



High Standards and High Graduation Rates:

Moving Forward on a Dual Agenda in Massachusetts

*Recommendations and Action Steps for
Education Policymakers*

APRIL 2007

About this Report

Based on its leadership in standards-based reform and its early release of cohort graduation rates, Massachusetts was selected to participate in *Moving Forward: High Standards and High Graduation Rates*, a joint project of Achieve, Inc., and Jobs for the Future and funded by Carnegie Corporation of New York. The project centers on a policy analysis of what the state is doing and can do to support a dual agenda of high standards and high graduation rates.

A joint senior team from Achieve and Jobs for the Future conducted the policy analysis between June 2006 and March 2007. The team interviewed close to 40 key leaders and stakeholders in the Massachusetts Department of Education, the legislature, and the Governor's Office, among others. Interviews of key district leaders of Boston Public Schools also informed the analysis. In addition, members of the team attended six of the state Board of Education monthly meetings. Finally, the team reviewed numerous documents including state laws and regulations, Board of Education memoranda and other materials, and published reports.

From Achieve, the project team included Michael Cohen, president; Jennifer Vranek, senior associate; and Alissa Peltzman, policy analyst. The JFF team included Adria Steinberg, associate vice president; Cheryl Almeida and Terry Grobe, program directors; and Cassius Johnson, project manager.

About the Partners



Achieve, Inc.

Created by the nation's governors and business leaders, Achieve, Inc., is a bi-partisan, non-profit organization that helps states raise academic standards, improve assessments and strengthen accountability to prepare all young people for postsecondary education, work and citizenship. Achieve has helped more than half the states benchmark their academic standards, tests and accountability systems against the best examples in the United States and around the world. Achieve also serves as a significant national voice for quality in standards-based education reform and regularly convenes governors, CEOs and other influential leaders at National Education Summits to sustain support for higher standards and achievement for all of America's school children. As a result of the 2005 Summit, 29 states joined with Achieve to form the American Diploma Project Network—a coalition of states committed to aligning high school standards, assessments, graduation requirements and accountability systems with the demands of college and the workplace.

For more information about Achieve, see www.achieve.org.



JOBS FOR THE FUTURE

CREATING STRATEGIES
for Educational and Economic Opportunity

Jobs for the Future seeks to accelerate the educational and economic advancement of youth and adults struggling in today's economy. Since its founding in 1983, JFF has partnered with local, state, and national organizations to influence major state and national policies on education, welfare, job training, and unemployment. At the state and federal levels, JFF promotes the adoption of policies aimed at doubling the number of low-income and minority youth who attain a high school diploma and go on to earn postsecondary credentials. This includes policies to promote the expansion of effective pathways and quality schools characterized by high achievement and high support, including dual enrollment options, early college high schools, and high support pathways for struggling students. Jobs for the Future's cutting-edge policy work, research, and field projects, and public forums have informed and helped shape numerous programs and policies that improve education and enhance economic opportunity for those who need it most.

For more information about Jobs for the Future, see www.jff.org.

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High Standards and High Graduation Rates:

Moving Forward on a Dual Agenda in Massachusetts

What we need to move us forward today—on education and a host of other issues—is a spirit of active collaboration, between government, business, labor, universities, the medical and research community, nonprofits, neighborhood groups. We need a new spirit of civic responsibility, less about party politics and more about problem solving, more about the best of our traditions and heritage of innovation and faith that built Massachusetts in the first place, less about the status quo and yesterday, and more about innovation and tomorrow.

Massachusetts Governor Deval Patrick

Keynote Address to the Massachusetts Graduation Summit

March 5, 2007

EXECUTIVE SUMMARY

In the United States today, all young people need much more than a high school diploma in order to find jobs that will support themselves and their families. They need to graduate ready to succeed in postsecondary education and with career-ready skills. The consequences for those who are not prepared for college and careers are grim, including higher rates of unemployment, substantially lower earnings, and even a lower likelihood of good health. The implications are as clear for the Commonwealth of Massachusetts as they are for individuals and their families. Each leak along the education pipeline results in significant losses in tax revenue and significant government costs for health care and other social benefits for the Commonwealth.

In Massachusetts, where the economy requires educated workers to fuel its biotechnology, health care, communications, and defense industries, young people must complete some kind of postsecondary credential in order to enter and advance in any of these sectors. More than 60 percent of the 300,000 new jobs that will be created by 2010 will require at least an Associate's degree. In a mobile economy, these jobs are filled by the most qualified graduates. Young people of the Commonwealth need to be competitive within an increasingly global labor force.

Massachusetts has already established itself as one of the leading states in standards-based education reform. The state has done more than a decade's work to create high-quality academic standards and assessments, raise academic performance to minimum standards, and close achievement gaps among low-income and higher-income students, as well as among African-American and Hispanic and white students. Current high school reform efforts are focused on moving more students to the proficiency level on state assessments, closing achievement gaps at this level, and encouraging all high school students to complete a more intensive and challenging course of study.

But to create an education pipeline capable of moving all students through to an advanced level of skills and credentials and connecting young adults to the well-paying jobs being created in Massachusetts, two challenges deserve the special and immediate attention of state leaders:

- Substantially increasing the percentage of the state's low-income, African-American, and Hispanic young people who graduate from high school in four years; and
- Substantially increasing the percentage of high school graduates who are fully prepared to succeed in work and postsecondary education.

These twin goals constitute an urgent “dual agenda” of high standards and high graduation rates for all students.

In 2007, the Commonwealth began calculating four-year cohort graduation rates and establishing the first-ever minimum graduation rate that every high school must meet. The four-year cohort graduation rate data for the class of 2006 (which entered high school in 2002) held some good news for the Commonwealth: The state is graduating 80 percent of its students in four years of high school—almost 10 percentage points higher than the estimated national average. However, the data also reveal that the 20 percent of students who do not complete a high school diploma on time are concentrated disproportionately in low-income communities across the state, where high school graduation rates average 62 percent and some districts report rates of 50 percent or lower.

College remediation rates also pose troubling concerns. According to the Massachusetts Board of Higher Education, 37 percent of incoming graduates from the state’s public high schools in 2004 were required to take a remedial course in reading, writing, or math at public state higher education institutions. In the state’s community colleges, over 60 percent of those entering from the state’s high schools are placed in at least one remedial course.

Recommendations for Action

With about one out of every three low-income students failing to graduate on time, and with nearly 40 percent of the state’s entering college students needing to take remedial coursework in college, Massachusetts must act aggressively to close graduation and achievement gaps.

Fortunately, more is known today than ever before about the dimensions of the dropout problem—and, most importantly, about how to help more students succeed. Research-based advances in policy and practice are pointing the way to early warning indicators that accurately predict who is highly likely to drop out, leading to the implementation of effective programs to help keep them in school and on track to college and careers. However, although most high

school-aged youth, including those who have dropped out of high school, realize the economic imperative of and aspire to a college education, many face a dearth of effective educational programs to help them realize their dreams.

Now is the time for Massachusetts to set its sights on the twin goals of high graduation rates and work and college readiness for all students. The state is poised to make substantial progress on both. This report makes four recommendations as to how the Commonwealth can build on current progress to reach these goals. The action steps underpinning the recommendations call on different stakeholder groups to act quickly to move the Commonwealth closer to achieving high college- and career-ready graduation rates. In some cases, action steps suggest how the state Board of Education and/or the Department of Education could build on work already in progress. In others, the steps call for action on the part of the legislature and/or the Governor. Business, higher education, and social services partners also have a vital role to play.

While different stakeholders may have the responsibility and ability to move various pieces of the dual agenda, it will take a coherent and coordinated effort among all stakeholders and the public to ensure that all the Commonwealth’s students, and especially those from underrepresented groups, graduate ready for college and careers.

Recommendation One: Increase the Number of Students Succeeding in MassCore and Earning the Certificate of Mastery and the Certificate of Occupational Proficiency.

Completion of a high school program of study of high academic intensity and quality has a significant impact on success after high school, especially for low-income students and students of color. In recognition of the power of this research, the Massachusetts Department of Education has developed a voluntary program of study, the “MassCore,” that all students should complete to graduate prepared for college and careers. By meeting additional requirements, students can also earn a Certificate of Mastery (COM), and the state is in the process of developing a Certificate of Occupational Proficiency (COP). A key challenge Massachusetts now faces is how to foster the large-scale adoption of the MassCore in districts across the state and the completion of the recommended pro-

gram of study by students. A related and equally important issue is how to ensure that all students, regardless of where they attend school, have equal access to the MassCore, the COM, and the COP.

Proposed Action Steps:

- Communicate widely to students, educators, and the public about the MassCore and the Certificate of Mastery and Certificate of Occupational Proficiency.
- Create incentives for students and districts to pursue the MassCore, the COM, and the COP by: phasing in aligned higher education admissions requirements; providing scholarships for low-income students who complete the MassCore; and waiving placement tests for students who earn the COM and/or the COP.
- Promote and ensure consistent depth and challenge of the MassCore, the COM, and the COP without stifling innovation at the local level.

Recommendation Two: Recognize and Reward High Schools that Hold onto Struggling Students and Graduate All Students College-Ready

For nearly ten years, the state’s accountability system has focused schools and districts on MCAS scores, and particularly on movement toward proficiency (score of 240) on the test. The state has recently taken the additional critical step of taking the four-year cohort graduation rate into account, and it is now in position to reliably identify students who are highly likely to drop out. Yet additional recognitions and incentives are needed so that schools and districts hold onto struggling students, get them back on track to a diploma, and increase student readiness for college and careers through participation in the MassCore. And early warning systems can help districts and schools to identify students at risk of not graduating and to intervene early and effectively.

Proposed Action Steps:

- Adopt an expanded set of indicators to create incentives for schools and districts to keep struggling students in school and progressing toward a college-ready graduation.
- Develop “early warning systems” to help districts identify and support the students who, without an intervention, are unlikely to graduate from high school.

Recommendation Three: Place a Priority on and Dedicate Resources to State Intervention in Persistently Low-Performing Schools

The state needs substantial new investments in and new approaches for schools that are failing to get large numbers of students to achieve minimum standards for performance and graduation. A relatively small subset of the high schools in the state account for much of the current “graduation gap” that separates low-income, African-American, and Hispanic students from their more affluent and white peers. Schools with histories of underperformance often cannot significantly improve achievement without fundamental changes in management and capacity, including sufficient autonomy at the school level, as well as resources and support to improve teaching capacity. The Massachusetts Board of Education recently revised state regulations and developed new strategies to intervene in and turn around low-performing schools. To realize these policy innovations on the ground will require both additional action and resources.

