THE GATEWAY CITIES

Vision

for Dynamic Community-Wide Learning Systems

Building a Gateway Cities Education Vision

In the spring of 2012, Fitchburg Mayor Lisa Wong and Fitchburg State University President Robert Antonucci assembled Gateway City education leaders to discuss common challenges and opportunities. The mayors, city managers, and school leaders who attended this opening dialogue at Fitchburg State agreed that their communities had shared interests that could be advanced by working together collaboratively.

One year later, with support from the Nellie Mae Education Foundation, the Massachusetts Teachers Association, the Irene E. and George A. Davis Foundation, and the Parker Foundation, MassINC convened mayors, city managers, superintendents, and other education leaders for a full-day, facilitated meeting at Clark University to further this conversation.

At this meeting, the four focal points presented in this Vision and the overarching theme of "more time" were identified. Throughout the spring and summer, working groups met for deeper deliberation on each of these topics. Drawing on the ideas expressed during these sessions, MassINC undertook additional research and conducted dozens of interviews with mayors, superintendents, school leaders, youth leaders, and education policy experts.

This Vision seeks to present the education innovations, aspirations, and policy priorities of Gateway Cities. Over the coming months, we will bring this Vision to each community seeking additional input and affirmation.

This Vision is a living document charting a course toward a future destination. Piloted by the steadily expanding coalition of Gateway Cities leaders committed to working collaboratively, this document is a starting point on the journey toward dynamic community-wide learning systems.

November 2013

Dear Friends:

We all take enormous pride in the hard work and steadfast commitment of those in our communities who nurture and educate youth. As mayors, it falls upon us to give these educators the support they need to offer our children the best preparation possible for the future. Providing policy leadership is one way we can fulfill this obligation.

For the last several years, Gateway City educators have worked tirelessly to develop and implement new learning models. These green shoots hold enormous promise to give more students the skills and direction they need to succeed in an increasingly challenging economy, but this potential can't be cultivated without policies that position education leaders to systematically bring them to scale.

To make a compelling case for the necessary state investment, we must first redefine the narrative. It is imperative that we counter simplifications that label our communities as "underperforming" on the whole, painting us with the broad brush of data that do not adequately capture the complexity and dynamism of our cities. We must also showcase what we do well in Gateway Cities, and champion the strengths upon which we will do better. Above all, we must articulate a vision for effective 21st-century learning systems, and a convincing strategy to build them.
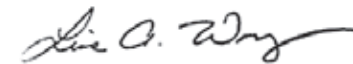
Over the past year, Gateway City leaders have shared their time, energy, and ideas to organize for this task. This document represents the fruits of their labor. It gives us language to communicate the achievements of our educators and the potential of our communities to provide high-quality learning experiences. The Vision offers a powerful framework for community-wide learning systems that meet the needs of students from birth to career. And it gives us a policy agenda, focusing our attention on the building blocks we will need to assemble this seamless system, piece by piece.

The pages that follow bring to life the creativity and imagination of Gateway City educators. As we organize in the months ahead to achieve the policy change that will enable us to realize this Vision for our students and families, we must mirror that same level of creativity and imagination.

Sincerely,

Kimberley Driscoll
Mayor
City of Salem

Lisa A. Wong
Mayor
City of Fitchburg

This Vision embodies the hard work, ideas, and aspirations of more than one hundred leaders who contributed their time and energy to a collaborative process. While this list is by no means complete, it represents a good-faith attempt to capture the names of those who attended meetings, interviews, and strategy sessions, as well as those who provided feedback and guidance over the past year. Special thanks to youth from Teens Leading the Way who set aside time on a Sunday afternoon to offer their input.

MAYORS AND MANAGERS

Jay Ash	John Mitchell
Linda Balzotti	Alex Morse
Gary Christenson	Michael O'Brien
Kimberley Driscoll	Daniel Rizzo
James Fiorentini	Domenic Sarno
Daniel Knapik	Lisa Wong
Bernie Lynch	Stephen Zanni

SUPERINTENDENTS

Melinda Boone	Andre Ravenelle
Mary Bourque	Stephen Russell
Paul Dakin	Suzanne Scallion
David DeRuosi	Judith Scannell
Jean Franco	James Scully
John Jerome	Michael Shea
Sergio Paez	Dan Warwick

Maggie Adams	Peter Christopher	Gail Giambusso	Katie MaGrane	John Schneider
Meghan Adams	Tim Collins	Marguerite Gonsalves	Mary Malone	Tom Scott
Jennifer Alexander	Stefan Czaporowski	Robert Hildreth	Charlene Mara	Anne Serino
Nicholas Apostoleris	Chad d'Entremont	Samalid Hogan	Mary Jo Marion	Beth Shevlin Tripathi
Heather Arrighi	Helena DaSilva Hughes	Lori Hovey	Peter McAndrew	Kathie Skinner
Laura Assade	Robert David Sullivan	Van Hugyn	Maria McLaughlin	Elena Sokolow-Kaufman
Lauren Barber	Jennifer Davis-Cary	Bob Jokela	Andrew Melendez	Lou St John
Noah Berger	Sylvia de Haas Phillips	Denise Jordan	Albert Mogavero	Shailah Stewart
Lori Berry	Kerry de Jesus de Jesus	Beth Kaake	Mary Anne Morris	John Strauss
Kitty Bowman	Ann DiBenedetto	Joan Kagan	Michael Mullen	Salvatore Terrasi
Joanne Blum	Marie Doehler	Manjula Karamcheti	Linda Noonan	Paul Toner
Blair Brown	Julie Donovan	Bob Kilkenny	Andrew O'Leary	Charlie Toulmin
Susan Buchholz	Titus DosRemedios	Chris Kingston	Amy O'Leary	Julianne Viola
William Buckley	Kate Fenton	Caroline Koch	Susan O'Neil	Mary Walachy
Steven Budd	Elaine Fersh	Glenn Koocher	Elizabeth Pauley	Abby Weiss
Andrew Bundy	Karen Frederick	Miles Lang-Kennedy	Aldo E. Petronio	Len Zalauskas
Gail Carberry	Mariregis Fusco	Sandra Larson	Paul Reville	
Jennifer Carey	John Fusco	Saeyun Lee	Patrick Roach	
Nancy Carpenter	Tim Garvin	Emily Levine	Jim Sacks	
Danielle Carrigo	Geoff Foster	Bernard Lynch	Nancy Scannell	

Vision

for Dynamic Community-Wide Learning Systems

Gateway Cities envision a time in the not-so-distant future when they are leading providers of education tailored to the diverse needs and aspirations of students and families in our 21st-century economy. This Vision is grounded in the conviction that Gateway Cities can leverage their unique assets to build education systems that fuel local economic growth and increase the state's competitive edge. To achieve this Vision, Gateway City leaders are coalescing around a policy agenda that brings recent innovations to scale and weaves them into dynamic community-wide learning systems, generating quantifiable returns for Massachusetts taxpayers.

>>

Two decades after Massachusetts passed the landmark Education Reform Act of 1993, the state has vaulted to the top on national and international measures of academic performance. This exceptional achievement has earned well-deserved recognition from around the globe. But we must appreciate that the changing needs of the economy require us to do even more, particularly for disadvantaged students, a great many of whom are still struggling.[1]

This is most apparent in Gateway Cities, the small to midsize urban centers that are home to one-quarter of all school-age youth in Massachusetts. In the 20 intervening years since education reform, the share of students in these districts who are low-income has risen from less than one-half to more than two-thirds.

Growing poverty makes it more difficult to provide the supports that Gateway City students need to acquire the higher-level skills employers increasingly demand; in a state where 70 percent of all jobs will soon require some form of post-secondary training, fewer than one in four Gateway City students are graduating high school and going on to complete these credentials. Given the state's aging workforce, Massachusetts can ill afford this lost talent.[2]

A more subtle but equally important problem is the impact of growing concentrations of poverty on housing development. High-poverty Gateway City school systems have a difficult time attracting families with greater means. This contributes in a major way to depressed demand for housing in these communities. In many Gateway Cities, the market is simply too weak to build new housing or renovate existing units. So while Massachusetts urgently needs more housing production to support economic growth, these pro-development urban centers—the very communities where it would be most efficient to expand the state's housing supply—have been relegated to the sidelines.

Success in addressing these two challenges will require a strong state and local partnership. State policy must recognize the relationship between housing and education, providing tools that enable these cities to better serve disadvantaged youth, but also tools that will allow them to increase the economic diversity of their neighborhoods. In turn, Gateway Cities must have a multidimensional strategy and a plan to implement it.

Over the past year, Gateway City leaders have come together to brainstorm. Woven together, their ideas form a compelling vision for dynamic community-wide learning systems. This introductory section summarizes the concept, and drills deeper on how the strategy responds to emerging threats and opportunities.

"Gateway City schools are brimming with innovative new models. We are working to give each student a rich set of individually tailored experiences based on their needs. If we can bring these efforts to scale and clearly communicate our successes, families will seek out our communities for their educational offerings and diversity."

ANDRE RAVENELLE
SUPERINTENDENT,
FITCHBURG PUBLIC SCHOOLS

DYNAMIC COMMUNITY-WIDE LEARNING SYSTEMS

The concept of dynamic community-wide learning systems underscores three widely recognized realities:

>> First, public education must be more "dynamic" to adapt to the changing needs of employers in an economy that is shifting more rapidly than ever.

>> Second, giving students the preparation they need to continually adapt their skills to a rapidly changing economy requires a "community-wide" response; pre-K-through-12 schools need strong community support and partnerships to provide the necessary learning experiences and supports.

>> Third, a growing body of rigorous education research revealing developmental milestones and key transitions demonstrates the need for an integrated birth-to-career "systems" approach.

Many efforts to create structures akin to the Gateway Cities Vision for dynamic community-wide learning systems are already underway. The Strive Network supports dozens of cities building cradle-to-career "education pipelines." Massachusetts has advanced elements of this work at a state level through a number of recent efforts, including the 2008 Commonwealth Readiness Project and the 2010 Board of Elementary and Secondary Education's Task Force on Integrating College and Career Readiness. This fall the Rennie Center for Education Research & Policy is launching a major new initiative focused on the development of comprehensive education policies in Massachusetts.

These ongoing efforts align well with the Gateway Cities Vision. There is, however, one important distinction: For most communities and policymakers, closing the achievement gap by providing more comprehensive supports to low-income students is the impetus for building these systems. While Gateway Cities wholeheartedly embrace that objective, they envision and aspire to create systems that can tailor learning to the diverse needs and aspirations of individual students and families, providing a superior experience for all.

Gateway Cities are well positioned to achieve this goal: They all have higher education institutions that can help create multiple pathways to post-secondary education. They all have diverse clusters of regional employers to provide placements for work-based learning opportunities that empower students to explore their career interests. Gateway Cities also have sufficient scale to offer vocational education and other types of specialized learning and student support.

In viewing dynamic community-wide learning systems as a more universal model for 21st-century public education, Gateway Cities are an excellent place to prototype the approach. They have the energy to innovate and many of the components, yet they are not so large that they will get bogged down in the effort. Taking stock of emerging threats and opportunities, the rationale for accelerating the development of such systems in Gateway Cities is even stronger.

EMERGING THREATS AND OPPORTUNITIES

The Massachusetts middle class has been squeezed by many adverse forces over the past several decades. But changing residential patterns that concentrate poverty in our Gateway Cities, making it more difficult for them to educate youth and produce housing, are intensifying the pressures on the state's middle class. While this cycle has been apparent for quite some time, up until now there hasn't been an obvious solution. Changing consumer preferences create an opening to break this vortex.

The Middle-Skill Worker Shortage

Throughout the Commonwealth's history, Gateway Cities have produced a large share of the newest members of our middle class. In this role, they have injected a steady infusion of wealth into regional economies across the state. With growing levels of poverty and learning systems that have been slow to scale the robust educational experiences that students need to gain higher-level skills, Gateway Cities are struggling to produce the talent the state's economy requires.

