

SPRING 2019



Empowering Young Professionals

How real-world learning at a Boston high school
bridges the transition to college and the workforce



Technology
give people the
right to talk
over foreign law





On a rainy Wednesday morning, a team of students surround a 55-year-old patient's hospital bed as she winces in pain. One applies an oxygen mask, another focuses on calming her, while the third takes her vital signs. The students relay medical information to their team members, who record it on a large white board across the room. "Don't worry. We are going to help you," one student calmly tells the patient.

It looks like the scene in a crowded emergency room, with a few crucial differences. The doctors are 10th grade students at the Edward M. Kennedy Academy for Health Careers (EMK), a Horace Mann Charter School in Boston, MA. Instead of a hospital, their patient room is located inside Harvard Medical School, one of the nation's most prestigious medical institutions. Their patient? An interactive mannequin used at medical schools around the nation to simulate emergencies and clinical procedures. These students recently learned about the respiratory and circulatory systems in class. Inside the Harvard MEDscience program, their learning comes to life as they monitor their patient's heart rate and oxygen saturation.

ABOUT THE POZEN PRIZE FOR INNOVATIVE SCHOOLS

Since 2014, the annual Pozen Prize for Innovative Schools has recognized a Boston metropolitan area innovation, pilot, or charter school that has made significant gains in student achievement. The prize was created by Boston Foundation donors Robert and Elizabeth Pozen to honor high-performing schools that have varying degrees of autonomy over school-based decisions on teaching and learning. These autonomies allow schools to experiment with innovative models, programs, and practices. Robert is a former executive of Fidelity Investments and MFS Investment Management, who now serves as a Senior Lecturer at the MIT Sloan School of Management and a Senior Research Fellow at the Brookings Institution. Elizabeth is a retired psychotherapist who is now focusing on her career as a figurative artist.

With an emphasis on healthcare-related career exposure and experiential learning, the EMK seeks to empower underrepresented students to succeed in college and high-wage careers. The school places a deliberate focus on preparing every student with the skills they need to succeed in fields related to science, technology, engineering, and mathematics (STEM). Taking part in a rigorous college preparatory program, students know that simply getting to college is not the goal. Instead, their school equips them with the habits of mind that will prepare them to graduate college with the skills needed for a STEM-related career of their choosing.

The EMK's joint focus on college and career preparation, centered around a healthcare model, contributed to the school being selected as the 2018 winner of the Pozen Prize for Innovative Schools. This case study highlights the key practices that have facilitated the EMK's success, beginning with an exploration of the school's healthcare theme as a vehicle for practical college and career planning (key practice 1). It then examines the impact of community partnerships (key practice 2) and supportive student and staff relationships (key practice 3) on the EMK's ability to fulfill its mission. The study concludes by reflecting on the influence of the EMK's autonomous status as a Horace Mann charter school on the school's innovative model.

