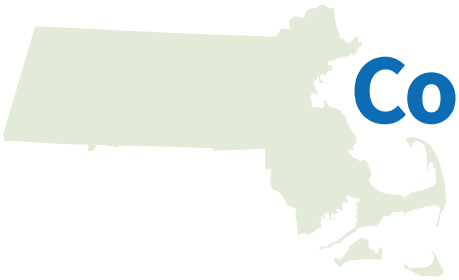
RENNIE CENTER
EDUCATION RESEARCH & POLICY



Condition of Education
IN THE COMMONWEALTH

ACHIEVING THE VISION:

Priority Actions for a Statewide Education Agenda

WINTER 2015

Overview

From the founding of the nation's first public school in Boston in 1635 and through the bold reforms of recent decades, Massachusetts has earned a reputation as a leader in public education. In the twenty years since the passage of the Education Reform Act of 1993, we have seen substantial growth in student achievement and impressive innovation across the state—accomplishments that speak to the power of a common vision of proficiency for all and to the hard work of educators and leaders in local communities. Persistent opportunity and achievement gaps remain, however, especially for the Commonwealth's highest-need and traditionally underserved student populations. It is time to put those challenges into sharper focus and match them with known strategies that—when implemented statewide—will help close these gaps.

Over two decades we have learned a great deal about what it really means to educate all students at high levels. In that time, many Massachusetts communities have arrived at sophisticated solutions to some of the toughest challenges facing our public schools. We can do more to harness lessons learned from effective school practices to realize a shared vision of a public school system that prepares every young person for success in college, careers, and life.

A Reform Refresher

The Rennie Center for Education Research & Policy presents the annual *Condition of Education in the Commonwealth* as an evidence-based status report on Massachusetts' progress in achieving sustainable success for all students. Each year, we review the latest data at every stage of the educational pipeline—from early childhood into adulthood—noting which areas stand out as requiring more concerted attention.

Last year, we presented our first *Condition of Education Data Report*, an at-a-glance update on public education in Massachusetts as described by 25 statewide indicators. The response was positive. State and community leaders appreciated having a clear and accessible view of the state's education pipeline in its entirety. The data helped ground many conversations among those working to improve the state's public schools and opened the door to a strategic new direction for research at the Rennie Center.

This report is an update of that work. We have reviewed the same set of indicators and have taken our analysis one step further to ask: What set of activities have the greatest potential to address the statewide challenges that emerge from these data?

From Data to Action

In this report, we present three of the most critical challenges facing our public schools—areas where greater investments, strategic expansion of effective practices, and thoughtful collaboration can bring us closer to achieving our statewide vision of excellence for every child. Indeed, the purpose of this report is not to generate new policy ideas but rather to help decision-makers and the general public better understand practices that are already in place and appear to be working.

We began with the data, zeroing in on the areas where student outcomes are lagging. We then asked what remedies to similar performance gaps have been successfully implemented in Massachusetts and have the potential, if brought to scale, to solve our most pressing challenges. A diverse board of expert advisors helped us consider a range of high-potential activities, and several criteria helped us prioritize among those options:

- ✓ The activities must align with our Condition of Education core indicators, directly contributing to improved outcomes in areas we've identified as in need of work.
- ✓ They must be supported by research.
- ✓ They must have an established track record in Massachusetts' schools.
- ✓ There must be a realistic possibility of expansion in the near future.

Our recommendations are also informed by two cross-cutting principles that undergird the Rennie Center's understanding of what meaningful reform requires:

- **Education encompasses more than academic learning.** A growing—and very convincing—body of research points to qualities beyond traditional academic knowledge and skills that predict a student's chances of long-term success.[1] To achieve better outcomes, schools must educate the whole student, attending to external factors that, if unaddressed, can detract from learning. At the same time, schools can do more to nurture the non-academic qualities that are essential to success in school and beyond.
- **Schools should not—and cannot—work in isolation.** Providing children with the full array of supports and opportunities they need to thrive as learners will require coordinated input from multiple sectors. As we seek solutions to challenges of the K-12 sector, we must consider how partnerships among schools, higher education, early learning programs, community organizations, and other youth-serving agencies can be leveraged to achieve better outcomes for the young people they share.

Priority Actions for Consideration

Guided by the criteria above, we identified three areas where statewide action can build on existing, effective practice to generate significant improvements in student outcomes.

1. **Expand early childhood programming:** Develop a community-based, mixed-provider approach to expand access to quality prekindergarten options so that more Commonwealth students have access to these foundational learning experiences.
2. **Develop a robust statewide approach to student support:** Invest in broader implementation of holistic assessments of student well-being in addition to effective multi-provider models that allow schools and their partners to address a full range of student strengths and needs.
3. **Replicate innovative early college designs:** Prepare more students for the 21st century by expanding models that blend high school and college coursework, providing students with the momentum and support they need to persist to a college degree.

In the following pages, we present an overview of the current need and policy context in each of these areas, along with suggested program steps for bringing successful practices to scale. Our hope is that this action guide and the larger *Condition of Education in the Commonwealth* project will provide a common foundation for more informed action statewide, building bridges between what we know how to do and what we aspire to achieve for all students.

