I. Introduction

Gateway Cities are at the vanguard of the effort to close opportunity gaps and prepare disadvantaged students for economic success in Massachusetts. These small-to-midsize urban districts are responsible for educating an increasingly large share of the state’s low-income students. With their graduates projected to make up a third of the future workforce, the Commonwealth’s health is contingent on Gateway City students gaining the skills necessary for success in one of the world’s most advanced knowledge economies.

In recent years, Gateway City school districts have made considerable progress improving learning outcomes for their students. A large majority now graduate high school and move on immediately to post-secondary training. Yet only about one in five ultimately completes a 2- or 4-year degree. This figure raises alarm bells. On a recent visit to Barnstable High, Jennifer Clark, the school’s head of guidance, underscored the need for new approaches:

Our goal used to be for students to get their high school diploma. We did it, we got them graduated. But now our goal has to be for them to be ready for that next step. Not just to graduate, but for them to be truly ready and prepared for that next step, whether it’s going into a career, going into some technical training program, going to college, working while they’re in college. We want them to truly be ready.

The field has evidence-based practices to increase post-secondary completion rates for the low-income, first-generation-college-going students disproportionately served by Gateway City schools. There are also evidence-based practices schools like Barnstable High can draw from to help ensure that students graduate with a career path that leads to success in today’s economy, whether or not they go on to college. A major problem is Gateway City educators are spread too thin to implement these new approaches with fidelity—schools in these urban districts face great difficulty just holding on to the gains they have made with dwindling resources, significant teacher turnover, and an increasingly high-need student population.

To help Gateway City educators face down these challenges and, at the same time, improve college and career outcomes, in 2015, the BU School of Education, MassINC, and the Rennie Center launched the Massachusetts Institute for College and Career Readiness (MICCR). This collaborative project supports 14 Gateway City school districts adopting new approaches to prepare students for success after high school.

MICCR paired each participating district with a volunteer senior academic researcher selected from universities all across the US. Over the past three years, these Gateway City districts and their affiliated researchers worked together to design, implement, and evaluate a variety of college and career readiness interventions.

Barnstable, Leominster, and New Bedford each choose to work on Individual Learning Plans, an evidence-based model for achieving sustainable improvements in college and career outcomes at scale (see side bar below). This case study examines the collaborative work of MICCR in these three Gateway Cities, offering a window into the role research-practice partnerships can play in preparing Gateway City students for economic success.

Summary

Public schools are under pressure to close wide opportunity and achievement gaps so that disadvantaged students can compete for jobs in today’s knowledge economy on an equal footing. While the resources to accomplish this important work are often limited, advances in education technology, data availability, and research methods can help schools get more learning out of every dollar. This case study examines an effort to build research-practice partnerships to take advantage of these new analytical opportunities.
II. The Value Proposition for Research-Practice Partnerships

Over the past decade and a half, there has been an explosion in education technology and data. Analytical methods have also improved greatly. Today, researchers are much more able to isolate the impact of an intervention from other forces in the community, classroom, and family affecting student achievement. However, even in Massachusetts, a state laden with university brainpower, schools haven't been able to take full advantage of this newfound potential to better understand what learning models will produce the best results and allocate scarce resources accordingly.

For urban districts that are under enormous strain, Jabian Gutierrez, Chief Operations Officer at New Bedford High School, believes this lost opportunity comes down to limited hours in the day: “Part of it for us is time to implement. Time to do it well and learn from it,” he says.

It is not just about time limitations on the part of school districts. There are also considerable obstacles in academia that keep researchers and educators from coming together to form productive partnerships. Increasingly, policymakers are looking at the potential of research-practice partnership (RPP) models to overcome these barriers. The success of the University of Chicago Consortium on School Research and a handful of other high-profile examples drive this enthusiasm. The Carnegie Foundation for the Advancement of Teaching and other private foundations are investing to expand the RPP approach, as is the federal government through the Institute of Education Sciences, which provided the initial funding for MICCR.6

MICCR’s theory of change is that these partnerships will make Gateway City districts more aware of research and how to develop and implement interventions in ways that provide sufficient data to evaluate their impact. At the same time, RPPs will help researchers gain exposure to classroom learning in small-to-midsize urban districts so that they can produce studies with more relevant and actionable findings.