Proposed Action Steps:

- Provide adequate resources and funding to support the Board of Education’s efforts to turnaround underperforming schools and districts.
- Compress the timeline for intervention and be prepared to require alternative management and governance for low-performing schools that fail to make progress.
- Use new cohort graduation rate data combined with MCAS competency determination to place a priority on the lowest-performing high schools for immediate action.

Recommendation Four: Open New Schools Designed to Improve College-Ready Graduation Rates for Low-Income and Struggling Students

If graduation rates and career- and college-readiness rates are to significantly improve, particularly in communities where the problems are most serious, districts across the Commonwealth need a more robust supply of high-quality options for low-income and struggling students. Many students find high school to be an alienating and discouraging experience. As a growing body of research and practice indicate, schools that are effective—particularly for low-income, African-American, and Hispanic young people—combine personal attention and a positive peer culture with evidence-based practices to help students catch up, accelerate their learning, and connect to postsecondary institutions and career possibilities. For the large group of young people who enter high school academically ill-prepared, there are not enough options—in either the mainstream or alternative education systems—that will accelerate and support their efforts to earn a college-ready high school diploma and achieve success in postsecondary education and careers.

Proposed Action Steps:

- Create new incentives to open charter secondary schools designed to improve outcomes for struggling students.
- Allow for the use of an adjusted cohort graduation rate for “second chance” high schools designed for overage, under-credited students and returning dropouts.

- Open early college high schools and use other forms of dual enrollment as a strategy to increase college readiness and postsecondary success for underrepresented youth.
- Create a public/private School Innovation Fund to support new school models built on instructional and organizational practices with a track record of improved outcomes for struggling and out-of-school youth.
- Increase funding for the Massachusetts Expanded Learning Time Initiative, with a portion allocated for high schools.

A Unique Moment for Action

The successful implementation of these recommendations demands a strong and active partnership among secondary and higher education, the Governor’s office, the legislature, the business community, youth-serving organizations, parents, and youth. Massachusetts has new leadership in the Governor’s office, on the state Board of Education, and on the state Board of Higher Education. The Commonwealth will soon have a new commissioner of education and possibly a new chancellor of higher education. The leadership has the opportunity to put weight behind an agenda focused on significantly raising high school graduation rates and work- and college readiness for all students, especially the state’s low-income students.

High Standards and High Graduation Rates:

Moving Forward on a Dual Agenda in Massachusetts

PART I. THE CURRENT CONTEXT IN THE COMMONWEALTH

The Economic and Social Imperative

In the United States today, all young people need not only to graduate from high school but to graduate ready to succeed in postsecondary education and in jobs with advancement potential. In a global and unforgiving economy, there are serious consequences from dropping out of high school or graduating without the skills, attributes, and knowledge required by college and by family-supporting careers. Graduation from high school college- and career-ready is the first major benchmark toward earning the postsecondary skills and credentials that are increasingly necessary in this economy.

Massachusetts needs an educated workforce for its major industries—including health, biotechnology, communications, and defense. Young people need to complete at least some postsecondary education and credentialing if they are to enter and advance in any of these sectors. According to the Massachusetts Division of Career Services, by 2010 the Massachusetts economy is expected to expand by 9 percent, or 304,500 new jobs, with 62 percent of the new jobs requiring at least an Associate's degree (Massachusetts Department of Education 2006). In a mobile economy, these jobs will be filled by the most qualified graduates.

Each leak along the education pipeline results in significant losses in tax revenue and government costs for health and other social benefits for the Commonwealth. Dropouts and high school graduates who do not earn a postsecondary credential have higher rates of unemployment, earn substantially less, are more likely to receive public assistance, and are less likely to be in good health, to volunteer, or to vote.¹ In Massachusetts, high school dropouts earn, on average, 36 percent less than high school graduates annually and

69 percent less than holders of Bachelor's degrees. On average, over the course of a lifetime, a high school graduate earns \$456,000 more than a high school dropout, a college graduate with a Bachelor's degree earns \$982,000 more than a high school graduate and \$1,438,000 more than a dropout (Sum et al. 2007).

The recent publication of four-year cohort graduation rate data for the class of 2006 in Massachusetts held some good news for the Commonwealth: the state is graduating 80 percent of its students in four years of high school—almost 10 percentage points higher than the estimated national average. However, the data also reveal that the 20 percent of students who do not complete a high school diploma on time are concentrated disproportionately in the Commonwealth's low-income communities that are spread across the state. In these communities, high school graduation rates average 62 percent, and some districts report rates of 50 percent or lower.²

Other recent state reports also suggest that many of those who graduate from high school and go on to postsecondary education are not fully prepared. According to a 2005 Massachusetts Board of Higher Education report, 37 percent of incoming graduates from the state's public high schools were required to take a remedial course in reading, writing, or math in 2004 in the public state higher education institutions (Massachusetts Department of Education 2006). In the state's community colleges, over 60 percent of those entering from the state's high schools are placed in at least one remedial course (Massachusetts Board of Higher Education 2007).

The consequences for students of entering college ill-prepared are severe: 76 percent of students who require remediation in reading and 63 percent of those who require remediation in math fail to earn degrees.³ Moreover, the Commonwealth is essentially paying twice for the same coursework.

These economic and moral concerns underscore the need for the state to do more to ensure that students graduate from high school on time and ready to succeed in postsecondary education.

Why Young People Disengage from and Drop Out of High School

Young people themselves can be allies in a state's efforts to increase graduation rates and college readiness. Increasingly, they are becoming, as one researcher aptly puts it, "keen economists." In recent years—a period in which no improvement occurred in the graduation rate nationally—the percentage of tenth graders reporting high education aspirations (a Bachelor's degree or higher) increased from 40 percent to 80 percent, with the largest increases among low-income youth (Roderick 2006).

This calls into question why so many young people disengage from school. Massachusetts has turned to youth to find answers and possible solutions. During the spring and fall of 2006, the Department of Education conducted a series of focus groups across the state with young people who had either dropped out or were at risk of doing so. The results reveal a nuanced picture of student disengagement. Youth reported that key reasons for disconnection from high school included school-related problems, such as poor relationships with teachers; impersonal learning environments; falling behind on credits and struggling to keep up; and recommendations from staff to drop out and enter a GED or other alternative program. They also said that problems with peers, the need to generate an income, and various personal problems were contributors to dropping out. Key changes that the youth reported would help keep them in school were greater respect and attention from teachers, smaller classes, and more academic and social supports (Pathways to Success by 21 Initiative and Department of Education 2007).

These findings are comparable to those from *The Silent Epidemic*, a widely disseminated national study of recent high school dropouts, commissioned by the Bill & Melinda Gates Foundation. In this study, dropouts reported that they were bored in school and were not challenged to reach their potential. Youth also reported falling behind and failing in school as key reasons for leaving and say they regret leaving and wished they had been encouraged and supported to work harder while they were in school (Bridgeland, Dilulio, & Morison 2006). Extrapolating from such studies, education leaders are calling for high schools that embody the new 3 "Rs." Such schools combine a Rigorous academic program with strong Relationships among students and teachers, as well as greater Relevance of the curriculum and learning experiences to students' futures (Bill & Melinda Gates Foundation 2005).

Current Moment of Opportunity in Massachusetts

The Commonwealth is well positioned to make substantial progress on a dual agenda of high standards and high graduation rates. Massachusetts has long been a leader in standards-based education. As a result of a decade's work, the state has crafted academic standards, accompanied by a quality assessment system to certify academic proficiency, both of which are considered among the best in the nation. Massachusetts has also drawn widespread public attention to closing achievement gaps through its success in getting virtually all students to earn the minimum competency determination.

Since 2003, earning the competency determination by meeting the "needs improvement" standard on MCAS with a minimum score of 220 has been a statewide graduation requirement. Analysis of the results for the classes of 2003 through 2006 indicates that this minimum-standards policy has been highly successful in closing achievement gaps between students of color and white students, as well as between low-income and higher-income students. The state's considerable investment in MCAS academic support services played a critical role in helping schools and districts get most students over the bar. However, the state continues to struggle with significant achievement gaps at the proficiency, or 240, level on MCAS.

Led by the State Board of Education and the Commissioner of Education, Massachusetts recently adopted a set of policies and regulations to put important pieces of the architecture in place to raise both academic performance and graduation rates. The board adopted new regulations to intervene more decisively in persistently low-performing schools and, through the new Commonwealth Pilot Initiative, to offer some schools the chance to gain flexibility and autonomy in exchange for accountability for results. The Department of Education has taken critical first steps to bring more coherence to the delivery of student support programs, so that high schools can provide more of the layered support needed to help struggling students. The expansion of the state's groundbreaking Expanded Learning Time Initiative is another potential vehicle to ensure that students have the time and support to complete a rigorous program of study.

Recently, the attention of leaders and policymakers has also turned to the challenge of decreasing dropouts and keeping many more young people connected to and through high school graduation. In February 2007, Massachusetts became one of the first seven states in the nation to follow through on the commitment of the National Governors Association Graduation Rate Compact to calculate and publicly release a four-year cohort graduation rate. The Commonwealth reported four-year cohort graduation rates for the class of 2006 by state, district, and school level and disaggregated by ethnic/racial and income groups.

In addition, the Department of Education has teamed up with Pathways to Success by 21 (P21), a cross-system reform and capacity-building initiative to improve educational and employment outcomes for at-risk youth. The intent of the cross-system collaboration is to reduce dropping out and improve the Commonwealth's graduation and college-success rates. In March 2007, the Department of Education, in collaboration with P21, held a Graduation Summit that brought together 700 education, workforce, and human service leaders from across the state to build collective responsibility and action for improving college-ready graduation rates.

PART II. RECOMMENDATIONS AND ACTION STEPS

The Commonwealth now has an opportunity to “close the deal.” Although it has made significant progress closing achievement gaps and getting students to meet minimum standards, Massachusetts must set its sights on attaining the twin goals of graduation from high school and college *and* work readiness for all students. Working on these goals together, and keeping them in balance, will require strategic action on the part of a broad set of stakeholders, including those that are already engaged through the P-21 effort.