This is most visible in the growing shortage of middle-skill workers. Estimates suggest Massachusetts will need a minimum of 225,000 new workers with post-secondary training up to an associate's degree to support the growth of the economy over the next decade.[3] With a great number of middle-skill workers aging out of the labor force, hitting this target requires more than doubling the previous decade's middle-skill growth rate; despite some progress, the state is still far off the mark.[4]

This presents a major challenge for the economy. The Commonwealth is already struggling to compete for employers; over the past few decades, Massachusetts has added jobs more slowly than states with a similar industrial base. While various factors contribute to lagging job growth, failure to create a workforce for middle-skill employers is only intensifying the problem, forcing out middle-class families, and increasing income inequality.[5]

A growing body of research shows that as inequality grows, residents segregate into upper- and lower-income communities.[6] This pattern has been pronounced across Massachusetts. In the Pioneer Valley, for example, the percentage of residents living in middle-income neighborhoods fell from 68 percent in 1990 to just 42 percent in 2007.[7]

The self-perpetuating spiral whereby we struggle to create middle-class jobs—which leads to further concentrations of poverty, undermining the urban school systems vital to economic mobility, and reducing housing opportunity in neighborhoods with quality housing and schools, making it more difficult for Massachusetts to attract and retain middle-class families—has become a threat to the fabric of our Commonwealth that merits greater attention and new solutions.

Breaking the Spiral

To break the spiral, Gateway Cities must do a better job preparing disadvantaged students for their future in the state's economy, while simultaneously attracting middle-income families to their neighborhoods.

Since the passage of No Child Left Behind in 2001, these communities have been under enormous pressure to increase the performance of high-need students. Taking advantage of the added flexibility provided by the state's 2010 education reform law, one-time resources available through Race to the Top, and support from all three state education departments, Gateway Cities have developed a data-driven approach to school improvement and many innovative new learning models.

As indicated by test scores, these efforts are producing tangible gains. While this improvement has been obscured by the significant growth in high-need student enrollment that these districts have absorbed over the last decade, controlling for these demographic changes, test scores have grown considerably (see text box, p.8). As detailed in the pages that follow, dynamic community-wide learning systems would position Gateway Cities to build on recent accomplishments and better serve high-need students.

Translating success into an educational experience that attracts middle-class families to Gateway City neighborhoods will be difficult, but two emerging trends brighten the prospects. First, the renewed appeal of urban living presents a genuine opportunity for midsize cities. With strong educational offerings, these communities can draw those looking for value, particularly families leaving larger high-cost cities as they enter their child-rearing years. Second, in sharp contrast to the past, evidence suggests that these parents will look harder at actual school quality and less at the racial and ethnic composition of schools.[8] To the extent that Gateway Cities can demonstrate that their education systems are performing, families are likely to see their diversity as an asset.

In this context, efforts to create high-quality learning systems will be a critical complement to the "transformative redevelopment" policies championed by Gateway City economic development leaders. Transformative redevelopment tools can repair
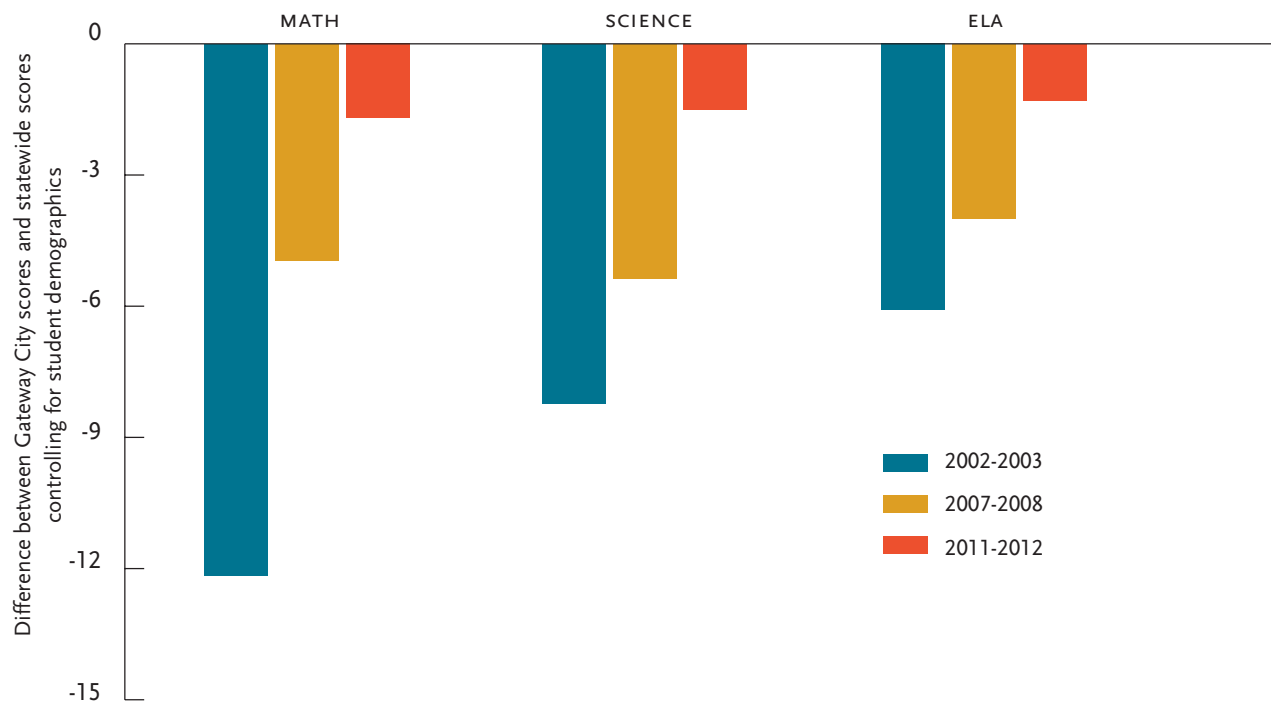
Closing the Achievement Gap

The new models and data-driven approach that Gateway City school leaders have adopted are narrowing the gap between the MCAS scores of Gateway City students and the scores for demographically similar peers in Massachusetts overall.

An apples-to-apples comparison controlling for race, family income, and language abilities shows that Gateway City students scored significantly lower than predicted on all three MCAS tests in 2003. By 2012, Gateway City students had closed this gap. On average, they are now scoring less than two points lower than their demographic attributes would predict.

And this method of adjusting scores based on a district's student characteristics lacks precision because the limited information in student files only give a very basic indication of socioeconomic status. If we include Census data for the community in a statistical model to account for other factors, such as family structure and the educational levels of parents, the small gap that remains between expected and actual performance for Gateway City students disappears entirely.

Gateway Cities have significantly narrowed the performance gap

Difference between Gateway City scores and statewide scores controlling for student demographics

Legend:
- 2002-2003
- 2007-2008
- 2011-2012

Source: Analysis of DESE student-level data MCAS files performed by Cape Ann Economics

How to read this chart: We compared the MCAS score of each Gateway City student to the statewide average for students with the same demographic make-up (race/ethnicity, family income, language ability). The bars show these differentials averaged for all Gateway City students. A negative differential suggests Gateway City students are scoring lower, on average, than their peers. To show change over time, scores for earlier years are comparisons to the statewide average in 2011-2012. A 20-point range falls between each level (i.e., needs improvement, proficient, advanced) on the test, so the differentials for 2003 depicted in the figure below represent quite large margins.

the physical fabric of cities, replacing blight with attractive mixed-use projects. But the entire premise of transformative redevelopment is that these projects will in turn catalyze private investment in the surrounding area. In Gateway Cities, much of the activity stimulated by transformative projects will come in the form of residential development. This growth will be stunted if school quality is lagging.

Recognizing the need to couple a strong real estate development strategy with a strong education strategy is critical. Unlike Boston and other big cities that have transitioned from their industrial pasts without a dramatic overhaul of their education systems, the residential character of Gateway Cities makes school quality a prerequisite for stimulating significant reinvestment. (On average, these cities depend on residential property for more than two-thirds of their tax base; Boston, in contrast, gets only about one-third of its collection from residential property.)

THE ROAD FORWARD

At this watershed moment, when the direction of learning will determine both the strength of the Massachusetts economy and our ability to drive growth into the Commonwealth's urban centers, Gateway Cities are primed to lead the way.

Together, they can advance the policy dialogue beyond the current conversation's focus on failing schools, which distracts from the true work at hand—bringing to scale models that represent a fundamental change in the way we support learning all across a community, not just in a handful of buildings.

Changing this frame will also create an opening to rethink the role of other sectors in education policy. For instance, while the critical link with housing is widely acknowledged, Massachusetts has no explicit school-centered neighborhood revitalization policy that coordinates capital spending on educational facilities with other public investments. In a discussion about strategies that can make learning systems an asset for growth and renewal, housing and other related policies will come to the fore.

With this Vision as a unifying frame of reference, Gateway City leaders can also engage in a more immediate conversation around specific investments. The Vision outlines policy priorities in four domains: early education, social and emotional growth, pathways to college and career, and support for newcomers. Among a number of action items, high-quality early education and expanded learning time will require significant new spending. Gateway Cities can join the growing chorus of those calling for investments in these areas with a Vision that outlines strategic investments, with state support growing only as programs demonstrate impact.

A Snapshot of the Vision

This Vision identifies a set of policies that would enable Gateway Cities to forge their many educational assets into dynamic community-wide learning systems that fuel local economic growth and increase the state's competitive edge. The Vision outlines four focal points for state policy development: early education, social-emotional growth, pathways to college and career, and support for newcomers. The Vision also highlights key metrics that Gateway Cities must develop and communicate to demonstrate success.

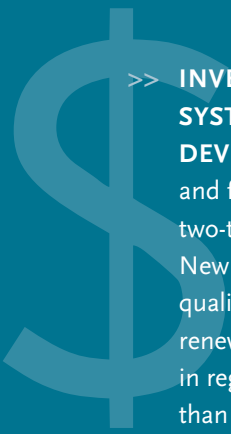| >> EXISTING ASSETS	>> SYSTEM BUILDING POLICIES	>> MEASURES OF SUCCESS
EARLY EDUCATION		
Strategic plans and community coalitions to build early literacy systems that position children for life-long learning	• Authorize funding to fill existing slots in high-quality centers • Increase funding for ELT elementary schools to support early literacy • Provide grants for birth-8 strategy	• % of students enrolling in kindergarten with quality pre-K experience • % of students scoring advanced or proficient on 3rd grade MCAS
SOCIAL AND EMOTIONAL GROWTH		
Dense concentrations of regional hospitals, health centers, and nonprofits to weave evidence-based positive youth development models into the community fabric	• Increase the number of school-based health centers • Increase funding for out-of-school-time enrichment • Create "Centers of Excellence" Grant	• % of students participating in structured afterschool activities • % of students who report feeling safe and supported at school and in the community
PATHWAYS TO COLLEGE AND CAREER		
Local colleges and universities to provide early college experiences; a diverse set of employers and economic development organizations to offer work-based learning opportunities	• Increase funding for ELT middle schools with experiential learning • Create funding mechanisms for early college designs • Increase support for work-based learning	• % of students with work-based learning experience • % of students graduating with college credit • % of students completing post-secondary credential
NEWCOMERS		
The fastest growing segment of the state's workforce; linguistic diversity to benefit both native and non-native English speakers	• Expand Summer Enrichment Academics • Create funding mechanisms for early college designs	• # of students in two-way bilingual education • % First Language Not English students completing post-secondary credential

Articulating the Vision

>> **INVESTING IN GATEWAY CITY LEARNING SYSTEMS IS A FARSIGHTED ECONOMIC DEVELOPMENT STRATEGY.** Gateway Cities are first and foremost residential communities; they generate two-thirds of their tax base from residential property. New models to spur revitalization by boosting school quality are therefore essential to any strategy to bring renewal to these urban centers, which play a vital role in regional economies across the state. With fewer than one in four Gateway City youth earning a post-secondary credential, new models that better prepare Gateway City students are also critical to meeting Massachusetts's future workforce needs.
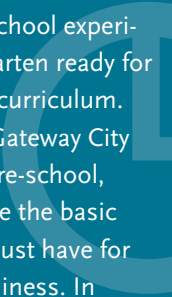
>> **COLLABORATION AMONG GATEWAY CITIES WILL SPUR INNOVATION IN EDUCATION.** These communities are ideally positioned to pioneer change. Their size makes them nimble enough to innovate, yet combined they educate one in four students in Massachusetts. Together, they have faced great challenges and intense pressure to increase educational performance. This has created the conditions from which innovative solutions are emerging. New data show that these innovations are increasing student achievement. To build upon this success, Gateway Cities are eager to collaborate: exchanging ideas and lessons-learned as they undertake the complex work of scaling effective models; speaking in unison to amplify their voices and inject bold ideas into the state's education policy dialogue.
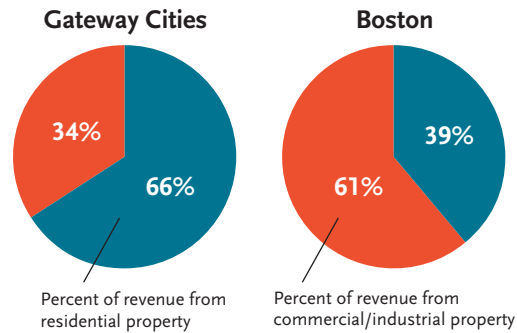
>> **GATEWAY CITIES CAN FORGE THEIR UNIQUE EDUCATIONAL ASSETS INTO COLLEGE AND CAREER PATHWAYS.** The rapidly changing knowledge economy puts a premium on the learning assets concentrated in these communities. Gateway Cities have diverse clusters of regional employers to provide work-based, experiential education; strong vocational schools; and public higher education partners that provide affordable post-secondary courses to high school students. They also have public transportation to help students access this rich set of educational platforms. These unique assets position Gateway Cities to offer exceptional individualized learning experiences attuned to the needs of today's industries.

