

# **From MCAS to College:**

**Educational Milestones and Postsecondary Success in Massachusetts** 

By Dr. Kerry L. Donahue





# **MISSION**

Pioneer Institute develops and communicates dynamic ideas that advance prosperity and a vibrant civic life in Massachusetts and beyond.

#### **Vision**

Success for Pioneer is when the citizens of our state and nation prosper and our society thrives because we enjoy world-class options in education, healthcare, transportation, and economic opportunity, and when our government is limited, accountable, and transparent.

#### **Values**

Pioneer believes that America is at its best when our citizenry is well-educated, committed to liberty, personal responsibility, and free enterprise, and both willing and able to test their beliefs based on facts and the free exchange of ideas.



#### This paper is a publication of Pioneer Education,

which seeks to increase the education options available to parents and students, drive system-wide reform, and ensure accountability in public education. The Center's work builds on Pioneer's legacy as a recognized leader in the charter public school movement, and as a champion of greater academic rigor in Massachusetts' elementary and secondary schools. Current initiatives promote choice and competition, school-based management, and enhanced academic performance in public schools.



Pioneer Health seeks to refocus the Massachusetts conversation about healthcare costs away from government-imposed interventions, toward market-based reforms. Current initiatives include driving public discourse on Medicaid, presenting a strong consumer perspective as the state considers a dramatic overhaul of the healthcare payment process, and supporting thoughtful tort reforms.



Pioneer Transportation seeks reforms that allow commuters to take full advantage of the coming mobility revolution—with access to a range of affordable and on-demand public and private transportation options, as well as transit-friendly real estate development.



Pioneer Opportunity seeks to keep Massachusetts competitive by promoting a healthy business climate, transparent regulation, small business creation in urban areas, and sound environmental and development policy. Current initiatives promote market reforms to increase the supply of affordable housing, reduce the cost of doing business, and revitalize urban areas.

# **Table of Contents**

Executive Summary —	4
Introduction	4
Prior Research on MERA	6
Methodology —	6
Analysis —	7
Question 1 —	7
Question 2	10
Question 3	16
Conclusion ————————————————————————————————————	20
References	22
Endnotes —	23



# **Executive Summary**

This paper examines the long-term impact of the 1993 Massachusetts Education Reform Act (MERA) and the Massachusetts Comprehensive Assessment System (MCAS) on postsecondary education outcomes, with a focus on historically underserved students. MERA aimed to improve educational standards and close achievement gaps through the introduction of MCAS, a statewide assessment system, and the high school Competency Determination (CD) requirement for graduation. More than two decades later, questions remain about how these reforms have influenced students' readiness for and success in postsecondary education.

This analysis addresses three key areas:

- 1. Changes in 10th-grade MCAS performance over time
- 2. Student participation and success in key college readiness benchmarks such as advanced coursework, SAT, and high school graduation
- 3. Postsecondary enrollment and degree completion rates

#### **Key findings include**

- MCAS Performance: From 2001 to 2018, Massachusetts students significantly improved in 10th-grade Math and English Language Arts (ELA) scores. Progress was especially notable for low-income, Black, and Hispanic/Latino students. However, the introduction of the NextGen MCAS in 2019 and the COVID-19 pandemic have widened achievement gaps.
- College Readiness: In addition to improved MCAS scores, more students—especially Black,
  Hispanic/Latino, low-income, and English learners—completed advanced coursework, took
  the SAT and increased average SAT performance, and graduated from high school, indicating
  better preparation for postsecondary education. Nevertheless, gaps remain, particularly for
  English learners.
- Postsecondary Outcomes: As more students met college readiness milestones, college enrollment and degree attainment increased until 2019. This trend was evident as the student population became more racially, ethnically, linguistically and socioeconomically diverse. Notably, over 3,800 more low-income students from the high school class of 2014 earned postsecondary degrees compared to the class of 2006, far outpacing the growth of the low-income student population.

Overall, the findings highlight MERA's positive role in preparing more students, particularly from historically underrepresented groups, for postsecondary success. However, persistent gaps in MCAS performance continue to hinder many students from reaching college readiness milestones and obtaining postsecondary degrees. Proposed policy changes to eliminate the CD may weaken overall academic preparation without addressing the disparities that limit opportunities for marginalized students to earn postsecondary degrees. This proposed policy shift away from a statewide high school academic standard is especially harmful in Massachusetts, a state where the vast majority of current and future family-sustaining jobs rely on postsecondary degrees or certifications.

#### Introduction

The 1993 Massachusetts Education Reform Act (MERA) introduced sweeping changes to public education in Massachusetts. In a grand bargain that instituted educational standards, assessment, and accountability in exchange for increased and more equitable state funding, the law still stands out today as the most significant education legislation in the state's history and for becoming the template for decades of standards-based reform across the United States (Driscoll et al., 2005). Later legislation, like the Student Opportunity Act enacted in 2019, only sought to reinforce the MERA's approach, again strengthening the adequacy and equity of school funding (Lisinski, 2019).

Overall, the findings highlight MERA's positive role in preparing more students, particularly from historically underrepresented groups, for postsecondary success.

MERA was intended to raise the overall quality of public education in the state and close opportunity gaps arising from a locally based school funding system that reflected vast differences in education spending between high- and low-wealth Massachusetts communities. In addition, the law aimed to create more consistent educational standards to ensure that all students were receiving an education that prepared them for the state's fast-changing economy. MERA came on the heels of an influential report from the Massachusetts Business Alliance for Education (MBAE, 1991) arguing that Massachusetts' education system was ill-equipped for the demands of a technologically advanced economy and a Supreme Judicial Court Ruling against the state's school funding system (McDuffy vs. Executive Office of Education, 1993).

While 90 percent of Massachusetts residents over 25 now have a high school diploma and 46 percent have a bachelor's degree (U.S. Census, 2022), at the time MERA was passed the figures were 80 percent and 27 percent, respectively (U.S. Census, 1990). Without any common assessments or standards, state leaders, in 1993, had no way of knowing how students were doing in K–12 beyond locally reported graduation rates. This lack of transparency and consistency presented challenges for any effort to improve quality and boost long-term outcomes such as postsecondary educational attainment and workforce readiness. To address this challenge, MERA created a tool, the Massachusetts Comprehensive Assessment System (MCAS), which the state education agency would require school districts to administer to provide annual data on K–12 educational progress.

A critical component of MERA was setting a common high school graduation standard — the Competency Determination (CD). The CD went into effect in 2001 and required that students pass the 10th grade MCAS or obtain a waiver to receive a high school diploma. While many other states use standard graduation requirements in the form of required course credits, Massachusetts allows all local districts to set their own graduation requirements in addition to the CD. The CD intended to ensure that all students, regardless of their school location, were graduating from high school prepared for postsecondary education and the workforce.

MERA and the CD came about at a time of increasing concern about American competitiveness in the global economy, and whether American students were keeping up with rising world powers (National Commission on Excellence in Education, 1983). By the early 1990s, with Massachusetts—home to America's Technology Highway—playing a significant role, the internet was profoundly reshaping the economic landscape. Jobs in the Commonwealth increasingly demanded advanced skills in critical thinking, reading, writing, and mathematics. No longer would just a high school diploma be sufficient to earn a living wage in Massachusetts.

While not always consistent, MERA arguably launched two decades of educational progress. Massachusetts rose to number one on the National Assessment of Education Progress (NAEP), a position it has consistently maintained (Peyser, 2023). While the MCAS assessment changed over time, data from the MCAS, given in grades three through eight, showed consistent improvement before the COVID-19 pandemic (Candal, 2024). While several papers have examined the improvement on the MCAS over the last two decades, fewer have comprehensively looked at the state's progress in preparing students for postsecondary education over this period, even though it was a significant motivation for instituting common standards and assessments, and the high school CD graduation requirement.

