

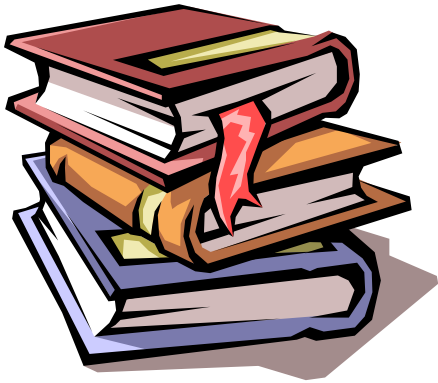
College and Career Readiness: Definition

Being college and career ready means that an individual has the knowledge and skills necessary for success in postsecondary education and economically viable career pathways in a 21st century economy



So what is MassCore?

MassCore is currently the state RECOMMENDED program of study. It contains a rigorous list of courses and additional learning opportunities to provide a college and career ready academic career for high school students.



MassCore

English/Language Arts	4 Units
Mathematics	4 Units Including the completion of Algebra II or completion of the Integrated Math equivalent. All students are recommended to take a math course during their senior year.
Science	3 Units of lab-based science Coursework taken in technology/engineering may count for MassCore science credit.
History/Social Science	3 Units Including US History and World History.
Foreign Language	2 Units Of the same language.
Physical Education	As required by law State law (M.G.L. c. 71, s. 3) states: "Physical education shall be taught as a required subject in all grades for all students."
Arts	1 Unit
Additional Core Courses	5 Units Other additional coursework (including CTE) or any of the courses above
Additional Learning Opportunities	22 Units - Is a minimum that students should take in high school

What are Additional Learning Opportunities?

The inclusion of additional learning opportunities in MassCore is intended to provide students with exposure to advanced educational experiences beyond the core course of study

- **Advanced Placement (AP)** provides the opportunity to take college-level courses while still in high school. There are 37 AP courses in 22 subject areas.

- **Capstone or Senior Project** is designed to help students develop, design or create a product, service, system or event to better prepare them for further studies or employment after high school. The project should be a demonstration of a student's achievement of skills such as critical thinking, reading comprehension, and effective communication. Students are expected to demonstrate self-directed learning in the completion of this task.

- **Dual Enrollment** is a program of study allowing high school students to simultaneously earn credits toward a high school diploma and a postsecondary degree or certificate.

- **Taking an Online course** for high school or college credit will likely prepare students for another modality of academic instruction that will become more prevalent in students' postsecondary education and career.

- **Service Learning** is a method whereby students learn and develop through active participation in thoughtfully organized service that is conducted in, meets the needs of communities and is integrated into and enhances the academic curriculum of the students.

- **Work-based Learning experiences** are activities at the high school level that involve actual work experience or connect classroom learning to work. At the highest level, there is full integration of academic and vocational/occupational curriculum with work site experience



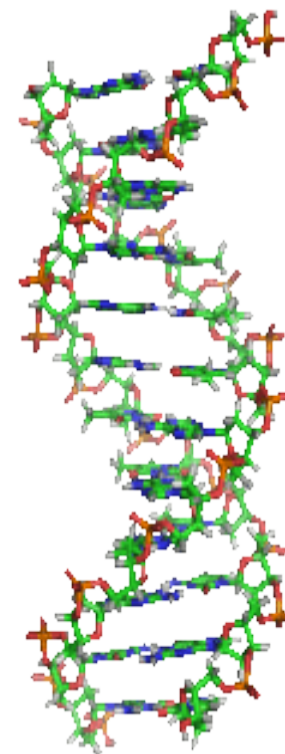
Some Details on MassCore

- A unit represents a full academic year of study or its equivalent in a subject that covers all the standards contained in a specific Curriculum Framework.
- Students enrolled in a state-approved Career and Technical Education program of studies have the option of opting out of Foreign Language and Art and still fulfill MassCore.
- MassCore is the recommended program of study of at least 22 units that Massachusetts high school students need in order to be better prepared for college and a career. Developed by a statewide advisory group from the K-12, higher education and business sectors, MassCore maintains flexibility for students and high schools while allowing districts to set additional graduation requirements. Courses included in MassCore should be rigorous, engaging, and based on appropriate Massachusetts Curriculum Frameworks high school level standards.