>> **INCREASING RESOURCES FOR HIGH-QUALITY EARLY EDUCATION AND EXPANDED LEARNING TIME ARE CRITICAL.** Accelerating learning requires a strong foundation — students must have high-quality pre-school experiences to enter kindergarten ready for a rich and challenging curriculum. With less than half of Gateway City students enrolling in pre-school, we are failing to provide the basic foundation students must have for college and career readiness. In addition to early education, helping the next generation of workers gain competencies to succeed in the state's economy will require more time in school: time to provide interdisciplinary experiential-learning; time to provide counseling and build social-emotional skills; time to offer enrichment activities; and time to provide professional development and allow collaboration between educators.

Unlike large cities, Gateway Cities depend heavily on residential property taxes for revenue

Gateway Cities

34%

66%

Boston

39%

61%

Percent of revenue from residential property

Percent of revenue from commercial/industrial property

Source: Massachusetts Department of Revenue, 2012

For the other policy priorities identified for immediate action, modest levels of state investment would provide resources and incentives to change systems and scale innovative models backed by rigorous research. With these incentives and supports, Gateway Cities could bring to a close the drawn-out conversation around moving our education system from the agrarian model of the past century to the more dynamic learning systems that this century requires.

As Gateway Cities build these dynamic community-wide learning systems and demonstrate their efficacy, they can contribute meaningfully to a third conversation around a stronger school finance model that would position them to sustain these systems and allow other communities to follow in their path. A foundation budget review commission, which has been proposed by a number of organizations and has engendered significant legislative support, would provide an ideal vehicle for exploring these questions. Besides determining what resources are required to sustain these 21st-century learning systems, such a commission could also isolate opportunities to reallocate savings from inefficient and outdated models.

In addition to leading these policy-oriented dialogues, this Vision's call to action will bring Gateway Cities together to exchange ideas internally around practice through the formation of collaborative learning networks.

In summary, the road forward for this Vision is Gateway Cities strengthening their collective voice. While education reform in the past has disproportionately affected these communities, they played a lesser role in the development of these policies. As we look for innovation in education, Gateway Cities are offering a Vision that will place them in a leadership role.

I.

Early Education

Gateway Cities are developing birth-to-grade-three learning systems that will ensure all children acquire the early literacy skills they will need to continue on in school and succeed in the state's workforce. Completing the build-out of these early learning systems is fundamental to making public education a core Gateway City strength.

>>

W ith one-third of all Massachusetts's residents under the age of five, Gateway Cities are responsible for educating an enormous share of the state's future workforce. The most efficient way to prepare their youth for the state's knowledge economy is to provide high-quality learning opportunities during the voyage from birth to age eight. The educational experiences children have during this critical period for cognitive development prepare them to read so that they will be able to "read to learn" as they continue on with their education.[9]

With a growing attention on reading by age eight as a developmental milestone, Gateway Cities have invested a lot of energy in early literacy over the last decade. Despite these efforts, the share of students scoring advanced or proficient on the third grade MCAS test fell from 48 percent in 2003 to just 39 percent in 2013, further widening the gap between Gateway City students and those in other Massachusetts districts.

In large measure, the challenge Gateway Cities face stems from the failure to ensure children receive a high-quality preschool experience. Only half of three- and four-year-olds in Gateway Cities are enrolled in preschool, versus more than 60 percent of young children statewide. The preschool enrollment for three- and four-year-olds in Gateway Cities has fallen significantly since 2000.[10] This drop corresponds with a 30

percent reduction in state spending on early education.[11] A decade ago Massachusetts was a leading state in early education access; current investment levels place us in the middle of the pack.[12]

With fewer dollars to spend, the state's early education leaders have been intensely focused on improving the quality of existing services. In 2005, Massachusetts became the first state in the nation to create a department devoted to early education. Building upon some of the nation's most rigorous licensing standards, the new Department of Early Education and Care launched a tiered rating system in 2010 that has given providers a roadmap for increasing and demonstrating quality. Massachusetts's many accomplishments were recognized and advanced in 2011, when the Commonwealth became one of just nine states to receive a $50 million federal Race to the Top Early Learning Challenge Grant.

All of this activity is yielding improvements in the quality of Gateway City early care systems, bringing them to the point where additional state investment would generate high-quality educational experiences for more children.[13] Offering these opportunities is paramount to increasing the performance of public education systems in these communities. With a large proportion of students currently entering Gateway City kindergarten classrooms underprepared, teachers are inevitably forced

"Years of research and effort are increasing the quality of early learning experiences in Gateway Cities. All children will need access to these programs to develop a foundation for lifelong success."

KAREN N. FREDERICK
EXECUTIVE DIRECTOR,
COMMUNITY TEAMWORK, INC.

to slow down, holding back children who start school ready for a challenging set of learning experiences that will allow them to build the higher-level skills today's economy demands.[14]

Gateway Cities also recognize that high-quality preschool will not produce the desired early literacy outcomes without complementary efforts to support students in the early grades. Research has shown that the academic benefits of early education fade out as children progress through elementary school.[15] When high-need students get additional support that enables them to reach the third grade reading milestone, they hold on to their gains, continuing further in their education and earning greater income in adulthood.[16]

To position Gateway Cities to leverage their significant educational assets and make dynamic 21st-century learning systems a competitive strength, the Vision calls for state investments that build on the significant efforts to date to lay a foundation for community-wide early literacy supports.

BUILDING ON A FOUNDATION
Gateway Cities are fashioning a birth-to-grade three early learning system with three components: a comprehensive strategy that aligns and coordinates programs and services, high-quality early education to get students off to a strong

start, and additional learning time in elementary schools to ensure students stay on track toward early literacy targets.

Comprehensive Birth-to-Grade-Three Strategy
Scientific consensus around both how and when children develop literacy skills has advanced dramatically over the last two decades. Whereas in the past it was widely believed that reading skills were built through instruction provided at school, it is now understood that beginning at birth a child's environment supports literacy development, and learning experiences build on one another cumulatively.[17] Helping children acquire the skills to be able to read to learn by grade three requires a strategy to ensure all learners will have the requisite experiences. Gateway Cities have been working hard to put together strategic plans, data systems, and community coalitions to organize, inform, and oversee the construction of birth-to-grade three systems.

>> **Strategic plans.** Getting the large return on public investment in early literacy requires careful planning. Communities must develop a common set of standards, curriculums, assessments, and student supports that align horizontally (to achieve uniformity across a patchwork of public and private providers) and vertically (to build on the progress children make as they transition from one grade to the next).[18]

Over the last several years, Gateway Cities have been deeply engaged in this challenging work. In 2009, the state awarded a number of districts small grants to get started. Communities formed cross-sector teams to develop plans. These groupings generated new relationships and new learning, but communities found that creating structures to sustain coordination and alignment would require significantly more time and attention.[19] In 2012 the Department of Early Education and Care awarded another round of larger grants for alignment strategies with its federal Early Learning Challenge funds. With these resources, several Gateway Cities (Lowell, Pittsfield, and Springfield) are currently in the process of improving their alignment strategies. Their work will provide new models for other communities working to develop robust birth-to-grade-three strategies.

>> **Data systems.** Communities building a birth-to-grade-three system need data to improve quality, coordination, and alignment. States around the country are building early childhood data systems that capture information on both students and providers. For students, these systems record demographic data and services delivered by education, health, and social service agencies. For providers, they catalog information on the learning environment and workforce.[20]

Massachusetts has been at the forefront of these efforts. The Commonwealth was one of five states recruited by federal agencies to design an early childhood system in 2010. In 2011, Massachusetts issued a plan for building its system.[21] The Early Learning Challenge Grant awarded a few months later accelerated this difficult and expensive task. A central component of the state's Early Child Information System (ECIS) will be capturing data on student needs. Gateway City early care providers are working hard to build the capacity to conduct screenings, formative assessments, and measures of adult-child interaction. At the school level, Gateway Cities are preparing for the Kindergarten Entry Assessment, a new series of formative assessments similar to those administered by early care providers.

>> **Community coalitions.** Because there is no unified local governance structure for the birth-to-grade-three continuum, community coalitions are needed to advocate for and steward strategies to build and continuously improve this system. These community-based coalitions typically include private preK providers, health and human services organizations, K-12 administrators, and other civic leaders.[22]

A number of Gateway Cities have established early learning community coalitions, drawing heavily on technical assistance from external organizations. Holyoke, Pittsfield,

Springfield, and Worcester, for example, are part of the national Campaign for Grade Level Reading.[23] These cities have also worked closely with Strategies for Children as part of the Massachusetts Reading Proficiency Learning Network. Several United Ways have worked with Gateway Cities to develop early literacy coalitions. But these efforts tend to be under resourced. Most communities require additional support. The city of Lynn, for example, recently submitted a proposal for an early childhood learning initiative to the Federal Reserve Bank's Working Cities Challenge.

Access to High-Quality Early Education

Rigorous research demonstrates the large return that public investment in high-quality early childhood education generates.[24] A number of states, most notably New Jersey and Oklahoma, have responded to this research by significantly expanding access to preschool programs. These states have posted impressive results.[25] While Massachusetts has yet to follow suit, the state, which is largely responsible for the delivery of these services, has laid the groundwork for expansion in Gateway Cities with the implementation of a Quality Improvement and Rating System and professional development efforts to strengthen the early care workforce.

>> **Quality Rating and Improvement System (QRIS).** States across the country have sought to increase access to high-quality early education with rating systems that make quality more transparent for providers, parents, and policymakers. While we are still waiting for evidence that these systems accurately capture the differences between providers that lead to better student outcomes, there are indications that QRIS has led to efforts by providers to increase their ratings over time.[26]

Massachusetts has actively supported providers working to increase their ratings with a combination of training and grants. Supported with state funds, federal Early Learning Challenge dollars, and private resources from the United Way, these grants help centers cover the costs of training and equipment required to move up the rating scale.

>> **Professional development.** Both the academic and social benefits children gain from early education are closely tied to the preparation of teachers providing instruction.[27]

Over the past decade, Massachusetts has placed considerable attention on upgrading the skills of early educators. In 2005, less than half of child care workers had post-secondary training.[28] Today 60 percent of the child care workforce has completed at least some college.[29] This growth has

been achieved with the Legislature's sustained support for early educator scholarships, the Commonwealth Corporation's innovative investments in workforce development organizations, and efforts to train limited English speaking and other non-traditional students through peer learning models, Saturday classes, and online learning modules available in five languages. Additionally, 18 vocational schools now offer early childhood education programs and eight community colleges have earned the highly regarded NAEYC accreditation for early childhood associate degree programs.

Expanded Learning Opportunities

While there is much that schools can do with curriculum, assessment, and instruction to support literacy development in the early grades, given the concentrations of high-need students in Gateway Cities, there is a compelling argument to be made that both achieving the innovation in teaching required and providing a sufficient dose of instruction will require additional time.[30] Gateway Cities are working to build capacity to deliver expanded learning time through the whole-school expanded learning time model and high-quality out-of-school-time programs.

>> Expanded learning time schools. Lengthening the day can be a powerful tool to achieve early literacy goals in elementary schools where high-need students make up a large proportion of enrollment. Rigorous studies have isolated additional learning time as a defining feature in charter schools that effectively serve predominately low-income students and help them stay on track to reach grade-level reading benchmarks.[31] With low-income students comprising more than half of enrollment in over 80 percent of Gateway City elementary schools, there are clearly many schools where additional learning time may be advantageous.

Massachusetts's pioneering Expanded Learning Time Initiative, which currently funds additional time in a dozen Gateway City schools, has increased our understanding of the challenges districts must overcome to wield ELT effectively.[32] With many leaders in the ELT movement located here in Massachusetts, Gateway Cites are well-positioned to pinpoint where an investment in next-generation expanded learning time schools can contribute effectively to communitywide efforts to increase early literacy.