This paper explores the aftermath of MERA and the institution of the CD and the impact these policies have had on the share of Massachusetts students who are meeting key postsecondary readiness milestones. The paper focuses on high school students and explores how 10th grade MCAS performance has changed over time and its relationship to postsecondary readiness and success.

Ultimately, this analysis finds that as student performance on the MCAS improved, so too did student readiness for and success in college. More Massachusetts students, and specifically more historically underserved students are prepared for and succeeding in postsecondary education since MERA and the establishment of the high school CD. Despite this, there is still much room for improvement to ensure that all students are equally prepared for life after high school.

While 90 percent of Massachusetts residents over 25 now have a high school diploma and 46 percent have a bachelor's degree (U.S. Census, 2022), at the time MERA was passed the figures were 80 percent and 27 percent, respectively.

## **Prior Research on MERA**

Understanding MERA's impact on student outcomes is challenging due to the breadth of the reform that was instituted in 1993. The policies impacted all Massachusetts schools and students. Analysis from Thomas Kane found that Massachusetts gains on the National Assessment of Educational Progress (NAEP) occurred only after the MCAS portion of MERA was introduced in 2001. This rapid progress of Massachusetts on the NAEP from 2001 to 2007 was dubbed the "Massachusetts Miracle" and is often attributed to the enactment of MERA, and in Kane's findings specifically the use of a common statewide assessment (Kane, 2014). A recent Pioneer Institute study also found that improvement in average state MCAS scores correlated with improvement on the NAEP (Candal, 2024). This improvement on MCAS and NAEP was consistent across student groups, despite the continued presence of large achievement gaps.

The most comprehensive research to date on the CD is from Annenberg Institute, which analyzed the relationship between the 10th grade MCAS and long-term student outcomes (Papay et al., 2020). Papay found that "scores on the grade 10 MCAS examinations—the last MCAS tests public-school students take in high school and the only ones with high-stakes consequences for students—predict longer-term educational attainments and labor market success, above and beyond typical markers of student advantage" (2020). In addition to the predictive power of MCAS, Papay specifically examined the impact of meeting the state's CD threshold and found that when comparing demographically similar students just above and below the MCAS math CD threshold, students who met the CD had higher rates of educational attainment and earnings (Papay et al., 2024). While this research demonstrates the predictive validity of the MCAS assessments, it does not make causal claims given that the MCAS was one of multiple systemic reforms instituted by MERA.

Methodology

This report conducts a descriptive analysis of longitudinal Massachusetts data to explore trends and patterns in postsecondary readiness and success. I explore whether average educational outcomes have improved over time for Massachusetts students overall, as well as for specific groups, including low-income, English learners, and students of differing races/ethnicities. The analysis aims to shed light on how average rates of postsecondary readiness and success have shifted in Massachusetts since the institution of MERA and the CD, and how those shifts differ across student groups.

The analysis is broken into three research questions:

- 1. How have Massachusetts students performed on the 10th grade MCAS over time?
- 2. How have Massachusetts students' participation in and performance on key college readiness benchmarks changed over time, including the SAT, advanced coursework, and high school graduation?
- 3. How have the rates of Massachusetts students entering and persisting in college changed over time?

This analysis focuses explicitly on student outcome, participation, and achievement indicators during the high school and postsecondary years. For each of these questions, I analyze publicly available data from the early 2000s through 2019 (before the COVID-19 pandemic).¹ However, there are limitations in the availability of data for questions two and three because the state only began collecting college readiness, persistence, and completion data in more recent years. Last, I include data when they are available for years during and following the COVID-19 pandemic (2020–2023), but do not draw conclusions about these data because these years were most directly impacted by significant school closures that occurred in Massachusetts during the pandemic.

Papay found that "scores on the grade 10 MCAS examinations—the last MCAS tests public-school students take in high school and the only ones with high-stakes consequences for students predict longerterm educational attainments and labor market success. above and beyond typical markers of student advantage."

# **Analysis**

# Question 1: How have Massachusetts students performed on the 10th grade MCAS over time?

As shown in Figure 1, Massachusetts students improved their performance on both the 10th grade Math and English Language Arts (ELA) MCAS from the time when the assessment was first instituted in 2001 until the test was significantly revised in 2019.<sup>2</sup> From 2001 to 2018, there was a 33 percentage point increase in the share of students scoring proficient or above in Math and a 40 percentage point increase in ELA. Some of the increase may be reflective of score inflation and scale drift<sup>3</sup>, but even when a more rigorous assessment was launched in 2019, the NextGen MCAS, average proficiency rates were higher than the first few years of the original MCAS assessment.

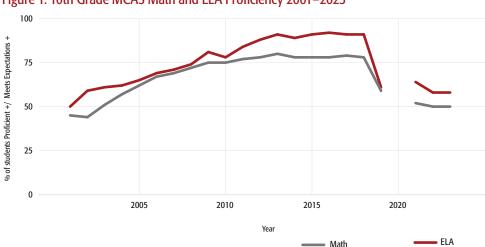


Figure 1: 10th Grade MCAS Math and ELA Proficiency 2001–2023

Overall improvement on the 10th grade MCAS occurred during a period in which the state's public school population became increasingly diverse in terms of race/ethnicity, language, and income. In 2001, the first year of the MCAS, the student population was 76 percent white, 25 percent low income, and 5 percent English learners. Today the student population is 53 percent white, 42 percent low income and 13 percent English learners (MA DESE, Enrollment Report, 2001 & 2024). MERA was intended to reduce the harms from residential segregation by increasing funding levels to lower-wealth communities that also tend to have higher concentrations of students of color, low-income students, and those learning English in public schools. Even as the state became increasingly diverse, on average, 10th graders across the state's four largest four racial and ethnic groups improved their performance on both the Math (Figure 2a) and ELA MCAS (Figure 2b) from 2001 to 2018. As a result of this period of improvement, Massachusetts saw a significant narrowing of achievement gaps on the 10th grade ELA MCAS and a moderate narrowing of achievement gaps on the Math MCAS (Table 1). However, the introduction of the more rigorous NextGen MCAS in 2019 and the onset of the COVID-19 pandemic largely erased the narrowing that had occurred from 2001 to 2018.

Overall improvement on the 10th grade MCAS occurred during a period in which the state's public school population became increasingly diverse in terms of race/ethnicity, language, and income.

100
75
50
2005
2010
2015
2020
White

Figure 2a: 10th Grade Math MCAS Proficiency by Race/Ethnicity, 2001–2023

Figure 2b: 10th Grade ELA MCAS Proficiency by Race/Ethnicity, 2001–2023

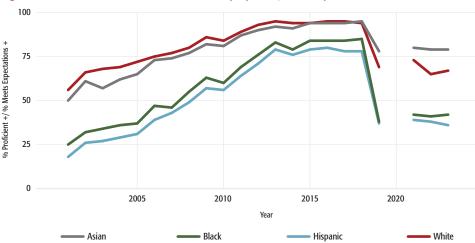


Table 1: 10th Grade MCAS Achievement Gaps by Race

Black - White Proficiency Gap	Assessment (Year)	Hispanic - White Proficiency Gap
35 percentage points	Gr. 10 Math MCAS (2001)	37 percentage points
25 percentage points	Gr. 10 Math MCAS (2018)	29 percentage points
33 percentage points	Gr. 10 Math NextGen MCAS (2023)	35 percentage points
31 percentage points	Gr. 10 ELA MCAS (2001)	38 percentage points
9 percentage points	Gr. 10 ELA MCAS (2018)	16 percentage points
25 percentage points	Gr. 10 ELA NextGen MCAS (2023)	31 percentage points

One of MERA's main goals was to reduce achievement gaps between low-income students and their more affluent peers. Data from the 10th grade MCAS dating back to 2006 show overall improvement of both low-income students and non-low-income students on the Math and ELA assessments prior to the introduction of the NextGen MCAS in 2019 (Figure 3a-b). By 2018, in ELA, the achievement gap between low-income and non-low-income students was cut in half (Table 2). However, in the aftermath of COVID-19 the gaps between low-income and non-low-income students on both Math and ELA 10th grade MCAS assessment are now higher than at any point in the state's history.