As the RPP gains momentum, Gateway City schools will have more capacity to apply research to support specific decisions, frame the larger set of issues they

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Helping Gateway City Students Find Their Way in the Knowledge Economy

Navigating a pathway to and through college and into a successful career is a formidable obstacle for many low-income students. Too often these youth lack ties to peers and adults with exposure and experience in college and professional settings. This makes it much harder for them to find support when challenges inevitably surface as they pursue education and training.3

While the absence of these valuable connections has always been a great hindrance to economic mobility, the problem has grown exponentially, as college and career decision-making has become increasingly complex. For Gateway Cities—former industrial centers that now rely on the skills of their youth to seed growth and vitality in a knowledge economy—it is critical that schools provide students with ample support exploring and finding their way on to a rewarding career path.3

Individualized learning plans (ILPs) are one promising practice for delivering this assistance with modest resources. ILPs are an organized approach to education and career planning that ideally begins by middle school and is followed consistently into and through high school. An ILP helps personalize learning to each student’s college and career aspirations. Through the ILP (and associated college- and career-planning curriculum and activities), students explore interests, establish short- and long-term goals, and regularly take stock of how their academic and extracurricular undertakings align.

Done well, the ILP process gives students more voice in shaping their learning experiences and facilitates conversation with their families and educators. Through the ILP, students develop greater self-efficacy and cultivate their nonacademic social-emotional skills. ILPs have also been shown to increase student motivation to attend school and take on more rigorous coursework.5
face, develop informed strategy, allocate resources, and defend their choices in political environments. RPPs can also network across communities, generating synergy and scale to produce more robust research findings and inform broader policy change.\(^7\)

Achieving these outcomes requires some delicate gymnastics. Researchers and practitioners need to develop a common language and build trust to communicate effectively. Often, they will need to assume roles and responsibilities outside their normal spheres. To sustain the work, schools must have a strategy to overcome turnover of educators and administrators. At the same time, universities need to free researchers from some of the professional pressure to publish in academic journals, which generally favor novel topics and research designs over studies that may have the most value for practitioners and policymakers.

While there is little rigorous evidence to demonstrate the efficacy of RPPs in small-to-midsize urban districts, in other fields, the approach has had considerable success. A particularly notable example is the Communities That Care (CTC) model, where researchers and community members identify a local public health challenge and collaboratively develop and test interventions. Random replication of CTC in Gateway City-scale settings has produced notable results.\(^8\)

### III. Early Lessons Learned from the Gateway City RPPs

The MICCR project offers a unique perspective on the application of RPPs in small-to-midsize urban school districts. While it is too soon to draw conclusions about the project’s full impact, as the initiatives are intended to see students beyond high school and many started in their pilot in 9th grade, it is possible to describe some preliminary takeaways for educators and policymakers examining the approach:

1. **Researchers provide another pair of hands—and valuable expertise—in districts with limited capacity to implement.** From the small alternative high school with 39 students in Leominster to large comprehensive high schools in Barnstable and New Bedford, each serving upwards of 2,000 students, Gateway City schools have limited capacity to plan, implement, and troubleshoot new initiatives like ILPs. The researchers provided through MICCR offered districts access to another professional with unique skills and insights to contribute to their implementation and continuous improvement efforts.

As an example, all three districts were concerned with social-emotional skill acquisition and saw ILPs as an opportunity to foster growth in this domain. The researchers became sounding boards as Gateway City educators explored this relatively new area and thought about how to best structure their interventions to nurture social-emotional development.

In some cases, the researchers brought considerable expertise in this area. New Bedford, for instance, wanted to devise ways to overcome cultural barriers so that adults working in the school could build supportive relationships with students and foster social-emotional growth. The researcher assigned to the district is a leading thinker in cultural and global competence. He was able to leverage his expertise in this area so that ILP implementation occurred in a manner that responded to the numerous cultures in the school community.

