Such form shall be limited to a statement in which members of the board of trustees shall disclose any financial interest that they or a member of their immediate families, as defined in section 1 of said chapter 268A, have in any charter school located in the commonwealth or in another state or with a person doing business with a charter school.

Each member of a board of trustees of a charter school shall file such disclosure for the preceding calendar year with the commission within 30 days of becoming a member of the board of trustees, by September 1 of each year thereafter that the person is a member of the board and by September 1 of the year after the person ceases to be a member of the board; provided, however, that no member of a board of trustees shall be required to file a disclosure for the year in which he ceases to be a member of the board if he served less than 30 days in that year.

(v) Students in charter schools shall be required to meet the same performance standards, testing and portfolio requirements set by the board for students in other public schools.

(w) The board of trustees, in consultation with the teachers, shall determine the school's curriculum and develop the school's annual budget. The board of trustees of each Horace Mann charter school shall annually submit to the superintendent and school committee of the district in which the school is located a budget request for the following fiscal year. The school committee shall act on the budget request in conjunction with its actions on the district's overall budget. Each Horace Mann charter school shall receive in response to the budget request not less than it would have under the district's budgetary allocation rules. The board of trustees may appeal any disproportionate budgetary allocation to the commissioner, who shall determine an equitable funding level for the school and shall require the school committee to provide the funding.

Following the appropriation of the district's operating budget for the fiscal year, the amount approved by the local appropriating authority for the operation of each Horace Mann charter school shall be available for expenditure by the board of trustees of the school for any lawful purpose without further approval by the superintendent or the school committee. A Horace Mann charter school shall not expend or incur obligations in excess of its budget request; provided, however, that a Horace Mann charter school may spend federal and state grants and other funds received independent of the school district not accounted for in the charter school's budget request without prior approval from the

superintendent or the school committee.

(x) Upon approval of a Horace Mann charter school by the board, the superintendent where the Horace Mann charter school is to be located shall reassign, to the extent provided by the terms of its charter, any faculty member who wishes to be reassigned to another school located within the district.

(y) Employees of charter schools shall be considered public employees for purposes of tort liability under chapter 258 and for collective bargaining purposes under chapter 150E. The board of trustees shall be considered the public employer for purposes of tort liability under said chapter 258 and for collective bargaining purposes under said chapter 150E; provided, however, that in the case of a Horace Mann charter school, the school committee of the school district in which the Horace Mann charter school is located shall remain the employer for collective bargaining purposes under said chapter 150E. Teachers employed by a charter school shall be subject to the state teacher retirement system under chapter 32 and service in a charter school shall be creditable service within the meaning thereof.

A charter school shall recognize an employee organization designated by the authorization cards of 50 per cent of its employees in the appropriate bargaining unit as the exclusive representative of all the employees in such unit for the purpose of collective bargaining.

(z) Each local school district shall be required to grant a leave of absence to any teacher in the public schools system requesting such leave to teach in a commonwealth charter school. A teacher may request a leave of absence for up to 2 years.

At the end of the second year, the teacher may either return to his former teaching position or, if he chooses to continue teaching at the commonwealth charter school, resign from his school district position.

(aa) Notwithstanding section 59C, the internal form of governance of a charter school shall be determined by the school's charter.

(bb) A charter school shall comply with all applicable state and federal health and safety laws and regulations.

(cc) The students who reside in the school district in which the charter school is located shall be provided transportation to the charter school by the resident district's school committee on similar terms and conditions as transportation is provided to students attending local district schools if the transportation is requested by the charter school. In providing the transportation, the school committee shall accommodate the particular school day and school year of the charter school; provided, however, that in the event that a school committee limits transportation for district school students, the school district shall not be required to provide transportation to any commonwealth charter school beyond the limitations. A charter school and the sending district shall meet to plan bus routes and charter school starting and ending times in order to assist the district with cost effective means of transportation. Schools operating under a charter granted after January 1, 1997, and all charter schools operating during fiscal year 1999 and thereafter, shall not receive funds for transportation above the amount actually required by such charter school for the provision of transportation services to eligible students. If the sending district provides an alternative method of transportation for students enrolled in the sending district's public schools, it shall not be assessed for transportation costs which exceed the per pupil cost of said alternative. Costs for transportation shall be included only if

transportation is provided for students in the same program and grade level as those in the charter school. Students who do not reside in the district in which the charter school is located shall be eligible for transportation in accordance with section 12B of chapter 76. A regional charter school as designated by the board, and whose charter provides for transportation of all students from charter municipalities shall also be reimbursed by the commonwealth under section 16C of chapter 71 for transportation provided to pupils residing outside the municipality where the charter school is located, but no reimbursement for transportation between the charter school and home shall be made on account of any pupil who resides less than 1.5 miles from the charter school, measured by a commonly traveled route. If a charter school provides its own transportation, the school shall coordinate and collaborate with the sending district to provide cost effective means of transportation. All such transportation shall be determined in advance of the approval of the district's final budget for a fiscal year; provided, however, that a commonwealth charter school shall be required to determine such transportation in the first year of its operation as soon as practicable.

(dd) A charter granted by the board shall be for 5 years. The board shall develop procedures and guidelines for revocation and renewal of a school's charter; provided, however, that a charter for a Horace Mann charter school shall not be renewed by the board without a majority vote of the school committee and local collective bargaining unit in the district where said charter school is located; provided, however, that a commonwealth charter shall not be renewed unless the board of trustees of the charter school has documented in a manner approved by the board that said commonwealth charter school has provided models for replication and best practices to the commissioner and to other public schools in the district where the charter school is located.

When deciding on charter renewal, the board shall consider progress made in student academic achievement, whether the school has met its obligations and commitments under the charter, the extent to which the school has followed its recruitment and retention plan by using deliberate, specific strategies towards recruiting and retaining the categories of students enumerated in paragraph (3) of subsection (i) and the extent to which the school has enhanced its plan as necessary. The board may impose conditions on the charter school upon renewal if it fails to adhere to and enhance its recruitment and retention plan as required. When deciding on charter renewal, the board shall take into account the annual attrition of students. The board shall also consider innovations that have been successfully implemented by the charter school and the evidence that supports the effectiveness of these practices. Upon renewal of its charter, a school shall update and enhance its recruitment and retention plan as necessary to account for changes in enrollment.

(ee) The board may revoke a school's charter if the school has not fulfilled any conditions imposed by the board in connection with the grant of the charter or the school has violated any provision of its charter. The board may place conditions on a charter or may place a charter school on a probationary status to allow the implementation of a remedial plan after which, if said plan is unsuccessful, the charter may be summarily revoked.

(ff) Commonwealth charter schools shall be funded as follows: the commonwealth shall pay a tuition amount to the charter school, which shall be the sum of the tuition amounts calculated separately for each district sending students to the charter school. Tuition amounts for each sending district shall be

calculated by the department using the formula set forth herein, 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. The tuition amount shall be calculated separately for each district sending students to a charter school, and for each charter school to which a district sends students. Each district's per pupil tuition amount for each charter school to which it sends students shall include a per pupil foundation budget component, adjusted to reflect the actual net school spending in the sending district.

In calculating the per pupil foundation budget component, the department shall calculate a foundation budget for the students from each sending district attending the charter school in the previous fiscal year, pursuant to the provisions of section 2 of chapter 70; provided, that the department shall not include in said calculation the assumed tuitioned-out special education enrollment, nor any amounts generated by said assumed enrollment, as defined by said section 2. The per pupil foundation budget component shall be the district's foundation budget for the charter school, as so calculated, divided by the number of students attending the charter school from the sending district in the previous fiscal year. The per pupil foundation budget component shall be calculated separately for each charter school to which a district sends students. The foundation budget for a charter school shall be the sum of the foundation budgets for the charter school for each district sending students to the charter school.

In adjusting the per pupil foundation budget component, the department shall calculate for each sending district an above foundation spending percentage, which shall be the percentage by which the district's actual net school spending exceeds the foundation budget for the district, as calculated pursuant to the provisions of chapter 70. The department shall further calculate the percentage of actual net school spending reported by the sending district associated with tuition costs for tuitioned-out special education students, including education that occurs in educational collaboratives, and with spending on health care costs for retired employees, for any district for which such costs are included in net school spending, and shall reduce the district's above foundation spending percentage proportionately. The per pupil foundation budget component for each charter school to which the sending district sends students shall be increased by said adjusted above foundation spending percentage.

The total tuition amount owed by a sending district to a charter school shall be the per pupil tuition amount as defined above, multiplied by the total number of students attending the charter school from that district in the current fiscal year. The sending district's total charter school tuition amount for purposes of the following paragraphs shall be the sum of the district's tuition amounts for each charter school to which the district sends students, calculated using the provisions of this section. The receiving charter school's total charter school tuition amount shall be the sum of the tuition amounts calculated for the charter school for each district sending students to the charter school.

If a charter school student previously attended a private or parochial school or was home schooled, the commonwealth shall assume the first year cost for that student and shall not reduce the sending district's chapter 70 aid for that student's tuition in that fiscal year.

The state treasurer is hereby authorized and directed to deduct a district's total charter school tuition amount, as calculated herein, from the total state school aid, as defined in section 2 of said chapter

70, of the district in which the student resides prior to the distribution of said aid. In the case of a child residing in a municipality which belongs to a regional school district, the charter school tuition amount shall be deducted from said chapter 70 education aid of the school district appropriate to the grade level of the child. If, in a single district, the total of all such deductions exceeds the total of said education aid, this excess amount shall be deducted from other aid appropriated to the city or town. If, in a single district, the total of all such deductions exceeds the total state aid appropriated, the commonwealth shall appropriate this excess amount; provided, however, that if said district has exempted itself from the provisions of said chapter 70 by accepting section 14 of said chapter 70, the commonwealth shall assess said district for said excess amount.

The state treasurer is hereby further authorized and directed to disburse to the charter school an amount equal to the charter school's total charter school tuition amount as defined above.

If more than 1 charter school is managed by a single network or board of trustees, funding shall not be transferred among individual schools within the network unless such schools are located in the same school district.

The department shall, subject to appropriation, provide funding to charter schools for a portion of the per pupil capital needs component included in the charter tuition amount and shall reimburse the sending school districts for said costs. In fiscal year 2011 and thereafter, such funding shall not be less than the per pupil amount provided in fiscal year 2010.

(gg) Any district whose total charter school tuition amount is greater than its total charter school tuition amount for the previous year shall be reimbursed by the commonwealth in accordance with this paragraph and subject to appropriation; provided, however, that no funds for said reimbursements shall be deducted from funds distributed pursuant to chapter 70. The reimbursement amount shall be equal to 100 per cent of the increase in the year in which the increase occurs and 25 per cent in the second, third, fourth, fifth and sixth years following.

(hh) If the unencumbered amount of cumulative surplus revenue from tuition held by a charter school at the end of a fiscal year, less (i) the amount of the fourth quarter tuition payment, (ii) the amount held in reserve for the purchase or renovation of an academic facility pursuant to a capital plan, and (iii) any reserve funds held as security for bank loans, exceeds 20 per cent of its operating budget and its budgeted capital costs for the succeeding fiscal year as is reported in a capital plan to be submitted in the school's most recent annual report, the amount in excess of said 20 per cent shall be returned by the charter school to the sending district or districts and the state in proportion to their share of tuition paid during the fiscal year. At the end of each fiscal year, the commissioner shall certify the amounts described above and the amount, if any, by which it exceeds 20 per cent of the school's operating budget and its budgeted capital costs for the succeeding fiscal year, and shall report such amount to the school committee of the sending district or districts and the applicable board of selectmen or city council by December 1 of each year. A charter school shall annually make any payment required by this subsection no later than December 31.

(ii) No teacher shall be hired by a commonwealth charter school who is not certified pursuant to section 38G unless the teacher has successfully passed the state teacher test as required in said section 38G.

(jj) Each charter school shall submit an annual report, no later than August 1, to the board, the local

school committee, each parent or guardian of its enrolled students and each parent or guardian contemplating enrollment in that charter school. The annual report shall be in such form as may be prescribed by the board and shall include, but not be limited to: (i) discussion of progress made toward the achievement of the goals set forth in the charter; and (ii) a financial statement setting forth by appropriate categories the revenue and expenditures for the year just ended and a balance sheet setting forth the charter school's assets, liabilities and fund balances or equities.

The department shall promulgate regulations creating a reporting requirement for a charter school's net asset balance at the end of the fiscal year; provided, however, that said regulations shall require, without limitation, the following: the revenue and expenditures for the year just ended with a specific accounting of the uses of public and private dollars; how the capital needs component of the charter school's tuition was spent; compensation and benefits for teachers, staff, administrators, executives, and board of trustees; the amount of any and all funds transferred to a management company; the sources of any surplus funds, specifically whether they are private or public; how any surplus funds were used in the previous fiscal year; and the planned use of any surplus funds in the upcoming fiscal year on in future fiscal years.

Each charter school shall keep an accurate account of all its activities and all its receipts and expenditures and shall annually cause an independent audit to be made of its accounts. Such audit shall be filed annually on or before January 1 with the department and the state auditor and shall be in a form prescribed by the state auditor. The state auditor may investigate the budget and finances of charter schools and their financial dealings, transactions and relationships, and shall have the power to examine the records of charter schools and to prescribe methods of accounting and the rendering of periodic reports.

(kk) The commissioner shall collect data on the racial, ethnic and socio-economic make-up of the student enrollment of each charter school in the commonwealth. The commissioner shall also collect data on the number of students enrolled in each charter school who have individual education plans pursuant to chapter 71B and those requiring English language learners programs under chapter 71A. The commissioner shall file said data annually with the clerks of the house and senate and the joint committee on education not later than December 1.

(ll) Individuals or groups may complain to a charter school's board of trustees concerning any claimed violations of the provisions of this section by the school. If, after presenting their complaint to the trustees, the individuals or groups believe their complaint has not been adequately addressed, they may submit their complaint to the board which shall investigate such complaint and make a formal response.

(mm) The board shall promulgate regulations for implementation and enforcement of this section.

**SECTION 8.** Said chapter 71 is hereby further amended by adding the following section:-

Section 92. (a) An Innovation School shall be a public school, operating within a public school district, that is established for the purpose of improving school performance and student achievement through increased autonomy and flexibility. An Innovation School may be established as a new public school

or as a conversion of an existing public school. A student who is enrolled in a school at the time it is established as an Innovation School shall retain the ability to remain enrolled in the school if the student chooses to do so.

(b) An Innovation School may establish an advisory board of trustees. An Innovation School shall have increased autonomy and flexibility in 1 or more of the following areas: (i) curriculum; (ii) budget; (iii) school schedule and calendar; (iv) staffing policies and procedures, including waivers from or modifications to, contracts or collective bargaining agreements; (v) school district policies and procedures; and (vi) professional development. An Innovation School shall receive each school year from the school committee the same per pupil allocation as any other district school receives. An Innovation School may retain any unused funds and use the funds in subsequent school years. An Innovation School may establish a non-profit organization that may, among other things, assist the school with fundraising. A district shall not reduce its funding to an Innovation School as a result of the school's fundraising activities.

(c) An Innovation School established under this section shall be authorized by the local school committee and shall operate according to an innovation plan, which shall articulate the areas of autonomy and flexibility under subsection (b). To the extent practicable, the innovation plan shall be based on student outcome data, including, but not limited to: (i) student achievement on the Massachusetts Comprehensive Assessment System; (ii) other measures of student achievement, approved by the commissioner, as appropriate; (iii) student promotion, graduation rates and dropout rates; (iv) achievement data for different subgroups of students, including low-income students as defined by chapter 70, limited English-proficient students and students receiving special education; and (v) student attendance, dismissal rates and exclusion rates.

An Innovation School shall operate in accordance with the law regulating other public schools, except as the law conflicts with this section or any innovation plans created thereunder.

(d) An Innovation School is a school in which: (i) faculty and leadership are primarily responsible for developing the innovation plan under which the school operates and leadership is responsible for meeting the terms of the innovation plan; or (ii) an external partner is primarily responsible for developing the innovation plan under which the school operates and the external partner is responsible for meeting the terms of the innovation plan.

(e) Nothing in this section shall be construed to prohibit: (i) the establishment of an Innovation School as an academy within an existing public school; (ii) the establishment of an Innovation School serving students from 2 or more school districts; provided, however, that all of the provisions of this section are met by each school district; (iii) the simultaneous establishment of 2 or more Innovation Schools as an Innovation Schools Zone within a school district; or (iv) the establishment of an Innovation School as a virtual public school that provides instruction to students through distance learning, including online learning programs and courses, subject to regulations adopted by the board of elementary and secondary education.

(f) The following shall be eligible applicants for the purposes of establishing an Innovation School: (i) parents; (ii) teachers; (iii) parent-teacher organizations; (iv) principals; (v) superintendents; (vi) school committees; (vii) teacher unions; (viii) colleges and universities; (ix) non-profit community-based organizations; (x) non-profit business or corporate entities; (xi) non-profit charter school operators; (xii)

non-profit education management organizations; (xii) educational collaboratives; (xiv) consortia of these groups; and (xv) non-profit entities authorized by the commissioner. Private and parochial schools shall not be eligible to operate an Innovation School.

(g) The local school committee, local teacher's union and superintendent of the district shall follow a process, consistent with this subsection and subsections (h) to (o), inclusive, for which an existing district school may be converted to an Innovation School or by which a new Innovation School may be established within the district. This process shall require that an eligible applicant proposing to establish an Innovation School prepare a prospectus regarding the proposed school. The prospectus shall include, but not be limited to, a description of: (i) whether the school will be a new school or a conversion of an existing school; (ii) if the school is a new school, the proposed location of the school; (iii) if the school is a conversion of an existing school, the school that is being proposed for conversion; (iv) the external partners, if any, that will be involved in the school; (v) the number of students the school is anticipated to serve and the number of staff expected to be employed at the school; (vi) the overall vision for the school, including improving school performance and student achievement; (vii) specific needs or challenges the school shall be designed to address; (viii) a preliminary assessment of the autonomy and flexibility under subsection (b) that the school will seek; (ix) why such flexibility is desirable to carry out the objectives of the school; (x) anticipated components of the school's innovation plan; (xi) a preliminary description of the process that shall be used to involve appropriate stakeholders in the development of the innovation plan; and (xii) a proposed timetable for development and establishment of the proposed school.

(h) Upon completion of the prospectus under subsection (g), an eligible applicant shall submit the prospectus to the superintendent, who shall within 30 days convene a screening committee consisting of the superintendent or a designee, a school committee member or a designee selected by the school committee and a representative from the leadership of the local teacher's union.

The screening committee shall review the prospectus for the purpose of determining whether the prospectus: (i) presents a sound and coherent plan for improving school performance and student achievement; (ii) supports or enhances existing educational efforts in the district; and (iii) reasonably can be expanded into a comprehensive innovation plan. In the case of a new school, the committee will prepare an impact statement describing how the new school will affect the children and faculty in the district. Within 30 days of receiving a prospectus, the screening committee shall decide, on the basis of a two-thirds vote, to accept or reject the prospectus, or return the prospectus to the eligible applicant for revisions. If a prospectus is rejected or returned, the screening committee shall submit a detailed explanation for the decision to the applicant. A prospectus that is rejected or returned may be revised and resubmitted for subsequent consideration.

(i) Upon the acceptance of a prospectus by the screening committee under subsection (h), the applicant shall form an innovation plan committee of not more than 11 individuals within 30 days. The purpose of the innovation plan committee shall be to: (i) develop the innovation plan described in subsection (c); (ii) assure that appropriate stakeholders are represented in the development of the proposed Innovation School; and (iii) provide meaningful opportunities for the stakeholders to contribute to the development of such school. The size and composition of the innovation plan committee shall be determined by the applicant; provided, however, that the committee shall include:

(i) the applicant; (ii) the superintendent or a designee; (iii) a school committee member or a designee; (iv) a parent who has 1 or more children enrolled in the school, or in the case of a new school, from the district; (v) a principal employed by the district; and (vi) 2 teachers employed by the district. The applicant shall select the parent from among nominees submitted by parent-teacher organizations in the district. If the district does not contain a parent-teacher organization or if the organization does not submit nominees, the applicant shall select the parent from among volunteers in the area or community the proposed school is expected to serve. The applicant shall select the principal and 1 teacher from among volunteers in the district and 1 teacher from among nominees submitted by the local teacher's union.

(j) Upon the formation of the innovation plan committee in subsection (i), the committee shall develop the innovation plan for the proposed Innovation School. The purpose of the innovation plan shall be to comprehensively articulate the areas of autonomy and flexibility under subsection (b) that the proposed school will use. The innovation plan shall include, but not be limited to: (i) a curriculum plan, which shall include a detailed description of the curriculum and related programs for the proposed school and how the curriculum is expected to improve school performance and student achievement; (ii) a budget plan, which shall include a detailed description of how funds shall be used differently in the proposed school to support school performance and student achievement; (iii) a school schedule plan, which shall include a detailed description of the ways, if any, the program or calendar of the proposed school will be enhanced or expanded; (iv) a staffing plan, which shall include a detailed description of how the school principal, administrators, faculty and staff will be recruited, employed, evaluated and compensated in the proposed school and any proposed waivers or modifications of collective bargaining agreements; (v) a policy and procedures plan, which shall include a detailed description of the unique operational policies and procedures to be used by the proposed school and how the procedures shall support school performance and student achievement; and (vi) a professional development plan, which shall include a detailed description of how the school may provide high-quality professional development to its administrators, teachers and staff.

In order to assess the proposed school across multiple measures of school performance and student success, the innovation plan shall include measurable annual goals including, but not limited to, the following: (i) student attendance; (ii) student safety and discipline; (iii) student promotion and graduation and dropout rates; (iv) student achievement on the Massachusetts Comprehensive Assessment System; (v) progress in areas of academic underperformance; and (vi) progress among subgroups of students, including low-income students as defined by chapter 70, limited English-proficient students and students receiving special education; (7) reduction of achievement gaps among different groups of students.

A majority vote of the innovation plan committee shall be required for approval of the innovation plan.

(k) The provisions of the collective bargaining agreements applicable to the administrators, teachers and staff in the school shall be considered to be in operation at an Innovation School, except to the extent the provisions are waived or modified under the innovation plan and such waivers or modifications are approved under subsections (l) and (m).

(l) In the case of a school conversion, upon completion of the innovation plan in subsection (j), , the

applicant shall submit the innovation plan to teachers in the school that is proposed for conversion for approval by secret ballot within 30 days. A two-thirds vote of the teachers shall be required to approve the plan. Upon approval of an innovation plan by the applicable union members the plan shall, within 7 days, be submitted to the school committee. If a two-thirds vote is not achieved, the innovation plan committee may revise the innovation plan as necessary and submit the revised plan to the teachers for a subsequent vote.

In the case of a new school, upon the completion of the innovation plan in subsection (j), the applicant, a local union and the superintendent shall negotiate waivers or modifications to the applicable collective bargaining agreement necessary for the school to implement the innovation plan. Upon the conclusion of the negotiations, the innovation plan shall be submitted immediately to the school committee. If the negotiations have not resulted in an agreement within 40 days, either party may petition the division of labor relations for the selection of an arbitrator. The division shall select an arbitrator within 3 days of the petition from a list submitted by the parties. The arbitrator shall conduct a hearing within 14 days of the arbitrator's selection. The arbitrator shall consider the parties' positions and the needs of the students in the district. The arbitrator's decision shall be consistent with the contents of the innovation plan developed by the applicant. The arbitrator shall, within 14 days of the close of the hearing, submit a decision which shall be final and binding on the parties.

(m) Upon receipt of an innovation plan regarding an Innovation School, a school committee shall hold at least 1 public hearing on the innovation plan. After the public hearing, but not later than 60 days after the receipt of the innovation plan, the school committee shall, on the basis of the quality of the plan and in consideration of comments submitted by the public, undertake a final vote to authorize the Innovation School for a period of not more than 5 years, subject to subsection (n). Approval of the majority of the school committee as fully constituted shall be required to authorize an Innovation School. If the approval is not obtained, an innovation plan committee may revise the innovation plan and: (i) in the case of a new school, submit the revised plan to the school committee for a subsequent vote; or (ii) in the case of a conversion, submit the revised plan to the teachers in the school that is proposed for conversion for a vote, pursuant to subsection (l); provided, however, that the plan meets the requirements for approval under subsection (l), submit the revised plan to the school committee for a subsequent vote. A school committee shall vote on a revised plan submitted pursuant to this subsection within 60 days of the receipt of such plan and contract.

(n) All Innovation Schools authorized under subsection (m) shall be evaluated by the superintendent at least annually. The superintendent shall transmit the evaluation to the school committee and the commissioner of elementary and secondary education. The purpose of the evaluation shall be to determine whether the school has met the annual goals in its innovation plan and assess the implementation of the innovation plan at the school. If the school committee determines, on the advice of the superintendent, that the school has not met 1 or more goals in the innovation plan and that the failure to meet the goals may be corrected through reasonable modification of the plan, the school committee may amend the innovation plan as necessary. After the superintendent assesses the implementation of the innovation plan at the school, the school committee may, on the advice of the superintendent, amend the plan if the school committee determines that the amendment is necessary in view of subsequent changes in the district that affect 1 or more components of the plan, including,

but not limited to, changes to contracts, collective bargaining agreements or school district policies; provided, however, that an amendment involving a subsequent change to a teacher contract shall first be approved by teachers at the school under the procedures in subsection (l).

If the school committee determines, on the advice of the superintendent, that the school has substantially failed to meet multiple goals in the innovation plan, the school committee may: (i) limit 1 or more components of the innovation plan; (ii) suspend 1 or more components of the innovation plan; or (iii) terminate the authorization of the school; provided, however, that the limitation or suspension shall not take place before the completion of the second full year of the operation of the school and the termination shall not take place before the completion of the third full year of the operation of the school.

(o) At the end of the period of authorization of an Innovation School approved under subsection (m), the leadership of the school may petition the school committee to extend the authorization of the school for an additional period of not more than 5 years. Before submitting the petition, the leadership of the school shall convene a selection of school stakeholders, including, but not limited to, administrators, teachers, other school staff, parents and external partners, as applicable, to discuss whether the innovation plan at the school requires revision and to solicit recommendations as to the potential revisions. After considering the recommendations of the stakeholder group, the leadership of the school and the applicable superintendent shall jointly update the innovation plan as necessary; provided, however, that a proposal regarding a new waiver or exemption from the local teacher's union contract shall be approved by teachers at the school, under subsection (l). Approval of the majority of the school committee as fully constituted shall be required to extend the period of authorization of an Innovation School. If the approval is not obtained, the leadership of the school and superintendent may jointly revise the innovation plan and submit the revised plan to the school committee for a subsequent vote. If the school committee does not extend the authorization of the school, the leadership of the school may seek the authorization from the board of elementary and secondary education. The board shall vote on the requested extension within 60 days of its receipt for approval of such extension.

(p) The commissioner of elementary and secondary education shall, to the extent practicable, be responsible for the following: (i) the provision of planning and implementation grants to eligible applicants to establish Innovation Schools; (ii) provision of technical assistance and support to eligible applicants; (iii) the collection and publication of data and research related to the Innovation Schools initiative; (iv) the collection and publication of data and research related to successful programs serving limited English-proficient students attending Innovation Schools; and (v) the collection and dissemination of best practices in Innovation Schools that may be adopted by other public schools. The board of elementary and secondary education shall promulgate regulations necessary to carry out this section. Annually, the commissioner shall report to the joint committee on education, the house and senate committees on ways and means, the speaker of the house of representatives and the senate president on the implementation and fiscal impact of this section.

**SECTION 9.** For the school districts in which net school spending on charter school tuition does not exceed 18 per cent as set forth in subsection (i) of section 89 of chapter 71, the following shall apply:

(1) in fiscal year 2011, a public school district's total charter school tuition payment to commonwealth charter schools shall be limited to 12 per cent of the district's net school spending; (2) in fiscal year 2012, a public school district's total charter school tuition payment to commonwealth charter schools shall be limited to 13 per cent of the district's net school spending; (3) in fiscal year 2013, a public school district's total charter school tuition payment to commonwealth charter schools shall be limited to 14 per cent of the district's net school spending; (4) in fiscal year 2014, a public school district's total charter school tuition payment to commonwealth charter schools shall be limited to 15 per cent of the district's net school spending; (5) in fiscal year 2015, a public school district's total charter school tuition payment to commonwealth charter schools shall be limited to 16 per cent of the district's net school spending; (6) in fiscal year 2016, a public school district's total charter tuition payment to commonwealth charter schools shall be limited to 17 per cent of the district's net school spending; and (7) in fiscal year 2017, a public school district's total charter tuition payment to commonwealth charter schools shall be limited to 18 per cent of the district's net school spending.

**SECTION 10.** Within 6 months of the receipt of any federal funding through Race to the Top program realized through the adoption of this act, the executive office of education shall report to the house and senate committees on ways and means and the joint committee on education a detailed plan providing for the use and potential future uses of the funding along with an accounting therein.

**SECTION 11.** Notwithstanding any general or special law to the contrary, the department of elementary and secondary education shall draft a model policy for school districts regarding the grade placement and eligibility for high school graduation of students leaving a commonwealth charter school and seeking to enroll in a district school. In drafting the model policy, the department shall confer with school districts and commonwealth charter schools. The model policy shall be made available not later than December 31, 2010. Until a school district adopts a policy regarding the grade placement or eligibility for high school graduation of students leaving a commonwealth charter school, when determining the appropriate grade placement or eligibility for high school graduation of a student leaving a commonwealth charter school and enrolling in a district school, a district shall examine the course of study and level of academic attainment of the student.

**SECTION 12.** Notwithstanding any general or special law to the contrary, a charter school whose charter was granted before January 1, 2010 shall have a recruitment and retention plan required under subsection (f) of section 89 of chapter 71 of the General Laws in effect for the 2011-2012 school year or at the time of its next charter renewal, whichever occurs first.

**SECTION 13.** Notwithstanding subsection (gg) of section 89 of chapter 71 of the General Laws, any district that incurred an increase in commonwealth charter tuition costs between July 1, 2008 and June 30, 2010 shall be reimbursed in an amount equal to 100 per cent of the increase in the year in which the increase occurs, 60 per cent of that amount in the first year following and 40 per cent of that amount in the second year following.

**SECTION 14.** Notwithstanding any special or general law to the contrary, the department of elementary and secondary education shall study the possibility of allowing students living outside of the commonwealth who are eligible to attend public schools operating in the same geographic area as a charter school or a regional charter school to be eligible to attend the charter or regional charter school. The department shall examine the rules and regulations necessary to implement this change which shall include, but not be limited to, collection of out-of-state tuition from students living outside of the commonwealth and attending a commonwealth charter school, collection of tuition from foreign exchange students attending a commonwealth charter school and reimbursement of commonwealth charter schools for services rendered to foreign exchange students and students living outside of the commonwealth. The department shall issue its report and its recommendations, if any, together with drafts of legislation necessary to carry those recommendations into effect to the joint committee on education not later than August 15, 2010.

**SECTION 15.** Notwithstanding any general or special law to the contrary, regional school transportation payments made by the state in any fiscal year through the general appropriations act shall not be lowered by a greater percentage than any reduction made to state chapter 70 payments in that fiscal year.

**SECTION 16.** Notwithstanding any general or special law to the contrary, the department of elementary and secondary education shall prepare a report on the current status of the public education financing system in the commonwealth as it currently exists. The report shall include, but shall not be limited to, the following: (1) the source of and potential remedies for any existing discrepancies between the fiscal demands placed upon and the fiscal assistance provided to municipalities and school districts with similar fiscal capacity and educational responsibilities, including those placed and provided pursuant to chapter 70; (2) a consideration and evaluation of all the financial resources made available to schools and districts, from all sources, and how they relate to student learning and educational opportunity; and (3) a review of successful educational programs in schools and school districts that achieve their success at relatively lower per pupil costs when compared with schools and districts serving student populations with similar academic and socio-economic characteristics and an assessment of the possibility of replicating such programs in other schools and school districts. In compiling the report, the department shall consult with various education personnel, advocacy organizations, and economic experts. The department shall file said report not later than December 31, 2011 to the joint committee on education.

**SECTION 17.** By January 1, 2011, the commissioner of elementary and secondary education shall make a report to the house and senate chairs of the joint committee on education on the department's plan to implement the inclusion of improvement in student academic achievement data, as required under sections 1J and 1K of chapter 69 of the General Laws.

*Approved, January 19, 2010.*





<b>Acts</b>
<b>2008</b>
<b>CHAPTER 258</b> AN ACT PROVIDING FOR THE PUBLIC HIGHER EDUCATION CAPITAL IMPROVEMENT NEEDS OF THE COMMONWEALTH.

*Whereas*, The deferred operation of this act would tend to defeat its purpose, which is to provide forthwith for the public higher education capital improvement needs of the commonwealth, therefore it is hereby declared to be an emergency law, necessary for the immediate preservation of the public convenience.

*Be it enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same as follows:*

**SECTION 1.** To provide for a program of capital improvements to public higher education institutions to provide support for these institutions in carrying out their educational missions and to enhance regional economic development through their educational initiatives, the sums set forth in section 2, for the several purposes and subject to the conditions specified in this act, are hereby made available, subject to the laws regulating the disbursement of public funds, which sums shall be in addition to any other amounts previously appropriated for these purposes.