To be sure, this is an ambitious agenda. Fortunately, some of the key building blocks needed to support this dual agenda are squarely in place. By building on policy work that has begun here and elsewhere, leaders in the Commonwealth have the opportunity to significantly improve the educational outcomes of low-income, minority, and struggling students. More is known now than ever before about the secondary school performance and behavior factors that are predictive of high school non-completion and, most importantly, about the school conditions, interventions, and programming that make it possible for struggling students to succeed in high school and beyond.

This report provides an assessment of what education, policy, business, and community leaders in Massachusetts are doing to advance an agenda of high standards and high graduation rates, and it recommends potential action steps to improve education outcomes for high school students in the Commonwealth.

Organized around four major recommendations, the remainder of this report provides a rationale for each recommendation, an assessment of recent state progress, and a detailed set of action steps. The action steps underpinning the recommendations call on different stakeholder groups to act on behalf of moving the Commonwealth closer to achieving substantial increases in college- and career-ready graduation rates. In some cases, the action steps suggest how the state Board of Education and/or the Department of Education could build on work in progress. Other steps call for action on the part of the legislature and/or the Governor. Business, higher education, and

social services partners also have a vital role to play in some action steps.

While different stakeholders may have the responsibility and ability to move various pieces of the dual agenda of high standards and high graduation rates, ensuring that all the Commonwealth’s students, and especially those from underrepresented groups, graduate ready for college and careers will take a coherent and coordinated effort among all stakeholders and the public.

Recommendation One:

Increase the Number of Students Taking and Succeeding in the MassCore and Earning the Certificate of Mastery and the Certificate of Occupational Proficiency.

Completion of a high school program of study of high academic intensity and quality has a significant impact on success after high school, especially for low-income students and students of color. A substantial body of research shows that a young person’s course of study in high school is the single biggest predictor of college success—greater than family background, parents’ education level, test scores, class rank, and GPA (Barth 2003). A strong academic program of study that includes a math sequence at least through Algebra II in high school reduces the Bachelor’s degree attainment gap between white and African-American and Latino students by more than half (Adelman 1999). Moreover, the benefits of a college-ready course of study extend to all students, whether or not they go on to college, and previously low-performing students benefit the most (Adelman 1999; Barth 2003).

In recognition of the importance of a challenging and intensive curriculum, the Massachusetts Department of Education, in partnership with the Massachusetts Board of Higher Education, has developed a voluntary program of study—the “MassCore”—that all students should complete to graduate prepared for college and careers. A key challenge Massachusetts now faces is how to foster the large-scale adoption of the MassCore in districts across the state and the completion of the recommended program of study by students. A related and equally important issue is how to ensure that all

students, regardless of where they attend school, have equal access to the MassCore.

Assessment of Recent Progress

Historically, Massachusetts has left most high school graduation requirements to the discretion of local school committees, with the exception of the MCAS competency determination, one year of U.S. history, and four years of physical education. The new proposed course of study, the MassCore, aligns with or exceeds higher education entrance requirements at state colleges and at the University of Massachusetts (see Table 1). At the same time, Massachusetts has revised the requirements to earn a Certificate of Mastery (COM), an added and voluntary “endorsement” to the diploma that students can earn by meeting additional requirements. And the state is in the process of developing a Certificate of Occupational Proficiency (COP) as an additional pull for all students toward alignment with college and substantial careers.

Beginning with the students in the class of 2009, to be eligible for a COM, a student must earn a competency determination and:

- Achieve at least 240 or its equivalent on the grade 10 English Language Arts and Mathematics MCAS;
- Maintain a minimum 3.0 grade point average in grades 11 and 12;
- Achieve the passing standard on any test identified by the Department of Education to establish proficiency in Algebra II or more advanced mathematics;
- Demonstrate proficiency in writing through an assessment identified for this purpose by the Department; and
- Meet one of the following two criteria:
 - Complete a high school curriculum designed to prepare students for college and career readiness, consistent with any standards established by the Board, or
 - Earn a Certificate of Occupational Proficiency.

The Department of Education intends to ask the Board of Education to approve the MassCore as the minimum set of courses and credits required for a student to earn the Certificate of Mastery.

Table 1. Current and Proposed Graduation Requirements Compared to Higher Education Admission Requirements

	Statewide Requirements for a High School Diploma	Admission Requirements for Massachusetts Public, Four-Year, Higher Education Institutions	MassCore
English		4	4
Mathematics		3 (including Algebra II)	4, with at least Algebra II and a math in senior year
Social Studies/ U.S. History	1	2	3, including U.S. history and world history
Science		3 (two with lab)	3 lab sciences
Foreign Language		2 in a single language	2 in a single language
Health/P.E.	4		2
Other	MCAS score of 220		6 electives

Moving Forward: Action Steps to Address Barriers and Leverage Opportunities

By creating the MassCore, the Certificate of Mastery, and the Certificate of Occupational Proficiency, Massachusetts has put itself on the path to ensuring all students have access to a rigorous curriculum. According to a 2007 survey conducted by Achieve, Inc., 13 states now require students to take a college- and work-ready course of study to earn a diploma, up from just 2 in 2005. Another 16 states report that they plan to raise requirements. The 13 states have taken two routes to the required course of study: mandating the core curriculum as a diploma requirement for all youth; or making the college- and work-ready diploma track the “default” option that students can opt out of with informed consent.

The recommendations and action steps that follow presume that the Commonwealth’s goal is for virtually all students to participate in the MassCore, and for many students to earn the COM or the COP, but that the strategy at this point is for the MassCore to be voluntary. The action steps are aimed at providing the right kind of incentives and supports for widespread and effective implementation of the MassCore, COM, and COP. If the Commonwealth decided to make the MassCore a default diploma option or mandated it for all students, the action steps would be

Considering the Merits of Voluntary vs. Mandated Programs of Study

The current proposal to the Board of Education envisions the MassCore, COM, and COP as voluntary for students to participate in and voluntary for school districts to require. Whether to make the MassCore voluntary or default is an important decision that merits careful consideration. It will require significant public discussion among Massachusetts policymakers and residents about the demands of the 21st century economy and how best to put all Massachusetts youth on track for success after high school. This discussion should inform whether graduation standards continue to be determined locally, whether the MassCore is made the default program of study with the opportunity to opt out or, alternatively, whether the MassCore is mandated as the program of study for all students.

In 2006, Michigan policymakers decided to require a minimum set of 16 courses, and eventually 18 courses, as the basis for a new high school diploma; they saw the need to upgrade expectations and skills as too urgent and essential to wait for local boards to decide whether to change diploma requirements. Prior to this decision, high school diploma requirements had been entirely at the discretion of local boards of education, as they are to a great degree in Massachusetts.

Other states, such as Indiana and Texas, started with a voluntary college-preparatory diploma. Leaders in these states communicated widely about the benefits of a rigorous core curriculum, and they tied serious incentives—financial aid for college—to completion of the recommended program of study. Both states saw such progress in getting students to complete the program of study and enrolled in college that policymakers later made the college- and work-ready diploma the default option for all students.

The data and experience gained by voluntary implementation in the Commonwealth will be important. They will help state officials determine if a more aggressive implementation effort is needed—or if the voluntary approach is bringing fast enough progress toward the goal of all graduates prepared for careers and college.

similar, though there would be some changes in priorities and in particular details (*see box, “Considering the Merits of Voluntary vs. Mandated Programs of Study”*).

Action Step One: Communicate widely to students, educators, and the public about the MassCore and the Certificate of Mastery and the Certificate of Occupational Proficiency.

Because the COM has been substantially revised, the COP is under development, and the MassCore is a new program of study, policymakers, business leaders, and community members should work together to communicate widely about these new options available to students.

The Department of Education can leverage the “Think Again” advertising campaign, a joint effort with the Board of Higher Education. “Think Again” is part of a broader college- and career-ready initiative designed to encourage low-income students and students from underrepresented groups to prepare for and succeed in college. This multi-media campaign, which features Boston Public School students, includes paid advertising statewide on radio, TV, and buses and in movie theaters. Print materials, such as posters and stacks of postcards, have been sent to every high school in the state.

A key aim of the campaign is to direct students to www.readyssetgotocollege.com, which provides simple, specific steps and guidance and tools to help students understand what they need to do to graduate high school, get into the right college, and succeed. The state should ensure that the advertising campaign and Web site send a clear message to students that getting prepared for college means completing the MassCore program of study.

Other venues for the message that a rigorous program of study matters include the follow-up activities from the P21 Graduation Summit and the department’s regular communications about high expectations. The message in all of these efforts should be strong, clear, and consistent: Students who take the MassCore course of study and earn the COM and COP will be better off, no matter what path they pursue after graduation.

Action Step Two: Create incentives for students and districts to pursue the MassCore, COM, and COP by phasing in aligned higher education admissions requirements; providing scholarships for low-income students completing the MassCore; and waiving placement tests for students who earn the COM and/or the COP.

If the MassCore is voluntary, Massachusetts needs incentives that will foster its large-scale adoption by districts as minimum diploma requirements, as well as incentives for students to complete the MassCore and gain the skills needed for postsecondary education, training, and careers. First, the Board of Higher Education should align the minimum requirements for admission into a public, four-year state college or the University of Massachusetts by increasing mathematics and science expectations. This change should be phased in to give schools and districts enough time to upgrade their curriculum offerings and graduation requirements. Financial aid and scholarships for low-income students to complete the MassCore, COM, and/or COP also are promising tools. The experience of Arkansas, which has an Academic Challenge Scholarship tied to its Smart Core curriculum, as well as of Indiana and Texas, shows that students will respond to these types of incentives.

In addition, the Department of Education, the Massachusetts Secondary School Administrators Association, and the Massachusetts Business Alliance for Education have teamed up to pilot Massachusetts State Scholars, a voluntary communications and outreach initiative encouraging students to take rigorous classes, in five high schools. State Scholars initiatives in other states have galvanized business participation and support for students who are pursuing a strong course of study; in some State Scholars states, employers have provided financial and other incentives for students taking and completing the State Scholars curriculum.

Another trend in state policy is to assess whether high school students are on track to place into credit-bearing, non-remedial freshman courses when they get to college. States are increasingly pursuing this option in order to streamline the number of tests students have to take and to ensure a more seamless transition from high school to work and college. Here the Commonwealth has an advantage, as the department is planning to implement upper-level assessments of stu-

dents' proficiency in mathematics, writing, and work-related skills. Because the COM and COP will include such measures that certify that students have met college- and work-ready standards, employers and public, four-year state colleges should accept results on these assessments, as well as the COM and COP credentials, as evidence that graduates are prepared for work and college courses. Graduates who have earned the COM and/or the COP should gain automatic placement into credit-bearing courses, training, and apprenticeship opportunities.