When researchers lacked sought-after topical expertise, they were often able to tap into the larger MICCR network to provide value for the implementation team. For example, many of the districts sought help identifying the best ways to utilize technol-
A Snapshot of the Barnstable, Leominster, and New Bedford RPP-ILP Projects

**Barnstable**
For years, Barnstable High School's guidance department did career planning work with students, but more recently they abandoned the practice because they felt like it had become an empty exercise. Wanting to revisit this decision, leaders in the guidance department attended a Department of Elementary & Secondary Education presentation on ILPs. Shortly thereafter they learned about MICCR. The high school decided to participate to explore questions they had about how ILPs could be used effectively in their environment. MICCR assigned Dr. Bianca Guzman, a professor at California State University with a doctorate in Ecological Community Psychology, to help Barnstable High develop ILPs. Dr. Guzman specializes in research examining the socio-behavioral determinants of health in Latina youth. Their work together included the piloting of career readiness curriculum with students in an alternative learning program and the measurement of workforce readiness skills and knowledge. The successes of the pilot fostered the expansion of structured career planning through the 8th grade (Barnstable is 8-12th grade). The effort will expand into a new grade each year.

**Leominster**
The Leominster Public Schools utilized MICCR to support the Leominster Center for Excellence (LCE), a relatively new alternative high school in the district. Just before LCE turned to MICCR for support building a research-practitioner partnership, the alternative school had become a member of Big Picture Learning, adopting the network's project-based learning model. The ILP would become a central component for organizing this approach and providing the school's 39 students with individualized learning. Dr. Michelle Knight-Manuel, a professor at Columbia University with a doctorate in curriculum and teaching, was assigned to LCE. Her research expertise is in educational equity and promoting college and career readiness among black, Latino, and immigrant youth. Their work together included the design and development of qualitative and quantitative evaluation of students' ILP process and career readiness. The evaluation was rolled out initially with 12th graders and was repeated for two years.

**New Bedford**
In New Bedford, the initiation of the MICCR project coincided with the high school's state designation as chronically underperforming. ILPs became a central component of the school turnaround plan. In the first year of implementation, all ninth graders developed an ILP, with the aim of expanding the practice a grade per year until all 2,000 students at New Bedford High were actively utilizing them. To support this effort, MICCR paired New Bedford High with Dr. Reyes Quezada, a professor at the University of San Diego with a doctorate in education administration and research expertise in areas related to cultural proficiency, equity, and family, school, and community engagement. Their work together included the design and evaluation of the ILP model at New Bedford.

While the researchers brought varied skills to the table, at the implementation phase of the project, often the researchers provided assistance helping the team of educators explore different options, examine the tradeoffs associated with varying approaches as they relate to their specific schools communities, and reach a decision. This form of collaboration closely parallels the design-based research partnership model. More than the specialized evaluation skills, the educators appreciated the contributions the researchers offered as early-stage thought partners. As Gutierrez reflected: "MICCR provided a really valuable planning year. We had the opportunity to learn about best practices, connect with Boston University, and see what was working with ILPs. In year one we were learning a lot."

2. Small-to-midsize urban districts clearly have many educators who are eager to innovate in partnership with academic researchers. While the concept of working collaboratively with researchers is novel, Gateway City districts clearly have many educators with the interest and ability to guide this work.

The school district participants who led projects in their communities came from guidance, central administration, and a variety of other departments. In addition to Gutierrez, New Bedford had Nancy Richards, the high school's technology and integration manager. This gave the project an administrator committed to continuous improvement at the highest level and a frontline practitioner willing to roll up her sleeves and make ILP implementation work despite numerous challenges along the way.
Similarly, Barnstable formed a strong team led by Jennifer Clark, the head of guidance, and Erin Eastman, a career-readiness guidance counselor. Together they demonstrated a strong commitment to seek out new approaches and probe deeply to ensure that ILPs produced the intended results for their students.

In addition to principal Carrie Duff, Leominster’s small alternative high school relied on Pamela Gordon, a teacher on staff with a doctorate in education. Engaging with a researcher to improve the school’s practice was a stimulating professional opportunity for her. As she explained: “On a personal note, I was trained as a researcher. It has been a great experience to use those skills and have research people here in the school working together. As a grad student, I didn’t see that kind of research happening.”

Barnstable’s Jennifer Clark explains how vital it is for the project to empower these educators: “You have to have a person who is going to be able to give the time and resources to be able to partner with MICCR, somebody who is going to be able to support the schools… That is a really critical piece. One of the best things we did is say this is really important and so we are going to commit personnel.”