**SECTION 2.**

**EXECUTIVE OFFICE FOR ADMINISTRATION AND FINANCE**

*Division of Capital Asset Management and Maintenance*

7066-8000.. For costs associated with planning and studies, dispositions, acquisition of land and buildings and interests therein by purchase or by eminent domain under chapter 79 of the General Laws and for the preparation of plans and specifications, repairs, construction, renovations, improvements, maintenance and repair, asset management and demolition at state and community college campus facilities and grounds; provided, that all projects approved for design and construction by the division of capital asset management and maintenance shall be consistent in priority and need with regional capital master plans developed by the division of capital asset management and maintenance, in consultation with the presidents of the state and community colleges and approved by the board of higher education; provided further, that all maintenance and repair work funded by this item shall be included in the capital asset management information system administered by the division of capital asset management and maintenance; provided further, that not less than \$1,000,000 shall be expended for the sealing of building envelopes at Berkshire Community College; provided further, that not less than \$23,000,000 shall be expended for the renovation of Hawthorne and Melville Halls and the renovation and modernization of academic classrooms at Berkshire Community College; provided further, that not less than \$46,525,548 shall be expended for a new

technology learning center and the modernization of Science Building “E” for the modernization of the Siegel Health Technologies Building “C” and for the development of new academic space at Bristol Community College; provided further, that not less than \$4,500,000 shall be expended for the renovation of Building 2 of the former Texas Instruments campus in the city of Attleboro for the Bristol Community College campus in said city of Attleboro; provided further, that not less than \$20,000,000 shall be expended for the acquisition, construction, renovation, design, and development of a full service consolidated campus, which shall be comprised of no less than 40,000 square feet; provided further than such a consolidated campus shall be located in downtown New Bedford; and provided further that such a campus shall incorporate education, workforce development and training and community development in downtown New Bedford at Bristol Community College; provided further, that not less than \$29,152,560 shall be expended for a new learning and resource center at Bunker Hill Community College, including Building “B” renovations and a new campus entrance; provided further, that not less than \$14,120,342 shall be expended for the campus connections and high priority major renovation and modernization projects, including Buildings “D” and “E”, and completing the original campus design at Bunker Hill Community College; provided further, that not less than \$300,000 shall be expended for an accessibility, traffic and parking study at Cape Cod Community College; provided further, that not less than \$36,000,000 shall be expended for a new science building and renovation to the existing Science Center, and modernization and renovation of existing facilities at Cape Cod Community College; provided further, that not less than \$31,000,000 shall be expended for the renovation and modernization of the Campus Core Building, construction of a new maintenance building and renovation and modernization of existing capacity in the East Building at Greenfield Community College; provided further, that not less than \$4,750,000 shall be expended for renovation of existing academic and student support spaces at Holyoke Community College; provided further, that not less than \$20,300,000 shall be expended for the renovation of Building “G” and academic addition at Holyoke Community College; provided further, that not less than \$22,100,000 shall be expended for a new allied health academic facility at Massachusetts Bay Community College; provided further, that not less than \$27,399,907 shall be expended for improvements to the campus including, but not limited to, a new allied health and sciences building at Massasoit Community College; provided further, that not less than \$10,124,335 shall be expended for new general academic buildings and renovations of existing facilities at Middlesex Community College in the city of Lowell; provided further, that not less than \$11,017,100 shall be expended for a new performing arts center at Middlesex Community College in the city of Lowell; provided further that not less than \$24,000,000 shall be expended for new general academic buildings and renovations of existing facilities at Middlesex Community College in the city of Bedford; provided further, that not less than \$37,900,000 shall be expended for a new auto tech garage facility and receiving area, for the modernization of the Haley Academic Center and campus modernizations at Mount Wachusett Community College; provided further, that not less than \$31,936,120 shall be expended for a new allied health building, backfill and renovations to Ferncroft at North Shore Community College in the town of Danvers; provided further, that not less than \$20,715,600 shall be expended for the expansion of the North Shore Community College in the city of Lynn; provided further, that not less than \$31,718,123 shall be expended for a new allied health building at Northern Essex Community College in the city of

Lawrence and for the renovation of the Spurr Building at Northern Essex Community College in the city of Haverhill; provided further, that not less than \$23,106,943 shall be expended for a new academic, science and technology building at Quinsigamond Community College; provided further, that not less than \$2,341,324 shall be expended for a new maintenance and receiving facility at Quinsigamond Community College; provided further, that not less than \$15,931,331 shall be expended for additional classroom space at Quinsigamond Community College; provided further, that not less than \$5,500,000 shall be expended for reconstruction and improvements to parking lots at Mount Wachusett Community College; provided further, that not less than \$20,742,970 shall be expended for major renovation and modernization projects at Roxbury Community College including, but not limited to, the renovation and modernization of existing classroom space and improvements to the Academic Building and the Media Arts Building; provided further, that not less than \$303,920 shall be expended for the sealing of building envelopes and study of the building systems and repairs at Springfield Technical Community College; provided further, that not less than \$33,200,000 shall be expended for the stabilization and renovation of Building 19 at Springfield Technical Community College; provided further, that not less than \$98,696,000 shall be expended for the Conant Science Center modernization and addition at Bridgewater State College; provided further, that not less than \$57,001,848 shall be expended for a new science center and renovations of existing facilities at Fitchburg State College; provided further, that not less than \$9,300,000 shall be expended for the Christa McAuliffe Center for Education and Teaching Excellence at Framingham State College; provided further, that not less than \$51,389,263 shall be expended for the expansion, modernization and improvement of Hemenway Hall Science Center at Framingham State College; provided further, that not less than \$30,000,000 shall be expended for the modernization of existing facilities and the Center for Design Innovation at Massachusetts College of Art and Design; provided further, that \$54,500,000 shall be expended for renovation and expansion for a new Center for Sciences and Innovation at Massachusetts College of Liberal Arts and renovations and modernizations to existing academic facilities; provided further, that not less than \$23,000,000 shall be expended for the modernization of the library at the Massachusetts Maritime Academy; provided further, that not less than \$106,433,169 shall be expended for the library and learning commons renovation or replacement and for renovations and specialized space addition to Meier Hall at Salem State College which may be combined with the library and learning commons renovation or replacement to provide a science and learning commons; provided further, that not less than \$33,000,000 shall be expended for a new academic building at Westfield State College; provided further, that \$2,800,000 shall be expended for safety and accessibility renovations at the Dever Auditorium building at Westfield State College; provided further, that not less than \$25,500,000 shall be expended for the modernization and improvement of the health science and athletic center at Worcester State College; provided further, that costs payable from this item shall include, but not be limited to, the costs of engineering and other services essential to these projects rendered by division of capital asset management and maintenance employees or by consultants; provided further, that amounts expended for division employees may include the salary and salary-related expenses of these employees to the extent that they work on or in support of these projects; provided further, that any new capital projects funded through this item, unless they are consistent with approved regional capital master plans, shall be

recommended by the board of higher education and approved by the secretary of education; and provided further, that the expenditure of any funds provided in this item not previously earmarked shall be recommended by the board of higher education and approved by the secretary of education and the secretary of administration and finance..... \$1,189,055,630

7100-1000.. For costs associated with planning and studies, dispositions, acquisition of land and buildings and interests therein by purchase or by eminent domain under chapter 79 of the General Laws, for the preparation of plans and specifications, repairs, construction, renovations, improvements, maintenance and repair, asset management and demolition at the University of Massachusetts campus facilities and grounds; provided, that all projects approved for design and construction by the division of capital asset management and maintenance shall be consistent in priority and need with a capital master plan approved by the president of the University of Massachusetts and the board of trustees of the University of Massachusetts; provided further, that all maintenance and repair work funded by this item shall be included in the capital asset management information system administered by the division of capital asset management and maintenance; provided further, that not less than \$85,000,000 shall be expended for a new academic classroom building at the Amherst campus; provided further, that not less than \$100,000,000 shall be expended for a new laboratory science building at the Amherst campus; provided further, that not less than \$12,600,000 shall be expended for repairs to Machmer Hall at the Amherst campus; provided further, that not less than \$41,250,000 shall be expended for repairs and renovations to Lederle Research Center at the Amherst campus; provided further, that not less than \$51,300,000 shall be expended for repairs and renovations to Morrill Science Center at the Amherst campus; provided further, that not less than \$25,000,000 shall be expended for the stabilization of the campus substructure and alternate parking improvements at the Boston campus; provided further, that not less than \$100,000,000 shall be expended for the construction of a new academic building at the Boston campus; provided further, that not less than \$8,000,000 shall be expended for renovations and infrastructure repairs to the library at the Dartmouth campus; provided further, that not less than \$11,000,000 shall be expended for building and retrofitting of vacated spaces at the Dartmouth campus; provided further, that not less than \$250,000 shall be expended on planning and design services, including obtaining cost estimates, revenue estimates, construction drawings and specifications, feasibility studies, surveys and site analyses to determine the feasibility, approximate size, scope, location, and economic development of graduate student dormitories and artist loft dormitories for the University of Massachusetts, Dartmouth; provided further, that not less than \$6,000,000 shall be expended for classroom space upgrades at the Dartmouth campus; provided further, that not less than \$2,100,000 shall be expended for air conditioning improvements to facilities at the Dartmouth campus; provided further, that not less than \$70,000,000 shall be expended for projects at the University of Massachusetts at Dartmouth campus; provided further, that of said \$70,000,000, funds shall be expended for major infrastructure repair projects, for a new addition to the Charlton College of Business at the University of Massachusetts at Dartmouth, and for a marine science facility for the School of Marine Science and Technology at the University of Massachusetts at Dartmouth; provided further, that the marine science facility shall be located on an appropriate waterfront site in the city of New Bedford which may include, but shall not

be limited to, the state pier, land located in the inner harbor of the port of New Bedford, or land adjacent to Fort Taber park; provided further, that not less than \$1,000,000 shall be expended for the Portuguese-American Archives at the University of Massachusetts at Dartmouth; provided further, that \$500,000 shall be expended for the expansion, retrofitting, or renovation of the Center for Portuguese Studies at the University of Massachusetts at Dartmouth; provided further, that not less than \$26,000,000 shall be expended for a new south academic building at the Lowell campus; provided further, that not less than \$10,000,000 shall be expended for the north quad modernization at the Lowell campus; provided further, that not less than \$10,000,000 shall be expended for civic and athletic facilities at the Lowell campus; provided further, that not less than \$1,500,000 shall be expended for storm water management at the Lowell campus; provided further, that not less than \$2,500,000 shall be expended for renovations to Olney Hall at the Lowell campus; provided further, that not less than \$4,000,000 shall be expended for capital expense related to Massachusetts Medical Device Development Center at the Lowell campus; provided further, that \$5,000,000 shall be expended for deferred maintenance needs at the Lowell campus; provided further, that not less than \$43,500,000 shall be expended for repairs, renovations and improvements to buildings, systems and other facilities at the Medical School in the city of Worcester; provided further, that not less than \$8,500,000 shall be expended for improvements to the Medical School's Shriver Center facility in the city of Waltham; provided further, that not less than \$3,682,500 shall be expended for expansion of the Medical School in the city of Worcester; provided further, that costs payable from this item shall include, but not be limited to, the costs of engineering and other services essential to these projects rendered by division of capital asset management and maintenance employees or by consultants; provided further, that amounts expended for division employees may include the salary and salary-related expenses of these employees to the extent that they work on or in support of these projects; provided further that any new capital projects funded through this item, unless they are consistent with the approved university capital master plan, shall be recommended by the board of trustees of the university and approved by the secretary of education; and provided further, that the expenditure of any funds provided in this item not previously earmarked shall be recommended by the board of trustees of the university and approved by the secretary of education and the secretary of administration and finance \$1,001,500,000

**SECTION 3.** To meet the expenditures necessary in carrying out section 2, the state treasurer shall, upon request of the governor, issue and sell bonds of the commonwealth in an amount to be specified by the governor from time to time but not exceeding, in the aggregate, \$2,190,555,630. All bonds issued by the commonwealth as aforesaid shall be designated on their face, Public Higher Education Capital Expenditure Act of 2008, and shall be issued for a maximum term of years, not exceeding 30 years, as the governor may recommend to the general court under section 3 of Article LXII of the Amendments to the Constitution. The bonds shall be payable not later than June 30, 2048. All interest and payments on account of principal on these obligations shall be payable from the General Fund. Bonds and interest on bonds issued under this section shall, notwithstanding any other provision of this act, be general obligations of the commonwealth.

**SECTION 4.** Section 1 of chapter 703 of the acts of 1963 is hereby amended by striking out paragraph (b), as appearing in section 1 of chapter 290 of the acts of 1998, and inserting in place thereof the following paragraph:-

(b) "Trustees", the board of higher education established in section 4 of chapter 15A of the General Laws or, if that board shall be abolished, the board, body or commission succeeding to the principal functions of that board or to which the powers given by said chapter 15A with respect to public institutions of higher education shall be given by law.

**SECTION 5.** Paragraph (e) of said section 1 of said chapter 703, as appearing in section 2 of chapter 800 of the acts of 1985, is hereby amended by inserting after the words "structures", in line 17, the following words:- , including buildings or structures owned by the commonwealth,.

**SECTION 6.** The second paragraph of section 2 of said chapter 703, as appearing in section 4 of said chapter 800, is hereby amended by striking out the seventh and eighth sentences.

**SECTION 7.** Said section 2 of said chapter 703 is hereby further amended by striking out the last paragraph and inserting in place thereof the following paragraph:-

Chapter 268A of the General Laws shall apply to all members, officers and employees of the Authority.

**SECTION 8.** The first paragraph of section 7 of said chapter 703, as appearing in section 3 of chapter 290 of the acts of 1998, is hereby amended by striking out, in lines 14 to 19, inclusive, the words "; and provided further, that the Authority shall not issue bonds and notes other than those guaranteed by the commonwealth under said section 10, the principal amount of which, when added to the principal amount of bonds and notes other than those guaranteed by the commonwealth under said section 10 theretofore issued and then outstanding hereunder, excluding bonds and notes previously refunded or being or to be refunded thereby, shall exceed in the aggregate the amount of \$500,000,000".

**SECTION 9.** The fourth paragraph of said section 7 of said chapter 703, as appearing in section 10 of chapter 800 of the acts of 1985, is hereby amended by striking out, in line 4, the words "but not".

**SECTION 10.** The first paragraph of section 18A of said chapter 703, inserted by section 5 of chapter 290 of the acts of 1998, is hereby amended by striking out the first 3 sentences and inserting in place thereof the following 2 sentences:- To provide for the expenses of the Authority and for the payment of indebtedness incurred by it in carrying out this act, the trustees may, in the name and on behalf of the commonwealth, in connection with any financing or refunding provided by the Authority or in connection with any transfer to the Authority of buildings or other property under section 5, transfer or pledge that they will periodically transfer to the Authority or any other state college affiliate under terms permitting further transfer or pledge to the Authority: (i) all or any part of any nonappropriated funds or

revenue legally available to a state college including, without limitation, tuition, fees and other charges; and (ii) all or any part of any funds made available for expenditure by or on behalf of a state college under an appropriation made by the general court or otherwise available for expenditure by the trustees, but if amounts described in clause (i) have been pledged as security for a financing, those amounts shall be exhausted before amounts described in clause (ii) shall be available for this purpose, and amounts described in clause (ii) shall be used only to prevent a default by the Authority in connection with indebtedness incurred by the Authority on behalf of the applicable state college. The trustees may contract with the Authority or any other state college affiliate to permit further transfer or pledge of such amounts by the Authority to a trustee under a trust agreement entered into by the Authority but, in the case of any funds expected to be available for expenditure by the trustees under subsequent appropriation or other spending authorization by the general court, the trustees shall only pledge that they will transfer these funds subject to that subsequent appropriation or other spending authorization.

**SECTION 10A.** Section 29A of chapter 193 of the acts of 2004 is hereby repealed.

**SECTION 11.** Notwithstanding any general or special law to the contrary, the unexpended and unencumbered balances of the bond-funded authorizations in the following accounts shall cease to be available for expenditure: 1102-0890, 1102-0961, 1102-0964, 1102-9897, 2000-1962, 7100-0001, 7109-0961, 7109-0962, 7109-7893, 7110-0960, 7112-0960, 7112-0961, 7113-0960, 7114-0960, 7114-0961, 7115-0960, 7115-0961, 7116-0960, 7117-0960, 7118-0960, 7118-0961, 7118-7962, 7220-0960, 7220-0961, 7220-7893, 7310-0960, 7410-7960, 7452-7960, 7452-7961, 7452-7963, 7452-7964, 7452-7965, 7502-0960, 7503-7960, 7503-7892, 7504-7960, 7504-7961, 7505-7960, 7506-7961, 7506-7962, 7507-7960, 7508-0960, 7509-7960, 7510-7960, 7510-7961, 7511-7960, 7512-7960, 7512-7961, 7514-7960, 7514-7961, 7516-7960.

**SECTION 12.** Notwithstanding any general or special law to the contrary, any structure that is built, renovated, rehabilitated or repainted in any manner as a result of the funds contained in this act shall be required to employ a photo luminescent system to clearly delineate egress routes leading to all exits, including traditional, emergency, and evacuation routes. In all instances the photo luminescent technologies shall be situated at floor level, which shall mean on the floor or within the first 12 inches from the floor on the wall. The installation of this technology on these routes shall not require the use of electrical power, but shall require performance standards of the photo luminescent technology, post loss of power, to achieve a minimum of 150 mcd/m<sup>2</sup> at 10 minutes, 30 mcd/m<sup>2</sup> at 60 minutes and 15 mcd/m<sup>2</sup> after 90 minutes. These route systems shall meet state building code and fire code standards for heat resistance to be a viable safety path in extreme fire and smoke and other calamitous events.

**SECTION 13.** The secretary of administration and finance shall submit a report on the progress and all expenditures related to the projects specified in this act and any other projects funded through the authorizations in this act to the secretary of education, the board of higher education, the clerks of the

senate and house of representatives, the chairs of the senate and house committees on ways and means, the senate and house chairs of the joint committee on higher education and the chairs of the joint committee on Bonding, Capital Expenditures and State Assets. The report shall include, but not be limited to: the total amount appropriated for each project; the total estimated cost of each project; the amount expended for the planning and design of each project up to the time the report is filed; the amount expended on construction of each project up to the time the report is filed; the total amount currently expended on each project; the estimated lifetime maintenance schedule and cost of each project; the original estimated completion date of each project; and the current anticipated completion date of each project and, if the project has been de-authorized, the reason for and date of de-authorization. The report shall be submitted on June 30 and December 31 of each year for a period of 10 years from the effective date of this act.

**SECTION 13A.** Notwithstanding any general or special law to the contrary, a private entity engaged in a construction, development, renovation, remodeling, reconstruction, rehabilitation or redevelopment project receiving funds pursuant to this act shall properly classify individuals employed on the project and shall comply with all laws concerning workers' compensation insurance coverage, unemployment insurance, social security taxes and income taxes with respect to all such employees. All construction contractors engaged by an entity on any such project shall furnish documentation to the appointing authority showing that all employees employed on the project have hospitalization and medical benefits that meet the minimum requirements of the connector board established in chapter 176Q of the General Laws.

**SECTION 14.** Section 11 shall take effect 90 days after the effective date of this act.

*Approved August 6, 2008*

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Acts  
2008

**CHAPTER 27** AN ACT REORGANIZING CERTAIN EDUCATION AGENCIES.

*Be it enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same as follows:*

**SECTION 1.** Section 17A of chapter 6 of the General Laws, as appearing in section 1 of chapter 19 of the acts of 2007, is hereby amended by inserting after the word “finance,”, in the second sentence, the following words:- the secretary of education,.

**SECTION 2.** Section 2 of chapter 6A of the General Laws, as appearing in section 3 of chapter 19 of the acts of 2007, is hereby amended by inserting after the word “finance,”, in the first sentence, the following word:- education,.

**SECTION 3.** Chapter 6A of the General Laws, as appearing in the 2006 Official Edition, is hereby amended by inserting after section 14 [Repealed] the following section:-

**§ 14A. Executive office of education**

Section 14A. (a) There shall be an executive office of education, which shall include the departments of early education and care, elementary and secondary education, and higher education.

(b) The executive office of education shall be under the supervision and control of a secretary of education, in this section called the secretary. The secretary shall be appointed by and serve at the pleasure of the governor, shall receive such salary as the governor determines, and shall devote full time to the duties of her office.

(c) The secretary shall have the following duties and powers: (1) analyze the present and future goals, needs, and requirements of public education in the commonwealth; (2) pursuant to chapters 15A, 15D, 69, and 75, review and approve mission statements and 5-year master plans encompassing each sector of the public education system, including early education and care, elementary and secondary education, and public higher education. These mission statements and master plans shall take into account the secretary’s analysis of goals, needs, and requirements and shall be designed to achieve a well coordinated system of education from early childhood through the university level and beyond; (3) approve the appointments of the commissioners of early education and care, elementary and secondary education, and higher education; (4) make recommendations to the secretary of administration and finance and the governor concerning the funding of education in the commonwealth and assist in preparing budget proposals to be put before the legislature on behalf of

the boards and departments of early education and care, elementary and secondary education, and higher education; (5) serve as the governor's advisor on educational issues and represent the interests of education in the governor's cabinet; and (6) serve as an ex officio voting member of the boards of early education and care, elementary and secondary education, and higher education and the board of trustees of the University of Massachusetts, and facilitate coordination and communication between and among those boards.

(d) The secretary may, subject to appropriation, appoint such other employees as she deems necessary to carry out her duties and responsibilities, shall be provided with adequate offices, and may expend sums for other necessary expenses of the executive office.

(e) Nothing in this section shall be construed as conferring any powers upon the secretary with respect to the boards or departments of early education and care, elementary and secondary education, and higher education except as set forth in this section or as otherwise expressly provided by law.

**SECTION 4.** The title of chapter 15 of the General Laws, as appearing in the 2006 Official Edition, is hereby amended by inserting after the word "OF" the following words:- ELEMENTARY AND SECONDARY.

**SECTION 5.** Chapter 15, as so appearing, is hereby amended by striking out section 1 and inserting in place thereof the following section:-

Section 1. There shall be within the executive office of education a department of elementary and secondary education, in this chapter called the department, which shall be under the supervision and management of the commissioner of elementary and secondary education, in this chapter called the commissioner.

**SECTION 6.** Section 1E of chapter 15, as so appearing, is hereby amended by striking out the first two sentences and inserting in place thereof the following sentences:- There shall be in the department a board of elementary and secondary education, in this chapter called the board, which shall consist of the chairman of the student advisory council established under this section, the secretary of education, in this chapter called the secretary, or her designee, and 9 members appointed by the governor. The 9 members appointed by the governor shall consist of 1 representative of a labor organization selected by the governor from a list of 3 nominees provided by the Massachusetts State Labor Council, AFL-CIO; 1 representative of business or industry selected by the governor with a demonstrated commitment to education; 1 representative of parents of school children selected by the governor from a list of 3 nominees provided by the Massachusetts Parent Teachers Association; and 6 additional members.

**SECTION 7.** Section 1E of chapter 15, as so appearing, is hereby amended by striking out the fourth and fifth sentences and inserting in place thereof the following sentences:- Not more than two members of said board shall be employed on a full-time basis by any agency of the commonwealth. Of

the 9 members appointed by the governor, 1 shall be appointed for a term that is coterminous with that of the governor. Each of the remaining 8 members shall be appointed for a term of 5 years. Vacancies shall be filled consistent with the requirements of section 10 of chapter 30.

**SECTION 8.** Section 1E of chapter 15, as so appearing, is hereby amended by inserting after the first sentence in the third paragraph the following sentence:- Members of the board who are employed on a full-time basis by the commonwealth shall be ineligible to serve as chairperson.

**SECTION 9.** Chapter 15, as so appearing, is hereby amended by striking out section 1F and inserting in place thereof the following section:-

**Section 1F. Commissioner of elementary and secondary education; appointment; duties; salary**

Section 1F. Whenever a vacancy occurs in the position of commissioner, the board shall by a two-thirds vote of all its members submit to the secretary, for the secretary's approval, a recommended candidate to fill that vacancy. The secretary may appoint the recommended candidate as commissioner. If the secretary declines to appoint the candidate, the board shall submit a new candidate for consideration. The secretary may appoint the commissioner only from candidates submitted to the secretary by the board.

The board may in its discretion by majority vote of all its members remove the commissioner. The commissioner shall be the secretary to the board, its chief executive officer and the chief state school officer for elementary and secondary education. The commissioner shall receive a salary to be determined by the board.

The board may delegate its authority or any portion thereof to the commissioner whenever in its judgment such delegation may be necessary or desirable. The commissioner shall exercise such delegated powers and duties with the full authority of the board.

**SECTION 10.** Section 1 of chapter 15A of the General Laws, as appearing in the 2006 Official Edition, is hereby amended by inserting after the third sentence in the fourth paragraph, at line 32, the following sentence:- All mission statements shall be subject to review and approval by the secretary of education, in this chapter called the secretary.

**SECTION 11.** Section 2 of chapter 15A is hereby repealed.

**SECTION 12.** Section 3A of chapter 15A, as so appearing, is hereby amended by inserting after the words "in consultation with", in line 25, the following words:- the secretary and.

**SECTION 13.** Subsection (a) of section 4 of chapter 15A, as so appearing, is hereby amended by

striking out the first sentence and inserting in place thereof the following sentence:-

The board of higher education, hereinafter referred to in this chapter as the council or the board, shall be composed of 13 voting members, consisting of the secretary of education, ex officio, or her designee, 9 members appointed by the governor reflecting regional geographic representation, and 3 members chosen to represent public institutions of higher education.

**SECTION 14.** Subsection (a) of section 4 of chapter 15A, as so appearing, is hereby amended by striking out, in line 20, the words “selected by the chair of” and inserting in place thereof the following words:- as voted by.

**SECTION 15.** Subsection (a) of section 4 of chapter 15A, as so appearing, is hereby amended by inserting after the word “Art”, in line 26, the following words:- and Design.

**SECTION 16.** Subsection (a) of section 4 of chapter 15A, as so appearing, is hereby amended by striking out the last sentence.

**SECTION 17.** Subsection (b) of section 4 of chapter 15A, as so appearing, is hereby amended by striking out, in line 30, the word “Members” and inserting in place thereof the following words:- Three of the board members appointed by the governor shall be appointed for terms that are coterminous with that of the governor. The secretary shall serve on the board while she holds the position of secretary. The remaining members.

**SECTION 18.** Subsection (b) of section 4 of chapter 15A, as so appearing, is hereby amended by inserting after the word “consecutive”, in line 46, the following word:- full.

**SECTION 19.** Subsection (b) of section 4 of chapter 15A, as so appearing, is hereby amended by inserting after the sixth sentence, in line 47, the following sentence:- Service for a term of less than 3 years, resulting from an initial appointment or an appointment for the remainder of an unexpired term, shall not be counted as a full term.

**SECTION 20.** Subsection (b) of section 4 of chapter 15A, as so appearing, is hereby amended by inserting after the eighth sentence, in line 53, the following sentence:- Vacancies shall be filled consistent with the requirements of section 10 of chapter 30.

**SECTION 21.** Subsection (d) of section 4 of chapter 15A, as so appearing, is hereby amended by inserting after the second sentence, in line 63, the following sentence:- Members of the board who are employed on a full-time basis by the commonwealth shall be ineligible to serve as chairperson.

**SECTION 22.** Subsection (d) of section 4 of chapter 15A, as so appearing, is hereby amended by

striking out, in the third sentence, the words “5 regularly scheduled meetings during a calendar year” and inserting in place thereof the following words:- 4 regularly scheduled meetings during an academic year.

**SECTION 23.** Subsection (g) of section 4 of chapter 15A, as so appearing, is hereby amended by striking out, in line 79, the word “Six” and inserting in place thereof the following word:- Seven; and by striking out, in line 80, the number “6” and inserting in place thereof the following number:- 7.

**SECTION 24.** Chapter 15A is further amended by striking out section 6 and inserting in place thereof the following section:-

**§ 6. Department of higher education; Commissioner; other employees; appointments; salaries; powers and duties**

Section 6. There shall be within the executive office of education a department of higher education, in this chapter called the department.

The council shall, whenever a vacancy may occur, by a two-thirds vote of all its voting members, submit to the secretary, for the secretary’s approval, a recommended candidate to serve as the commissioner of higher education, in this chapter called the commissioner. The secretary may appoint the recommended candidate as commissioner. If the secretary declines to appoint the candidate, the council shall submit a new candidate for consideration. The secretary may appoint the commissioner only from candidates submitted to the secretary by the council.

The commissioner shall be the executive and administrative head of the department. The commissioner shall serve at the pleasure of the council and may be removed by a majority vote of all its members. The commissioner shall not be subject to chapter 31 or to section 9A of chapter 30.

The commissioner shall be the secretary to the council and its chief executive officer and the chief school officer for higher education. The commissioner shall be responsible for carrying out the policies established by the council. The council may delegate its authority or any portion thereof to the commissioner whenever in its judgment such delegation may be necessary or desirable. The commissioner shall exercise any such powers or duties delegated with the full authority of the council in any matter concerning the system of public institutions of higher education subject to the direction and approval of the council.

The commissioner shall devote her full time during business hours to the duties of her office and shall, subject to appropriation, receive such salary as the council may determine. The commissioner may, subject to appropriation, appoint such other employees as she deems necessary to carry out her duties and responsibilities, shall be provided with adequate offices, and may expend sums for other necessary expenses of the department.

**SECTION 25.** Section 7 of chapter 15A, as so appearing, is hereby amended by striking out, in the first sentence, the words “adopt mission statements” and inserting in place thereof the following words:- submit mission statements for review and approval by the secretary.

**SECTION 26.** Section 7 of chapter 15A, as so appearing, is hereby amended by inserting before the word “council”, in lines 10 and 12, the following words:- secretary and the.

**SECTION 27.** Section 7 of chapter 15A, as so appearing, is hereby amended by striking out, in the second paragraph, the third sentence and inserting in place thereof the following sentence:- All institutional mission statements, as developed and submitted by boards of trustees, shall be subject to approval by the secretary, in consultation with the council.

**SECTION 28.** Section 7 of chapter 15A, as so appearing, is hereby amended by striking out, in the third paragraph, the second sentence and inserting in place thereof the following sentence:- The secretary, in consultation with the council, may, as she deems necessary, undertake or cause to be undertaken revisions of said statements.

**SECTION 29.** Section 7 of chapter 15A, as so appearing, is hereby amended by striking out, in lines 23 and 24, the words “board of higher education, for its approval,” and inserting in place thereof the following words:- secretary and the board of higher education.

**SECTION 30.** Section 7 of chapter 15A, as so appearing, is hereby amended by striking out, in the fourth paragraph, the third, fourth, fifth, and sixth sentences and inserting in place thereof the following sentences:- Said proposal, upon its receipt, shall be transmitted to the secretary of administration and finance, the chairs of the house and senate committees on ways and means, and the house and senate chairs of the joint committee on higher education. The secretary, in consultation with the council, shall have the authority to approve, reject, or propose amendments to said plan. Proposed amendments shall be returned to the institution’s board of trustees.

**SECTION 31.** Subsection (a) of section 7A of chapter 15A, as so appearing, is hereby amended by inserting after the word “institutions”, in line 6, the following words:- and the secretary.

**SECTION 32.** Subsection (b) of section 7A of chapter 15A, as so appearing, is hereby amended by striking out, in line 23, the word “kindergarten” and inserting in place thereof the following words:- early childhood.

**SECTION 33.** Subsection (e) of section 7A of chapter 15A, as so appearing, is hereby amended by inserting after the word “institutions”, in line 42, the following words:- and the secretary.

**SECTION 34.** Subsection (e) of section 7A of chapter 15A, as so appearing, is hereby amended by

striking out, in line 47, the words “education, arts and humanities” and inserting in place thereof the following words:- higher education.

**SECTION 35.** Subsection (f) of section 7A of chapter 15A, as so appearing, is hereby amended by striking out, in the third sentence, the words “joint committee on education, arts and humanities” and inserting in place thereof the following words:- joint committee on higher education.

**SECTION 36.** Subsection (g) of section 7A of chapter 15A, as so appearing, is hereby amended by striking out the word “chancellor” and inserting in place thereof the following word:- commissioner.

**SECTION 37.** Subsection (h) of section 7A of chapter 15A, as so appearing, is hereby amended by striking out the words “board shall structure its” and inserting in place thereof the following words:- commissioner shall structure her.

**SECTION 38.** Subsection (i) of section 7A of chapter 15A, as so appearing, is hereby amended by inserting after the words “in consultation with”, in the first sentence, the following words:- the secretary and.

**SECTION 39.** Subsection (i) of section 7A of chapter 15A, as so appearing, is hereby amended by striking out, in lines 78 and 79, the word “kindergarten” and inserting in place thereof the following words:- early childhood.

**SECTION 40.** Subsection (i) of section 7A of chapter 15A, as so appearing, is hereby amended by striking out, in the last sentence, the word “may” and inserting in place thereof the following word:- shall.

**SECTION 41.** Subsection (j) of section 7A of chapter 15A, as so appearing, is hereby amended by striking out, in the first sentence, the words “The university shall” and inserting in place thereof the following words:- The university, in consultation with the secretary, shall.

**SECTION 42.** Subsection (j) of section 7A of chapter 15A, as so appearing, is hereby amended by inserting after the words “annually to the”, in the second sentence, the following words:- secretary, the.

**SECTION 43.** Clause (b) of section 9 of chapter 15A, as so appearing, is hereby amended by striking out the third, fourth, fifth, and sixth sentences and inserting in place thereof the following sentences:- The council may, after a public hearing and submission of a written report to the clerks of the house of representatives and the senate, by a two-thirds vote of the full membership of the council, recommend to the secretary to consolidate, discontinue, or transfer divisions, schools, stations, branches or institutions as the council deems advisable. If, in the opinion of the council, a college campus should be closed or consolidated, the council shall make that recommendation to the secretary and the

secretary, if she approves the closure recommendation, shall submit such proposal to the secretary of administration and finance, the house and senate chairs of the joint committee on higher education, and the chairs of the house and senate ways and means committees. The joint committee on higher education may, within 30 days of the receipt of a proposal, hold a public hearing on its merits. The council shall not close a college without the authorization of the secretary and the general court;.

**SECTION 44.** Clause (c) of section 9 of chapter 15A, as so appearing, is hereby amended by striking out, in lines 30 and 31, the words “secretary of economic development and his staff” and inserting in place thereof the following words:- secretary of labor and workforce development, the secretary of housing and economic development, and their respective staffs.

**SECTION 45.** Clause (d) of section 9 of chapter 15A, as so appearing, is hereby amended by striking out, in line 31, the words “and adopt”.

**SECTION 46.** Clause (e) of section 9 of chapter 15A, as so appearing, is hereby amended by striking out, in line 32, the word “approve” and inserting in place thereof the following word:- review.

**SECTION 47.** Clause (f) of section 9 of chapter 15A, as so appearing, is hereby amended by inserting before the word “prepare”, in line 33, the following words:- subject to the secretary’s approval,.

**SECTION 48.** Clause (f) of section 9 of chapter 15A, as so appearing, is hereby amended by inserting after the words “clause (c)”, in line 35, the following word:- and.

**SECTION 49.** Section 9 of chapter 15A, as so appearing, is hereby amended by striking out clause (l) and inserting in place thereof the following new clause:-

(l) require each institution in the system to submit to the council and the secretary a 5-year plan, which plan shall be updated annually and shall be subject to the secretary’s approval, in consultation with the council;

**SECTION 50.** Clause (n) of section 9 of chapter 15A, as so appearing, is hereby amended by striking out, in lines 90 and 91, the word “chancellor” and inserting in place thereof the following word:- commissioner.

**SECTION 51.** Clause (cc) of section 9 of chapter 15A, as so appearing, is hereby amended by inserting after the first sentence the following sentences:-Such assistance shall consist of full or partial loans to students in need of assistance. Repayment shall commence within six months of graduation or termination of studies; provided, that no repayment schedule shall exceed a term of ten years. Monies received in repayment shall be retained by the council to provide the no interest loans and to provide for the administration of the programs without further appropriation; provided, however, that not more than \$775,000 of the monies shall be expended annually for the administration of the

program. The Massachusetts state scholarship office shall establish guidelines to govern said program which shall include, but not be limited to, eligibility requirements for students, eligibility requirements for participating institutions, terms of payment, deferment options, provisions for default, and a maximum and minimum loan award as determined by an indexing system;

**SECTION 52.** Clause (ee) of section 9 of chapter 15A, as so appearing, is hereby amended by striking out, in line 204, the words “2 of this act” and inserting in place thereof the following words:- 22 of this chapter.

**SECTION 53.** Clause (ff) of section 9 of chapter 15A, as so appearing, is hereby amended by inserting after the words “to section”, in line 207, the following word:- 7.

**SECTION 54.** Clause (gg) of section 9 of chapter 15A, as so appearing, is hereby amended by striking out, in lines 211 through 224, the second, third, fourth, and fifth sentences.

**SECTION 55.** Section 9 of chapter 15A, as so appearing, is hereby amended by striking out, in line 244, the words “education, arts and humanities” and inserting in place thereof the following words:- higher education.

**SECTION 56.** Section 15 of chapter 15A, as so appearing, is hereby amended by striking out, in line 1, the words “The council shall” and inserting in place thereof the following words:- In accordance with the funding formulas referenced in section 15B of this chapter, the secretary, in consultation with the council and with the board of trustees for the university of Massachusetts, shall.

**SECTION 57.** Section 15 of chapter 15A, as so appearing, is hereby amended by striking out, in line 10, the words “The council shall” and inserting in place thereof the following words:- The secretary, in consultation with the council and with the board of trustees for the university of Massachusetts, shall.

**SECTION 58.** Section 15 of chapter 15A, as so appearing, is hereby amended by striking out, in line 14, the word “council” and inserting in place thereof the following word:- secretary.

**SECTION 59.** Section 15 of chapter 15A, as so appearing, is hereby amended by striking out, in line 16, the word “it” and inserting in place thereof the following word:- she.

**SECTION 60.** Section 15B of chapter 15A, as so appearing, is hereby amended by inserting before the word “council”, in lines 6, 10, 11, and 17, the following words:- secretary and the.

**SECTION 61.** Section 15B of chapter 15A, as so appearing, is hereby amended by inserting after the words “boards of trustees”, in line 23, the following words:- and the secretary.

**SECTION 62.** Section 15B of chapter 15A, as so appearing, is hereby amended by inserting after the

words “board of higher education”, in line 25, the following words:- and the secretary.

**SECTION 63.** Section 15B of chapter 15A, as so appearing, is hereby amended by striking out the fifth paragraph and inserting in place thereof the following paragraph:-

The council shall review the institutional budget requests prepared by each board of trustees and shall submit comments and recommendations concerning those requests to the secretary. The secretary shall then prepare a comprehensive budget request for the public higher education system, with comments and recommendations, for use by the secretary of administration and finance, the house and senate committees on ways and means and the joint committee on higher education. In the case of the university, it shall be the responsibility of the trustees to submit comments and recommendations regarding the budget requests of individual campuses within the university system to the secretary and the board of higher education. In the case of any institution, or the university, having failed to submit data according to the schedule established under clause (s) of the first paragraph of section 9, the secretary may withhold transmittal of the budget request from that board of trustees to the secretary of administration and finance and committees. The comments and recommendations attached by the secretary and the board of higher education for each state and community college and by the board of trustees of the university for each university campus, shall be consistent with the funding formulas, statewide needs, performance measurement standards, as well as the mission statements and 5-year plans for individual campuses and the public higher education system as a whole. They shall also reflect analysis by the respective boards for each campus regarding progress made by the campuses in fulfilling strategic plans including, but not limited to, significant achievements and progress in addressing any previously identified deficiencies. The comments and recommendations shall be made available to the individual institutions and campuses before submission to the secretary of administration and finance and legislative committees with sufficient time allowed to provide opportunity for comment and response by those institutions and campuses. In reviewing the various estimates and requests, the secretary and the council may comment on the overall level of funding for the system of public higher education and may comment regarding funding priorities among segments of the system of public higher education and among the various institutions. The secretary shall submit her recommendations and comments to the secretary of administration and finance, the house and senate committees on ways and means and the joint committee on higher education. The secretary shall include in addition to the information provided by the boards of trustees all program costs which are to be borne by any other source other than the commonwealth, including such sources as federal financing or federal research, demonstration or training grants, community contributions and other grants, endowments or trusts.

**SECTION 64.** Section 21 of chapter 15A, as so appearing, is hereby amended by inserting before the word “board”, in line 1, the following word:- a.

**SECTION 65.** Section 21 of chapter 15A, as so appearing, is hereby amended by striking out, in line

49, the word “calendar” and inserting in place thereof the following word:- academic.

**SECTION 66.** Section 21 of chapter 15A, as so appearing, is hereby amended by striking out, in lines 53 and 54, the words “higher education coordinating”.

**SECTION 67.** Clause (a) of section 22 of chapter 15A, as so appearing, is hereby amended by inserting before the word “council”, in line 6, the following words:- secretary and the.

**SECTION 68.** Section 22 of chapter 15A, as so appearing, is hereby amended by striking out clause (l) and inserting in place thereof the following new clause:- (l) submit a 5-year master plan to the secretary and the council, which plan shall be subject to the secretary’s approval, in consultation with the council, and shall be updated annually according to a schedule determined by the secretary and the board in consultation with the board of trustees;

**SECTION 69.** Section 22 of chapter 15A, as so appearing, is hereby amended by striking out clause (m) and inserting in place thereof the following new clause:-

(m) submit financial data and other data as required by the secretary and the board of higher education for the careful and responsible discharge of their purposes, functions, and duties. The data shall be reported annually to the secretary and the board of higher education according to a schedule determined by the secretary and the board of higher education in consultation with the board of trustees. The board of trustees shall also submit an annual institutional spending plan to the secretary and the council for review, comment, and transmittal to the secretary of administration and finance, the house and senate committees on ways and means and the joint committee on higher education. Spending plans shall be reported using a standardized format developed by the secretary, in consultation with the board of higher education and the institutional boards of trustees, in a manner to allow comparison of similar costs between the various institutions of the commonwealth. Said plan shall include an account of spending from all revenue sources including but not limited to, trust funds;

**SECTION 70.** Clause (n) of section 22 of chapter 15A, as so appearing, is hereby amended by striking out, in lines 60 and 61, the words “council for its approval” and inserting in place thereof the following words:- secretary and the council for approval.

**SECTION 71.** Section 22 of chapter 15A, as so appearing, is hereby amended by striking out clause (o) and inserting in place thereof the following new clause:- (o) submit an institutional self-assessment report to the secretary and the council, which the board of trustees shall make public and available at the institution. Said assessment report shall be used to foster improvement at the institution by the board of trustees and shall include information relative to the institution's progress in fulfilling its approved mission. Said report shall be submitted annually to the secretary and the board of higher education according to a schedule determined by the secretary and said board in consultation with the board of trustees.

**SECTION 72.** Clause (p) of section 22 of chapter 15A, as so appearing, is hereby amended by striking out, in line 72, the words “board of higher education, for its approval” and inserting in place thereof the following words:- secretary and the board of higher education, for approval.

**SECTION 73.** Section 23 of chapter 15A, as so appearing, is hereby amended by inserting before the word “council”, in lines 2 and 5, the following words:- secretary and the.

**SECTION 74.** Section 2 of chapter 15D of the General Laws, as appearing in the 2006 Official Edition, is hereby amended by inserting after the word “be”, in the first sentence, the following words:- in the executive office of education.

**SECTION 75.** Section 2 of chapter 15D, as so appearing, is amended by striking out, in lines 13 and 14, the words “control of a board of early education and care” and inserting in place thereof the following words:- management of the commissioner of early education and care, in this chapter called the commissioner.

**SECTION 76.** Subsection (b) of section 3 of chapter 15D, as so appearing, is amended by striking out the first sentence and inserting in place thereof the following sentence:- The board shall consist of 11 members, and shall include: the secretary of education, ex-officio, in this chapter called the secretary, or her designee; the secretary of health and human services, ex-officio; and 9 members appointed by the governor.

**SECTION 77.** Subsection (b) of section 3 of chapter 15D, as so appearing, is amended by striking out, in line 33, the word “and”.

**SECTION 78.** Subsection (b) of section 3 of chapter 15D, as so appearing, is amended by inserting after the word “psychology”, in lines 34 and 35, the following words:- ; and 3 shall be additional members.

**SECTION 79.** Subsection (b) of section 3 of chapter 15D, as so appearing, is amended by striking out, in line 47, the word “Five” and inserting in place thereof the following word:- Six.

