

# RESOURCE GUIDE: Indicators and Data Sources

All indicators refer to students in Massachusetts public education systems, unless otherwise noted.

## KEY DEFINITIONS

**High needs** “High needs” is defined by the Massachusetts Department of Elementary and Secondary Education as all students belonging to any of the following student subgroups: low-income, students with disabilities, English language learner/former English language learner.

**STEM** Science, technology, engineering and mathematics (STEM) related indicators.

 Trend data highlighted.

**MCAS** The Massachusetts Comprehensive Assessment System (MCAS) is a legally-required testing program that must: test all public school students; measure performance based on the Massachusetts Curriculum Framework learning standards; and report on the performance of individual students, schools, and districts. Students may score in one of four achievement levels: advanced, proficient, needs improvement, or warning/failing.

## Readiness & Early Learning

*focus: birth through third grade*

Children’s first few years are characterized by enormous cognitive, social, and emotional growth. Quality early learning experiences create a strong foundation for future success and are linked to improved academic performance. Critical factors include ensuring access to high-quality early education and care, assessing school readiness, and providing full-day kindergarten to ensure all children are on track to be proficient readers by third grade.

### Students scoring proficient or advanced on the 3rd grade English language arts MCAS

**60%** (2015)

all students  
up 3% from 2014

**38%** (2015)

high needs  
no change from 2014

**All students:** Percent of all students in grade 3 scoring “proficient” or “advanced” on the English language arts MCAS

**High needs students:** Percent of high needs students in grade 3 scoring “proficient” or “advanced” on the English language arts MCAS

Source: Massachusetts Department of Elementary and Secondary Education: *MCAS Report for Grade 3 Students*; school year 2015 (fall 2014–spring 2015) and school year 2014 (fall 2013–spring 2014)

### Children aged 0-5 eligible for a subsidy and enrolled in high-quality early education programs

**67%** (2015)

up 3% from 2014

Percent of children aged 0-5 eligible for financial assistance administered through the Massachusetts Department of Early Education and Care and enrolled in high-quality early education programs

**Additional information:** The Massachusetts Department of Early Education and Care (EEC) uses a Quality Rating and Improvement System (QRIS) to assess, improve, and communicate the level of quality in early education and care settings. Following the system’s launch in 2011, programs submitted applications to EEC to join the QRIS and be granted a level of quality. This is based off of programs’ self-assessed rating and not EEC granted ratings. EEC defines programs self-assessed at level 2 or above as “high quality” programs.

Source: Massachusetts Department of Early Education and Care: data provided by staff

### Students assessed on the Massachusetts kindergarten entry assessment

**73%** (2015)

up 42% from 2014  
up 63% from 2013 

Percent of all kindergarten students who were assessed on the Massachusetts kindergarten entry assessment

**Additional information:** In collaboration with the Department of Elementary and Secondary Education, EEC is implementing the Massachusetts Kindergarten Entry Assessment (MKEA) system, which will support school districts in using a formative assessment tool that measures growth and learning across all developmental domains during the child’s kindergarten year. As part of the MKEA initiative school districts will use a formative assessment tool, Teaching Strategies GOLD, that is evidence based and aligned with the Massachusetts Curriculum Frameworks.

Source: Massachusetts Department of Early Education and Care: data provided by staff; Massachusetts Executive Office of Education: *Commonwealth of Massachusetts 2014 Performance Report*; *Enrollment by Grade Report*; school year 2015 (fall 2014–spring 2015); school year 2014 (fall 2013–spring 2014).

### Students attending full-day kindergarten

**92%** (2015)

up 3.4% from 2014

Percent of all kindergarten students attending full-day kindergarten programs

Source: Massachusetts Department of Elementary and Secondary Education: *Kindergarten Enrollment for All Students*; school year 2015 (fall 2014–spring 2015); school year 2014 (fall 2013–spring 2014); school year 2012 (fall 2011–spring 2012)

## Performance & Engagement

*focus: fourth grade through eighth grade*

Massachusetts has earned a reputation as a national leader in education by setting high expectations and promoting rigorous content standards and aligned assessments. Equally important is an emerging commitment to support strategies that allow all students to focus on learning challenging content. This means creating inclusive school and classroom settings that promote academic achievement, while attending to the needs of the Commonwealth's most at-risk populations.