>> **Out-of-school-time programs.** Research suggests that out-of-school-time activities produce the largest academic gains when focused on elementary school reading. The benefits are particularly strong when the program offers one-on-one tutoring.[33] While uneven quality has been a major challenge for the afterschool field, research shows that, with literacy programs, rather modest professional development efforts can lead to significant improvements in student outcomes.[34]

Over the past decade, Gateway Cities have placed considerable attention on improving the quality of afterschool programming. Similar to early care, while Massachusetts has made considerable gain in augmenting quality, we have struggled to expand access with both state and federal support declining.

WORKING TOGETHER TO ACHIEVE THE VISION

Unlocking the potential of Gateway City learning systems starts with a commitment to ensuring that those with disadvantages are equally positioned to benefit from all that the community can offer educationally. Gateway Cities have exceptionally large numbers of students who will need additional support in early childhood to take advantage of these opportunities. Providing these supports will require an investment from the state. Research confirms that this investment is is likely to be recouped by many multiples. If these resources help Gateway Cities increase the competitiveness of their learning systems overall, as envisioned, the state could generate significantly larger benefits for the taxpayers.

POLICY PRIORITY

Provide grants for birth-to-grade-three strategic planning and early literacy community coalitions. Massachusetts invests millions of dollars annually in early education; a very significant share of these funds flow to Gateway Cities. Small grants can help increase the capacity of these communities to build and implement birth-to-grade-three strategies that make this investment more efficient and effective. With matching fund requirements, a state grant program could incentivize strategic planning and draw philanthropic resources into these efforts. State support for such grants in the past demonstrates the enthusiasm Gateway Cities bring to this work. Evaluation of past grants also reveals the complexity of the undertaking, and the need to sustain these efforts in order to accomplish meaningful results.[35]

Create additional vouchers to utilize existing slots with high-quality early education providers and fund high-quality early education at public schools. Gateway Cities have many early education providers that have self-reported a QRIS rating of two or higher. Providers with ratings of two and above are likely to deliver early education of sufficient quality to improve child outcomes.[36] Funding limitations mean many of these centers enroll significantly fewer children than their licenses allow. As the Department of Early Care and Education satisfactorily validates these QRIS ratings, these centers should receive funding for additional slots.

The state can also move to increase access to high-quality care by extending the same deal to public school districts. As Massachusetts moves toward provide universal pre-school, any Gateway City school systems that can meet a QRIS rating of two should be eligible for reimbursement from the state.

POLICY PRIORITY

Increase support for Expanded Learning Time elementary schools. Gateway City schools have demonstrated that Expanded Learning Time can fuel large gains in student achievement in the right setting. Currently, just 10 Gateway City schools receive support for an extended day through the state program (and the $1,300 per pupil allocation they receive has been eroded by inflation, forcing these schools to make cuts to maintain the longer school day).[37] Among the hundreds of Gateway City elementary schools serving large concentrations of high-need students, there are certainly many more where school leaders, teachers, and parents would commit to the work required to make ELT an effective strategy. As Massachusetts builds the next generation of ELT schools, the state should place particular emphasis on working with community coalitions advancing early literacy in Gateway Cities to identify elementary schools that would benefit from additional time. If ELT can help these schools reach early literacy milestones, the benefits to the taxpayer will compound over time.

POLICY PRIORITY

Increase the number of Gateway City students attending high-quality out-of-school programs that provide one-on-one tutoring. Out-of-school time is an effective approach to help high-need Gateway City students meet the third grade reading milestone. As Massachusetts expands funding for out-of-school-time programs, special priority should be given to communities with strategies that identify a need for high-quality out-of-school time programs that offer one-on-one tutoring aligned with school curricula.

Social & Emotional Growth

Gateway Cities are creating dynamic community-wide learning systems that foster social and emotional growth. Weaving together in-school and out-of-school programs, these systems will offer students a continuum of tiered services that build on their individual strengths and meet their individual needs.

>>

Social and emotional skills provide a crucial foundation for achievement in the classroom at the K-12 and postsecondary levels. They are also increasingly important to career success.[38] Today's job market places a premium on the interpersonal skills required to perform effectively in culturally diverse teams. Strong social and emotional skills also aid in negotiating the unsettling new demands of today's innovation economy, including resiliency to adjust to constant change and straddle the blurred lines between work and home life. Studies show that helping students hone these skills from a young age translates into higher lifetime earnings.[39]

Strengthening social and emotional skills among all students also strengthens a community. Now more than ever, cities need engaged citizenry who can develop trust and reach consensus among neighbors with diverse backgrounds and values. The imperative here for Gateway Cities can't be overstated—building these skills will not only help increase solidarity and community, it will also enable Gateway Cities to demonstrate that the diversity of their residents is a true asset.[40]

A growing body of evidence shows that communities can exert significant influence on social and emotional development with systems that provide a continuum of individualized support to students and families.[41] The approach includes a universal component—a curriculum offering developmentally appropriate social and emotional instruction to all students in all schools—and tiered support for those with greater needs. This second component, while more challenging to deliver, is essential. Estimates suggest that 20 percent of all adolescents in the US will experience severe impairment from a mental health disorder, yet only one-third of these youth will receive treatment. Unaddressed mental health conditions are even more prevalent among low-income children.[42] Early mental health screening and access to coordinated care for those with stronger needs will improve both health outcomes and academic performance.

Gateway Cities are well-positioned to build this tiered system of supports. They are rich with sophisticated organizations that can serve as partners, including regional hospitals, community health centers, and youth development organizations. And their push to build tiered systems of support is well-timed; while this topic has been a focus of educators for decades, policymakers are becoming increasingly attentive now. A nationwide focus on reducing bullying and school violence and ending the "school-to-prison pipeline" places this work in the spotlight.

The opportunities for cost savings—or at least cost-shifting to strategies that produce better outcomes—are also driving interest in tiered intervention.[43] Lower prison costs and health

care cost containment through an emphasis on prevention are of utmost importance to the state budget. Universal social and emotional learning and capacity is also a recognized strategy to rein in special education costs, of great interest to cities and school systems. The opportunity to gain better outcomes for students while lowering special education costs is just too promising to ignore.

The benefits of a tiered system of supports are already widely recognized among Gateway Cities leaders, within state agencies serving youth and families, and in the Legislature, but still, funding is lagging.[44] The Vision for social and emotional growth seeks to elevate the tiered system model and engage state partners in stronger support for communities as they build these systems.

BUILDING ON A FOUNDATION

With assistance from a host of state partners, Gateway Cities have been steadily working to develop tiered systems of student support. While Gateway Cities envision one seamless continuum of tiered support, for descriptive purposes the system they are constructing can be deconstructed into two components: universal screening and social and emotional instruction in schools, and tiered intervention for students and families with additional needs.

Universal screening and social and emotional instruction

All students benefit from systems that strengthen core social and emotional skills; protect against violence, substance abuse, and mental illness; and detect needs early, when they are easier to address. Gateway Cities are working to provide this basic social and emotional support through a variety of channels:

>> **Universal screening and referral.** Researchers have designed and validated a number of developmentally appropriate tools to screen school-age youth for social and emotional strengths and behavioral health needs.[45]

As noted previously, early care providers are increasingly performing these screenings, and soon students will receive them as a component of the Massachusetts Kindergarten Entry Assessment. Additionally, students eligible for MassHealth are now required to receive age-appropriate behavioral health screenings during visits with primary care providers. Ensuring that all students receive periodic social emotional assessments is central to the tiered intervention model, but it continues to present a hurdle for many Gateway Cities. City Connects is demonstrating one model for addressing this challenge in Springfield (see box to the right).

>> **Universal social and emotional instruction.** Social and emotional instruction is time set aside in the classroom for developmentally appropriate instruction in topics such as anti-bullying, health and well-being, substance abuse prevention, and positive decision-making. Many programs teach the skills associated with these topics directly; some work to further integrate social and emotional learning into the academic curriculum and service learning projects. An international study examining more than 200 programs found that the average effect on academic performance was equivalent to moving students up by more than 10 percentile points on standardized achievement tests.[46]

A growing number of Gateway City schools employ these evidence-based curricula. Many of these schools were able to purchase the necessary materials and professional development using school turnaround grants. Unfortunately, there are currently no state resources in place expressly devoted to scaling and sustaining these practices.

>> **Positive Behavioral Interventions and Supports (PBIS).** PBIS is a school-wide approach to teaching and modeling behavioral expectations. Assessment and data collection is a central component of the approach. Many districts use School Wide Information Systems (SWIS), software that can identify where and when infractions are occurring, helping teachers and administrators refine their strategy. Successful PBIS practices have been shown to reduce behavioral issues by 40 to 70 percent, leading to improved learning environments and significant gains in academic performance.[47] The cost of PBIS implementation is relatively low, roughly $10,000 per school, and is often offset by a reduction in high-need students requiring out-of-district placements.[48]

As with social and emotional instruction, a growing number of Gateway City schools employ PBIS, and many were able to implement the practice with school turnaround grants. However, there is currently no state funding in place to expand and sustain the PBIS model.

Tiered interventions for students and families
Research suggests 10 to 20 percent of youth will have additional needs not met by the basic social-emotional skill instruction.[49] In a tiered system, their needs are addressed with a set of development interventions, such as out-of-school enrichment and mentoring, often in combination with mental health services.

>> **Out-of-school-time enrichment.** Compelling research demonstrates that out-of-school-time programs geared specifically toward supporting social and emotional growth produce large benefits, including increases in self-esteem, positive social behaviors, higher grades and academic achievement, and reductions in problem behaviors.[50]

Massachusetts has worked hard to ensure that state- and federally funded afterschool programs are structured to support social and emotional growth, assessing the programs using the Survey of Academic Youth Outcomes (SAYO), a validated model that incorporates a number of social and emotional growth measures.

>> **Mentoring.** From early childhood well into adolescence, mentoring is a valuable tool for preventing adverse outcomes and promoting social and emotional as well as academic growth.[51] Recent research shows at-risk youth draw particularly large benefits from mentoring.[52]

There are over 200 mentoring organizations in Massachusetts supporting over 30,000 mentoring relationships. Approximately 9,000 Gateway City youth are currently mentees.[53] Another 1,000 Gateway City youth are waiting to be assigned mentors. According to a UMass Donahue Institute survey, many youth will wait for extended periods. In the Northeastern part of the state, half of all youth wait for a year or more; in Southeastern Massachusetts, waits are even longer. In sharp contrast, just 7 percent of Greater Boston youth experience a wait of one year or more.[54]

>> **School-based health centers.** Providing developmentally appropriate health and mental health treatment in the school setting, where youth spend so much of their time, is often the best way to ensure adequate medical attention and follow-up care. For chronic conditions like asthma and mental health disorders, school-based care allows for incorporating teachers into the treatment plan.[55] Studies have shown large improvements in youth mental health outcomes from school-based health centers, in part because students find this setting less stigmatizing and are 10 to 20 times more likely to seek care.[56] A growing body of research directly ties increases in school-based mental health services to improved academic outcomes and very significant dropout reductions.[57]

Gateway Cities have approximately 19 school-based health centers.[58]

>> **Mental health consultations.** Social, economic, and geographic disparities in access to youth mental health service has been a stubborn challenge. Providing consultation service is one cost-effective strategy that has demonstrated promising results.[59]

With strong support from the Legislature, Massachusetts has aggressively deployed mental health consultations to improve access. The Massachusetts Child Psychiatry Access Project (MCPAP) provides telephone consultations to primary care providers across the state. The Legislature recently authorized the Department of Mental Health to charge insurers for these consultations. With these additional resources, MCPAP plans to expand consultation services to school staff, building off the success of programs piloted in Gateway Cities with school nurses and school guidance counselors.[60] A second program, the Early Childhood Mental Health Consultations, provides grants to behavioral health organizations to work with licensed early care centers, family day care providers, and school districts. Grantees offer a range of services, including consultations, referrals, training and coaching, and child and family therapy.[61]

WORKING TOGETHER TO ACHIEVE THE VISION

Gateway Cities are creating tiered systems of support to foster social and emotional growth in all students. If these efforts succeed, these communities could one day earn recognition for their youth development prowess. From implementing the recommendations of recent legislative commissions to advancing innovative practices, there are a number of ways to improve the policy environment for these system building efforts. Together, Gateway Cities can raise the profile of these opportunities by drawing the connection to this Vision and championing these opportunities as priorities.