3. RPP participation can increase the commitment to implementation and continuous improvement in the wider school community. Districts report that being a part of MICCR increased the time and commitment educators were able to invest in ILP implementation. While some of this increased attention may relate to the visibility of this unique initiative, the way the RPP engages educators is likely the more important mechanism for generating buy-in and support for the project throughout the building.

Experts on RPP models have noted that, more so than most top-down reform approaches, RPPs offer “standing” for practitioners, empowering them to lead with researchers playing a supporting role. RPPs also provide a systematic process for implementing evidence-based practices, ensuring that they are relevant, tailored, and aligned to the needs of the school community. And they allow considerable time for researchers with topical expertise to establish trust. Rather than moving directly to a given intervention or evaluation, the researchers are able to develop a thorough understanding of their district’s needs, meeting with the team and visiting schools. This allows each team member to gain a feel for the abilities and constraints of their colleagues and foster the development of a culture of collaboration. As the bonds grow, enthusiasm for the project and its potential increases.10

Generating momentum is particularly crucial for projects that relate to nonacademic aspects of college and career readiness. Outcomes in these domains are not part of school accountability measures, and thus efforts to build these skills often get relegated to a lower priority level in urban districts under pressure to produce test score gains and reduce dropout rates. As Jennifer Clark, Barnstable High’s head of guidance noted, “The biggest hurdle in this whole [ILP] process is making this part of the culture of the whole school. And making sure that everyone owns career development, college and career readiness, and that it’s not just the school counseling department.”

The RPPs are working to develop this kind of buy-in across the school community by engaging a wider circle of educators in the effort to rapidly prototype, test, and adapt their models. Gutierrez talks about how they plan to use MICCR in this fashion in New Bedford: “We’re going to be setting up time for Reyes [New Bedford’s MICCR researcher] to speak with our teachers to say ‘here’s what the data say’ and to see if we want to make any adjustments, even now, mid-year.”

4. Backbone organizations can close the cultural gap between researchers and practitioners and provide projects with crucial continuity and support. One of the unique features of the Gateway City RPP model was its reliance on volunteer academic researchers to donate time and expertise. The project was able to generate sufficient interest among tenured faculty by casting a wide net. This meant there

Research-Practice Partnerships 5
was often considerable distance between researchers and practitioners, which made it more difficult to arrange face-to-face meetings to get to know one another and develop trust and understanding.

MICCR was able to overcome this challenge through the support of the Rennie Center. Rennie had a strong reputation in the state and pre-existing relationships with most of the participating districts. With experience in both academia and in local education, the Rennie team was able to play a “culture broker” role, improving communication between researchers and districts and troubleshooting any challenges that arose.11

The Rennie Center was also able to fill the breach when there were the inevitable transitions in personnel. The team at the Rennie Center could quickly make arrangements to visit districts and meet in person with administrators to explain the project and ensure that local districts leads were replaced with appropriate staff and commitment to the project remained firm. The Rennie Center also married its suite of “back office” services with capacity at Boston University, where staff provided onsite and virtual technical assistance in research methods as well as college and career readiness topics. Collaboration between these entities ensured that districts and researchers had comprehensive support throughout the project.

III. Expanding and Sustaining Research-Practice Partnerships in Massachusetts

Gateway City school districts have limited capacity to rigorously plan, execute, evaluate, and continuously improve upon innovative new learning models. At a time of so much change, this capacity is essential to narrowing opportunity gaps and closing disparities in college and career outcomes. MICCR demonstrates an eagerness on the part of educators in these communities to innovate in partnership with researchers and offers a model for providing this assistance with modest resources. Given the promise, education leaders in Massachusetts should consider the three ideas below to expand and sustain RPPs in the future:

1. When making grants for innovative learning models, require districts to implement through a network of RPPs. Massachusetts often supports innovation by grant programs funded through line items in the state budget. Occasionally the agencies administering these programs use a portion of the funds to conduct implementation evaluations; less frequently they carry out an outcome evaluation. With a model similar to the MICCR project, the state could provide districts with more robust research support on implementing, continuously improving, and demonstrating results.

