

Condition of Education IN THE COMMONWEALTH

2021 Data Dashboard

Each year, the Rennie Center collects state-level indicators in our Data Dashboard to provide context on the condition of education in the Commonwealth. This data is collected from the MA Department of Early Education and Care; MA Department of Elementary and Secondary Education; MA Department of Higher Education; U.S Census Bureau; and U.S. Department of Education. However, this year has looked very different from previous years, and the 2021 Data Dashboard is adjusting to this upheaval in our education system.

This Dashboard will not represent a comprehensive view of all the indicators that the Rennie Center typically features. Rather, the hope of this feature is to elevate key indicators that can show us how our state is doing this year and how to build on these measures in future years. Below are analyses of indicators that demonstrate data trends related to the COVID-19 pandemic as well as inputs, access, engagement, and outcomes related to Holistic Learning, Shared Leadership, and Multiple Pathways to Career—all of which are featured as major themes in this year's Action Guide.

THE PROJECT

The Condition of Education in the Commonwealth project is one way the Rennie Center fulfills its mission of producing non-partisan, high-quality, independent research that promotes improvement in public education for all Massachusetts children.

PROJECT PRINCIPLES

- Education encompasses more than academics
- Schools should not—and cannot—work in isolation

PROJECT COMPONENTS

Due to the COVID-19 pandemic, data collection and reporting on student achievement, attendance, and engagement has been substantially limited. This year, the Rennie team has created a data supplement that curates key indicators featured in our Data Dashboard. It focuses on what these indicators are measuring, why they matter, and what they can tell us about the education system. We are also taking this opportunity to think critically about our Data Dashboard in general: which indicators are included, how we categorize and present data, and the overall user experience of the website. We look forward to launching a refreshed Data Dashboard in the coming year.

The Action Guide builds on the Data Dashboard by examining evidence-based practices, identifying local exemplars, and offering research-informed recommendations for statewide actions that have the potential to address performance gaps and contribute to broad improvement in student outcomes. The report looks at the progress made and the challenges that remain, suggesting strategies for applying lessons learned in order to foster the success of all the Commonwealth's learners.

COVID-19 Indicators

The COVID-19 pandemic has exacerbated the many inequities that plague our education system. Sudden school closures, remote and hybrid learning, and public health needs have all impacted the data that could be collected this year. Yet even as these trends have made data collection more difficult, they have also heightened the need to measure and understand data on learning loss, access to technology, attendance, and other areas most affected by the pandemic. The following indicators provide a high-level overview of key state-level data points related to access and outcomes in the context of COVID-19.

ACCESS TO TECHNOLOGY

WHAT DOES THE DATA SAY?

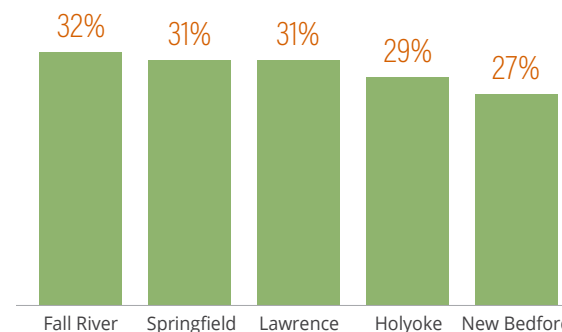
Nearly one out of every four households in Gateway Cities with school-age children lacks Internet access. In Fall River and Springfield, respectively, 32% and 31% of households with children lack Internet access. Across all Gateway Cities, there are nearly 100 neighborhoods where more than 25% of residents have no service.

WHY DOES THE DATA MATTER?

Following the shift to remote learning, unequal access to technology and varying levels of technological literacy have deepened inequities among students, exacerbating the opportunity gaps between low-income students and their peers.

Percentage of Households with School-Age Children without Internet Access

Gateway Cities—5-Year Estimate (2014–18)



U.S. Census Bureau: American Community Survey; Forman, Ben. "Gateway Cities at the center of the digital divide in Massachusetts." MassINC.

PUBLIC SCHOOL ENROLLMENT

WHAT DOES THE DATA SAY?

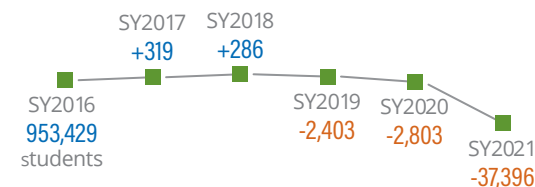
Public school enrollment has significantly decreased in the last year; from 2019–2020, the number of students enrolled in public schools decreased by 0.29%, and from 2020–21, the number of students enrolled decreased by 3.9%.

WHY DOES THE DATA MATTER?