PRIORITY ONE

Setting a Strong Foundation in Early Childhood

Why Early Childhood Matters

Birth to age five is a period of enormous cognitive, social-emotional, and physical development. The educational experiences children have during these years set the foundation for future learning and growth. Participation in high-quality early education and care can produce significant and lasting outcomes for children.[2] Effective early education programs take place in a variety of settings and are distinguished by well-trained and caring educators, developmentally appropriate curriculum, and a high standard of program delivery.[3] Research cites several types of long-term outcomes for children in high-quality settings:

- **A strong academic foundation:** Children who participate in high-quality early education develop better language skills—scoring higher in school-readiness tests—and demonstrate stronger early literacy and math skills.[4]
- **More than academic benefits:** High-quality early education also develops important social-emotional skills—such as focus, mental flexibility, and self-control—that are linked to success in college and the 21st-century workplace.[5] For example, a child's ability to pay attention and complete a task at age four strongly predicts her chances of graduating from college by age 25.[6]
- **Benefits to vulnerable populations:** The benefits of early childhood education are particularly important for high-need students, including children from low-income families. Quality early childhood programs—including preschool—can accelerate the pre-reading skills of children who have less literacy exposure at home.[7] Children who participate in a quality early childhood program are also 40 percent less likely to be referred to special education services or held back a grade.[8]
- **The impact is lasting:** Low-income children who attended quality early education programs continue to outperform those who did not at ages 19 and 27.[9] They are 30 percent more likely to graduate from high school[10] and more than twice as likely to attend college.[11] They are more likely to be employed at age 40 and have significantly higher annual earnings.[12] Studies of more recently established state-funded preK programs have found a lasting impact on children's academic performance through the elementary grades. For example, New Jersey's high-quality Abbott Preschool program has been shown to significantly narrow achievement gaps in literacy, math, and science through 4th and 5th grade.[13]

A Moment for Action

The moment is ripe for more deliberate action in the early childhood sphere in Massachusetts. In the past two years, the Commonwealth has made new commitments to early childhood education, setting the groundwork for continued action in two important areas:

- **Improving access:** In FY14 and FY15, the state budget included $15M to serve an estimated 1,700 additional children per year who were on the Department of Early Education and Care's (EEC) waiting list for a subsidy. The current FY15 budget includes a $6.57M reserve to increase early educator salaries and benefits, a $1M increase for Head Start programs, and a new $1M grant program to cover start-up costs associated with opening new prekindergarten (preK) classrooms, with preference given to communities with Level 5 schools and districts.

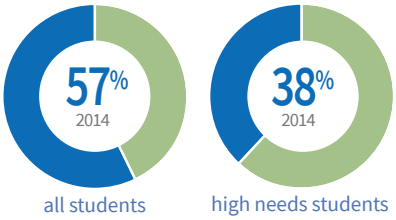
  Additionally, more districts are enrolling three- and four-year-olds in preK classrooms within public schools; these classrooms are funded entirely by state (Chapter 70) and local dollars. In the 2014-15 school year, about 28,000 children are enrolled in public preK programs.[14] Most of these are inclusion programs designed to meet federal special education requirements; they serve a specific ratio of children deemed at risk or in need of special services and those without documented needs, offering a limited number of slots.[15]

- **Improving quality:** The Quality Rating Indicator System (QRIS) sets statewide standards for early education and care programs serving children ages 0-5 as well as out-of-school programs for youth through age 14. The standards outline indicators of quality related to curriculum, the learning environment, staff qualifications and professional development, family and community engagement, and administration.[16] Currently, participation in the QRIS is voluntary, though EEC does require QRIS participation as a condition of certain types of funding.

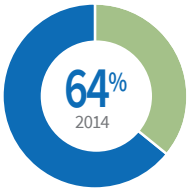
Where We Are Now: Key Indicators

All indicator data cited in this box can be found in the Rennie Center's 2015 Condition of Education Data Report.

EARLY READING: In Massachusetts, the first standardized measurement of achievement we have is third grade reading, an indicator that is strongly correlated with a child's likelihood of eventually graduating from high school, avoiding incarceration, and participating in the workforce.[17] Statewide data suggest we have work to do in early literacy; in 2014, only 57 percent of all third grade students and 38 percent of high needs third grade students[A] met the third-grade bar for English language arts proficiency.

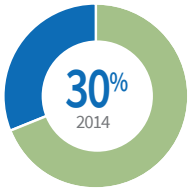


Students scoring proficient or advanced on the **3rd grade English language arts MCAS**



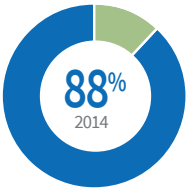
Children aged 0-5 eligible for a subsidy and enrolled in **high-quality early education** programs

ACCESS TO HIGH-QUALITY EARLY EDUCATION: Access to prekindergarten and early childhood programs is more uneven. The two groups most underserved are low-income families on waiting lists for childcare subsidies, and families with income above the official subsidy threshold who cannot afford rising program costs.[18] Currently, 64 percent of students aged 0-5 who receive EEC subsidies attend programs that have self-assessed at level 2 or higher on the Quality Rating Indicator System, the state's quality standard.



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

EARLY EDUCATOR QUALITY: The state has begun collecting data on the percentage of early and out-of-school educators with a bachelor's degree or higher—a marker of instructional quality. Currently, 30 percent of early and out-of-school educators have a bachelor's degree or higher.