**SECTION 80.** Subsection (b) of section 3 of chapter 15D, as so appearing, is amended by striking out, in line 47, the number “5” and inserting in place thereof the following number:- 6.

**SECTION 81.** Subsection (b) of section 3 of chapter 15D, as so appearing, is amended by striking out, in the fourth paragraph, the first sentence and inserting in place thereof the following sentences:- Of the 9 members appointed by the governor, 1 shall be appointed for a term that is coterminous with that of the governor. Each of the remaining 8 members shall be appointed for a term of 5 years. Vacancies shall be filled consistent with the requirements of section 10 of chapter 30.

**SECTION 82.** Subsection (b) of section 3 of chapter 15D, as so appearing, is amended by inserting after the word “terms.”, in line 50, the following sentence:- Service for a term of less than 3 years, resulting from an initial appointment or an appointment for the remainder of an unexpired term, shall not be counted as a full term.

**SECTION 83.** Subsection (b) of section 3 of chapter 15D, as so appearing, is amended by striking out, in the fifth paragraph, the third sentence and inserting in place thereof the following sentences:- Not more than 2 members of the board shall be employed on a full-time basis by any agency of the commonwealth. Members of the board who are employed on a full-time basis by the commonwealth shall be ineligible to serve as chairperson.

**SECTION 84.** Subsection (e) of section 3 of chapter 15D, as so appearing, is amended by striking out, in the first sentence, the words “arts and humanities,”.

**SECTION 85.** Section 4 of chapter 15D, as so appearing, is amended by striking out the first paragraph and inserting in place thereof the following paragraphs:-

Section 4. The board shall by a 2/3 vote of its members submit to the secretary, for the secretary’s approval, a recommended candidate to serve as the commissioner of early education and care, in this chapter called the commissioner. The secretary may appoint the recommended candidate as commissioner. If the secretary declines to appoint the candidate, the board shall submit a new candidate for consideration. The secretary may appoint the commissioner only from candidates submitted to the secretary by the board.

The board may in its discretion by majority vote of its members remove the commissioner. The commissioner shall be the secretary to the board and its chief executive officer and shall be the executive and administrative head of the department. The commissioner shall receive a salary to be determined by the board.

**SECTION 86.** Section 4 of chapter 15D, as so appearing, is amended by inserting after the second paragraph the following paragraphs:-

The commissioner shall propose a budget to the board; said budget shall reflect the goals and objectives of the board and the secretary. The board shall review and make recommendations regarding the budget to the secretary. The secretary shall then prepare and submit a budget request on behalf of the department to the house and senate committees on ways and means, the joint committee on education, and the secretary of administration and finance.

The commissioner shall analyze the present and future goals, needs and requirements of early childhood education and care in the commonwealth and recommend to the board comprehensive

means to achieve a well-coordinated system of high achievement in early childhood education and care in the commonwealth. Following consultation with the board, the commissioner shall prepare and submit to the secretary, for the secretary's review and approval, a 5-year master plan for achieving such a coordinated system. The master plan along with an annual progress report shall reflect the goals and standards established by the board and the secretary.

The board may delegate its authority or any portion thereof to the commissioner whenever in its judgment such delegation may be necessary or desirable. The commissioner shall exercise such delegated powers and duties with the full authority of the board.

The commissioner may, subject to appropriation, appoint such other employees as she deems necessary to carry out her duties and responsibilities, shall be provided with adequate offices, and may expend sums for other necessary expenses of the department.

**SECTION 87.** The title of chapter 69 of the General Laws, as appearing in the 2006 Official Edition, is hereby amended by inserting after the words "DEPARTMENT OF" the following words:-  
ELEMENTARY AND SECONDARY.

**SECTION 88.** The title of section 1A of chapter 69, as so appearing, is hereby amended by inserting after the word "of" the following words:- elementary and secondary.

**SECTION 89.** Section 1A of chapter 69, as so appearing, is hereby amended by striking out the first paragraph and inserting in place thereof the following paragraph:-

Section 1A. There shall be within the executive office of education a department of elementary and secondary education, hereinafter called the department, which shall be under the supervision and management of a commissioner of elementary and secondary education, hereinafter called the commissioner. Said commissioner shall be appointed pursuant to section 1F of chapter 15 and shall devote full time to the duties of the office.

**SECTION 90.** Section 1A of chapter 69, as so appearing, is hereby amended by inserting after the words "board of", in line 6, the following words:- elementary and secondary.

**SECTION 91.** Section 1A of chapter 69, as so appearing, is hereby amended by striking out the third paragraph and inserting in place thereof the following paragraph:-

The commissioner shall propose a budget to the board; said budget shall reflect the goals and objectives of the board and the secretary of education, in this chapter called the secretary. The board shall review and make recommendations regarding the budget to the secretary. The secretary shall then prepare and submit a budget request on behalf of the department to the house and senate

committees on ways and means, the joint committee on education, and the secretary of administration and finance.

**SECTION 92.** Section 1A of chapter 69, as so appearing, is hereby amended by striking out, in line 28, the words “shall prepare” and inserting in place thereof the following words:- shall, in consultation with the board, prepare and submit to the secretary for the secretary’s review and approval.

**SECTION 93.** Section 1A of chapter 69, as so appearing, is hereby amended by inserting after the word “board”, in line 37, the following words:- and the secretary.

**SECTION 94.** The title of section 1B of chapter 69, as so appearing, is hereby amended by inserting after the words “Board of” the following words:- elementary and secondary.

**SECTION 95.** Section 1B of chapter 69, as so appearing, is hereby amended by striking out, in line 139, the words “, arts, and humanities”.

**SECTION 96.** Section 1D of chapter 69, as so appearing, is hereby amended by striking out, in line 48, the words “, arts, and humanities”.

**SECTION 97.** Section 1 of chapter 75 of the General Laws, as appearing in the 2006 Official Edition, is hereby amended by inserting after the words “provided in”, in line 13, the following words:- section 14A of chapter 6A,.

**SECTION 98.** Section 1A of chapter 75, as so appearing, is hereby amended by striking out, in line 3, the words “and seventeen” and inserting in place thereof the following words:- 1 member shall be the secretary of education, ex officio, in this chapter called the secretary, or her designee, and 16.

**SECTION 99.** Section 1A of chapter 75, as so appearing, is hereby amended by striking out, in line 31, the word “Members” and inserting in place thereof the following words:- Appointive members.

**SECTION 100.** Section 1A of chapter 75 of the General Laws, as so appearing, is hereby amended by striking out, in line 37, the word “calendar” and inserting in place thereof the following word:- academic.

**SECTION 101.** Section 1A of chapter 75, as so appearing, is hereby amended by striking out, in the fourth paragraph, the sixth and seventh sentences and inserting in place thereof the following sentences:- The governor shall appoint the chair of the board of trustees, who shall serve at the governor’s pleasure. Members of the board who are employed on a full-time basis by the commonwealth shall be ineligible to serve as chair.

**SECTION 102.** Section 1A of chapter 75, as so appearing, is hereby amended by striking out, in line

57, the words “board of higher education” and inserting in place thereof the following words:- secretary and to the board of higher education, in this chapter called the council,.

**SECTION 103.** Section 1A of chapter 75, as so appearing, is hereby amended by striking out, in lines 91 to 93, clause (l) and inserting in place thereof the following new clause:- (l) submit a 5-year master plan to the secretary and the council, which plan shall be subject to the secretary’s approval, in consultation with the council, and shall be updated annually on or before the first Wednesday of December in each year.

**SECTION 104.** Section 1A of chapter 75, as so appearing, is hereby amended by inserting before the word “council”, in line 94, the following words:- secretary and the.

**SECTION 105.** Section 1A of chapter 75, as so appearing, is hereby amended by inserting after the word “develop”, in line 96, the following words:- and submit to the secretary and the board of higher education, for approval,.

**SECTION 106.** Section 1A of chapter 75, as so appearing, is hereby amended by inserting before the word “board”, in line 99, the following words:- secretary and the.

**SECTION 107.** Section 1A of chapter 75, as so appearing, is hereby amended by striking out, in line 126, the words “council for its” and inserting in place thereof the following words:- secretary and the council for.

**SECTION 108.** Section 1A of chapter 75, as so appearing, is hereby amended by inserting before the word “council”, in line 128, the following words:- secretary and the.

**SECTION 109.** Section 1A of chapter 75, as so appearing, is hereby amended by striking out, in line 132, the word “council” and inserting in place thereof the following word:- secretary.

**SECTION 110.** Section 2 of chapter 75, as so appearing, is hereby amended by striking out, in line 15, the words “in the board of higher education” and inserting in place thereof the following words:- of the secretary and the board of higher education as set forth in this chapter, chapter 15A, and other applicable provisions of the General Laws.

**SECTION 111.** Section 7 of chapter 75, as so appearing, is hereby amended by inserting after the word “governor”, in line 2, the following word:- , secretary,

**SECTION 112.** Notwithstanding any general or special law to the contrary, any appointive member currently serving on the Board of Education upon passage of this act shall continue to serve in the following manner. Thomas Fortmann and Sandra Stotsky shall serve until June 30, 2010. S. Paul Reville and the member in the seat currently held by the parent representative shall serve until June

30, 2009. The member in the seat currently held by the representative of a labor organization and the member in the seat currently held by the representative of business or industry shall serve until June 30, 2008. The Governor shall appoint 3 additional members; 2 shall serve until June 30, 2012 and 1 shall serve coterminously with the Governor. All board members shall be eligible for reappointment unless such reappointment is limited under the provisions of section 1E of chapter 15 of the General Laws.

**SECTION 113.** Notwithstanding any general or special law to the contrary, all appointive members currently serving on the Board of Early Education and Care upon passage of this act shall continue to serve for the remainder of their appointed terms. Of the three additional members to be appointed by the Governor, 1 shall serve until March 11, 2009; 1 shall serve until March 11, 2012 and 1 shall serve coterminously with the Governor. All board members shall be eligible for reappointment unless such reappointment is limited under the provisions of section 3(b) of chapter 15D of the General Laws.

**SECTION 114.** Notwithstanding any general or special law to the contrary, all appointive members currently serving on the Board of Higher Education upon passage of this act shall continue to serve for the remainder of their appointed terms. The three additional members to be appointed by the Governor shall be appointed for terms coterminous with that of the Governor. All board members shall be eligible for reappointment unless such reappointment is limited under the provisions of section 4(b) of chapter 15A of the General Laws.

**SECTION 115.** Notwithstanding section 98 of this act and any general or special law to the contrary, the secretary of education shall not become an ex officio voting member of the board of trustees for the University of Massachusetts until an opening next arises on that board due to the departure or the expiration of the term of a presently sitting board member.

**SECTION 116.** Whenever the following former names of boards, departments, or officers appear in any general or special law, regulation, contract or other document, they shall be taken to mean the following boards, departments and officers, respectively:

- (a) the board of education, the board of elementary and secondary education;
- (b) the department of education, the department of elementary and secondary education;
- (c) the commissioner of education; the commissioner of elementary and secondary education;
- (d) the chancellor of higher education, the commissioner of higher education.

**SECTION 117.** This act shall take effect as soon as it has the force of law under subsection (c) of section 2 of Article LXXXVII of the Amendments to the Constitution.

*House of Representatives, February 6, 2008.*

Approved (under the provisions of Article LXXXVII of the Amendments to the Constitution and Joint Rule 23A).

*Salvatore F. DiMasi, Speaker.*

*Steven T. James, Clerk.*

*Senate, February 7, 2008.*

Approved (under the provisions of Article LXXXVII of the Amendments to the Constitution and Joint Rule 23A).

*Therese Murray, President.*

*William F. Welch, Clerk.*

*Approved February 15 , 2008*

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Acts  
2012

**CHAPTER 287** AN ACT RELATIVE TO THIRD GRADE READING PROFICIENCY.

*Be it enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same as follows:*

SECTION 1. (a) There shall be an early literacy expert panel to develop recommendations to have all students in the commonwealth reading proficiently by the end of third grade. The panel shall consist of 9 members: the secretary of education, who shall serve as co-chair, and 8 persons appointed by the secretary, in collaboration with the commissioners of early education and care, elementary and secondary education and higher education, who shall be experts on children's early language and literacy development; provided, however, that 4 shall be selected from a list provided to the secretary from the chairs of the joint committee on education and the chairs of the joint committee on higher education. Panel members shall each be appointed for a term of 4 years. The panel shall designate a co-chair every new term. No member, with the exception of the secretary, shall serve for more than 2 consecutive terms. The members of the panel shall serve without compensation but may be reimbursed for expenses necessarily and reasonably incurred in the performance of their duties. Panel members shall not be, by virtue of their membership, state employees under chapter 268A of the General Laws.

The panel shall meet not less than 4 times annually for the first 4 years. After the first 4 years, the panel co-chairs shall determine the time period in which the panel shall continue to meet.

(b) The panel shall advise the departments of early education and care, elementary and secondary education and higher education and the executive office of education on the refinement and implementation of plans for early literacy development including, but not limited to, the Massachusetts Striving Readers Comprehensive Literacy Plan, the Early Learning Challenge Plan and Race to the Top, including the activities and programs offered by the district and school assistance centers and readiness centers to support language and literacy acquisition for children from birth to third grade, inclusive. The panel shall make recommendations to the secretary and the commissioners of early education and care, elementary and secondary education and higher education on the alignment, coordination and implementation of, including, but not limited to, the following areas:

(1) strategies for evaluating the effectiveness of curricula on language and literacy development for children in early education and care programs and grades pre-kindergarten to third grade, inclusive, that (i) is anchored in rich content; (ii) uses a wide variety of types of text to support content under study; (iii) emphasizes the role of oral language and discussion in promoting early reading skills; and (iv) contains a balanced

instructional design focused on developing both meaning-based skills, such as comprehension, conceptual knowledge, vocabulary and code-based skills, such as letter knowledge, letter sounds and word reading;

(2) effective instructional practices to promote children's language and literacy development in early education and care programs and grades pre-kindergarten to third grade, inclusive, including tiered instructional strategies and materials;

(3) pre-service and in-service professional development and training for educators on language and literacy development, the administration of screenings and assessments, and the analysis of data gained through screenings and assessments to make instructional decisions to improve language and literacy acquisition in young children;

(4) developmentally appropriate screening and assessment to monitor and report on children's progress toward achieving benchmarks in language and literacy development across educational levels prior to third grade and measuring school readiness and children's reading proficiency from pre-kindergarten to third grade;

(5) family partnership strategies for improving the quality, frequency and efficacy of home-school interactions to support children's literacy and language development, as well as, for building community capacity to support family literacy practices; and

(6) action steps to implement the research-based recommendations contained in reports written by experts in early language and literacy development.

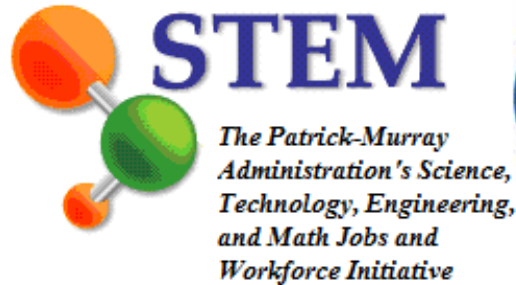
The panel shall also advise on leveraging existing and new federal grant opportunities and private funding to support language and literacy acquisition for children from birth to third grade, inclusive. Subject to appropriation, the secretary and commissioners of early education and care, elementary and secondary education and higher education may appoint personnel necessary to coordinate the activities of the panel and provide administrative support as needed.

SECTION 2. The secretary of education, in coordination with the early literacy expert panel co-chair and the commissioners of early education and care, elementary and secondary education and higher education, shall prepare and submit an annual report on the activities of the early literacy expert panel in advising the departments. The report shall include information on the alignment and collaboration between the 3 commissioners, as overseen by the secretary, on early language and literacy development for children from birth to third grade, inclusive, and on teacher training and professional development on early language and literacy, and all subject areas covered in clauses (1) to (6), inclusive, of subsection (b) of section 1. The report shall also include a description of all state and federal funding related to early literacy and the programs such funding supports. The secretary shall submit the report not later than June 30 to the clerks of the senate and the house of representatives, who shall forward the report to the senate and house chairs of the joint committee on education and the senate and house chairs of the joint committee on higher education. The report shall also be made available on the websites of the departments of early education and care, elementary and secondary education and higher education and on the website of the executive office of education.

SECTION 3. The early literacy expert panel shall conduct its first meeting not later than 60 days after the effective date of this act.

*Approved, September 26, 2012.*

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## STEM Council Accomplishments

Massachusetts has been recognized by the National Governor's Association's Center for Best Practices, Change the Equation, and Innovate+Education as a top STEM state and we were rated number one by the U.S. Department of Education on the nationwide Race to the Top Competition. The @Scale initiative created by the STEM Council has been hailed as a breakthrough model for public/private funding to replicate and bring to scale transformative, system wide improvements in STEM education.

Together in three and a half years we have achieved so much:

1. Massachusetts statewide ***STEM initiative and STEM plan*** is recognized by the National Governor's Association and referenced by many state STEM leaders as a top example for convening government, education and private sector resources to govern and attain quantifiable outcome improvements for students, educators and the STEM workforce.
2. Massachusetts long-standing model system of ***Regional STEM Networks*** which convene K12 school districts, higher education, businesses, not-for-profit organizations and local government agencies, aligning core strategies of the statewide STEM plan to local education and economic needs, is recognized as "best practice" and is being adopted, nationally.
3. Massachusetts ***@Scale Initiative***, designed to identify and promote a portfolio of emerging "best practice" in-school and out-of-school projects spanning the STEM disciplines and grade levels from pre-K to college has been hailed as a breakthrough model for public/private funding to replicate and bring to scale transformative, system wide improvements in STEM education.
4. The ***Massachusetts Afterschool Partnership*** program was recently selected among a cohort of only four states nationally to infuse STEM into expanded learning, afterschool and summer programs and build systems-capacity in collaboration with our Regional STEM Networks to increase STEM opportunities in afterschool and out of school time, statewide.
5. Massachusetts ninth annual ***STEM Summit***, the longest running in the nation, hosted 1,200 attendees at Gillette Stadium, home of the New England Patriots, in the fall of 2012 to promote awareness of the importance of STEM education for all children and engage a broad and diverse constituency of educators, business leaders, government officials, parents and students.
6. Massachusetts received 15 of 15 points, a 100% score on the STEM component on the ***Race to the Top*** application. The creation of the STEM council within the Executive Branch was recognized as a reason for the top score.

**Governance** - In the two years after the Commonwealth's first STEM Plan was released, the Lt. Governor's Office and the Executive Branch Agencies have moved quickly to establish and execute a governance system to implement the plan and have made progress in numerous key other areas to support the six overarching goals of the STEM Plan.

- The **STEM Operations Board** was created in February 2011 as an operational unit of the STEM Council to increase capacity for the Regional STEM Networks and review project proposals
- The **Executive Committee** of the Governors STEM Council was created in May 2011 to facilitate decisions on proposals and recommendations brought before the Council.
- The **Fundraising Task Force** was created in August 2011 to support the @Scale initiative.

**Public Awareness Campaigns** - Through the work of the Public Awareness Subcommittee we initiated and completed the selection of high profile STEM professionals to be promoted as role models through the WOW Campaign. Lt. Governor Murray unveiled this initiative at the 2011 STEM Summit. This work continues and a public awareness campaign is in the works to be launched in the fall of 2013.

**Strengthen Data Collection and Analysis** - Worked with our partners at the UMass-Donahue Institute to strengthen the data collection and analysis pieces and created a Data Dashboard to inform the design, evaluation and outcomes assessment of STEM projects, policies and strategies statewide

**Creation of a Boston Regional STEM Network** - Lt. Governor Murray announced the formation and \$40,000 in seed funding for the Boston Regional STEM Network at the 2011 Summit. The Network has been effective and students in the Boston Public Schools have higher interest in STEM than the statewide average.

**Launched the @Scale Initiative** - At the June 2011 STEM Council Meeting, Lt. Governor Murray announced the STEM Council's first six Promising Practice Programs as part of the @Scale Initiative. \$500,000 in funding for the @Scale projects was secured in October 2011 and required private sector or non-profit matches. Phase II grants went out successfully as well and Phases III and IV are in the works for 2013. @Scale Endorsements include projects that represent a strategic focus on specific promising programs to achieve quantitative gains defined in the STEM plan in student interest and readiness. This approach has been presented to and supported by representatives of the Massachusetts business community.

**Promoted the Benefits of Vocational-Technical Schools** - During his time in office, Lt. Governor Murray has visited all 64 vocational technical programs in Massachusetts representing more than 44,000 students. The Lt. Governor has promoted these programs as ones that offer hands-on learning in a number of innovative educational programs to support a range of career fields, especially growing sectors including advanced manufacturing, clean energy, and information technology.

## **Action Steps for 2013-2014**

- Together with our new STEM Council Chairman Congressman Joseph P. Kennedy who is also the state's only member serving on the House Committee on Science, Space, and Technology, the secretaries of Education, Housing and Economic Development, Labor and Workforce Development, the President of UMass, and all of our other administration partners, we will continue to strive to promote Massachusetts' advantages and continue to drive forward our STEM, workforce development, and job creation strategies and will deepen the ownership of the STEM goals by state departments and agencies.
- Building off recommendations from the Executive Committee, we will work with our legislative partners on legislation to sustain the STEM initiative. We will combine the STEM Council's Executive Order with previous legislation on the Goddard Council to codify our governance system and practices and keep the level of leadership within the Executive Branch.
- We will continue to strive to the goals in our nationally recognized five year STEM Plan. This plan is referenced by many state STEM leaders as an exemplar for convening government, education and private sector resources to govern and attain quantifiable outcome improvements for students, educators and the STEM workforce. We must continue these efforts and will release Version 2.0 of the STEM Plan at this November's STEM Summit to outline what we must focus on to reach our goals.
- Complete our full menu of @Scale program's endorsements. @Scale has been hailed as a model for public/private funding to replicate and bring to scale transformative, system wide improvements in STEM education. To date, two rounds of @Scale projects have been granted approximately \$900,000 of state funding leveraging \$2.5 million of private sector funding and has reached at least 170 teachers and 8500 students across the state. We must use the completion of this project to breakthrough with private sector partners complementing public sector investment to achieve full-scale with "best practice" initiatives such as @Scale. Together the STEM Operations Board and Executive Committee will rigorously research, evaluate and assess outcomes of the @Scale portfolio to affirm this strategy, supported by evidence and quantified through data.
- Using lessons learned from the successful WOW Initiative, we will broadly implement the Public Awareness campaign and messaging to inform all communities (especially parents and employers) of the importance, value and excitement of STEM.
- Build broader communities of interest among the 1,000 points of light to foster even more widespread alignment to the goals of the STEM plan.
- Celebrate our success!

# COMMONWEALTH OF MASSACHUSETTS

Executive Office of Education



STRATEGIC PLAN  
2013 – 2015

Matthew H. Malone  
Secretary of Education

## A MESSAGE FROM THE SECRETARY

To the Citizens of the Commonwealth:

It is an incredibly exciting time for public education in Massachusetts.

With the leadership of Governor Patrick and the Legislature; the commitment and incredible service of our educators; the hard work of our students; and the support of parents and family members and also local, regional, and community partners, we are building a 21<sup>st</sup> century public education system in the Commonwealth, one that will meet each student where he or she is and provide the targeted support that each student needs to be truly successful.

Massachusetts is at the forefront of education reform and improvement efforts, and the state is implementing bold and innovative strategies in early education, elementary and secondary education, and higher education that are improving the quality of educational experiences for students across the state. In addition, many of our students continue to lead their peers on national and international measures of student achievement. We are extremely proud of our accomplishments, but there is much work that still needs to be done. In Massachusetts, doing well is simply not good enough.

The Executive Office of Education (EOE) is responsible for achieving Governor Patrick's vision for public education in Massachusetts, and we are working in collaboration with

state, regional, and local partners to achieve two overarching goals of the Patrick-Murray Administration:

- Ensure that all students have access to high-quality educational opportunities from birth through postsecondary education; and
- Close persistent and unacceptable achievement and attainment gaps among different groups of students.

In order to achieve these goals, the EOE is implementing multiple strategies that will enable the Commonwealth to:

- Meet the learning needs of each student and provide the knowledge, encouragement, and skills that they need to meet our high expectations for student growth and achievement, and also provide comprehensive support services to address out-of-school factors;
- Ensure that every student in the state is taught by highly competent educators who continually receive the tools and professional support that they need;
- Prepare every student for postsecondary educational and career opportunities and also lifelong success; and
- Unleash innovation and change throughout the public education system.

Pursuant to [Executive Order 540](#), our strategic plan represents a critical first step in implementing a performance management program that will help us to allocate different types of resources more effectively and achieve better outcomes for students and their families. Our strategic goals for the next two years are as follows:

- Increase levels of third grade reading proficiency for all Massachusetts children;
- Enhance the effectiveness of the educator workforce;
- Successfully turn around our lowest performing schools and districts; and
- Increase college and career readiness.

By executing this plan, the EOE will better ensure that all children and students across the state will have the knowledge, skills, and experiences that they need to be effective members of their families and communities, lifelong learners, and successful citizens. The EOE is eager to continue working with our educators at every level of the public education system, our parents and family members, local officials, members of the Legislature, our state education partners, and community partners to implement the Governor's comprehensive agenda for building a 21<sup>st</sup> century public education system in Massachusetts.

Sincerely yours,



Matthew H. Malone, Secretary of Education

## Changing the way we do business

Never before has Massachusetts been under greater pressure to make government more effective and efficient. We must make even more informed decisions and respond to a public that is demanding greater accountability and transparency. The Executive Office of Administration and Finance (A&F) is leading the way in building a state government that thinks and acts more strategically.

Through the Office of Commonwealth Performance, Accountability and Transparency (CPAT), A&F is helping to drive strategic planning and performance management across state government to produce better results for the people of the Commonwealth.

The EOE is working in partnership with A&F and state education agencies to implement education policies and initiatives effectively and efficiently in order to maximize results for students, educators, families, and the Commonwealth as a whole.

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This document was prepared pursuant to Executive Order 540 and will be officially released alongside the Fiscal Year 2014 Governor’s Budget Recommendation.

Please send feedback about this plan to [saeyun.lee@state.ma.us](mailto:saeyun.lee@state.ma.us) and [james.ditullio@state.ma.us](mailto:james.ditullio@state.ma.us).

## OVERVIEW

Governor Patrick proposed the re-establishment of the EOE to create a more coherent, aligned, and comprehensive public education *system* in Massachusetts, one that would truly support children and students from birth all the way through postsecondary education.

In early 2008, the Legislature overwhelmingly approved the Governor's proposal. Governor Patrick appointed Paul Reville as the first Secretary of Education in March 2008, and the EOE began its operations on July 1, 2008. In December 2012, Dr. Matthew Malone was appointed as Secretary of Education, and he began his tenure on January 14, 2013.

The EOE is at the center of the Commonwealth's public education system that also includes the Department of Early Education and Care (EEC), the Department of Elementary and Secondary Education (ESE), the Department of Higher Education (DHE), and the University of Massachusetts system (UMass).

The EOE is responsible for coordinating the development and implementation of statewide education policies from birth through postsecondary education, and it also supports the creation of the organizational structures and mechanisms necessary to successfully implement and sustain such policies.

This governance system has increased policy coherence across the three education sectors, and is also creating more

## MISSION AND VISION

The EOE is committed to creating a more ***aligned, comprehensive, and successful 21<sup>st</sup> century public education system*** that builds on our achievements so that we can better ensure that all Massachusetts students are prepared to be ***lifelong learners*** and ***succeed in the global economy***.

By investing in ***research-based strategies, raising standards and accountability, improving assessments, increasing the quality of teaching, promoting innovation, enhancing student supports and rewarding excellence***, Governor Patrick is ensuring that all Massachusetts students not only remain at the head of the class nationally, but are positioned to ***successfully compete internationally and to fully realize the American Dream***.

seamless educational pathways for students across the state. In partnership with the EEC, ESE, DHE, and UMass, the EOE is committed to advancing actions and initiatives that will provide children and youth with access to high-quality educational opportunities from birth through postsecondary education; improve achievement levels for all students and close persistent achievement and attainment gaps that disproportionately affect students from lower-income families, students who are English language learners, students of color, and students with disabilities; and create a 21<sup>st</sup> century public education system that prepares students for higher education, work, and life in a world economy and global society.

Our coherent policy agenda plus our governance structure that promotes more effective cross-sector collaboration are enabling the EOE to achieve our strategic goals for the next two years:

- Increase levels of third grade reading proficiency for all Massachusetts children;
- Enhance the effectiveness of the educator workforce;
- Successfully turn around our lowest performing schools and districts; and
- Increase college and career readiness.

## PRIMARY ACHIEVEMENTS

The establishment of the EOE has had significant impact on the quality of educational services provided to children and students across the state as well as their access to educational opportunities. Our primary achievements to date are moving the Commonwealth closer to accomplishing the Governor's goals for our public education system.

## DEVELOPMENT AND IMPLEMENTATION OF EDUCATION POLICY

**An Act Relative to the Achievement Gap** – Governor Patrick signed this landmark education legislation in January 2010, the most comprehensive and innovative bill since the passage of the Massachusetts Education Reform Act of 1993. This legislation established the first “smart” charter school cap lift in the nation as well as new requirements regarding the enrollment and retention of specific subgroups of students in charter schools; created new rules, tools, and supports to aggressively turn around our lowest-performing schools; and established the framework for Innovation Schools, in-district schools that operate with increased autonomy and flexibility with regard to curriculum, professional development, school schedule/calendar, staffing, budgeting, and district policies – all while keeping school funding within public school districts.

*Twenty new charter schools are serving students in some of our neediest communities in Massachusetts, our lowest-performing schools have demonstrated notable gains in student achievement and closing achievement gaps, and there are now 44 Innovation Schools serving students in communities across the state.*

### **Early Education and K-12 Race to the Top Initiatives** –

Massachusetts was one of only six states in the nation to be awarded both a Race to the Top – Early Learning Challenge (RTT-ELC) grant as well as a K-12 Race to the Top (RTTT) grant by the U.S. Department of Education; in fact, Massachusetts received the highest score in the nation for the RTTT competition, and we received the second highest score for the RTT-ELC competition.

With the four-year, \$50 million RTT-ELC grant, EEC is strengthening our system of early education and care and providing a healthy start for all infants, toddlers, and pre-school children by enhancing the quality of early education programs with our Quality Rating and Improvement System, creating a robust kindergarten assessment system, enhancing the quality of the early education workforce, and increasing engagement with parents and family members. With the four-year, \$250 million RTTT grant, ESE is dramatically increasing college and career readiness for all Massachusetts students and building school and district capacity by providing high-quality curricular and instructional resources to educators, enhancing the quality of the K-12 educator workforce, accelerating improvement in our lowest-performing schools, and creating a comprehensive system that will collect and analyze essential student and educator data.<sup>1</sup>

*As a result of implementing our RTT-ELC plan, kindergarten teachers are using new tools to better assess students' developmental, social-emotional, and learning needs; we are*

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<sup>1</sup> Additional information about Massachusetts' RTTT plan is available at <http://www.doe.mass.edu/rttt/>.

*creating stronger and more comprehensive birth to age five early learning and development standards; and we are implementing strategies to increase reading proficiency by grade 3. As a result of implementing our K-12 RTTT plan, Massachusetts has adopted new pre-K through grade 12 Curriculum Frameworks that include the Common Core State Standards (new curricular standards to increase students' levels of college and career readiness), we are implementing new educator evaluation strategies to continually enhance the quality of instructional services provided to students, we have created new curricular and instructional tools for educators, and our lowest-performing schools demonstrated notable increases in student achievement.<sup>2</sup>*

*Massachusetts is also leading a national effort across 23 states – the Partnership for Assessment of Readiness for College and Careers – to establish new K-12 student assessments that are aligned to the Common Core State Standards.*

**College and Career Readiness** – The EOE and its state education partners are implementing an array of strategies to increase college and career readiness for all students across the state. In keeping with our mission of building a more comprehensive, integrated, and 21<sup>st</sup> century public education system, we are building more seamless and integrated pathways – starting in the earliest stages of a child's

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<sup>2</sup> In order to supplement our efforts to enhance the quality of our educator workforce, the EOE established an Educator Preparation Advisory Group to build a 21<sup>st</sup> century educator *preparation* system, one that will ensure that all educators who enter the early education or K-12 sectors are well prepared to successfully serve their children and students.

educational career – to postsecondary educational and career opportunities.

*In addition to implementing new pre-K through grade 12 Curriculum Frameworks, using better assessments to provide differentiated support to students, and enhancing the quality of the educator workforce – we are redesigning some of our high schools to provide students with essential information about career opportunities earlier in their academic careers and give them access to work-based, experiential learning opportunities; we are redefining what it means to be college- and career-ready in Massachusetts and how the public education system must prepare students for postsecondary success; and we are creating career standards to better define what types of knowledge and skills students need to enter the workforce. In addition, we are implementing targeted strategies to ensure that more students stay in school.*

**Postsecondary Education** – Massachusetts is implementing an array of strategies to ensure that students of different ages and educational experiences have affordable access to postsecondary educational opportunities and can successfully complete their degree and certificate programs once enrolled at our community colleges, state universities, and UMass campuses. Anchoring our work is the DHE Vision Project, a statewide effort to produce the best-educated citizenry and workforce in the nation and ensure that Massachusetts is a national leader with regard to research that drives economic development. The Vision Project uses data to continually assess the performance of our public campuses and the public higher education system as a whole, increase accountability

with multiple stakeholders, and implement innovative and aggressive policies across the state.

Our community colleges, state universities, and UMass campuses are continuing to refine existing degree and certificate programs and add new programs to provide students with a diverse and exciting array of educational opportunities and reflect state workforce needs. Our public campuses are also implementing new strategies to better address the academic, social/emotional, and other needs of students to ensure that they can successfully complete their degree and certificate programs in a timely manner. They are also engaging in efforts to increase efficiency with regard to both academic and operational activities to ensure that students have access to high-quality and affordable postsecondary educational experiences.

*The Patrick-Murray Administration has maintained strong levels of fiscal support for our 29 community colleges, state universities, and UMass campuses, and the EOE continues to work in partnership with DHE, UMass, and our campuses to ensure that students who are eligible for financial aid are applying for and receiving such aid and also to enhance the quality of academic and other services provided to students.*

*The Vision Project has prompted the development of different strategies to increase graduation and success rates, more accurately measure students' learning outcomes, and bridge*

*the gap between high school and college courses. The first annual Vision Project report was issued in September 2012.<sup>3</sup>*

**Workforce Development** – In the fall of 2011, Governor Patrick asked the Secretaries of Education, Labor and Workforce Development, and Housing and Economic Development to develop a plan and shared goals for creating a more robust and comprehensive workforce development system, one that is much more responsive to the needs of both employees and employers. In particular, the Governor emphasized his goal of aligning the public higher education system – and specifically community colleges – with the workforce and economic development systems to create seamless pathways to employment, increase the number of jobs in Massachusetts, and improve our state’s competitive position in the global economy.

*In early 2012, these Secretaries hired a Director of Workforce and Education who is developing career pathways and implementing strategies in four high-demand industries – health care, life sciences, advanced manufacturing, and information technology. These efforts are complementing community college reform initiatives that will increase integration and coherence across the 15 campuses (the Governor proposed community college reform initiatives in his FY 2013 state budget request, and the final FY 2013 state budget includes specific strategies to reform governance and funding structures). The community college system also received a \$20 million grant from the U.S. Department of*

*Labor to develop workforce training programs in targeted industries, and Massachusetts is part of a national initiative, “Pathways to Prosperity”, that will result in the establishment of six-year pathways to employment.*

**Achievement in Science, Technology, Engineering, and Mathematics (STEM)** – Massachusetts is a state rich with STEM resources and opportunities, and the Patrick-Murray Administration is implementing a plan to increase student engagement and achievement in STEM fields of study as well as coordinate initiatives across the state.

*In October 2009, Governor Patrick established the STEM Advisory Council and appointed Lieutenant Governor Timothy Murray as the Chairman. The Council serves as a vehicle for the EOE and state education agencies, the Executive Office of Housing and Economic Development, the Executive Office of Labor and Workforce Development, state legislators, and public and private STEM advocates to work together to implement exciting initiatives in STEM-related fields. Since its inception, the Council has supported the implementation of a comprehensive plan that was first released in September 2010, the results of which have included the creation of a new governance system to coordinate STEM initiatives and strategically allocate resources, increased funding for education programs and educator professional development opportunities through the STEM Pipeline Fund, enhanced local and regional partnerships through the Regional STEM*

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<sup>3</sup> *Time to Lead: The Need for Excellence in Public Higher Education* is available at <http://www.mass.edu/visionproject/TimeToLead.pdf>.

*Networks, and increased public awareness about the importance of STEM achievement and career opportunities.*<sup>4</sup>

**Comprehensive Services to Students and Families** – Providing comprehensive health and social services to children and families is a central component of our theory of action to improve student achievement and close persistent achievement and attainment gaps. For too many of our students, out-of-school factors including poverty, health issues, and family or community concerns are obstacles to school attendance, engagement, and achievement. By addressing these factors, we can better ensure that students will have a healthy platform for learning.

*In October 2008, Governor Patrick established the Child & Youth Readiness Cabinet to promote coordination and collaboration across state agencies that provide support services to children and families. The Cabinet is co-chaired by the Secretaries of Education and Health and Human Services, and its members (including other Secretaries and Commissioners whose agencies serve children, youth, and families) work with local, regional, and state entities to ensure that children and families receive the services that they need.*<sup>5</sup>

*One of the Cabinet’s priorities is to support the coordination and alignment of comprehensive services to students who*

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<sup>4</sup> Additional information about the STEM Advisory Council is available at <http://www.mass.gov/governor/administration/lsgov/lgcommittee/stem/>.

<sup>5</sup> Additional information about the Child & Youth Readiness Cabinet is available at <http://www.mass.gov/edu/child-youth-readiness-cabinet.html>.

*attend our lowest-performing schools and their families. As such, the work of the Cabinet is closely aligned with ESE initiatives to support underperforming schools, including Wraparound Zones, clusters of schools that are increasing access to support services with funding from our K-12 RTTT grant award.*

**Gateway Cities Education Agenda** – In November 2011, Governor Patrick announced the launch of this agenda, which includes targeted strategies to improve early literacy, providing comprehensive support services to students and families, provide targeted instruction to English language learners, and increase the career readiness of high school students in the Commonwealth’s 24 Gateway Cities.<sup>6</sup> The goals of this *Agenda* are to close persistent achievement and attainment gaps among different groups of students and also promote the creation of a 21<sup>st</sup> century public education system in Massachusetts by engaging local and state stakeholders in new and important discussions about how to best support our students.

The final state FY 2013 budget includes \$500,000 in funding for the *Career Academies Planning Grant Program*, which supports the establishment of *Career Academies* that will provide new career-focused learning and work opportunities for high school students. The state budget also includes \$3 million for the *English Language Learners Enrichment*

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<sup>6</sup> The 24 Gateway Cities are as follows: Barnstable, Brockton, Chelsea, Chicopee, Everett, Fall River, Fitchburg, Haverhill, Holyoke, Lawrence, Leominster, Lowell, Lynn, Malden, Methuen, New Bedford, Pittsfield, Quincy, Revere, Salem, Springfield, Taunton, Westfield, and Worcester.