FLEXIBILITY

The intent of this core is to provide some flexibility to allow students to take the coursework necessary to meet their social and academic goals.

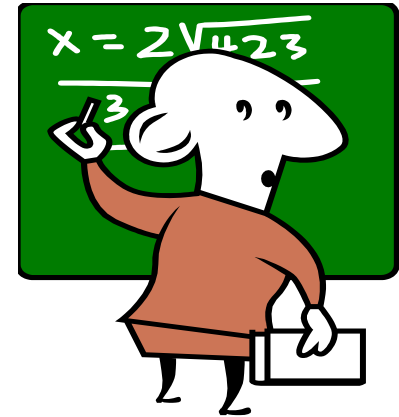


SUCCESS AFTER HIGH SCHOOL



What is MassCore: An Academic Foundation with Standards and Assessments

The Massachusetts Curriculum Frameworks are a common element across all schools and districts and include the newly adopted Common Core state standards.



Common Core puts a greater emphasis on earlier mathematics preparation, technical reading and writing across content areas and college and career readiness. Implementation of the new Curriculum Frameworks provide an ideal opportunity to examine high school coursework.

Why is a rigorous high school course of study important?

Students who complete rigorous coursework in high school have more—and better—options after high school graduation. They are better equipped to advance to higher education, succeed in workplace and military training programs, and/or resume their education in preparation for a career change at a later date. A solid academic foundation in high school benefits every student, regardless of ethnicity and socioeconomic status. Students from lower-income families tend to derive the greatest benefit from a rigorous course of study.

Robert Shireman, Center for Studies in Higher Education, 2004

Source: Shireman, R. (2004). "RIGOROUS COURSES" AND STUDENT ACHIEVEMENT IN HIGH SCHOOL: AN OPTIONS PAPER FOR THE GOVERNOR OF CALIFORNIA



Why MassCore?

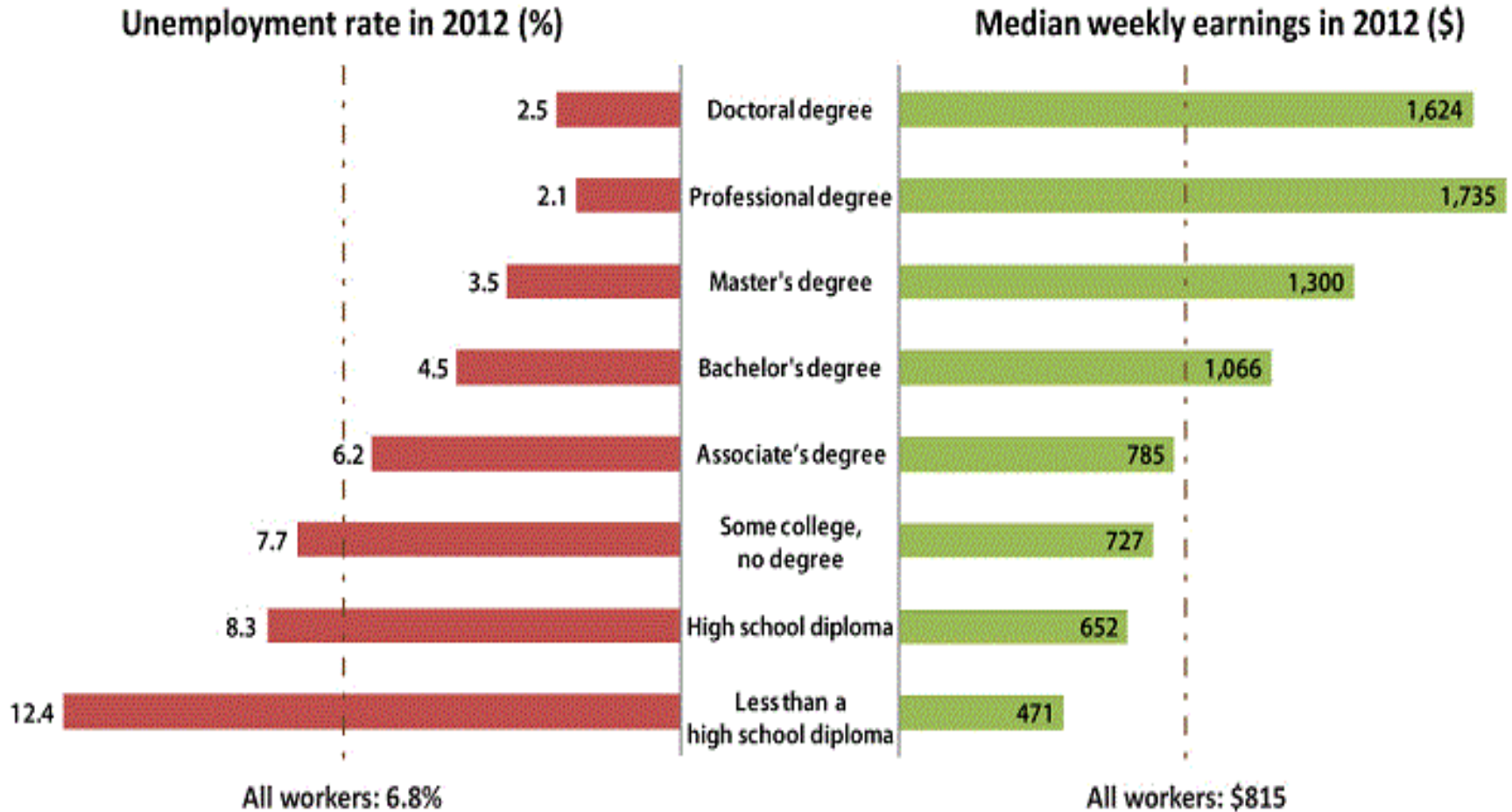
“The academic intensity of the student's high school curriculum still counts more than anything else in precollegiate history in providing momentum toward completing a bachelor's degree.”