Economic insecurity, decisions about remote learning, and unstable living conditions during the COVID-19 pandemic have affected families' choices about enrollment. Many families may be deciding to move their children to private schools that offer in-person options or delay kindergarten enrollment until the pandemic is over. While enrollment declines may be due to voluntary decisions on the part of families, understanding the populations that make up these statistics will inform district responses to support students and encourage continuity in the years after the pandemic.

Public School Enrollment

Trend over Time



Ciurczak, P. and Smith, T. "Public school enrollment down statewide and in Boston during pandemic." Boston Indicators; Massachusetts Department of Elementary and Secondary Education

CHRONIC ABSENTEEISM

WHAT DOES THE DATA SAY?

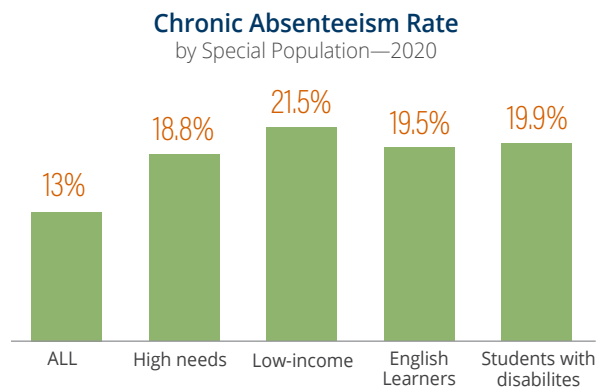
As of March 2020, the chronic absenteeism rate (or the percentage of students missing 10% or more of the school year) in Massachusetts was 13%, demonstrating a 0.1% increase since 2019. An analysis of 2020 subgroup data shows that students classified as low-income and students with disabilities have chronic absenteeism rates of 21.5% and 19.9%, respectively—much higher than the state average.

According to data collected by the Massachusetts Business Alliance for Education in November 2020, at least 77 school districts do not have a plan in place to address chronic absenteeism during the pandemic.

WHY DOES THE DATA MATTER?

Remote learning, unreliable Internet connections, and unforeseen changes in their environments—including new work or child care responsibilities for students at home—disproportionately affect students from marginalized backgrounds and may prevent them from attending school regularly.

Educators have taken different approaches to monitoring attendance during remote learning, and disciplinary actions for absences also vary by school and district. While this data does not capture the impact of the pandemic, and current rates are expected to be much higher, understanding chronic absenteeism rates allows the state, districts, and communities to identify students who are at risk of absenteeism and inform later decisions on how to best support students.



Massachusetts Department of Elementary and Secondary Education: Attendance Report; Massachusetts Business Alliance for Education: Massachusetts School District Continuity of Learning Plans 2020–21

ENGAGEMENT IN REMOTE LEARNING

WHAT DOES THE DATA SAY?

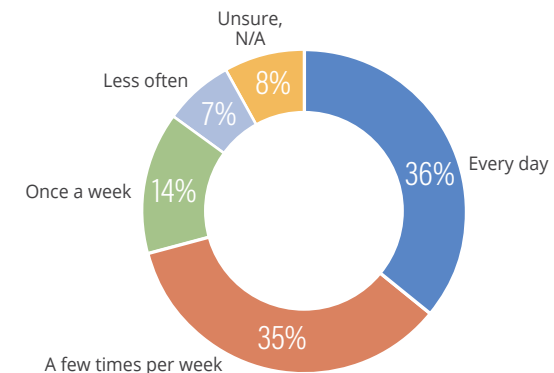
In a survey conducted by MassINC in June, 36% of parents indicated that their children participated in an online classroom every day, while 49% of parents indicated that this happened a few times or only once weekly.

WHY DOES THE DATA MATTER?

While these figures reflect experiences from last spring, differences in student engagement in the early days of the pandemic are likely to have ripple effects during the current school year. Additionally, the structure of learning amid the pandemic continues to differ significantly across and within schools and districts. Where learning takes place remotely, educators' varying levels of digital fluency may contribute to different levels of engagement with students. Analyzing data on student participation can inform districts' efforts to support educators and students through remote and hybrid learning challenges.

Student Participation in Remote Learning

Parent Survey Responses—June 2020



MassINC survey of 1,502 parents of K-12 students in Massachusetts

Holistic Learning Indicators

Holistic learning is defined in the 2021 Condition of Education Action Guide as a comprehensive and integrated approach where schools and community providers coordinate to build on students' strengths and address their needs. Identifying system-wide gaps in students' experiences and finding solutions to fill these gaps requires careful analysis of multiple data points. The following indicators can help policymakers, school leaders, and other education stakeholders paint a picture of the bright spots and gaps in holistic learning opportunities across the Commonwealth.