Methodology

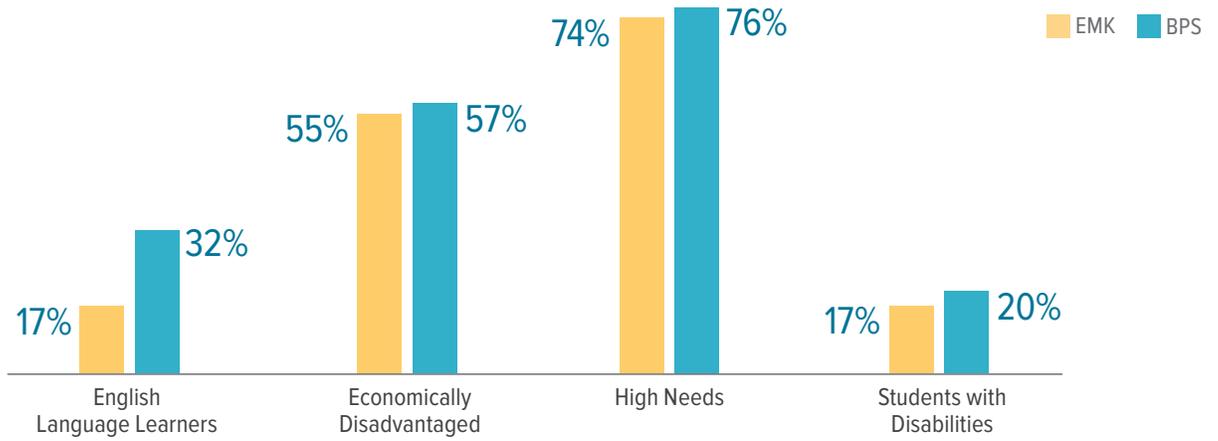
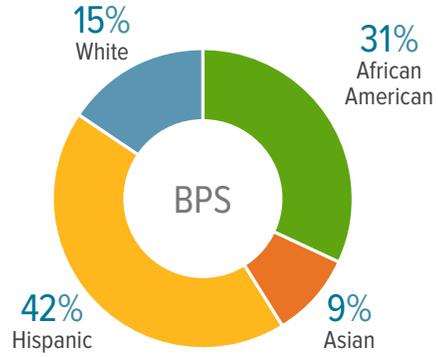
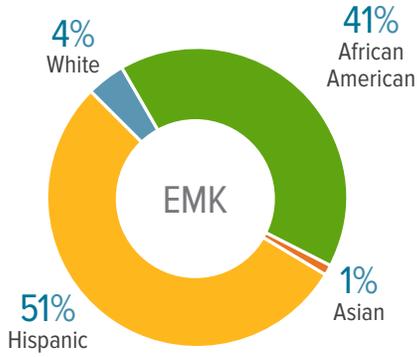
The Rennie Center for Education Research & Policy partnered with The Boston Foundation to examine and document the school-level practices that characterize the EMK's healthcare-focused college and career preparatory model. The Rennie Center began with a review of existing literature, documenting effective practices in schools with high-achieving college and career models. Scholarly research supported the development of a research protocol, which guided site visits at the EMK. Information presented in this case study reflects findings from school observations, interviews, and focus groups with students, alumni, community partners, teachers, and administrators at the EMK.

EMK by the Numbers

The EMK serves a diverse student population inclusive of students from a range of linguistic and cultural backgrounds. 74% of students are classified as high needs, a population that includes students with disabilities, students whose first language is not English, and students from economically disadvantaged families. The EMK fosters an environment in which the unique backgrounds and experiences that every student brings to the school are valued. The school's success is evident in its 99% graduation rate and English/Language Arts MCAS scores that exceed the district average.

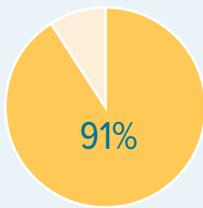
The charts provide an overview of EMK demographic and performance data. Data compares EMK students' demographics and performance to Boston Public Schools (BPS) overall. Enrollment data is from School Year (SY) 2019. Performance data is from SY18 unless otherwise noted. All data is sourced from the Massachusetts Department of Elementary and Secondary Education.

DEMOGRAPHICS

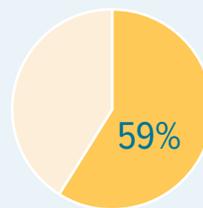
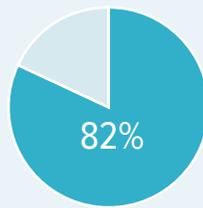


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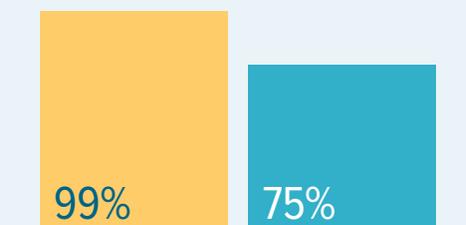
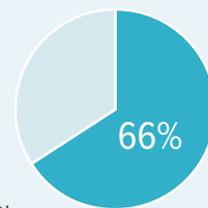
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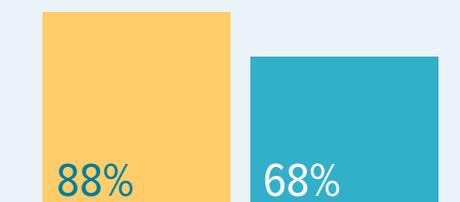
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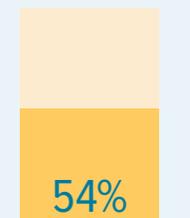
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4-YEAR HIGH SCHOOL GRADUATION RATE, 2018



COLLEGE ENROLLMENT RATE, 2017



EMK GRADUATES pursuing a health-related college major



KEY PRACTICE 1

Healthcare as a prompt for college and career planning

Regardless of students' individual ambitions, EMK staff share a common goal for every graduate: that they will leave school both college and career-ready. Teachers and school leaders recognize that whether students plan to go directly to college, enter the workforce, or both, they will need the same foundational knowledge, skills, and behaviors.