*Academies Grant Program*, which will support spring and summer enrichment programs that will provide accelerated and intensive English learning opportunities for middle and high school students.<sup>7</sup>

*In January 2012, the EOE awarded \$3.5 million in grants to eligible recipients in the 24 Gateway Cities, and it will support local efforts to establish Career Academies and provide intensive English language enrichment programs for students.*<sup>8</sup>

### **NEW ARCHITECTURE FOR PUBLIC EDUCATION**

In order to achieve our goal of creating a more coherent, aligned, and comprehensive 21<sup>st</sup> century public education system, the EOE has been building a new architecture for public education in Massachusetts. This architecture includes new organizational structures and mechanisms necessary to successfully implement policies from early education through postsecondary education, but it also includes new strategies for increasing collaboration with local, regional, and state partners outside of the education sector.

**Integration Within the Education Sector** – The EOE has created a more unified public education governance system by integrating strategic planning and operational efforts of EEC, ESE, DHE, and UMass. The Secretary of Education serves

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<sup>7</sup> Additional information about the *Gateway Cities Education Agenda* is available at <http://www.mass.gov/edu/gateway-cities-education-agenda.html>.

<sup>8</sup> Additional information about the grant recipients is available at <http://www.mass.gov/edu/gateway-cities-education-agenda.html>.

on the Boards of EEC, ESE, DHE, and the UMass Board of Trustees, and the EOE and its partners are working together to develop and implement a comprehensive array of policies in early education, K-12, and postsecondary education.

*This governance system has resulted in the development and implementation of policies that are creating more seamless educational pathways for students. For example, the EOE and its state education partners have created the policy framework for increasing kindergarten readiness and third grade reading proficiency, increasing college and career readiness, and building a more effective educator preparation system. These initiatives and others are creating a more integrated and holistic public system education that will better our students in the short- and longer-term.*

*The EOE established six regional Readiness Centers in October 2009 to further promote greater coordination among the early education, K-12, and higher education sectors. These Centers are managed by regional teams that include our public institutions of higher education (including all of our state universities and the four undergraduate UMass campuses), independent institutions of higher education, K-12 school districts, early education and out-of-school-time programs, educational collaboratives, non-profit organizations, and business and community partners. These regional consortia provide and coordinate high-quality professional development for educators; provide important information about statewide initiatives, effective models, and best practices; and convene educators to address common priorities and also leverage resources and expertise. The Centers are contributing to the*

*implementation of core initiatives from the RTT-ELC and K-12 RTTT plans, including the implementation of our new Curriculum Frameworks and the kindergarten assessment system. The Centers are critical partners in advancing our education goals, as they are creating essential opportunities for cross-sector collaboration about our education priorities.*

*The EOE has also consolidated all information technology services across the education sector, which is resulting in the creation of streamlined websites for all state education agencies as well as the establishment of new data systems for collecting, analyzing, and disseminating student and educator data.*

**Collaboration with Other Sectors** – A 21<sup>st</sup> century public education system will require support not just from the EOE but from other valued state partners outside of the education sector. By increasing collaboration with other sectors, the Commonwealth is developing and implementing more comprehensive and aligned strategies as well as modeling the types of partnerships that should be established at the regional and local levels.

*As described on page 5, the EOE is working in collaboration with EOLWD and EOHED to create a more robust workforce development system in the Commonwealth, one that utilizes the expertise and resources among multiple sectors to best address the needs of our employees and employers.*

*In addition, as described on page 6, the EOE is working in collaboration with the Executive Office of Health and Human*

*Services to provide comprehensive services to children and families across the state.*

## **STRATEGIC ALLOCATION OF RESOURCES**

Despite the impact of the economic downturn, the Patrick-Murray Administration has protected and even increased state funding for our public education system. The EOE and its partners have strategically allocated this funding as well as funding from other resources, including most notably almost \$1 billion in federal funding through the 2009 *American Recovery and Reinvestment Act* plus federal grant funding through the Race to the Top program and other programs to support students from lower-income families, students with disabilities, students who are English language learners, and initiatives to turn around our lowest-performing schools.

**Taken together, the development and implementation of our integrated and comprehensive policy initiatives plus the creation of a new architecture for our public education system have enabled the EOE to make important progress toward achieving the overarching education goals of the Patrick-Murray Administration. For the next two years, the continuation of our efforts plus the implementation of new and expanded strategies will enable the EOE and its partners to achieve our four strategic goals of improving reading proficiency by grade 3, enhancing the effectiveness of the educator workforce, turning around our lowest-performing schools, and increasing college and career readiness.**

## CHALLENGES

One of our most pressing challenges is to effectively support the implementation of multiple strategies and the development of new initiatives while grappling with continued fiscal issues at the local, state, and national levels. The Patrick-Murray Administration has protected and even increased public education funding despite the recent economic downturn, but the EOE must continue to work effectively with its education partners and other partners in state government to make sure that state dollars are being spent strategically and wisely to provide students with access to high-quality educational opportunities from cradle to career.

The EOE and its education partners must continue to develop and implement *differentiated* strategies to better support students throughout every stage of their learning and academic careers. The creation of a 21<sup>st</sup> century public education system is a deliberate transition away from a one-size-fits-all approach to educating students, and the EOE must continue to meet the changing demands of a changing population of students as well as educators.

Lastly, the EOE must continue to implement a comprehensive approach to education improvement and reform, one that includes the expertise, resources, and contributions of our partners both inside and outside of the education sector.

Increase third grade reading  
proficiency for all children

Supporting Goals

Create seamless learning pathways from birth to grade 3 by enhancing the quality of instruction and increasing alignment between the early education and K-12 sectors

Improve early literacy and kindergarten readiness by creating language- and literacy-rich environments in all early education programs, K-3 classrooms, homes, and communities

In order to achieve this goal, the EOE and its state education partners are:

- Using **new curricular and evidence-based assessment materials** for early educators and K-3 educators to ensure that they have the tools and resources needed to successfully address the developmental, educational, and other needs of infants and young children through age 8;
- Operating the **Quality Rating and Improvement System**, a criterion-based system of evaluating early education and out-of-school-time programs, to **continually enhance the quality of services provided to infants and children** and also increase accountability to multiple stakeholders;
- Developing and implementing a **kindergarten assessment system to provide more differentiated services to children** based on their developmental and educational needs; and
- Developing and implementing **powerful strategies for engaging parents, family members, and communities** so that multiple partners can work together to create stimulating and interactive learning environments for infants and children.

Enhance the effectiveness of the  
educator workforce

Supporting Goals

Build a 21st century educator  
preparation system in Massachusetts

Provide all educators with ongoing access  
to effective instructional and  
assessment tools and materials

Provide all educators with high-quality  
professional development  
opportunities

In order to achieve this goal, the EOE and its state education partners are:

- Developing policy recommendations focused on **educator induction, the content and structure of educator preparation programs, and our licensure and regulatory framework** to better ensure that all teachers and administrators who are entering the profession are well prepared to meet the needs of an increasingly diverse student population, successfully implement our reform and improvement strategies, and embrace new professional opportunities;
- Working with educators to develop **new curricular materials and strategies for monitoring student growth and achievement** and also providing them with better access to **different types of student data**;
- Implementing more nuanced, effective, and comprehensive **educator evaluation strategies** in school districts across the state to give educators the information and tools to continually improve as professionals; and
- Working with educators to develop **robust and continuous professional development opportunities** that are directly related to their responsibilities and accurately reflect the evolution of teaching and leadership, and improving the delivery systems through which these opportunities are provided.

Turn around our lowest performing  
schools and districts

Supporting Goals

Establish the school-level conditions necessary to effectively implement and sustain new instructional, professional development, staffing, and resource allocation strategies

Increase school, district, and state capacity to successfully implement effective turnaround strategies

In order to achieve this goal, the EOE and its state education partners are:

- Supporting the implementation of **locally-developed school improvement plans** by providing **direct assistance, guidance, and fiscal resources** to our lowest performing schools and districts;
- Implementing strategies to **recruit highly effective educators** to teach in and lead our lowest performing schools and also provide **targeted professional development opportunities** to these educators and their colleagues;
- Implementing strategies to create **positive and safe school environments** so that all members of the school community can be successful;
- Promoting and sustaining **strong partnerships among schools, districts, early education providers, and community partners** (including social service agencies, non-profit organizations, cultural organizations, and institutions of higher education) to provide comprehensive support services to students and their families; and
- Promoting and sustaining **strong partnerships among schools, districts, and EEC and ESE** to align local and state strategies, maximize expertise, and strategically allocate resources to accelerate the improvement of our lowest-performing schools.

**Increase college and career readiness  
for all students**

Supporting Goals

Create multiple pathways to postsecondary educational and career opportunities

Increase policy and institutional alignment among high schools, public and private institutions of higher education, and workforce development entities

**In order to achieve this goal, the EOE and its state education partners are:**

- **Implementing more rigorous curriculum** standards from pre-K through grade 12 and creating **career readiness standards** for all Massachusetts students;
- Redefining **what it means to be college and career ready** in Massachusetts, and using this definition to **implement innovative new strategies** to ensure that all students have the **knowledge, skills, and habits of mind necessary for postsecondary success**;
- Creating **more seamless and robust career pathways** so that students have access to information about career opportunities earlier in their academic careers, access to work-based learning opportunities such as internships, and valuable guidance about how to make smart choices;
- **Aligning high school and college-level curricula and assessments** to ensure that students can successfully transition to and succeed in college; and
- Creating **strong partnerships among the education, workforce development, and industry sectors** at multiple levels so that these partners can leverage expertise and resources and collaboratively increase college and career readiness.

## MEASURES

The EOE and its state education partners collect and analyze multiples types of data on an ongoing basis. For the purposes of measuring our progress with regard to achieving our strategic goals, we will utilize the primary measures identified on the following pages. The EOE will continue to assess the validity of these measures and make adjustments and additions as necessary.

Note: where applicable, disaggregated data will be collected and analyzed to assess our progress with regard to closing persistent achievement and attainment gaps among different groups of students.

GOAL	MEASURE	DATA SOURCE	FREQUENCY
<b>Increase third grade reading proficiency for all children</b>	The level of reading proficiency of third graders as assessed by the Massachusetts Comprehensive Assessment System (MCAS), the statewide system for measuring student performance	ESE	Annual
	Number and percentage of early education programs participating in the tiered Quality Rating and Improvement System (QRIS), a system for evaluating the quality of early education and out-of-school-time programs	EEC	Ongoing
	Number and percentage of high ratings for early education programs participating in the tiered QRIS	EEC	Annual
	Number and percentage of children assessed as a result of administering evidence-based kindergarten assessments in early adopter districts	EEC and ESE	Annual <sup>9</sup>

<sup>9</sup> During the 2012 – 2013 school year, approximately 20 school districts across the state are using new assessments to better assess the educational and developmental needs of kindergarten students, and additional districts will begin using these assessments in subsequent years.

GOAL	MEASURE	DATA SOURCE	FREQUENCY
Enhance the effectiveness of the educator workforce	Increased student growth and achievement in schools and districts as assessed by the MCAS and other measures	ESE	Annual
	Number and percentage of K-12 courses and subjects taught by highly effective teachers	ESE	Annual
	Number and percentage of K-12 educators (both teachers and administrators) who receive Exemplary and Proficient ratings in districts that are implementing new educator evaluation frameworks	ESE	Annual
	Number and percentage of K-12 teachers who have completed all required courses of professional development in Sheltered English Instruction	ESE	Ongoing <sup>10</sup>

<sup>10</sup> ESE is coordinating the provision of these professional development programs for K-12 teachers, and information about the numbers of participants will be available in the coming months.

GOAL	MEASURE	DATA SOURCE	FREQUENCY
Turn around our lowest performing schools and districts	Increased student growth and achievement in Level 3 and 4 schools and districts as assessed by the MCAS and other measures (all schools and districts in Massachusetts receive a rating of Level 1 through 5 based on student achievement data and other measures of performance and educational attainment)	ESE	Annual
	Number and percentage of Level 3 and 4 schools collaborating with ESE-approved turnaround partners (these partners are working collaboratively with our lowest performing schools to develop and implement effective improvement strategies, increase student achievement, and close persistent achievement gaps among different groups of students)	ESE	Ongoing
	Number and percentage of Level 3 and 4 schools participating in the state's Race to the Top Wraparound Zones initiative	ESE	Annual

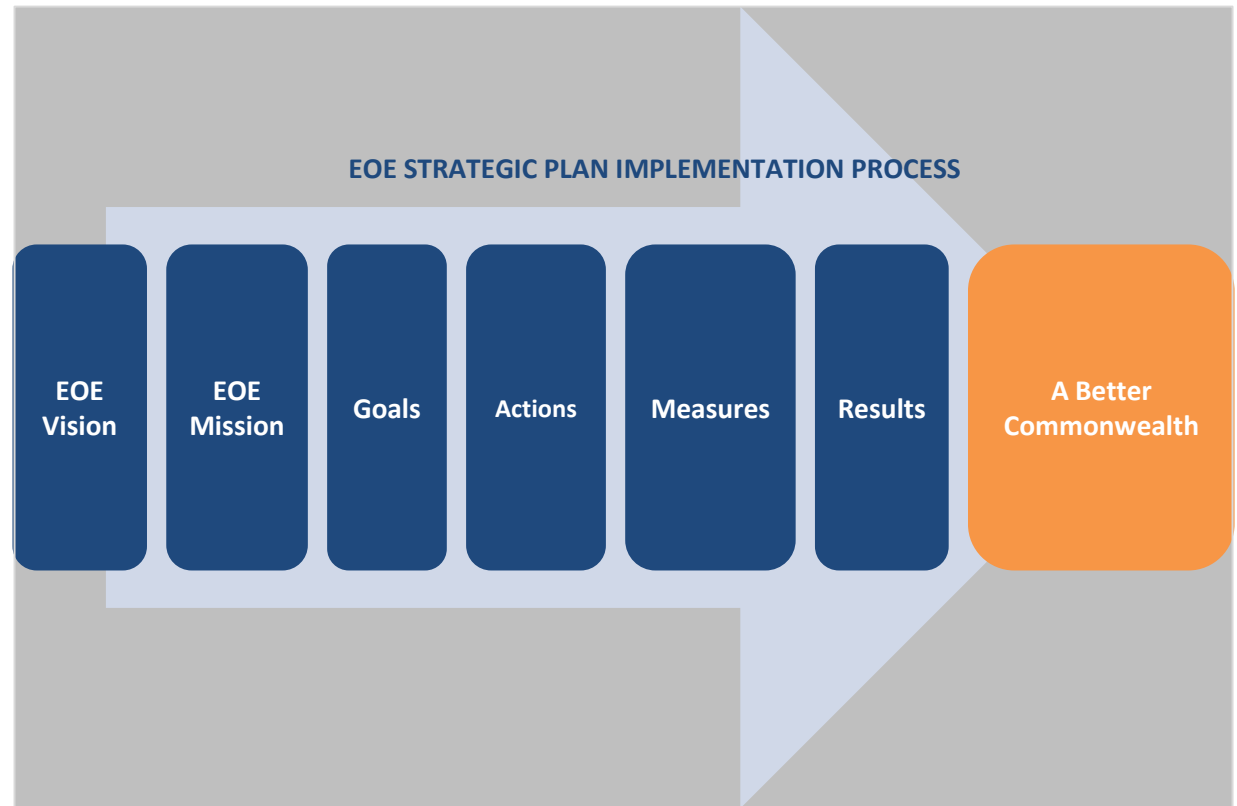
GOAL	MEASURE	DATA SOURCE	FREQUENCY
Increase college and career readiness for all students	Levels of student proficiency in English Language Arts and Mathematics as measured by the MCAS	ESE	Annual
	Statewide high school graduation rate	ESE	Annual
	Statewide dropout rate	ESE	Annual
	Numbers and percentages of high school graduates who are required to enroll in developmental education courses at the community colleges, state universities, and UMass campuses	DHE, UMass, and the U.S. Department of Education	Annual
	Overall six-year graduation rates for the community colleges, state universities, and UMass campuses	DHE, UMass, and the U.S. Department of Education	Annual
	Percent of students who transfer from our community colleges and complete degrees at our state universities and UMass campuses <sup>11</sup>	DHE	Ongoing

<sup>11</sup> This percentage will be calculated based on six-year degree completion rates at our state universities or UMass campuses.

## ACHIEVING RESULTS

The EOE Strategic Plan is our roadmap for our work during the next two years. Secretary Malone and EOE staff members will regularly convene meetings with state education leaders to closely track our progress in achieving the goals we have set forth. We will utilize the primary performance measures defined on pages 15 - 18 as a means of evaluating our success. Pursuant to Executive Order 540, we will publish a public performance report in January 2014 formally reporting on the results we have achieved.

The development and implementation of the EOE Strategic Plan is a critical first step in instituting performance management. With well-defined goals and related measures in place, we know what we want to achieve and how we plan to get there.



## APPENDIX: STATE EDUCATION PARTNERS

### **Department and Board of Early Education and Care (EEC)**

EEC is responsible for developing and implementing policies related to the operation of early education and out-of-school-time programs in Massachusetts. The mission of the Board of Early Education and Care is to provide the foundation that supports all children in their development as lifelong learners and contributing members of their communities, and also supports families in their essential work as parents and caregivers.

### **Department and Board of Elementary and Secondary Education (ESE)**

ESE is responsible for developing and implementing policies related to the operation and management of K-12 schools and districts in Massachusetts. The mission of the Board of Elementary and Secondary Education is to strengthen the Commonwealth's public education system so that every student is prepared to succeed in postsecondary education, compete in the global economy, and understand the rights and responsibilities of American citizens, and in so doing, to close all proficiency gaps.

### **Department and Board of Higher Education (DHE)**

DHE is responsible for developing and implementing policies related to the operation of the community colleges and state universities in Massachusetts. The mission of the Board of

Higher Education is to ensure that all Massachusetts residents have the opportunity to benefit from a higher education that enriches their lives and advances their contributions to the civic life, economic development, and social progress of the Commonwealth. To that end, the programs and services of Massachusetts higher education must meet standards of quality commensurate with the benefits it promises and must be truly accessible to the people of the Commonwealth in all their diversity.

### **University of Massachusetts and Board of Trustees (UMass)**

UMass includes five campuses – Amherst, Boston, Dartmouth, Lowell, and Worcester – and the mission of the campuses and Board of Trustees is to provide an affordable and accessible education of high quality and to conduct programs of research and public service that advance knowledge and improve the lives of the people of the Commonwealth, the nation, and the world.

## *The Gateway Cities Education Agenda*

Massachusetts' overall record of educational achievement is second to none and a model for the nation. Our students consistently score at the top of the charts on national measures such as the National Assessment of Education Progress and the SAT, and even on international assessments in science and mathematics. We also have a long history of enacting bold reform legislation; the passage of the 1993 Education Reform Act established the foundation for standards-based reform and high expectations for all students, and the passage of the 2010 Achievement Gap Act has given local educators and state education agencies new rules, tools, and supports to significantly increase student achievement.

Massachusetts has much to celebrate, but we have persistent achievement and attainment gaps across the public education system. These gaps clearly illustrate that doing well is simply not good enough; we have an educational, economic, and moral obligation to ensure that all students, regardless of zip code, will have the opportunity to reach their potential and enjoy lifelong academic, career, and personal success.

### **Governor Patrick's Gateway Cities Education Agenda**

Closing achievement and attainment gaps is the top education priority of the Patrick-Murray Administration. The primary purpose of the *Gateway Cities Education Agenda* is to close these gaps that disproportionately affect students living in poverty, students of color, students with disabilities, and students who are English language learners in our Gateway Cities. This *Agenda* will support the development and implementation of local strategies that will provide targeted assistance to students and result in the creation of a stronger and more nimble 21<sup>st</sup> century public education system.

**The FY 13 state budget includes \$3.5 million in new funding to support the implementation of the *Gateway Cities Education Agenda*, and in particular, strategies focused on supporting English language learners and increasing career readiness for high school students.**

**English Language Learners Enrichment Academies** – Despite high levels of overall student performance in the Commonwealth, wide achievement and attainment gaps between English language learners and their peers persist; in fact, the achievement gap for this population is the largest among all student subgroups in the state. For example, 3<sup>rd</sup> grade MCAS data reveal that there is a 22 point gap between the achievement of English language learners and the statewide average, and their 4-year graduation rate is 57% versus the statewide average of 82%. At the same time, the characteristics of the English language learner population in the state have changed significantly. There are nearly 68,000 English language learners in the Commonwealth, a 51% increase since 2000, and the number of districts that enroll these students has nearly doubled since 2000.

- **The FY 13 budget includes \$3,000,000 in competitive grant funding to operate English Language Learners Enrichment Academies.** Grant applicants will submit proposals to operate Summer English Learning Academies during the summer of 2013 that will provide middle and high school English language learners in their communities with high-intensity and differentiated learning opportunities. Applicants may also submit proposals to operate a Summer English Learning Academy as well as complementary enrichment programs during the spring of 2013, including after-school academies, Saturday sessions, or academies during the April school vacation week. The intended outcomes of these grants include measurable increases in students' English language fluency and comprehension, longer-term improvements as measured by achievement in academic courses and on standardized assessments, and higher retention and graduation rates, especially for high school students. Grant recipients will be awarded up to \$350,000.

***Career Academies*** – Students in the Gateway Cities have an average four-year graduation rate of 63%, and in some of these cities, as few as 15% of incoming 9th graders will complete high school on time and enroll in a four-year college or university. Only 21% of Gateway Cities residents who are 25 years of age or older have attained a bachelor’s degree, compared with the state average of 39%. In addition, as of May 2012, residents in the Gateway Cities had an average unemployment rate of 7.3% compared to the statewide average of 6%. In order to sustain its economic improvement and produce employees who can compete in a global economy, the Commonwealth must ensure that all students are well prepared to successfully pursue postsecondary educational and career opportunities.

- The FY 13 budget includes \$500,000 in competitive grant funding to establish Career Academies and Education and Industry Coordinating Councils (EICCs). Grant applicants will submit proposals to engage in planning activities during the 2012 – 2013 school year that will culminate in the operation of Career Academies by September 2013. Applicants will also commit to establishing EICCs that are co-chaired by the public school district superintendent and the chair of the local Workforce Investment Board and include representatives from district high schools and charter schools, public and private institutions of higher education, industry partners, and local/regional employers. The intended outcomes of these grants include greater opportunities for students to explore career pathways earlier in their academic careers, more motivating learning opportunities both inside and outside of the classroom, and the creation of multiple and seamless pathways to postsecondary educational and employment opportunities. Grant recipients will be awarded up to \$75,000.

### **Grant Information**

The Executive Office of Education (EOE) will announce the grant awards in November 2012. Statements of Interest signed by the mayor (or the equivalent head of municipal government) and the public school district superintendent on behalf of the eligible applicants in a Gateway City must be submitted to the EOE by Friday, August 31, 2012. Grant proposals must be submitted to the EOE by Friday, November 2, 2012.

The Requests for Proposals and guidance documents are available at the following websites:  
<http://finance1.doe.mass.edu/grants/grants13/rfp/375.html>; and  
<http://finance1.doe.mass.edu/grants/grants13/rfp/376.html>.

Additional information about the *Gateway Cities Education Agenda* is also available at  
<http://www.mass.gov/edu/gateway-cities-education-agenda.html>.

Eligible applicants must be located in or primarily serving a Gateway City, a municipality defined in the Massachusetts General Laws, Chapter 23A, Section 3A. The 24 Gateway Cities are as follows: Barnstable, Brockton, Chelsea, Chicopee, Everett, Fall River, Fitchburg, Haverhill, Holyoke, Lawrence, Leominster, Lowell, Lynn, Malden, Methuen, New Bedford, Pittsfield, Quincy, Revere, Salem, Springfield, Taunton, Westfield, and Worcester. Eligible applicants are as follows: public school districts; charter schools; non-profit education management organizations; local Workforce Investment Boards; local industries, businesses, and employers; educational collaboratives; public and private institutions of higher education; non-profit community-based organizations or business and corporate entities; other non-profit entities; and consortia of these groups.

**The *Gateway Cities Education Agenda* is a targeted and aggressive plan to close achievement gaps and build a 21<sup>st</sup> century public education system for students in our Gateway Cities. By implementing this *Agenda*, Massachusetts will continue its pioneering leadership in educational achievement and reform, and will dramatically accelerate the pace by which we increase levels of educational achievement and attainment for all students.**

For additional information about the *Gateway Cities Education Agenda*, please contact Saeyun Lee ([saeyun.lee@state.ma.us](mailto:saeyun.lee@state.ma.us), 617.979.8351) or Jill Norton ([jill.s.norton@massmail.state.ma.us](mailto:jill.s.norton@massmail.state.ma.us), 617.979.8340) at the EOE.

# TIME TO LEAD

## The Need for Excellence in Public Higher Education



A Report to the People of Massachusetts  
From the Massachusetts Department of Higher Education  
September 2012



There is a knowledge explosion in the global economy, so we need all of Massachusetts educational assets to be firing on all cylinders.

—THE HONORABLE DEVAL L. PATRICK,  
GOVERNOR, COMMONWEALTH  
OF MASSACHUSETTS



# Time to Lead

Today, more than ever, Massachusetts' knowledge economy depends on a highly educated workforce and on research that drives innovation.

Excellence at the Commonwealth's 29 public colleges and universities is essential to meeting these needs—and to maintaining our overall quality of life.

Through the Vision Project, public higher education has united to achieve the national leadership that our importance to the state demands.

Progress has been made, but in too many areas we are not yet national leaders.

This first Vision Project Report offers a full accounting of where public higher education stands in comparison with other states and describes a statewide strategy for reaching our goal.

## WHAT'S INSIDE THIS REPORT

### I. THE NEED FOR EXCELLENCE ■ 2

Why does Massachusetts need to achieve national leadership in public higher education? Find out why it is *Time to Lead* and read an executive summary of this report.

### II. THE BASELINE ■ 14

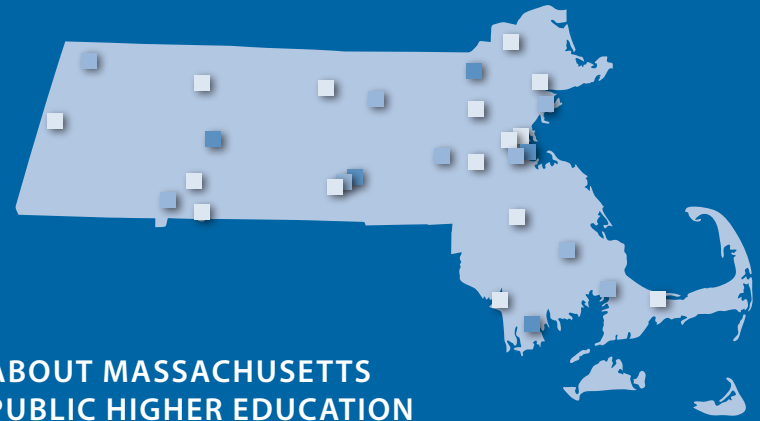
How do Massachusetts' public campuses compare with the rest of the nation? Dig into the data.

### III. GOALS AND STRATEGIES ■ 40

What work is underway to achieve the goal of national leadership? Explore the array of state and campus initiatives.

### IV. PARTNERSHIPS AND PUBLIC SUPPORT ■ 70

We can't do it alone. Public higher education needs help from key partners in the public, private and nonprofit sectors.



#### ABOUT MASSACHUSETTS PUBLIC HIGHER EDUCATION

- 29 CAMPUSES
  - 15 COMMUNITY COLLEGES
  - 9 STATE UNIVERSITIES
  - 5 UNIVERSITY OF MASSACHUSETTS CAMPUSES
- 290,000 STUDENTS
- 39,000 FACULTY AND STAFF
- \$590 MILLION IN ANNUAL RESEARCH EXPENDITURES

**I. THE NEED FOR**

**EXCELLENCE**

**And Our Strategy to Achieve It—  
An Executive Summary**

# The world has changed.

1973

28%

of U.S. jobs<sup>1</sup> required some college education.

■ Growth of high-wage jobs in Massachusetts comes mostly from a short list of knowledge-dependent sectors:

**Health Care**

**Finance**

**Technology**

**Education**

**Life Sciences**

2018

63%

of U.S. jobs<sup>1</sup> will require some college education.

■ The national unemployment rate for recent high school graduates is more than triple that for recent baccalaureate graduates—24% vs. 7%.<sup>1</sup>

■ If the Commonwealth is to compete effectively for jobs, investment and talent—and sustain our rich civic life and cultural landscape—

**Massachusetts needs the best-educated citizenry and workforce in the nation, and we must be leaders in research that drives economic development.**

And in this new world, Massachusetts will lead the nation with

70%

of jobs<sup>1</sup> requiring some college education.

Massachusetts doesn't make many ships or shoes anymore.

Massachusetts makes brains.

—ADMIRAL RICHARD GURNON, PRESIDENT, MASSACHUSETTS MARITIME ACADEMY

# The role of Massachusetts public higher education has also changed.

1967

30%

of all undergraduate students in Massachusetts attended Massachusetts public colleges and universities.<sup>2</sup>

Today

52%

of all undergraduate students in Massachusetts are attending Massachusetts public colleges and universities.<sup>3</sup>

Among Massachusetts high school graduates

67%

of those who attend college in-state enroll at one of our public campuses.<sup>3</sup>

**We're educating more students than ever before, and they come to us with bigger dreams and greater needs. I'm proud of the job we're doing and the strides we've made.**

—WILLIAM MESSNER, PRESIDENT,  
HOLYOKE COMMUNITY COLLEGE

■ Massachusetts public colleges and universities also educate:

**59% of Massachusetts African-American and Latino undergraduates.<sup>3</sup>**

**72% of Massachusetts adult undergraduates age 25 and older.<sup>3</sup>**

■ Public campus enrollments have grown at more than twice the rate of independent colleges and universities over the past five years.<sup>3</sup>

# The Commonwealth depends on our graduates and research.

## One year after graduation

**9** OUT OF **10**

Massachusetts public higher education graduates remain in the state, working or pursuing further education.<sup>4</sup>

■ **50% of undergraduate education degrees** awarded in Massachusetts are from our public colleges and universities.<sup>6</sup>

■ **33% of the undergraduate health care and science, technology, engineering and math (STEM) degrees** are from our public colleges and universities.<sup>6</sup>

■ **And 75% of the state's young working adults with associate's degrees** earned them at Massachusetts' community colleges.<sup>6</sup>

## Since 2005

**68%**

growth in the University of Massachusetts' research expenditures, an increase of \$240 million, has advanced research and innovation.<sup>5</sup>

### Sources:

<sup>1</sup> Georgetown University Center for Education and the Workforce

<sup>2</sup> U.S. Department of Higher Education (IPEDS/HEGIS), Fall 1967

<sup>3</sup> U.S. Department of Higher Education (IPEDS), Fall 2010

<sup>4</sup> Massachusetts Department of Higher Education, Executive Office of Labor and Workforce Development

<sup>5</sup> National Science Foundation

<sup>6</sup> Massachusetts Department of Higher Education

**The Vision Project is Massachusetts' plan to achieve national leadership in public higher education.**



**the Vision Project**

In 2010, in recognition of the heightened role of the state's public colleges and universities, the Massachusetts Board of Higher Education endorsed an ambitious strategic plan called the Vision Project. Since then, **the community colleges, state universities and University of Massachusetts have united with the Massachusetts Department of Higher Education in an effort to strengthen our performance** in both educational achievement and research—while also pledging to hold ourselves accountable to the public for results.

To focus our activities and track our progress, we have identified **seven key outcomes** in which Massachusetts needs to be a leader among state systems of higher education:

KEY OUTCOME

### **1 COLLEGE PARTICIPATION**

Raising the percentage of high school graduates **going to college**—and the **readiness of these students** for college-level work.

KEY OUTCOME

### **2 COLLEGE COMPLETION**

Increasing the percentage of students who complete **degree and certificate programs**.

KEY OUTCOME

### **3 STUDENT LEARNING**

Achieving **higher levels of student learning** through better assessment and more extensive use of assessment results.

KEY OUTCOME

### **4 WORKFORCE ALIGNMENT**

Aligning **occupationally oriented degree and certificate programs** with the needs of statewide, regional and local employers.

KEY OUTCOME

### **5 PREPARING CITIZENS**

Providing students with the knowledge, skills and dispositions to be **active, informed citizens**.

KEY OUTCOME

### **6 CLOSING ACHIEVEMENT GAPS**

Closing achievement gaps among **students from different ethnic, racial and income groups** in all areas of educational progress.

KEY OUTCOME

### **7 RESEARCH**

Conducting research that drives **economic development**.

**The Board vote to adopt the Vision Project agenda was historic.**

**It marked a turning point, the first time that the Commonwealth has launched such a bid to reach the highest possible bar of academic achievement in public higher education.**

—CHARLES F. DESMOND,  
CHAIRMAN, MASSACHUSETTS  
BOARD OF HIGHER EDUCATION

# Massachusetts' new vision for public higher education has drawn national notice...

## The Commonwealth:

■ Emerged as a national leader in the **Partnership for the Assessment of Readiness for College and Careers (PARCC)**, a collaboration among 24 states focused on dramatically increasing the number of students who graduate from high school ready for 21st-century demands in college and careers.

■ Initiated a national effort to develop **student learning assessment tools** that capture the complexity of college learning better than a single standardized test and that allow for comparisons between public campuses in Massachusetts and similar institutions in other states.

■ Developed a **Plan for Excellence in Science, Technology, Engineering and Mathematics (STEM) Education**. This cohesive approach to building the pipeline of STEM professionals has been identified by the National Governors Association as a model for other states.

■ Became the first state to add **civic engagement** to campus accountability measures, building on the Carnegie Foundation's recognition of ten of our campuses as community engagement schools and the inclusion of ten campuses on the 2012 President's Higher Education Community Service Honor Roll.

## ... And, here at home, this comprehensive strategy has resulted in concrete actions.

### Highlights include:

■ The Massachusetts Board of Higher Education raised **math and science standards** for admission to our state universities and the University of Massachusetts.

■ Campus collaboration continued to ease the process for **student transfer** among Massachusetts' public colleges and universities.

■ Campuses developed **new initiatives to support the Vision Project key outcomes**, funded in part by the Legislature's competitive Vision Project Performance Incentive Fund.

■ Faculty and staff from every campus have come together through regular meetings and quarterly conferences to learn from one another's best practices in **student learning assessment**.

■ Agencies across state government increased **collaboration in educational programming to meet workforce needs**.

■ Eleven campuses have joined with the Department of Higher Education to launch a **pilot financial aid program** to increase college completion rates for low-income and first-generation college students.

■ With the Medical School at the helm, the University of Massachusetts joined a national initiative to expedite the translation of **laboratory discoveries** into practical use.

Seeing the public campuses working together, sharing strategies—that's what impresses me most about the Vision Project.

—THE HONORABLE  
MICHAEL O. MOORE,  
SENATE CHAIR,  
JOINT COMMITTEE ON  
HIGHER EDUCATION

We're striving for excellence. Part of that is making sure no student is left behind.

—THE HONORABLE  
TOM SANNICANDRO,  
HOUSE CHAIR,  
JOINT COMMITTEE ON  
HIGHER EDUCATION

## Yet critical challenges remain...

- One-third of the students who enroll in Massachusetts public colleges and universities are not prepared for **college-level work**.
- Massachusetts lags behind other states, such as Virginia and Texas, in its college and university **graduation rates and measures of student success**.
- Student pass rates on **national licensure exams** in health care, accounting, social work, and engineering fields trail leading states by seven to 15 percentage points, while mean scores on **entrance exams** for medical, law, pharmacy, and graduate school trail national leaders by five points.
- Massachusetts needs to pick up the pace of **degree attainment** to remain on track to meet national graduation rate goals and workforce needs.
- Across all these indicators of educational success, large **disparities and achievement gaps** based on student race, gender, and economic status remain entrenched.

The Vision Project has set a clear leadership goal for Massachusetts. **We are doing well already, but doing well isn't good enough.** Our aim is to be the best, and the benchmarks set forth in the Vision Project give us a clear path leading there.

—PAUL REVILLE,  
SECRETARY OF EDUCATION,  
COMMONWEALTH OF  
MASSACHUSETTS

# ... And Massachusetts public higher education needs to grow more rapidly than projected to meet 2020 goals.

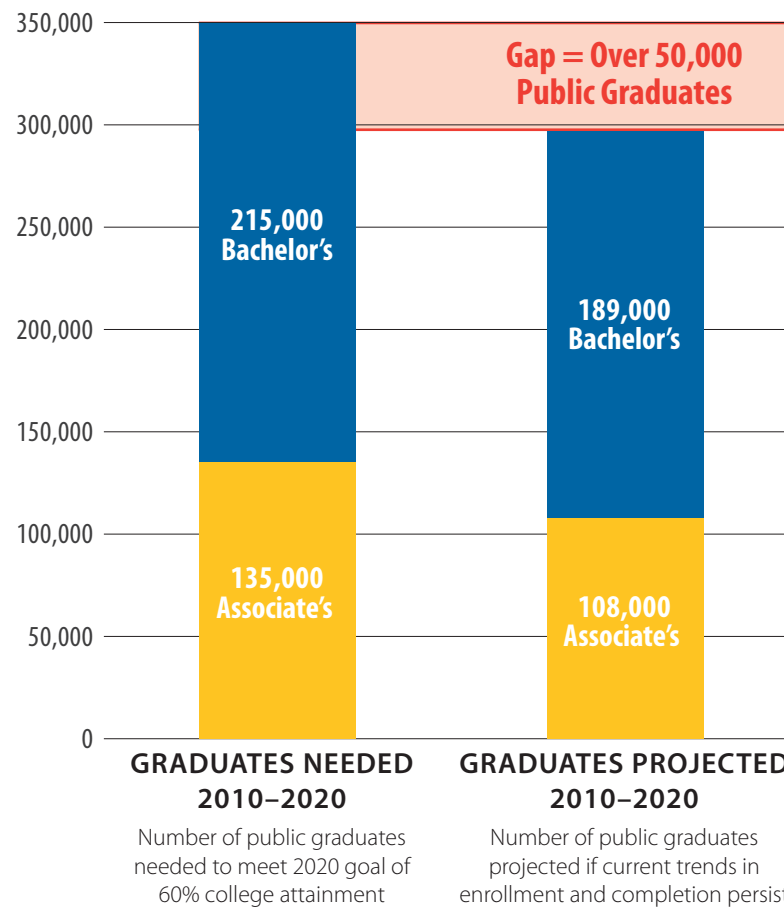
## New Graduates from Massachusetts Public Higher Education: 2010–2020

This analysis is based on the goal of having 60 percent of Massachusetts 25–34-year-olds hold a college degree by 2020.