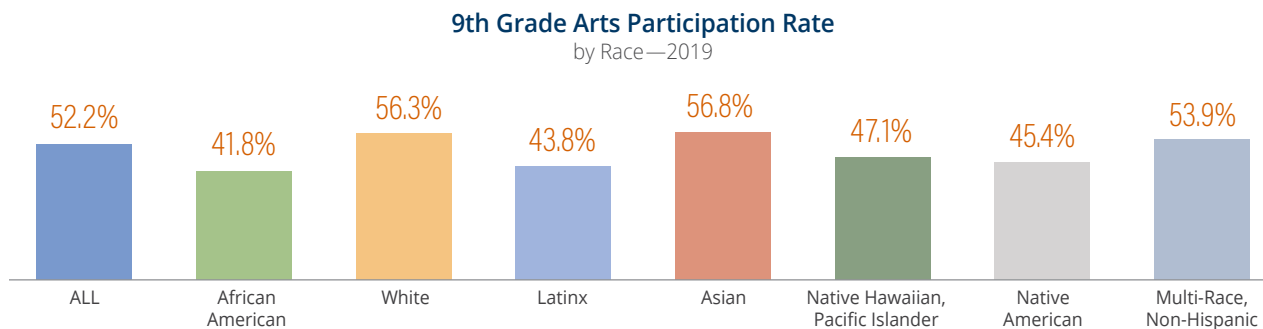
9TH GRADE ARTS PARTICIPATION

WHAT DOES THE DATA SAY?

In the most recent data on 9th grade arts coursetaking (from 2019), White, Asian, and Multi-Race students take 9th grade arts courses at a higher rate than all other races. English Learners make up the smallest percentage of arts coursetakers compared to other special populations.

WHY DOES THE DATA MATTER?

Lack of participation in arts courses by African American, Latinx, Native American, and Native Hawaiian/Pacific Islander students may mean fewer chances to engage in creative, innovative, or interest-based learning that creates a more well-rounded schooling experience.



Massachusetts Department of Elementary and Secondary Education: Arts Coursetaking Report

STUDENT HOMELESSNESS

WHAT DOES THE DATA SAY?

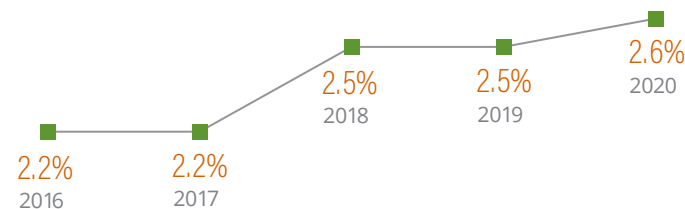
In 2020, 2.6% of Massachusetts students were homeless, up from 2.2% in 2015-16. This translates to approximately 3,700 more homeless students.

WHY DOES THE DATA MATTER?

As of 2020, Boston, Worcester, and Springfield have the most enrolled homeless students in their public schools. For these districts and others, understanding where homeless students live can help the state, districts, and community groups better provide support services, shelter, food, and safety.

Student Homelessness Rate

Trend Over Time



Massachusetts Department of Elementary and Secondary Education: Homeless Student Program Data; Lugli, S. "State reports rise in students experiencing homelessness." The Boston Globe

ADVERSE CHILDHOOD EXPERIENCES

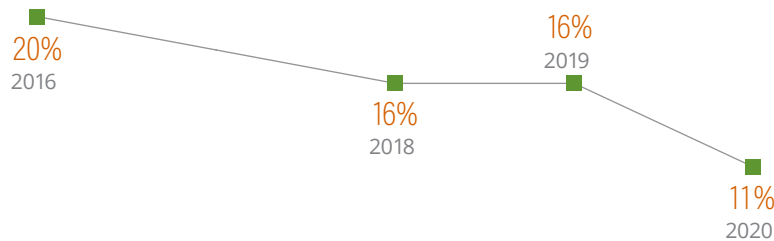
WHAT DOES THE DATA SAY?

The percentage of children who have faced adverse childhood experiences—such as abuse, neglect, or having a family member who is struggling with mental illness or substance abuse—has consistently decreased over the past four years, from 20% in 2016 to 11% in 2020.

WHY DOES THE DATA MATTER?

Although this data does not yet reflect post-pandemic impacts, it will be important to study that data once it is available. Despite the improvements in the rate of adverse childhood experiences over the past four years, the global pandemic is likely to have increased traumatic experiences for young people. Learning to recognize the effects of trauma and adverse experiences can help educators and school staff provide healing-centered supports.

Adverse Childhood Experiences
Trend over Time—Ages 0–17



U.S. HHS; HRSA; Maternal and Child Health Bureau (MCHB); Child and Adolescent Health Measurement Initiative (CAHMI); National Survey of Children's Health Indicator Data Set; Data Resource Center for Child and Adolescent Health

OPPORTUNITY YOUTH

WHAT DOES THE DATA SAY?