Many EMK students will face a range of financial and societal barriers in their quests towards their college and career goals. Staff address these barriers directly and begin planning for them as soon as students enroll at the school. EMK leaders recognize that not every graduate will decide to pursue a healthcare-related career or college major. Rather than narrowing the scope of students' interests, staff use healthcare as a lens for practical long-term planning.

In 11th grade, students choose between three pathway options: health assisting, Advanced Placement (AP), and dual-enrollment. Regardless of the selected pathway, each option is designed to graduate students who are prepared for both college and career. Students who opt into the health assisting pathway complete all requirements to earn a Certified Nursing Assistant (CNA) license by the time they graduate. The license enables graduates to provide direct patient care, such as documenting health issues, feeding patients, and dressing wounds across a range of clinical settings. At the EMK, the CNA is presented to students as an avenue to finance higher education while gaining increased career exposure. As one staff

“It’s less about getting every student to work in healthcare, and more about asking the questions ‘what are your strengths?’, ‘what’s most interesting to you?’ and ‘how will you get there?’”

EMK Staff Member

member noted, “The reality is that our students are going to have to work while they are in college. The CNA gives them a job that they can use to do that.”

The EMK’s emphasis on building transferrable skills encourages students’ long-term planning. The school offers its own currency, Professionalism Points, which rewards student behavior that demonstrates workplace readiness. Students can exchange their points for a range of prizes. Student depictions of professionalism adorn classroom walls across the school. A student-created drawing of a man in scrubs hangs next to the board in the health classroom, with a written description of professionalism underneath, “A tie, a handshake, scrubs, no cell phone.”

Regardless of individual college and career ambitions, every junior and senior at the EMK participates in a career preparatory seminar. Intentional career preparation demystifies application processes and provides explicit instruction on the skills that lead to workplace success, fostering a “culture of optimism” across the school. Students gain awareness of the opportunities ahead of them and an understanding of the steps they will take to reach their goals.

At the beginning of junior year students focus on career planning. They learn how to create a resume, prepare for interviews, and write professional emails, cover letters, and thank you letters. In the spring semester the emphasis shifts to college planning. Students explore the Common Application, create a college list, register for the SAT, and participate in college visits. In the senior seminar students finalize their college essay, fill out financial aid applications, and submit all college applications before winter break. Headmaster Dr. Caren Walker Gregory meets individually with every senior three times to discuss college options, and she organizes an annual College Day in which seniors visit the schools where they have been accepted. As one guidance counselor noted, the purpose of this intensive seminar is to create a mindset of college and career success among a community of students.

“When we talk with students about their future, the conversation is not about if you’re going to college, it’s where you’re going to college.”

Dr. Walker Gregory

DISCUSSION

What logistical challenges, knowledge gaps, policy or operational considerations may prevent schools from providing meaningful college and career exposure to high school students? What opportunities exist in fields aside from healthcare for schools to integrate college and career training?

KEY PRACTICE 2

The power of partnerships

On a Wednesday afternoon, Kai* takes the train across the city to Massachusetts General Hospital (MGH), where he spends time shadowing surgeons, dietitians, physical therapists, and nurses as part of the MGH Youth Scholars program. As an 11th grader, he has already learned how to apply stitches and he understands the inner workings of a major hospital. He meets regularly with his MGH-based mentor to monitor his progress in the program as well as in school. For Kai, the opportunity to gain early exposure has been transformative. With a goal of being a nurse, he is not worried about his ability to persist through many years of higher education. As he noted, “My sister is in nursing school and she is asking me for help.”