This goal aligns with both the national goal of restoring the U.S. to global leadership in educational attainment, and projections of future workforce needs in Massachusetts.

This chart highlights the number of associate’s and bachelor’s degree-holders our public campuses need to graduate for Massachusetts to reach this target.

*Source: MDHE analysis based on data from NCHEMS, USDOE, and Georgetown CEW.*



Quoting President Kennedy last year at my inaugural, I said: “Our progress as a nation can be no swifter than our progress in education. The human mind is our fundamental resource.”

Providing access to a quality education ensures for our students a path to achievement, and for the Commonwealth a dynamic future.

—ROBERT L. CARET, PRESIDENT, UNIVERSITY OF MASSACHUSETTS

# Our public system is on the move to national leadership... but we can't get there alone.

## ■ BUSINESS AND EMPLOYER COMMUNITY PARTNERS

The business and employer community has provided critical support, funding science, technology, engineering and math (STEM) projects, launching internship programs like the **Massachusetts Competitive Partnership's** "Learn and Earn" program, and supporting campus research endeavors.

## ■ EDUCATIONAL PARTNERS

Colleagues in **early childhood, elementary and secondary education** have worked with higher education policymakers to increase student readiness for college-level work, create data systems that follow students from pre-school through postsecondary education, and improve teacher preparation programs.

And through regional campus consortia and projects such as the **Nursing and Allied Health Initiative**, **independent colleges and universities** have worked collaboratively with state campuses to grow opportunities for students.

## ■ PHILANTHROPIC PARTNERS

Over the past two years, the Department of Higher Education has raised more than \$2.5 million from private foundations—including the **Boston, Nellie Mae Education, Davis Educational, Hewlett, Lumina, Balfour, and Gates Foundations** and the **National Governors Association**—to support Vision Project initiatives.

## ■ NATIONAL ASSOCIATION AND ORGANIZATION PARTNERS

National non-profits such as the **State Higher Education Executive Officers (SHEEO)** and the **American Association of Colleges and Universities (AAC&U)** have provided expertise, insight, and support to key areas of the Vision Project.

## ■ FEDERAL PARTNERS

Federal support of higher education targets two areas: financial aid grants and research. In 2011 Massachusetts public higher education received \$655 million in federal grants for these two areas, with 40% going to financial aid and 60% to research. In addition, programmatic support from the federal government in the past two years has totaled \$29 million, including a \$20 million **U.S. Department of Labor** grant won through a joint effort by all 15 community colleges.

## ■ STATE GOVERNMENT PARTNERS

The **Patrick-Murray Administration** and the **Legislature** have worked hard despite challenging fiscal circumstances to protect funding of public higher education. A 2008 bond bill made possible critical investments in campus infrastructure. The Vision Project Performance Incentive Fund grants represent the first performance-based funding awarded to public colleges and universities in recent decades, and received \$7.5 million in new funding in the FY13 budget.

**But Massachusetts still ranks in the middle tier of states in appropriations per full-time student.** Our persistently low standing reflects a history of complacency about public higher education in a state with many prestigious private institutions. More recently, explosive enrollment growth that has outpaced funding has exacerbated this pattern.

- Massachusetts public higher education enrollment grew 21 percent from 2006 to 2011.

- In 2011, Massachusetts ranked 30th among states in higher education funding per student, behind such states as California, Connecticut, Florida, Illinois, Kentucky, Louisiana, Maine, Maryland, Mississippi, New Jersey, New York, North Carolina, Texas, Washington, and Wisconsin.

**As funding has declined, the cost of attendance has increased, creating a major burden on those least able to pay.**

- The MASSGrant, the Commonwealth's major financial aid grant program for low-income students, covers only 8 percent of tuition and fees for a public college or university in the Commonwealth. In 1988, the MASSGrant covered 80 percent of student charges.

**■ In the years ahead, all of these critical partnerships and sources of support need to be strengthened if we are to attain national leadership.**

**As a technology leader, our greatest asset is our world-class people. To consistently innovate, it is critical for businesses like ours to strengthen partnerships with the Commonwealth's public universities and community colleges, so that the students of today can attain the skills they need to excel in the jobs of tomorrow.**

—WILLIAM H. SWANSON,  
CHAIRMAN AND CEO,  
RAYTHEON COMPANY

# II. THE BASELINE

**How do Massachusetts public campuses compare with the rest of the nation?**

■ This section presents the baseline data that we will use to track our progress in the Vision Project key outcome areas in the years to come. As the goal of the Vision Project is to achieve national leadership in each of these areas, we compare Massachusetts against the Leading States as well as the National Average on each metric.

KEY OUTCOME **1 COLLEGE PARTICIPATION** ■ 16

KEY OUTCOME **2 COLLEGE COMPLETION** ■ 22

KEY OUTCOME **3 STUDENT LEARNING** ■ 26

KEY OUTCOME **4 WORKFORCE ALIGNMENT** ■ 28

KEY OUTCOME **5 PREPARING CITIZENS** ■

*Metrics will be developed in the coming year;  
analysis will appear in future reports*

KEY OUTCOME **6 CLOSING ACHIEVEMENT GAPS** ■ 34

KEY OUTCOME **7 RESEARCH** ■ 38

#### APPENDICES

DATA SOURCE ACRONYM GLOSSARY ■ 80

INDEX OF LEADING STATES ■ 80

#### SEE ALSO

[WWW.MASS.EDU/VPREPORT](http://WWW.MASS.EDU/VPREPORT)  
*for additional data*

KEY OUTCOME

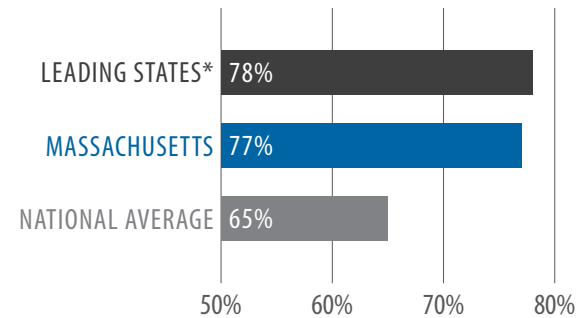
# 1 COLLEGE PARTICIPATION

Massachusetts is a national leader in the percentage of high school graduates who go to college and who are ready for college-level work. But challenges remain—even as national leaders, too many of our students are not college-ready, and large disparities persist in readiness and participation by race, ethnicity and socioeconomic status.

KEY METRIC

Is Massachusetts a national leader in the college-going rates of recent high school graduates? **Yes.**

### College Enrollment Rates of Recent High School Graduates



Cohort: Recent high school graduates (graduated within past year) enrolled anywhere (public or private, in state or out of state) as first-time, degree-seeking students in fall 2010.

Source: USDOE/IPEDS, WICHE\*\*

\* Leading states defined as average of top five states for each outcome, unless noted otherwise. Index of Leading States is available on page 80.

\*\* See the Data Source Acronym Glossary on page 80 for the full names of these organizations.

**Understanding  
College Participation  
Measures**

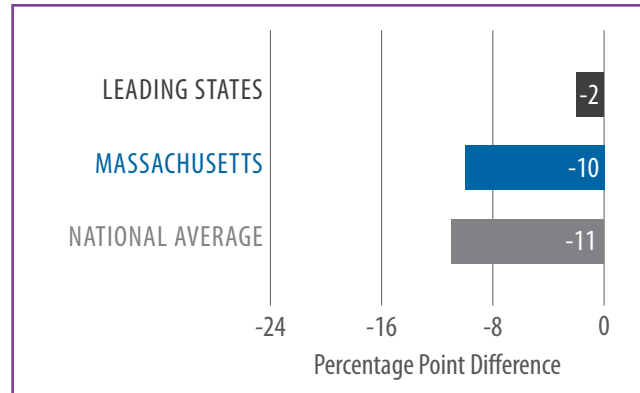
No single data source provides information on all aspects of college participation and college readiness, so this section uses four different data sources to create a complete picture. As a result, the populations of students studied shift somewhat for each metric, and are noted accordingly. College Readiness measures, shown on pages 18–21, are the most challenging. In addition to academic preparation, college readiness encompasses

a range of skills and attitudes such as persistence, time management, the ability to work independently, an understanding of the performance levels expected in college, and facility in interacting with college professors and peers. Most college readiness measures however, including those used here, assess only academic preparation in specific fields.

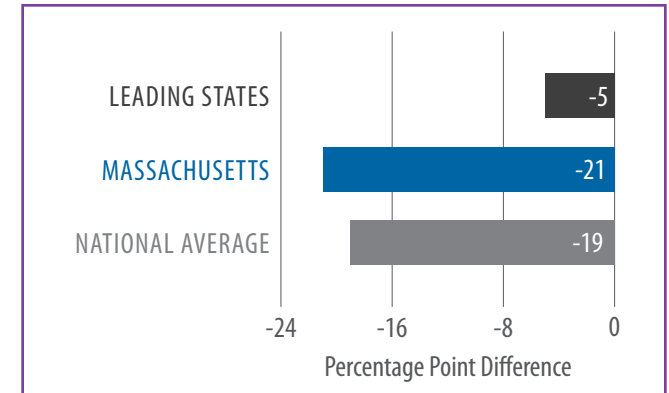
**KEY METRIC**

**Is Massachusetts a national leader in reducing disparities in the college-going rates of young adults? *No.***

**African-American/White Gap  
in College Enrollment Rates  
of 18- to 24-Year-Olds**



**Latino/White Gap  
in College Enrollment Rates  
of 18- to 24-Year-Olds**



Cohort: 18- to 24-year-olds enrolled in college, at public or private institutions, in 2007–2009.

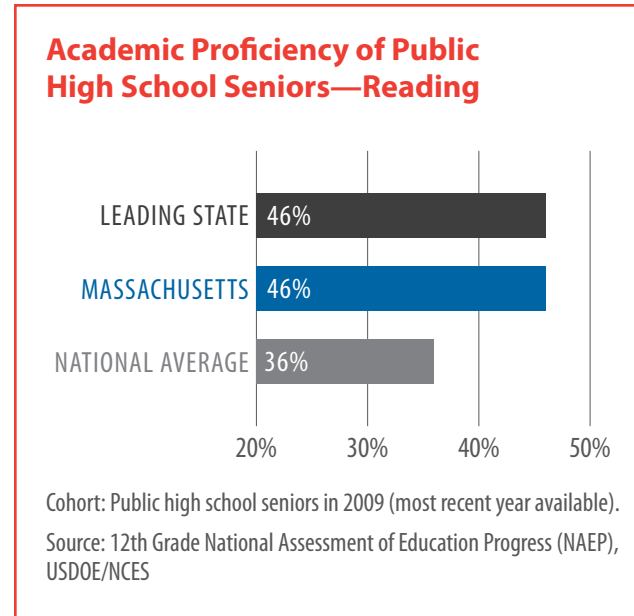
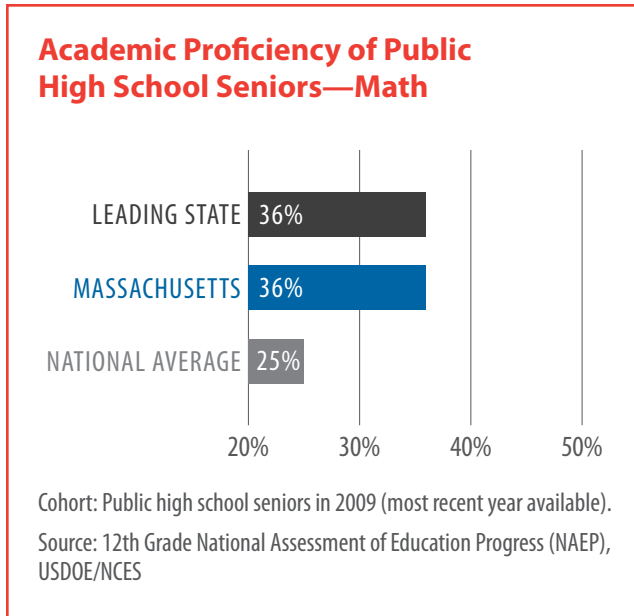
Source: US Census Bureau, 2007–09 American Community Survey

Note shift in population studied from recent high school graduates to 18- to 24-year-olds. National achievement gap data are not available for recent high school graduates. National comparison data on gaps by gender or income are not currently available for either group.

On all achievement gap charts, unlike the other charts in this report, smaller bars indicate better performance.

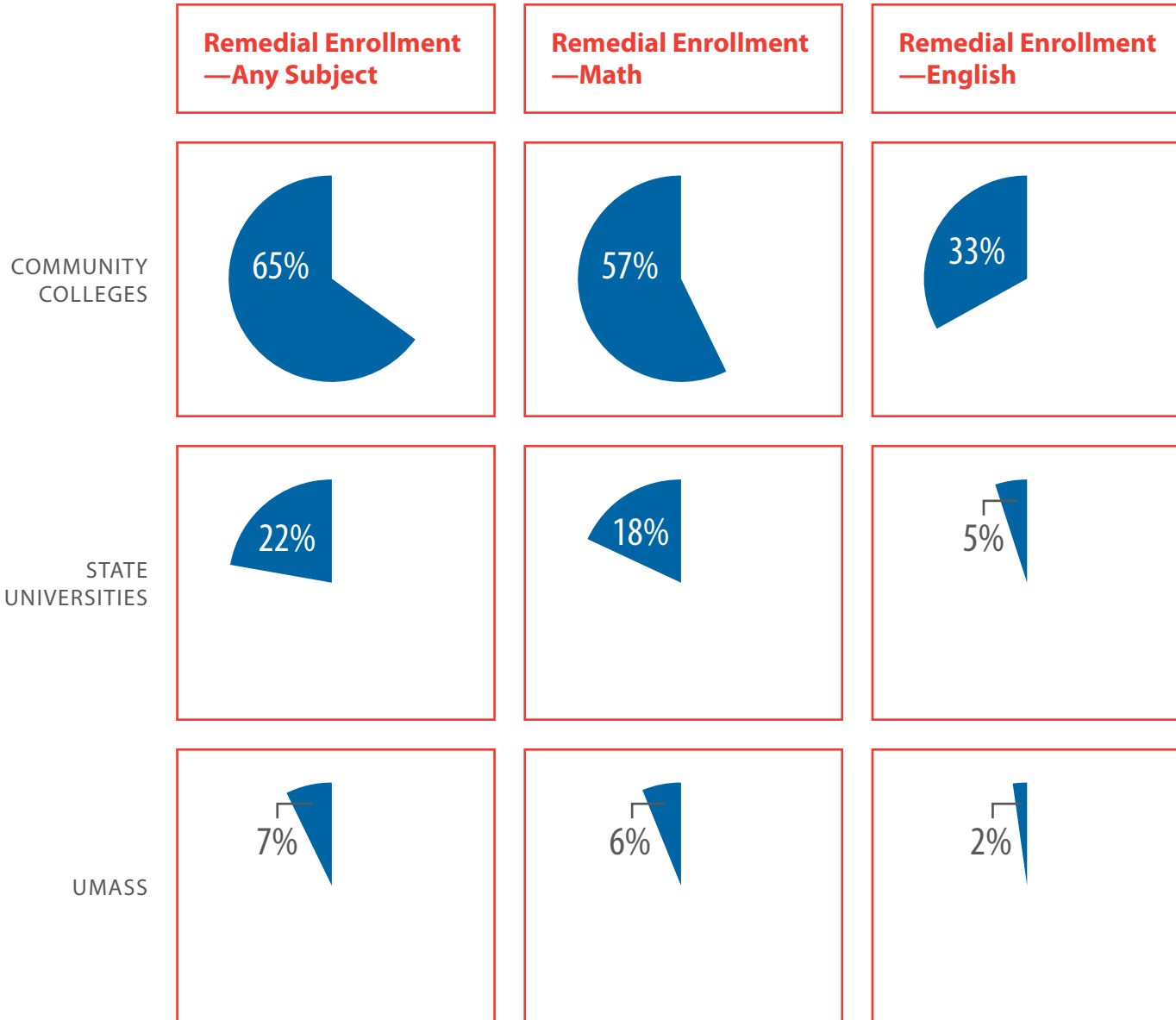
ADD'L METRIC

**Is Massachusetts a national leader in preparing high school students for college-level work? Yes.** *But even here, in the leading state, the majority of students do not achieve proficiency on the 12th grade NAEP math and reading exams.*



The results on the National Assessment of Educational Progress (NAEP) shown above indicate the percentage of students scoring Proficient or higher on the 12th grade NAEP exam. This level correlates with a score of 500 on the SAT Reading and Math exams. While the national average is based on students in all states, leading state data comes from a NAEP pilot study of 11 states: AR, CT, FL, ID, IL, IA, MA, NH, NJ, SD and WV. Massachusetts is the leading state within this study in both Math and Reading.

## What percentage of Massachusetts public high school students enter our public higher education system underprepared for college-level work?



This page presents Massachusetts data only. Because policies for placement into remedial education vary significantly by state, no meaningful national comparison is possible.

Readers who compare remedial education enrollment with the NAEP proficiency results shown on page 18 may notice that the percentage of students who place out of remedial education is more, and in the case of the four-year institutions considerably more, than the percentage who achieve proficiency on the NAEP exam. The primary explanation for this difference lies in the different populations of students examined. The NAEP exam tests high school seniors, including those who never go on to higher education, whereas the remedial education percentages reflect only students who have made it to college.

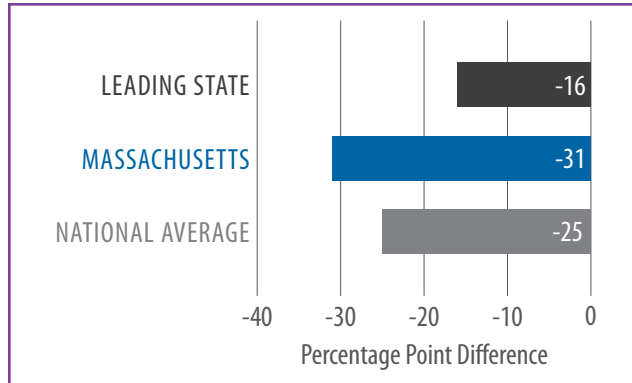
Cohort: First-time, full-time, degree-seeking students who are recent Massachusetts public high school graduates and who enrolled in remedial courses in fall 2011.

Source: MDHE/HEIRS

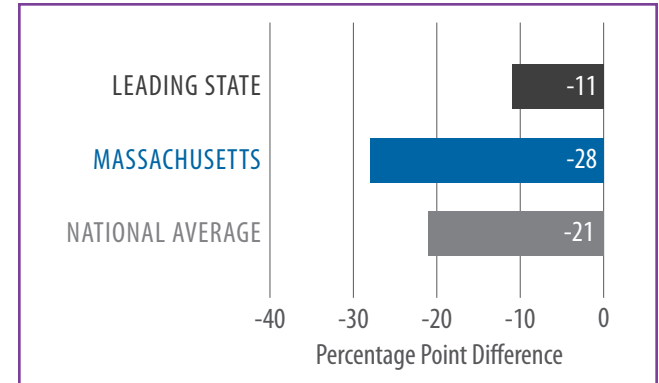
Is Massachusetts a national leader in closing achievement gaps in college preparedness? **No.**

While Massachusetts' achievement gaps exceed the national average, we are at or above the national average in the proficiency of our students when compared with that of students of the same race, ethnicity, or income.

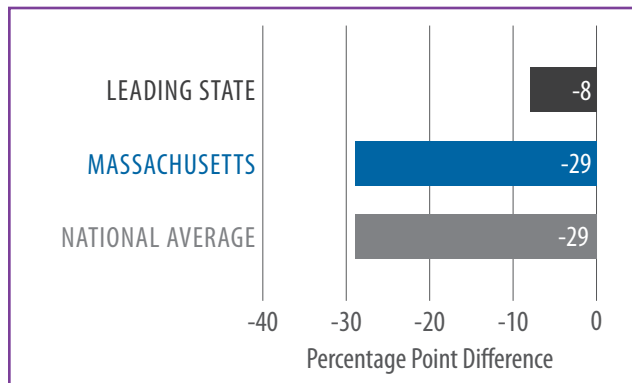
**African-American/White Gap in Academic Proficiency of High School Seniors—Math**



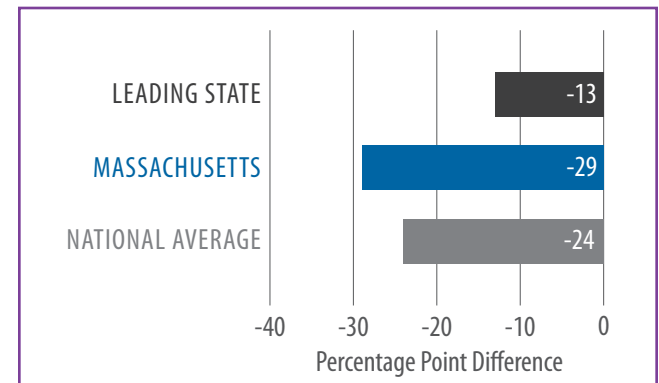
**Latino/White Gap in Academic Proficiency of High School Seniors—Math**



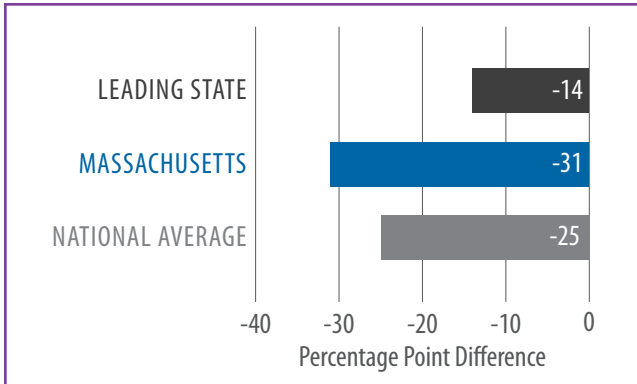
**African-American/White Gap in Academic Proficiency of High School Seniors—Reading**



**Latino/White Gap in Academic Proficiency of High School Seniors—Reading**

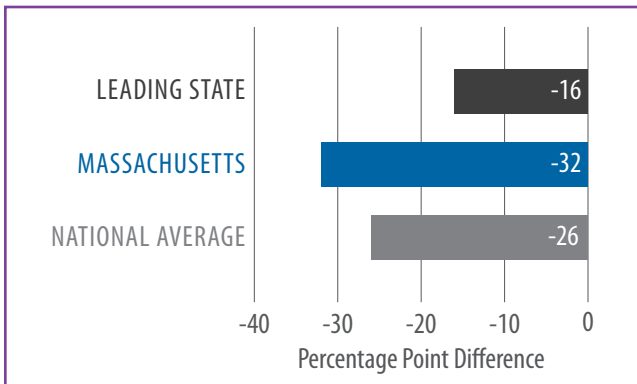


**Parental Education Gap  
in Academic Proficiency of  
High School Seniors—Math**



Parental Education gaps are a widely used measure of socioeconomic status. In these charts, the gaps show the difference in outcomes between those students whose parents hold only high school diplomas or less, and those students with at least one parent holding a college degree.

**Parental Education Gap  
in Academic Proficiency of  
High School Seniors—Reading**



Cohort for both rows: Public high school seniors in 2009 (most recent year available).

Source: 12th Grade National Assessment of Education Progress (NAEP), USDOE/NCES

**Why are income gaps not reported in the Vision Project?**

Many researchers believe that family income is the strongest predictor of academic success—stronger than race/ethnicity and gender. In recognition of this, the Board of Higher Education voted to include income gaps in the metrics used to measure progress in Closing Achievement Gaps.

In the area of College Participation, we know that in Massachusetts the college enrollment rates of recent high school graduates from low-income families is 23 percentage points below those of their peers. But a national comparison is not currently available.

Likewise, in College Completion and other outcome areas, income data is sparsely available in Massachusetts and even less available in national data sets. Congress recently began to require higher education institutions to submit the graduation rates of students eligible for Pell Grants. As data of this kind becomes publicly available, greater income analysis will appear in Vision Project reports.

KEY OUTCOME

# 2 COLLEGE COMPLETION

College completion increases an individual’s employment prospects and is the strongest indicator of future civic participation. Students who graduate are also better able to pay back college loans. In this area, Massachusetts trails national leaders by 6 to 13 percentage points and has achievement gaps by race, ethnicity, income, and gender.

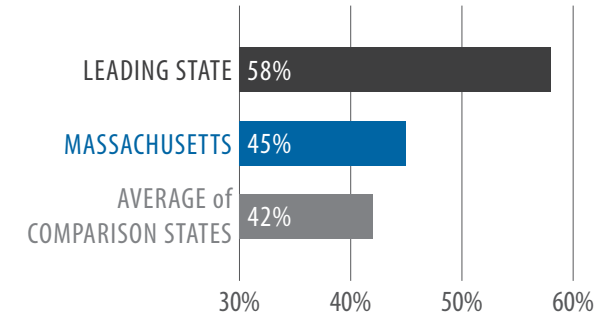
## KEY METRICS

### Is Massachusetts a national leader in the college completion rates of its public higher education students? **No.**

The “Achieving the Dream” indicator recognizes the complex multiple missions of the Community College segment by including both full- and part-time students and capturing students who, within six years of initial enrollment, earn an associate’s degree or certificate, transfer to a four-year institution, or are still enrolled with at least 30 credits earned.

*Data is only available for nine states—Connecticut, Florida, Massachusetts, North Carolina, Ohio, Oklahoma, Texas, Virginia, Washington. Because of the small comparison group, national leadership is equated with the performance of the top state, rather than the top 5 states.*

### COMMUNITY COLLEGES “Achieving the Dream” Six-Year Success Rate



Cohort: First-time, degree-seeking students entering in fall 2003; measure examines their rate of success by September 2009.

Source: MDHE/HEIRS, NSC, Jobs for the Future

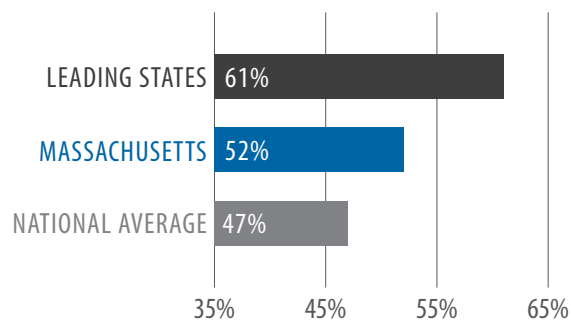
## Understanding College Completion Measures

In recent years, graduation rates have engendered considerable national debate, particularly in relation to community college students. The graduation rates tracked by the National Center for Education Statistics—the sole source of national comparison data—ignore the considerable percentage of community college students who transfer or attend part time. Moreover, NCES data only counts students as graduating if they gradu-

ate from the same college at which they began. Students who transfer and then graduate elsewhere count as failures under this approach. For this reason we use an alternative measure of community college success, but in doing so sacrifice the ability to compare against a broad range of states. National comparisons using the NCES data are available on the Vision Project report website at [www.mass.edu/vpreport](http://www.mass.edu/vpreport).

### STATE UNIVERSITIES

#### Six-Year Graduation Rate

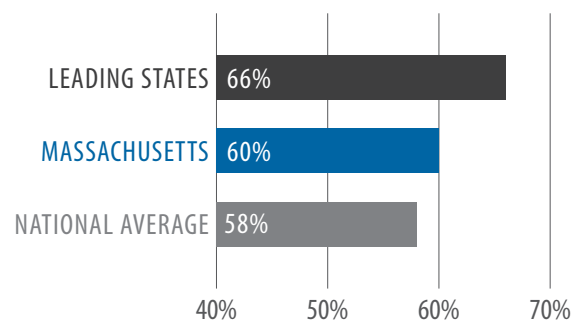


Cohort: First-time, full-time, degree-seeking students entering in fall 2004; measure examines their rate of graduation by August 2010.

Source: USDOE/IPEDS

### UMASS

#### Six-Year Graduation Rate



Cohort: First-time, full-time, degree-seeking students entering in fall 2004; measure examines their rate of graduation by August 2010.

Source: USDOE/IPEDS

As noted above, transfer students, who compose roughly a third of all new students enrolling in public bachelor degree programs, are not included in the Six-Year Graduation Rate metrics. Their graduation rate is 60% in the State University segment and 60% in the UMass segment.

In addition, many students transfer from UMass or their state university and successfully complete their studies at a different institution. Including those students raises the graduation rate by 12 percentage points in the State University segment and 14 percentage points in the UMass segment. No national comparisons are available for graduation rates of students who transfer into or out of four-year colleges.

## KEY METRIC

Is Massachusetts a national leader in closing achievement gaps in college completion rates of its public higher education students? **No.**

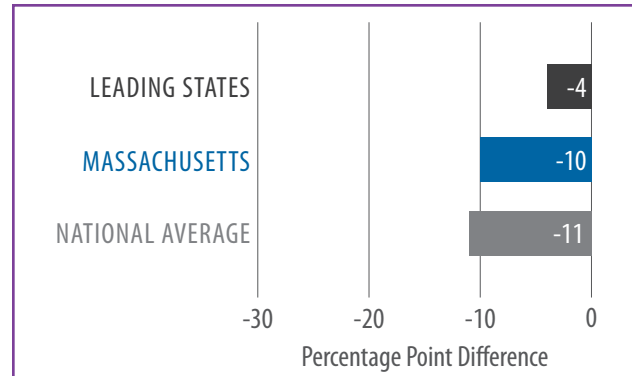
### COMMUNITY COLLEGES

#### Three-Year Graduation Rate

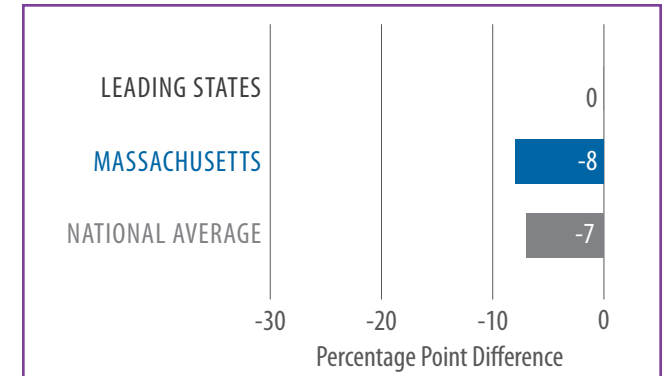
Cohort: First-time, degree-seeking students entering in fall 2007; measure examines their rate of graduation by August 2010.

Source: USDOE/IPEDS

#### African-American/White Gap in Public Higher Ed Graduation Rates



#### Latino/White Gap in Public Higher Ed Graduation Rates

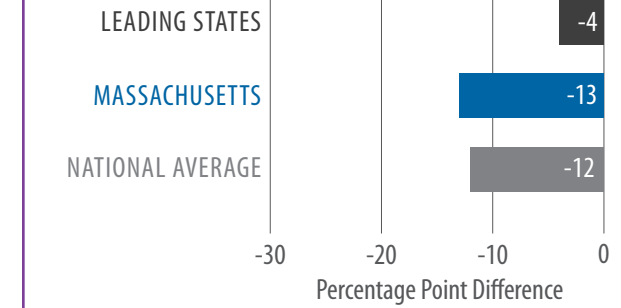
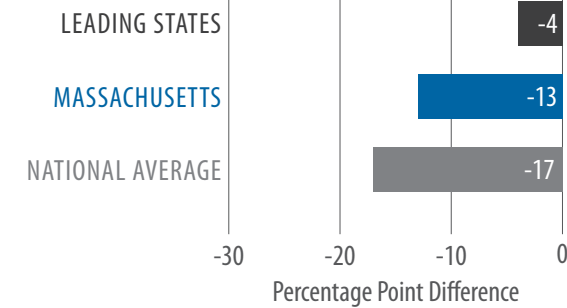


### STATE UNIVERSITIES

#### Six-Year Graduation Rate

Cohort: First-time, full-time, degree-seeking students entering in fall 2004; measure examines their rate of graduation by August 2010.

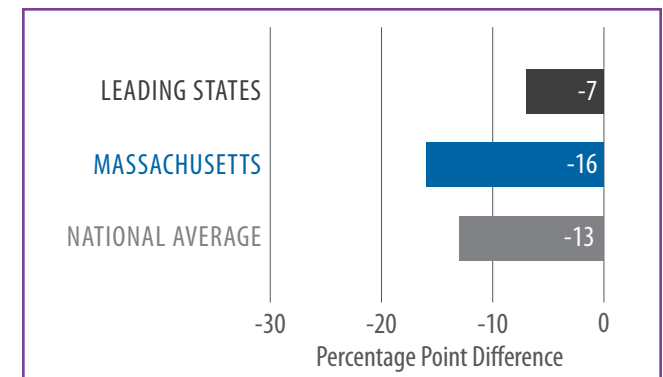
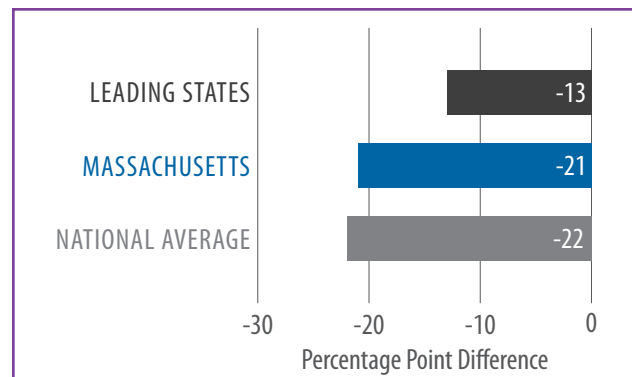
Source: USDOE/IPEDS



#### UMASS Six-Year Graduation Rate

Cohort: First-time, full-time, degree-seeking students entering in fall 2004; measure examines their rate of graduation by August 2010.

Source: USDOE/IPEDS



Note the change to Three-Year Graduation Rate as the focus of our analysis of Community College achievement gaps in this section. The Achieving the Dream Success Rate Indicator (Key Metric on page 22) lacks the data from other states needed to do achievement gap analyses.

### Why are gender gaps not reported in the Vision Project?

On average, gender-based achievement gaps are the smallest of those examined in the Vision Project, with several outcomes showing no gaps at all. In some areas, however, gender gaps are significant. Gender-based gaps are unusual in that females trail males in some measures, while males lag behind females in others.

Female students at Massachusetts' public campuses lag behind males by 21 percentage points in the achievement of competitive scores on the MCAT entrance exam to medical school, and by 8 to 17 percentage points in participation in Science, Technology, Engineering or Math (STEM) majors. Male high school students trail females by 9 to 10 percentage points in college enrollment rates and college preparedness in reading. Male students also trail females by 6 to 22 percentage points on nursing licensure exam pass rates.

Additional analysis of gender-based gaps is available on the Vision Project Report website at [www.mass.edu/vpreport](http://www.mass.edu/vpreport).

KEY OUTCOME

# 3 STUDENT LEARNING

Because college completion rates do not indicate actual levels of academic achievement, the Vision Project also tracks measures of what public college graduates know and are able to do. The best available data that allows cross-institutional comparisons comes from results on national licensure and graduate entrance exams; on these tests Massachusetts is 5 to 15 percentage points from national leadership.

Licensure and graduate entrance exams capture only a portion of students and student work. See page 58 for an overview of our work to develop new Student Learning measures.

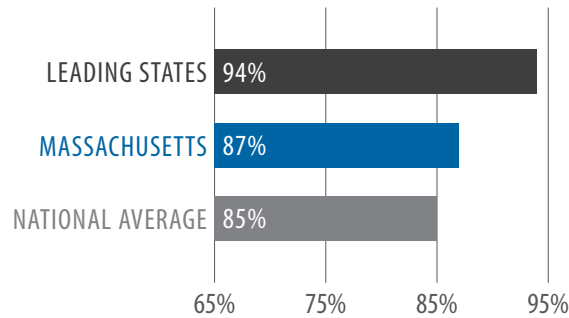
## KEY METRICS

**Is Massachusetts a national leader in pass rates of public higher education students on national licensure exams? *No.***

National achievement gap data is not available for licensure exams or the workforce metrics used in the following section. See pages 34–37 for Massachusetts-only data on disparities in outcomes by race and ethnicity.

### COMMUNITY COLLEGES

#### Pass Rates on National Licensure Exams



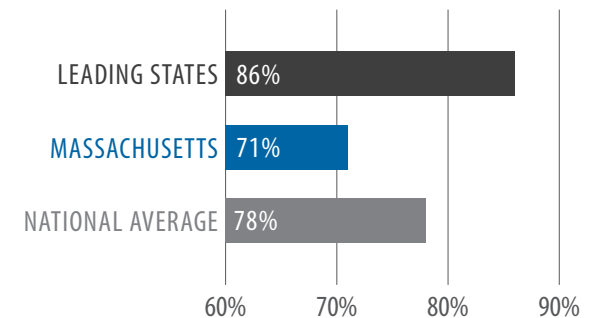
Tests included: Dental Assistant, Dental Hygiene, Licensed Practical Nurse, Medical Assistant, Occupational Therapy Assistant, Physical Therapy Assistant, Radiation Technologist, Registered Nurse, Respiratory Therapy Assistant, Surgical Technologist

Cohort: Cohorts vary by test; see technical appendix on website for more information.

Source: National testing agencies; see technical appendix on website for more information.

### STATE UNIVERSITIES

#### Pass Rates on National Licensure Exams



Tests included: Certified Public Accountant, Registered Nurse, Social Work BA

Cohort: Cohorts vary by test; see technical appendix on website for more information. Because of the comparatively small numbers of state university students taking these exams, results are aggregated over the most recent three years.

Source: National testing agencies; see technical appendix on website for more information.

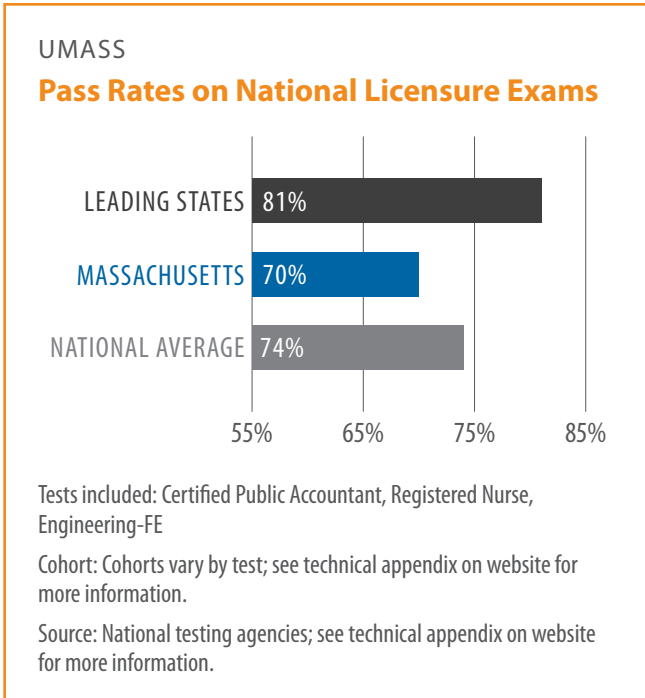
## Understanding Student Learning Measures

Research shows that the best way to determine what college students know and can do is to examine their learning outcomes from multiple viewpoints. Future Vision Project reports will look at student learning through three different lenses: (1) assessments of student coursework based on the same standards used by other institutions; (2) national licensure and

graduate entrance exams; and (3) indirect assessments—student surveys that identify the prevalence of practices tied to increased student learning. Of these, only the exam data is available for this first Vision Project report. See page 58 for a more detailed explanation of Massachusetts’ plans to improve student learning through better assessment.