POLICY PRIORITY

Establish the "Centers of Excellence" grant program to seed and scale efforts to build social and emotional learning systems. The absence of a state funding stream for social and emotional learning systems is notable given the promise of the approach and the emphasis on these strategies for turnaround schools. A taskforce established by the Legislature in 2008 to examine behavioral health in public schools recommended establishing a "Centers of Excellence" grant program to support the development of social and emotional learning systems.[62] These grant funds would underwrite planning and capacity building efforts to help communities put in place the full range of components that constitute an effective tiered system of supports.

Form a state-level working group to examine opportunities to increase access to mental health services through school-based health centers. With the potential to deliver significant academic benefits and real reductions in Medicaid costs, school-based health centers should play a central role in the tiered system of student support Gateway Cities are building.[63] The Affordable Care Act and the state's rapidly changing health care delivery model increase the complexity of expanding the role of these centers in community health networks, but the changing environment may also create new openings.[64] The Executive Office of Health and Human Services can engage the state's health care leaders and help Gateway Cities take advantage of this opportunity by forming a working group to explore these issues and offer recommendations to the Legislature.

Increase funding for mentoring organizations in Gateway Cities. Mentoring is a cost-effective strategy to increase both social-emotional and academic outcomes among youth with identified needs. As communities expand the use of behavioral health screening, the demand for mentors will grow. Resource limitations are a major obstacle for organizations in Gateway Cities working to recruit and train mentors. State support for mentoring has fallen from $1 million in FY 2001 to $350,000 in FY 2014.

Increase the number of out-of-school-time programming opportunities for Gateway City students with an identified social-emotional need. Out-of-school-time is an effective intervention for students with moderate social-emotional needs. Afterschool programs can help youth develop their strengths to protect against risk factors. While a number of existing programs provide these services to high-need youth, resources for those with moderate-needs are more limited. It is likely that a shortage of these slots will become a major barrier with more schools carrying out universal screening. As the state increases support for out-of-school-time programs, special priority should be given to communities with tiered intervention systems that can demonstrate service gaps for moderate-need youth.

Pathways to College & Career

Leveraging strong partnerships with local colleges, universities, and employers, Gateway Cities are building new pathways to college and career. Attuned to individual needs and the changing dynamics of the Commonwealth's 21st-century economy, these pathways will help propel students toward success.
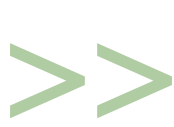
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P reparing students for college and career in the state's rapidly changing economy is like taking aim at a moving target. To improve their accuracy in this crucial effort, Gateway Cities are working to break free of the autonomous K-12 model and embrace a more dynamic system that achieves tighter integration with employers and higher education. For students, the new approach will result in clearly articulated pathways from middle school onward; courses and experiential learning will be more relevant and tailored to individual needs and aspirations.[68] When these systems are operating at scale, Gateway Cities will be able to respond more adeptly to change and their regional economies will have stronger job creation and fewer workers with mismatched skills.

This Vision for the future is eminently achievable because Gateway Cities are rich with the component parts, including a dense mix of employers, strong vocational schools, and higher education partners. Other unique elements that they can draw upon include regional workforce development organizations and public transportation providers, both of which are increasingly seen as critical to vigorous economic growth.

Gateway City educators can exploit the growing energy for entrepreneurship, particularly the newfound interest in production. As the Massachusetts innovation economy looks beyond healthcare and life science and toward manufacturing, so-called "makerspaces" are sprouting up, and initiatives like the Merrimac Valley Sandbox are touting entrepreneurship education and teaching youth how to morph local niches into global opportunities. Experiential learning that taps into this vitality presents an enormous opportunity for Gateway City efforts to provide learners with multiple college and career pathways.

Gateway Cities seeking to make the most of these opportunities enjoy strong support from state agencies. The Department of Elementary and Secondary Education has used the state's 2010 reform law and Race to the Top to test alternative school models. The Department of Higher Education's Vision Project has seeded initiatives to boost college readiness and college completion. The Department of Labor and Workforce Development and the quasi-public Commonwealth Corporation have also aided early efforts to meld Gateway City assets into robust college and career pathways.

Calls to scale up these initiatives in both funding and accountability have abounded in recent years, from both inside and outside of government, but Massachusetts is still confined within an education policy designed for an earlier era. Changes in the state's approach to college and career readiness will better position Gateway Cities to build on their

"Gone are the days when the desks were arranged in rows. Gateway City schools are working with partners throughout the community to transform learning and prepare students to excel in today's economy."

DR. DAVID DERUOSI, JR.
SUPERINTENDENT,
MALDEN PUBLIC SCHOOLS

achievements and attain this central component of their education vision.

BUILDING UPON A FOUNDATION

Gateway Cities have worked tirelessly over the past several years to put in place programs that give students multiple pathways to college and career. Backed by solid research, these promising models provide new early college and experiential learning experiences. While they currently serve a relatively small percentage of students, coupled with college and career planning support and community information campaigns, they provide a solid outline for the dynamic pathways students will need to take advantage of career opportunities in the state's changing economy.

Early College

Gateway Cities have been at the leading edge of efforts to provide students with exposure to college coursework while still in high school. Research shows that these early college experiences can be highly beneficial for at-risk youth and first-generation college students.[69] With more focus on improving college affordability, college completion, and workplace readiness among a broader section of students, these models are expanding rapidly in Massachusetts and around the country. Dual enrollment, Early College High

Schools, and Gateway to College are three promising vehicles to bring early college exposure to scale:

>> **Dual enrollment.** Providing high school students with exposure to college coursework by allowing them to dual-enroll (i.e., completing credit-bearing college courses that also count toward high school graduation requirements) is a cost-effective strategy to increase post-secondary enroll-ment and completion. Rigorous studies measuring the impact in states that have widely expanded the use of dual enrollment show that the approach can increase college completion rates by as much as 50 percent.[70]

While Massachusetts has yet to make a major push at the state level to increase the use of dual enrollment, over the past few years, several Gateway Cities have developed dual-enrollment partnerships with higher education insti-tutions that have provided many more students with the opportunity to participate. For instance, between FY 2010 and FY 2013, Lowell went from 19 dual-enrolled students to over 200, and Brockton and Malden went from only a few dozen to nearly 150. All together 1,500 Gateway City students dual enrolled in at least one college course in FY 2013.

>> **Early College High Schools.** Early College High Schools partner with local colleges and universities, offering students an opportunity to earn an associate's degree or up to two years of college credit toward a bachelor's degree during high school at no or low cost. Early college high schools often rely on a competency-based approach; students are not placed in traditional grades and they advance when they can demonstrate that they have mastered core content. Rigorous research shows students who attend Early College High Schools are far more likely to complete high school and a post-secondary degree. They finish with lower debt, enter the workforce earlier, and earn higher wages.[71]

Supported in part with planning and implementation funds from the state's Race to the Top grant, the first crop of Gateway City Early College High Schools are taking root in Springfield and Worcester.

>> **Gateway to College.** Gateway to College is a unique hybrid of the Early College High School model and traditional dual-enrollment. The program is designed for teens that have dropped out, are at risk of leaving high school, or behind in credits to graduate with their designated class. This alternative pathway provides over-age, under-credited high school students with the flexibility needed to complete their high school degree while working toward an associate's degree or certificate. The dual-credit courses they attend are typically located on community college campuses. Resource specialists provide wraparound support, serving as counselor, coach, mentor, and advisor.

With six community colleges participating, Massachusetts has more Gateway to College programs operating than any other state with the exception of California. Of the six, Bristol, Quinsigamond, and Springfield Technical community colleges received funding partially through the MassGrad High School Graduation Initiative Grant to design their programs.

Experiential Learning

An introduction to the workplace can make education more relevant for students and provide direct exposure to career opportunities and the skills needed to succeed in a professional setting. Gateway Cities have dense concentrations of employers spanning a range of industries. This gives them an advantage in providing these valuable experiential learning opportunities.

>> **Work-based learning.** Work-based learning connects school instruction with professional activities through internships, apprenticeships, workplace simulations, and student-led enterprises. By linking classroom learning with real-world applications, these experiences can make school more engaging. They also give students a better understanding of the workplace and the skills they will need to build to achieve their career aspirations. Ideally, work-based learning is a capstone to a strong career development program that begins in middle schools with awareness and exploration. While the body of evidence on outcomes is still small, given the relatively low cost of providing work-based learning opportunities, studies demonstrating that participation can increase high school completion and employment are compelling.[72]

Massachusetts has developed a long-standing initiative called Connecting Activities that supports the expansion of work-based learning around the state.[65] The effort is led by the Department of Elementary and Secondary Education in partnership with the Executive Office of Labor and Workforce Development, local workforce investment boards, and employers around the state. Connecting Activities funds school-based career specialists, who manage relationships with employers and other partners, provide technical assistance, and match students. State resources are leveraged by private sector wages paid by employers to youth at a minimum match of two-to-one. In FY 2013, Connecting Activities generated $12.3 million in youth wages paid by the private sector on a state appropriation of $2.9 million.

>> **Career academies.** Career academies are programs located in traditional high schools that partner with local companies and colleges to give participating students technical skills and access to an established business network upon graduation. Experimental research suggests career academies increase high school graduation rates among at-risk students by 14 percentage points. Long-term follow-up studies show that career academies boost students' later earnings by 11 percent.[73] This substantial impact is achieved at the modest cost of an additional $600 per student.[74]

The Governor's 2011 Gateway Cities Education Agenda included funding for career academy implementation grants, which was authorized by the Legislature in the FY 2013 budget. Nine Gateway City school districts received grants to design career academies, which began operations in September 2013. As a component of these grants, communities were charged with establishing Education and Industry Coordinating Councils (EICCs) co-chaired by the public school district superintendent and the chair of the local Workforce Investment Board. The EICCs provide an

**MALDEN
grows dual enrollment**

Malden increased dual enrollment dramatically since 2010 through a partnership with Bunker Hill Community College (BHCC). With a growing population of students to serve, part of the appeal for the college was Malden's offer of space in the high school in the evenings to create a BHCC satellite campus. Over time, BHCC dual enrollment has become a leading strategy to increase completion rates by preparing high school students for college-level work. Malden High School students get access to college courses and the chance to earn credits at no cost. Before enrolling in a course, students must take the Accuplacer college placement test. Depending on their scores, they can enroll in either college level or pre-college level classes offered by BHCC. Students can use the dual enrollment to address remedial courses they may require or to work on pre-requisite courses needed for entry into selective programs, such as nursing, which enables them to start taking courses to meet the requirements for the degree immediately after graduation.

College Completion

Of all Gateway City students in the class of 2005 who enrolled in a post-secondary education program within 16 months of graduation, slightly more than half (55 percent) had completed a degree six years later. This completion rate is similar to Boston Public School students (57 percent) and approximately 10 percentage points lower than the completion rate for Massachusetts public school students overall.

A similar 10 percentage point gap exists between the completion rate of female Gateway City students and female students statewide (59 percent vs. 69 percent); male Gateway City students, who have a notably lower completion rate, are a bit further behind their peers statewide (49 percent vs. 60 percent).

Because of the significant time lag, it is difficult to know the extent to which Gateway City innovations are better positioning students for college completion. The data do show that enrollment growth for Gateway City students has been slightly stronger than for the state overall. Between the class of 2006 and the class of 2011, the share of Gateway City graduates enrolling grew, climbing from 65 percent of graduates to 68 percent.

But growth in those attending two-year institutions accounted for all of this increase. The number of students enrolling directly in four-year degree program declined by 6 percent, while the number of those going for two-year degrees grew by 21 percent. For class of 2005 students, only one-third of those enrolling in two-year colleges completed a degree within six years; in contrast, two-thirds of Gateway City students attending four-year colleges directly after high school completed a degree. If this pattern holds, the shift in enrollment toward two-year programs will make it difficult to increase degree completion in the near term.

