

# REIMAGINING THE MCAS

THE NEED FOR AN ACCOUNTABILITY SYSTEM  
THAT SUPPORTS DEEPER LEARNING

**SPRING 2021**



**W**hen asked about their most powerful learning experiences, children often describe opportunities to apply new knowledge and skills to real-world situations. They give examples of writing to elected officials to address an issue they care about in their communities, using math to analyze disparities in school discipline, and learning about coding by programming a robot.

The voices of students and educators, backed up by decades of research on how children learn, are pushing educational leaders to prioritize instruction that fosters creativity and critical thinking. Across the Commonwealth, many educators are making instructional shifts that better engage students and prepare them for life after high school. For some, these shifts have been difficult. When asked what stands in their way, educators point to time, training, and the Massachusetts Comprehensive Assessment System (MCAS).

The MCAS was first introduced out of a commitment to educational equity, and it has contributed to large improvements in academic outcomes in Massachusetts. However, the tests have had unintended consequences that affect instructional decisions in nearly all districts, with a disproportionate impact on economically disadvantaged communities and communities of color.

In schools across the Commonwealth, particularly those concerned about facing punitive accountability measures because of low test scores, educators report that a drive towards success on state assessments leads them to devote class time to preparing students for taking multiple-choice tests and to focus on a narrow set of tested standards. Time that could be spent building knowledge in collaboration with peers and applying it to real-world situations is exchanged for instruction that mirrors the structure of the MCAS. Schools performing well on the MCAS face a different, but related, challenge. Concerned that experimenting with new instructional approaches will lower scores, many are hesitant to innovate with their instruction.

Yet this very effect of classroom instruction mimicking the MCAS demonstrates that state assessments are a powerful lever for instructional change. Under the Every Student Succeeds Act (ESSA), states are required to administer tests each year in grades 3-8 and once in high school. ESSA provides states with significant flexibility to determine what these tests look like, including the opportunity to pilot innovative assessment and accountability systems such as interim and performance-based assessments.<sup>1</sup> This flexibility provides Massachusetts with an opportunity to design a more culturally responsive assessment system that prioritizes depth and application of learning.

Massachusetts education stakeholders have engaged in a longstanding debate on the role of the MCAS. During a year significantly impacted by the pandemic, the debate around whether or not the state should administer the MCAS at all resurfaced with renewed energy. Though the current MCAS has significant drawbacks, it plays a critical role in uncovering disparities and ensuring resources are targeted to schools and districts in need of support. This brief seeks to recenter discussion of our K-12 accountability system, focusing not on whether an assessment should be administered, but on what an assessment system should look like. In particular, we explore the opportunity to reimagine a system that promotes the most effective learning strategies, offers actionable data for educators, and provides guidance on addressing inequities.

The sections below explore the following questions: What does an assessment system that prioritizes deeper learning look like? What steps can Massachusetts take to move its assessment system in this direction? How can Massachusetts ensure cultural responsiveness is a core priority in future state assessments? Part one of the brief defines deeper learning and explores the opportunity for assessment to serve as a lever for instructional change. Part two looks at options for assessment that align with and incentivize deeper learning. The brief concludes with a set of recommended action steps for state policymakers.

<sup>1</sup> Interim assessments are administered throughout the year to assess a smaller set of content standards and inform adjustments to instruction. Performance-based assessments use authentic tasks and scenarios to assess students' ability to apply the content they have learned.

# Part 1: The Opportunity

## THE CASE FOR DEEPER LEARNING

Deeper learning allows students to engage with content in authentic ways through rigorous, empowering, and relevant instruction. This concept is not new. For decades, exemplary educators have designed learning activities that equip students with the tools to communicate clearly, work collaboratively, and navigate novel problems in and outside of school. Though deeper learning offers much promise for students, it is difficult to do well. Educators face a range of barriers to integrating deeper learning in their classrooms, including inadequate training, low-quality curricular materials, and school structures and schedules that require teachers to move quickly through a large volume of content.

