Condition of Educat10n 2023

Data Report

Each year, the Rennie Center collects a set of key indicators in our Data Report to provide context on the status 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, and other research and policy organizations. This year's Data Report tracks a set of 21 state- and local-level indicators aligned with the focus areas in the Rennie Center's Retrospective Action Guide:

- Responding to the Current Moment
- Early Education and Care
- Instructional Practices
- Student Wellbeing
- College & Career Pathways

As Bay Staters attempt to address the impacts of the COVID-19 pandemic and find their footing in a "new normal," it is critical that individuals working in the education sector—from classrooms to the State House, from Berkshire County to Barnstable County—have access to updated, relevant, accurate data.

ABOUT THIS PROJECT

The Condition of Education in the Commonwealth Data Report 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. This resource provides an in-depth look at a range of school performance measures. The 2023 Data Report serves as a supplement to our Action Guide Retrospective, Looking Back to Look Ahead, curating indicators that will become a part of a more refreshed, comprehensive Data Dashboard available on the Rennie Center website in the coming year.



Responding to the Current Moment

As schools and communities are forced to navigate COVID-19 for a fourth straight year, it is abundantly clear that the pandemic has left a mark on every facet of the education system. Amid ongoing worries about illness and infection, school and community leaders are left grappling with how to apply realistic safety and precautionary measures, address rising absenteeism rates and gaps in learning, and manage critical mental health needs of students and staff members. In addition to this enormous list of priorities, schools must identify how to spend an unprecedented \$2.9 billion federal investment in educational recovery and redesign before the spending deadline of September 2024.

The pandemic has caused every organizational structure in education to feel shaken and unsteady at times-including processes for collecting, analyzing, and interpreting data. While difficult to obtain, current publicly available data is more important than ever as we seek to effectively assess the current education landscape while simultaneously developing solutions for academic recovery, learning loss, mental and behavioral health needs, and other impacts of the pandemic. The following indicators provide a high-level overview of key statewide data points in the context of COVID-19.

ESSER Fund Spending Plans



Massachusetts Department of Elementary and Secondary Education: data provided by staff; EdImpact Consortium: Data Dashboard As the effects of the COVID-19 pandemic continue to impact schools and communities, leaders across the Commonwealth are tasked with making critical decisions around spending plans for an unprecedented influx of federal funds. The EdImpact Consortium has analyzed the spending plans for districts receiving the highest allocations of federal Elementary and Secondary School Emergency Relief (ESSER) funds. Data from 24 districts across Massachusetts show that schools and districts are planning to focus the highest allocations of ESSER funding on time and attention (e.g., smaller class sizes, intensive tutoring, academic intervention, specialized online coursework, and additional teaching staff for high-priority subjects), adaptable instruction (e.g., quality curriculum, flexible student support, assessments, and teacher professional learning and coaching), and social-emotional supports (e.g., social-emotional assessments, staff training focused on relationships and student wellbeing, counseling staff, and partnerships with community mental health organizations).

Total Student Enrollment (Pre-k-12)



Massachusetts Department of Elementary and Secondary Education: Enrollment Data Note: graph does not start at zero

While total student enrollment was declining slightly between 2018 and 2020, data show a significant drop from 2020 to 2021, and the number of students has not recovered since then. Although last year's enrollment stayed steady, the total drop since 2019 means that more than 40,000 students have left the public school system in Massachusetts during that time.





Total Student Enrollment (Pre-k-12) By Race



Massachusetts Department of Elementary and Secondary Education: Enrollment by Race and Gender

Disaggregating total student enrollment by race, data show that while the population of students identifying as White has been in decline since at least 2015, the percent of students identifying as African American/Black, Asian, Hispanic/Latino, or another race has either remained consistent or increased. Students identifying as Hispanic/Latino have seen the largest increase since 2015, with enrollment going up by more than five percentage points.

Total Student Enrollment (Pre-k-12) By Grade



Massachusetts Department of Elementary and Secondary Education: Enrollment by Grade Note: graph does not start at zero Elementary school enrollment has experienced the largest decline of any grade level since the COVID-19 pandemic, dropping by more than 18,000 students across the Commonwealth since 2020. In contrast, despite a brief decline in 2021, pre-k and kindergarten enrollment has rebounded, and these are the only grade levels experiencing a rise in enrollment since last year.