Cliff Adelman, *The Toolbox Revisited*



Why MassCore? Education Pays:

Earnings and unemployment rates by educational attainment



Source: Bureau of Labor Statistics, Current Population Survey

Why MassCore?

A large percentage of students enrolling in public higher education enroll in remedial/developmental college coursework

	2008	2009	2010	2011	2012
# in Public College	22406	24479	23594	23261	23125
# in Developmental Courses	8348	9082	8572	8457	8411
%in Developmental Courses	37.3%	37.1%	36.3%	36.4%	36.8%



and about 2/3 of students attending Massachusetts Community Colleges took at least one developmental education class



Why MassCore? Massachusetts public 4 Year Colleges and Universities are increasing their minimum admission standards to reflect a more rigorous course of study

Requirement for college freshman class entering...						
Subject	Fall 2012	Fall 2013	Fall 2014	Fall 2015	Fall 2016	Fall 2017 and beyond
English	4 courses					
Mathematics	3 courses (Algebra I & II and Geometry or Trigonometry or comparable coursework)				4 courses (Algebra I & II and Geometry or Trigonometry, or comparable coursework) including mathematics during the final year of high school	
Sciences	3 courses (drawn from Natural Science and/or Physical Science and/or Technology/ Engineering; including 2 courses with laboratory work); <i>Technology/engineering courses must be designated as science courses (taken for science credit) by the high school</i>				3 courses (drawn from Natural Science and/or Physical Science and/or Technology/ Engineering), including 3 courses with laboratory work	
Social Sciences	2 courses (including 1 course in U.S. History)					
Foreign Languages	2 courses (in a single language)					
Electives	2 courses (from the above subjects or from the Arts & Humanities or Computer Sciences)					

Looking at MassCore Data



Where Do We Stand in MassCore Completion?

Completion is fairly stagnant but growing as more districts incorporate MassCore into their local graduation requirements

	2010	2011	2012	2013	2014
Total Graduates	65,058	64,725	65,159	66,359	65,540
# Completed	45,386	44,752	44,571	46,601	47,481
% Completed	70%	69%	68%	70%	72.4%



Where Do We Stand in MassCore Completion for school year 2014 Graduates

- Overall: 72.4%

- Selected Subgroups Statewide

Low Income 58.9%
Students with Disabilities 62.6%
LEP/ELL 42.5%

Asian 72.5%
African American/Black 51.7%
Hispanic/Latino 57.5%
White 77.6%



SUCCESS AFTER HIGH SCHOOL



Just to complicate things

MassCore Completion is Based on the Number of Students who actually graduate.