Action Step Three: Ensure consistent depth and challenge of the MassCore, COM, and COP without stifling innovation at the local level.

In order to ensure that the MassCore, COM and COP are offered consistently and with sufficient rigor across the state, the Department of Education needs to disseminate voluntary curricular materials, publish school committees' graduation requirements, course-taking patterns, and achievement results, and develop end-of-course assessments.

The MassCore is designed to help address longstanding concerns about the quality of and access to high school courses offered by districts. The COM and COP are intended to recognize high academic achievement and credential students who demonstrate that they are ready for additional training, postsecondary education, and careers. The Department of Education has a responsibility to students to ensure that local school committees and secondary schools are providing equal access to the MassCore and the COM/COP. According to a recent Department of Education survey of high schools, about 70 percent of graduates statewide have taken the equivalent of the MassCore, while only 45 percent of urban high school students graduate at this level.

In collaboration with high school teachers and higher education faculty, the department plans to publish explicit standards and curriculum guidance to support successful implementation of the MassCore. The development of course descriptions and model syllabi that reflect the MassCore program of study, including ones that incorporate the same content and performance expectations into more integrated approaches, such as interdisciplinary courses or courses with a strong applied focus, can help promote consistent depth and challenge as well as local innovation. The

availability of such materials will provide important guidance to districts and schools, helping them to close the gap between current requirements and those needed for college and career preparation.

Efforts are underway to develop model course syllabi that are aligned with the Commonwealth's Curriculum Frameworks and with the expectations of first-year college courses. Over the next several months, the department in collaboration with the Board of Higher Education and the University of Massachusetts will offer a series of meetings to help define "what is college and career ready," including the characteristics of those courses that prepare students for success in both college and careers. These activities should be accelerated and widely disseminated.

The department can use the power of public reporting to shine a spotlight on local implementation of the MassCore, COM, and COP. By publishing course-taking patterns—disaggregated by income, ethnicity, and special populations—as well as local graduation requirements and achievement results, the department can help reduce disparities in the degree to which students get access to the learning opportunities needed for success after high school. The department is adding a new "yes/no" data element to the longitudinal student information system to track how many, and which students, are completing the MassCore for next year's graduating class. While this is a step in the right direction, to effectively monitor and report course-taking patterns, the state needs to include student-level transcript data in the longitudinal student information system. Establishing clear criteria for identifying a course as part of the MassCore would allow the state to more accurately monitor its implementation and assess the relationship between completing this program of study and college readiness.

One of the most effective ways the Commonwealth can ensure that the courses students take help them gain college and work-ready skills is to require students in these courses to take corresponding end-of-course assessments. We are not suggesting that stakes for students be attached to the end-of-course assessments. The purpose of requiring participation in the assessments is to provide comparable data to schools, districts, and the public on student performance in the MassCore. The state also could consider modularizing the assessments to measure key content areas and skills without locking schools and districts into partic-

ular courses. Whatever the test format, achievement data can be used to benchmark performance and curricula across districts and to help state officials determine if additional steps are needed to get all Massachusetts high school students prepared for college and careers.

Recommendation Two:

Recognize and Reward High Schools that Hold onto Struggling Students and Graduate All Students College-Ready.

For nearly ten years, the state's accountability system has focused schools and districts on MCAS scores and particularly on movement toward proficiency (score of 240) on the test. The Commonwealth now is promoting the MassCore college- and career-ready program of study for all students, in part, because research has revealed that a score of 240 on the MCAS does not in itself equal readiness for entry-level college courses or jobs. An analysis of the tenth-grade MCAS exams indicates that the test measures only some of the knowledge and skills that colleges and employers say are essential (Achieve 2004).

The state has recently taken the additional critical step of taking the four-year cohort graduation rate into account, and it is now in position to reliably identify students who are highly likely to drop out. A key challenge is how to offer incentives to districts and schools to hold onto struggling students and keep them on track, while also making continued progress toward the goal of all students reaching the MCAS proficiency standard and successfully completing the MassCore program of study.

Assessment of Recent Progress

When the state released the new four-year cohort graduation rate for the class of 2006 in February 2007, it revised the state accountability formula to include graduation rates as a key indicator determining whether schools and districts make Adequate Yearly Progress (AYP), along with attendance rates and MCAS competency determinations.⁴ Beginning this year, high schools will have to meet or surpass the target graduation rate of 55 percent (by subgroup and overall) to make AYP. The Board of Education passed the target rate with reservations at its February 2007 meeting.

Board members expressed concerns about the low expectations conveyed by a rate of 55 percent, while, at the same time, recognizing the limits to the current data (for example, five-year graduation rates will not be available until 2008) and the lack of adequate resources to support underperforming schools. To address this concern, in March the board established a task force to work with Department of Education staff to review additional data relating to the high school graduation rate—including five-year graduation data when available—and to consider issues including recommendations for improvement targets and questions of capacity and resources to increase the percentage of students who graduate from high school.

At the same time that Massachusetts became one of the first states in the country to include cohort graduation rates in its accountability system, the state also identified an MCAS score of 240 as the target for students. Since 2003, the state has required students to meet the “needs improvement” level on MCAS (score of 220) as a criterion of graduation. In fall 2006, the State Board of Education voted to require students (beginning with the class of 2010) to either achieve proficiency (at least a 240) on the state’s tenth-grade ELA and math MCAS tests or achieve at least a 220 and complete an educational proficiency plan. The plan specifies the coursework students must complete to move toward proficiency in each of the content areas for which they did not achieve a score of 240 or better. The board also voted to add new competency determinations in science and technology/engineering (beginning with the class of 2010) and history and social studies (beginning with the class of 2012).⁵

Moving Forward: Action Steps to Address Barriers and Leverage Opportunities

Massachusetts has made significant progress in putting in place data and accountability policies and infrastructure to support the goal of moving all students to academic proficiency and a college- and career-ready diploma. Yet additional recognitions and incentives are needed so that schools and districts hold onto struggling students, get them back on track to a diploma, and increase student readiness for college and careers.

Action Step 1: Adopt an expanded set of indicators to create incentives for schools and districts to keep struggling students in school and progressing toward a college-ready graduation.

Currently, high schools are held accountable for MCAS results, attendance, and the four-year cohort graduation rates for AYP determinations. These indicators alone will not provide the incentives for high schools to encourage struggling students to stay in school, keep on track, and complete the MassCore program of study or earn the COM/COP endorsements. The Board of Education should work with selected districts to develop and pilot a set of indicators, outside the AYP framework and requirements, that reflect student progress through school towards college-ready graduation. The index could include additional indicators for the purpose of rewarding and recognizing schools for keeping struggling students in school, recovering dropouts, getting students on track to proficiency, and increasing the numbers of students who participate in MassCore and earn the COM and COP (*see Table 2*). Depending on the results of the pilot, the state could phase in the system statewide over time.

An expanded set of indicators is especially critical for schools that have large numbers of students who either enter ninth grade overage and/or behind in skill or for those students who become “off track” during the year (i.e., do not earn sufficient credits and fail core courses based on year-long grades).

Massachusetts has already signaled its intent to develop a measure that indicates the percentage of students in each high school grade that are “on track” to graduation in four years. The Commissioner recently suggested that the state could allow schools to either meet the minimum graduation rate standard or show improvement in the proportion of students still enrolled and on track to graduate in four years. Using an on-track indicator in this way would place the Commonwealth squarely in the forefront of state efforts to leverage cutting-edge research on predicting future graduates.

Table 2. Possible Indicators to Recognize and Reward High Schools for Graduating Students Ready for Work and College

College- and Work-Ready Indicators	Graduation Indicators
Completing the MassCore	On-time promotion rates
Earning Certificate of Mastery or Certificate of Occupational Proficiency	Percentage of students who enter ninth grade off track (or become off track early on) and who by the end of ninth grade have accumulated the course credits for promotion to the tenth grade
Participating in Advanced Placement or International Baccalaureate courses and earning minimum scores on exams	Percent of first-time freshmen who have on-time credit accumulation by the end of the tenth grade
Earning college credits while in high school	Percent of dropouts who reenroll

Action Step Two: Develop “early warning systems” to help districts identify and support the students who are unlikely to graduate from high school without an intervention.

Massachusetts should draw on groundbreaking research on leading indicators of dropping out and ongoing work in Boston in order to help other districts identify students who are unlikely to graduate and design appropriate interventions and supports

Predicting Future Dropouts

As part of the *Moving Forward* initiative, Robert Balfanz of Johns Hopkins University has partnered with Boston Public Schools officials to research and identify the leading indicators that are most predictive of future drop outs. Key indicators that the study is considering include course failure and test scores in core academic subjects, attendance, and behavioral incidences in the middle grades. This research, and other research being conducted by the Parthenon Group with support from the Bill & Melinda Gates Foundation, is helping Boston Public Schools leaders, faculty, and community members analyze the scope of the dropout problem, know which indicators are most predictive of dropping out, and better target interventions and resources to students who are most at risk.

(see box, “Predicting Future Dropouts”). Specifically, to support districts, the state can use the research to make the case for early warning systems, analyze the best data currently available at the state level to identify the scope, concentration, and characteristics of likely dropouts across the state, and offer districts the tools and technical support to implement such a system.

Research on leading indicators of dropping out has shown that dropouts follow identifiable patterns of performance and behavior—patterns that states, districts, and schools can analyze and address (Jerald 2006). Recent studies conducted by Elaine Allensworth and colleagues at the Consortium on Chicago School Research at the University of Chicago, using data from the Chicago public schools, showed that an on-track indicator that signals when ninth graders are falling serious off the track to earning a diploma is 85 percent predictive of future dropping out (Allensworth & Easton 2005). In the Philadelphia public schools, Robert Balfanz of Johns Hopkins University and Liza Herzog of the Philadelphia Education Fund found that school-based factors such as behavior reports and poor grades as early as sixth grade have value in predicting who later will drop out (Balfanz & Herzog 2005). This new knowledge base makes it more possible than ever before for states and districts to invest in the most promising and effective practices and policies.