Staff vs. Students Identifying as BIPOC



The percentage of Massachusetts students identifying as BIPOC (defined as, and inclusive of, Black, Indigenous, and People of Color) has been steadily rising, increasing by nearly eight percentage points since 2015. While the population of BIPOC principals, teachers, and superintendents has also been steadily increasing, the gap in representation between classroom, school, and district leadership and the student population is staggering. While legislative efforts such as the Educator Diversity Act and several fellowship and grant opportunities at the Department of Elementary and Secondary Education (DESE) are specifically designed to address the issue of educator diversity at every level, data show that there is a long way to go to address the more than 30 percentage point gap in representation.





Educator and Administrator Retention



Massachusetts Department of Elementary and Secondary Education: Staffing Retention Rates Note: graph does not start at zero

Workforce sectors across the Commonwealth have struggled to recruit and retain employees during the pandemic, and the education sector is no different. Faced with increased mental and behavioral health challenges, staggering academic recovery needs, and increasing demands on school communities, school and district staff are at risk of burn-out due to the unprecedented pressures confronting them. While data show a decrease in retention rates for teachers, principals, and superintendents across the state since the pandemic began, the retention rate for superintendents has seen the largest drop, going down approximately six percentage points since 2020.

Early Education and Care Indicators

Early education and care focuses on a wide range of experiences—academic, social, and developmental—before children reach kindergarten. The data points below highlight a few of the state-level indicators on how children and families navigate the early childhood years and beyond. For a more comprehensive look at the developmental journey children from ages 0–5 take with their families in Massachusetts, please visit Early Childhood 101.

High-Quality Early Education Enrollment



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

Analyzing data from the past seven years, the percentage of children enrolled in high-quality early education programs has steadily declined from 67% in 2015 to 60% in 2022. It is important to note that the available data on high-quality early education enrollment includes only those children receiving state subsidies for early education and care, so this data does not reflect the experience of all children. Nevertheless, the declining trend indicates ongoing challenges with access to and affordability of highquality early education, particularly for lower-income families.



Early/Out-of-School-Time Educators with a Bachelor's Degree or More



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

After a brief drop from 2015 to 2016, the percentage of early and out-of-school educators with a bachelor's degree or more has hovered around 34% for the past six years. This data is limited to those who self-report in the state's Professional Qualifications Registry, and it includes the percent of all educators in family, small group, large group, and school-age child care with a bachelor's, graduate, professional, or doctoral degree.



Full-Day Kindergarten Enrollment

Massachusetts Department of Elementary and Secondary Education: Kindergarten Enrollment Report

Massachusetts state policy defines full-day kindergarten enrollment as a minimum of 850 hours per year. As of 2022, full-day kindergarten enrollment across the Commonwealth is at nearly universal levels, with 99% of children enrolled. Despite a brief drop mid-pandemic in 2021, full-day kindergarten levels have remained above 91% since 2015, and the trend toward demand for full-day enrollment continues to rise.

Instructional Practice Indicators

Over the ten years of COE, we have learned from countless districts, schools, and community partners about the importance of strong instructional practices. Implementing and maintaining an environment of robust instruction is multi-faceted, from the materials used, to the educator support provided, to the data tracked and enrichment offered. As the data below indicates, while Massachusetts has remained committed to strong standards and inclusive learning settings, the pandemic contributed to declines in achievement and the widening of already substantial gaps in learning.

Students with Disabilities in Inclusive Settings



Massachusetts Department of Elementary and Secondary Education: Enrollment of Students with Disabilities—Educational Environment

The percentage of students with disabilities in inclusive settings (defined as the percentage of students ages 6 to 21 with an Individualized Education Program (IEP) who are served inside a general education classroom 80% or more of the day) has increased from 62% in 2015 to 67% in 2022. Similar to MassCORE completion rates, the pandemic seems to have had a minimal impact on the overall upward trend.



3rd Grade ELA MCAS Meeting/Exceeding Expectations



Next Generation MCAS Achievement Results

The percentage of all students in third grade scoring either "meeting" or "exceeding" on the English Language Arts MCAS exam has steadily declined since 2019. Further, even at the height of reported achievement, only 56% of students either met or exceeded proficiency. While there is a gap in data collection in 2020 (and students took an abbreviated version of the exam in 2021), the total number of students meeting or exceeding expectations has fallen twelve percentage points since the onset of the pandemic, with only 44% of students reaching this benchmark in 2022.