Data from the 10th grade MCAS dating back to 2006 show overall improvement of both low-income students and non-low-income students on the Math and ELA assessments.

From 2001 to 2023, the population of English learners grew significantly.<sup>4</sup> On the 10th grade MCAS, English learners improved steadily in ELA from 2001 to 2018 (Figure 3a). In math, progress was more mixed, peaking in 2011 and declining steadily from 2012 to 2018 (Figure 3b). The introduction of the NextGen MCAS in 2019 led to major declines for English learners in both ELA and math and significantly widened achievement gaps between English learners and their non English learner peers (Table 2). Furthermore, English learners appear to have been particularly hard hit by the COVID-19 pandemic, with these students having made little to no recovery in ELA or math.

On the 10th grade MCAS, English learners improved steadily in ELA from 2001 to 2018.

Figure 3a5: 10th Grade Math MCAS Proficiency by Income and Language Status, 2001–2023

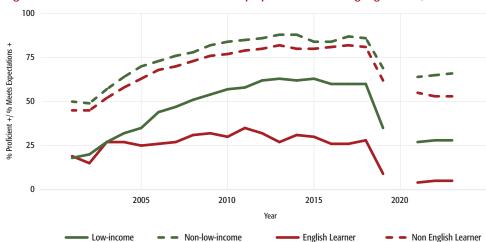


Figure 3b: 10th Grade ELA MCAS Proficiency by Income and Language Status, 2001–2023

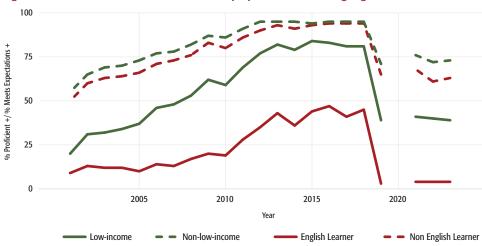


Table 2: Grade 10 MCAS Achievement Gaps Special Population

Low-Income vs Non-Low-Income Proficiency Gap	Assessment (Year)	English Learner vs Non English Leaner Proficiency Gap
29 percentage points	Gr. 10 Math MCAS (2006)	26 percentage points
26 percentage points	Gr. 10 Math MCAS (2018)	53 percentage points
38 percentage points	Gr. 10 Math NextGen MCAS (2023)	49 percentage points
31 percentage points	Gr. 10 ELA MCAS (2006)	41 percentage points
14 percentage points	Gr. 10 ELA MCAS (2018)	49 percentage points
34 percentage points	Gr. 10 ELA NextGen MCAS (2023)	59 percentage points

Overall, the longitudinal data are clear: on average, Massachusetts students improved achievement on the 10th grade MCAS across all groups from 2001 through 2018. However, the introduction of a new, more rigorous assessment combined with the impact of the COVID-19 pandemic has led to significant declines in test scores since 2019 and in many cases a widening of the achievement gaps that MERA sought to close.

# Question 2: How have Massachusetts students' participation in and performance on key college readiness benchmarks changed over time, including the SAT, advanced coursework, and high school graduation?

As high school students progress toward college, there are multiple educational milestones they achieve. These milestones may either be required for entry into postsecondary (e.g., earning a high school diploma) or may support a student's academic preparation for college (e.g., completing advanced coursework in high school). Recognizing the relationship between postsecondary degree attainment and earnings, Massachusetts has made a concerted effort since MERA to focus on students' college and career readiness. This includes incorporating college and career readiness measures in the state's school and district accountability system and collecting data from school districts and higher education institutions on college entry and persistence.

In theory, as students' performance on the 10th grade MCAS improves, I would expect to observe more students achieving key college readiness benchmarks. Below, I examine the trends across three different measures of college readiness: advanced coursework completion, SAT scores, and high school graduation. I review the available longitudinal data and explore trends as they relate to student race/ ethnicity, socio-economic background, and language status.

#### **Massachusetts SAT Participation and Performance**

Historically, most Massachusetts students seeking entry into postsecondary education take the SAT. Colleges and universities rely on assessments—among other measures—like the SAT and ACT as indicators of student readiness for college-level academic work, and these assessments are strongly predictive of success in college (Westrick et al., 2019 and 2022). Until recently, most four-year colleges and universities in the U.S. required the SAT or ACT as part of a student's application. During the COVID-19 pandemic, more colleges and universities—including UMass Amherst, the state's flagship university—switched to test-optional policies under which students could elect whether to submit SAT/ACT scores as part of their applications (Johnson, 2020).

Reviewing SAT data for Massachusetts students should reveal whether more Massachusetts students are participating in actions that indicate an intent to pursue postsecondary education and whether more Massachusetts students are prepared for college. However, these data are not simple to compare over time for three reasons. First, the College Board launched a new SAT in 2017 that is not directly comparable to the pre-2017 version of the SAT. In the charts below, I separate "new" (post-2017) and "old" SAT (pre-2017) performance. Second, with the launch of the new SAT in 2017, Massachusetts Department of Elementary and Secondary Education (DESE) changed how it reported on SAT testing, and rather than only reporting on the SAT performance of 12th graders it began reporting on all SAT tests taken each year. For this reason, I use data directly from the College Board for the 2017 to 2023 SAT as they report on SAT testing for the graduating class of seniors, which is more consistent with how DESE reported SAT data from 2007 to 2016. Third, the shift of colleges and universities to "SAT-optional" policies that began with the high school class of 20216 significantly reduced the number of test-takers (Figure 4), and likely resulted in lower-scoring students opting out of taking the test from 2021 onward. For this reason, I do not draw conclusions from Massachusetts SAT participation or performance from 2021 to 2023.

On the old SAT from 2007 to 2016, Massachusetts saw an increase in test takers most years (except the class of 2009). These increases generally carried over to the new SAT until a small dip with the class of 2020 and a much more significant dip with the class of 2021; the year of

Overall, the longitudinal data are clear: on average, Massachusetts students improved achievement on the 10th grade MCAS across all groups from 2001 through 2018.

Historically, most
Massachusetts
students seeking entry
into postsecondary
education take the
SAT. Colleges and
universities rely on
assessments- among
other measures-like
the SAT and ACT as
indicators of student
readiness for collegelevel academic work.

widespread "SAT-optional" policies due to COVID-19 (Figure 4). Additionally, the SAT-taking population became more diverse, including larger numbers of low-income students and students of color (Table 3).<sup>7</sup>

Figure 4: Number of MA SAT Test Takers, 2007–2023



The SAT-taking population became more diverse, including larger numbers of low-income students and students of color.

Table 3: Change in Number of Massachusetts SAT Test Takers by Student Group (Old SAT)

	2007		2016		Change (2007–2016)	
	# Test Takers	% of Total Test Takers	# Test Takers	% of Total Test Takers	# Test Takers	% Change in # of Test Takers
All Students	48,529	100.0%	50,231	100.0%	1,702	3.5%
Asian Students	2,619	5.4%	3,640	7.3%	1,021	39.0%
Black Students	3,254	6.7%	4,156	8.3%	902	27.7%
Hispanic Students	3,141	6.5%	5,405	10.8%	2,264	72.1%
Low-Income Students	7,132	14.7%	9,759	19.4%	2,627	36.8%
<b>English Learners</b>	566	1.2%	1,063	2.1%	497	87.8%

Additionally, from 2007 to 2020, mean scores for Black students and Hispanic/Latino students improved on both the old and new SAT.