Students attending **full-day kindergarten**

KINDERGARTEN ACCESS: The Commonwealth has made progress in expanding early learning opportunities, with districts steadily increasing access to full-day kindergarten programs—up to 88 percent participation in 2014.

A. The Massachusetts Department of Elementary and Secondary Education defines "high needs" students as those belonging to at least one of the following subgroups: eligible for free/reduced lunch, students with disabilities, English language learners, and former English language learners.

ACTION ONE

Expand Prekindergarten Partnerships

Massachusetts has made strong progress in early education, but providing all children access to high-quality preK options will require similar investments to those made in the K-12 sector over the past two decades. Evidence from state-funded preK programs around the country indicate that public investment in early education makes a difference. In a number of states, publicly funded preK programs have shown a positive impact in preparing students for kindergarten, reducing costly interventions like special education and grade retention, and improving academic performance into the middle and high school grades.[19]

One of the defining features, and inherent challenges, of Massachusetts' early childhood system is that it comprises a range of providers: public schools, community-based nonprofits, for-profit centers, and independent caregivers. Each of these sectors relies on different sources of funding and functions largely in isolation from the others. As we move toward more universal preK access in Massachusetts, we must consider how to leverage capacity across a mixed-provider system and ensure a common standard of program quality. That will require attention in at least four areas:

- **Finance:** A fragmented public funding system (Chapter 70 funds for public schools, state and federal funds for Head Start programs, EEC subsidies for income-eligible families) contributes to inequities in staff compensation and program quality. The state must look at funding mechanisms that would support innovation in, and expansion of, quality program offerings across this mixed-provider system.
- **Standards and accountability:** The Commonwealth has taken a crucial step defining standards for quality programing through the QRIS. These standards can become the universally recognized standard of quality across preK programs, so that all providers are similarly accountable for the quality of services they provide and the outcomes they achieve. At minimum, EEC may require participation in QRIS for all preK programs that receive state or federal funds, or that are run in partnership with a school district. Similarly, EEC established the Professional Qualifications Registry to track the qualification of educators working in publicly funded programs; the Department may consider requiring this of all early and out-of-school time educators working in publicly funded programs.
- **Teacher preparation and support:** To achieve the standards for curriculum and instruction set by the QRIS, we will need to be more attentive to how preK educators are prepared and developed. We can learn from and apply many of the best practices in K-12 teacher preparation, evaluation, and support. Perhaps the biggest hurdle will be creating a more equitable pay structure. Currently, family child care and center-based educators earn considerably less than their public school counterparts. Developing a professionalized workforce of preK educators with at least a bachelor's degree will require salary increases across many providers for both teachers and directors. This investment in educators would help contribute to a reduction in staff turnover, and the emergence of a more experienced early childhood educator workforce.
- **Dissemination of practice:** With a range of public and private providers, preK programming in Massachusetts has evolved largely along independent tracks. Different providers have different expertise in the delivery of early education and care programming, and many individual programs and communities have developed effective operational structures and instructional practices of their own. The state can cultivate improvements across all sectors by helping to capture best practices and by sponsoring opportunities for educators to share expertise across sectors.

Boston K1DS: A Creative Solution to Expansion Challenges

Boston K1DS is a promising effort to replicate the Boston Public Schools' (BPS) successful preK programming in community-based settings. First launched in 2005, the city's classes for four year olds (known locally as "K1") have shown a substantial impact on participants' growth in language, math, decision-making, and self-regulation skills.[20] The effects are lasting: participants outperform peers by an average of nine percentage points on the third-grade Massachusetts Comprehensive Assessment System (MCAS) in English language arts.[21] Through Boston K1DS, the city aims to expand access to its high-impact early education model, particularly in the highest-need neighborhoods.

Boston K1DS combines city, state, and private resources to address several challenges to preK expansion.

- **Access:** In Boston, affordable year-round preK programming is hard to find. By incubating programs in community-based centers, the city can more quickly bring quality programming to scale than it could through its public schools alone.
- **Quality:** Boston K1DS requires professional training for participating educators and provides ongoing professional development.
- **Funding equity:** The program offers financial support to increase educators' salaries as part of an effort to improve educator quality, morale, and stability in community settings.

How It Works

To be eligible to participate, programs must:

- **Offer full-day, year-round services** that working parents can depend on.
- **Attain licensure** from the EEC or as a charter school, self-assess at level 3 or above on the QRIS, and receive accreditation from the National Association for the Education of Young Children (or show intent to do so).
- **Ensure teachers have at least a bachelor's degree** in early childhood and at least three years of early childhood teaching experience. The program director and assistant teachers must also meet a minimum set of qualifications.

In return, programs receive:

- **Instructional materials** and technical assistance to adopt the district's research-based curriculum.
- **BPS-led professional development and coaching** for teachers and directors with district early childhood staff.
- **Add-on funding** for each qualifying classroom to raise teacher salaries and ensure year-round operation.

Boston K1DS currently operates in 14 classrooms in 10 community-based programs. Preliminary analysis of child outcomes suggests that children in Boston K1DS classrooms are making substantial strides in their language, literacy, mathematics, and self-regulation skills. Early results also suggest that Boston K1DS classrooms are improving the learning experiences of young children from high-poverty neighborhoods. A new $15M federal grant (up to $60M over four years) will support further expansion of the model in Boston, including to Head Start classrooms, and the replication of the Boston K1DS approach in four additional high-need Massachusetts communities.