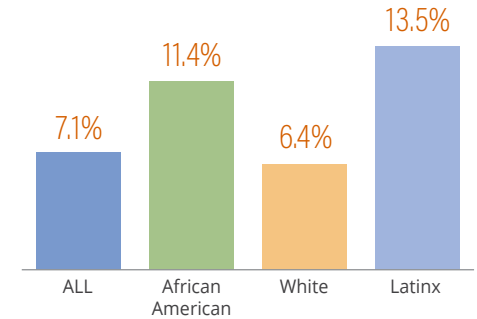
The percentage of opportunity youth (OY) in Massachusetts, defined as 16- to 24-year-olds neither in school nor employed, has decreased from 9.4% in 2012 to 6.6% in 2019. This decrease was to be expected due to the strengthening economy at that time. However, even as the overall number of OY has decreased, rates of disconnection are still disproportionately high among African American and Latinx youth. In the most recent

disaggregated data (from 2017), 13.5% of Latinx youth and 11.4% of African American youth were classified as OY, compared to 6.4% of White youth.

WHY DOES THE DATA MATTER?

Zooming in on who makes up the opportunity youth population can allow for communities, school systems, and institutions of higher education to drive targeted efforts for engagement. Particularly given the pandemic-related economic turmoil that has led to rising unemployment, it is essential to build pathways to career that will allow young people to access family-sustaining wages.

Opportunity Youth
by Race—2017



U.S. Census Bureau: American Community Survey; Tabulations prepared by staff at the Boston Private Industry Council

CHILDHOOD POVERTY

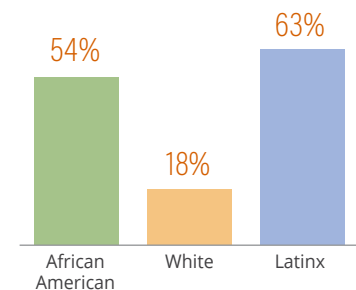
WHAT DOES THE DATA SAY?

In 2018, approximately 400,000 Massachusetts children lived in low-income households, with 54% of African American children, 64% of Latinx children, and 18% of White children in the state living in or near poverty.

WHY DOES THE DATA MATTER?

The vast disparities between White children and children of color in or near poverty are astounding. Poverty has widespread impacts, such as a lack of healthy food, reduced access to community and social services, hunger, health issues, and more. People of color often face an intergenerational cycle of poverty, so identifying which children need access to supportive resources and services, and how to best deliver those resources and services, can ease the negative impacts of poverty.

Children Living in or Near Poverty
by Race—2018



Massachusetts Department of Early Education and Care: Strategic Plan; National Center for Children in Poverty

Shared Leadership Indicators

The continuum of community-school collaboration runs from involving families and community members in school events to codifying leadership positions they can hold. Unfortunately, a thorough search for available state-level data measuring shared leadership and family and community engagement/involvement uncovered a dearth of indicators. This lack of state-level data is telling of barriers to data collection, deprioritization of engagement indicators in favor of academic measures, and the difficulty of receiving family feedback through surveys and other mechanisms.

Although state-level data on engagement, involvement, and shared leadership is sparse, acknowledging what we do have is essential for bringing forth new indicators. The following indicators can be studied to provide a baseline of information regarding shared leadership opportunities in the Commonwealth, as the sector evolves toward (and innovates on) the widespread collection of engagement and leadership measures.

PARENT INVOLVEMENT IN REMOTE LEARNING

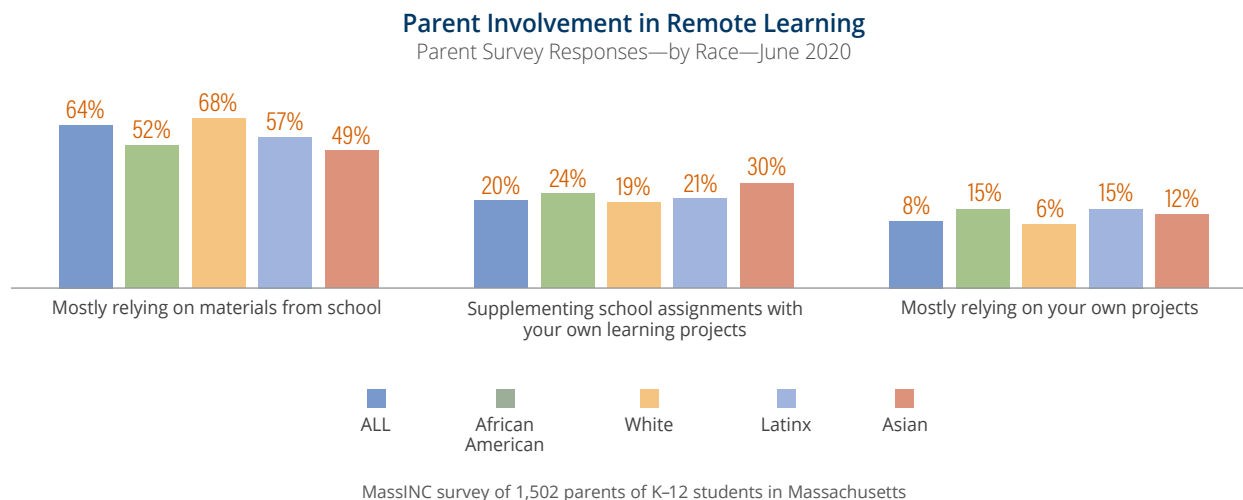
WHAT DOES THE DATA SAY?