### STEM Students scoring proficient or advanced on the 8th grade math MCAS

**60%** (2015)

all students  
up 8% from 2014   
up 8% from 2012

**All students:** Percent of all students in grade 8 scoring “proficient” or “advanced” on the mathematics MCAS

**High needs students:** Percent of high needs students in grade 8 scoring “proficient” or “advanced” on the mathematics MCAS

Source: Massachusetts Department of Elementary and Secondary Education: *MCAS Report for Grade 8 Students*; school year 2015 (fall 2014–spring 2015); school year 2014 (fall 2013–spring 2014)

**36%** (2015)

high needs  
up 6% from 2014   
up 7% from 2012

### Students transferring into or out of a school during the school year

**9%** (2015)

up 0.4% from 2014

Percent of all students transferring into or out of a school within a school year

**Additional information:** This indicator is the statewide “churn rate,” representing students enrolled in public schools that are not reported as enrolled in the same school throughout the year. This is one of multiple measures used to assess student mobility.

Source: Massachusetts Department of Elementary and Secondary Education: data provided by staff; school year 2015 (fall 2014–spring 2015) and school year 2014 (fall 2013–spring 2014)

### Students absent from school 10% or more of days enrolled

**13%** (2015)

up 0.6% from 2014

Percent of students absent more than 10% of the days they are enrolled in school

**Additional information:** This indicator is commonly referred to as the “chronic absence” or “chronic absenteeism” rate.

Source: Massachusetts Department of Elementary and Secondary Education: data provided by staff; school year 2015 (fall 2014–spring 2015) and school year 2014 (fall 2013–spring 2014).

### Students with Individualized Education Programs (IEPs) spending 80% or more of their day in inclusive settings

**60%** (2013)

up 0.8% from 2012

Percent of students aged 6-21 with Individualized Education Programs (IEPs) who are served inside a general education classroom 80% or more of the day.

**Additional information:** An IEP is a legal document mandated by the federal Individuals with Disabilities Education Act that defines a specialized set of education services provided to a student with a disability, including all students with a special education designation.

Source: U.S. Department of Education: *Part B State Performance Plan and Annual Performance Report State Determination Letters 2015*, Massachusetts Data Display; Massachusetts Department of Elementary and Secondary Education: *Mass Part B State Performance Plan for FY2005-2012, Annual update 2011*; federal fiscal year 2011 (October 1, 2010–September 30, 2011) and federal fiscal year 2010 (October 1, 2009–September 30, 2010)

## Preparation & Transitions

### focus: ninth grade through high school graduation

A high school diploma must constitute a range of learning experiences that ensure college and career readiness. Critical steps include completion of ninth grade coursework and mastery of a rigorous program of study. Steps must also be taken to prevent students from dropping out, as well as to reengage and recover youth disconnected from school and/or employment to ensure future learning and success.

### Students graduating from high school in four years

**86%** (2014)

up 1.1% from 2013

Percent of students who graduate with a regular high school diploma within four years

Source: Massachusetts Department of Elementary and Secondary Education: *4-Year Graduation Rate Report for All Students*; school year 2014 (fall 2013–spring 2014) and school year 2013 (fall 2012–spring 2013)

### Students passing all 9th grade courses

**79%** (2015)

No change from 2014

Percent of students in grade 9 taking and passing all of their coursework

**Additional information:** Students were considered “passing” a course if they received a letter mark of D- or higher; a categorical mark of passing, minimally acceptable, acceptable, good or outstanding; a numeric mark of 59.5 or higher; or received full credit in a credit-bearing course.

Source: Massachusetts Department of Elementary and Secondary Education: data provided by staff; school year 2015 (fall 2014–spring 2015) and school year 2014 (fall 2013–spring 2014)

### STEM Students completing MassCore coursework

**72%** (2014)

all students

up 2.2% from 2013

up 3.3% from 2011

**All students:** Percent of all public high school graduates who complete the MassCore program of studies

**High needs students:** Percent of high needs public high school graduates who complete the MassCore program of studies

**Additional information:** The Massachusetts High School Program of Studies (MassCore) recommends a comprehensive program of studies for students to complete before graduating from high school. The program includes: four years of English, four years of mathematics, three years of lab-based science, three years of history, two years of the same foreign language, one year of arts, and five additional courses. MassCore also includes additional learning opportunities, such as Advanced Placement classes, dual enrollment, a senior project, online courses for high school or college credit, and service or work-based learning.