Guided by such research, the Board of Education should analyze the best data currently available at the state level to identify the scope, concentration, and characteristics of likely dropouts across the state and to help guide strategic investments to get young people back on track to a college- and career-ready diploma. This could include, for example, a look at students who as middle graders had poor attendance and/or were retained in grade; first-time ninth graders who are “off track” to promotion to grade 10; repeat ninth graders; and students who enter high school overage or are overage for grade—with analysis by demographics and by special populations. Analyses of such factors and additional tools and technical assistance would help schools and districts appropriately target services and school-wide interventions and programming directed at increasing on-time promotion and graduation.

Recommendation Three:

Place a Priority on and Dedicate Resources to State Intervention in Persistently Low-Performing Schools.

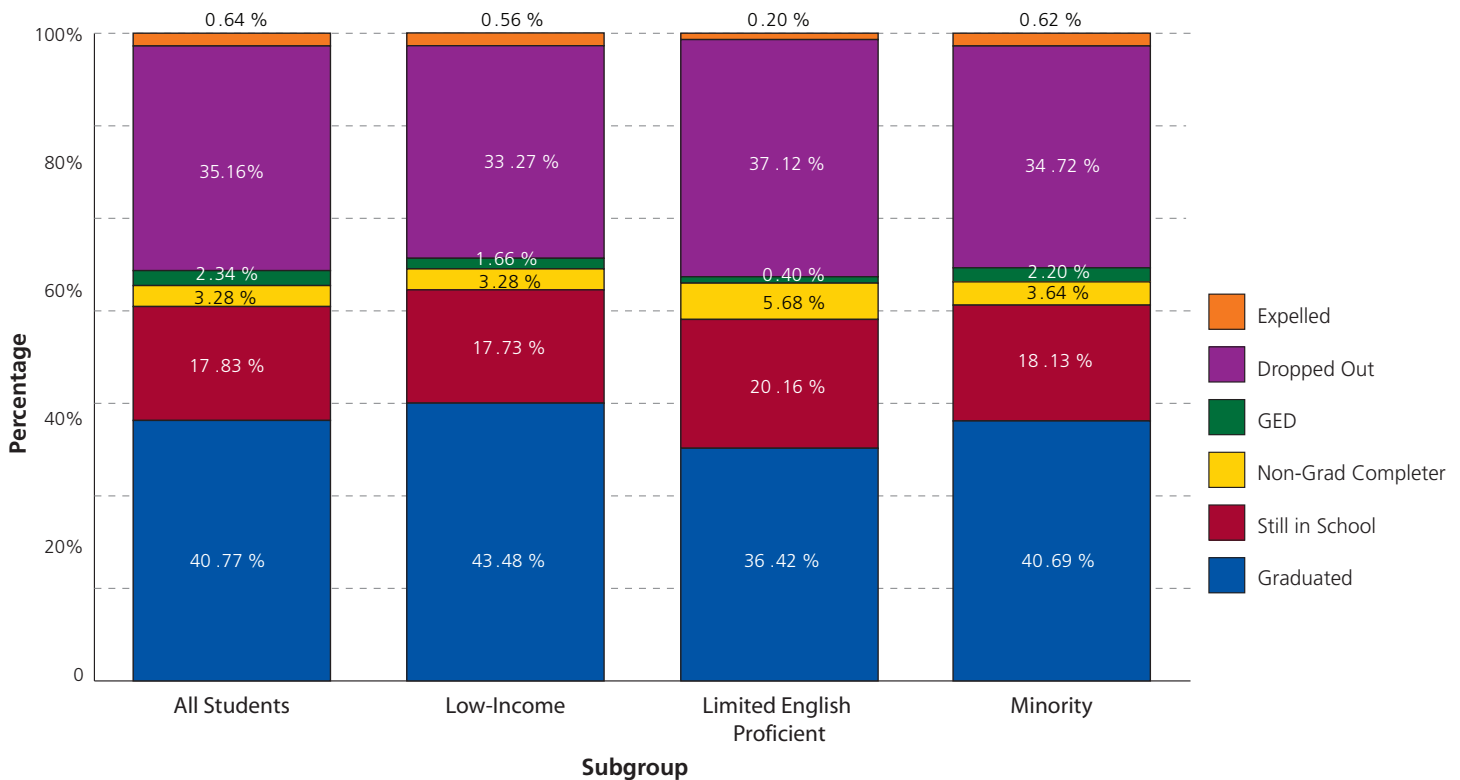
Low-income students, especially those moving into high school significantly behind in skills or with limited English proficiency, are especially at risk of not graduating from high school or of graduating unprepared for work and college. While the Massachusetts four-year graduation rate for the class of 2006 of 80 percent is well above the estimated national average of 70 percent, the four-year graduation rate for low-income students is only 62 percent; it is only 64 percent for African Americans, 57 percent for Hispanics, and 55 percent for students with limited English proficiency.

While low-income and minority students attend schools across the state, they are concentrated in a relatively small subset of high schools where graduation is, at best, an iffy proposition. In Massachusetts, 40 high schools (about 12 percent of the state’s high schools) had four-year graduation rates of 55 percent or less—the new minimum state target for AYP—for the graduating class of 2006. With a few exceptions,

these schools are found in 14 of the state’s 22 urban districts.⁶ Located in large urban centers, as well as small to moderate-sized cities, some of which border rural areas, these 14 districts are spread across the state. Based on available public data, 18 of the 40 identified high schools have also not met MCAS competency determinations on ELA or math for at least one subgroup for at least two years. Competency determination data were not publicly reported for 14 of the schools due to low enrollment. If further examination reveals that these schools are small alternatives designed for off-track students, an adjusted cohort graduation rate of five to six years may apply, as recommended on page 21 of this report.

These 40 high schools with graduation rates of less than 55 percent for the class of 2006 disproportionately serve low-income and minority students; 81 percent of students in the class of 2006 were minorities; 81 percent were low-income students; and 19 percent had limited English proficiency. Graduation rates across these schools were dismal (*see Figure 1*). And while these schools enroll only 7 percent of the total students statewide in the class of 2006 (and 17 percent of all low-income students), they account for 38 percent of the minority non-graduates, 26 percent of

Figure 1. State Graduation Results for High Schools with Graduation Rates Less than 55%, by All Students and Student Subgroups



the low-income non-graduates, and 30 percent of limited English proficient non-graduates.

High schools that fail to graduate students with the skills needed for success often present a thick stew of problems that make it difficult to turn them around. Consider, for example, research by Robert Balfanz and Nettie Legters of Johns Hopkins University that reveals that, in the 2,000 high schools across the country that are losing 40 percent or more of their students, 80 percent of the ninth graders are overage when they enter high school, require special education services, have less than seventh-grade reading and math skills, or are repeating a grade for the second or even third time (Balfanz 2006). In addition, these schools often have significant numbers of inexperienced teachers and teachers teaching classes outside their certification, as well as high rates of teacher turnover.

Assessment of Recent Progress

As part of its ongoing education reform agenda, the Board of Education recently amended the regulations governing underperforming schools to designate as Commonwealth Priority Schools those schools that fail to meet Adequate Yearly Progress for four or more years for the entire population of students enrolled in the school (that is, across all subgroups) and to target these Priority Schools for immediate state support and intervention. In addition, the revised regulations stress the need to change the underlying conditions and cultures in low-performing schools that inhibit the chances for success even with additional resources and capacity.

Research indicates that transformation of low-performing schools may require sufficient autonomy at the school site to make decisions over resources, staffing and curriculum, as well as the resources and support to improve teaching capacity. Schools with histories of under-performance often cannot significantly improve achievement without fundamental changes in management and capacity.⁷

Taking this commitment to turn around failing schools farther, the Board of Education also offered the two high schools and two middle schools recently identified as Commonwealth Priority Schools the opportunity to become state “Commonwealth Pilot Schools.” Pilot schools originated in Boston in 1994

and were the result of a unique partnership among the superintendent, the teachers’ union, and the school committee. Unlike traditional district schools, Pilot Schools have charter-like autonomy over their budget, staffing, school-day and school-year calendar, curriculum, and governance structure. Commonwealth Pilot Schools, or “Co-Pilots,” will gain these same autonomies and, as in Boston, will need the approval of the collective bargaining unit, superintendent, and 65 percent of the teachers in the school. All four Commonwealth Priority Schools have moved forward with the Co-Pilot option.

Moving Forward: Action Steps to Address Barriers and Leverage Opportunities

Its recent policy shifts place Massachusetts in the vanguard of state efforts to turn around low-performing schools. Without the kinds of significant changes in management and flexibility offered by approaches like the Pilot School model, it is unlikely that many of the persistently low-performing high schools in Massachusetts will become places where all students progress toward proficiency.

To realize these policy innovations on the ground will require both additional action and additional resources. Making headway on improving achievement and degree attainment in the worst-performing high schools in the state will require a carrot-and-stick approach. Pursuing the following action steps will put the Commonwealth on sure footing to close the graduation and achievement gaps dividing the state’s low-income and minority students from their more affluent peers.

Action Step One: Provide adequate resources and funding to support the Board of Education’s efforts to turn around underperforming schools and districts.

The Governor and legislature, despite the tough budget choices they face, should adequately fund intensive intervention services in underperforming school districts and in Commonwealth Priority Schools. The board’s request includes funding for hiring incentives and performance bonuses to secure services of highly qualified principals and master teachers; support to guide implementation of research-based school improvement practices; and third-party services to enhance the quality and effec-

tiveness of district conditions negatively affecting school performance.

At the same time, the legislature should also approve funding for the Statewide Commonwealth Pilot Initiative, a proposal that would strengthen the hand of the Commonwealth in turning around schools *before* as well as after they are failing. This initiative would allow a school to request funding to convert to Pilot status long before it risks being labeled chronically underperforming.

Action Step Two: Compress the timeline for intervention and be prepared to require alternative management and governance for low-performing schools that fail to make progress.

To have a fair chance of success, the state needs to compress the timeline for targeting and supporting low-performing schools to significantly less than the four or more years currently stipulated in state regulations. A proposed shorter timeline was dropped from the fall 2006 amended regulations governing underperforming schools because a lack of resources to provide the necessary supports and services to designated schools made it an unviable proposition. The board and department should be able to intercede after two years of low performance when needed to turn around underperforming schools.

Leading-edge research points to the critical importance of significant changes in governance and management to create the necessary conditions for improving achievement in persistently low-performing schools. Improving underperforming schools is often complicated by a lack of flexibility at the district level, caused by a combination of longstanding bureaucratic practices, top-down management practices, collective bargaining agreements, and tight budgets with competing priorities.