Gateway City College Completion Rates

	Percent of 2005 graduates enrolled in post-secondary completing with 6 years	As a share of 2001-02 ninth grade enrollment		
		Graduating in 2005	Enrolling in post-secondary	Completing post-secondary in 6 years
Attleboro	56%	63%	41%	24%
Barnstable	64%	66%	44%	31%
Brockton	44%	54%	32%	15%
Chelsea	49%	40%	17%	9%
Chicopee	62%	53%	33%	21%
Everett	54%	76%	41%	23%
Fall River	51%	39%	19%	10%
Fitchburg	49%	63%	31%	19%
Holyoke	46%	40%	26%	13%
Lawrence	38%	45%	27%	13%
Leominster	60%	82%	45%	29%
Lowell	49%	64%	33%	20%
Lynn	45%	62%	33%	16%
Malden	53%	84%	52%	30%
Methuen	58%	68%	50%	30%
New Bedford	52%	53%	30%	17%
Peabody	60%	79%	55%	35%
Pittsfield	59%	62%	41%	26%
Quincy	63%	89%	49%	36%
Revere	44%	57%	30%	15%
Salem	56%	62%	41%	23%
Springfield	41%	42%	20%	10%
Taunton	57%	68%	40%	25%
Westfield	69%	81%	52%	38%
Worcester	42%	57%	32%	15%
Gateway City Average	53%	62%	37%	22%

Note: 6-year graduation rate calculated for those enrolling in post-secondary within 16 months of high school graduation

Source: MassINC's analysis of data provided by the Department of Elementary and Secondary Education

infrastructure for engaging local businesses in the creation of career immersion experiences for students enrolled in the academies.

>> **Experiential learning middle schools.** Middle school coursework with project and service learning components help students develop awareness of the world beyond school, giving them additional perspective just as they begin to make choices that will influence their paths to college and career. Research shows that providing these formative experiences in middle school produces academic gains that persist in high school and lead to increases in degree completion.[75]

The cultural and economic diversity of Gateway Cities positions them well to offer middle school students a rich experiential learning curriculum. A number of both public and charter schools in Gateway Cities have adopted an experiential learning model. Several have partnered with organizations, such as Expeditionary Learning, that specialize in helping schools craft professional development, curricula, and student assessments for this demanding new design.

College and Career Planning and Community Campaigns

Gateway Cities can leverage their hard work to provide multiple pathways to college and career with tools that help students navigate these opportunities. Today's students face a more complex set of choices, and early decisions can have a profound effect on their trajectories. The premium on advising students early on these choices has grown faster than our capacity to provide these services, as evidenced by continuing low rates of completion and relatively low returns to degrees for recent graduates. Several infrastructure components in place now show promise.

>> **College and Career Information Systems.** Online college and career information systems are an essential component of career exploration, preparation, and advancement in today's economy. While research in this field is still young, there is evidence to suggest that the use of this technology—in concert with a comprehensive guidance curriculum or other structured college and career readiness activities in which time and professional development resources are invested—can help increase relevancy, engage parents, and encourage teachers to provide focused mentoring support.[76]

The Massachusetts Educational Financing Authority (MEFA) provides school districts with free access to Your Plan for the Future, in partnership with the Departments of Higher Education and Elementary and Secondary Education. Your Plan for the Future is a college and career information system designed to meet the needs of all students preparing for college and career and navigating enrollment and job training processes. The system's modules allow students to complete skill and interest inventories, learn about goal setting, and manage their trajectories by building a plan for completing required courses and gaining relevant experiences. Gateway City schools are making extensive use of this new system. As communities develop social-emotional systems that relieve pressures from guidance staff and allow them to work with teachers on the adoption of the Mass Model comprehensive guidance curriculum, students will be better positioned to use this resource as a tool for developing and maintaining individual learning plannings.

>> **Community campaigns.** Community attitudes can have a large influence on college-going rates.[77] In addition to peers, parents can be enormously influential in a student's college and career decision.[78] State and local governments around the country are building elaborate social marketing campaigns to build communitywide support for efforts to increase college and career readiness.

The Massachusetts Business Alliance for Education (MBAE), the Department of Elementary and Secondary Education, and the Department of Higher Education have joined with the national nonprofit Achieve Inc. to lead the Future Ready Massachusetts communications campaign. These partners are working to support the establishment of local Future Ready campaigns in Gateway Cities throughout the state. These campaigns will be guided by a local team that includes school district, business, and higher education leaders.

WORKING TOGETHER TO ACHIEVE THE VISION

Much of the progress that Massachusetts and the Gateway Cities have made in building more dynamic pathways to college and career has been supported by one-time grants. Scaling and sustaining pathways will require consistent long-term funding streams and accountability mechanisms designed for these new approaches. Gateway Cities are fully committed to advancing state policies that will enable them to build these pathways and demonstrate their efficacy to students, parents, and taxpayers alike.

Create a state funding mechanism for early college designs.

With the demonstrated success of dual enrollment, several states have developed dedicated funding streams and scaled the model to generate participation rates that far surpass those of students in Massachusetts.[79] An advisory group on early college design convened in 2012 by the state Departments of Higher Education and Elementary and Secondary Education called for the development of a funding mechanism to scale and sustain these programs.[80] Massachusetts is ready to make these investments. The departments have created high standards for the dual enrollment program and demand for these opportunities is clearly growing.

The expansion of dual enrollment would provide Gateway Cities with another proven support for first-time college-going students, as well as a marketable strength for middle-class families struggling with growing higher education costs. Additionally, expanded dual enrollment would provide Gateway Cities with an efficient avenue to offer sought-after vocational training, which has been difficult to access with the elimination of these courses in comprehensive schools and long waiting lists for vocational schools.

Increase state support for work-based learning.

With teen employment at a historic low in Massachusetts, many economists have called for efforts to provide additional working experiences. The Legislature has supported youth jobs through a number of programs, but funding uncertainty has made it difficult to plan in advance and design experiences that will be formative. The state's Connecting Activities program has labored to ensure that youth derive positive gains from their exposures to employment. DESE has developed work-based learning plans aligned with curriculum frameworks; they are advising districts on the use of these plans to evaluate experiences and award students with course credit. These efforts were recognized by the state's 2012 Task Force on Integrating College and Career Readiness, which made expanding Connecting Activities a major recommendation of the commission. In the FY 2014 budget, the program received just $2.75 million. With the development of the Gateway City Career Academies, Connecting Activities will become an even more essential resource for these communities.

Provide Expanded Learning Time grants to middle schools that develop experiential learning models. Students can draw sustained benefits from experiential learning at the crucial middle school juncture. However, given the many demands on school leaders in Gateway Cities, teachers and administrators need additional time to develop and deliver a rich experiential learning curriculum. As Massachusetts builds the next generation of ELT schools, the state should place particular emphasis on Gateway City middle schools with an experiential learning model that give students an exceptional orientation to college and career pathways.

Support Gateway Cities building local Future Ready campaigns. The Massachusetts Future Ready Campaign can provide Gateway Cities with assistance crafting a strategy to promote the importance of college and career readiness. The Campaign can aid cities developing communications materials to reach students and families, as well as local employers who can provide mentoring, job shadowing, internships, and externships. In addition, Future Ready can help Gateway Cities create a local governance structure, and tap into a larger statewide network of communities developing and implementing local college and career readiness communications strategies. Gateway Cities can work to fold in other partners working on similar outreach efforts, such as the financial literacy outreach by the State Treasurer's Office.

Newcomers

Gateway Cities take great pride in their historical role in preparing first-generation Americans to join the state's workforce. As these urban centers absorb yet another large wave of immigrants, the emphasis on newcomers in this Vision is recognition that these communities see immigrants as a powerful force for growth and renewal.

>> Over the last two decades, the number of immigrant students served by Gateway City schools has nearly tripled. This growth signals a return to the past. A century ago, newcomers made up one-third or more of the population in most Gateway Cities. The number of new immigrants began to dwindle in the post-war years. By the 1980s, those born abroad represented only about one in ten Gateway City residents. Then another wave began, and by the beginning of this new century, Gateway Cities were once again immigrant rich.

But the large factories that once employed many immigrants have disappeared." Gateway Cities must help students from immigrant families learn English, while building an academic foundation that will allow them to gain the higher-level skills today's employers demand. Achieving this difficult task is critical to both the economic and social health of Gateway Cities and the Massachusetts economy more broadly. By the end of this decade, the state's immigrant workforce is estimated to increase by one-third. This infusion of newcomers is badly needed to replace native-born workers, whose numbers are projected to decline by 6 percent by 2020.[81]

In Gateway Cities themselves, immigrants are already providing an important economic boost. Without the flow of new residents from abroad, Gateway Cities would have faced population loss over the last decade[75] instead of healthy 4 percent growth. Immigrants are also increasingly more likely than native-born residents to start their own businesses, creating new jobs.[76] In Gateway Cities, these immigrant-owned enterprises are often small storefront businesses that revitalize downtown and neighborhood commercial districts.[82]

For the parents of immigrant students, self-employment is often a superior alternative to low-wage work, but growing these immigrant-owned businesses and cementing the next generation firmly in the ranks of the middle class will require Gateway City learning systems that position newcomers to excel.

With a lot of hard work, Gateway Cities have begun to fashion these systems. Their efforts have reduced dropout rates for English-language learners by nearly one-third since 2006. But more than 20 percent of students who start out with limited English still give up before graduation. Of those that do finish high school and go on to post-secondary training, less than half (46 percent) complete a degree within six years. While Gateway Cities are firm in their belief that they can do more to help these students go further, Massachusetts has been slow to advance education policy that would better position Gateway Cities to serve immigrants.

Progress toward the first three components of the Vision— high-quality early education, social and emotional supports,

"We need parents to be leaders and partners in their child's education. In Worcester, we are working together on innovative models to engage parents, especially those who are new to our communities."

JENNIFER DAVIS CAREY
EXECUTIVE DIRECTOR,
WORCESTER EDUCATION COLLABORATIVE

and pathways to college and career readiness—will certainly benefit newcomers. To achieve the acceleration in learning that is required to leverage the full potential of immigrants as asset for Gateway City growth, this Vision calls for a unique commitment to newcomers.

BUILDING ON A FOUNDATION

Over the years, Gateway Cities have experimented with a variety of innovative approaches to support English-language learners, both inside and outside of school. Lessons from these experiences, reinforced by research on similar efforts across the country, provide a foundation for a system for supporting newcomers that stands on three pillars: expanded learning time, family engagement, and fostering bi-literacy.

Expanded Learning Time

The argument for providing English-language learners with more learning time is simple arithmetic. Students acquiring English typically need four to seven years to develop "academic English" when they arrive with several years of education in their native language, and significantly longer when they lack formal schooling.[84] The distinction between academic English (i.e., language ability to comprehend grade-level curriculum) and conversational fluency is critical. With college or at least some post-secondary training as the new standard, develop-

ing skills to speak conversationally is no longer sufficient. Gateway Cities must help students accelerate the process of learning academic English. Gateway Cities have sought to provide English-language learners with additional learning time through summer academies, expanded learning time schools, and afterschool programs.[79]

>> **Summer learning.** More than half of the achievement gap can be explained by the summer learning loss that low-income students experience year after year relative to their peers with greater means.[85] New research shows that English-language learners suffer an even larger decline in reading comprehension over the summer, when they have fewer opportunities to practice and expand their English vocabulary.[86] While staffing and transportation costs make the provision of summer learning for limited English students a relatively expensive strategy, evidence suggests this investment could provide large benefits.[87]

Summer Enrichment Academies for students with limited English proficiency have been a central component of the Patrick administration's Gateway Cities Education Agenda. In the fall of 2012, 12 districts were awarded up to $350,000 each to design and operate these academies during the summer of 2013. The academies combined a rigorous curriculum for language development with a

thematic focus, ranging from STEM (Brockton), to career and college readiness (Fitchburg), to building stronger partnerships with parents and families (Pittsfield).A Harvard researcher examining the implementation of these programs reports very positive preliminary findings.[88] The Legislature sustained funding for these academies in the FY 2014 budget, providing additional flexibility to deliver programs on Saturdays and during school vacation weeks. The Legislature also authorized significant funding for an independent evaluation of the academies. This valuable research should provide lessons learned to strengthen programming, and data to demonstrate return on investment.

>> **Expanded learning time schools.** As a whole-school reform model, expanded learning time may have particular power for schools that serve a high percentage of English-language learners. While research on expanded learning time schools is somewhat limited so far, other studies have picked up outsized gains for students with limited English proficiency who receive additional instruction in other formats. For example, research on the impact of full-day kindergarten shows the additional time provides larger benefits for students with limited English.[89] A rigorous evaluation of KIPP Academy charters, which depend heavily on a longer school day for success, found that English-language learners gain disproportionately large benefits from attending these schools.[90]

In the 2012-2013 academic year, Gateway Cities had 47 K-12 schools where students whose first language is not English made up more than two-thirds of enrollment. Of these 47 schools, just two currently receive state support for expanded learning time.