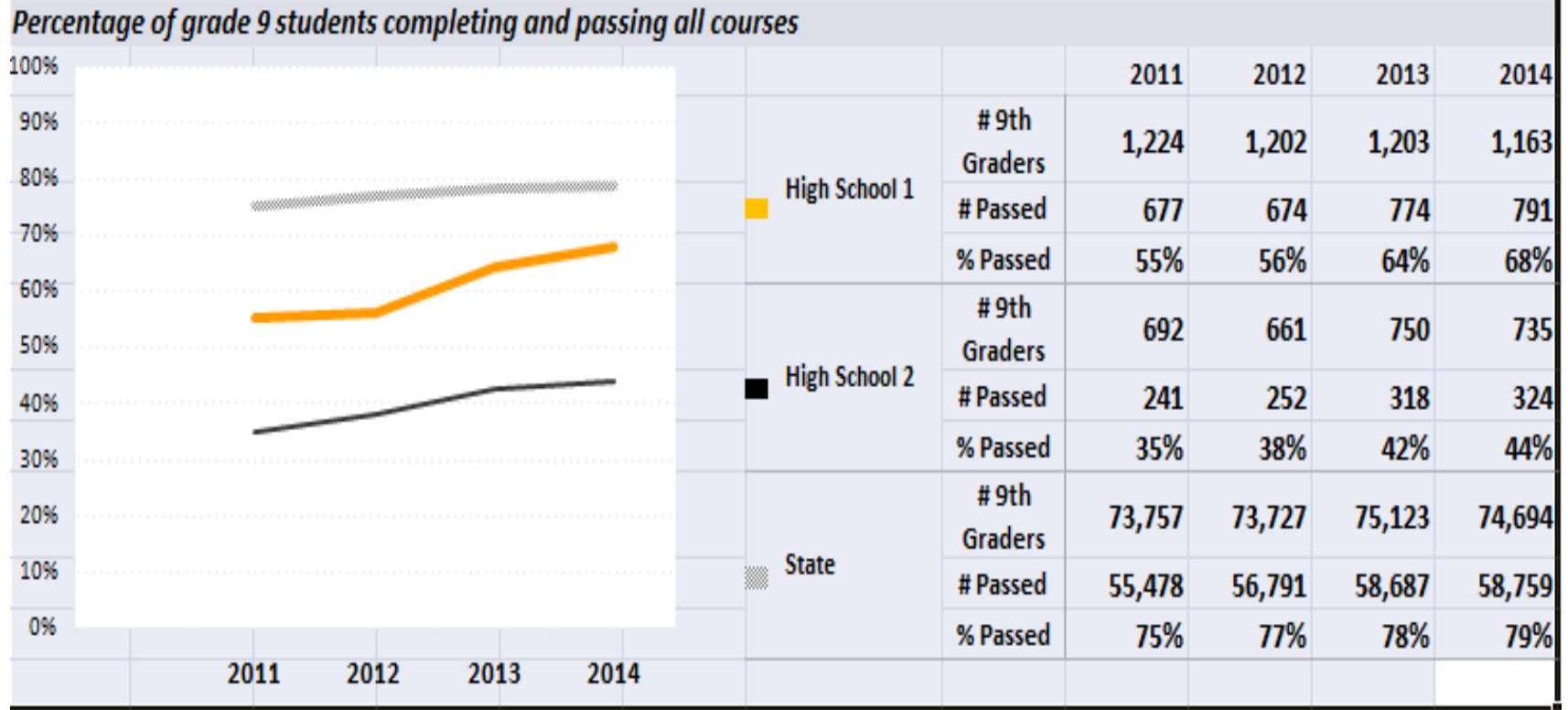
It is not based on the cohort that enters ninth grade together in the district. This means that a very small number of students at some of our schools that enter 9th grade end up graduating and academically prepared for college and career



Increasing the Numbers of Students Completing MassCore



Across the state, over 20% of 9th graders fail at least one course



• Source: [DART SAHS](#)