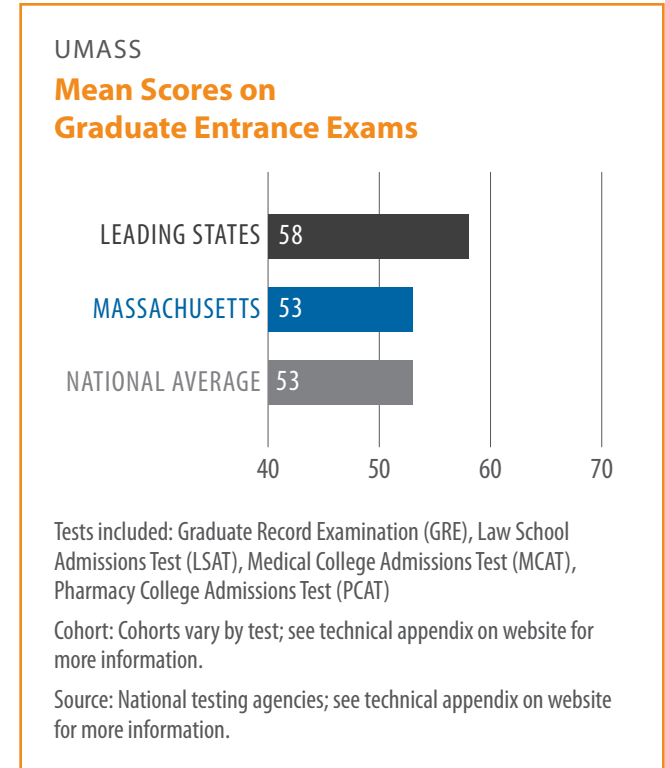
### ADD’L METRIC

## Is Massachusetts a national leader in performance by public higher education students on graduate entrance exams? **No.**



Graduate entrance exams use widely varying score ranges (for instance, 120–180 for the LSAT and 3–45 for the MCAT). Scores were normalized to a 0–100 scale in order to make aggregation possible.

Another way to look at graduate entrance exams is the percentage of students above a competitive score. At UMass, 29% of students scored above a competitive score, compared with a 34% National Average. Competitive scores were determined by national experts from NCHEMS.



KEY OUTCOME

# 4 WORKFORCE ALIGNMENT

OVERALL

In Massachusetts' knowledge-based economy, increasing college attainment is critical to providing the highly educated workforce that employers demand. Massachusetts is currently on track to meeting the national goal of having 60% of 25- to 34-year-olds hold college degrees by 2020, but in future years will need greater gains to stay on track.

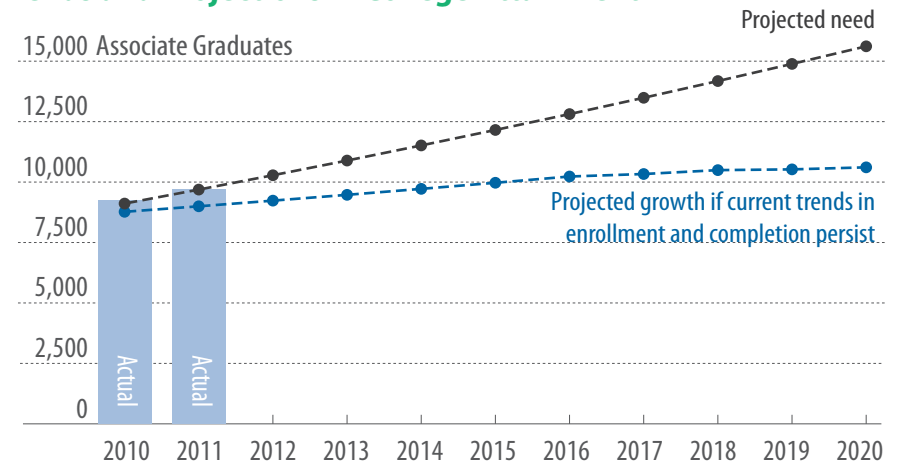
## KEY METRIC

**Are we on track to have 60% of Massachusetts' 25- to 34-year-olds holding a college degree by 2020?**

*Yes. Massachusetts' public colleges and universities have met the target number of graduates for 2010 and 2011—but greater annual gains will be needed in the future to stay on track.*

COMMUNITY COLLEGES—ASSOCIATE'S DEGREES IN ALL FIELDS

### Trends and Projections in College Attainment



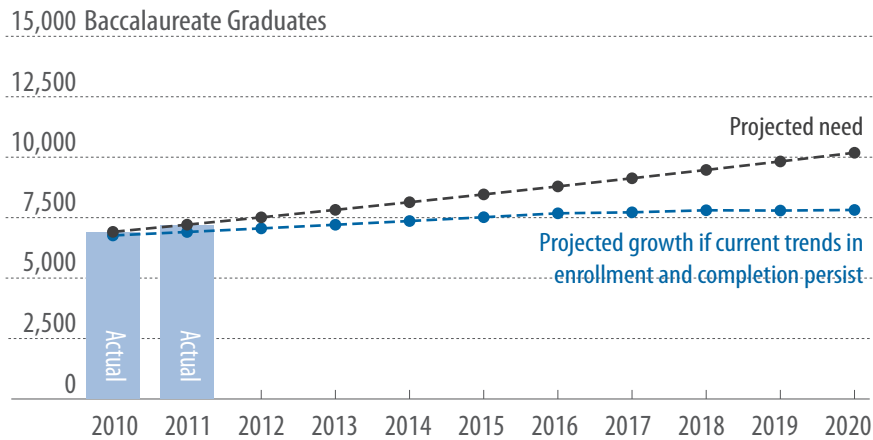
Source: MDHE with data from NCHEMS, Georgetown Center for Education and the Workforce, USDOE/IPEDS

**Understanding Overall Workforce Alignment Measures**

The projections below began with calculations of the college graduates Massachusetts will need each year to meet the goal of 60% college attainment by 2020 (see page 11). To better align this goal with Massachusetts' specific workforce needs, this total number of graduates was then broken out by degree type—associate's, bachelor's, graduate—using projections

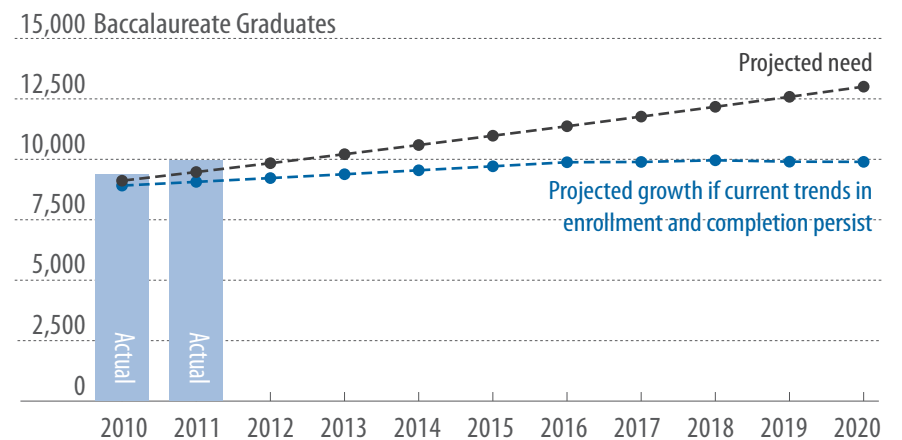
from Georgetown's Center for Education and the Workforce. Because this report focuses on Massachusetts' public campuses, degree totals were then broken out by public and private share using the current split in Massachusetts for each degree type. The charts do not show the private campus contribution to college graduates needed.

STATE UNIVERSITIES—BACHELOR'S DEGREES IN ALL FIELDS  
**Trends and Projections in College Attainment**



Source: MDHE with data from NCHEMS, Georgetown Center for Education and the Workforce, USDOE/IPEDS

UMASS—BACHELOR'S DEGREES IN ALL FIELDS  
**Trends and Projections in College Attainment**



Source: MDHE with data from NCHEMS, Georgetown Center for Education and the Workforce, USDOE/IPEDS

KEY OUTCOME

# 4 WORKFORCE ALIGNMENT

HIGH-NEED FIELDS

High-need fields—STEM, health care, and business and finance—show both high projected growth in employment due to new job creation, and high projected vacancies due to retirements and other departures. In these fields, Massachusetts is not a national leader in the alignment between projected job openings and qualified graduates to fill them.

## KEY METRICS

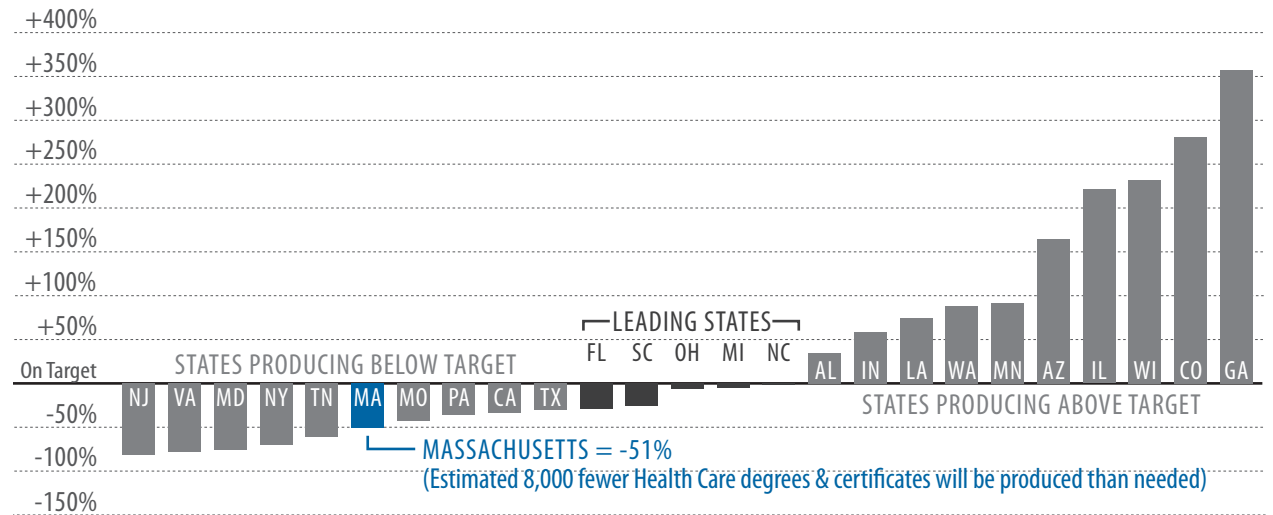
**High-Need Fields:** This metric focuses on three high-need fields: Health Care; Science, Technology, Engineering, and Mathematics (STEM); and Business and Finance. While graduates of Massachusetts’ public campuses are employed in a wide range of fields, these three areas show both a high level of projected growth and a high number of future vacancies. By 2018, they will represent 35% of Massachusetts jobs requiring a college education.

These fields include the four high-growth sectors on which the Patrick-Murray Administration’s workforce development strategy focuses: Health Care, Life Sciences, IT, and Advanced Manufacturing. The latter three are included in the STEM field analysis.

**Comparison States:** For this metric, Massachusetts is compared against the 25 most populous states in the nation, as alignment in smaller states is often skewed to overproduction because of issues of scale.

**Is Massachusetts a national leader in aligning public degree programs with future workforce needs in health care? *No.***

COMMUNITY COLLEGES—ASSOCIATE’S DEGREES & CERTIFICATES IN HEALTH CARE SUPPORT  
**Projected Percentage Gap by 2018 Between Degrees Produced and Degrees Needed**

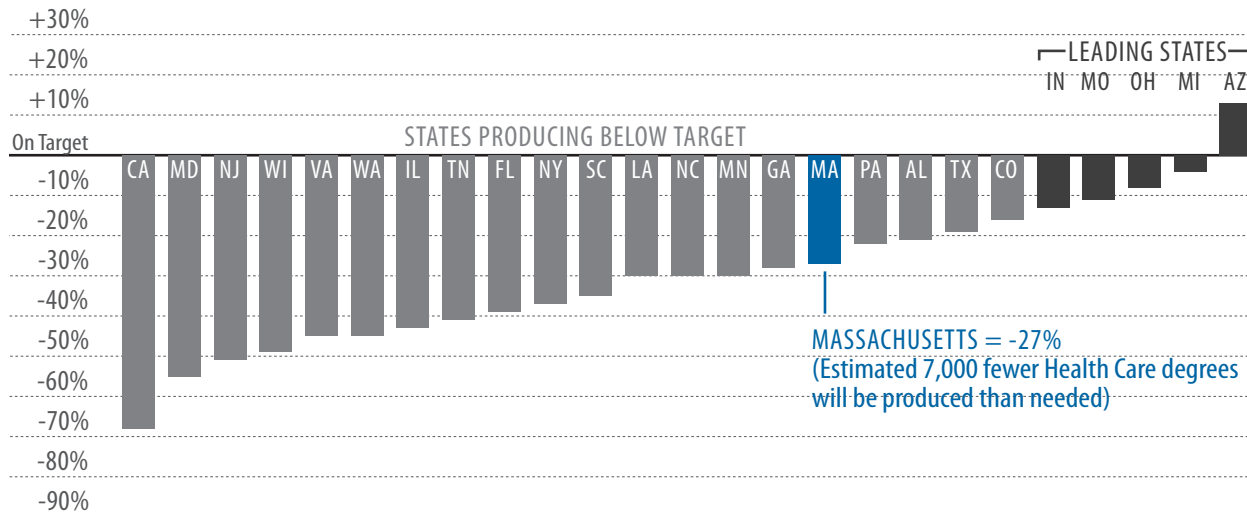


**Understanding High-Need Fields Workforce Alignment Measures**

The methodology for this cutting-edge alignment metric was developed by William Mass and the Center for Industrial Competitiveness at the University of Massachusetts Lowell, in partnership with the Massachusetts Department of Higher Education. To our knowledge, this is the first attempt to make state-by-state comparisons of the alignment between projected job openings and qualified college graduates. As with any new metric, we expect to make ongoing improvement of

both analyses and underlying data. Percentage gaps shown on the charts below should not be regarded as definitively indicative of poor alignment, but rather as a flag for further study. Retention and graduation rates in key occupational areas, as well as the number and percentage of students pursuing STEM degrees, are available on the Vision Project report website at [www.mass.edu/vpreport](http://www.mass.edu/vpreport).

STATE UNIVERSITIES & UMASS—BACHELOR’S DEGREES IN HEALTH CARE PRACTICE  
**Projected Percentage Gap by 2018 Between Degrees Produced and Degrees Needed**



**How to read the charts in this section:**

- Leading states are defined as those closest to target.
- This metric looks at future workforce needs, rather than current job vacancies.
- Each chart compares projected job openings in a given high-growth field with the projected number of graduates possessing degrees in that field.
- To allow comparisons between states of different sizes, the chart shows a percentage: the gap between degrees projected and degrees needed, divided by the total degrees needed.
- Bars at the target line indicate states where the projected need for graduates is aligned with the projected number of graduates. The gap here is zero.
- The comparison looks only at public campus contribution to workforce development; the estimated number of future jobs is adjusted for the public higher education share of degrees in that field.

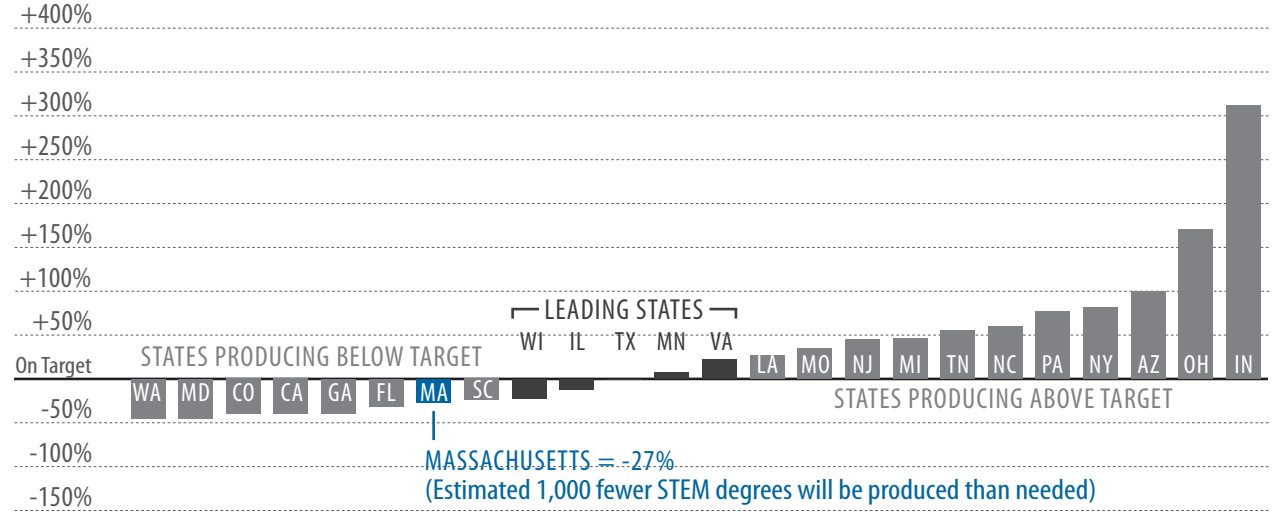
Source: MDHE with data from USDOE/IPEDS, Georgetown Center for Education and the Workforce, USDOE Baccalaureate and Beyond Longitudinal Study

## KEY METRICS

Is Massachusetts a national leader in aligning public degree programs with future workforce needs in Science, Technology, Engineering, and Mathematics? **No.**

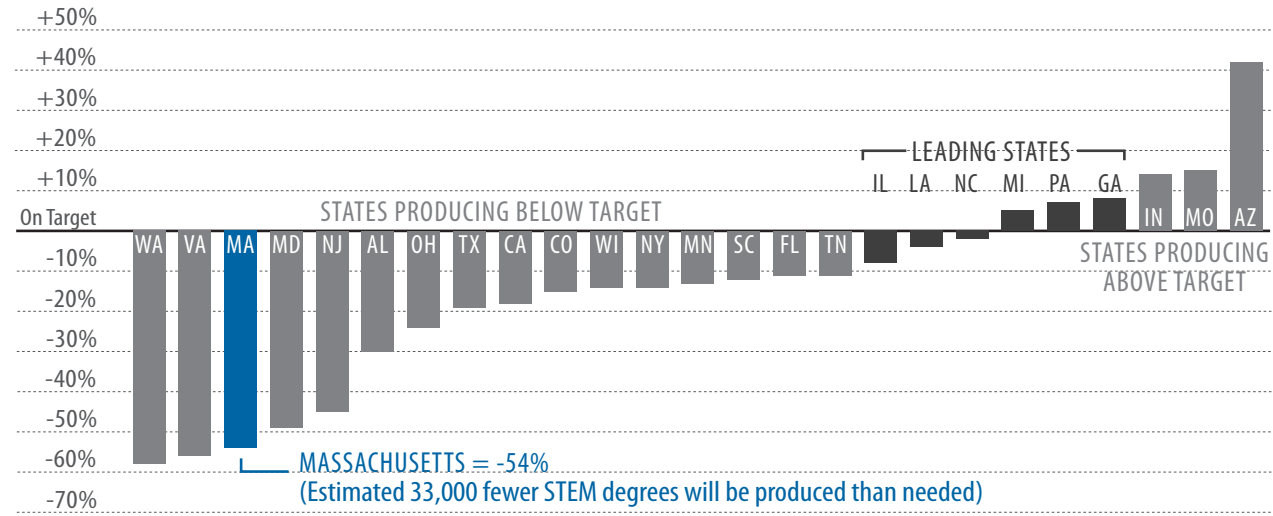
### COMMUNITY COLLEGES—ASSOCIATE’S DEGREES IN STEM TECHNICIAN FIELDS

#### Projected Percentage Gap by 2018 Between Degrees Produced and Degrees Needed



### STATE UNIVERSITIES & UMASS—BACHELOR’S DEGREES IN STEM FIELDS

#### Projected Percentage Gap by 2018 Between Degrees Produced and Degrees Needed

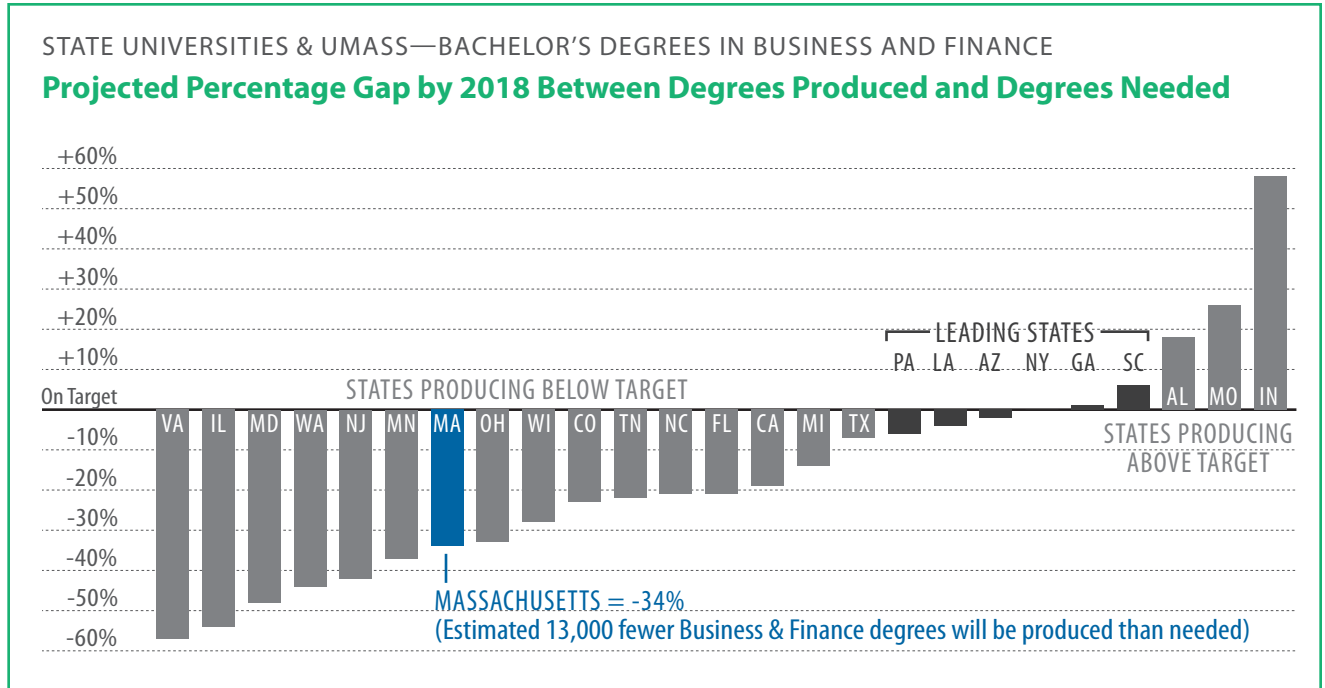


Source: MDHE with data from USDOE/IPEDS, Georgetown Center for Education and the Workforce, USDOE Baccalaureate and Beyond Longitudinal Study

## KEY METRIC

Is Massachusetts a national leader in aligning public degree programs with future workforce needs in business and finance? **No.**

Source: MDHE with data from USDOE/IPEDS, Georgetown Center for Education and the Workforce, USDOE Baccalaureate and Beyond Longitudinal Study



KEY OUTCOME

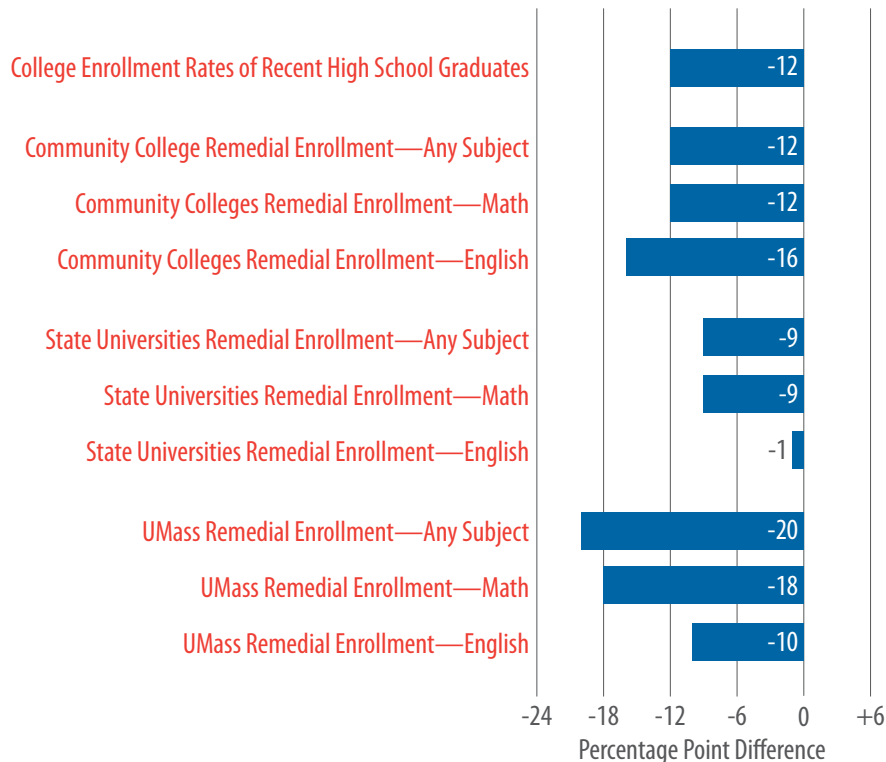
**6** CLOSING ACHIEVEMENT GAPS

The overall Vision Project goal—producing the best-educated citizenry and workforce in the nation—can be achieved only if achievement gaps are significantly reduced or eliminated. Earlier chapters include measures allowing for national comparison of these gaps. This section adds to that picture by providing Massachusetts-only data for a wider array of metrics for which national comparisons are not available.

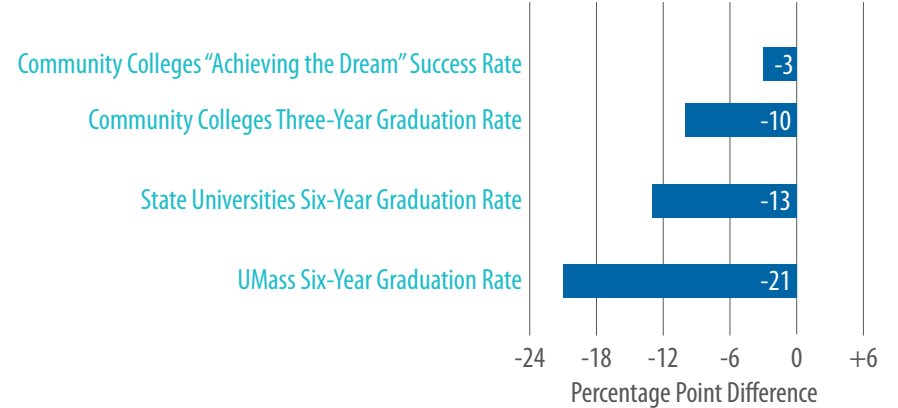
ADD'L METRIC

**How large are African-American/White achievement gaps in Massachusetts across all outcome areas?**

**African-American/White Gaps in College Participation in Massachusetts**



**African-American/White Gaps in College Completion in Massachusetts**



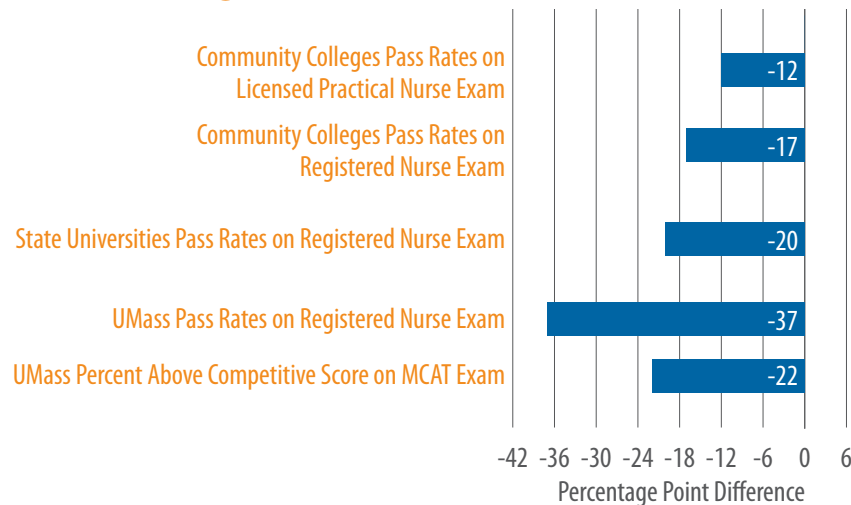
**Understanding Achievement Gap Measures**

Achievement gap data are traditionally viewed through a single lens, such as ethnicity or gender. But research and campus experience suggest that the intersections of such data offer a more nuanced, telling portrait. For example, African-American males fare worse academically than African-American females. And achievement gaps for older male students can be more significant than for males under 25. The challenge in making

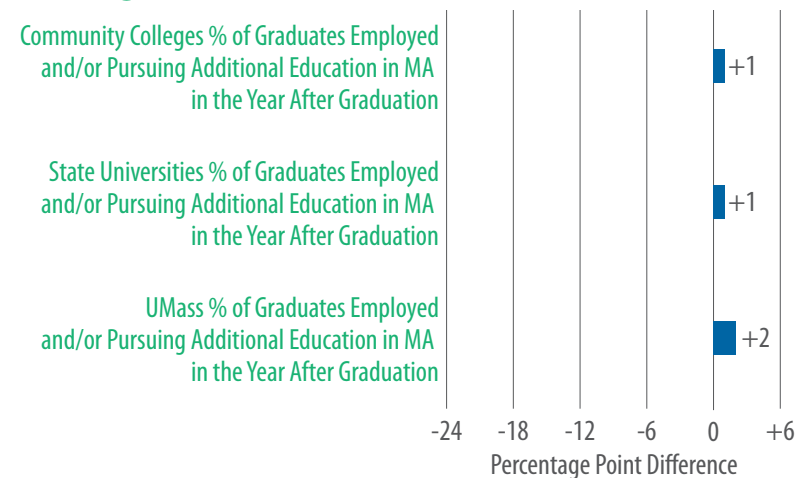
such subgroup analyses, however, is that sample sizes at the state level often become too small for valid comparisons, as subgroups are divided by other subgroups within it. At the national level, comparison data is often still lacking. Massachusetts-only achievement gap data for retention and graduation rates in key occupational areas are available on the Vision Project report website at [www.mass.edu/vpreport](http://www.mass.edu/vpreport).

Bars to left of 0 indicate extent by which African-Americans underperform whites. Larger bars equal larger gaps. Note that in Workforce Alignment, African-Americans tend to stay in Massachusetts after graduation by slightly larger margins than whites.

**African-American/White Gaps in Student Learning in Massachusetts**



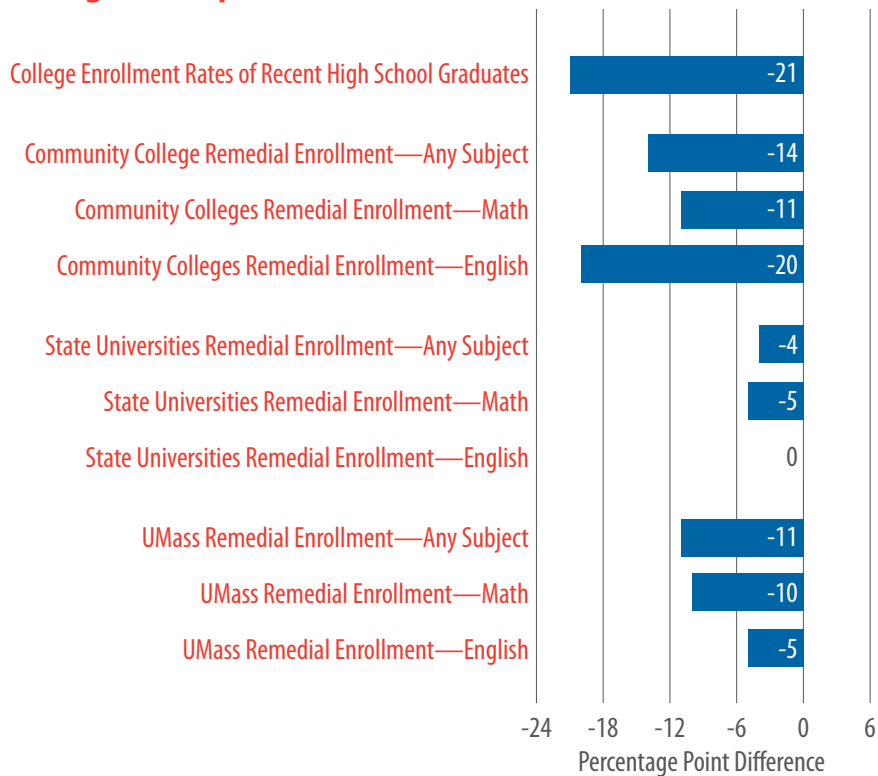
**African-American/White Gaps in Workforce Alignment in Massachusetts**



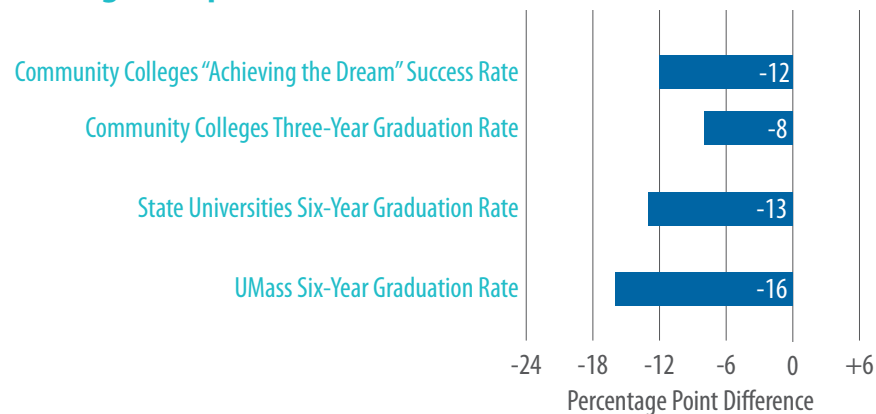
Data is aggregated over most recent three years. Exams are shown only if achievement gap data is available and the total number of African-American test-takers is greater than 40.

How large are Latino/White achievement gaps in Massachusetts across all outcome areas?

**Latino/White Gaps  
in College Participation in Massachusetts**

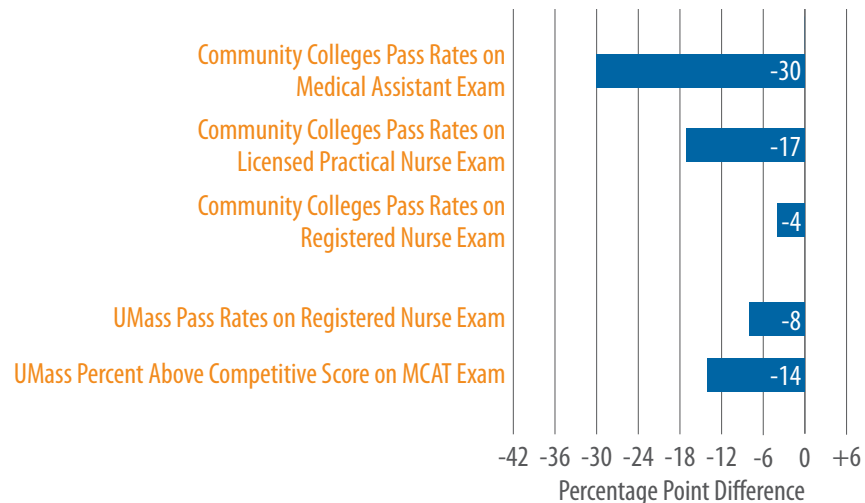


**Latino/White Gaps  
in College Completion in Massachusetts**

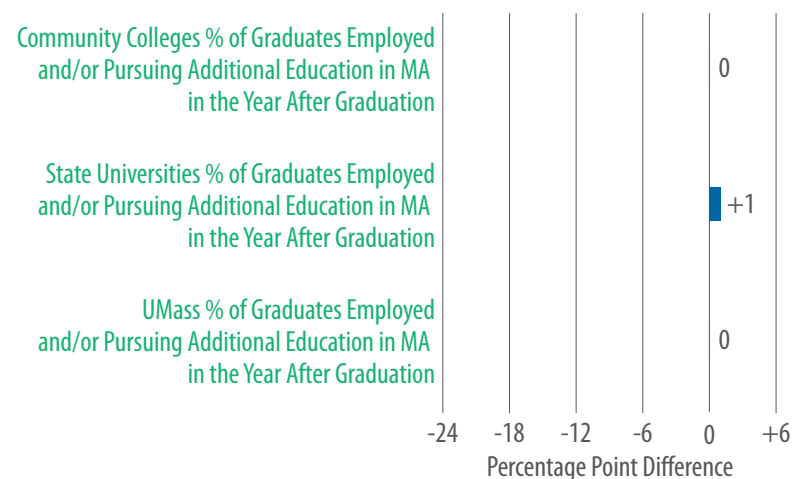


Bars to left of 0 indicate extent by which Latinos underperform whites. Larger bars equal larger gaps. Note that in Workforce Alignment, Latinos tend to stay in Massachusetts after graduation by equivalent or slightly larger margins than whites.

### Latino/White Gaps in Student Learning in Massachusetts



### Latino/White Gaps in Workforce Alignment in Massachusetts



Data is aggregated over most recent three years. Exams are shown only if achievement gap data is available and the total number of Latino test-takers is greater than 40.

KEY OUTCOME

# 7 RESEARCH

Research expenditures at UMass increased by 68 percent over the past six years, rising from \$350 million in 2005 to \$587 million in 2011. Licensing income, shown as a three-year rolling average, doubled over this same period, from \$25 million in 2005 to \$50 million in 2011.