>> **Afterschool programs.** During the school day, students attending classes have limited time to speak. Afterschool programs generally have lower adult-student ratios and a more interactive environment, which provide students learning English with more opportunities to develop their skill with the language.[91] Research shows the benefits of afterschool programs extend beyond helping students simply gain conversational fluency. English-language leaners get particularly large academic gains from participation in structured afterschool activities.[92] Homework assistance programs, for example, have been shown to provide a larger boost for students with limited English.[93] Studies also suggest the social-emotional benefits of attending afterschool programs are even greater for newcomers, especially during the stressful transition period immigrant students experience as they develop an identity and relationships in their new communities.[94]

As noted previously, Gateway Cities have devoted a lot of energy to building high-quality afterschool programs. How-

ever, English-language learners make only a modest proportion of enrollment in the state supported afterschool programs in Gateway Cities (30 percent), and these programs currently serve just 1,000 of the roughly 38,000 students with limited English proficiency in Gateway City districts. English-language learners make up an even lower proportion of Gateway City participants in the federally funded 21st Century Community Learning Centers (22 percent), which enroll roughly 1,700 students with limited English.[95]

Family Engagement

Massachusetts education policy places a heavy emphasis on involving parents in their children's learning. Parent engagement is one of the "essential conditions of school effectiveness" and one of four core standards in the state's new teacher evaluation framework.[96] This focus is rooted in a large body of evidence that parent involvement—communicating with teachers, attending school activities, encouraging reading at home, and helping with homework—plays a big role in academic achievement.[97] Engaged parents can provide exceptionally large benefits for English-language learners; but time, language, and cultural barriers significantly reduce the involvement of immigrant parents.[98] Gateway Cities have used several models to overcome these barriers and engage newcomers. While they overlap, their approaches breakdown roughly into family literacy, parent education, and parent liaisons.

>> **Family literacy.** Family literacy programs that help parents acquire English together with their children have great potential because they can serve multiple purposes. They give parents stronger English skills, which reduces an obstacle to parent involvement in school and increases their earnings and ability to provide crucial economic stability. Family literacy programs also help children develop literacy skills in their native language as well as in English.[99] While there is some hard evidence that family literacy programs provide greater benefits for English Language Learners, there are still questions about how to effectively deliver family literacy.[100] Unfortunately, as the immigrant population in Gateway Cities that could benefit from these programs has grown, this uncertainty has led to the elimination of federal support for family literacy in 2011.[101]

While Massachusetts lost $2.5 million in federal funding for family literacy programs, many Gateway Cities have maintained their family literacy through the state's Adult Basic Education program. However, these resources are extremely constrained. In FY 2013, state-funded English as a Second Language (ESOL) programs enrolled approximately 5,000 Gateway City students; programs maintained ESOL waiting lists for approximately 7,600 adult learners, which likely significantly underrepresents actual demand since long waits for services deter many from adding their name to the list.

In 2012, the Worcester Education Collabora-
tive brought together a group of agencies
involved in the work of parent education
to explore news of ways of working collab-
oratively to provide the community with a
robust set of parent education offerings that
could permeate the city's neighborhoods.
The Worcester Family Academy emerged
from these conversations. Through the acad-
emy, a coalition working in partnership with
the Worcester Public Schools is developing
a broad range of offerings to build parent-
ing skills and empower parents to advocate
effectively for their children. Both individually
and collectively, the academy's partners are
providing these services directly to parents,
but the academy's big innovation is its "train
the trainer" approach. Working with the Right
Question Institute and Boston Partners in
Education, the academy is preparing mem-
bers of the community to support families
and student learning.

>> **Parent education.** A slight variation on family literacy, parent education programs are intensely focused on help-ing caregivers develop skills and confidence that better en-able them to support their child's learning. These services can be provided in a variety of formats. Delivering services in a group setting can be effective when parents have established a relationship with an organization that can offer the program (e.g., a day care center). With immigrant parents, who often lack these connections, home visiting is a powerful alternative. Research shows home visiting increases enrollment in pre-K, builds kindergarten readi-ness, and produces long-term academic gains.[102]

Raising a Reader provides bilingual parent education groups to families in a growing number of Gateway Cities. The Harvard Graduate School of Education is currently evaluating the program to assess its impact in these cities. Immigrant families in Gateway Cities are also served by the Department of Early Education and Care's Parent-Child Home Program (PCHP). PCHP offers families with children ages 18 months to 4 years twice-weekly visits over a two-year period. In FY 2012, the program provided ser-vices to nearly 900 families with children ages 18 months to 4 years; English was not the native language for slightly more than half of the children served. Because PCHP is vastly under resourced, most providers do not keep

waiting lists for families referred for services. Families in many high-need Gateway Cities, including Chelsea, Brock-ton, and Holyoke, are not served at all.[100]

>> **Parent Liaisons.** Parent liaisons serve a variety of roles. They support teachers and other school staff with parent outreach and help families understand the supports and services schools can offer students with various needs. Liaisons also provide training to give parents a better understanding of the norms of American schooling, including differences in expectations, discipline, and ado-lescent development. This information can better position immigrant parents to negotiate between norms in the US and their own cultural values.[103] Schools generally hire members of the community, who parents can identify with and feel more comfortable sharing their concerns.

Massachusetts has not provided state funding to support family engagement through parent liaisons. Several Gate-way City districts have used Title 1 funds for parent liaison positions, but resource constraints make it increasingly difficult to sustain these positions.

Fostering Bi-literacy
The third pillar for newcomers is grounded in opportunity rather than need. With demand for workers who are bilingual

and bi-literate growing and economic development strategists increasingly focused on export growth, states are responding with efforts to improve second language instruction. California recently introduced a "seal of bi-literacy" for high school diplomas. Rhode Island and Utah have statewide plans to increase the number of multilingual residents. While there are many models for second language instruction, particularly with the growth in technology, dual language immersion schools (a model that North Carolina has pioneered at scale) offers particular promise for Gateway Cities. For newcomers, these schools offer a chance to preserve and enhance their native tongue. American students in Gateway Cities will benefit from their community's cultural diversity with opportunities to learn a second language with a true immersion experience.

>> **Dual-language immersion schools.** Dual-language immersion schools provide instruction to all students in two languages. This model is ideally delivered in K-8 schools with enrollment that includes half native English speakers and half students who are native speakers of the second language. Students who attend these schools become bilingual (able to converse in both languages) and bi-literate (possessing academic reading and writing skills in both languages).[104] While these schools are often sought after by middle-class families, research shows that low-income students and English-language learners derive particularly

large benefits from this school model.[105] In addition to providing youth with valuable language skills, a growing body of evidence suggests the process of learning a second language at a young age improves cognitive function, and increases creativity and problem solving ability.[106]

There are currently only a handful of dual-language immersion schools in Gateway Cities. Recruiting bilingual faculty and other design challenges can make the model complicated to initiate, Massachusetts does not currently provide additional support to communities that are implementing this approach.

WORKING TOGETHER TO ACHIEVE THE VISION

Leveraging the potential of immigrants as assets for growth will require a push for state policies that enable Gateway Cities to build on the foundation they are establishing with expanded learning time, family engagement, and support for bi-literacy. As with the other components of the Vision, state policies can help provide the necessary investment as well as supporting communities working to develop and implement these models.

POLICY PRIORITY

Develop a parent liaison matching funds grant. The increasing focus on parent engagement has not been accompanied by staffing of this function. To the extent that schools can hire

REVERE
pilots dual-language immersion
In the fall 2012, the Revere Public Schools introduced a dual-language immersion program in one kindergarten room at the William McKinley Elementary, where more than 85 percent of students are low-income and nearly one in four are English-language learners. The pilot program combines 14 students with strong English-speaking skills with 14 other students who have strong Spanish-speaking skills. The school plans to keep these students together through the fifth grade. Evaluators will measure the progress of these students compared with those in English-only classes. At the same time that the school launched the dual-language pilot, it received a state Extended Learning Time grant.

parent liaisons, they are part-time positions with no benefits and very low wages. There is increasing recognition that parent liaising is full-time, professional position. A state matching funds program could incentivize the recruitment and development of parent liaisons for schools with high concentrations of English-language learners.

Increase summer enrichment and expanded learning time options for English-language learners. As parent liaisons reach more families and increase awareness of the programs that will enable their children to accelerate their learning, demand will grow for already oversubscribed expanded learning time programs. If evaluation of the summer enrichment academies demonstrates the contribution of these programs to student success as expected, many more English-language learners should have the opportunity to enroll in these programs. As the Legislature looks at supporting the creation of additional expanded learning time schools, special consideration should be given to schools that educate a high proportion of students with limited English proficiency.

Create a funding mechanism for two-way immersion schools. Dual-language immersion programs do not currently receive state support, yet they have been shown to both draw middle-class families and improve outcomes for low-income and immigrant families. Educating in two languages necessarily incurs extra costs, but clearly would benefit Gateway Cities and the Commonwealth as a whole. The state should follow the lead of North Carolina and other states and actively support the creation of more dual-language schools and programs.

Understand what works in family literacy and work to expand those programs. Family literacy is among the least understood of the many models prioritized in this Vision. Despite this uncertainty, the potential to provide benefits for newcomers through many channels makes family literacy a lever too powerful to discount. Improvements in data collection and research methods provide opportunities to better understand how programs can be structured to increase parent engagement, and build the literacy skills of children and their caregivers. If we can make the limited resource work better, the state should target any additional investment in ABE to family literacy.

The foreign-born population in many Gateway Cities is trending back toward the peak a century ago

Legend:
- Lawrence
- Lowell
- Lynn
- Worcester

X-axis: 1910, 1930, 1950, 1970, 1990, 2010
Y-axis: 0%, 10%, 20%, 30%, 40%, 50%
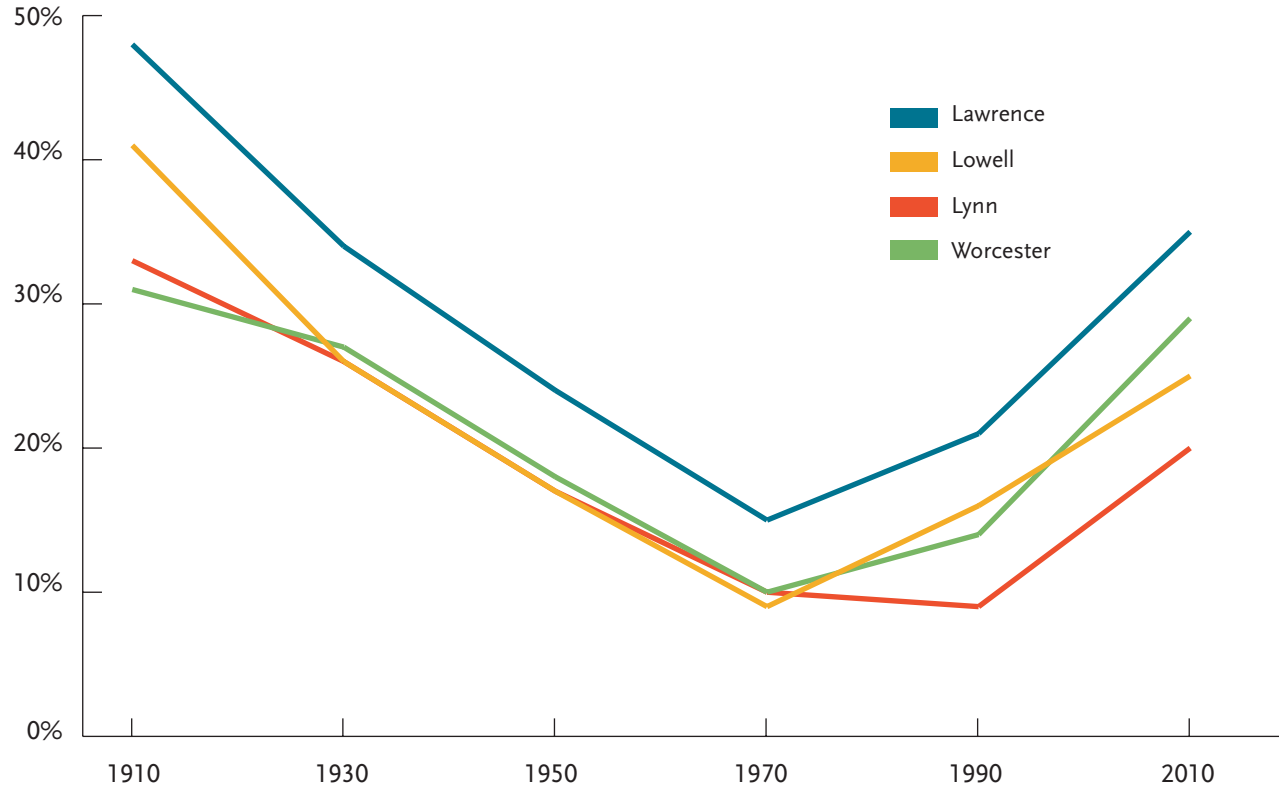
Gateways for Newcomers

The language "Gateway Cities" has been used to describe midsize urban centers for a variety of reasons. It connotes "gateways" to regional economies, and "gateways" to the middle-class. But it also very much represents the concept of "gateways cities" as destinations for immigrants. One in three residents in these communities under age 18 is the son or daughter of an immigrant. For a similar fraction of Gateway City students, nearly 84,000 youth, English is not their native language. Between 2002 and 2012, the number of First Language Not English (FLNE) students in Gateway Cities school districts grew by 16 percent.