When surveyed by MassINC in June, parents found themselves supplementing their children's coursework with their own projects, with parents of color incorporating their own materials more often; subgroup analysis indicates that 30% of Asian parents and 24% of African American parents were using their own learning projects alongside school-provided materials, while only 19% of White parents were doing the same.

Parents indicated that they often had to provide academic and technical assistance to aid their children with remote learning; 80% of parents of children in grades K-2 said they gave "a great deal" or "a fair amount" of assistance with schoolwork, and 84% said the same for assistance with technology.

WHY DOES THE DATA MATTER?

Parents who, on top of work, have stepped up to provide educational support for their children during the pandemic may face increased stress and need for support from schools. Schools should engage with these families to find out what is and isn't working during remote or hybrid learning to best assist them and their children.



SCHOOL CLIMATE

WHAT DOES THE DATA SAY?

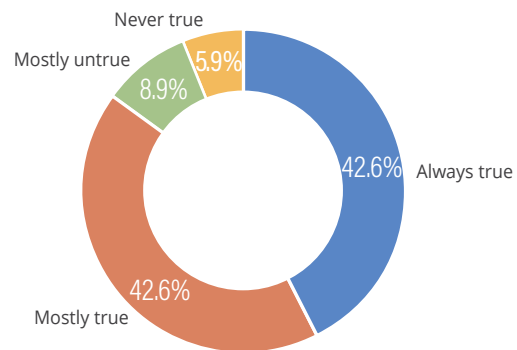
In a 2019 climate survey of 8th grade students, the statement “My parents feel respected when they participate at our school (e.g., at parent-teacher conferences, open houses)” was answered mostly positively. When disaggregated by race, African American and Latinx students responded “mostly untrue” or “never true” (19% and 17%, respectively) more often than all students surveyed (15%).

WHY DOES THE DATA MATTER?

Trust and respect are the building blocks to effective family engagement and pathways to shared leadership. Understanding who answered negatively and why they did so can help school leaders and educators approach family engagement in different ways, particularly as schools focus on racially equitable family engagement.

Student Perceptions of Respect for Parents

VOCAL Climate Survey Responses—8th Grade—2019



Massachusetts Department of Elementary and Secondary Education: VOCAL student survey project; Student responses to the statement: “My parents feel respected when they participate at our school.”

EDUCATOR PREPARATION PROGRAM ENROLLMENT

WHAT DOES THE DATA SAY?

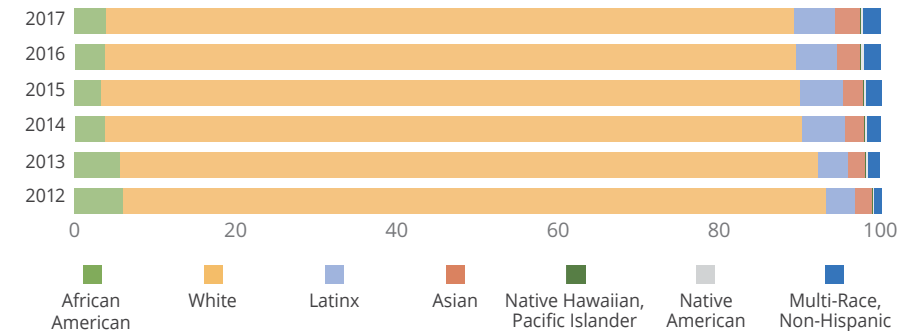
An analysis of educator preparation program enrollment by race and gender between 2012 and 2017 uncovers overwhelming majorities of White and female enrollees.

WHY DOES THE DATA MATTER?

Making pathways into educator positions more accessible to (and utilized by) people of color will have particular impact on students of color, who benefit from learning from someone who looks like them.

Educator Preparation Program Enrollment

Trend over Time—by Race



Massachusetts Department of Elementary and Secondary Education: Educator Preparation Candidate Enrollment by Race/Gender

Multiple Pathways to Career Indicators

This year's report details the importance of multiple career pathways for young adults and adult learners alike who are striving for socioeconomic stability. The following indicators help shed light on access and outcomes related to career pathways in Massachusetts. In addition to these indicators, the Massachusetts Department of Higher Education's Data Center provides a robust set of reports and data on specific institutions of higher education that highlight students' and adults' access, engagement, and outcomes in postsecondary education.