Districts that do not create the necessary conditions—and begin to show improvements in student achievement in Commonwealth Priority Schools within a reasonable amount of time—should be required to contract with alternative school providers to manage the schools. When a district or school committee is unwilling or unable to partner with alternative managers, the state should retain the authority to appoint alternative governance. If new statutory authority is needed, the legislature should provide it to the Board of Education to carry this out.

Action Step Three: Place the priority for action on the subset of high schools failing to meet both graduation rate and MCAS competency determination benchmarks.

To gain significant traction in improving college-ready graduation rates, Massachusetts will need to take action in the lowest-performing high schools. Given available resources, the state Board of Education would be wise to place a priority on the relatively small subset of 18 high schools that have four-year graduation rates of 55 percent or lower and also have failed to achieve benchmarks on either of the MCAS competency determinations for at least one subgroup for two or more years.

Most of these schools will require a whole-school restructuring process, such as the one the state has articulated for the Commonwealth Priority Schools or Commonwealth Pilot Schools. The Board of Education has recommended that these schools and their districts address the fundamental conditions that research shows enable low performance to occur in the first place, including policies, processes, practices, and agreements (including teacher work rules) that hinder the delivery of high standards and high support. School plans should also include key, research-based elements associated with improved student outcomes, including, for example, extended attention and time in core subject areas, a systemic program of regular assessments in core academic subjects, and an expanded day to provide tutoring, supplemental instruction, and skill development.

Some students attending these schools will also need a combination or intensity of services that schools alone cannot provide. Schools will need to connect with community-based organizations that can provide such services as mentoring, mental health counseling, and even housing.

The Department of Education has teamed up with Pathways to Success by 21 (P21), a cross-system reform and capacity-building initiative to improve educational and employment outcomes for at-risk youth. With continued support from the department, the regional teams of education, workforce, and human service leaders brought together at the Graduation Summit can play a key role in forging school-community partnerships to bring needed services to students in these schools.

Recommendation Four:

Open New Schools Designed to Improve College-Ready Graduation Rates for Low-Income and Struggling Students.

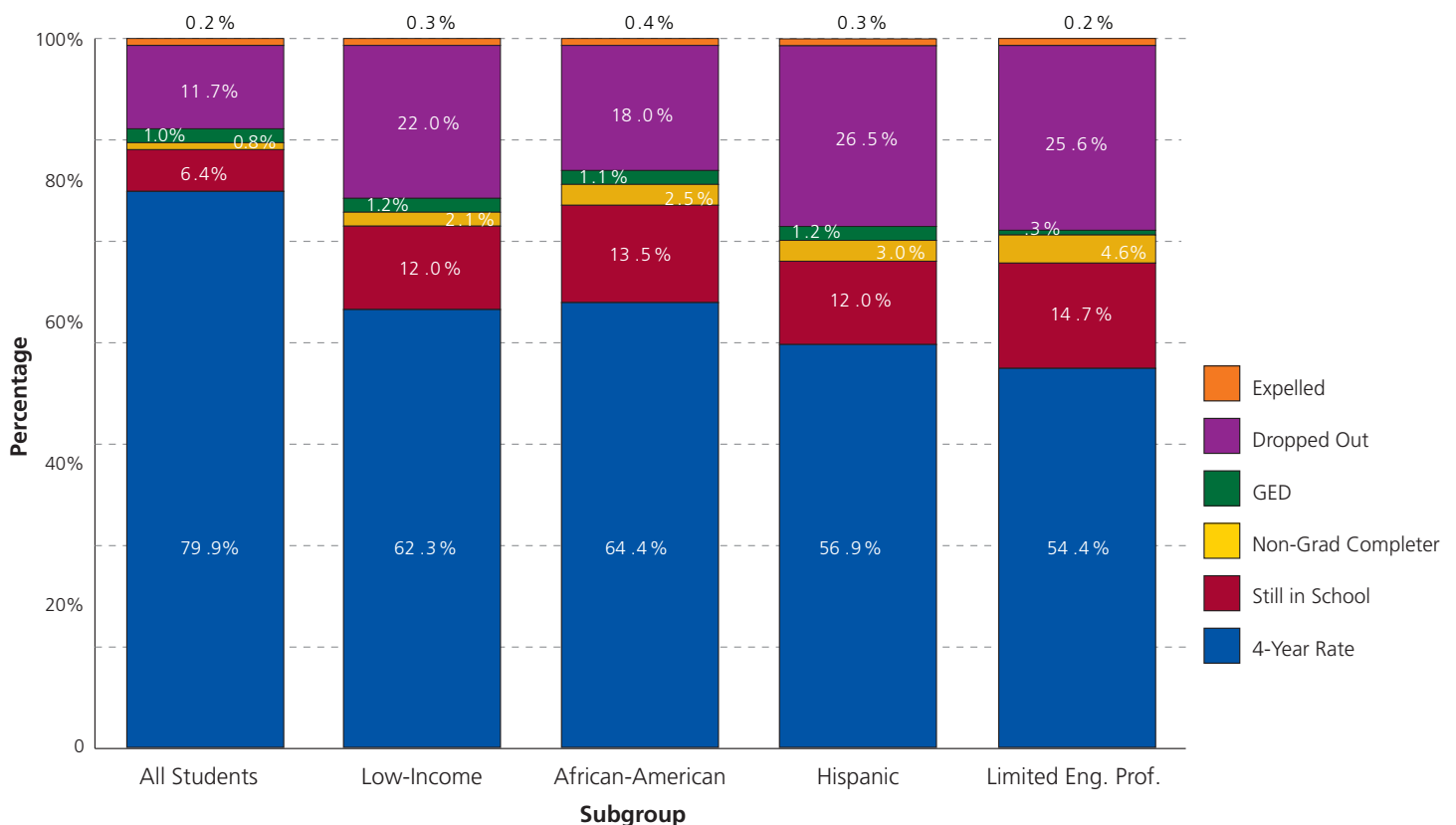
In Massachusetts, as in all other states, low-income, African-American, and Hispanic students are considerably more likely to not complete high school on time and less likely to graduate from high school prepared for college and jobs with advancement potential (see Figure 2). Many students find high school to be an alienating and discouraging experience. As a growing body of research and practice indicates, schools that are effective combine personal attention and a positive peer culture with evidence-based practices to help students catch up, accelerate their learning, and connect to postsecondary institutions and career possibilities. Often the high schools that beat the odds are small schools that emphasize relationships and relevance along with academic rigor (see box, “What Can We Learn from “Beat the Odds” Schools?”).⁸

For the large group of young people who enter high school academically ill-prepared, there are still not

enough options—in either the mainstream or alternative education systems—that will accelerate and support them to earn a rigorous high school diploma and achieve success in postsecondary education and careers. In the Commonwealth, achievement and graduation challenges occur not just in the large urban districts but also in smaller cities and towns, some of which border rural areas. If graduation rates and career- and college-readiness rates are to significantly improve across the state, particularly in communities where the problems are most serious, a more robust supply is needed of high-quality options for low-income and struggling students.

Emerging evidence suggests the efficacy of this approach. In the last few years, for example, the New York City Department of Education has replaced the lowest-performing large high schools with new small schools, and it has developed new, even smaller options and pathways for the 140,000 students who are overage for their grade, seriously lacking in credits needed for graduation, or out of school altogether. This has begun to pay off in an upward trend in the overall high school graduation rate. Also, transfer

Figure 2. State Graduation Results for All Students and by Student Subgroups



schools—small, personalized high schools designed to help students who are overage and under-credited graduate from high school and move on to postsecondary education—are graduating two times to three times more of these students than are comprehensive high schools (Lynch 2006).

Assessment of Recent Progress

In Massachusetts today, policies and programs that support charter schools, alternative schools, expanded learning time, and dual enrollment in secondary and postsecondary institutions offer potential vehicles for expanding quality options for low-income and struggling students.

Massachusetts provides for two types of chartering: a state approval process for Commonwealth charter schools and a locally driven process whereby local education agencies and their collective bargaining units jointly apply to the state for a Horace Mann charter school. Currently, 59 charter schools are operating in Massachusetts: 51 Commonwealth and eight Horace Mann charters.⁹ The vast majority of the charter schools are found in urban settings. Charters in Massachusetts are “capped” at 72 for Commonwealth and 48 for Horace Mann charters.

Alternative education is largely the purview of districts, which use a variety of strategies, ranging from contracting with outside providers to setting up programs within existing high schools. The state Depart-

What Can We Learn from “Beat the Odds” Schools?

Findings from recent studies converge around a set of school organizational and instructional practices that characterize high-poverty high schools that “beat the odds” with struggling students.

1. Focus on the Transition into High School

It is not left up to the students alone to negotiate the often bumpy transition from the middle grades into high school. Teachers and counselors meet individually or in groups with incoming students. Some models include summer programming between the eighth and ninth grades, and some include an intensive, first-semester focus on skills to help students prepare for high school—both socially and academically.

2. Support Students to Stay on Track

Early warning systems are in place to identify and immediately reach out to students and families when students evidence attendance or performance problems, especially in literacy or numeracy skills. Schools are organized to provide referrals or to offer necessary supports, opportunities, and services to students and families.

3. Expand Learning Time

Teachers and administrators take responsibility for ensuring that students get the instructional time they need—during and beyond school hours—in order to stay on track with college preparatory requirements. Schools enable older students to accumulate or recover credits over shorter periods of time by organizing the calendar differently (e.g., trimesters), using technology for distance learning, customizing instruction and feedback, and using extended learning time for projects geared to “real world” standards (see no. 5).

4. Provide Academic Challenge for All

All students are expected to take on academic challenges (e.g., honors-level work or college-level work while in high school) and are supported in doing so. Teachers feel part of a professional learning community in which they are supported with high-quality curricula and professional development particularly focused on keeping the intellectual level high, even while helping students to catch up on skills.

5. Align Performance Standards to College and Career Readiness

Schools focus explicitly on preparing students for life beyond high school, rather than on graduation as an end goal. They use college- and work-level standards as benchmarks against which to assess the academic rigor and relevance of their courses. They embrace external standards and use assessment data to improve curricula and school practices, not just to measure students’ past performance.