Following a statewide listening tour in 2018, Commissioner Jeff Riley announced a commitment to deeper learning as a means to address Massachusetts' stagnant performance on national assessments and longstanding racial and economic opportunity gaps. The Kaleidoscope Collective for Learning, which provides support for schools to redesign learning experiences in alignment with deeper learning, represents the Commonwealth's first major initiative to incentivize this shift.

In the largest study to date, researchers from American Institutes for Research (AIR) found students involved in deeper learning schools performed better on assessments of problem solving,<sup>2</sup> reported higher levels of interpersonal and intrapersonal skills, and graduated from high schools and enrolled in postsecondary institutions at higher rates than those in matched schools (Bitter & Loney, 2015; American Institutes for Research, 2016). Coupled with students' positive feedback on engaging experiences in deeper learning schools, these outcomes make the case for Massachusetts policymakers to strengthen their support for schools seeking to rethink instruction around deeper learning.

## ASSESSMENT AS A STIMULUS FOR CHANGE

Assessment and accountability have long been seen as levers for improving education. With an early and fundamental goal of bringing to light, and addressing, educational inequities, Massachusetts has led the nation in forward-thinking assessment and accountability systems. Today, the MCAS is seen by many as one of the most rigorous state assessments in the country (National Center for Education Statistics, 2017).

The MCAS has exposed gaps in student outcomes that have led to increased funding for under-resourced schools and equipped parents with the information they need to advocate for their children. Over time, the Commonwealth has incorporated metrics such as chronic absenteeism, progress towards English proficiency, and completion of advanced coursework into its school and district accountability system. With each addition, districts have responded by investing time and attention to these metrics.

At the same time, the MCAS has significant drawbacks. Testing captures a single snapshot in time, and the high-stakes nature of the test has a disproportionately negative impact on students of color and economically disadvantaged students. Passing the 10th grade English and math tests is a graduation requirement in Massachusetts,<sup>3</sup> and students who do not pass are more likely than their peers to drop out of high school (Papay et. al., 2010). A long delay before test results are reported

<sup>2</sup> The OECD PISA-Based Test for Schools (PBTS) "is a digital assessment intended to help school leaders understand their 15-year-old students' abilities to think critically and apply their knowledge creatively in novel contexts" (OECD website).

<sup>3</sup> Due to the COVID-19 pandemic, the MCAS graduation requirement was temporarily suspended for the class of 2020, 2021, and 2022.

limits the value of MCAS data to educators and school leaders. Many districts purchase private interim assessment systems to get the information they need to tailor instruction based on student performance. And, like other standardized tests, MCAS scores at the aggregate (school/district) level can be explained primarily by out-of-school factors including community wealth and parental education levels (Tienken et. al., 2016). The use of MCAS scores to “rate” districts and schools has stigmatized communities that perform poorly largely due to factors beyond the control of educators.

Research on how children learn has advanced significantly in recent years. At the same time, technological capability has improved tremendously, allowing for new forms of assessment. As a result, there is an opportunity for the Commonwealth to rethink the structure of the MCAS to preserve the benefits of the current system while addressing its shortcomings.

## **THE GROWING GAP BETWEEN STANDARDS AND STANDARDS-BASED ASSESSMENT**

Given the impact of standardized assessment on classroom instruction, it is imperative that Massachusetts measures the competencies that are most critical to students’ future success. We know far more about how students learn than we did when the MCAS was first administered in 1998. Massachusetts standards have evolved over time, with many reflecting an emphasis on application of knowledge and critical thinking skills. In 2011, Massachusetts incorporated the Standards for Mathematical Practice into its curriculum framework; these focus on building students’ abilities to “problem-solve, reason and prove, communicate, represent, make connections, conceptualize, and strategize in mathematics” (Massachusetts Department of Elementary and Secondary Education, 2017). In English/Language Arts, many standards have evolved to focus on the skills that students will need for the future of work and civic participation. They emphasize transferable competencies including collaboration, media literacy, and communication. Standards have been similarly revised in science, with an emphasis on building deep understanding of core scientific ideas that students learn to apply to novel problems in the real world. These shifts towards more applied learning experiences and authentic instruction create challenges for standards-based assessment as it exists today.