8th Grade Math MCAS Meeting/Exceeding Expectations



Massachusetts Department of Elementary and Secondary Education: Next Generation MCAS Achievement Results

Despite a small, four percentage point increase from 2021 to 2022, 8th grade scores on the mathematics MCAS exam have been in steady decline since 2018 and remain well below pre-pandemic levels. With only 36% of 8th grade students meeting or exceeding proficiency in 2022, it is clear that efforts to support student learning in math must go well beyond academic recovery and prioritize longer-term strategies for ensuring all students are able to access and master grade-level content.

Passing 9th Grade Courses



Massachusetts Department of Elementary and Secondary Education: Grade 9 Course Passing

After dropping nearly eight percentage points in 2021, the percentage of students in grade 9 completing and passing all of their coursework increased by nearly two percentage points in 2022 to 77%. Following school leaders' and teachers' efforts to adapt instruction, assessment, and engagement to pandemic-safe learning environments, ninth grade students are passing courses at nearly the same rate as in pre-pandemic years.

MassCore Completion Rate



Massachusetts Department of Elementary and Secondary Education: MassCore Completion Report

Completion rates for MassCore—designed as a comprehensive program of study for students to finish before graduating from high school—have steadily increased over the last six years. Notably, this includes the years during the pandemic. Not only have numbers remained high, they've risen two percentage points from 2019—an interesting contrast to the negative impact the pandemic has had on MCAS scores.

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Student Wellbeing Indicators

In order to create an environment where students can learn and thrive, it is critical that we provide adequate support for their mental, physical, and behavioral health-particularly given the widespread trauma and instability sparked by the COVID-19 pandemic. The indicators below unequivocally show the need to support students' wellbeing by building a comprehensive system of social-emotional and mental health supports. Pairing these supports with screening for behavioral needs, training and guidance for educators, and strong connections to health care providers and community organizations will help foster students' recovery, wellness, and long-term success.

Chronic Absenteeism



Massachusetts Department of Elementary and Secondary Education: (End of Year) Attendance Report

Despite the efforts carried out by schools and districts across the Commonwealth to return to physical school buildings and classrooms, the chronic absenteeism rate defined as the percentage of students who are absent from school for 10% or more of the days enrolled—rose from 17% to 27% for all students between 2021 and 2022. More concerning, when disaggregated by race, the 2022 data show that fully 42% of students identifying as Hispanic/Latino were chronically absent, along with 38% of students identifying as American Indian or Alaska Native, 32% identifying as Native Hawaiian or Pacific Islander, and 32% identifying as African American/Black.

Out-of-School Suspension Rate



Massachusetts Department of Elementary and Secondary Education: Student Discipline Data Report Note: insufficient data for students identifying as Native Hawaiian, Pacific Islander in 2021

Punitive disciplinary practices, particularly out-of-school suspensions, have long been a barrier to learning—especially for the African American/Black and Hispanic/Latino students who are disproportionately targeted for exclusionary discipline. Once schooling was disrupted in 2020, this led to a sharp decline in suspensions for students of all races, likely due to the fact that out-of-school suspensions were not widely used in remote settings. This past year, however, has seen a return to pre-pandemic levels, at a time when students are experiencing increased social and emotional needs and disrupted access to basic services. African American/Black students were removed from classes through out-of-school suspensions at the highest rate of any reported race, with 6% of all African American/Black students excluded from learning time due to a suspension last year.





Churn Rate



Massachusetts Department of Elementary and Secondary Education: Mobility Rates

Churn rate, defined as the percentage of students transferring into or out of a school within a school year, saw its biggest increase since 2015 last year, rising nearly 3% in 2022. With higher absenteeism and churn rates comes a loss of instructional time, inconsistent routines, shifting class cultures, and interrupted assessment of student progress, as well as (for students) less access to school-based resources and supports such as trusted staff, school counselors, and healthy, consistent meals.

College & Career Pathways Indicators

The last few years have seen widespread acknowledgement that a successful education requires some level of postsecondary preparation. This has led to a growing expansion of college and career pathways to help students explore their interests, gain crucial social capital, refine their skills, and identify the necessary steps to build a successful future. However, data indicates that more work needs to be done, especially to ensure that historically marginalized students have the same opportunities as their more privileged peers for advanced coursework, out-of-school time enrichment and internships, and access to postsecondary education.

Advanced Coursework Completion Rate



Rates of participation in advanced coursework by high-needs students, low-income students, English learners, and students with disabilities substantially lag behind the rate for the general student population. Most notably, only 30% of English learners are completing advanced coursework, compared to 65% of all students. While the data shows either consistent or slightly increasing rates of advanced coursework completion across all populations, it also suggests that students who are not regularly enrolled in general instruction classrooms may lack access to rigorous academic courses and opportunities for advanced study.