PRIORITY TWO

Attending to the Whole Child with Comprehensive Supports

It's More than Academics

The Commonwealth has invested significant time and resources into raising academic standards over the past two decades. While many children have benefited from these efforts, it has become increasingly clear that we will need to attend to a broader set of factors influencing children's development as learners if we want to achieve universally strong academic outcomes. By most estimates, out-of-school factors account for two-thirds of the achievement gap between low-income students and their peers.[22] Childhood poverty is the single biggest factor to consider.[23] Poverty acts as a double disadvantage, limiting children's access to many of the resources that promote strong development—such as quality out-of-school programming and regular health care—while also contributing stress and instability that can inhibit cognitive functioning and development, readiness for school, and social-emotional growth.[24] Despite our best efforts at creating educational equity through rigorous academic standards, a child's economic background remains strongly predictive of his or her likelihood of succeeding in school, earning a diploma and engaging in the adult workforce.[25]

Although the factors influencing children's long-term success extend far beyond the reach of public schools, a growing body of research suggests that school communities can go a long way toward mitigating external stress factors and fostering positive development by implementing comprehensive supports for students and their families.[26] Research points to a range of effective interventions—from social skills instruction for young children to mentoring relationships for adolescents—that build important non-cognitive qualities, like tenacity, which significantly improve a young person's likelihood of graduating from high school and achieving success in adulthood.[27]

Effective student support programs have several features in common.

- **Focus on the whole child:** Comprehensive models include an array of prevention, intervention, and enrichment services that address academic, social-emotional, health, and family-related concerns.[28] Because each child is unique with dynamic needs, services must be responsive to each child's growth.
- **Attention to school engagement:** Regular school attendance is a powerful predictor of academic performance and persistence to a diploma.[29] When students are not in school or change schools mid-year, they miss out on learning and may become disengaged from the educational process. Schools can act quickly to interrupt poor attendance via home outreach, daily check-ins, and other triage measures.[30] While mobility is harder to influence, when schools work in partnership with other social service and community organizations, they can provide wraparound care that helps families stabilize.[31]
- **Support as a core function:** The most effective student support models treat the services described above as more than just an add-on; they are a central function of the school, offered in collaboration with community partners and external agencies.[32]

A Moment for Action

While there is growing consensus that schools and their partners must do more to address non-academic barriers to academic success, there is wide variation in how schools in Massachusetts deliver services. Pockets of innovation exist in the delivery of integrated student support; however, there are no widely endorsed standards of practice and no agreed-upon measures for shared accountability for non-academic outcomes.[33] Legislation, and some centralized services, offer guidance in discrete areas, but much of the student support that schools ultimately provide is determined by districts and schools. More often than not, individual staff make decisions for students on a case-by-case basis.

While much work remains to be done, the state has several efforts underway that could be a platform for developing a more robust approach.

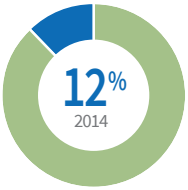
- **The Massachusetts Tiered System of Support (MTSS)** is the Department of Elementary and Secondary Education's (ESE) blueprint for supporting the academic and social-emotional needs of all students.[34] MTSS begins with a classroom-level focus, using "universal design principles" to differentiate learning tasks to address a ranges of strengths, needs, and learning styles. Educators monitor student progress, using a mix of leading indicators (e.g., short-term acquisition of a specific reading skill) and lagging indicators (e.g., proficiency on MCAS) to identify students in need of additional services or screening. MTSS outlines flexible tiers of interventions that become more comprehensive and intensive in response to individual student data. It is unclear how many districts have used MTSS to guide development of their student support services, as district participation in MTSS is currently not required.
- **The Early Warning Indicator System (EWIS**) uses predictive student data to flag students who, without intervention, are less likely to graduate and reach intermediate goals.[35] Most of the indicators are related to academic progress, but the system also captures several critical non-academic factors, including attendance, mobility, and suspensions. The EWIS risk model is based on national research and promising local practices in dropout prevention and was developed with feedback from a range of stakeholders and extensive statistical modeling. All districts can use EWIS data to identify students in need of support and tailor interventions accordingly, following the MTSS approach. Originally developed for students in grades 6-12, the EWIS was recently expanded to grades 1-12.

- **The Safe and Supportive Schools Act,** signed into Massachusetts law in 2014 as a part of the Reduction of Gun Violence Act, requires ESE to adopt guidelines for addressing behavioral health in the public schools. Building on the Behavioral Health and Public Schools Framework designed by a task force in 2008, the initiative encourages schools to develop action plans that move them toward a more integrated and aligned service model that supports students' behavioral, emotional, and physical health. Schools may use a self-assessment tool and the framework itself to guide their planning. Seven districts received grants in FY14 to implement the new framework with assistance from ESE.
- **The Wraparound Zone initiative,** a federal effort to replicate effective multi-service models, was launched in 2011 through the Race to the Top initiative. Participating districts are using the grant, plus locally raised funds, to implement new protocols for identifying students' needs and to customize academic and non-academic interventions and trauma services for the most high-risk learners. Now in the final years of the grant, ESE has provided some technical assistance, resources, and professional development to the six district grantees.