While more students participated in the SAT, did performance improve on the SAT, as we saw on the 10th grade MCAS? Figure 5a shows improvement on the old SAT with the mean combined score rising from 1021 in 2007 to 1031 in 2016, and then some improvement from 1106 in 2017 to 1119 in 2020.8 Additionally, from 2007 to 2020, mean scores for Black students and Hispanic/Latino students improved on both the old and new SAT (Figure 5b), although the scale of improvement was more modest for Hispanic/Latino students. Because of reporting differences, data for low-income students and English learners can only be examined for the old SAT. Figure 5c shows that mean SAT scores for low-income students steadily increased on the old SAT from 2007 to 2016. However, mean scores for English learners steadily decreased after 2010 on the old SAT.

Figure 5a: Mean MA SAT Scores 2007–2023

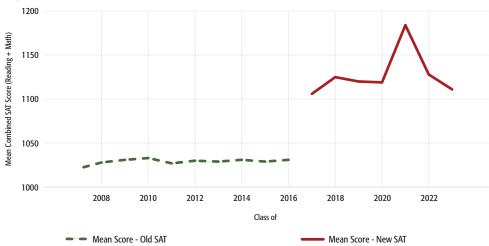


Figure 5b: Mean MA SAT Scores by Race/Ethnicity, 2007–2023

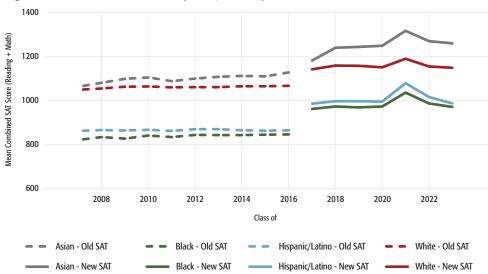
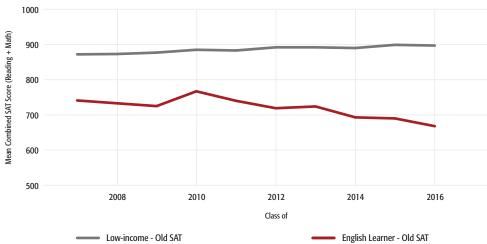


Figure 5c: Mean MA SAT Score by Income and Language Status



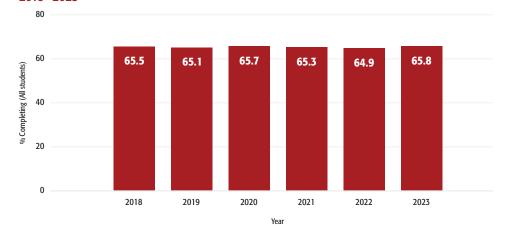
With the exception of English learners, as more Massachusetts students took the SAT from 2007 to 2020, mean scores SAT scores rose, overall and for specific student groups, including Black students, Hispanic/Latino students, and low-income students. Thus, since MERA and the institution of the CD, more Massachusetts students, including more students of color and low-income students are both taking the SAT and improving performance, in alignment with the overall trend on the 10th grade MCAS.

#### **Advanced Coursework**

Another key indicator of college readiness is the completion of advanced coursework aligned with postsecondary academic expectations. While MERA initiated the creation of an accountability system and corresponding data collection, it was not until 2018 that DESE included the share of 11th and 12th grade students completing advanced coursework as an indicator on the school and district accountability system. Thus, there are only six years of data to observe the share of Massachusetts students who complete advanced coursework.

From 2018 to 2023, the share of 11th and 12th grade students completing advanced coursework has remained relatively consistent at around 65 percent (Figure 6). However, these overall data obscure significant gains since 2018 in the number and share of students of color and low-income students who complete advanced coursework. Since 2018, over 4,000 more Black and Hispanic/Latino students and over 7,000 more low-income students and 1,000 more English learners in Massachusetts have completed advanced coursework annually (Table 4a–b). Once again, as the state's student population has become more diverse, more of these students are accessing and completing advanced coursework—a key indicator of readiness for college. Despite this progress, there continue to be significant gaps between racial/ethnic groups in the share of students completing advanced coursework. Several factors can influence the share of students accessing advanced coursework, including the availability of courses; students' academic readiness, including prerequisite coursework; and student misconceptions about whether they belong in advanced courses.

Figure 6: Share of 11th and 12th Grade Students Completing Advanced Coursework, 2018–2023



Another key indicator of college readiness is the completion of advanced coursework aligned with postsecondary academic expectations.

Table 4a: Advanced Coursework Completion by Race/Ethnicity, 2018–2023<sup>11</sup>

Year	Asian Students		Black Students		Hispanic/Latino Students	
	% Completing	# Completing	% Completing	# Completing	% Completing	# Completing
2018	82.7	7,679	49.9	6,656	50.5	12,219
2019	83.6	7,889	52.8	6,929	50.7	12,688
2020	84	8,147	54.2	7,037	50	12,918
2021	84.3	8,314	54.9	7,233	50.2	13,769
2022	84.9	8,325	55.5	7,287	49.2	14,304
2023	84.9	8,280	57.3	7,554	51.2	15,690
Difference (2018–2023)	2.2	601	7.4	898	0.7	3,471

Table 4b: Advanced Coursework Completion by Income and Language Status, 2018–202312

Year	Low-income/Economically Disadvantaged		English Learner	
	% Completing	# Completing	% Completing	# Completing
2018	48.8	20,527	27.6	2,342
2019	48.5	20,727	27.1	2,314
2020	48.9	21,200	27.1	2,314
2021	49.0	23,391	28.1	2,493
2022	50.1	28,655	30.0	2,956
2023	50.7	27,869	31.7	3,347
Difference (2018–2023)	1.9	7,342	4.1	1,005

# **High School Graduation**

The last major milestone before entering college is high school graduation. At the time when MERA was implemented, there were concerns specifically about the differences in high school graduation rates between high- and low-income communities. In 1993, it was well understood that at minimum students needed to earn a high school diploma, and that diploma needed to signify value to employers and higher education institutions. This was part of the rationale for creating the high school CD, which aimed to guarantee that all Massachusetts students with a high school diploma had met a basic standard of readiness for postsecondary education and employment. DESE has included high school graduation rates in its school and district accountability system over the last two decades. Thus, we can see what the trends in high school graduation rates are for Massachusetts students dating back to 2006.

In addition to the CD, Massachusetts school districts set their own graduation requirements. These requirements can differ significantly, even with the state's recommended high school program of study, the <u>MassCore</u>. Generally, each district defines the set of courses and associated credit hours students must earn and any additional requirements (e.g., completing community service hours, a senior project, an internship).

Massachusetts has increased its four-year high school graduation rate from 80 percent in 2006 to as high as 90 percent in 2022 (Figure 7a). Graduation rates have risen most significantly for Black and Hispanic/Latino students (Figure 7b) and for low-income students and English learners (Figure 7c) over this period. While gaps in graduation rates have narrowed, there remain some significant ones, especially between English learners and their non English learner peers.

Since 2018, over 4,000 more Black and Hispanic/Latino students and over 7,000 more low-income students and 1,000 more English learners in Massachusetts have completed advanced coursework annually (Table 4a–b).