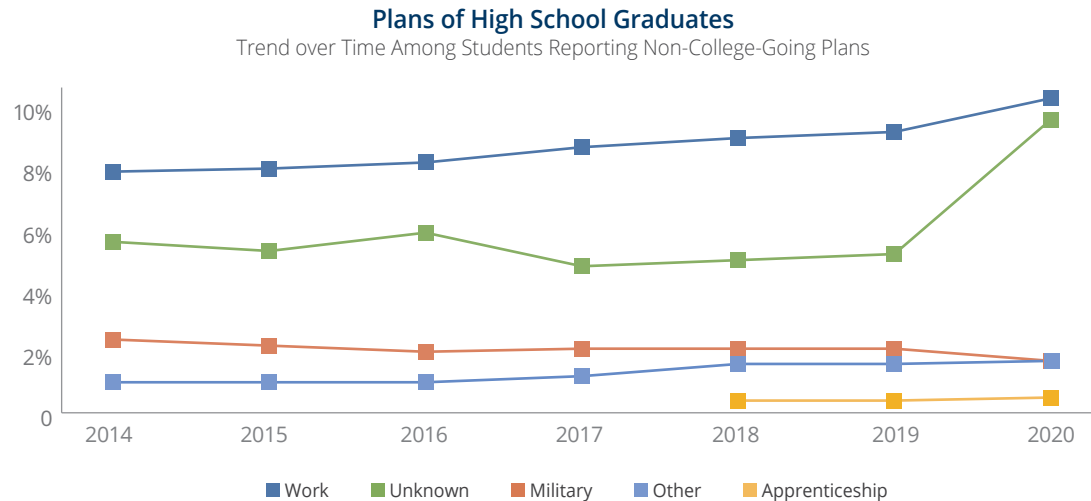
PLANS OF HIGH SCHOOL GRADUATES

WHAT DOES THE DATA SAY?

The majority of 2020 high school graduates planned on attending a four-year public or private college. Among non-college-going graduates, there were increases in the percentage of students who plan to work (which rose from 9.2% to 10.3% between 2018 and 2019) and the percentage of students with unknown plans (which rose from 5.2% to 9.6%). These figures—along with trends in college enrollment—will be important to track in the future to identify how the COVID-19 pandemic impacted postsecondary attainment.

WHY DOES THE DATA MATTER?

Schools and communities can collaborate to coordinate work training and placements for those students going directly into work. With an expected rise in unemployment due to the pandemic, connections with careers before graduation become even more important. School-based staff should also focus on establishing connections and trusting relationships with those whose plans are unknown, in order to provide mentorship or support so they do not slip through the cracks.



Massachusetts Department of Elementary and Secondary Education: Plans of High School Graduates Report

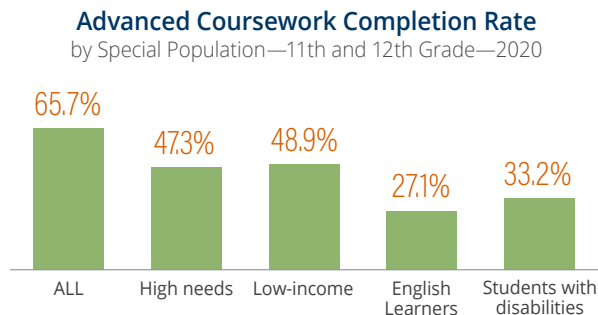
ADVANCED COURSEWORK COMPLETION

WHAT DOES THE DATA SAY?

In 2020, high needs students, low-income students, students with disabilities, and English Learners all completed advanced coursework at a lower rate than their peers.

WHY DOES THE DATA MATTER?

The discrepancies in completion of advanced coursework among special populations signify a need for strengthening and differentiating instruction and expanding access to advanced learning opportunities.



Massachusetts Department of Elementary and Secondary Education: Advanced Course Completion Rate

GRADUATION AND SUCCESS RATES

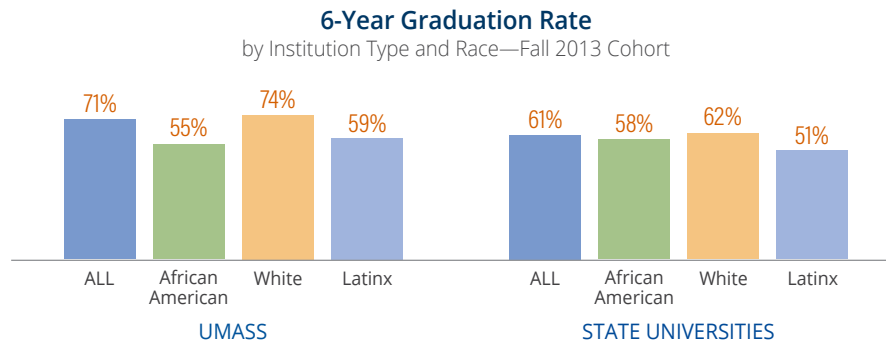
WHAT DOES THE DATA SAY?