Where We Are Now: Key Indicators

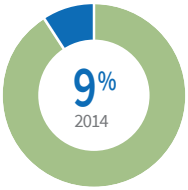
All indicator data cited in this box can be found in the Rennie Center's 2015 Condition of Education Data Report.

Although we cannot measure every important developmental and risk factor directly, select statewide data points give an approximation of the number of students who could benefit from strategic interventions. Today, 16 percent of Commonwealth children live in poverty households, a figure that has risen steadily over the past several years.[36] The rate is highest in urban communities, where 31 percent of children live in poverty households.[37] Living in poverty can be highly correlated with a number of factors impacting student performance in school, including:



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

ATTENDANCE: In the 2013-14 school year, 12 percent of Commonwealth students were absent from school more than 10 percent of the time (18 days or more).



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

MOBILITY: In the 2013-14 school year, nine percent of students changed schools during the school year.

Youth aged 16-24 **neither in school nor employed**

OPPORTUNITY YOUTH: According to the most recent estimate available (from the 2012 and 2013 two-year average), 10 percent of Commonwealth youth aged 16 to 24 are neither in school nor employed.

ACTION TWO

Develop a Robust Statewide Approach to Student Support

It is time for the state and local communities to devote more attention to defining and developing effective student support models. The same principles of data-driven improvement that many schools and districts have applied to classroom instruction can inform the state's approach.

- **Holistic student assessments:** Almost every school district in the Commonwealth educates students with substantial non-academic needs that impact their ability to learn. Districts can improve their ability to help those students be successful by implementing more holistic assessments that identify and diagnose these needs. ESE can serve as a clearinghouse, curating effective assessment approaches to assist districts in their decision-making. As more refined methods emerge, ESE might consider requiring that all districts assess and track non-academic needs so that this practice becomes universal.
- **Knowledge sharing and coordination:** Most districts and schools do not suffer from a lack of partners, but they often struggle to strategically coordinate contributions from partners that have capacity to meet student needs. State agencies can play an important role in disseminating models that effectively engage multiple providers in planning integrated, customized support for students. Statewide entities like the Child and Youth Readiness Cabinet can encourage coordination by sharing knowledge across state agencies and making helpful tools, such as student needs assessments and partner agreements, accessible to all. Districts can help by mapping out the capacity of local agencies and by guiding schools as they develop partnerships.

- **Educator preparation and development:** Teacher preparation and professional development traditionally equip educators to deliver academic content, with little or no attention to how teachers contribute to a child's broader development. ESE has recently proposed two new teacher preparation standards related to social-emotional learning. These proposed standards would effectively require teacher preparation programs to take a more comprehensive approach to new teacher development, one that acknowledges the role that teachers play in addressing social-emotional development in the classroom. The Commonwealth can build on these standards with further guidelines on how new teachers can be prepared to assess student well-being and recognize risk factors that merit additional attention.

City Connects: A System for Schools to Support the Whole Child

City Connects was launched in 1999 as a partnership among several high-poverty schools in Boston's Brighton neighborhood, Boston College, and a group of health and human service agencies. The partners developed a collaborative, data-driven approach to addressing common barriers to student learning. City Connects has since expanded to 65 schools in Boston and Springfield, MA; New York City; and Ohio.

How It Works

The City Connects model includes several distinctive features:

- **A single point of contact:** The school site coordinator—a full-time school counselor or social worker—is the backbone of the program, working with teachers and others to assess every student, create individualized support plans, connect students to relevant services and opportunities, and monitor effectiveness.
- **Tailored supports for all:** School teams review the strengths and needs of every student, grouping students into four tiers of escalating risk and identifying appropriate supports, ranging from prevention and enrichment (e.g., after-school programs, sports, health and wellness classes), to intervention services (e.g., mentoring, social skills interventions), to crisis services (e.g., mental health counseling, violence intervention). Plans are customized to the individual and adjust as students' needs change, with services provided by school partners.
- **Data-informed decisions:** A secure database helps staff track referrals, service delivery, and student outcomes. School teams regularly review these data to check the degree to which interventions have been faithfully implemented, measure their effectiveness, and modify support plans as needed.
- **Development of partnerships:** The school is the nexus of service, with community partners providing many of the services. Those relationships are formalized through a Resource Advisory Council that represents agencies working at the school.

Evaluations indicate that City Connects students exhibit lower rates of chronic absenteeism, and are 50 percent less likely to drop out of school. Students enrolled in City Connects outperform their peers on report card grades and, in middle school, MCAS scores. The longer a student is enrolled in a City Connects elementary school, the stronger the middle school outcomes.[38]

Communities In Schools: Surrounding Students with Support

Communities In Schools is a student support model operating in 2,200 schools across 26 states, including a demonstration site in Boston that serves three schools. The program seeks to improve graduation rates and help students achieve their personal goals by surrounding them with a community of support. Like the City Connects program, Communities in Schools focuses on the whole child, using various data to inform decisions regarding a range of academic, family, physical health, and mental health needs, and partnering with an array of local agencies to meet their needs.