Plans of High School Graduates

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

Innovative policies and programs such as early college, innovation pathways, and internship opportunities have made a wider variety of post-secondary pathways available to students over the past few years. Data illustrates the increasing diversification of high school graduates' planned next steps. Perhaps most notably, the percentage of students reporting that they plan to work directly after high school graduation has risen more than 5% since 2019. The pandemic's impact and the rising costs of a college education may have contributed to the decrease in 2- and 4-year college enrollment and the associated increase in students pursuing career and other pathways.



State University vs. UMass Graduation Rate

Massachusetts Department of Higher Education: data provided by staff

The University of Massachusetts system saw an increase in its graduation rate between 2015 and 2021, while the graduation rate of the state university system has remained relatively consistent over that time. Meanwhile, a slight drop in the state university graduation rate in 2021 coincides with a simultaneous overall drop in college enrollment (see chart below).

Post-Secondary Enrollment



Massachusetts Department of Higher Education Data Center: State University Annual FTE Enrollment; University of Massachusetts: Quick Facts; Massachusetts Department of Higher Education Data Center: Community Colleges Annual FTE Enrollment Note: graph does not start at zero

Enrollment in Massachusetts community colleges has declined since at least 2015, while enrollment in the UMass and state university systems saw a precipitous drop in 2021 at the height of the pandemic. Overall, community colleges have experienced a loss of nearly 23,000 students enrolled since 2015. In contrast, the state university enrollment numbers dropped by more than 50,000 students between 2020–2021, but they have since rebounded to near pre-pandemic numbers.





APPENDIX

The definitions and notes below are compiled from the datasets featured in this report, including data from the Massachusetts Department of Early Education and Care, the Massachusetts Department of Elementary and Secondary Education, the Massachusetts Department of Higher Education, and other research and policy organizations.

Responding to the Current Moment

Breakdown of ESSER Fund Spending Plans (2022): For more information on ESSER funding, see the EdImpact Research Consortium's Data Dashboard, which was created by the Rennie Center in partnership with the CERES Institute for Children & Youth at Boston University Wheelock College, Education Resource Strategies (specifically responsible for the development of the power strategies), and Massachusetts Business Alliance for Education.

Enrollment (Total, by Race, by Grade) (2015–2022): The number of pre-k–12th grade children enrolled in a public school in Massachusetts.

Educator and Administrator Retention (2015–2022): The percentage of superintendents, principals, or teachers who remain working in the same position from one year to the next.

Staff vs. Students Identifying as BIPOC (2019–2022): BIPOC is defined as Black, Indigenous, and People of Color. This indicator includes those identifying as African American/Black, Asian, Hispanic/Latino, Native American, Native Hawaiian/Pacific Islander, and Multi-Race/Non-Hispanic.

Early Education and Care Indicators

High-Quality Early Education Enrollment (2015–2022): The percentage of children aged 0–5 eligible for financial assistance administered through the Massachusetts Department of Early Education and Care (EEC) and enrolled in a high-quality early education program. EEC uses a Quality Rating and Improvement System (QRIS) to assess, improve, and communicate the level of quality in early education and care settings. Following the system's launch in 2011, programs submitted applications to EEC to join the QRIS and be granted a level of quality. This is based off programs' self-assessed rating and not EEC-granted ratings. EEC defines programs self-assessed at level 2 or above as "high-quality" programs. This data includes only children receiving state subsidies for early education and care.

Early/Out-of-School-Time Educators with a Bachelor's Degree or More (2015–2022): The percentage of all educators in family, small group, large group, and school-age child care settings with a bachelor's, graduate, professional, or doctoral degree who self-report in the Professional Qualifications Registry.

Full-Day Kindergarten Enrollment (2015–2022): The percentage of all kindergarten students enrolled in public schools attending full-day kindergarten programs.

Instructional Practice Indicators

3rd Grade ELA MCAS (2017–2022): The percentage of all students in grade 3 scoring "meeting" or "exceeding expectations" on the English Language Arts Next Generation MCAS.

8th Grade Math MCAS (2017–2022): The percentage of all students in grade 8 scoring "meeting" or "exceeding expectations" on the Mathematics Next Generation MCAS.

Passing 9th Grade Courses (2018–2022): The percentage of students in grade 9 completing and passing all of their coursework. Students are considered "passing" a course if they receive a letter mark of D- or higher; a categorical mark of passing, minimally acceptable, acceptable, good, or outstanding; a numeric mark of 59.5 or higher; or full credit in a credit-bearing course.