Figure 7a: Massachusetts 4-year HS Cohort Graduation Rate, 2006–2023

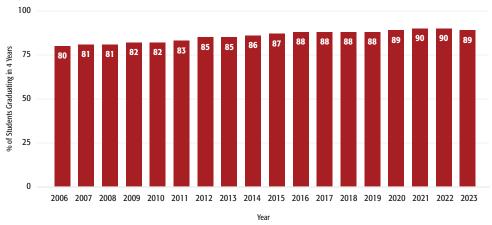


Figure 7b: Massachusetts 4-Year Graduation Rate by Race/Ethnicity, 2006–2023

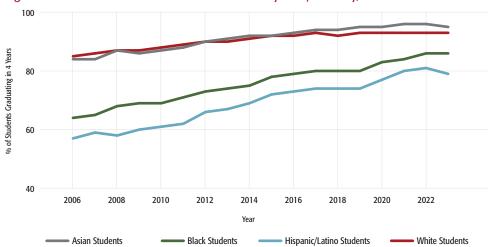
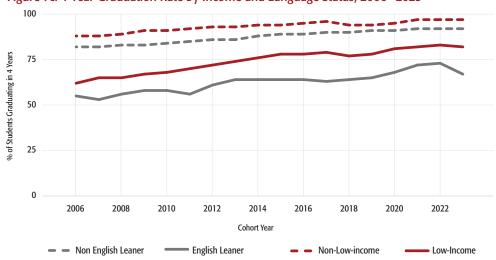


Figure 7c: 4-Year Graduation Rate by Income and Language Status, 2006–2023



Since MERA and the creation of the CD requirement, more Massachusetts students are earning a high school diploma, and more of those students are low-income students, English learners and/ or Black and Hispanic/Latino. At the time the CD was instituted, there was a fear it would reduce graduation rates. While we cannot see what would have taken place without the CD, graduation rates have consistently increased over the period for all student groups.

Massachusetts
has increased its
four-year high school
graduation rate
from 80 percent
in 2006 to as high
as 90 percent in
2022 (Figure 7a).
Graduation rates
have risen most
significantly for
Black and Hispanic/
Latino students.

# Question 3: How have the rates of Massachusetts students entering and persisting in college changed over time?

With a recognition of the demands of a knowledge-based economy, one of MERA's goals was to ensure that Massachusetts' public education system was adequately preparing students for success in postsecondary education. This includes increasing the share of students attending and completing both two- and four-year degree programs. Papay's research found that higher MCAS scores were associated with increased postsecondary educational attainment (2020). Thus, given the rise in average MCAS performance since 2001, we would expect to see increases in the share of Massachusetts students attending and completing postsecondary education. Below, I examine the trends across two measures related to Massachusetts students' postsecondary participation: college entry and six-year degree completion. I review the available longitudinal data and explore the trends as they relate to student race/ethnicity and socio-economic background.

Papay's research found that higher MCAS scores were associated with increased postsecondary educational attainment.

#### **College Entry**

As more Massachusetts students are graduating from high school, more are enrolling in college.<sup>13</sup> From 2004 to 2013 the share of high school graduates entering college increased consistently and stabilized around 75 percent until dropping off in 2019 and further declining during the COVID-19 pandemic (Figure 8a). The result of rising high school graduation rates and higher rates of college enrollment are that from the class of 2004 to the class of 2019 the annual number of Massachusetts high school graduates enrolling in college increased by 9,331 students (Figure 8b), which reflects a 23 percent increase from 2004.<sup>14</sup>

Figure 8a: Share of Massachusetts High School Grads Enrolled in College, 2004–2021

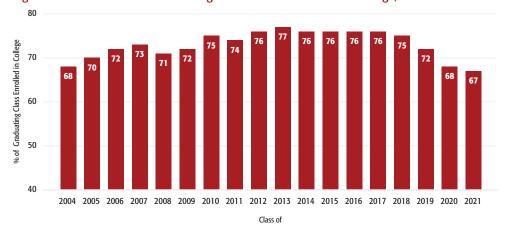
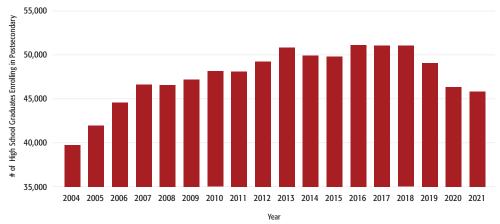


Figure 8b: Number of Massachusetts High School Graduates Enrolling in Postsecondary, 2004–2021



As more Massachusetts students are graduating from high school, more are enrolling in college. From 2004 to 2013 the share of high school graduates entering college increased consistently and stabilized around 75 percent until dropping off in 2019.

Increases in the number of students entering college are largely driven by the rising number of Black and Hispanic/Latino students entering college (Figure 9 and Table 5).<sup>15</sup> From 2004 to 2019 the number of Hispanic/Latino students, English learner students and low-income students entering college more than doubled. As presented in the analysis of Question 2, this is connected to more Black, Hispanic/Latino, low-income and English learner students graduating from high school and meeting other college readiness benchmarks. Thus, we can see in the data that more Massachusetts Black, Hispanic/Latino, English learner, and low-income students are meeting key college readiness milestones and are enrolling in college at increasing rates since 2004.

Figure 9: Number of Massachusetts High School Graduates Enrolling in Postsecondary by Race/Ethnicity, 2004 – 2021

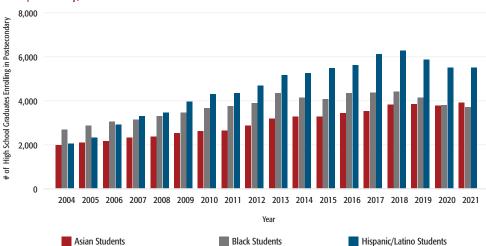


Table 5: Change in HS Graduates Enrolling in College by Student Group (2004 to 2019)

	Asian Students	Black Students	Hispanic/Latino Students	Low-income Students	English Learner Students
2004	1,986	2,702	2,050	5,108	1,065
2019	3,846	4,151	5,874	14,415	2,548
% Change	94%	54%	187%	182%	139%
# Change	1,860	1,449	3,824	9,307	1,438

#### **Postsecondary Degree Attainment**

While the data are clear that more Massachusetts students are graduating from high school and attending college, that does not always translate directly into higher rates of postsecondary degree attainment. The struggle that students, and in particular low-income students, face in completing college degrees is well documented in research (Bailey & Dynarski, 2011, Cohen et al., 2024).

Leveraging data from the Massachusetts longitudinal <u>Education-2-Career Data Hub</u>, we are able to see rates of degree completion for Massachusetts public high school graduates dating back to the class of 2006 (students who took the 10th grade MCAS in 2004). These data track students from high school graduation into college and report on the number of high school graduates who complete a postsecondary degree within six years of high school graduation.

Figure 10a shows that postsecondary degree completion rates for Massachusetts high school graduates increased consistently from the high school class of 2006 to the class of 2014. This increase in degree completion occurred as more Massachusetts students entered college, and the makeup of those students was increasingly diverse over this period (Figure 9 and Table 5). The result is that

From 2004 to 2019 the number of Hispanic/Latino students, English learner students and low-income students entering college more than doubled. for the Massachusetts high school class of 2014 over 7,000 more students earned postsecondary degrees than the class of 2006 (Figure 10b). This equates to a 30% increase in the number of students earning degrees over a period where 12th grade enrollment only increased by 2%.

Figure 10a: Percent of Massachusetts HS Grads Obtaining Postsecondary Degree in 6 Years

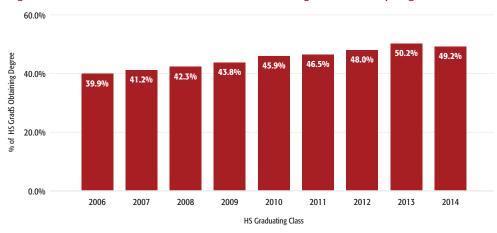
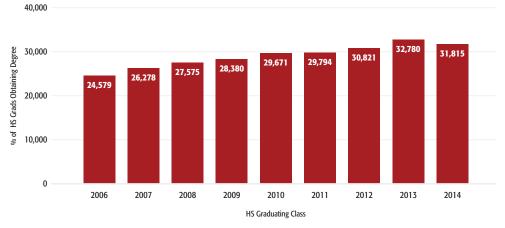


Figure 10a shows that postsecondary degree completion rates for Massachusetts high school graduates increased consistently from the high school class of 2006 to the class of 2014.