   By awarding grant funds for innovative new approaches to learning through RPPs, the state can ensure that districts receiving these resources get the design benefits of collaborative work with researchers and the economies of scale in evaluation that come from testing new models in multiple classrooms and learning settings.12

   The Every Student Succeeds Act (ESSA) provides an additional rationale for pursuing this approach. Under the new federal law, states are now responsible for certifying that interventions and school improvement efforts are evidence-based. This could be problematic for advancing innovative new approaches to college and career readiness, as they will need to have evidence of success. The state and local districts have limited capacity to carry out impact evaluation of new interventions.

2. Stimulate the provision of backbone support. Massachusetts is a forerunner in the development of strong longitudinal data systems, data evaluation tools for use by local school districts, and partnerships with external researchers. The state could take advantage of these capabilities by nurturing a crop of backbone organizations to support and sustain RPPs. In addition to organizations like the Rennie Center, backbone support could be provided through the state’s teachers unions and research universities.

   While this will require funding, there may be creative ways to encourage growth of RPPs through backbone organizations in the interim. For instance, the Massachusetts Department of Elementary and Secondary Education publishes a research agenda that highlights agency priorities aligned with its broad goals and strategies.13 Perhaps this could become a vehicle for increasing interest in RPPs. The department could solicit input and interest from districts and include contact information for local practitioners wanting to explore an issue on the department’s research agenda. In this way, backbone organizations could demonstrate demand and solicit the funding necessary to establish RPPs. As RPPs gain momentum, state education agencies could host annual summits to feature research produced by RPPs and bring educators and researchers together to exchange ideas about how to successfully manage and sustain their partnerships.

3. Position districts to encourage and support teacher participation. A large body of research points to the benefits of teacher leadership roles such as those played by the educators involved in the
MICCR project. Providing leadership opportunities allows school organizations to take advantage of in-house expertise. Often, the work of teacher leaders engenders more ownership and commitment to implement educators trust that it is designed by peers who understand their students. Leadership positions also offer veteran teachers a break from the classroom to learn new skills and utilize their knowledge to creatively solve problems. This opportunity for career growth and renewal is particularly beneficial for educators working in high-stress environments.\textsuperscript{14} The research-practice partnership roles could also prove especially useful for increasing recruitment and reducing turnover of minority teachers; research shows that giving these teachers voice and leadership opportunities are among the most effective responses to this widespread attraction and retention problem.\textsuperscript{15} Working with partners in philanthropy, the state could develop a source of matching funds for these teacher leadership positions.

Endnotes

1 Section 3A of Chapter 23A of the General Laws of Massachusetts defines Gateway Cities as communities with population between 35,000 and 250,000, an average household income below the state average, and an average educational attainment rate (bachelor’s or above) below the state average.


5 To learn more about the evidence for ILPs and efforts to adopt them in Massachusetts, see: “Charting a Path to the Future through Individualized Learning Plans” (Boston, MA: Rennie Center for Education Research & Policy, 2016).


10 Christopher Harrison and others. “Lessons from a Research-Practice Partnership: The Importance of Building from Evidence of Local Success” (National Center for Research in Policy and Practice, 2015).

11 Palinkas and others (2015).

12 For an excellent summation of this challenge and opportunity, see: Thomas Kane. “Making Evidence Locally: Rethinking Education Research Under the Every Student Succeeds Act” Education Next (Spring 2017).


About the Massachusetts Institute for College and Career Readiness

The Massachusetts Institute for College and Career Readiness (MICCR) brings together three preeminent voices in education reform: (Boston University, the Rennie Center for Education Research & Policy, and MassINC) to form a network of research-practice partnerships that build the capacity of school communities to design, implement, and evaluate college and career readiness initiatives. MICCR was developed in close partnership with the Massachusetts Department of Elementary and Secondary Education and with seed funding from the Institute of Education Sciences (PR/Award: R305B140043)

For more information:

Chad d’Entremont, Ph.D.
Executive Director
Rennie Center for Education Research & Policy
cdentremont@renniecenter.org

LaVonia Montoute
Program Manager
Rennie Center for Education Research and Policy
lmontoute@renniecenter.org

Scott Solberg, Ph.D.
Professor
Boston University School of Education
ssolberg@bu.edu

Benjamin Forman
Executive Director
MassINC Gateway Cities Innovation Institute
bforman@massinc.org