Though the MCAS has adapted in an attempt to measure these skills, the format of the exam limits the extent to which such measurement is possible. Tests consist mainly of multiple-choice questions, with a handful of essays, short answer, and constructed response items. This form of assessment cannot measure students’ ability to find and assess sources to inform research projects, communicate with peers to share reasoning, or collaborate with others to reach a common goal. It is likely that standards will continue to be revised in future years to emphasize cultural relevance and reflect new knowledge about how to prepare students for the evolving demands of the modern workplace. These areas will be particularly difficult to measure given the current test format.

Unless changes are made to how learning is assessed, the Commonwealth risks a growing gap between agreed-upon priorities for student learning and what is taught in classrooms to prepare for state assessments. Improving alignment between assessments and evolving, twenty-first century standards will better incentivize classroom-level shifts toward more authentic, culturally sustaining instruction. At the same time, these changes will build public trust in assessment results.

# Part 2: Looking Towards the Future

## A FRAMEWORK FOR ASSESSMENT OF DEEPER LEARNING

A state assessment and accountability system serves multiple goals. State leaders must rethink the core tenets of the system in order to assess student progress in deeper learning contexts. The following three requirements ensure a new system provides the information needed by stakeholders (teachers, parents, districts, local and state government bodies, and more), while also recognizing—and leveraging—the influence of state assessments on instructional practice.

1

### Provides usable data and information for teachers, students, families, and policymakers.

A state assessment and accountability system, whether tied to deeper learning or not, must provide information to key stakeholders. A next-generation assessment system provides the following key data:

- Information for state leaders to direct resources and technical support to schools and districts that are struggling to meet rigorous learning targets;
- Information for schools to support instructional improvement efforts;
- Information for teachers to understand students' current knowledge and identify areas where further support is needed;
- Information for students to see which content they have mastered and areas in which they need to improve;
- Information for families to understand how their children are performing relative to grade-level standards and whether their schools are meeting their expectations.

The current year-end MCAS does not provide data to teachers quickly enough to inform instruction. As a result, schools and districts devote significant time and funding to fee-based assessments that provide the more frequent data they need. Similarly, the MCAS does not provide the information that students need to share ownership of their learning—a central principle of deeper learning. In order to co-create learning goals and understand progress, teachers and students need regular access to data that shows students' current strengths and areas for growth.

A reimagined MCAS could comprise a series of brief interim assessments rather than a single year-end test. Access to this form of high-quality, standards-aligned interim assessments provided by the state would eliminate the need to double-test students for formative and accountability purposes. In this model, students would complete two to three shorter assessments throughout the year, rather than one summative, end-of-year test.

Other states have begun piloting the use of interim assessments for accountability purposes. Nebraska, for example, is currently using NWEA's MAP Growth assessment, an adaptive, computer-based assessment, to monitor student learning throughout the year. The state's goal is to provide usable information to teachers and create a summative score at year's end without additional testing (O'Keefe & Lewis, 2019; Olson & Jerald, 2020).

## 2

### **Allows students to apply their knowledge in diverse and authentic ways.**

Performance-based assessments offer an authentic means of evaluating students' application of the content they have learned. Though many policymakers and practitioners are enthusiastic about the potential of performance-based assessment, these assessments have historically required human scoring, which is difficult to scale.

States have been experimenting with performance-based assessment for accountability for many years. New Hampshire's Performance Assessment of Competency Education (PACE) effort, which launched in 2012, is the most notable example. PACE combines a mix of locally and state-designed performance-based assessments, administered yearly, with standardized state assessments that students complete once in their elementary, middle, and high school years (Latham, 2016). Technological advances are making performance-based assessments more scalable than they were when the PACE effort launched nearly a decade ago.

Education technology providers have begun to create opportunities for students to demonstrate the application of skills and knowledge through computer-based performance assessments. Massachusetts' pilot of a new computer-based MCAS performance assessment for science, which was administered in Spring 2021, offers promise.