Walking the halls of **Harvard Medical School**, **Massachusetts General Hospital**, **Brigham and Women’s Hospital**, and other world-renowned institutions, Kai and his peers visualize themselves as the future problem-solvers, innovators, and clinicians of Boston’s healthcare workforce. Currently, white workers represent the majority component of all 30 healthcare occupations studied by the United States Bureau of Health Workforce.¹ The EMK’s student body includes 94% students of color, 55% students whose first language is not English, 14.5% students with disabilities, and 56% economically disadvantaged students. Many of these students will be the first in their families to graduate high school and attend college. Though most have grown up just miles away from some of the nation’s top hospitals, research laboratories, and businesses, proximity does not equate to access. The EMK is deliberate about opening doors and expanding students’ understanding of the career opportunities that await them when they complete their education.

The EMK’s strategic location in Boston’s Longwood Medical Area facilitates frequent career exposure. Students looking out the window of their EMK classrooms can see the tall buildings of **Beth Israel Deaconess Medical Center** and **Boston Children’s Hospital**. They walk from their school to the Harvard MEDscience class, as well as to job shadowing visits at the **Massachusetts College of Pharmacy and Health Professions**. Many students have internships at Brigham and Women’s Hospital, located just blocks away from the school.

“Our students don’t have the network that so many people take for granted. They don’t have a parent who can call someone up and get them an internship. It’s our job to open that door.”

EMK Staff Member

Forming and enabling meaningful partnerships

The EMK is intentional about developing and investing in high-quality partnerships. The school employs a Health Engagement Coordinator who builds relationships with hospitals, such as Brigham and Women’s Hospital; businesses, such as **Vertex Pharmaceuticals**; and colleges, such as the **Wentworth Institute of Technology**, to ensure that students have numerous opportunities to apply their learning in real-world settings. This coordinator regularly collaborates with external partners and

*Names have been changed to protect student confidentiality

¹ U.S. Department of Health and Human Services, Health Resources and Services Administration, National Center for Health Workforce Analysis. 2017. Sex, Race, and Ethnic Diversity of U.S. Health Occupations (2011-2015), Rockville, Maryland.



EMK teachers to align experiential learning with the topics that students are studying in class. For example, during the Harvard MEDscience class described above, students who recently learned about the circulatory system used their knowledge to diagnose a patient's heart attack.

Staff acknowledge that a focus on real-world learning requires a dramatic shift in school policies and procedures from those in most high schools. The process requires intentional scheduling and deliberate connections between work at partner sites and work that takes place in school. Whenever appropriate, teachers are encouraged to bring students outside the classroom to learn skills in real-life settings.

In alignment with the school's career preparatory mission, staff treat students as professionals. The EMK outgrew its original location and is now split into two campuses, with 9th and 10th graders in the Longwood Medical Area and 11th and 12th graders on the campus of [Northeastern University](#). Once students are at the EMK's Northeastern location, they benefit from an open campus policy. They have the option to leave campus for lunch, lab courses, clinical rotations, college classes and internships. Theater class is held in a Northeastern University arts building, physical education is located at Boston's [Huntington Avenue YMCA](#), and rather than learning about healthcare in the classroom, students learn in laboratories and hospitals where scientists make medical breakthroughs every day.

DISCUSSION

What does it take to incentivize businesses and organizations to open their doors to youth? What barriers prevent these partnerships?



KEY PRACTICE 3

Unlocking potential through personal connection

Kyle Jordan*, a constituent services representative in Boston’s City Hall, was unsure of his future aspirations when he arrived at the EMK in 2009. He met Demetrius Warren, the EMK’s Dean of School Culture and Boys Basketball Coach, in his first semester at the school. Warren printed a copy of his transcript and asked him to sign a contract with the grades he expected to receive in the upcoming term. When Jordan wrote down his expectations, Warren pushed him to reach higher. Five years after graduating from the EMK, Jordan describes his relationship with Warren as transformative. “He helped me understand what it means to see a challenge, face it head on, and put yourself in uncomfortable positions,” Jordan said. He now uses these skills when advocating for his community within City Hall.

Warren grew up in the same Roxbury neighborhood as many EMK students. His picture hangs in the hallway with a quote beneath: “If I can make it through college, anyone can do it.” Building supportive relationships with students and their families is Warren’s primary goal. When students face obstacles in their academic or personal lives, he shares his own story to encourage students to persevere. On a Friday morning in October he walked out of his office as a student arrived late for his first class. “I’m sad you’re late, but I’m happy you came,” Warren told the 11th grader. He asked him to swing by his office later so he can check on how things are going at school and at home.