6. Focus on the Transition from High School to College and Careers

Schools make explicit links among academic work, student interests, college success, and careers by creating opportunities for upper-grade students to pursue accelerated academic learning, college exposure, and course-taking, as well as to engage in work internships (paid or unpaid). Such experiences are used as opportunities for students to develop 21st century skills of self-management, communication, and continuous learning that will help them succeed in college and careers.

ment of Education is in the process of adding a data element to the student management information system; this will allow tracking of outcomes for students enrolled in alternative schools and programs in order to identify both the alternative schools and programs that need assistance and those that are producing the best student outcomes and could be models for expansion. The department has undertaken several efforts to improve the overall quality of alternative education schools and programs and to support new innovation on the ground, including work through the National Governors Association Honor State grant to develop self-assessment tools to help these schools improve.

Massachusetts has had dual enrollment legislation on the books since 1993, when it was included as part of the Education Reform Act. Although budget constraints caused the legislature to cut funding in 2003, in Massachusetts the precedent has been established that dual enrollment options serve not only academically advanced students but also high school students attending alternative education or GED programs. To be eligible, these students did not need a minimum grade point average, but they did need to meet the college's placement testing standards.

More recently, Massachusetts launched what is quickly becoming a nationally recognized Expanded Learning Time Initiative. The initiative emerged from a partnership of the Department of Education with Massachusetts 2020, a nonprofit organization committed to broadening educational and economic opportunities for children and families across the state. The initiative calls for participating schools and districts to demonstrate a commitment and capacity both to expand school hours by at least 25 percent for *all* students in the school and to reconsider the use of time during the whole day, not just the after school hours. Selected schools receive additional funding to support a longer and redesigned school day that allows for more time on core academics, as well as enrichment opportunities and social and emotional development. Professional development is also embedded in the school day and includes a focus on using student data to help improve instruction.

Moving Forward: Action Steps to Address Barriers and Leverage Opportunities

As the assessment of progress indicates, Massachusetts has key building blocks to enable growth in the supply of pathways or options designed to put low-income, African-American, and Hispanic young people on track to a college- and career-ready high school diploma. Yet, as in most states, these policies and programs need to be more fully resourced and used more intentionally and strategically to ensure the rapid expansion of quality school models and pathways with a track record of helping struggling students.

Action Step 1: Create new incentives to open charter secondary schools designed to improve outcomes for struggling students.

At this point, only a handful of charter schools (all Horace Mann Charters) are designed specifically to incorporate evidence-based practices to improve outcomes and options for young people who are off track to graduation or are returning dropouts. The number is unlikely to increase significantly without a concerted effort on the part of the state to provide incentives to serve this population of young people.

One immediate step the state could take would be to advertise its desire for and give priority to Commonwealth charter applications for school models that are designed to serve struggling youth. Texas does this, holding to its cap of 215 open enrollment charters unless the school applying plans to serve at least 75 percent at-risk students or returning dropouts.

Community-based organizations that already partner with school districts to serve the state's most vulnerable youth could be especially encouraged to apply for charter status. The state should also encourage superintendents of districts with low graduation rates to work with the local collective bargaining unit to offer Horace Mann charters for schools designed for struggling students and former dropouts. As experience in Boston has demonstrated, community-based organizations and other providers working with vulnerable youth are often very interested in offering their considerable expertise as partners in such a venture.

The legislature or department might need to inject new resources as incentives—or make clear that existing funding streams can be combined and used creatively to support these charters. This could become

an immediate agenda item for the P21 regional partnerships. The private sector, legislature, and department also could offer new strategies, such as debt financing and assistance in locating and securing adequate facilities for such schools, because the lack of adequate facilities is often a barrier to charter school start-up.

Action Step 2: Allow for the use of an adjusted cohort graduation rate for “second chance” high schools designed for overage, under-credited students and returning dropouts.

Schools specifically designed to help young people get back on track to a high school diploma and college- and career-ready skills may be unfairly identified as underperforming under the state’s new accountability indicator for four-year cohort graduation rates. By design, these schools—whether charter, district-run, or contracted—serve students who may have already been in high school for a number of years without completing the requisite requirements that would keep them on track to graduation; in some cases, students have been out of school altogether for significant periods of time. By the time these students enter a “second-chance” school or program, they may already be in the third or fourth year of their designated cohort. Yet the students may need at least two years to complete a diploma.

Rather than identifying all second-chance schools as underperforming, the Board of Education should allow for the use of an adjusted graduation rate. This is consistent with the Commonwealth’s standards-based approach, in which performance rather than seat time is the core value. The adjusted rate would reflect the percentage of overage, under-credited students and returning dropouts who graduate within six years of entering ninth grade, rather than four. To determine eligibility, schools could be required to submit a description of the educational program and a proposed alternative expected completion time for the preponderance of the students in the school, to be used for calculating an adjusted-cohort graduation rate (up to but no more than six years from entry into high school). For example, each school in this category could be expected to increase its approved adjusted-cohort graduation rate an average of 2.5 percentage points per year from the established baseline.

To ensure that the school districts maintain responsibility and are accountable for these young people, the Board of Education should require that students enrolled in such alternative or second-chance settings continue to be counted in their original ninth-grade cohort for the purposes of district (not school) accountability. Districts would thus derive no advantage from encouraging students to move into second-chance programs.

Action Step 3: Open early college high schools and use other forms of dual enrollment as a strategy to increase college readiness and postsecondary success for underrepresented youth.

Early college high schools offer young people the opportunity to complete an Associate’s degree or up to two years of college credit while still in high school. A relatively new model, it has captured the imagination of educators, policymakers, and philanthropists, and already offers some promising early results. In the past five years, Jobs for the Future has partnered with 13 intermediaries in the Early College High School Initiative, with support from the Bill & Melinda Gates Foundation. The initiative has started 130 schools, serving approximately 16,000 students in 23 states.¹⁰ In the first programs to graduate students, over 95 percent earned high school diplomas, over 57 percent earned Associate’s degrees, and over 80 percent were accepted at four-year colleges (Vargas 2006).

Taking college courses while still in high school shows students the level of academic work that is required to enter and succeed in college. College coursework can challenge and raise the aspirations of youth who are struggling to persist in and complete high school and serve as a bridge for first-generation college-goers who might feel that college is “just not for them.” In addition, early college high school can help low-income families lessen the time to a degree and lower the overall costs of higher education.

Massachusetts should support the development of early college high schools and place an emphasis on accelerated learning and college experience/credits in high school for the full range of learners, and particularly for those who are disengaged and struggling in high school. Several versions of “college in high school” exist or are in development in the Commonwealth. For example, Early College High School at Holyoke Community College in Springfield serves

Learn and Earn in North Carolina

North Carolina has embarked on an ambitious effort to create a system of small high schools as part of a statewide high school redesign effort. This includes the design and implementation of “Learn and Earn” high schools—early college high schools designed to enable thousands of students across the state to earn both a high school diploma and up to two years of college or an Associate’s degree, tuition-free, in five years. Faculty from K-12 and higher education work together to integrate course offerings and provide a seamless system of early awareness and college preparatory academic and exploratory experiences to young people starting as early as sixth grade.

A primary support vehicle for this work is the North Carolina New Schools Project, a public/private partnership that operates as the state’s premier school-development entity. The NSP was launched to coordinate statewide high school reform efforts, as well as to provide technical assistance and resources to local partners to plan or redesign the new small high schools. For example, the NSP provides multi-year implementation grants to selected schools to develop innovative new models of teaching and learning. The NSP expects to provide support to over 100 new small high schools over the next several years.

Strong support from the Governor and other state leaders has been instrumental in rapidly expanding education options in North Carolina. Currently, 33 early college high schools are open and a total of 75 are planned.

Tuition waivers are available in North Carolina to students in early college programs. In addition, the Governor has provided increasing levels of support within the state budget for the expansion and sustenance of new small high schools.¹¹

eleventh- and twelfth-grade youth with MCAS support and blended high school and college coursework. Another Route to College at Northern Essex Community College serves twelfth-grade Lawrence youth with MCAS support and college coursework. Most recently, the replication of the Oregon-based Gateway

to College program at Massasoit Community College and Mount Wachusett Community College offers struggling students and returning dropouts an opportunity to earn their high school diploma while also acquiring college credits. The state can look to several other states for strategies for expanding early college high schools across the state. For example, North Carolina has created a special *Learn and Earn* initiative to open 75 early colleges on community college campuses across the state (see box, “*Learn and Earn in North Carolina*”).

To lay the groundwork for early college high schools to start, the state should reactivate dual enrollment legislation. Current legislation “on the books” should be expanded to enable new schools to access dual enrollment funds and to ensure that data collection is adequate to assess impact.

Action Step 4: Create a public/private School Innovation Fund to support new school models built on instructional and organizational practices with a track record of improved outcomes for struggling and out-of-school youth.

Throughout the Commonwealth, more needs to be done to stimulate new, high-quality schools. Cities across the nation—from Boston to Chicago to Indianapolis to Milwaukee to New York City—are helping struggling students graduate ready for college and careers by replacing failing schools with new schools. In partnership with local nonprofit organizations and national funders, Boston Public Schools has undertaken a significant high school renewal initiative, put new focus on its alternative schools, and expanded the Pilot Schools experiment. This level of effort deserves to be replicated in many of the struggling school districts in Massachusetts.

A school innovation fund would support a range of school models. Currently, the only funding available in the Commonwealth for such development is through a competitive grant program—\$1.25 million, renewable each year—to help expand and create additional Alternative Education programs and schools and for Safe and Supportive Learning Environment grant projects. Fifty districts submitted proposals for eight of the Alternative Education grants in 2006: demand clearly exceeds supply for even these narrowly tailored grant programs.

A more fully resourced school innovation fund, supported by the public, philanthropic, and private sectors, could support the spread of school designs that are effective in improving outcomes of students who are not on track to an on-time graduation. It could also build the capacity of existing and proposed school and youth development entities to become centers for the expansion of such proven practices and models, as in North Carolina (see box). Funds could be disbursed through a competitive grant process open to existing or proposed school developers, including: charter school applicants; school reform entities formed by districts (including, for example, a district's office of high school redesign or alternative education) and higher education (including early college high school models); and private and nonprofit organizations (including youth development organizations and community-based organizations with alternative education models).

To compete for funding, school development entities would have to demonstrate through a comprehensive application the ability to implement school designs and practices that are specifically geared for young people not on track to a high school diploma. They would also have to demonstrate that the designs would significantly improve the graduation rate among these students. Special consideration could be given to programs that can also demonstrate high rates of college participation of their graduates.

Action Step 5: Increase funding for the Expanded Learning Time Initiative, with a portion allocated for high schools.