The Road Forward

Gateway City educators have labored to develop many innovative models with modest resources. Their successes inspire them to go further and deeper, creating dynamic community-wide learning systems that will provide more students and families with a coherent set of cradle-to-career educational supports. Together, they have outlined policy priorities that represent the building block for this effort. Bringing this Vision to life will require a campaign fueled by research, data, collaborative learning, and collaborative leadership:

RESEARCH

Analysis of MCAS data show significant improvement in Gateway City student achievement. We know that schools have applied many innovative approaches to generate this growth, but it is difficult to distill which efforts have led to gains. Campaigning successfully for the Vision's policy priorities will require a coordinated effort to quantify results.

This work is already underway. The Rennie Center for Education Research & Policy and a number of partners recently submitted a grant proposal to the Institute for Education Sciences to pair Gateway City districts with expert researchers who can prove-out new learning models. In addition to knowing more about the effects of various innovations, it is impor-

tant to understand how the benefits of these new models stack up against their costs. MassINC recently received funding from the Barr Foundation to partner with economists who can undertake this research. With this Vision as a framework, Gateway Cities can attract more research partners with the expertise to demonstrate the power of dynamic community-wide learning systems.

DATA

Research and policy development are driven by solid data. While Gateway Cities educators have amassed enormous quantities of information to guide instruction and improve student achievement, the lack of aggregate figures that provide a true portrait of student needs and service gaps leave us with an incomplete picture of birth-to-career learning systems. Working with state agencies to fill in these blanks is a high priority (see box to the right).

Gateway Cities will also need to lobby for the development of indicators that better reflect the actual quality of their education systems. As residential cities with a brand that is largely defined by the perceived quality of their educational offerings, the gross test scores that parents rely on to determine performance will always understate the true quality of inclusive Gateway City school districts.

COLLABORATIVE LEARNING

Developing community-wide learning systems is a complex undertaking that requires partnerships between schools, other public agencies, and the private sector. Building and maintaining these structures will require significant human capital. With Gateway Cities across the state working to build these systems all at once, cross-city collaboration represents a powerful opportunity to share strategic planning capacity and disseminate effective practice.

The Nellie Mae Education Foundation, the Massachusetts Teachers Association, and a number of other philanthropic groups and organizations are committed to working with Gateway Cities as they move forward, with a specific interest in facilitating the dialogue and exchange of ideas across communities.

COLLABORATIVE LEADERSHIP

The innovations and accomplishments of Gateway City schools, districts, colleges, and community organizations highlighted throughout this Vision provide powerful examples of what leaders can accomplish through collaboration. They illuminate possibilities, raise expectations, and suggest how individual partnerships could, over time, be woven together to form dynamic community-wide learning systems.

Leaders working in close partnership with other organizations routinely stretch the traditional norms and cultures of their own institutions, co-creating a new initiative while also increasing their own organization's capacity. Collaborations that get results often span two or more sectors—housing and K-12 education, youth development and college, early education and family support—requiring the partners to learn one another's issues, and find common ground.

Through collaboration, Gateway Cities have attempted to hurdle the resource challenge. But looking ahead, what got them this far is not going to take them to the next, higher levels of student achievement, college completion, and career success. The collaborations of the present must, over time, evolve into much larger, community-wide joint ventures that unify whole sectors of the city in a shared, ambitious pursuit of success for all children and families. Working together to achieve the policy priorities outlined in this Vision will provide the fuel to build and sustain these collaborative efforts.

>> MEASURES OF SUCCESS

>> DATA SOURCE

EARLY EDUCATION

- **% of students enrolling in kindergarten with quality pre-K experience**
- % of students scoring advanced or proficient on 3rd grade MCAS

- Efforts to develop a consistent measure of prior to pre-K enrollment are underway (i.e., the Massachusetts Kindergarten Entry Assessment)

SOCIAL AND EMOTIONAL GROWTH

- % of students participating in structured afterschool activities
- % of students who report feeling safe and supported at school and in the community

- DESE can collect these measures by expanding the existing Youth Risk Behavior Survey and reporting results for Gateway Cities as a group

PATHWAYS TO COLLEGE AND CAREER

- **% of students with work-based learning experience**
- **% of students graduating with college credit**
- % of students completing post-secondary credential

- DHE and DESE can develop a protocol for collecting and reporting these data

NEWCOMERS

- # of students in two-way bilingual education
- % First Language Not English students completing post-secondary credential

Data to keep track of progress on many of the key elements of the Vision exist, but others do not. Gateway City leaders will need to advocate for the development of several indicators (in bold) essential to demonstrating success.

ENDNOTES

1   Thomas Downes and others. "Incomplete Grade: Massachusetts Education Reform at 15" (Boston, MA: MassINC, 2009).

2   College completion figure is MassINC's estimates based on data provided by the Department of Elementary and Secondary Education. Forecast for credential requirements is from Anthony Carnavale and others. "Help Wanted: Projects of Jobs and Education Requirements through 2018" (Washington, DC: Georgetown University Center on Education and the Workforce, 2010).

3   MassINC's estimate following research from the Federal Reserve Bank of Boston, which concludes that the supply of workers with some college or associate's degrees must increase by 30 percent in New England to match industry growth. See Julia Dennett and Alicia Sasser Modestino. "The Middle-Skills Gap: Ensuring an Adequate Supply of Skilled Labor in Northern and Southern New England" (Boston, MA: Federal Reserve Bank of Boston, 2011).

4   Massachusetts has significantly increased the number of students enrolling in associate's degree programs—between 2005 and 2011, enrollment in two-year colleges grew by almost 20 percent—but with only about one-third of those enrolling graduating each year, the number of Massachusetts students earning an associate's degree falls short of the number residents with associate's degrees reaching retirement age each year. In 2011, the number of younger residents (ages 25 to 44) with associate's degrees was 12 percent lower than in 2005.

5   Andrew Sum and others. "Recapturing the American Dream: Meeting the Challenges of the Bay State's Lost Decade" (Boston, MA: MassINC, 2011).

6   Sean Reardon and Kendra Bischoff. "Income Inequality and Income Segregation" *American Journal of Sociology* 116(4) (2011).

7   Benjamin Forman and Caroline Koch. "Geographic Segregation: The Role of Income Inequality" *Communities and Banking* (Fall 2012).

8   John Clapp and others. "Which School Attributes Matter? The Influence of School District Performance and Demographic Composition on Property Values" *Economics Working Papers* 200526 (2007).

9   Hollis Scarborough. "Connecting Early Language and lLiteracy to Later Reading (dis)abilities: Evidence, Theory, and Practice." In S. Neumann & D. Dickinson (editors), *Handbook for Research in Early Literacy* (New York, NY: Guilford Press, 2001).

10   MassINC's analysis of data from Census 2000 and the 2009-2011 American Community Survey.

11   In constant 2013 dollars, Massachusetts spending on Early Education and Care has fallen from $705 million in FY 2001 to $501 million in FY 2014 (Massachusetts Budget and Policy Center).

12   The National Institute for Early Education Research began producing state rankings in 2003, when Massachusetts ranked eighth. In the 2012 rankings, the most recent report, Massachusetts placed twenty-fourth. Also of note, Massachusetts ranked first in access for three-years-olds. By 2012, we had fallen to sixteenth.

13   James Heckman and other. "The Rate of Return to the High Scope Perry Preschool Program." *Journal of Public Economics* 94(1) (2010); Raj Chetty and others. "How does your kindergarten classroom affect your earnings? Evidence from Project STAR." *The Quarterly Journal of Economics* 126(4) (2011).

14   Kristie Kauerz. "Ladders of Learning" (Washington, DC: New America Foundation, 2006).

15   Katherine Magnuson and others. "Inequality in Children's School Readiness and Public Funding" Focus 24(1) (2005); Amy Rathbun and others. "From Kindergarten through Third Grade: Children's Beginning School Experiences" (Washington, DC: US Department of Education, 2004).

16   Arthur Reynolds and others. "School-based Early Childhood Education and Age-28 Well-being: Effects by Timing, Dosage, and Subgroups." *Science* 333(6040) (2011).

17   Scarborough (2001); Sharon Fox and others. "How the Timing and Quality of Early Experiences Influence the Development of Brain Architecture" *Child Development* 81(1) (2010). Hart, B. & Risley, T. R. (1995). *Meaningful Difference in the Everyday Experiences of Young Children*. (Baltimore, MD: Paul H. Brookes Publishing Co.); Fernald, A., Marchman, V., & Weisleder A. (2012). SES Differences in Language Processing Skill and Vocabulary are Evident at 18 Months. *Developmental Science*. (2012).

18   Kristie Kauerz. "Ladders to Learning: Fighting Fadeout by Advancing PK-3 Alignment" (Washington, DC: New America Foundation, 2006).

19   For an excellent review of all the good work CIA grants accomplished, see David Jacobson. "Improving the Early Years of Education in Massachusetts: The P-3 Curriculum, Instruction, and Assessment Project" (Malden, MA: Massachusetts Department of Elementary and Secondary Education, 2011).

20   For more information on the development early childhood data systems, visit the Early Childhood Data Collaborative website at: www.ecedata.org

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NOTES

WORKING GROUP MEMBERS

Early Education

Charlene Mara, Coordinator, *Early Childhood Education, Quinsigamond Community College*

Karen Frederick, *Executive Director, Community Teamwork, Lowell*

Meghan Adams, *Assistant Director, Community Team Work, Lowell*

Joan Kagan, *President and CEO, Square One, Springfield*

Susan O'Neil, *The Community Group, Lawrence*

Andrew Melendez, *Early Literacy Coordinator, Holyoke Public Schools*

Mary Walachy, *Executive Director, Irene E. and George A. Davis Foundation*

Social and Emotional Growth

Nicholas Apostoleris, *Vice President of Behavioral Health Services, Fitchburg*

Danielle Carrigo, *Assistant to the Superintendent, New Bedford Public Schools*

Julie Donovan, *City Connects Program Administrator, Springfield Public Schools*

Kate Fenton, *Chief Instructional Officer, Springfield Public Schools*

Tim Garvin, *President & CEO, United Way of Central Massachusetts*

Bob Kilkenny, *Executive Director, Alliance for Inclusion and Prevention*

Suzanne Scallion, *Superintendent Westfield Public Schools*

Marie Doehler, *Social Worker, Malden Public Schools*

Van Huygn, *Social Worker, Malden*

Pathways to College and Career

Heather Arrighi, *Partnership Coordinator, Brockton Public Schools*

Laura Assade, Facilitator, *Families United in Educational Leadership, Chelsea*

Melinda Boone, *Superintendent, Worcester Public Schools*

Steven Budd, *Vice President for Enrollment and Student Services, Quinsigamond Community College*

David DeRuosi, *Superintendent, Malden Public Schools*

Robert Hildreth, *Families United in Educational Leadership, Chelsea*

Manjula Karamcheti, *Director of Guidance, Testing, & Academic Support Malden Public Schools*

Andrew O'Leary, *Federal & State Funded Programs, New Bedford Public Schools*

Newcomers

Mary Bourque, *Superintendent, Chelsea Public Schools*

Kerry de Jesus, *Co-Founder, Esperanza School, New Bedford*

Albert Mogavero, *Director of English Language Learners, Revere Public Schools*

Jen Carey, President, *Worcester Education Collaborative, Worcester*

Mary Jo Marion, *Latino Education Institute, Worcester*

Beth Shevlin Tripathi, *Center for Education Policy and Practice, Massachusetts Teachers Association*

PROJECT TEAM

Facilitation: Community Matters (Andrew Bundy, Lainy Fersh)

Research: Benjamin Forman, Julianne Viola, Caroline Koch

Editing: Sandra Larson, Robert David Sullivan

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