Warren is just one among many staff members at the EMK committed to making every student feel known when they walk through the school doors. Three EMK alumni currently work at the school, and they regularly connect with students over shared experiences, having walked the same hallways and grappled with the same questions about their own future plans. Across subject areas, teachers make explicit connections between academic coursework and students' career aspirations. They have individual conversations with students about their strengths, interests, and goals, and they use this information to make academic content relevant for students. Headmaster Dr. Caren Walker Gregory meets with every senior three times during the school year to discuss their college and career plans. She invites families, teachers, and other mentors to participate in these conversations, building a community of support around each student. She stops seniors in the hallways to ask which applications have been submitted, remembering their top choice schools. "Everybody knows you here. We're a family. That's what I love about the EMK," one senior said.

"Coach takes kids who don't see their full potential and expands their minds about what it is they're capable of doing."

EMK Alumnus

A supportive environment for both staff and students

A schoolwide focus on mentoring and supporting the whole student is strengthened by an atmosphere in which staff provide these same supports for one another. With growing student interest in the health assisting pathway, the EMK has added staff in recent years. Given that many health assisting teachers come from clinical backgrounds with limited classroom experience, Dr. Walker Gregory instituted a co-teaching and mentorship program to onboard new staff. In their first year, new staff teach alongside a top-performing EMK teacher, learning pedagogy and classroom management skills. The following year teachers are prepared to lead their own classes, which combine learning in the classroom and at clinical sites. According to staff, the model strengthens the entire school community, as experienced teachers strengthen their healthcare knowledge while healthcare professionals gain teaching skills.

Justine Lyons, a health assisting teacher, greets students as they enter her classroom for their first block of the day. "I've been looking forward to this class all week," one student tells her as she rushes to find her seat. After working as an intensive care nurse for seven years, Lyons joined the EMK staff last year. She regularly uses examples from her nursing career to bring lessons to life. In today's class, students are learning to perform CPR.

Lyons asks students to visualize what they would do if they were out in the community and saw someone collapse. Jada, an 11th grader, raises her hand, noting that it's important to act quickly when the heart stops to prevent damage to the kidneys and the brain. Lyons immediately commends Jada's thorough answer and connects it to her future aspirations. "Soon you'll be applying to nursing school," she says. "That's going to be great information for you to know."

EMK leaders encourage both staff and community partners, including doctors, nurses, and local nonprofit leaders, to talk with students about their college and career aspirations. Students spend much of their time outside the school at internship sites, on college campuses, and at local medical institutions. Dr. Walker Gregory notes that many of the partners become mentors for students as they progress through high school. At the beginning of each year she makes a specific request to each partner: "Don't just share what you do with the students—share your story." These stories, shared by hospital staff, college professors, and EMK teachers, become inspiration as students determine their own paths.

DISCUSSION

How can schools promote a culture which encourages mentoring relationships between staff and students? What practices, both formal and informal, create this type of school culture?



How they did it

The impact of autonomy on the EMK model

In Fall 2015, the EMK faced an uncertain future. Due to budget cuts within BPS, school leaders needed to reduce their budget by \$800,000, a figure that represented 20% of the EMK's overall budget. To help plug the gap, a member of the BPS budget office recommended that the EMK formalize a health assisting pathway, which would enable the school to apply for Chapter 74 Career/Vocational Technical Education (CVTE) funding through the Massachusetts Department of Elementary and Secondary Education (DESE). EMK school leaders researched Chapter 74 requirements and hired a consultant to support the application process. Their application was successful, and according to Dr. Walker Gregory, revenue from the health assisting program ultimately saved the school. In addition to bringing a new funding stream, the Chapter 74 application process made staff more intentional about aligning learning activities with a meaningful workplace credential. The EMK plans to grow its pathway options in coming years with the addition of an Emergency Medical Technician (EMT) option. Staff agree that knowledge gained through the Chapter 74 process will guide this work.