Figure 10b: Number of Massachusetts HS Grads Obtaining Postsecondary Degree in 6 Years



Similar to the trends observed in high school graduation and college entrance, the increase in the number of students earning degrees is in part driven by an increase in the number and share of Black, Hispanic/Latino, and low-income students completing postsecondary degrees (Figure 11a-b). Degree completion rates increased for each of these student groups, and for English learners from 2006 to 2014. Yet, there remain significant gaps in postsecondary degree completion rates between Black and Hispanic/ Latino high school graduates and their White and Asian peers, and large gaps between the degree completion rates of low-income high school graduates and their non-low-income peers, and English learners and their non English learner peers (Figure 11b).

Degree completion rates increased for each of these student groups, and for English learners from 2006 to 2014.

80.0%

80.0%

40.0%

20.0%

20.0%

2010

**HS Graduation Class** 

2011

Hispanic/Latino Students

2012

2013

2014

White Students

Figure 11a: Percent of MA HS Grads Obtaining Postsecondary Degree by Race/Ethnicity



2009

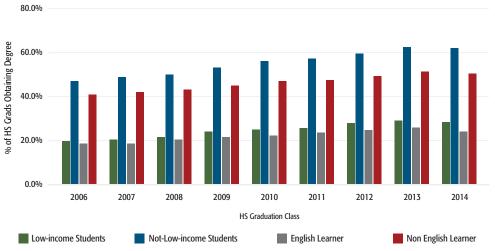
2006

Asian Students

2007

2008

Black Students



In eight years, the state saw almost 4,000 more low-income students earn college degrees compared to their peers from the class of 2006.

While there remain significant gaps in degree attainment rates by race/ethnicity and by socioeconomic status, since these data were first tracked for the class of 2006, the increase in Black, Hispanic/Latino, English learner, and low-income high school graduates in Massachusetts obtaining postsecondary degrees is significant. In eight years, the state saw almost 4,000 more low-income students earn college degrees compared to their peers from the class of 2006 (Table 6).<sup>17</sup>

Table 6: Change in HS Graduates Completing Postsecondary Degrees by Student Group

	Asian Students	Black Students	Hispanic/Latino Students	Low-Income Students	English Learner Students
Class of 2006	1,260	1,057	949	3,167	502
Class of 2014	2,429	1,666	1,816	7,034	869
% Change	93%	58%	91%	122%	73%
# Change	1,169	609	867	3,867	367

Since MERA and the creation of the CD requirement, more Massachusetts students are earning high school diplomas, entering college, and obtaining college degrees. This finding aligns with MCAS validation studies that found that improved performance on the 10th grade MCAS aligned with higher levels of educational attainment (Papay et al., 2020). As we see in the

Massachusetts data, as MCAS performance increased across all groups, more students graduated from high school, enrolled in college and were able to complete their postsecondary degree within six years. This finding applied to all racial/ethnic groups and to English learners and low-income students, who we know still face significant barriers to degree completion. However, the lag on this data means that we have not yet seen the impact of the declines on the 10th grade MCAS that took place following the pandemic, as these cohorts of students are not yet reflected in the postsecondary degree completion.

## **Conclusion**

Over the three decades since the enactment of MERA, more Massachusetts public school students are prepared for and succeeding in postsecondary education. The share of Massachusetts public school students graduating from high school, enrolling in college, and earning a degree consistently increased year over year until the COVID-19 pandemic. This increase in the share of students graduating high school, enrolling in college and completing postsecondary degrees has occurred as the state's public school population became more racially, ethnically and linguistically diverse and the number of low-income students rose. Moreover, the state's most historically underserved populations—low-income students, English learners, and Black and Hispanic/Latino students—are all graduating from high school, enrolling in college, and completing degrees at higher rates since data were first collected in the early 2000s.

As found in prior research, improvement of all student groups on the 10th grade MCAS signaled potential progress on these postsecondary readiness and completion measures. As average student performance on the MCAS increased, so did the share of students reaching key educational milestones and succeeding in postsecondary education. This finding again applied to all student groups, with some of the greatest progress in 10th grade MCAS performance translating into the largest increases in high school graduation, college entrance, and degree completion rates for historically underserved students.

This descriptive analysis provides the foundation for a hypothesis that MERA and adopting the CD resulted in increases in educational attainment for Massachusetts students. Further research should explore the relationship of these major policies to postsecondary outcomes to draw firmer conclusions about their causal impact on student outcomes.

As Massachusetts voters make decisions in the coming months about eliminating the 10th grade MCAS CD in favor of locally determined graduation requirements, they should have a deeper understanding of the role of 10th grade MCAS performance in long-term student outcomes such as preparedness for and success in postsecondary education. MERA was intended to create an education system that more equitably prepares students for success after high school. While there continue to be significant areas for improvement, there is no evidence that removing key aspects of the policy—common standards, accountability, assessment (MCAS), and funding—would result in better outcomes. To date, and as this analysis shows, the period following MERA up until the COVID-19 pandemic was one of steady progress for Massachusetts students in reaching major educational milestones in high school and postsecondary education.

There is no doubt that a postsecondary degree is important for achieving economic security in the Massachusetts labor market (Modestino & Forman, 2021). Even with efforts to remove unnecessary degree requirements from entry-level jobs, the fact remains that postsecondary degrees still provide a significant bump in earnings (Carnevale et al., 2024). Additionally, there is no evidence that the Massachusetts labor market is moving in a direction where long-term career advancement and economic security will not require postsecondary education. National estimates are that 85 percent of good jobs in 2031 will require a bachelor's degree or postsecondary training (Strohl et al., 2024). As Massachusetts continues to be a hub for fields on the cutting edge of technology and science, such as artificial intelligence, biotechnology and life science, and green

Moreover, the state's most historically underserved populations-low-income students, English learners, and Black and Hispanic/ Latino students-are all graduating from high school, enrolling in college, and completing degrees at higher rates since data were first collected in the early 2000s.

energy innovation, the need for more graduates with advanced postsecondary training will only grow. The state's recent approval of publicly funded community college recognizes the critical importance of making postsecondary education accessible to all Massachusetts students.

Yet, policymakers can and should do more to ensure that more high school students reach the bar set by the CD, as well as be prepared for postsecondary education. Public investment to remove financial barriers to postsecondary education pay off when students complete their degrees. The data show that while more Massachusetts students are accessing postsecondary education and overall degree completion rates have increased, completion rates are low for Black and Hispanic/Latino students, low-income students, and English learners. Continued investment in proven strategies such as <a href="Early College">Early College</a> to support more students, including first-generation college students and low-income students, to participate in college-level work and earn college credit is another way to effectively help high school students to enroll and complete their degrees by easing the transition to and reducing the cost of postsecondary education. Additionally, investing in K–8 to close persistent achievement gaps that have widened since the COVID-19 pandemic will be critical for giving more students the foundational academic skills needed to succeed on the 10th grade MCAS and complete major high school milestones, such as the SAT, and advanced coursework.

This fall, the decision facing state policymakers and Massachusetts voters is whether preparing students for the future means going back to the education system that existed before MERA, or should it mean doubling down on the key foundational elements of the policy that has driven broad success to date? The evidence points to the latter. Maintaining a commonly held high bar for high school students and investing in efforts to help more students reach that bar is a strategy that has helped thousands more Massachusetts students attend and succeed in postsecondary education.

Additionally, investing in K-8 to close persistent achievement gaps that have widened since the COVID-19 pandemic will be critical for giving more students the foundational academic skills needed to succeed on the 10th grade MCAS and complete major high school milestones, such as the SAT, and advanced coursework.