## 3

### **Promotes culturally responsive instruction and assessment.**

Historically and today, a primary aim of state standards-based assessments has been to identify, quantify, and address educational inequities, whether across districts and schools or within schools themselves. The explicit goal of the Massachusetts Education Reform Act of 1993 and later the 2001 No Child Left Behind Act was to ensure a high-quality education for every child, based on shared statewide standards for students at every grade level. The MCAS and its results have contributed to an increase in funding to schools serving a high percentage of students of color, economically disadvantaged students, and English learners. At the same time, the high-stakes nature of the test, especially as a high school graduation requirement, has impacted economically disadvantaged students and students of color disproportionately.

Rethinking assessment creates an opportunity to prioritize non-academic metrics in the state accountability system, such as school climate, that create additional incentives for schools to focus on these issues. It also allows test creators to provide opportunities for students to demonstrate their knowledge in ways that more closely align with their lived experiences.

Due to technological advances, test creators now have the ability to embed student choice in assessment design by providing students with options for how they will demonstrate knowledge in a particular construct. For example, some students may elect to describe their mathematical thinking in writing, while others may prefer to describe their process orally. Making these changes requires an acknowledgement that no test is culture-free, and that all test items must provide details that enable students of different backgrounds to 1) see their culture represented, and 2) comprehend cultural content when a test item portrays a culture different from their own.

## OPTIONS FOR ASSESSMENT AND ACCOUNTABILITY TO INCENTIVIZE DEEPER LEARNING

The following table describes various types of assessment and the extent to which each option aligns with the principles listed previously. Each form of assessment has strengths and drawbacks that Massachusetts should consider in rethinking its approach to standardized testing. These opportunities are not mutually exclusive and could be combined to create a right-fit assessment for Massachusetts.

ASSESSMENT OPTION	DIFFICULTY TO IMPLEMENT	PROVIDES USABLE DATA	ASSESSES KNOWLEDGE APPLICATION	PRIORITIZES CULTURAL RESPONSIVENESS
MCAS 2.0 (CURRENT SYSTEM)	EASY	LOW-MEDIUM	LOW-MEDIUM	MEDIUM
INTERIM	MEDIUM	HIGH	LOW-MEDIUM	MEDIUM
PERFORMANCE-BASED	HARD	DEPENDENT UPON ASSESSMENT FREQUENCY	HIGH	HIGH (DEPENDENT ON ASSESSMENT ITEMS)
ADDITION OF METRICS TO ACCOUNTABILITY	EASY	DEPENDENT UPON ASSESSMENT FREQUENCY	N/A	DEPENDENT UPON METRICS
HYBRID INTERIM & PERFORMANCE-BASED	HARD	HIGH	HIGH	HIGH (DEPENDENT ON ASSESSMENT ITEMS)

## **CHALLENGES AND CONSTRAINTS**

The challenges of designing and implementing a new state assessment and accountability system are significant. While there is work underway across the country to pilot interim assessments that are rolled up into a summative score and to implement performance-based assessments in lieu of a standardized test in every grade level every year, the development of rigorous and valid approaches is ongoing.

One of the challenges that must be navigated when considering interim assessments is the tension between state and local control over curriculum and instruction. Interim assessments, unlike a single cumulative assessment at year's end, are intrinsically tied to the timing of instruction. State-approved interim assessments can either, in effect, mandate the scope and sequence of instruction in schools, or they can allow districts to choose when each assessment is administered based on local curricula, putting at risk the comparability of data across districts. Yet, despite these challenges, states across the country are experimenting with a variety of assessments and finding ways to provide usable data to teachers, while also rolling data up into a summative accountability system.

Similarly, performance-based assessments allow students to demonstrate higher-order thinking, and they could serve as a valuable component of regularly spaced interim or year-end summative assessments (Darling-Hammond et al., 2013; Tung, 2010). Traditionally, the costs and time required to train teachers to administer performance-based assessments and evaluate proficiency with inter-rater reliability have been significant. Newer computer-based performance assessments offer a less time-intensive rating and scoring process. Massachusetts' MCAS science pilot, which incorporates performance assessment, could serve as a model for other subject areas.