## KEY METRIC

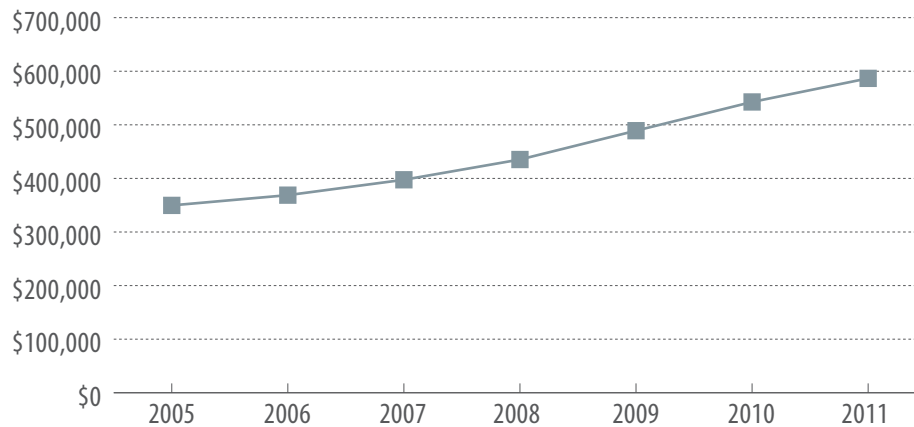
How have UMass' research and development expenditures changed over the past six years?

For more information on research at UMass, including highlights from individual campuses and the principles and priorities that guide the research, see the *UMass FY2011 Annual Research and Development Expenditures Report* at:

<http://bit.ly/LIEbAs>

UMASS

### Trend in Research and Development Expenditures



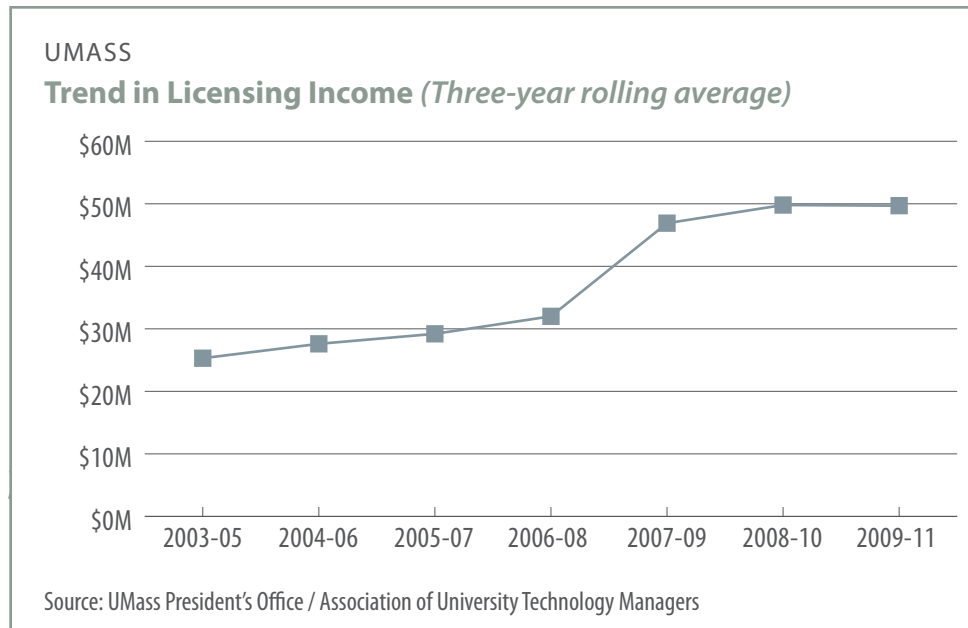
Source: UMass President's Office / National Science Foundation

**Understanding  
Research Measures**

Research and Development expenditures are an indicator of an institution's research capacity and accomplishment. Licensing income comes from faculty-derived discoveries and products. It is a measure of the economic value of a university's inventiveness, as well as being a contributor to the university's financial strength. Because licensing revenue fluctuates from year to year with significant spikes from the introduction of new products, a three-year rolling average is used for this metric.

**KEY METRIC**

**How has UMass' licensing income changed over the past six years?**



**III. GOALS**

**AND**

**STRATEGIES**

**What work is being undertaken  
to achieve the goal  
of national leadership?**

■ This section outlines the **wide array of work underway to advance Massachusetts' performance** in the Vision Project's key outcomes. From policy development at the state level to student-centered programs on the campuses, from longstanding initiatives to new and innovative experiments, the work described here forms a comprehensive strategy to achieve the Vision Project goal of national leadership for Massachusetts public higher education.

KEY OUTCOME **1 COLLEGE PARTICIPATION** ■ 42

KEY OUTCOME **2 COLLEGE COMPLETION** ■ 48

KEY OUTCOME **3 STUDENT LEARNING** ■ 54

KEY OUTCOME **4 WORKFORCE ALIGNMENT** ■ 60

KEY OUTCOME **5 PREPARING CITIZENS** ■ 66

KEY OUTCOME **6 CLOSING ACHIEVEMENT GAPS** ■

*Strategies to close achievement gaps for each outcome are described in the above sections*

KEY OUTCOME **7 RESEARCH** ■

*Information available on UMass' website at <http://bit.ly/LIEbAs>*

## Leaders of Tomorrow

ALEX SAMUEL CHAEZ  
SPRINGFIELD TECHNICAL COMMUNITY COLLEGE '12



Last May, Alex Samuel Chaez became the first person in his family to (proudly!) graduate from college. He earned a degree in Computer & IT Security from Springfield Technical Community College (STCC) and will continue his education at Western New England University. He eventually hopes to earn a doctorate. Alex's younger brother, inspired by Alex's achievements, will enroll this fall in STCC's Liberal Arts Transfer Program.

As President of the STCC Phi Theta Kappa honor society, Alex served as an elementary school volunteer and coordinated a clothing drive for the Big Brothers Big Sisters organization. He also worked in the Dean of Students office. He chose to remain in Springfield in order to assist his parents, both financially and physically, serving as a personal care assistant to his father, who suffers from ALS (Lou Gehrig's disease).

"Springfield Technical Community College, like the over 1,000 other community colleges in the United States, exists to provide a place for first steps, second chances, and achieving dreams," said Dr. Ira Rubenzhal, STCC President. "Students like Alex Chaez humble us with their life stories, inspire us with their dreams and remind us every day how fortunate we are to be a part of something larger than ourselves."



Students cross the campus green at Westfield State.  
Photo by Westfield State University.



## KEY OUTCOME

# 1 COLLEGE PARTICIPATION

With Massachusetts already leading the nation in college participation of recent high school graduates, Vision Project work in this area has focused on three core goals:

- **Ensure that “college-bound” means “college-ready”**
- **Eliminate gaps in college participation by low-income students**
- **Safeguard affordability**

Strong collaboration with elementary and secondary education, a hallmark of recent efforts to promote college participation, will become even more critical as we work to ensure that public college students are representative of the entire citizenry of the Commonwealth.

## STRATEGIES TO

# Ensure that “college-bound” means “college-ready”

### ■ INCREASE AWARENESS OF COLLEGE AMONG K-12 STUDENTS

**YourPlanforCollege.org** is Massachusetts’ free, one-stop, web-based college planning portal managed by the **Massachusetts Educational Finance Agency (MEFA)**. A winner of *The Boston Globe*’s 2011 “Best of the New” awards, YourPlanforCollege centralizes all the key planning elements of a student’s educational career, including interactive planning tools, personal portfolio development, and key milestone reminders such as college application and financial aid deadlines. In 2011 the site, previously accessible only to students at participating high schools, became available to every student in the state.

Through the **College Connection** program, college advisors from **Cape Cod Community College** travel to ten Cape Cod high schools to provide personalized financial aid assistance, basic skills assessment, academic advising, course registration, and on-the-spot admissions interviews. This program now reaches nearly 2,000 Cape Cod high school seniors and provides particular benefit to students whose families are not familiar with the college application process.

### ■ MAKE SURE HIGH SCHOOL STUDENTS TAKE A RIGOROUS COLLEGE PREP CURRICULUM

A record of success in academically challenging high school coursework is the best indicator of a student’s readiness for college. The majority of students who arrive at college unprepared for college-level work are, by large margins, struggling in math. In 2011, the **Board of Higher Education** voted to strengthen **admissions standards** at the state universities and the University of Massachusetts by increasing the minimum mathematics requirement for admission from three years to four, helping to ensure that students do not lose ground by bypassing math during their senior year of high school. In June 2012, the Board further strengthened admissions standards by increasing the minimum laboratory science requirement from two years to three and allowing students to apply engineering and technology coursework toward this requirement.

**MassCore** is a rigorous high school program of study that was developed by a statewide advisory group of business leaders and K-12 and higher education policy makers. In 2008, the **Board of Elementary and Secondary Education** adopted MassCore as the recommended course of study for every Massachusetts public high school student.



Photo by Cape Cod Community College

**College Knowledge** Cape Cod Community College “College Connection” Outreach Counselor Kurt Lawson advises Barnstable High School students about admissions and financial aid.

### ■ EXPOSE STUDENTS TO COLLEGE-LEVEL WORK WHILE STILL IN HIGH SCHOOL

Research shows that giving high school students access to college coursework increases the likelihood that they will go to college—and do well once they get there. The **Commonwealth Dual Enrollment Program** (CDEP), managed by the **Department of Higher Education**, enables eligible high school students to take courses at public campuses in Massachusetts, simultaneously earning credit for their high school diploma and future college degree. CDEP focuses on students who are low-income, first-generation, or interested in STEM. Since 2008, participation in dual enrollment programs, including both CDEP and campus programs, has increased 170 percent.



Photo by Massachusetts College of Liberal Arts

**College Exposure** Third-graders from Greylock Elementary School in North Adams are wowed by a chemistry experiment at Massachusetts College of Liberal Arts in September 2011, part of “Berkshire County Goes To College” (see page 75).



Photo by Northern Essex Community College

**College Experience** These Amesbury High School graduates will continue into baccalaureate programs in fall 2012 with a year of college credits already completed through Northern Essex Community College’s Early College Program.

Greenfield Community College’s **dual enrollment program** serves as a key component to area high schools’ drop-out prevention strategies, while also providing high school students opportunities for early access into higher education. At **Worcester State University**, **dual enrollment** enables Worcester Public School students to take course work in STEM as well as English composition, identified as frequent stumbling blocks for Worcester High School graduates transitioning to college.

**Northern Essex Community College** uses its **Early College Program** to make it possible for Amesbury High School “middle-performing” students to earn high school and college credit. Courses are co-taught in Amesbury by an Amesbury High School teacher and a NECC professor. Grade point averages, credits attained, and college-going rates for students in the program are significantly higher than for the overall student population.

## ■ ALIGN HIGH SCHOOL AND HIGHER EDUCATION ASSESSMENTS

Passing the MCAS does not necessarily mean that a student is college-ready. To close the gap between the skills needed to graduate high school and those needed for college-level work, Massachusetts has taken a leadership role in the **Partnership for Assessment of Readiness for College and Careers (PARCC)**, a 24-state consortium dedicated to developing a common set of K-12 assessments that mark students’ progress toward college and career readiness from 3rd grade up. Massachusetts is the lead governing state in PARCC, with **Mitchell Chester**, Massachusetts’ Commissioner of Elementary and Secondary Education, serving as Chair of the PARCC Governing Board, and **Richard Freeland**, Commissioner of Higher Education, co-chairing PARCC’s higher education advisory committee. Massachusetts’ work to better align high school and college expectations is supported by a three-year grant from the Hewlett Foundation.

Quinsigamond Community College’s partnership program with the **Worcester Public Schools**, **Plugging the Leaks in Worcester’s Math Pipeline**, is supported in part by the Vision Project’s **Performance Incentive Fund**. The program enables Worcester students to take the math college placement exam while still in high school. College and high school faculty are working together to redesign math curricula based on students’ identified skill gaps, and run intensive after-school math boot camps to provide additional support to students. One hundred percent of boot camp students who enter College Algebra pass the course, as compared with a 65-percent pass rate of remedial students who don’t attend boot camps.

## Eliminate gaps in college participation by low-income students



Photo by Department of Higher Education

**Gaining Awareness** Students from Pyne Arts Middle School in Lowell participate in GEAR UP’s “Carnival of Learning” in spring 2012. This hands-on college fair exposes middle-schoolers to career paths and college majors.



Photo by MassArt

**Getting Prepared** With a grant from the Vision Project Performance Incentive Fund, MassArt is giving Boston’s “Artward Bound” high school students the preparation they need to apply to and succeed in a college of art or design.

### ■ INVEST IN PRE-COLLEGE SUPPORT AND PREPARATION PROGRAMS

Since being designated as the lead agency for **Massachusetts College Access Challenge Grant (CACG) Program** funding, the **Department of Higher Education** has supported seven regional partnerships that focus on increasing college readiness and participation of underrepresented student groups. **Mount Wachusett Community College’s** grant, for example, targets low-income and/or first-generation high school seniors from eight partner school districts. Counselors work with students to develop “college knowledge,” college readiness, and self-advocacy skills. A developmental math program for seniors who placed below college-level math on the math assessment exam is a core component of the college readiness work, which included the purchase of MyMathLab software to enable individualized work on math skill gaps.

**MassArt’s Artward Bound Program**, recipient of a Performance Incentive Fund grant, seeks to increase the number of low-income Boston students who will be prepared to enter MassArt or other visual arts colleges. The program’s initial cohort of 25 9th and 10th graders will expand to 50 high

school students, with a new 9th-grade group being added each year. This program is unique nationally in its long-term commitment to prepare students for entry and success at a college of art and design and its integration of arts programs with rigorous academic, social, family, and community support. Students attend for free but must commit to program participation throughout high school. Evaluation of Artward Bound by a team of researchers at the midpoint and close of the 2011–12 school year found that the program is on track toward meeting its goals.

**GEAR UP** (Gaining Early Awareness and Readiness for Undergraduate Programs) gives low-income middle and high school students the skills, knowledge, and academic background they need to succeed in college. This federally funded early intervention program, which is run by the **Department of Higher Education**, serves 7,250 7th through 12th graders in seven Massachusetts school districts: Boston, Holyoke, Lawrence, Lowell, New Bedford, Springfield, and Worcester. Comprehensive services include mentoring, tutoring, counseling, and after-school and summer programs. GEAR UP students who go on to college are eligible for an annual GEAR UP Scholarship up to \$1,000.

## STRATEGIES TO

# Safeguard affordability

### ■ MAXIMIZE FINANCIAL AID

The **Patrick-Murray Administration** has fought successfully to protect state financial aid from cuts during the recent economic downturn, but the dollar value of that aid has nonetheless declined over time. The MASSGrant, the Commonwealth's major financial aid grant program for low-income students, now covers only 8 percent of tuition and fees for a public college or university in the Commonwealth; in 1988, the MASSGrant covered 80 percent of student charges. In order to maintain the highest possible levels of financial aid, **Massachusetts public campuses** supplement state and federal scholarships with funds from their own operating budgets.

Campuses also work to ensure that students get every dollar of financial aid for which they qualify. For example, through their **College Access Challenge Grant, Greenfield, Holyoke, and Springfield Technical Community Colleges** provided workshops and individualized assistance that enabled over 600 students in 2011 to accurately complete their Free Application for Federal Student Aid (FAFSA), a critical step to helping each student receive the full amount of aid to which they were entitled. The grant also enabled Springfield Technical Community College to hire a bilingual financial aid counselor and Holyoke and Greenfield to implement Financial Aid TV, a web-based library of financial aid tips and tools.



Photo by Berkshire Community College

### ■ INCREASE EFFICIENCIES, LOWER COSTS FOR STUDENTS

One way to lower costs for students is to increase campus financial efficiencies. **Massachusetts state universities and community colleges** launched the **Partnership to Advance Collaboration and Efficiency (PACE)** in 2011. Through PACE, the colleges have begun a systematic process of reducing operating costs through consortium purchase of gas, electricity, banking services and other campus needs. Savings to date include \$750,000 from a joint financial auditing services bid, with an audit of contracts in areas such as vending and software licenses expected to net a minimum cost reduction of 10 percent.

**When Dads Become Grads** This Berkshire Community College graduate celebrates with young son in tow. Affordability is a critical consideration for adult degree-seekers juggling jobs, families and studies.



Photo by Springfield Tech. Community College

**Form Aid** Student Robert R. Guilbert, Jr., receives FAFSA completion help from Ciara Smith, Springfield Technical Community College's FAFSA Assistance Advisor, through the College Access Challenge Grant program.

## Leaders of Tomorrow

JACQUELYNN  
PALAZOLA  
SALEM STATE  
UNIVERSITY '12



At Salem State University, Jacquelynn Palazola of Beverly combined exemplary academic achievement with public service, earning a degree while serving as an active member of the Air Force Reserves.

Before graduating with a 3.9 GPA, Jacquelynn worked tirelessly to promote the needs of student veterans. She was the keynote speaker at the 2011 "Women are Veterans, Too" conference at the State House in Boston. Last fall, she also worked with the Massachusetts Department of Veterans' Services (DVS), where she worked to establish a student veterans council that will help the state address the issues and concerns of student veterans.

The only woman in her graduating class from the Air Force Fire Academy, Jacquelynn was deployed to Iraq and the United Arab Emirates in response to Operation Iraqi Freedom and Operation Enduring Freedom. As a military member and military spouse, she has been stationed across the globe and taken classes throughout the course of her travels. She is only the second person in her family to go to college.

Jacquelynn has juggled military, civic and academic responsibilities with her role as a mother. She gave birth to her second child just a week after spring classes ended at Salem State, and started one of her internships a few weeks later. Jacquelynn is currently stationed with the U.S. Air Reserve at Westover Air Reserve Base in Chicopee.



Students celebrate their achievement at Framingham State's spring 2012 commencement ceremony. Photo by Framingham State University.



## KEY OUTCOME

# 2 COLLEGE COMPLETION

Massachusetts' efforts to achieve national leadership in college completion are built on the following core goals:

- **Remove barriers that slow students' progress toward graduation**
- **Close achievement gaps in college success through programs for high-risk students**
- **Develop high-impact policies based on research and evidence**

With this focused approach to improving student success, Massachusetts aims to increase completion rates for *all* students at both the baccalaureate and community college levels.

## Remove barriers that slow students' progress toward graduation



**Professional Development** Aemiro Beyene, Assistant Professor of Mathematics at Quinsigamond Community College, speaks to colleagues at the June 2012 Developmental Math Conference held at Massasoit Community College.

### ■ TRANSFORM REMEDIAL EDUCATION

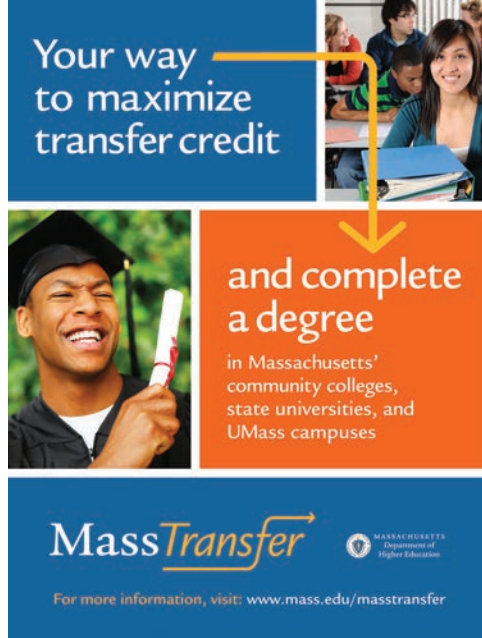
The need to take remedial courses, also known as developmental education, adds both time and cost to the quest for a degree or certificate, thus lowering chances of success. Additionally, more than half of African-American and Latino students enrolled in the public higher education system take at least one developmental course during their first semester, compared with a third of all white students. As a result, the Vision Project's **Working Group on Graduation and Student Success Rates** identified the need to transform **remedial (developmental) education** as a critical priority.

At the campus level, **Middlesex Community College** has piloted a **concurrent enrollment program** which enables developmental education students who score just below college readiness in writing to enroll in English 101. To support their success, these students also take a remedial writing class—taught by the same professor as their English 101 class. The percentage of students who go on to pass English 102 is more than twice that of students enrolled in traditional remediation.

In order to determine their readiness for college-level math courses, students at Massachusetts public colleges and universities take an ACCUPLACER® exam in math. **Worcester State University** has achieved considerable success through its approach of requiring **mandatory ACCUPLACER pre-tests**, which gives a second chance to students who failed the test because of gaps in a small number of skills.

When coupled with a review session for those who do not pass the practice exam on their first or second try, the approach has cut the percentage of students needing to take remedial math in half, from 54 percent in 2004 to 25 percent in 2007.

**Roxbury Community College** has tripled the rate at which students who start in remedial math advance to college-level, credit-bearing math courses. This gain is associated with RCC's comprehensive overhaul of **remedial math education**, which included new placement procedures, a lab component and technology-assisted instruction, a shortened developmental math sequence, and smaller course modules. These modules allow students to skip work in areas where they are already proficient and focus on skills that need improvement.



**Credit Where It's Due** Promotional poster for *MassTransfer*, the state's core policy to streamline the transfer process among Massachusetts' public colleges and universities.



**UMass Welcome** Governor Patrick joins education officials and students at Roxbury Community College to launch the UMass Amherst Community College Connection in March 2011. The initiative is intended to strengthen UMass Amherst's ties with Massachusetts community colleges.

## SMOOTH TRANSFER PROCESS BETWEEN TWO-YEAR AND FOUR-YEAR INSTITUTIONS

With student mobility increasing nationally, transfer from one institution to another has become more and more common. Yet when transfer students are denied credit for courses taken at their original institution, the time and cost of getting a degree increases, thus reducing the chance that they will ever graduate. *MassTransfer*, now in its fourth year, provides Massachusetts community college graduates who complete designated associate's degrees with full credit transfer, guaranteed admission, and a tuition discount to linked bachelor's degree programs. The next step identified by the **Commonwealth Transfer Advisory Group** is to expand transfer alignment from the degree level to the program and course level.

**University of Massachusetts Amherst** launched the **UMass Amherst Community College Connection** (UMCCC) in March 2011 to encourage community college students to pursue bachelor's degrees at the flagship campus. Community college students are offered priority review of financial aid packages as well as special assistance for on-campus housing, early advising, and course registration. Tuition is waived for those with a 3.0 GPA or higher; students with a 3.7 GPA earn a \$500 book scholarship. Noting that community college students who transfer to UMass Amherst have a higher graduation rate than the general undergraduate student population, campus officials have expressed hope that UMCCC will have a positive impact on overall graduation rates.

## HELP STUDENTS STAY IN SCHOOL DESPITE FINANCIAL EMERGENCIES

Because financial emergencies can significantly interfere with students' ability to continue attending college, **Bunker Hill Community College** is using **emergency assistance funds** to keep students on track to completion. The campus provides students experiencing short-term financial problems with up to \$1,000 within three days of receiving a request, with funds being used for such core expenses as rent, utilities, food, and childcare. The year-to-year retention rate of students who have utilized the BHCC fund is 65 percent higher than that of the general student population.

## STRATEGIES TO

# Close achievement gaps in college success through programs for high-risk students



Photo by Massasoit Community College

**Incentive to Complete** The pilot Completion Incentive Grant program, launching in fall 2012, aims to keep students on track to degree completion, with financial aid awarded for completion of college credits. Massasoit Community College is one of ten participating state campuses.

### ■ USE FINANCIAL AID TO HELP STUDENTS STAY ON TRACK TO GRADUATION

A handful of states are experimenting with financial incentives as a means of increasing college completion. In fall 2012 the **Department of Higher Education**, in collaboration with participating campuses, will launch its own pilot program, the **Completion Incentive Grant**. Incentive grants of up to \$2,000 a year will be given to students who meet a threshold for credit completion and GPA each semester, maintain continuous enrollment, and make use of campus support services. Campuses commit to providing an array of academic support services for the low-income, first-generation students targeted in the program. The pilot will run for four years, with extensive program assessment and evaluation.

### ■ USE MULTICULTURAL OUTREACH AND MENTORING TO AID STUDENTS AND FAMILIES

The **Multicultural Achievement Peer Program** at **Middlesex Community College** helps students from diverse backgrounds make a successful transition to college. The peer mentoring program employs culturally sensitive interventions including workshops, cultural activities, and one-on-one mentoring. In 2011–2012, the fall-to-spring persistence rate of the mentors and mentees was 95 percent, with an average GPA of 2.75.

The **Latino Education Institute** at **Worcester State University** serves 800 families annually with a focus on increasing both college participation and college completion of Latino students. One of their more innovative projects is the Teaching Corps Program, in which WSU students are trained in literacy and conflict resolution, and then assigned to paid positions in Worcester public elementary schools. In addition to providing strong role models for Worcester youth, the program aims to increase retention and work readiness of Latino students at Worcester State.



Photo by Worcester State University

**Shared Culture, Shared Success** Worcester State University student Damaris Velez runs a first-grade reading circle at the Chandler Magnet Elementary School through WSU's Latino Education Institute.

## STRATEGIES TO

# Develop high-impact policies based on research and evidence

### ■ CRAFT TARGETED INTERVENTIONS BASED ON ANALYSES OF STUDENT SUCCESS

A major focus of the national **Achieving the Dream** initiative is the careful use of data to create policies that promote persistence at community colleges. Four Massachusetts community colleges have participated in this initiative since 2007—**Bunker Hill, Northern Essex, Roxbury, and Springfield Technical Community Colleges**—with the **Board of Higher Education** serving as the lead state policy organization.

Analysis of student results at **Northern Essex Community College** led to a focus on five specific **academic support** goals: improving developmental writing outcomes for Latino students, improving developmental writing and reading outcomes for students 25 years and younger and for males, and improving English Composition I and all math outcomes for all students. Related initiatives include creating math tutoring centers in Haverhill and Lawrence, introducing supplemental instructors in challenging courses, and expanding academic advising services. “These efforts are already showing results,” notes NECC President Lane Glenn, who cites the 25 percent increase from 2007 to 2010 in students who completed remedial Algebra and then a college-level math course.

**Springfield Technical Community College** increased the availability of **academic advisors to General Studies students** in response to research showing that students whose career goals are unclear derive particular benefit from making a connection with a college faculty or staff member, and that this connection makes students more likely to persist in their academic and career goals. STCC’s Data Team, comprised of both faculty and staff, closely monitors the results of this initiative and two others designed to increase student completion and close achievement gaps.

### ■ IMPLEMENT RESEARCH-SUPPORTED STRATEGIES FOR STUDENTS MOST AT RISK OF DROPPING OUT

Through **Project Compass**, **Bridgewater State University** closed retention gaps for underserved students while simultaneously raising the percentage of all students who returned after their freshman year from 75 to 81 percent. This multi-year initiative implemented a range of research-supported interventions, including an integrated faculty-student mentoring process, faculty development designed to increase the use of culturally inclusive pedagogies, and structured student study groups for courses with high rates of failure, withdrawals, and incomplete grades. After five years, gaps had been eliminated for low-income students, first-generation college students, and students of color.



Photo by Joan Thomas/Springfield Tech, Community College

**Substance and Styles** “Through STCC’s Achieving the Dream initiative, I’ve become much more aware of student learning styles. I offer different options to help my students succeed in math,” said Professor Donna Bedinelli (right), shown with three of her Algebra I students.

**Fitchburg State University’s** pilot program of **intrusive advising**, identified by researchers as a promising practice, addresses the challenge of students who drop out of college without ever making use of campus resources that might have helped them. At-risk freshmen were assigned to a Retention Specialist, who in turn consistently reached out to these students to provide advising and referrals to support services. Data available this fall will enable Fitchburg to compare the retention rates of students in this pilot program with their peers.

## Leaders of Tomorrow

DIANA ROSE RAMOS  
BRIDGEWATER STATE  
UNIVERSITY '12



Diana Rose Ramos of Worcester graduated from Bridgewater State University in 2012 with a degree in political science, a 3.9 cumulative GPA, and a plan to use her leadership skills and acquired knowledge to improve public policy. During her junior year, she interned at Senator John Kerry's Office and conducted a directed study researching citizen outreach on conservation efforts. Diana also interned, through the Washington Center, at the U.S. Office of Surface Mining where she researched development issues relating to rural watersheds. She has studied sustainable development in Costa Rica and researched issues related to food security. As a high-achieving student, Diana received multiple awards and scholarships such as the Pi Sigma Alpha Political Science Honors Society Award and the Robert A. Daniel African American Scholarship. She was recognized as a Rose Scholar throughout her time at BSU. On campus, Diana served as the founder and president of the Students for Sustainability group, the publicity chair for Aware and Active Minds, and an active member of the Social Justice League. Off campus, she assisted with the Worcester Vegetarian Festival and Nuestro Huerto, which helps urban farms.



An instructor leads a book discussion at UMass Dartmouth.  
Photo by UMass Dartmouth.



## KEY OUTCOME

# 3 STUDENT LEARNING

How do we know what college graduates have actually learned and are able to do? And equally important, how can we assess student learning in ways that help us improve teaching? Massachusetts seeks to answer these two questions through the following core goals:

- **Strengthen campus-level assessment of student learning**
- **Find ways to compare student learning among states**

The work is challenging but promises to make possible a continuous cycle of improvement that will help campuses not only identify problem areas in student learning, but understand how to solve them. At the national level, Massachusetts is leading a conversation through the Vision Project on how to build an interstate system to compare student learning outcomes.

## Strengthen campus-level assessment of student learning



Photo by Kevin Harkins Photography

### ■ ENGAGE THE EXPERTISE OF CAMPUS FACULTY AND STAFF

From the beginning, the Vision Project work in the area of Student Learning has been guided by the skill and experience of campus educators. The **Working Group on Student Learning Outcomes and Assessment**, consisting of **learning outcomes experts** from the campuses and Department of Higher Education, studied best practices both within Massachusetts and across the nation before making the recommendations to the Board of Higher Education that have since defined the work in this area.

Among these recommendations was a new initiative: **Advancing a Massachusetts Culture of Assessment (AMCOA)**. Funded by the **Davis Educational Foundation**, AMCOA is led by a team of faculty

and staff from each of the 28 undergraduate campuses, with a goal of helping every campus improve curriculum and learning through development of state-of-the-art programs of learning outcomes assessment. AMCOA's first year was so successful in achieving system-wide collaboration on learning outcomes that the Davis Educational Foundation provided additional funding for a second year.

One of the enormous benefits of AMCOA has been the forging of strong working relationships that cut across campus boundaries. **Framingham State University** and **MassBay Community College**, for example, are using **joint assessments of student learning** in writing, quantitative reasoning, and creative thinking as a path to improving the success of students who transfer from MassBay to Framingham.

**In Collaboration** Middlesex Community College's Elise Martin, Associate Dean of Assessment, and John Savage, Professor of Chemistry and Faculty Chair of Gen Ed Committee, serve as conference co-chairs for the February 2012 AMCOA Conference at UMass Lowell. One of four statewide AMCOA conferences held last year, it drew faculty and staff to share best practices in student assessment.

Through its meetings and conferences, AMCOA has allowed faculty and staff to meet new colleagues and learning from each other's experience and best practices. We have a sense that our voices on assessment are heard. The process has expanded my vision of assessment in the Commonwealth and given me new perspectives with which to serve my students and my institution.

—NEAL BRUSS, ASSOCIATE PROFESSOR OF ENGLISH,  
UNIVERSITY OF MASSACHUSETTS BOSTON



**In Progress** Students in the classroom at MassBay Community College. MBCC has partnered with Framingham State University to create joint assessments of student learning in order to ease student transfer between the institutions.

## ■ STRENGTHEN CAMPUS EFFORTS THROUGH PROFESSIONAL SUPPORT

One resource provided to campuses through the Davis Foundation grant has been the expertise of Peggy Maki, a **national expert in student learning assessment**. Beginning in the summer of 2011, Maki facilitated monthly AMCOA team meetings and quarterly conferences. She also supported campus-level efforts through individual visits and coaching. This kind of support has enabled faculty and staff to identify and share the aspects of assessment at which their campuses excel, develop new skills, and move Massachusetts closer to its goal of a continuous cycle of improvement in student learning.

Through AMCOA, **Massachusetts College of Liberal Arts** and **Berkshire Community College** are collaborating with a **nationally known expert in student writing** to assess student writing at a number of key points in students' careers. The results will be used to determine action steps for improving student success in writing at each institution and for students who transfer from BCC to MCLA.



**In the Know** President Carole Cowan of Middlesex Community College speaks with Peggy Maki, a national expert hired by the Department of Higher Education to provide expertise in student learning assessment to every public college and university.

## Find ways to compare student learning among states

### ■ USE COMMON SCORING STANDARDS THAT ENABLE COMPARISONS ACROSS CAMPUSES

Based on a recommendation from the **Working Group on Student Learning and Outcomes Assessment**, the **Board of Higher Education** voted in January 2012 to apply to become a **state partner in Liberal Education and America's Promise (LEAP)**, the signature national initiative of the Association of **American Colleges and Universities (AAC&U)**. LEAP learning outcomes in quantitative literacy, critical thinking and written communication—which were developed by college and university faculty—provide a common framework for comparison of student learning achievement at both the campus and state level. In March the AAC&U announced that Massachusetts had been awarded status as a LEAP State.

LEAP learning outcomes are already being tested at Massachusetts campuses. **Bristol and Massasoit Community Colleges**, in another AMCOA-funded endeavor, are engaging their English faculties in a regional effort to use the LEAP standards to assess **mastery of written communication skills**. The experiment will provide a structure for comparing the use of the LEAP rubrics and locally designed rubrics on the same student assignment.

### ■ DEVELOP RELATIONSHIPS THAT CUT ACROSS STATE BOUNDARIES

In an initiative that holds promise for national leadership, Massachusetts is working to develop a **multi-state collaborative** to advance learning outcomes assessment and allow for cross-state comparisons. In May 2012, the Commonwealth hosted a multi-state gathering with public higher education leaders from 17 states. The conference, which was cosponsored by the **AAC&U** and the **State Higher Education Executive Officers (SHEEO)** and supported by the **Nellie Mae Education Foundation**, focused on how best to develop assessment systems that:

- Present assessment outcomes in ways understandable by non-academic stakeholders;
- Center on using actual student work, closely linked to curriculum and to the instruction work of the faculty, and
- Allow comparison of student learning across state lines.

This ambitious work, if successful, will enable states to use shared standards to compare their students' level of learning with other states.

Massachusetts already has established a leadership role among the various state systems both in its shared vision for high-quality education and in its recognition that any contemporary vision for learning also requires new ways of showing what students are accomplishing across their studies.

—CAROL GEARY SCHNEIDER,  
PRESIDENT, ASSOCIATION OF  
AMERICAN COLLEGES AND  
UNIVERSITIES (AAC&U)



Photo by State Higher Education Executive Officers (SHEEO)

**National Assessment Dialogue** Richard M. Freeland, Commissioner, Massachusetts Department of Higher Education; Carol Geary Schneider, President, Association of American Colleges and Universities; and Paul Lingenfelter, President, State Higher Education Executive Officers, convene a May 2012 national conference in Colorado to propose development of a multi-state collaborative to advance student learning outcomes assessment.

## ■ TEST ASSESSMENT MODELS THAT CAN SCALE TO OTHER COLLEGES AND UNIVERSITIES

In the fall of 2011, Massachusetts public campuses competed for grants to support **assessment experiments** across the Commonwealth. Funded by the **Davis Educational Foundation** as part of the AMCOA project, the grants support campuses working both singly and in teams, with a goal of developing models that can be expanded to other colleges and universities.

**Holyoke Community College**, one of the Davis grant winners, is using the funds to expand its work in integrating **quantitative reasoning assessment and instruction** in courses ranging from nutrition and biology to art and economics. Faculty experts in the application of mathematical concepts and skills are teaming with faculty in highly enrolled, high-impact introductory courses to develop, implement, and assess modules in quantitative reasoning.

A grant from the **Lumina Foundation** is supporting an additional four campuses in developing models that have the potential to increase student success



Photo by Fitchburg State University

**Multi-State Partnerships** Students in the classroom at Fitchburg State University, one of the four Massachusetts campuses participating in the national Quality Collaboratives Project intended to improve the transfer pathway between community colleges and four-year institutions through focus on student learning outcomes.

and degree completion system-wide. Massachusetts is one of eight states selected to participate in the **Quality Collaboratives Project** sponsored by the **AAC&U**, with **Fitchburg State University** and **Mount Wachusett Community College** paired together in one partnership, and **Middlesex Community College** and the **UMass Lowell** in a second. Both dyads are working to improve the transfer pathway between the community college and the university. They will focus on developing shared learning outcomes across institutions, fostering faculty leadership, and using student learning outcomes to set transfer policies and practices.

## Leaders of Tomorrow

RENEE  
MICHELLE  
KEYES  
ROXBURY  
COMMUNITY  
COLLEGE '12



As a biotechnology/biological science major at Roxbury Community College, Renee Michelle Keyes conducted extensive undergraduate research. In 2011 this honors student, who was previously homeless, participated in the Research Experiences for Undergrads (REU) Program at Northeastern University's Center for High-Rate Nanomanufacturing. She was a member of RCC's Louis Stokes Alliances for Minority Participation (LSAMP) Program, and also received the college's STEM Homeland Security Scholarship. Last spring, she was one of several students invited to present her work on mutating an enzyme at Harvard Medical School. A mother with two young daughters, Renee now serves as a mentor to teen mothers in her community. She notes that her oldest daughter is very proud of her and is thinking about becoming a scientist like her mom. "For me, Roxbury Community College has truly been the gateway to my dream," says Keyes. "I'm hoping that, through a career in biotechnology, I will inspire my own daughters and also be a role model for other young women interested in careers in the sciences."



Bunker Hill Community College Professor Scott Benjamin observes a specimen of elodea with environmental science students. Photo by Bunker Hill Community College.



## KEY OUTCOME

# 4 WORKFORCE ALIGNMENT

While Massachusetts' economy has proved resilient during the recent economic downturn, the state's public colleges and universities are barely keeping pace with the

demand for a highly educated workforce. To meet these future workforce needs, the Vision Project is working on two levels.

First, we seek to increase the overall percentage of Massachusetts residents with college degrees because of the strong correlation between high numbers of college graduates and strong economic performance. This goal expresses the importance of a broad liberal education and encompasses all aspects of Vision Project work.

Second, we seek to meet workforce requirements in areas of greatest economic growth. In this second context the Vision Project is pursuing three core goals:

- **Address workforce development needs in innovative and high-growth sectors**
- **Strengthen student interest and success in science, technology, engineering and math (STEM) fields**
- **Reduce gaps in STEM for African-American, Latino and female students**

## Address workforce development needs in high-growth sectors

**Baby boomer retirements are expected to deplete the science and technology workforce by 50 percent over the next decade, putting the U.S. at risk of losing our leadership in technology and innovation.**

—TIMOTHY P. MURRAY,  
LIEUTENANT GOVERNOR AND  
CHAIR OF THE GOVERNOR'S  
STEM ADVISORY COUNCIL

### ■ CREATE NEW COLLABORATIVE STRUCTURES TO INCREASE DEGREE PRODUCTION IN KEY FIELDS

The **Patrick-Murray Administration's** workforce development strategy focuses on four key high-growth sectors: **Health Care, Life Sciences, Information Technology, and Advanced Manufacturing**. A strategic plan developed jointly by the Secretaries of Education, Housing and Economic Development, and Labor and Workforce Development ensures a coordinated approach.