# References

Bailey, M., & Dynarski, S. (2011). Gains and gaps: Changing inequality in U.S. college entry and completion (NBER Working Paper No. 17633). Cambridge, MA: National Bureau of Economic Research.

Candal, C. (2024). MCAS, NAEP, and Educational Accountability. Pioneer Institute. <a href="https://pioneerinstitute.org/wp-content/uploads/PNR-548-MCAS-NAEP-Accountability-WP-v04.pdf">https://pioneerinstitute.org/wp-content/uploads/PNR-548-MCAS-NAEP-Accountability-WP-v04.pdf</a>

Carnevale, A.P., Strohl, J., Campbell, K.P., Gulish, A. Cheah, B., Nyhof, E., Fix, L. (2024). Learning and Earning by Degrees: Gains in College Degree Attainment Have Enriched the Nation and Every State, but Racial and Gender Inequality Persists. Washington, DC: Georgetown University Center on Education and the Workforce, 2024. <a href="https://cew.georgetown.edu/wp-content/uploads/CEW-attainment-gains-full\_report.pdf">https://cew.georgetown.edu/wp-content/uploads/CEW-attainment-gains-full\_report.pdf</a>

Cohen, E., Huo, H., Guyot, K., & Gaffney, C. (2024). *High School Longitudinal Study of 2009 (HSLS:09): A First Look at the 2021 Postsecondary Enrollment, Completion, and Financial Aid Outcomes of Fall 2009 Ninth-Graders.* National Center for Education Statistics, US Department of Education. <a href="https://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2024022&utm\_medium=email&utm\_source=newsflash">https://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2024022&utm\_medium=email&utm\_source=newsflash</a>

Driscoll, L., Berger, J.B., Hambleton, R.K., Keller, L.A., Maloy, R.W., Hart, D.,...Churchill, A. (2005). Education reform: Ten years after the Massachusetts Education Reform Act of 1993. *Nonpartisan Education Review*, 1(2). Retrieved from <a href="https://www.nonpartisaneducation.org/">https://www.nonpartisaneducation.org/</a> Review/Resources/ed.connection.2003.pdf

Kane, T. J. (2014, May 29). Shooting bottle rockets at the moon: Overcoming the legacy of incremental education reform. *Brookings*. <a href="https://www.brookings.edu/articles/shooting-bottle-rockets-at-the-moon-overcoming-the-legacy-of-incremental-education-reform/">https://www.brookings.edu/articles/shooting-bottle-rockets-at-the-moon-overcoming-the-legacy-of-incremental-education-reform/</a>

Lisinski, C. (2019, November 26). Baker signs Landmark Student Opportunity Act. *GBH*. <a href="https://www.wgbh.org/news/local/2019-11-26/">https://www.wgbh.org/news/local/2019-11-26/</a> baker-signs-landmark-student-opportunity-act

Massachusetts Business Alliance for Education (1991). Every Child a Winner. Retrieved from <a href="https://www.mbae.org/wp-content/uploads/2023/10/Every-Child-A-Winner-July-1991.pdf">https://www.mbae.org/wp-content/uploads/2023/10/Every-Child-A-Winner-July-1991.pdf</a>

Massachusetts Department of Elementary and Secondary Education (2001 & 2024). Enrollment by Grade Report. *District and School Profiles*. Retrieved from <a href="https://profiles.doe.mass.edu/statereport/enrollmentbygrade.aspx">https://profiles.doe.mass.edu/statereport/enrollmentbygrade.aspx</a>

Massachusetts Department of Elementary and Secondary Education (2001 & 2024). Enrollment by Race/Ethnicity Report. *District and School Profiles.* Retrieved from <a href="https://profiles.doe.mass.edu/statereport/enrollmentbyracegender.aspx">https://profiles.doe.mass.edu/statereport/enrollmentbyracegender.aspx</a>

Massachusetts Department of Elementary and Secondary Education (2001 & 2024). Enrollment by Special Population. Report 2000-2001. District and School Profiles. Retrieved from <a href="https://profiles.doe.mass.edu/statereport/selectedpopulations.aspx">https://profiles.doe.mass.edu/statereport/selectedpopulations.aspx</a>

McDuffy vs. Executive Office of Education, (Supreme Judicial Court June 15, 1993). <a href="https://casetext.com/case/mcduffy-v-sec-of-the-executive-office-of-education">https://casetext.com/case/mcduffy-v-sec-of-the-executive-office-of-education</a>

Modestino, A. S., & Forman, B. (2021). Pathways to Economic Mobility: Identifying the Labor Market Value of Community College in Massachusetts. The Boston Foundation and MassINC. <a href="https://massincmain.wpenginepowered.com/wp-content/uploads/2021/06/Pathways-to-Economic-Mobility-202106.pdf">https://massincmain.wpenginepowered.com/wp-content/uploads/2021/06/Pathways-to-Economic-Mobility-202106.pdf</a>

National Commission on Excellence in Education, A Nation at Risk: The Imperative for Educational Reform (Washington, D.C.: U.S. Department of Education, 1983), <a href="https://edreform.com/wp-content/uploads/2013/02/A\_Nation\_At\_Risk\_1983.pdf">https://edreform.com/wp-content/uploads/2013/02/A\_Nation\_At\_Risk\_1983.pdf</a>

Papay, J.P., Mantil, A., Murnane, R.J., Ferguson, I.M., LoPresti, J., Mbekeani, P.P., McDonough, A., & Zorfass, E. (2024). The MCAS as a Graduation Requirement: Findings from a Research-Practice Partnership. Providence, RI: Educational Opportunity in MA, Annenberg Institute at Brown University <a href="https://annenberg.brown.edu/sites/default/files/Annenberg%20-%20MCAS%20as%20a%20">https://annenberg.brown.edu/sites/default/files/Annenberg%20-%20MCAS%20as%20a%20</a> Graduation%20Requirement\_0.pdf

Papay, J., Murnane, R., & Willett, J. (2008). The consequences of high school exit examinations for struggling low-income urban students: Evidence from Massachusetts. National Bureau of Economic Research. <a href="http://dx.doi.org/10.3386/w14186">http://dx.doi.org/10.3386/w14186</a>

Papay, J. P., Mantil, A., Murnane, R. J., An, L., Donohue, K., & McDonough, A. (2020). Lifting all boats? Accomplishments and challenges from 20 years of education reform in Massachusetts. Annenberg InstitSute Brown University. <a href="https://annenberg.brown.edu/sites/default/files/LiftingAllBoats\_FINAL.pdf">https://annenberg.brown.edu/sites/default/files/LiftingAllBoats\_FINAL.pdf</a>

Patrick Johnson, Special to The Republican. (2020, July 27). As fallout from COVID-19, UMass admissions office to no longer require SAT/ACT scores for student applicants. *Masslive*. <a href="https://www.masslive.com/umass/2020/07/as-fallout-from-covid-19-umass-admissions-office-to-no-longer-require-satact-scores-for-student-applicants.html">https://www.masslive.com/umass/2020/07/as-fallout-from-covid-19-umass-admissions-office-to-no-longer-require-satact-scores-for-student-applicants.html</a>

Peyser, J.A. (2023). Settle for Better: How overpromising undercut the education reform movement, and what to do about it. *Education Next*, 23(4), 44-49. Retrieved from <a href="https://www.educationnext.org/settle-for-better-how-overpromising-undercut-education-reform-movement/">https://www.educationnext.org/settle-for-better-how-overpromising-undercut-education-reform-movement/</a>

Strohl, J., Gulish, A., Morris, C. (2024). *The Future of Good Jobs: Projections through 2031*. Washington, DC: Georgetown University Center on Education and the Workforce, 2024. <a href="https://cew.georgetown.edu/wp-content/uploads/cew-the\_future\_of\_good\_jobs-fr.pdf">https://cew.georgetown.edu/wp-content/uploads/cew-the\_future\_of\_good\_jobs-fr.pdf</a>

U.S. Census Bureau (2022). *American Community Survey*. Retrieved from <a href="https://data.census.gov/table/ACSST5Y2022.S1501?q=Educational%20">https://data.census.gov/table/ACSST5Y2022.S1501?q=Educational%20</a> Attainment&g=040XX00US25&y=2022.