## **Part 3: Policy Recommendations**

Massachusetts is at a critical juncture in education. The Commonwealth's assessment and accountability system, which once contributed to significant instructional improvement, must be redesigned to support the next wave of reform. We know far more about how students learn and develop than we did when the MCAS was first administered in the spring of 1998. Though the test has become more cognitively demanding over time, much of the content and structure is rapidly becoming outdated. The Rennie Center recommends that the Commonwealth take the following actions to design and pilot a computer-based performance assessment system that provides timely data, supports deeper learning, and prioritizes cultural responsiveness.

### **PROVIDE INTERIM ASSESSMENTS FOR ACCOUNTABILITY**

By shifting from end-of-year summative assessments to a series of shorter, interim assessments, the MCAS can provide timely data to teachers, students, families, and school leaders, who can use it to make real-time adjustments to instruction. This will also support an overall decrease in testing time, as schools will no longer need to administer separate interim assessments to get the data they need.

### **SHIFT TO A PERFORMANCE-BASED ASSESSMENT SYSTEM**

Performance-based assessments offer a powerful opportunity for students to apply their skills and knowledge to real-world contexts. Previously, scalability and reliability had been key concerns in shifting standardized testing in the direction of authentic, performance-based assessment. Though challenges remain, these assessment methods have become far more scalable due to advances in technology, with DESE's own science assessment piloted in spring 2021 as an example. Making a shift towards performance assessment does not necessitate that every assessment question is performance-based. The Commonwealth may begin by creating a hybrid model, in which portions of the exam are performance-based and other portions mirror the current MCAS.



## **IDENTIFY OPPORTUNITIES FOR STUDENT CHOICE IN ASSESSMENT**

When students see themselves, their context, and their culture in instruction and assessment, they are better able to demonstrate their knowledge (Montenegro & Jankowski, 2017). Technological advances are making student choice in assessment possible in ways that did not exist just a few years ago. For example, online platforms can give students the opportunity to show the same literacy skills via a choice of writing prompts or to apply the same math skill to solve different real-world problems that impact their community. In instances where students demonstrate the same skill via different questions or scenarios, an equating process will be required to adjust for differences in difficulty across the questions that students choose.

## **DEVELOP AN OPT-IN PILOT FOR SCHOOLS**

Current instructional practices in many schools are not designed to support deeper learning. If the Commonwealth shifts its assessment approach, it will take time for schools, educators, and students to adapt to different expectations. Given the demands of this shift, a pilot assessment should be opt-in for schools, with significant opportunity for participating students and educators to provide feedback before scaling an approach statewide. Massachusetts should consider financial incentives for participating districts, including training opportunities for teachers and administrators to support the transition to deeper learning.

## **SUPPORT EDUCATORS WITH NEW FORMS OF ASSESSMENT**

Incentivizing a shift to deeper learning must be paired with rich and extensive opportunities for teachers and school leaders to build their skills with this new pedagogical approach. The Commonwealth should identify opportunities for educators to learn together, in teams from schools, and over multiple months to roll out this work. The Department's Kaleidoscope Initiative provides a promising starting point for this form of statewide learning.

# **Conclusion**

As a long-time leader in education, Massachusetts faces a tremendous opportunity to align its already rigorous state standards to a new system of assessment and accountability. Massachusetts has demonstrated success with pulling from the best ideas around the country and piloting new approaches for others to learn from. In order to be successful, the bold assessment changes highlighted above should be undertaken with significant input from the communities most impacted by the unintended consequences of the current system. By shifting its assessment practices in this way, the Commonwealth has the potential to make instruction more relevant, engaging and effective for students across the state.

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### **Acknowledgments**

The Rennie Center would like to express its gratitude to the educators, school administrators, policymakers, curriculum leaders, and researchers who lent their time and expertise to the development of this brief. Many of the recommendations and findings above are driven by their insights. We are inspired by your commitment to improving learning experiences for 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.

### **Suggested Citation**

Rennie Center for Education Research & Policy. (2021). Reimagining the MCAS. Boston, MA: Rennie Center for Education Research & Policy.