The EMK is among a wave of schools breaking the dichotomy of college or career, recognizing that students need a school that prepares them for college and career. While many still consider career-oriented programs to be the domain of vocational technical high schools, an increasing number of comprehensive high schools in the Commonwealth operate state-approved CVTE programs. The EMK is the first charter school in Massachusetts to operate such a program.

Staff credit their school's autonomous model as a Horace Mann charter for their ability to quickly modify policies and practices to integrate the health assisting pathway. With professional development, curriculum, and scheduling autonomy, the team designed the pathway in less than one year. School leaders leveraged internal expertise as well as the support of an outside consultant to integrate the pathway into the day-to-day operations of the school. The principal allotted staff meeting time to ensure that teachers across disciplines had sufficient knowledge about the pathway option and its implications on student

schedules and staff roles. With curriculum autonomy, the school was able to modify instructional materials and course sequences to create a program that would equip students with a broad understanding of the healthcare sector, while also ensuring that each student met the requirements of the CNA credential.

Though many traditional public schools in the Commonwealth operate CVTE programs, the design and implementation processes are often much slower than that of the EMK. School districts provide varying degrees of hiring, budgetary, curriculum, and professional development autonomy to school principals. Depending on the level of autonomy granted to schools within a district, leaders seeking to implement such programs may need to seek workarounds from standard district procedures in order to train existing staff, hire new staff, purchase equipment, or modify schedules to integrate a career-oriented program.

“When I thought of vocational programs in the past, I mostly thought about students who weren’t going to college. We have a different kind of program. We want students to use their career training to prepare them to get through college.”

EMK teacher

State monitoring

When the EMK was granted DESE’s authorization in 2016 to offer a Health Assisting program, it became the first charter school in the Commonwealth to earn CVTE approval. Now in its 3rd year operating a state-approved CVTE program, the school offers an approach to vocational technical instruction different from that found elsewhere. The flexibility afforded to the EMK as a charter school has allowed for creativity in CVTE program implementation, which has also created challenges within DESE’s CVTE monitoring process.

State laws require DESE to monitor program delivery and student safety. When DESE visits schools, they must ensure that CVTE instructional facilities and equipment meet occupational standards. Given that much of the health assisting program takes place offsite at hospitals and other community partner locations, the EMK does not have the onsite medical equipment and space for clinical training that DESE expects from a CVTE program. Though students use equipment at local hospitals and lab space at the nearby Madison Park Technical Vocational High School, this collaborative model does not easily align with DESE monitoring. EMK staff are partnering with DESE to resolve these challenges.

DISCUSSION

Standard CVTE evaluation mechanisms have presented a challenge for the EMK. What opportunities do schools, employers, and state leaders have to counteract limitations in policies and procedures to spur innovation?



Conclusion

As educators across the nation seek to better prepare graduates to succeed in the modern economy, the EMK model illustrates the promise of making fundamental shifts to standard methods of delivering instruction. Though important, the high school classroom is just one setting in which students acquire knowledge and skills. According to EMK staff, a successful school must create a culture of optimism regarding every graduate's potential while also equipping students with the content knowledge necessary for higher education.

The path through college and into the workplace appears ambiguous for any student when presented on a PowerPoint slide within the four walls of a high school classroom. Conversations about selecting colleges, applying for financial aid, and exploring careers quickly lose their human element. By immersing students in college and workplace settings while still in high school and providing individualized supports as students enter these spaces, the EMK prepares students to persist through the challenges they will encounter as they move towards their goals.

For many students, a typical week at the EMK includes a meeting with surgeons at Massachusetts General Hospital, the opportunity to practice hands-on biology at Harvard Medical School, and a college course at the Wentworth Institute of Technology. Wherever they go, students meet partners who not only share their skills and knowledge, but also share their stories. According to a current senior, it is staff and partners' commitment to each student's personal goals that differentiates the EMK for other schools. "With my teachers here and with my boss at MGH, I always have someone that wants to help me with things going on in my life," she said. "They want to help me become a surgeon one day."

"Some of our students can see the city's best hospitals and colleges from their bedroom windows but never see that these places are for them. We open their eyes to what's possible."

EMK teacher



Research conducted and brief produced by the Rennie Center for Education Research & Policy

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About the Rennie Center

The Rennie Center'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. For more information, please visit www.renniecenter.org.

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