Source: Massachusetts Department of Elementary and Secondary Education: *MassCore Completion Report for All Students*; school year 2014 (fall 2013–spring 2014); school year 2013 (fall 2012–spring 2013); school year 2011 (fall 2010–spring 2011)

**61%** (2014)

high needs

up 2% from 2013

up 4.5% from 2011

### Youth aged 16–24 neither in school nor employed

**9%** (2013–2014)

down 0.4% from

2012–2013 two

year average

Percent of 16–24 year olds in Massachusetts who are both out of school and out of work

**Additional information:** These youth, often referred to as “disconnected” or “opportunity” youth, may or may not have completed a high school diploma or General Educational Development (GED) credential. They also may or may not have enrolled in and attended a postsecondary education institution at some point.

Source: U.S. Census Bureau: American Community Survey; Tabulations prepared by staff at the Boston Private Industry Council; two year average of 2013–2014 and two year average of 2012–2013

## Progress & Attainment

*focus: postsecondary to career*

Today's knowledge economy has set an expectation for students to complete a postsecondary degree or credential. However, a substantial number of high school graduates remain unprepared for college coursework and place into developmental (remedial) courses at college entry. Ensuring completion of academic programs at two- and four-year institutions, while providing students with marketable skills, especially in the STEM and health fields, is important to sustaining our economic productivity.

### Massachusetts adults with a bachelor's degree or higher

**41%** (2014)

up 1% from 2013

Percent of all adults in Massachusetts aged 25 and over with a bachelor's degree, graduate degree, professional, or doctoral degree

**Additional information:** This indicator is often referred to as the "educational attainment rate."

Source: U.S. Census Bureau: American Community Survey, 1-year Estimates; 2014 and 2013

### Students enrolled in developmental (remedial) courses in college

**32%** (2014)

down 2.1%  
from 2013

down 4.7%  
from 2011



Percent of all first-time, full-time, degree-seeking students who graduated from a Massachusetts public high school the previous year and who enrolled in at least one developmental (remedial) course when enrolling at a Massachusetts public institution of higher education (a community college, state university, or University of Massachusetts)

**Additional information:** Developmental—often referred to as remedial—courses are designed to prepare students for college-level work and do not count toward a degree. Students typically enroll in these courses based on placement exam performance.

Source: Massachusetts Department of Higher Education: data provided by staff; fall 2014, fall 2013, fall 2011

### Community college students earning degree/certificate, 30+ credits, or transferring to four-year institution in six years

**47%** (2013)

down 0.5% from  
2012

Percent of first-time, degree-seeking Massachusetts community college students who, within six years of initial enrollment, earn an associate's degree or certificate, transfer to a four-year institution, or are still enrolled with at least 30 credits earned

**Additional information:** This indicator represents a Six-Year Community College Student Success Rate, developed by the Achieving the Dream state data team in consultation with Jobs for the Future. The rate recognizes the complex mission of community colleges, by expanding on the outcome indicators tracked by federal reporting. It includes the performance of both full- and part-time students, increases the time frame for tracking student outcomes to six years, and extends the list of successful outcomes to include transferring to a four-year institution and having made substantial progress toward a degree.

Source: Massachusetts Department of Higher Education: data provided by staff; fall 2013 (cohort entering fall 2006) and fall 2012 (cohort entering fall 2005)

### Students graduating from UMass and state universities within six years

**61%** (2013)

UMass  
up 1.4% from 2012

**54%** (2013)

state univ.  
up 1.3% from 2012

**UMass:** Percent of all first-time, full-time, bachelor's degree-seeking students graduating from the University of Massachusetts (UMass) within six years of initial enrollment

**State universities:** Percent of all first-time, full-time, bachelor's degree-seeking students graduating from a state university (does not include UMass) within six years of initial enrollment

Source: Massachusetts Department of Higher Education; data provided by staff and to be included in the forthcoming VISION project spring 2016.