Recent experience in Boston demonstrates that new, small high schools, including those created as conversions of larger, underperforming high schools, can make good use of extra time to accelerate the learning of students who enter high school without the skills necessary for academic success and to ensure that students graduate from high school prepared for the transition to college (see box, “*Increased Instructional Time in Boston’s Small High Schools*”). Research has also shown that expanding the learning day, when coupled with focused attention to the quality of instruction, can improve student achievement and help close the achievement gap, particularly for low-performing and high-poverty students (Chait, Housman, & Muller Forthcoming).

By fully funding the Expanded Learning Time Initiative, the legislature would help to ensure that high school students in new and redesigned schools have the instructional time, enrichment, and supports they need to reach the goal of a college- and career-ready graduation.

Increased Instructional Time in Boston’s Small High Schools

About half of Boston’s new, small high schools, most of which are conversions from large high schools, have made an extended day a requirement for ninth graders. The goal: provide extra, focused time to acclimate students to the more rigorous work expectations of high school, address gaps in their learning, and help them succeed in their courses and assessments. Some of the schools also offer programming for older students, particularly with the goal of promoting college and career readiness: schools are taking advantage of the wide range of Boston’s higher education institutions to connect students, particularly juniors and seniors, with college-level coursework and other college-campus learning opportunities.

For example, the headmaster of the Noonan Business Academy, a small school that began as part of an intervention into and conversion of Dorchester High School, credits the extended-day program with contributing to the school’s marked improvement in MCAS scores last year. The extended-day program begins the first week of school so that the routine and expectations become established. All ninth graders take a math course after school three days per week. Most enroll in the math enrichment course that reinforces fundamental, middle school-level math skills. Ninth graders without such skill deficits have the option of pursuing advanced math courses in algebra, geometry, or pre-calculus. Upper-grade students take college courses at UMass Boston or Bunker Hill Community College.

Boston small school leaders now face the challenge of how to sustain these programs, beyond the initial philanthropic support for start-up, which largely comes from the Bill & Melinda Gates Foundation.

PART III. A UNIQUE MOMENT FOR ACTION

Massachusetts has made great strides over the last ten years to develop a nationally recognized system of academic standards and assessments. In particular, the Massachusetts Board of Education and Department of Education actions taken over the last two years to push toward the proficiency level on MCAS as the standard for competency determination, accurately report high school graduation rates, and intervene in low-performing schools are critical steps to raising academic achievement and closing achievement gaps in the state.

Yet the work of improving educational and economic outcomes for Massachusetts young people is far from complete. Too many high school students continue to struggle in school and leave before graduating; too many dropouts and graduates alike are ill-equipped to pursue the postsecondary training and education that are so critical to success in the Commonwealth's increasingly knowledge-based economy.

Massachusetts faces a unique moment of opportunity to mobilize a broad set of constituencies to address these challenges. The Commonwealth has new leader-

ship in the Governor's office and on the state Board of Education. And Massachusetts will soon have a new commissioner of education and possibly a new chancellor of higher education. The emerging leadership has the chance to fashion a signature agenda focused on the twin goals of significantly raising high school graduation rates, especially among the state's low-income students, and making college-ready graduation the goal for all students. This dual focus—a way to address both the achievement gap and the graduation gap—provides a powerful, persuasive message and platform for the next generation of high school reform in Massachusetts.

The dual agenda of high standards and high graduation rates cannot be achieved by the Commonwealth's education institutions alone. Rather, it will require a strong and active partnership among secondary and higher education, the Governor's office, the legislature, the business community, youth-serving organizations, parents, and youth.

References

- Achieve, Inc. 2004. *Do Graduation Tests Measure Up?: A Closer Look at State High School Exit Exams*. Washington, DC: Achieve, Inc.
- Adelman, Clifford. 1999. *Answers in the Tool Box: Academic Intensity, Attendance Patterns, and Bachelor's Degree Attainment*. Washington, DC: U.S. Department of Education.
- Allensworth, Elaine and John Q. Easton. 2005. *The On-Track Indicator as a Predictor of High School Graduation*. Chicago, IL: Consortium on Chicago School Research.
- Augenblick, Palaich, & Associates, Inc. 2006. *Return on Investment in Early College High Schools*. Denver, CO: Author.
- Balfanz, Robert. 2006. "Intervening in Low-Performing High Schools." Paper prepared for *Taking the Next Step-Defining a Shared Federal Agenda for High School Reform*. Third Annual High School Policy Conference, October 12-13. Washington, DC: Alliance for Excellent Education.
- Balfanz, Robert and Liza Herzog. 2005. *Keeping Middle Grades Students on Track to Graduation*. Presentation at the Regional Middle Grades Symposium, March 18, Philadelphia, PA.
- Barth, Patte. 2003. "A Common Core Curriculum For The New Century." *Thinking K-16*, Volume 7, Issue 1, Winter 2003. Washington, DC: Ed Trust.
- Bill & Melinda Gates Foundation. 2005. *High Schools for the New Millennium: Imagine the Possibilities*. Seattle, WA: Author.
- Bridgeland, John M., John J. Dilulio, Jr., and Karen Burke Morison. 2006. *The Silent Epidemic. Perspectives of High School Dropouts*. Washington, DC: Civil Enterprises, LLC.
- Chait, Robin, Naomi Housman, and Rob Muller. Forthcoming. *Academic Interventions to Help Students Meet Rigorous Standards*. Washington, DC: National High School Alliance.
- Education Trust. November 2005. *Gaining Traction, Gaining Ground: How Some High Schools are Accelerating Learning for Struggling Students*. Washington, DC: The Education Trust.
- Jerald, Craig D. June 2006. *Identifying Potential Dropouts: Key Lessons for Building an Early Warning Data System. A Dual Agenda of High Standards and High Graduation Rates*. Washington, DC: Achieve, Inc. and Boston: Jobs for the Future.
- Just for the Kids. 2006. *Best Practice Studies and Institutes: Findings from 20 States*. www.just4kids.org/jftk/twenty_states.cfm.
- Lynch, Joellen. 2006. "Developing and Strengthening Schools and Programs that Lead to High School Graduation and Post-secondary Opportunities for Overage, Under-credited Youth." Council of Chief State School Officers, Secondary School Redesign Conference, June 7, Atlanta, GA.
- Massachusetts Board of Higher Education. 2007. *Final Report of the Task Force on Retention and Completion Rates at the Community Colleges*. Available at www.mass.edu/p_p/home.asp.
- Massachusetts Department of Education. 2006. *Creating a High School Curriculum for College and Career Readiness*. Background paper prepared by the working committee for the Massachusetts Department of Education and State Board of Education. Available online at www.doe.mass.edu/hreform/cccr.
- Mazzeo, Christopher, Ilene Berman and others. 2003. *Reaching New Heights: Turning Around Low-Performing Schools. A Guide for Governors*. Washington, DC: National Governors Association.
- Pathways to Success by 21 Initiative and Department of Education. 2007. *Raising Graduation Rates in Massachusetts: The Power of Community Partnerships. A Report of the Pathways to Success by 21 Initiative*. http://p21.us/resources/Raising_Graduation_Rates_in_Massachusetts.pdf.
- Postsecondary Education Opportunity. 2006. "Median Family Income in Constant 2004 Dollars: 1974 and 2004." www.postsecondary.org/archives/Posters/MedFamInc04.pdf.
- Roderick, Melissa. 2006. *Closing the Aspirations-Attainment Gap: Implications for High School Reform. A Commentary from Chicago*. New York: MDRC, Inc.
- Quint, Janet. 2006. *Meeting Five Critical Challenges of High School Reform: Lessons from Research on Three Reform Models*. New York: MDRC, Inc.
- Steinberg, Adria, Cassius Johnson, and Hilary Pennington. 2006. *Addressing America's Dropout Challenge: State Efforts to Boost Graduation Require Federal Support*. Washington, DC: Center for American Progress and Boston: Jobs for the Future.
- Sum, Andrew, Ishwar Khatiwada, Joseph McLaughlin, et al. 2007. *An Assessment of the Labor Market, Income, Health, Social, Civic and Fiscal Consequences of Dropping Out of High School: Findings for Massachusetts Adults in the 21st Century*. Paper prepared for the Boston Youth Transition Funders Group, Boston, MA. www.bostonpic.org/youth/g.htm.
- Vargas, Joel. 2006. "Creating and Sustaining Early College High Schools: State Policies that Support 9-14 Education." *The State Education Standard*. Washington, DC: National Association of State Boards of Education.

Endnotes

- ¹ See, for example, Bridgeland, Dilulio, & Morison (2006) and Postsecondary Education Opportunity (2006).
- ² Massachusetts four-year graduation rates by state, district, and school and for subgroups are available at www.doe.mass.edu/infoservices/reports/gradrates/06state.html.
- ³ Source: National Center for Education Statistics, Condition of Education 2004, Indicator 18.
- ⁴ One of the cornerstones of the federal No Child Left Behind Act of 2001, Adequate Yearly Progress is the measure by which schools, districts, and states are held accountable for student performance overall and by subgroups. All public schools, school districts, and states are evaluated for AYP based on year-to-year performance and improvement targets for student academic achievement, attendance, and graduation rates (high schools only).
- ⁵ Unlike the tenth-grade subject matter ELA, math, and proposed history/social studies MCAS tests; to achieve a competency determination in science and technology/engineering, students must pass one of four discipline-specific tests in biology, chemistry, physics, and technology/engineering.
- ⁶ The 14 districts are Boston, Brockton, Chelsea, Chicopee, Fall River, Haverhill, Holyoke, Lawrence, Lowell, Lynn, New Bedford, Revere, Somerville, and Springfield.
- ⁷ See for example, Mazzeo, Berman, and others (2003), Steinberg, Johnson, and Pennington (2006), and Bill & Melinda Gates Foundation (2005).
- ⁸ See, for example, Quint (2006), Just for the Kids Best Practice Studies and Institutes (2006), and Education Trust (2005).
- ⁹ Commonwealth charter schools are managed by boards of trustees and operate independently of any school committee. In contrast, Horace Mann charters are district-operated charter schools that require the approval of the local school committee and local teacher's union in addition to the Board of Education. Nine of the fifty-nine charters are high schools, and an additional twenty-four schools serve high school students through middle/high and K-12 configurations.
- ¹⁰ For up-to-date information and statistics on the Early College High School Initiative, see www.earlycolleges.org.
- ¹¹ For more information, see www.newschoolsproject.org.



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