For the Fall 2013 cohort of first-time, full-time bachelor's degree-seeking students, the graduation rate from a state university was 61%. Among this cohort, the gap in graduation rates between White and African American students was 4.1%, and the gap between White and Latinx students was 11.4%. The Fall 2013 cohort graduation rate from the University of Massachusetts system was somewhat higher overall, at 70.7%. However, the gaps by race were also greater, with a 19% gap in the graduation rates of White and African American students, and a 14.8% gap in the graduation rates of White and Latinx students.

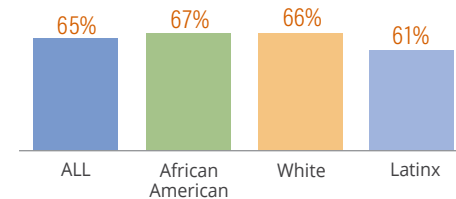
Among community college students who enrolled in Fall 2013, the percentage graduating, transferring, attaining 30 credits, or remaining enrolled after six years (known as the success rate) was 65% for all students, with African American students more likely to achieve one of these outcomes than their Latinx and White peers.

WHY DOES THE DATA MATTER?

Students of color in state universities and the UMass system graduate at lower rates than their White peers, while those in community colleges achieve success at higher or like rates compared to White peers. Institutions of higher education can share knowledge on successful strategies for supporting their students of color in order to promote degree attainment.



6-Year Community College Success Rate
by Race—Fall 2013 Cohort



Massachusetts Department of Higher Education: data provided by staff and the DHE Data Center

MASSCORE COMPLETION

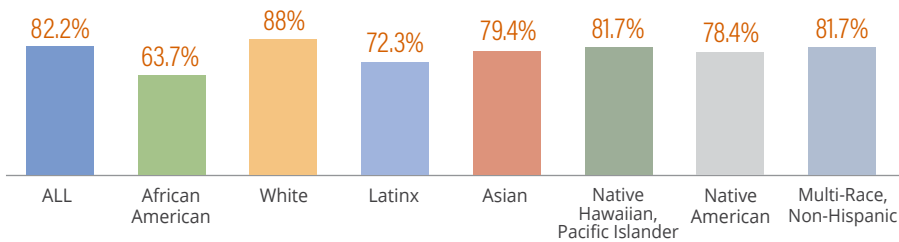
WHAT DOES THE DATA SAY?

Although 82% of all public high school graduates completed the MassCore program of studies (which aims to ensure preparation for college and career), those numbers were much lower among English Learners (61%) and African American students (63.7%).

WHY DOES THE DATA MATTER?

MassCore is a comprehensive program of studies that can prepare students for post-high school life. Lower completion rates can leave students unprepared for the transition to college or career, impacting socioeconomic stability and growth. Identifying barriers to access and completion for the identified groups (for instance, by determining whether districts serving large proportions of students of color have adopted MassCore as a graduation requirement) is the first step to raising completion rates.

MassCore Completion Rate
by Race—2020



Massachusetts Department of Elementary and Secondary Education: MassCore Completion Report

COLLEGE AFFORDABILITY

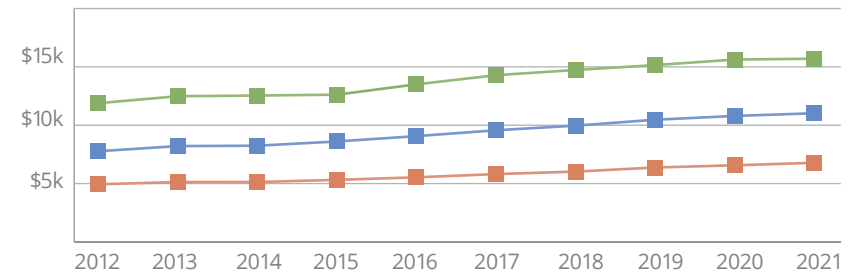
WHAT DOES THE DATA SAY?

The average annual tuition and mandatory fees associated with attending a state university, UMass campus, or community college have steadily increased since 2012. Although, on average, only minor increases happened in each type of institution between FY 2020 and FY 2021, annual tuition and fees have increased by an average of 37% for community colleges, 42% for state universities, and 32% for the University of Massachusetts system since 2012.

WHY DOES THE DATA MATTER?

Cost is an important factor in considering college options, particularly for adult learners—an October 2017 survey of adults over 25 who graduated from high school but have not attained a bachelor's degree found that net cost was the top driver of interest in attending an institution of higher education.

Average Annual Tuition and Mandatory Fees
Trend over Time—by Institution Type



Massachusetts Department of Higher Education Data Center: Mandatory Fees and Tuition Data

Note: this data is not adjusted for inflation

*Mass Maritime and Mass College of Art and Design are not included in the analysis

Appendix

The definitions and notes below are compiled from the featured datasets in this deliverable, including Boston Indicators, MassINC statewide survey results, the U.S. Census, the Massachusetts Department of Early Education and Care, the Massachusetts Department of Elementary and Secondary Education, and the Massachusetts Department of Higher Education.