MassCore Completion Rate (2015–2022): The percentage of public high school graduates who complete the MassCore program of studies, a comprehensive program of studies for students to complete before graduating from high school in order to be prepared for college and career. The program of studies includes the successful completion of four units of English, four units of mathematics, three units of a lab-based science, three units of history, two units of the same foreign language, one unit of the arts, and five additional "core" courses. A computer science course that includes rigorous mathematical or scientific concepts and aligns with the 2016 Digital Literacy and Computer Science Framework can substitute for either a mathematics course or a laboratory science course.

Students with Disabilities in Inclusive Settings (2015–2022): The percentage of students ages 6 to 21 with an Individualized Education Program (IEP) who are served inside a general education classroom 80% or more of the day.

Student Wellbeing Indicators

Chronic Absenteeism by Race (2015–2022): The percentage of students absent from school for 10% or more of the days enrolled. This includes students in grades pre-k–12 who have been enrolled in the district for at least 20 days.

Out-of-School Suspension by Race (2015–2022): The percentage of enrolled students in grade 1 through special education beyond grade 12 who received one or more out-of-school suspensions.

Churn Rate (2015–2022): The percentage of all students transferring into or out of a school within a school year.





College and Career Pathways Indicators

Advanced Coursework Completion Rate (2018–2022): The percentage of 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. NOTE: The 2022 data point for low-income students is not comparable to those of previous years due to a change in definition from "economically disadvantaged" to "low-income." See Additional Notes below for more information.

Plans of High School Graduates (2015–2022): Indicates the post-graduation intentions of high school graduates as of the end of the most recent year. "Other" is the sum of "Other," "Other Post-Secondary," and "Unknown" responses.

State University vs. UMass Graduation Rate (2015–2021): The percentage of all firsttime, full-time, bachelor's degree-seeking students graduating from a state university or the University of Massachusetts (UMass) within six years of initial enrollment. NOTE: Data is presented as a percentage of students in a cohort—e.g., the 2021 data point for state universities should be interpreted as the percentage of the class who entered in 2015 and graduated within 6 years.

Post-Secondary Enrollment (2015–2022): The number of students who are enrolled in a Massachusetts community college or state university, or in the UMass system.

Additional Notes

Low-income vs. Economically Disadvantaged: In 2014, the Massachusetts Department of Elementary and Secondary Education began using the term "economically disadvantaged" in place of "low-income." In 2022, the state's terminology changed back to "low-income." Data before and since 2022 for low-income/economically disadvantaged students are therefore not directly comparable. For more information, see the Student Opportunities Act and MA DESE Profiles Help page.

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

Acknowledgments

Research conducted and produced by the Rennie Center for Education Research & Policy, with particular contributions from the following staff members:

Alexis Lian Droste, Director of Policy Erika Lee, Researcher Meghan Volcy, Associate Chad d'Entremont, Ph.D., Executive Director Laura Cinelli, Deputy Director Catherine Rauseo, Director of Communications Lazar Design, Design Consultant

The Rennie Center would like to recognize and thank all of the Rennie Center staff and partners, past and present, who have contributed to the Condition of Education project since its inception. In particular, we are grateful to Erika Lee for providing invaluable research, leadership, analysis, and dedication to ensure the Data Report is an accurate, representative resource to inform critically needed supports for students across the Commonwealth. We are also grateful to former Rennie Center Senior Associate Sophie Zamarripa for her dedication to shaping the Data Report this year.

We are also grateful to the agencies, departments, and staff who took the time and attention to provide the Rennie Center with updated, accurate data that informs this report, specifically, the MA Department of Early Education and Care, the MA Department of Elementary and Secondary Education, and the MA Department of Higher Education. We are appreciative of their time, their candor, and—most especially—their commitment to sharing data to better inform programs, processes, and policymaking for the betterment of all Massachusetts students.

About the Rennie Center

The mission of the Rennie Center for Education Research & Policy is to improve public education through well-informed decision making based on deep knowledge and evidence of effective policy making and practice. As Massachusetts' preeminent voice in public education reform, we create open spaces for educators and policymakers to consider evidence, discuss cutting-edge issues, and develop new approaches to advance student learning and achievement. Through our staunch commitment to independent, non-partisan research and constructive conversations, we work to promote an education system that provides every child with the opportunity to be successful in school and in life.