U.S. Census Bureau (1990). *Massachusetts Educational Attainment of the Population 25 Years and Over: 1940 to 2000*. Retrieved from <a href="https://www2.census.gov/programs-surveys/decennial/2000/phc/phc-t-41/MA.pdf">https://www2.census.gov/programs-surveys/decennial/2000/phc/phc-t-41/MA.pdf</a>

 $We strick, P. A., Marini, J. P., \& Shaw, E. J. (2022). \label{lem:start} An Updated Look at SAT Score Relationships with College Degree Completion. The College Board. \\ \underline{https://research.collegeboard.org/media/pdf/SAT_Score_Relationships_with_College_Degree_Completion.pdf}$ 

Westrick, P. A., Marini, J. P., Young, L., Ng, H., Shmueli, D., & Shaw, E. P. (2019). *Validity of the SAT® for Predicting First-Year Grades and Retention to the Second Year.* The College Board. <a href="https://satsuite.collegeboard.org/media/pdf/national-sat-validity-study.pdf">https://satsuite.collegeboard.org/media/pdf/national-sat-validity-study.pdf</a>

# **Endnotes**

- 1 While MERA was passed in 1993, the MCAS data was not administered until the spring of 1999, and the oldest publicly available data of the 10th grade MCAS is from 2001.
- 2 In 2019, the Massachusetts Department of Elementary and Secondary Education (MA DESE) launched the NextGen MCAS which was intended to reflect content of revised curriculum frameworks and was intended to be a more rigorous assessment. The NextGen Assessment uses different scoring categories than the legacy MCAS. The categories considered to reflect proficiency and meeting grade level standards in the NextGen MCAS are called "meeting expectations" and "exceeding expectations."
- 3 Psychometricians have found that on large-scale, high-stakes standardized assessments average scores typically improve over time some of which is not attributable to actual improvement in students' underlying academic skills, but is a result of other factors such as: scoring and test administration practices, tested student population changes, teaching to the test, and changes in test content or format.
- 4 From 2001 to 2023 there was an over 145% growth in the share of MA public school students classified as English learners.
- 5 The state changed its classification name and method for students from low-income backgrounds twice since the launch of the MCAS. From 2001 through 2014 the state classified these students as "low-income," from 2015 through 2018 the state classified students as "economically disadvantaged," and from 2019 to present the state returned to using the term "low-income." Prior to 2006, the state did not collect data on the group of students classified as "not-low-income."
- 6 These students (Class of 2021) would have taken the SAT in the spring or fall of 2020, which was the beginning of the COVID-19 pandemic, and the point where colleges and universities removed the SAT admission requirement.
- 7 Data in Table 3 only reflects the old SAT (2006-2016), as the College Board data for the new SAT does not use comparable demographic categories (e.g., race/ethnicity, income, and language status) to make comparisons. Additionally, the test-taking population did shift significantly beginning in 2021 due to SAT-optional policies.
- 8 Because the new SAT is a different test with different scoring, I cannot compare the 2007-2016 scores to the 2017-2023 scores, rather I look at the trend within each period to see if there was any improvement on the assessment used during the period.
- 9 Advanced coursework completion is defined by DESE to include all 11th and 12th graders completing Advanced Placement, International Baccalaureate, Project Lead the Way, dual enrollment/ Early college courses, and other selected rigorous courses.
- 10 The increases in the number of Asian, Black, Hispanic/Latino students, low-income students, and English learners accessing advanced coursework are larger than the overall enrollment increases of each of these student groups during this period (2018-2023). Thus, while some of the increase in number of these students might be expected due to changing enrollment patterns in Massachusetts high schools, there are additional increases that reflect students from these groups accessing advanced coursework due to greater levels of readiness and greater availability of courses in schools serving more diverse student populations.

- 11 "% Completing" reflects the percent of students of the specified student group who have completed advanced coursework. For example, 82.7% of Asian 11th and 12th grade students in Massachusetts completed advanced coursework in 2018.
- 12 "% Completing" reflects the percent of low-income or economically disadvantaged who have completed advanced coursework. For example, 48.8% of low-income/ economically disadvantaged 11th and 12th grade students in Massachusetts completed advanced coursework in 2018.
- 13 College in this analysis is defined as two- and four-year colleges. All data for enrollment, persistence and degree attainment includes students in both two- and four-year colleges.
- 14 The 23 percent increase in Massachusetts high school graduates enrolling in college outpaced the growth in student enrollment in MA during this same period. 12th grade enrollment from 2004 to 2019 increased by 12.5% and the number of high school graduates from 2004 to 2019 increased by 17%. So while there were more students in 12th grade and more high school graduates in 2019 than in 2004, there was also a larger share of those students enrolling in college in 2019 than in 2004.
- 15 These increases are not driven solely by changes in student demographics in Massachusetts as the percentage increases in number of students enrolling in college outpaced their percentage increases in enrollment over the same period for Hispanic/Latino students, Black students, and low-income students. For example, the fastest growing student population during this period was Hispanic/Latino students. The Hispanic/Latino student enrollment increased by 75.5% from 2004 to 2019, but Hispanic/Latino high school graduates enrolling in college increased by 187% from 2004 to 2019. Black student enrollment increased by 1.4% and low-income student enrollment increased by 11.6%, while the number of Black high school graduates and low-income high school graduates enrolling in college increased by 54% and 182% respectively.
- 16 These data track the number of MA public school graduates who obtain a postsecondary degree within six years. This means to be counted as "obtaining a degree" a member of the class of 2006 would have to have graduated college by 2012, and a member of the high school class of 2014 would have had to have graduated college by 2020.
- 17 The increase in the number of low-income students obtaining degrees is only partially attributable to growth in low-income enrollment. Low-income student enrollment increased by ~25% over this period, while the number of low-income students obtaining degrees increased by 122%.
- 18 Strohl (2024) defines "good jobs" as jobs that pay a minimum of \$43,000 and a median of \$74,000 for workers 25–44, and pay a minimum of \$55,000 and a median of \$91,000 for workers 45–64 in 2022 dollars.

## **About the Authors**

Dr. Kerry L. Donahue is a seasoned education consultant, researcher, and policy expert with over 15 years of experience in public education. Beginning her career as a high school teacher, Dr. Donahue has held leadership positions at the Boston Schools Fund, NewSchools Venture Fund, and the District of Columbia Public Schools. Throughout her career, she has spearheaded numerous state and local initiatives aimed at expanding access to high-quality education. As a trusted advisor to state policymakers, she has provided expertise on key issues such as accountability, charter schools, educator pipelines, and instructional materials. Dr. Donahue holds a B.A. in Political Science from the College of the Holy Cross, an M.P.P. from Georgetown University, and a Doctorate. in Education Leadership from Harvard University.

## Mission

Pioneer Institute develops and communicates dynamic ideas that advance prosperity and a vibrant civic life in Massachusetts and beyond.

# **Vision**

Success for Pioneer is when the citizens of our state and nation prosper and our society thrives because we enjoy world-class options in education, healthcare, transportation, and economic opportunity, and when our government is limited, accountable, and transparent.

## **Values**

Pioneer believes that America is at its best when our citizenry is well-educated, committed to liberty, personal responsibility, and free enterprise, and both willing and able to test their beliefs based on facts and the free exchange of ideas.