COVID INDICATORS

- **Access to technology by city (5-year estimate, 2014–18):** The average percentage of households in Gateway Cities with children under the age of 18 without an Internet connection at home. This average is taken from the U.S. Census American Community Surveys collected between 2014 and 2018.
- **Public school enrollment (2016–21):** The number of PK–12th grade children enrolled in a public school in Massachusetts.
- **Chronic absenteeism (2020):** The percentage of all students who are absent from school for 10% or more of the days enrolled.
- **Remote learning and engagement (2020):** Remote learning and engagement explores the various ways in which educators have connected with their students during the pandemic. This data was obtained through a sample of the population of parents of K–12 students in Massachusetts.

HOLISTIC LEARNING

- **9th grade arts participation (2019):** Percentage of students in grade 9 taking at least one arts course (including dance, music, theater, visual, or general art).
- **Student homelessness (2020):** Percentage of homeless children and youth enrolled in Massachusetts's public schools from PreK through 12th grade.
- **Adverse childhood experiences (2020):** Percentage of children ages 0–17 who experienced two or more of the following: economic hardship; parental divorce or separation; living with someone who had an alcohol or drug problem; neighborhood violence victim or witness; living with someone who was mentally ill, suicidal or severely depressed; domestic violence witness; parent served jail time; being treated or judged unfairly due to race/ethnicity;

or death of parent.

- **Opportunity Youth (2019):** Percentage of 16–24 year olds in Massachusetts who are neither in school nor employed.
- **Children living in poverty (2018):** Percentage of children under the age of 18 in Massachusetts living in or near poverty.

SHARED LEADERSHIP

- **Parent involvement in remote learning (2020):** Percentage of parents who are supporting the transition to remote learning through academic and technical assistance as well as supplementing school materials with their own projects. This data was obtained through a sample of the population of parents of K–12 students in Massachusetts.
- **Educator preparation program enrollment (2017):** This report provides the breakdown of educator preparation program enrollment by candidates' gender and race. Information is reported by the educator preparation program provider for the academic year listed (ending in August).
- **Views of Climate and Learning (VOCAL) survey (2019):** The VOCAL survey is administered annually by the Department of Elementary and Secondary Education to students in grade 4, 5, 8, and 10 to explore how supported and respected students feel in their learning environment, the nature of parent-teacher relationships, and community engagement to prevent bullying.

MULTIPLE PATHWAYS TO CAREER

- **High school graduate plans (2020):** Indicates the post-graduate intentions of high school graduates, as of the end of the most recent school year.
- **Advanced coursework completion (2020):** Students in grades 11 and 12 completing vocational technical programs and/or advanced courses by subject area. Courses that are considered advanced include Advanced Placement, International Baccalaureate, dual enrollment, and other challenging classes in a variety of subjects.
- **MassCore completion (2020):** Percentage of public high school graduates

who complete the MassCore program of studies. The Massachusetts High School Program of Studies (MassCore) recommends a comprehensive program of studies for students to complete before graduating from high school in order to be prepared for college and career.

- **College affordability (2021):** The weighted average of annual tuition and mandatory fees at Massachusetts public colleges and universities based on fall resident undergraduate state-supported rates. Mass Maritime and Mass College of Art and Design are not included in the analysis because they are specialty schools and for the purpose of Performance Measurement are not compared to other MA state colleges.
- **Fall 2013 cohort graduation rate:** Percentage of all first-time, full-time, bachelor's degree-seeking students graduating from a state university or UMass campus within six years of initial enrollment.
- **Fall 2013 cohort success rate:** Within six years after enrolling at a community college as either first-time or transfer students, what percentage of students graduate, transfer, attain 30 credits and/or remain enrolled. The Community College Success metric cannot be directly compared to the graduation rates of the state university and UMass system; however, it is a like measure and is used in this indicator to demonstrate positive outcomes.

Notes

Low-income status: For the purposes of this report, low-income status is used as an umbrella term for such designations as: subsidy eligibility, economically disadvantaged, and Pell grant recipients as defined by the Massachusetts Department of Early Education and Care, Massachusetts Department of Elementary and Secondary Education, or Massachusetts Department of Higher Education.

Comparing indicators: While comparing indicators, please keep in mind that different data sources use different definitions of student subgroups and certain data cannot be directly compared to data in prior years. Also note that some data is not available for each year or each student group.

High School Graduation and Dropout Rate: There is no 2020 data for these indicators, although it is expected to be released in the winter or spring of 2021. Therefore, this data is not currently included in the Dashboard. It will be important to study the 2020 data for this indicator as a way to analyze the outcomes of students' high school experiences due to the COVID-19 pandemic.