How It Works

Communities In Schools has several distinct features that can be adapted to varied local contexts and grades across K through 12:

- **Comprehensive needs assessment:** A site coordinator takes a systems approach, working closely with the principal to conduct a school-wide assessment of the school's strengths and needs, set annual goals (including non-academic goals), and craft a plan for achieving them.
- **One-on-one care management:** The program offers individualized case management for the approximately 10 percent of students who can benefit from more intensive services. Student support staff get to know these students and their families closely, partnering with external agencies to address urgent needs and to supply counseling, academic support, mentoring, and then tracking student outcomes.
- **A culture of commitment:** The program's success is in part due to its attention to relationships among adults and to developing school-based ownership of the work. School staff play a crucial role in identifying students' needs and setting goals, and the site coordinator reinforces the connection between academic and non-academic goals to keep conversations grounded in the mission of helping students succeed.

A national study found that Communities In Schools successfully lowers the dropout rate and increases on-time graduation in partner schools. In Boston Communities In Schools sites, outcomes have been similar; in 2013-14, 84% of participating students met attendance, behavior, or course performance goals, and 99% of high-risk students likely to drop out remained in school.[39] A national economic impact study found that for every $1 invested, $11.60 is returned to the community through improved future outcomes.[40]

PRIORITY THREE

Preparing College-Ready Students through Innovative High School Designs

College Pathways for All

In today's knowledge-based economy, adults need a broader and deeper set of skills to access rewarding and financially sustainable careers. With fewer truly low-skill employment options left in Massachusetts, most jobs require skills gained through postsecondary education or training, and workforce projections consistently predict that the lion's share of future jobs will require some postsecondary education.[41] A traditional four-year college degree is not the only path to economic security, but it does make an enormous difference to an individual's earning prospects and economic security.[42]

While Massachusetts leads the nation in the number of adults with a bachelor's degree or higher, only 30 percent of students who begin their high school career in the Commonwealth's public schools go on to complete a diploma and college degree within a typical time-frame.[43] This figure does not include youth who pursue other types of postsecondary training or those who complete a degree later in life. Even with these caveats, the Commonwealth is not close to meeting postsecondary attainment goals that align with workforce needs. A timely and smooth path to and through college is needed for more young people in Massachusetts.

The college readiness challenge requires attention to three leakage points in the high-school-to-college pipeline.

- **High school motivation and engagement:** In the 2012-13 school year, over 6,000 students dropped out of Massachusetts public high schools. While this represents the lowest dropout rate ever recorded by the Department of Elementary and Secondary Education (ESE),[44] there is clearly still more work to do. Youth who have dropped out most often cite the following academic factors: uninteresting or irrelevant curriculum, a poor fit with the mode and pace of instruction, weak academic skills, difficult school transitions, and poor attendance that leads to falling behind; and non-academic factors: life events outside of school, negative school climate, wanting or needing to earn money, or disciplinary removal from school.[45]
- **College knowledge and skills:** High school graduates do not always have the knowledge and skills they need to thrive in postsecondary settings. Some of the gap is academic: college courses demand higher-order thinking, independent study skills, time management, and other skills that may not be emphasized in high school coursework. Persistence in college also requires students to successfully navigate complex new systems (like financial aid) and cultural norms and expectations.[46]
- **College momentum and persistence:** The number one predictor of persistence to a degree is credit attainment in the first year. Students who accumulate 20 credits in their first year of college are far more likely to persist to a degree than students who did not meet this credit threshold during their first year of postsecondary education.[47]

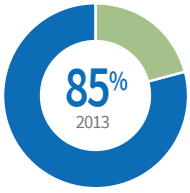
A Moment for Action

In the past three years, the state has made important strides in promoting college and career readiness throughout its schools.

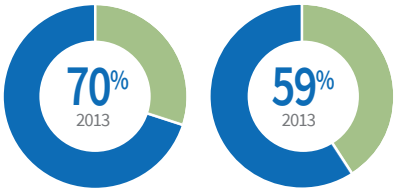
- **A common definition of readiness:** In 2011, the Board of Elementary and Secondary Education established a task force of business, education, and community leaders to develop actionable, scalable steps to better integrate college and career readiness into K-12 education. In 2013, the Boards of Elementary and Secondary Education and Higher Education adopted a common definition of college and career readiness that includes knowledge, skills, and learning experiences across three domains: academic, workplace readiness, and personal/social.[48] This common definition has the potential to inform a more seamless vision among educators at all stages of the elementary to postsecondary pipeline and increase understanding of what it means to be college- and career-ready.
- **Set targets for success:** In the last three years, both ESE and the Department of Higher Education (DHE) have introduced new goals for increasing college- and career-readiness and postsecondary success. ESE's targets include: growth in high school graduation rates; greater numbers of students participating in college-readiness activities outlined by the Integrated College and Career Taskforce, including the MassCore program of study; and increased postsecondary enrollment with fewer college enrollees requiring remedial education. DHE's Vision Project has created common targets across higher education in an effort to raise the level of preparedness of public college graduates for the knowledge economy while holding the system accountable for outcomes. The Vision Project includes metrics related to college participation and completion, student learning, workforce alignment, and citizenry.
- **Outreach to communities and families:** ESE has partnered with the Massachusetts Business Alliance for Education and DHE to launch Future Ready, a public outreach campaign that seeks to build understanding about knowledge, skills, and experiences that students need to access economically viable career options. Funded by a federal College Access Challenge Grant, the initiative's website acts as a clearinghouse of college and career resources; students can manage college and work applications and conduct personal interest inventories. More than 70 districts are using the tools to counsel students on issues related to college and career readiness.