### STEM Postsecondary degrees/certificates awarded in science, technology, engineering, math, & health fields

**31%** (2015)

up 0.1% from 2014

Percent of all postsecondary undergraduate and graduate degrees and certificates awarded in science, technology, engineering, mathematics, and health fields in Massachusetts' public institutions of higher education

Source: Massachusetts Department of Higher Education: data provided by staff; fiscal year 2015 (July 1, 2014–June 30, 2015) and fiscal year 2014 (July 1, 2013–June 30, 2014)

## Prepared & Effective Educators

To accomplish its goals for education, the Commonwealth needs a well-prepared and effective educator workforce. This includes strong preparation and appropriate credentials for school leaders and teachers, including those educating our youngest learners and special needs students. Educators must demonstrate significant content knowledge and engage in evaluation processes that allow for continuous improvement in their craft.

### Teachers evaluated as proficient or exemplary

*data not yet available*

Percent of all K-12 educators achieving proficient or exemplary rating on the Massachusetts Framework for Educator Evaluation

**Additional information:** In 2011, the Board of Elementary and Secondary Education adopted new regulations for the evaluation of Massachusetts educators. The Department of Elementary and Secondary Education began a multi-stage implementation process for educator evaluation in the 2012-13 school year.

*Source: Massachusetts Department of Elementary and Secondary Education: data forthcoming.*

### Early and out-of-school time educators with a bachelor's degree or higher

**40%** (2015)

up 10% from 2014  
up 9.6% from 2013

Percent of all educators in family, small group and school age, and large group and school age child care with a bachelor's degree, graduate degree, professional, or doctoral degree who self-report in the Professional Qualifications Registry

**Additional information:** The Massachusetts Department of Early Education and Care (EEC) licenses three types of child care settings: family; small group and school age; and large group and school age. Family programs may serve up to ten children from infants through school age in a provider's home. Small group and school age programs provide care and education for ten or fewer children younger than age 14 (16 if the child has special needs) part- or all-day outside a child's home or school. Large group and school age programs provide care and education for over ten children younger than age 14 (16 if the child has special needs) part- or all-day outside a child's home or school. Early education providers are defined as Early Intervention, Family Child Care, Family Child Care system, Group Child Care, Head Start, other and public preschool. Please note this is not exclusively classroom teachers, lead teachers, assistant teachers, etc. but may include other non-classroom based staff. All educators, including assistants, working in child care settings licensed by EEC are required to register in the Professional Qualifications Registry.

*Source: Massachusetts Department of Early Education and Care: data provided by staff; fall 2015; fall 2014; fall 2013*

### Teachers graduating from a Massachusetts preparation program employed in schools for at least two years

**93%** (2014)

down 0.3% from 2013

Percent of all K-12 teachers graduating from a Massachusetts teacher preparation program who remain employed in a public school for two years or more

**Additional information:** Following adoption of new Regulations for Educator Licensure and Preparation Program Approval in 2012, employment is determined by matching program completers reported by preparation program providers with employment data collected from districts in the Education Personnel Information Management System (EPIMS).

*Source: Massachusetts Department of Elementary and Secondary Education: 2014 Ed Prep Employment by Year.*

### License waivers issued are for special education positions

**63%** (2015)

down 3.3% from 2014

Percent of all license waivers issued are for special education positions

**Additional information:** For all open educator positions, a school district must demonstrate a good faith effort to hire a licensed educator. If a district experiences a great hardship in securing a qualified candidate, a superintendent may apply for a waiver from the Commissioner. The first waiver exempts the district for 1 school year from the requirement to employ licensed personnel for an open position. For subsequent waivers, the district must document the educator is making progress toward meeting the requirements for licensure in the field in which they are employed.

*Source: Massachusetts Department of Elementary and Secondary Education: data provided by staff; school year 2015 (fall 2014–spring 2015); school year 2013 (fall 2012–spring 2013)*

### STEM 8th grade math teachers with an undergraduate major/minor in math or math education

**53%** (2015)

down 2% from 2013

Percent of grade 8 mathematics public school teachers who report an emphasis on mathematics as part of their undergraduate coursework; other mathematics is defined as related subjects such as statistics or physics.

**Additional information:** This indicator currently draws upon self-report data from the National Assessment of Educational Progress teacher survey. Please note the change in indicator from last year's report featuring 8th grade math teachers with an undergraduate major/minor in math or science, this same data point for 2015 is not available at this time. Additionally, please note the data source may change in future iterations of the Condition of Education report.

*Source: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2013 and 2015 Mathematics Assessments.*