One of the plan's primary goals is to better align educational and workforce training programs with clearly defined industry-specific pathways to employment. The **Pathways to Prosperity** project will help Massachusetts build a system of six-year career pathways for high-school-age students beginning in 9th grade. Working with employers, workforce investment boards, local social service providers, and state-level agencies, the **Executive Office of Education** will develop three sector-based projects in Greater Boston, Metro West and Springfield. This is the first step in developing a statewide system that enables all young people to successfully transition from high school through a postsecondary credential to a high-skills, family-supporting career.

### ■ DEVELOP INDUSTRY-SPECIFIC, STATEWIDE WORKFORCE DEVELOPMENT PLANS FOR KEY SECTORS

A key strategy in workforce development is the creation of industry-specific plans that combine assessment of future workforce needs with a coordinated system of education and training. A model of such a plan is provided by the **Department of Higher Education's Nursing and Allied Health Initiative**, which is a partnership of the DHE, health care providers, and schools of nursing to raise the percentage of Massachusetts nurses who hold a Bachelor of Science in Nursing (BSN) from 55 percent today to 66 percent by 2020. Research shows that nurses with bachelor's degrees provide improved patient outcomes at lower costs, and increasingly employers are demanding that nurses attain the BSN.

Through the Nursing and Allied Health Initiative, the DHE and its partners have sponsored the development of pathway programs from associate's degrees to bachelor's and master's, as well as from Licensed Practical Nurse to BSN. **Springfield Technical Community College** and **UMass Amherst** provide one innovative example of a clear pathway to the BSN. These two institutions have developed a **joint nursing track** that enables students to get associate's degrees in three years at STCC and then, after passing their Registered Nurse licensure exam, take one year of online courses at UMass to obtain a bachelor's degree.



Photo by Branding and Creative Communications,  
University of Massachusetts Amherst

**Advancing by Degrees** UMass Amherst nursing students gaining clinical experience. The Department of Higher Education's Nursing and Allied Health Initiative sponsors the development of pathway programs such as one between Springfield Technical Community College and UMass Amherst, to help nurses advance their education from the associate's to the baccalaureate level.

## ■ DESIGN PROGRAMS TO MEET THE NEEDS OF ADULT LEARNERS

An important role of public higher education is providing **adult workers** with the additional knowledge and skills they need to advance in their current job or change careers altogether. **Salem State University** tailors a number of its programs to working healthcare professionals. A part-time evening program for Certified Occupational Therapy Assistants, for instance, provides a path to obtaining bachelor's and master's degrees, necessary steps to advancing to the role of Occupational Therapist.

At **Bristol Community College**, the **Professional Advancement to Health and Human Services Careers** program has helped 450 underemployed or unemployed adults obtain industry-recognized certificates over the past three years. And in 2011, **Mount Wachusett Community College** successfully partnered with 27 businesses in North Central Massachusetts to provide **workforce training** for 300 workers. This collaboration benefited these employers through improved productivity, workforce stability, and employee morale, and helped workers increase their salaries, competence, and job satisfaction.



Photo by Mount Wachusett Community College

**Learning for Life** Mount Wachusett Community College workforce training at Tyco International in Westminster, a leading provider of security and fire safety products and services. Offering continuing education to adult workers helps businesses become more productive and employees advance their careers.

## STRATEGIES TO

# Strengthen student interest, learning and completion of programs in the science, technology, engineering and math (STEM) fields

### ■ DEVELOP A COMPREHENSIVE STATEWIDE PLAN TO BUILD THE PIPELINE OF STEM PROFESSIONALS

Eighty percent of jobs created in the next decade will require math and science skills, yet Massachusetts high school students lag behind peers in other states in their level of interest in science, technology, engineering and math (STEM) majors. In addition, many students who began college intending to major in a STEM field transfer to non-STEM programs during the course of their studies. These are issues of critical concern to both educators and legislators, given the particular needs of the state's knowledge-based economy.

The **Massachusetts Plan for Excellence in STEM Education** is the state's answer to this challenge. Offering a coherent and comprehensive approach to building the pipeline of STEM professionals, the Massachusetts STEM Plan has quickly become a national model. The plan was authored by the **Massachusetts STEM Advisory Council**, now in its third year. The Council, chaired by Lt. Governor Tim Murray, works to increase the statewide focus on STEM fields and ensure that all students receive a quality education in science, technology, engineering and math.

### ■ IDENTIFY SUCCESSFUL PROGRAMS AND BRING THEM TO SCALE

One component of the Massachusetts STEM Plan is the **@Scale Initiative**, which takes programs that have demonstrated success and effectively scales them by leveraging state grant money on a 1:3 match with funds from outside sources, especially the business community. A hallmark of @Scale is its coordinated plan for developing a portfolio of projects that span all four STEM fields, from elementary school through postsecondary education and into the workforce. An initial group of @Scale grants from the state's STEM Pipeline Fund was distributed in the spring of 2011.

At the college level, **Massasoit Community College's Science Transfer Initiative** provides enhanced advising, exposure to science career paths, early undergraduate research opportunities, and increased access to financial aid information to science majors. The results—greater enrollment, improved performance, increased likelihood of continuing science studies at a four-year institution—have been impressive enough to garner a \$150,000 **National Science Foundation** grant which will enable this @Scale program to expand to **Bristol and Cape Cod Community Colleges**.



**Potential to Build** Lt. Governor Tim Murray (fourth from right) and Secretary of Education Paul Reville (far right) pose with 2011 @Scale Endorsement recipients. @Scale recognizes the potential of local STEM programs to grow statewide and encourages businesses and foundations to support them with 1:3 match of state grant to private funding.

## STRATEGIES TO

# Reduce gaps in STEM for African-American, Latino, and female students

### ■ TARGET STEM OUTREACH TO UNDERSERVED GROUPS

The Massachusetts STEM Advisory Council's **WOW Campaign** highlights the achievements of African-Americans and Latinos in the fields of math, science and technology. Featured professionals include Nigel Jacob, emerging technology advisor to Boston Mayor Thomas Menino; Andrew Jackson, chemist at Cubist Pharmaceuticals; and Emmanuel Gomez, electro-mechanical lab technician at Metso Automation USA. Through videos, posters and live events, these role models tell their stories and encourage Massachusetts middle school students to pursue STEM careers.

North Shore Community College's **Bridges to the STARS** program has achieved 80-percent retention in STEM majors for the students it serves: Latino, African-American, and women undergraduates who are first-generation college or low-income. The program, funded by Verizon and Comcast, offers tutoring combined with career and personal growth counseling. Peer support from classmates in each 20-student cohort and from older student mentors is also an important aspect of the program.

### ■ GET YOUNG WOMEN ENGAGED WITH SCIENCE BEFORE THEY GO TO COLLEGE

During the summer of 2012, the Massachusetts Maritime Academy hosted events for the **Girl Scouts 100th Anniversary Celebration**, providing learning opportunities for over 2,000 girl scouts and their families. The workshops, presented in part by faculty from MIT and **Bridgewater State University**, offered participants unique opportunities for exploration and inquiry into STEM disciplines such as oceanography and biology. Another Mass Maritime program targeted at young women is the SciTech Girls expo, which provides more than 100 female students with classes in the operation of submersible Remotely Operated Vehicles.

**There's a story behind every WOW. Start discovering yours today!**

**Mish Michaels** Meteorologist  
**Anna Mrazek Dietrich** Co-founder of company that makes a "frying pan" Ternafugia  
**Morris Green** Electrical Engineer working on energy storage solutions FastCAP Systems Corporation  
**Bill James** Statistician Boston Red Sox  
**Martha Murray** Orthopedic surgeon specializing in sports medicine Children's Hospital  
**Andrew Jackson** Chemist Cubist Pharmaceuticals  
**Catherine Reyes** Medical school student  
**Nigel Jacob** Emerging Technology Advisor Office of the Mayor of Boston  
**Mikell Taylor** Robotics Engineer Bluefin Robotics Corporation  
**Amy Kukulya** Oceanographic Engineer Woods Hole Oceanographic Institution  
**Daniel Pratt** Supervisor of the Crime Scene Response Unit Massachusetts State Police  
**Sena Kumarasena** Principal Designer of the Zakim bridge Anman & Whitney  
**Jim Toepel** Music game designer Harmonix Music Systems  
**Emmanuel Gomez** Electro-mechanical lab technician Metro Automation USA  
**Laura Hajduk** Wildlife biologist managing the state's Black Bear Project Massachusetts Division of Fisheries and Wildlife

**GOVERNOR'S STEM ADVISORY COUNCIL**  
Timothy P. Murray, Lt. Governor, Chair  
David Cedrone, Executive Director  
www.mass.gov/governor/STEM

Deval L. Patrick, Governor

Science • Tech • Engineering • Math  
All In Massachusetts

Stars of STEM WOW Campaign poster developed by the Massachusetts STEM Advisory Council promotes role models for African-American and Latino students engaging with math, science, engineering and technology.

## Leaders of Tomorrow

ABRAHAM JAFFE  
UMASS MEDICAL  
SCHOOL '12



Arlington native Abraham Jaffe graduated from UMass Medical School in May. He was the recipient of the Albert Schweitzer Fellowship, awarded to individuals dedicated to and skilled in addressing the health needs of underserved communities. As his project, he helped design and open a free health clinic for underserved African immigrants in Worcester.

At UMMS, Abraham also volunteered at the African Children's Education Program as a tutor, served on the UMMS Student Body Committee, and helped raise over \$10,000 for local charities. He was president of the International Student Interest Group and led a group of 11 medical and nurse practitioner students on a medical mission to Guatemala.

Abraham travelled to Mali, West Africa, as a 2008 King Shaw Fellow, helping to organize and run Mali's first pilot program for the One Laptop Per Child (OLPC) initiative. He extended his clinical years by one year, conducting independent research under the supervision of Dr. Ulises Torres of the UMass Medical Trauma Surgery Department and traveling to Peru to complete a clinical rotation in general surgery at the Hospital Maria Auxiliadora in Lima.

Abraham will continue his residency at the UMass Memorial Medical Center in Worcester.

As Board of Higher Education Chairman Charles F. Desmond and State Representative Tom Sannicandro look on, UMass Amherst student Melanie Mulvey addresses a crowd of 400 at the Massachusetts State House. Public Higher Education Advocacy Day brought students, faculty, and staff from every public campus to the State House in March 2012 to advocate for increased state funding and financial aid. Photo by Massachusetts Teachers Association.





## GOALS AND STRATEGIES

# 5 PREPARING CITIZENS

In March 2012, the Board of Higher Education voted to add a seventh key Vision Project outcome to the six that were approved in 2010: becoming a national leader in the preparation of students to be active, engaged, informed citizens. This step was taken in order to align the programmatic goals of the Vision Project more fully with the initiative’s underlying vision: to produce the “best-educated *citizenry and workforce*” in the nation. The Board’s action makes Massachusetts the first state to include civic learning and engagement as part of a system-wide program of accountability measures.

Given the recent date of the Board’s vote, the key outcome of preparing citizens is not as developed as other Vision Project goals and strategies. The emerging work in this area is described in the upcoming pages.

## MORE INFORMATION ON

# Developing work in Preparing Citizens

The **Board of Higher Education's** vote to add a civic learning and engagement outcome to the Vision Project reflects state-level as well as national concerns that higher education has too often abandoned its role of preparing students to assume the responsibilities of citizenship. Declining rates of voter participation and a superficial understanding of public issues among young people are often cited as indicators of higher education's inattention to this matter. At a time of sweeping demographic change in the United States, many argue that it is critical to balance global awareness with an understanding of American democracy. These concerns have led many to conclude that colleges and universities must play a more active role in fighting what Charles N. Quigley, the executive director of the Center for Civic Education, calls a "civic recession."

A great deal of work is occurring within higher education all across the United States to reassert the importance of preparation for active and informed citizenship as a goal of undergraduate education. Colleges and universities are recognizing that civic learning and engagement can be critical aspects of a liberal arts education, and can occur in every dimension of student learning: in the formal curriculum, through **study of history, government and political science**; in extracurricular activity, such as **participation in student government or policy-oriented clubs and discussion groups**; and in the world at large, through **community service, service learning, and internships**.

The **Department of Higher Education** will form a study group of campus representatives and civic education experts during the 2012–13 academic year to review current work on education for citizenship and make recommendations regarding how the state's public colleges and universities can most effectively integrate this emphasis into their work. The study group will also develop specific goals for public higher education in this area and will recommend metrics by which to track and report progress. These metrics, like the other metrics in the Vision Project, should allow us to compare the quality of student preparation for active citizenship with that achieved in other states.

Massachusetts public higher education has a strong foundation of current work on which to build as we develop this new component of the Vision Project. Many of our public colleges and universities are already focused on strengthening civic education and engagement, and several of our campuses have received national plaudits for this work. For example:

■ **Ten Massachusetts public campuses** have received the **Community Engagement Classification** from the Carnegie Foundation for the Advancement of Teaching, an honor given to only 163 public campuses nationally. To achieve this distinction, institutions must provide compelling evidence of outreach or partnerships that benefit the community, and of teaching and scholarship that deepen students' civic and academic learning.



**Service Learning** Students at Mount Wachusett Community College's wind turbine dedication ceremony in April 2011 wear T-shirts designed and sold by the Computer Graphic Design Club. The service learning project netted \$1,900 for student scholarships.

The Massachusetts campuses classified by the Carnegie Foundation as Community Engagement Institutions are:

- **Bristol Community College**
- **Bunker Hill Community College**
- **Middlesex Community College**
- **Mount Wachusett Community College**
- **North Shore Community College**
- **UMass Amherst**
- **UMass Boston**
- **UMass Dartmouth**
- **UMass Lowell**
- **UMass Worcester**



Photo by Bunker Hill Community College

**Community Service** Bunker Hill Community College students Jeffrey Philogene and Jocelyn Santiago working with Habitat for Humanity of Greater Boston.



Photo by UMass Dartmouth

**Community Engagement** UMass Dartmouth celebrates the May 2012 dedication of the Leduc Center for Civic Engagement, named for University donors and Fall River natives Robert and Jeanne Leduc. UMass Dartmouth is received a top honor on the President's 2012 Higher Education Community Service Honor Roll.

■ **University of Massachusetts Dartmouth** was awarded the level of Honor Roll Finalist, the highest ranking achieved by any college or university in Massachusetts, in the **President's 2012 Higher Education Community Service Honor Roll**. Launched in 2006, this annual award highlights the role that colleges and universities play in placing students on a lifelong path of civic engagement. An additional nine public campuses were included as 2012 Honor Roll members, with University of Massachusetts Lowell listed as "Honor Roll with distinction."

■ **Mount Wachusett** and **Middlesex** were two of only ten community colleges nationally to be chosen in March 2012 as leadership institutions in the **Bridging Cultures project** of the Association of American Colleges and Universities. Funded by the National Endowment for the Humanities, this three-year curriculum and faculty development initiative seeks to promote greater adoption of high-impact practices that advance civic learning outcomes, and to infuse questions about difference, community, and democratic thinking into transfer courses in the humanities.

■ **Westfield State University** is one of 25 campuses nationally (the only one in Massachusetts) participating in the **Campus and Community Health Initiative** of the American Association of State Colleges and Universities. The goal of this two-year initiative is to create strategies for measuring and improving civic health, including levels of community service and fulfillment of civic obligations, both on and off campus.

# IV. PARTNERSHIPS

AND

**What support does  
public higher education  
need to achieve its goals?**

# PUBLIC SUPPORT

- We can't do it alone. *Time To Lead* closes with **acknowledgement of public higher education's key partners** in the public, private and nonprofit sectors and makes the case for expanding these partnerships still further.

Through the Vision Project, Massachusetts public higher education has united in a bid to achieve national leadership. But we cannot hope to reach this ambitious goal alone. Robust partnerships and support from many quarters—including the business and philanthropic communities, our colleagues at all levels of education, and, of course, state government—have been critical to the progress we have made. These partnerships will need to be further strengthened in the years ahead.

## Public Support for Public Higher Education

72%

of Massachusetts voters agree that it is very important that Massachusetts have one of the best public higher education systems in the United States.

Source: *Opinion Dynamics, The Massachusetts Department of Higher Education Registered Voter Survey, July 2011*

82%

of Massachusetts voters think it is extremely important that the state's public colleges and universities remain affordable.

## ■ THE BUSINESS AND EMPLOYER COMMUNITY

The **Massachusetts business and employer community** has been a critical Vision Project partner, both in building support for the cause of excellence in public higher education and in working with the Commonwealth's public campuses to ensure that our graduates have the skills demanded in the workforce. Collaboration between the state's employers and higher education has been further enhanced by **Governor Patrick's** creation in 2011 of a new position—the **Director of Education and Workforce Development**—with responsibility to coordinate workforce development efforts across the state, focusing specifically on strengthening partnerships between community colleges and employers.



**Learning and Earning** Bunker Hill Community College student interns working at State Street through the Massachusetts Competitive Partnership's "Learn and Earn" program.



**The Sky's the Limit** A student in North Shore Community College's aviation program. NSCC has created programs to meet workforce needs in regional aerospace and defense industries, including one in advanced manufacturing at General Electric Aviation in Lynn.

In addition to ongoing regional collaborations between campuses and employers, recent examples of joint efforts include:

- **The Learn and Earn program** at **Bunker Hill Community College**, sponsored by the **Massachusetts Competitive Partnership**, which offers paid work experience at businesses including Bank of America, BJ's Wholesale Club, EMC, Fidelity, Raytheon, State Street Corporation and Suffolk Construction;

- **General Electric Aviation's advanced manufacturing program** developed in partnership with **North Shore Community College**, which prepares graduates for solid careers as machinists/machine repair technicians;

- **UMass Boston's Student Entrepreneur Program**, in which UMass business students work as paid interns at one of more than 40 high-tech start-ups in areas including marketing, sales, IT, software development, and finance; and

- **Future Ready Massachusetts**, an umbrella communications strategy to acquaint students, families, counselors and mentors with college and career programs and strategies, being developed by the **Massachusetts Business Alliance for Education** in collaboration with the **Departments of Higher Education** and **Elementary and Secondary Education**.

But, as the recent report of the **Board of Elementary and Secondary Education's** Task Force on Integrating College and Career Readiness states, the linkage between public higher education and the business and employer community needs to be strengthened even further in order to reach the state's workforce development goals. We must:

- Expand ties between employers and the state's high schools to help students understand **workplace culture** and **career opportunities in emerging fields**;
- Make **college internship** and **co-op opportunities** more widely available throughout the public higher education system; and
- Make use of the **Legislature's** recently created **Rapid Response Fund** to strengthen the capacity of public campuses to address the training needs of employers seeking to expand in Massachusetts or relocate their operations here.



**Gold Status** Two students work in the state-of-the-art lab built for Northern Essex Community College's associate's degree program in laboratory science.

## On the Leading Edge

The new Massachusetts Life Science Education Consortium, a partnership between the life science industry and higher education, has issued "gold" endorsements of biotechnology programs at four Massachusetts community colleges:

- **Middlesex Community College**  
Associate in Science—Biotechnology Technician Certificate—Biotechnology Technician
- **Northern Essex Community College**  
Associate in Applied Science—Laboratory Science
- **Quinsigamond Community College**  
Certificate—Biotechnology
- **Roxbury Community College**  
Associate of Science—Biotechnology Certificate—Biotechnology/Biomanufacturing

An additional four campuses received "silver" endorsements for their programs.

In my experience, the current level of collaboration between the Commonwealth's higher education and K-12 systems is unprecedented. By aligning our standards and assessments, developing multiple pathways from middle grades through postsecondary education, and promoting career as well as college readiness, K-12 and higher education are now committed to a joint agenda.

—MITCHELL CHESTER,  
COMMISSIONER, MASSACHUSETTS  
DEPARTMENT OF ELEMENTARY  
AND SECONDARY EDUCATION

## ■ EARLY CHILDHOOD, ELEMENTARY AND SECONDARY EDUCATION

Educators in higher and secondary education have traditionally worked along parallel but separate tracks, with the result that many students have been able to complete high school requirements without being ready for college-level work.

The **Patrick-Murray Administration** has sought to right this problem by creating an **integrated administrative structure** that unites early education, elementary and secondary education, and public higher education under a single secretariat.

Within this framework, public higher education has embarked on an unprecedented level of collaboration with K-12 colleagues. In addition to the national **Partnership for Assessment of Readiness for College and Careers (PARCC)** and the **Massachusetts Task Force on College and Career Readiness**, this work includes:

- The **Educator Preparation Advisory Council**, a joint effort of the **Executive Office of Education** and members of the **Boards of Higher Education, Elementary and Secondary Education**, and **Early Education and Care**, created to improve the effectiveness of teacher preparation programs through strengthening the content and quality of required coursework, creating more robust classroom-based learning opportunities, and better integrating teacher preparation with the first three years of service;
- Postsecondary courses designed to enhance K-12 teacher expertise in specific fields, such as **Massachusetts Maritime Academy's sustainable energy education** for secondary school educators;



Photo by kulbakphoto.com

**New Levels of Collaboration** Charles F. Desmond and Maura Banta, chairs of the Massachusetts Board of Higher Education and Board of Elementary and Secondary Education, respectively, have presided over an era of unprecedented collaboration between their sectors.

- **Dual enrollment and early college programs** that enable students to take college courses while still in high school;
- The creation of a **longitudinal data system** that will enable a continuous pre-K through college view of educational system effectiveness by systematically and comprehensively linking data from the **Departments of Higher Education, Elementary and Secondary Education**, and **Early Education and Care**; and
- The development of **early educator pathways** that will provide early childhood educators with stackable credentials and learning experiences, moving through multiple certifications and on through degrees ranging from associate's to doctorate.

## ■ INDEPENDENT COLLEGES AND UNIVERSITIES

Massachusetts' independent colleges and universities must play an important role in ensuring that the state has the best-educated citizenry and workforce in the nation, and in driving research that supports economic development. The state has benefited for many years from long-standing models of collaboration between public and private campuses, such as the **Five Colleges in the Pioneer Valley** and the **Colleges of Worcester consortium**. More recent alliances address a number of Vision Project goals:

- **Berkshire County Goes to College**, a Western Massachusetts college participation initiative organized by **Berkshire Community College**, **Massachusetts College of Liberal Arts**, **Williams College** and **Bard College at Simon's Rock**. Now in its fifth year, the annual spring event raises awareness of college in Berkshire county students at an early age by providing every sixth-grader an opportunity to visit a college campus.
- The state's **Nursing and Allied Health Initiative**, described on page 62, in which public and private colleges and the health care industry have worked to meet future nursing needs. This joint project can serve as a model for similar public/independent efforts in other industries.



Photo by Eugena Osofi / Governor's Office

**Partnership for Economic Growth** Governor Deval Patrick joins education and business leaders in June 2009 to announce plans for the Massachusetts Green High-Performance Computing Center in Holyoke.

Public/private research partnerships also play an important role in advancing knowledge and industry in Massachusetts, and in attracting the federal dollars that are the lifeblood of this work. Recent examples include:

- The joint work of the **University of Massachusetts**, **Harvard**, **MIT**, **Boston University**, **Northeastern University**, **EMC Corp** and **Cisco Systems** that produced the \$168 million **Massachusetts Green High-Performance Computing Center** in downtown Holyoke.
- **University of Massachusetts Lowell**, **Northeastern University**, and the **University of New Hampshire's** collaboration in nanotechnology through the National Science Foundation-funded **Center for High-rate Nanomanufacturing**.



Photo by Department of Higher Education

**Partnership for Future Workforce Needs** Students and educators participating in a Regis College/Lahey Clinic "Transition into Practice Model Project," one of the numerous partnerships funded by the Department of Higher Education's Nursing and Allied Health Initiative to address the state's future workforce needs in these areas.

## @Scale Supporters

The **@Scale Initiative**, described in more detail on page 64, works to scale or replicate programs that increase students' interest and skills in science, technology, engineering and math (STEM). Launched in the spring of 2011, @Scale requires grant recipients to match every dollar in state seed money with three dollars in outside funding. As of July 2012, the following corporations and foundations had provided financial support to @Scale projects:

### CORPORATE SUPPORT

- Analog Devices
- Broadcom
- Cisco
- EMC
- IBM
- Mediatech
- PTC
- Raytheon
- SolidWorks
- The Math Works
- Vertex
- Verizon

### FOUNDATION SUPPORT

- Boston Scientific Foundation
- Ellesworth Foundation
- Greater Worcester Community Foundation
- Hoche-Schofield Foundation
- Linde Family Foundation
- National Math and Science Initiative
- Noyce Foundation
- Robotics Education and Competition Foundation

## PHILANTHROPIC COMMUNITY

Support from the philanthropic community can provide the additional resources needed to achieve true excellence and to experiment with innovative educational models. Public campuses have benefited for many years from this kind of support, including assistance from the state's 14 regional community foundations. More recently Vision Project initiatives have benefited from more than \$2.5 million in foundation grants, with generous support coming from the **Boston Foundation, Nellie Mae Education Foundation, Davis Educational Foundation, Hewlett Foundation, Lumina Foundation, Balfour Foundation, Gates Foundation, and National Governors Association.**

Work supported by these grants includes:

- **Conferences** to bring together educational leaders both within and beyond Massachusetts to learn from one another about promising practices to improve the outcomes of public higher education;
- **Research** to support the accountability aspects of this report;
- Increased **collaboration** between higher education and K-12 to improve students' readiness for college;
- **Improvement** of student learning assessment across our campuses; and
- **Efforts** to improve college completion rates and facilitate effective student transfers.

**The business and philanthropic communities stand behind the Vision Project because we recognize the critical need for strong higher education in the 21st-century economy. The work underway is impressive—but its success requires continued investment in efforts to measure and improve performance at all of our public colleges and universities.**

—PAUL GROGAN, PRESIDENT AND CEO, THE BOSTON FOUNDATION

## ■ NATIONAL ASSOCIATIONS AND ORGANIZATIONS

Three Vision Project focus areas have benefitted tremendously from the support of national organizations:

■ The **Association of American Colleges and Universities** (AAC&U) and the national organization of **State Higher Education Executive Officers** (SHEEO) have been instrumental in supporting our work on student learning outcomes assessment.

■ **Achieving the Dream**, a national campaign dedicated to improving the college success of historically underserved students, has partnered with four of our community colleges—**Bunker Hill, Northern Essex, Roxbury, and Springfield Technical**—to increase the percentage of students who successfully complete their courses, advance from remedial to credit-bearing courses, and earn degrees or certificates. The ATD partnership extends to the **Board of Higher Education**, where the focus is on strengthening state policies in data and performance measurement systems, K-12 and postsecondary alignment, and transfer between institutions.

■ Massachusetts public higher education is working with **Complete College America** to improve graduation rates and student success.



**Coming Together** Public higher education faculty and administrators in the audience at the Nellie Mae-funded Vision Project Launch Conference in September 2010, the first of several Vision Project convenings supported by philanthropic grants.

## ■ THE FEDERAL GOVERNMENT

The federal government is a key source of supplementary funding for student financial aid, research, and educational programming at Massachusetts' public colleges and universities. Federal financial aid, especially the Pell Grant program, is indispensable to keeping college affordable for thousands of students from low income families. Many federal grants received by campuses align with Vision Project-related goals, including:

■ More than \$8 million for **GEAR UP** and the **College Access Challenge Grants**, two programs that increase college participation among traditionally underserved populations.

■ **Bristol Community College's** \$900,000 National Science Foundation grant to add new courses and augment existing ones so that every engineering technology graduate has sustainability and green technology skills.



**Going Green** With a \$900,000 grant from the National Science Foundation, Bristol Community College is weaving sustainable education into its engineering technology program.

■ **Framingham State University's** strong partnership with **Natick Soldier Systems Center** (NSSC) results in federal grants to faculty and internships/jobs for FSU students. NSSC funding allows FSU faculty to conduct research in fields such as nutritional science and genetic engineering, while FSU students are offered year-long internships that often lead to permanent employment. FSU students have been involved in the development of military MREs (Meals Ready to Eat), food air-drop systems, body armor, and fabric treated with insect repellent.

Continued success in winning financial support from the philanthropic community, national organizations and the federal government to support our public colleges and universities will be critical to achieving Vision Project goals.



**Fueling the Vision** Governor Patrick announces the inaugural winners of Vision Project Performance Incentive Fund grants at Framingham State University in September 2011.

## STATE GOVERNMENT

Despite severe fiscal constraints, the **Patrick-Murray Administration** and the **Legislature** have held the line against the kind of draconian budget cuts suffered by public campuses in some other states, while also providing new funding to support the Vision Project agenda.

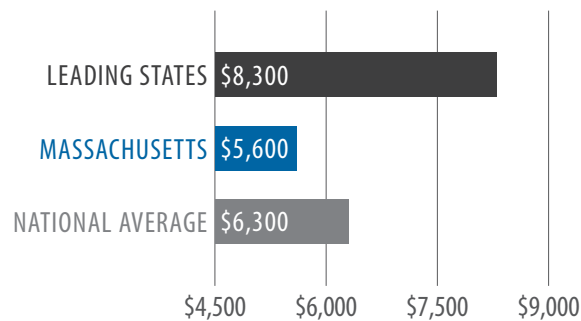
- The **Performance Incentive Fund**, allocated \$7.5 million in FY13, supports public campuses in creating or strengthening programs that advance Vision Project goals.
- The FY13 budget also includes \$3.25 million for a **new scholarship program** to encourage students to major in fields critical to the state's economy.
- **Campus infrastructure** continues to receive long-overdue improvement and expansion of facilities as a result of the \$2 billion bond bill enacted in 2008.



**Building Our Future** Officials mark milestones in campus projects funded by the Patrick-Murray Administration's historic higher education bond bill, which includes a \$152 million Integrated Sciences Complex at UMass Boston (opening 2014) and a \$31 million modernization of Greenfield Community College's campus core.

## PUBLIC HIGHER EDUCATION SYSTEM

### State Appropriations per Full-Time Student



Represents state and local support for public higher education operating expenses, including ARRA funds, in 2011.

Source: SHEEO/SHEF

In 2011, Massachusetts ranked 30th among states in higher education funding per student, behind such states as California, Connecticut, Florida, Illinois, Kentucky, Louisiana, Maine, Maryland, Mississippi, New Jersey, New York, North Carolina, Texas, Washington, and Wisconsin.

The leading states, ranked from the top, are North Carolina, Connecticut, New York, New Mexico, and Texas. *This analysis excludes Wyoming and Alaska, which are high-spending outliers because of low population density.*

This support has been essential, but the Commonwealth still ranks in the middle tier nationally in higher education appropriations, with 29 states providing more funding per student in FY11 than Massachusetts. This low ranking has been a persistent pattern over many years, reflecting Massachusetts' historic complacency toward public higher education in a state with so many distinguished independent institutions. In addition:

- A 21 percent jump in enrollment at Massachusetts public campuses over the past five years—a rate that puts us among the top ten states nationally for growth—has placed **additional financial pressures** on public higher education.

- With enrollments growing and state funding constrained, the **cost of supporting public colleges and universities** has been shifting from the state to students and families. Tuition and fees now constitute a greater percentage of public higher education revenue than the national average.

- Rising college costs represent a barrier to both college participation and college completion. **Financial pressures** are the most common reason given by our community college students for halting their studies before they graduate.

- Public colleges and universities face a consistent challenge of maintaining **affordability** while making the **critical investments** needed to sustain quality, such as hiring full-time faculty to accommodate higher enrollments.

State support will be critical to keeping Massachusetts colleges affordable to our residents, and to ensuring the quality of the education is among the best in the nation.

I'm grateful for the excellent education I received at Salem State, but I do think we need a stronger public commitment to funding the state colleges and universities. Otherwise too many students are going to say, "I can't afford college." If other states can find a way, Massachusetts can too.

—ANGEL DONAHUE-RODRIGUEZ,  
2011–2012 STUDENT BOARD  
MEMBER, MASSACHUSETTS BOARD  
OF HIGHER EDUCATION

## DATA SOURCE ACRONYM GLOSSARY

### Georgetown CEW

Georgetown University Center on Education and the Workforce

### HEGIS

Higher Education General Information Survey (USDOE)

### HEIRS

Higher Education Information Resource System (MDHE)

### IPEDS

Integrated Postsecondary Education Data System (USDOE)

### MDHE

Massachusetts Department of Higher Education

### NCES

National Center for Education Statistics (USDOE)

### NCHEMS

National Center for Higher Education Management Systems

### NSC

National Student Clearinghouse

### NSF

National Science Foundation

### USDOE

United States Department of Education

### WICHE

Western Interstate Commission for Higher Education

## INDEX OF LEADING STATES

### Massachusetts seeks national leadership in public higher education.

This **Index of Leading States** identifies the states that we need to surpass in each key outcome to achieve that goal. Although understandable questions may be asked regarding the comparability of some of these states with the Commonwealth, we believe that, when aggregated and averaged, these states are sufficiently similar to allow for reasonable comparison while allowing us to be consistent in our definition of national leadership.

\* Comparison group includes fewer than 12 states, so “leading states” is defined as the top state or, in the case of a tie, the top two states.

### Which states are in the lead in COLLEGE PARTICIPATION?

Page	Metric	Leading State(s)
16	■ College Enrollment Rates of Recent High School Graduates	LA NY SC MA GA
18	■ College Preparedness of High School Seniors—Math*	MA
	■ College Preparedness of High School Seniors—Reading*	MA

### Which states are in the lead in COLLEGE COMPLETION?

Page	Metric	Leading State(s)
22	■ Community Colleges—“Achieving the Dream” Six-Year Success Rate*	TX
23	■ State Universities—Six-Year Graduation Rate	IA VA NJ WA SC
	■ UMass—Six-Year Graduation Rate	VA NJ CA PA SC

### Which states are in the lead in STUDENT LEARNING?

Page	Metric	Leading State(s)
26	■ Community Colleges—Pass Rates on National Licensure Exams	
	<i>Dental Assistant</i>	<b>IL OR MO MA MN</b>
	<i>Medical Assistant</i>	<b>UT IA MI WI WA</b>
	<i>Licensed Practical Nurse</i>	<b>MT WY UT VT SD</b>
	<i>Registered Nurse</i>	<b>ME TN LA RI ND</b>
	<i>Physical Therapy Assistant</i>	<b>OR LA AZ CT TX</b>
	<i>Radiation Technologist</i>	<b>OR SD CO IA ID</b>
26	■ State Universities—Pass Rates on National Licensure Exams	
	<i>Certified Public Accountant</i>	<b>FL IA MO VA WI</b>
	<i>Registered Nurse</i>	<b>UT NH TN OR CT</b>
27	■ UMass—Pass Rates on National Licensure Exams	
	<i>Certified Public Accountant</i>	<b>FL WI RI IA MN</b>
	<i>Registered Nurse</i>	<b>UT NH TN OR CT</b>
27	■ UMass—Mean Scores on Graduate Entrance Exams	
	<i>Graduate Record Examination (GRE)</i>	<b>MN VT CT RI WA</b>
	<i>Pharmacy College Admissions Test (PCAT)</i>	<b>UT WI WA MT MI</b>

### Which states are in the lead in WORKFORCE ALIGNMENT?

Page	Metric	Leading State(s)
30	■ Community Colleges—Associate's Degrees & Certificates in Health Care Support	<b>NC MI OH SC FL</b>
31	■ State Universities & UMass—Bachelor's Degrees in Health Care Practice	<b>MI OH MO AZ IN</b>
32	■ Community Colleges—Associate's Degrees in STEM Technician Fields	<b>TX MN IL VA WI</b>
	■ State Universities & UMass—Bachelor's Degrees in STEM Fields	<b>NC LA MI PA GA IL</b>
33	■ State Universities & UMass—Bachelor's Degrees in Business and Finance	<b>NY GA AZ LA PA SC</b>

### Which states are in the lead in CLOSING ACHIEVEMENT GAPS?

Page	Metric	Leading State(s)
17	■ African-American/White Gap in College Enrollment Rates of 18- to 24-Year-Olds	<b>OR NM AR ME OK</b>
	■ Latino/White Gap in College Enrollment Rates of 18- to 24-Year-Olds	<b>NH WV HI AK LA</b>
20	■ African-American/White Gap in College Preparedness of High School Seniors—Math*	<b>WV</b>
	■ African-American/White Gap in College Preparedness of High School Seniors—Reading*	<b>FL</b>
	■ Latino/White Gap in College Preparedness of High School Seniors—Math*	<b>WV</b>
	■ Latino/White Gap in College Preparedness of High School Seniors—Reading*	<b>FL IA</b>
21	■ Parental Education Gap in College Preparedness of High School Seniors—Math*	<b>AR</b>
	■ Parental Education Gap in College Preparedness of High School Seniors—Reading*	<b>SD</b>
24	■ Community Colleges—African-American/White Gap in Three-Year Graduation Rate	<b>AL NM MS TX SC</b>
	■ State Universities—African-American/White Gap in Six-Year Graduation Rate	<b>DE GA FL OK SC</b>
	■ UMass—African-American/White Gap in Six-Year Graduation Rate	<b>ID TN FL NM NY</b>
	■ Community Colleges—Latino/White Gap in Three-Year Graduation Rate	<b>AR AL SC TX DE</b>
	■ State Universities—Latino/White Gap in Six-Year Graduation Rate	<b>OR GA SC FL NM</b>
	■ UMass—Latino/White Gap in Six-Year Graduation Rate	<b>FL NC MI LA SC</b>

**The Massachusetts Department of Higher Education acknowledges with gratitude the encouragement, support and counsel of leaders of state government, including members of the Great and General Court, as well as the assistance of the philanthropic community.**

■ **State Government**

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Deval L. Patrick

Lieutenant Governor

Timothy P. Murray

Secretary of Education

Paul Reville

Massachusetts Board of Higher Education

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Louis Ricciardi, *Vice Chair*

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Paul F. Toner

■ **Philanthropic Supporters of the Vision Project**

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Other Philanthropic Supporters

**Nellie Mae Education Foundation**

**Davis Educational Foundation**

**Hewlett Foundation**

**Lumina Foundation**

**Balfour Foundation**

**Gates Foundation**

**National Governors Association**

## ■ Massachusetts Public Higher Education

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North Shore Community College  
**Wayne Burton, President**

Northern Essex Community College  
**Lane Glenn, President**

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**Gail Carberry, President**

Roxbury Community College  
**Linda Edmonds Turner, Interim President**

Springfield Technical Community College  
**Ira Rubenzahl, President**

Bridgewater State University  
**Dana Mohler-Faria, President**

Fitchburg State University  
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**Evan Dobelle, President**

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**Barry Maloney, President**

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University of Massachusetts Amherst  
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University of Massachusetts Medical School  
**Michael F. Collins, Chancellor**



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**Massachusetts will not succeed unless its public colleges and universities succeed.** In the end, it will take equal measures of hard work by the campuses of the Massachusetts public higher education system, strengthened collaboration with partner institutions and organizations, and sustained investment by the Commonwealth to get us where we need to be—national leadership in public higher education.

—RICHARD M. FREELAND, COMMISSIONER,  
MASSACHUSETTS DEPARTMENT OF HIGHER EDUCATION