Where We Are Now: Key Indicators

All indicator data cited in this box can be found in the Rennie Center's 2015 Condition of Education Data Report.



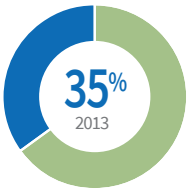
Students **graduating from high school** in four years



all students | high needs students

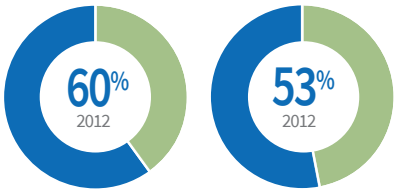
Students **completing MassCore** coursework

GRADUATING HIGH SCHOOL COLLEGE- OR CAREER-READY: Massachusetts loses students at several points on the high school to college pipeline. The average four-year graduation rate across high schools is 85 percent—a rate that has steadily increased since 2006, when just 80 percent of students graduated in four years.[49] While efforts to raise the graduation rate should continue, we must also look at how well our graduates are prepared for college and careers. Only 70 percent of the graduating class of 2013 had completed the recommended MassCore course requirements, a program of study aligned with college- and career-readiness standards. The MassCore completion rate of high needs students was just 59 percent.[B]



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

REMEDIATION: Perhaps the strongest evidence that we can do more to ensure high school graduates are college-ready is the widespread need for remedial coursework in college. More than a third (35 percent) of Massachusetts public high school graduates who enrolled in one of the state's public colleges required one or more remedial courses before they could begin credit-bearing coursework. This represents a significant barrier to degree completion; college students who need remediation are less likely to persist to a degree than their peers.[50]



UMass | state universities

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

COLLEGE COMPLETION: A large segment of students who enroll in the state's public colleges do not persist to a degree. According to the most recent data, 60 percent of those who enrolled in the University of Massachusetts and only 53 percent of those students in the state's public universities completed a degree within six years.

B. The Massachusetts Department of Elementary and Secondary Education defines "high needs" students as those belonging to at least one of the following subgroups: eligible for free/reduced lunch, students with disabilities, English language learners, and former English language learners.

ACTION THREE

Replicate Innovative Early College Designs

Massachusetts is home to a number of innovative "early college" partnerships between school districts and postsecondary institutions. These programs, designed specifically for first-generation college-goers and other student populations with low college-going rates, blend a rigorous high school curriculum with credit-bearing college courses that allow students to earn up to two years of college credits along with a high school diploma. Through a structured sequence of learning experiences, students gain exposure to tangible college and career options, feeding their motivation to succeed academically. At the same time, they gain a clearer understanding of what college courses demand, learn how to navigate postsecondary systems, and develop a vision of themselves as successful college students. A national study of early college schools found that early college students are significantly more likely than their peers to graduate from high school, enroll in college, and earn a degree.[51]

A combination of competitive federal grants has introduced three intensive early college designs to Massachusetts: Science, Technology, Engineering, and Math (STEM) early colleges (13 districts); Gateway to College (six community college campuses); and Pathways to Prosperity (three districts). In addition, approximately 2,000 students from 284 high schools participate in the Commonwealth Dual Enrollment Partnership (CDEP), earning 3-6 credits toward a college degree concurrently with a diploma. Overall, more than 4,000 Massachusetts students were dual enrolled in a public high school and a public higher education institution in the 2011-12 school year, representing roughly three percent of all high school juniors and seniors.[52]

With action in a few areas, the Commonwealth can substantially increase the number of students who benefit from such experiences, putting many more students on a path to degree completion.

- **Consistent funding:** The state legislature has not levied consistent funding for the CDEP since 2004. While CDEP allows public school students to take courses at the state's public colleges and universities free of charge, it does not include additional supports or services, such as transportation and academic guidance, which can be critical factors for success. The state's more intensive early college designs depend on district revenues and private and federal grants, with some districts utilizing existing funding sources—such as school choice funds—in new ways to support their early college partnerships. The state can help more early college programs thrive by sharing effective funding practices and attending to prohibitive gaps in public support.
- **Creative ramp-up models:** Many students can benefit from early college designs that begin before high school. Some of the most successful early colleges around the country take an approach with grades 6 through 14 that fosters core academic skills and a college-going culture in the middle school years to ensure that students are ready for an accelerated early college curriculum in high school. Locally, Marlborough High School has developed an intensive STEM program for a largely low-income student population; students take challenging, thematic courses beginning in 6th grade that prepare them for rigorous high school math courses and expose them to a range of careers in the sciences and engineering. This careful sequence positions a broader range of students to meet the prerequisites of college STEM programs. More Commonwealth districts may consider creative early college ramp-up models, particularly for populations that can benefit from additional time and support.
- **Wraparound support:** Early college students, especially those from underserved groups, benefit from a set of wraparound supports that keep them enrolled and progressing through a rigorous course of study. The more intensive early college designs sponsored by ESE—such as Gateway to College programs and free-standing early college high schools—offer different levels and types of academic and non-academic support. Programs can benefit from centralized dissemination of the particular services that make the greatest difference for student success. Regionalized funding and staffing structures that group multiple school districts with a higher education partner would support more cost-effective delivery of such services.
- **Information and guidance:** Increasing seats alone will not necessarily translate into greater participation rates. As early college and other dual enrollment offerings expand in Massachusetts, students and families will need more information to navigate the options and determine which models best suit their individual learning needs. In most early college partnerships, school counselors (on the high school and college staff) play an important role in providing transitional supports that improve success rates. As early college programs reach scale across the Commonwealth, we will need to consider ways to expand counseling capacity to achieve the full impact for students.