For First Time 9th Graders 2013-14 Course Passing

Group	Total State	Total Urban	All Courses Passed		Not All Courses Passed	
			State	Urban	State	Urban
White	46,708	5,815	86.7%	73.0%	13.3%	27.0%
Hispanic	11,669	7,732	61.5%	54.0%	38.5%	46.0%
Black/ Afr. Amer.	6,181	3,665	66.6%	62.9%	33.4%	37.1%
Asian	3,927	1,541	90.7%	83.0%	9.3%	17.0%
Low Income	26,559	14,042	64.9%	58.5%	35.1%	41.5%
ELL	4,567	3,632	55.6%	51.8%	44.4%	48.2%
Students w/disabilities	11,261	3,417	67.3%	52.1%	32.7%	47.9%
High Needs	31,296	14,134	68.4%	59.7%	31.6%	40.3%

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First Time 9th Graders 2013-14

Course Name	Number of Students Failing - State	Percent of Students Not Passing All Courses N=13,569
Algebra I (incl. Parts I and II)	4,918	36.2%
Geometry	401	3.0%
Biology	2,507	18.5%
ELA	3,696	27.2%
Physics	1,032	7.6%
World History	1,874	13.8%
US History	1,502	11.1%

Course Name	Number of Students Failing - Urban	Percent of Students Not Passing All Courses N=6,925
Algebra I (incl. Parts I and II)	2,874	41.5%
Geometry	186	2.7%
Biology	1,538	22.2%
ELA	2,104	30.4%
Physics	806	11.6%
World History	1,090	15.7%
US History	1,099	15.9%

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Using EWIS



EW301 Early Warning Indicator System (EWIS) District View

EWIS as of Dec-2014 for the 2014-2015 School Year for students currently enrolled in the 2014-2015 School Year

Grade Level: 07, 08, 09

	Total Enrollment	High		Moderate		Low		N/A	
	#	#	%	#	%	#	%	#	%
STATE	222,858	32,089	14.4	47,012	21.1	134,896	60.5	8,861	4.0
Grade: 07	72,030	13,542	18.8	16,417	22.8	39,860	55.3	2,211	3.1
Grade: 08	73,118	8,276	11.3	14,834	20.3	48,140	65.8	1,868	2.6
Grade: 09	77,710	10,271	13.2	15,761	20.3	46,896	60.3	4,782	6.2

- The outcome indicator for EWIS for 7th, 8th and 9th graders is risk of not passing all ninth grade coursework, this tool is ideal for helping to flag/identify students who may be in need of assistance.



Risks

Generally....

- ★ Students failing coursework early in their high school careers
- ★ Resources for staff to teach and to develop appropriate coursework to meet MassCore requirements
- ★ Students who are unprepared for a rigorous course of study (pipeline and new arrivals)
- ★ Lack of incentives for students to complete MassCore
- ★ Collection of accurate data for decision making

Course Specific...

- ★ Appropriate math pathways for students (esp. year 4)
- ★ Foreign/Modern Language
- ★ The Arts
- ★ Access to appropriate Science, Technology and Engineering courses
- ★ Maintenance of a course balance for all students, i.e. "my students have too many/not enough <insert course here>"
- ★ Meeting state law around the physical education requirement



Critical Statewide Issues

- ★ **Access**-The creation of appropriate rigorous coursework and pedagogy for students to access a rigorous high school program of study
- ★ **Opportunity**-The preparation of students along a K-12 continuum to engage in a rigorous program of study.
- ★ **Support**-The support of tutoring, counseling and other college and career readiness activities to assist and engage students during a rigorous high school program of study



Guiding Questions for further discussion

- ★ What are the biggest barriers to completing MassCore?
- ★ How are your district leaders helping you implement MassCore?
- ★ How do school counselors and others promote MassCore completion for students?
- ★ What are critical content areas and gaps in completing MassCore? What have been some of the solutions in this area?
- ★ Have the changes around the Mass. Curriculum Frameworks (particularly Common Core) been incorporated into work around MassCore?
- ★ Has your district addressed any issues of credit acceleration/recovery, competency based instruction and MassCore
- ★ Has there been any work with local institutions of higher education and workforce development in the completion of MassCore?
- ★ How can the Commonwealth as a whole encourage the completion of MassCore?