Gateway to College: Moving from the Margins to College Success

Gateway to College (GtC) is one of several intensive early college designs that support students in earning a high school diploma concurrently with college credit. GtC operates programs on 43 college campuses in 23 states, including six community college campuses in Massachusetts. The GtC program at Massasoit Community College in Brockton is one of the largest early college programs in the state, serving 115 students in 2013-14. The program targets youth aged 16-21 who dropped out of high school, are behind on credits, or feel that a traditional setting is not a good fit for their academic needs. Successful graduates earn a high school diploma from their home school district, along with substantial credit toward a two- or four-year degree.

How It Works

GtC students enroll as community college students, taking all of their courses with college faculty and earning dual credit toward a diploma. Most students attend the program for two years, with flexible schedules to fit their life circumstances, earning 39-42 college credits upon program completion. The program's unique features include:

- **A competency-driven curriculum:** Students do not receive credit for prior high school coursework. Instead, they are assigned to courses based on placement tests and develop a course of study based on their current skills and interests.
- **Academic remediation and support:** During the first semester, students take remedial courses in reading, writing, and math with a cohort of 20-25 peers. The program also offers an intensive preparatory camp for newly admitted students who require additional remediation, and students can access free one-on-one and group tutoring through the college's academic resource center.
- **College skills and supports:** First-semester students take a seminar that helps them adjust to campus life and builds strong study skills, time management techniques, and confidence. Students can also take a credit-bearing college experience course, taught by GtC staff, in which they practice college and life skills, conduct career research, and address social and emotional barriers.
- **Personalized support:** A resource specialist works as a counselor, coach, and mentor, meeting one-on-one with students throughout their experience and helping them make choices along their educational pathway.
- **Transitional support:** During their second year in the program, students develop a portfolio of their work, set goals moving forward, and take part in activities that support their transition to a college degree-granting program, such as filling out the FAFSA, taking SATs, and identifying college and career choices.

A Variation on the Gateway to College Model

Building on a successful Gateway to College program, Mount Wachusett Community College (MWCC), in partnership with the Mahar Regional School District, launched the Pathways Early College Innovation High School to provide a broader group of students with access to this college-based model. Students with a GPA of 3.0 and above from 23 surrounding districts can use school choice to enroll at Pathways during their junior year. While the program focused on more successful students, it recruits a largely low-income, first-generation population that might not attend college without this opportunity. Students earn a high school diploma and an associate's degree simultaneously. The school draws on a variety of public and private funds, including district school-choice funds, to remain sustainable.

MWCC has also expanded on its college transition offerings in other ways as well:

- **A solution to remediation:** MWCC administers the Accuplacer math and English placement tests to all juniors in nine partner high schools. In a sub-set of these districts, MWCC faculty collaborate with high school faculty to develop rigorous and targeted 12th grade math courses to prepare all students to enter directly into credit-bearing coursework upon graduation. Four high schools currently participate in this collaboration, with a planned expansion to an additional two to three high schools in the 2015-16 school year.
- **Career-focused options:** In partnership with Winchendon Public Schools, high school students can opt into a one-year, full-time dual enrollment program that features career-oriented options, like health care or information technology, through which students earn their high school diploma and an academic certificate simultaneously. These are popular choices for students who are eager to complete a two-year degree or a work-based certification and enter the workforce quickly. Students are provided with private foundation scholarships from the Robinson-Broadhurst Foundation to cover the costs associated with coursework.

The Massasoit and MWCC programs are examples of early college models with out-of-the-box variations designed to meet local needs and are financially sustainable.

Conclusion: Action within Reach

Massachusetts is at a turning point. Since 1993, the Commonwealth's public schools have made impressive strides in improving outcomes for children and youth. Now, it is time to focus on the remaining challenges. In these pages, we have outlined three areas where data suggest we have more work to do:

1. Expand access to quality prekindergarten programs;
2. Develop more robust school-based approaches to student support; and
3. Replicate effective early college designs.

All of these activities will require new or repurposed resources, but the innovative programs highlighted in this report offer insights into how the state and local communities can find efficiencies in new or expanded programming:

- **Leverage partners:** Schools are not the only organizations serving Massachusetts children. An array of public agencies, community nonprofits, and other institutions offer knowledge and capacity that can and should be leveraged to achieve common goals for student success.
- **Share information and ideas:** Schools and their partners can save time and effort when they share critical information about students and when they have mechanisms for sharing effective tools and strategies across communities so no one is reinventing the wheel.
- **Rethink boundaries:** Individual schools and districts are not always the best unit of impact. Some services can be more effectively delivered through community-wide or regionalized program designs, and some challenges require solutions that cross the boundaries of the systems we know.

By taking more deliberate and strategic action to address the persistent challenges facing our children, we can bring our state closer to its vision of strong outcomes for every child.

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The Rennie Center for Education Research & Policy's mission is to improve public education through well-informed decision-making based on deep knowledge and evidence of effective policymaking 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.

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