

# EARLY COLLEGE AS A SCALABLE SOLUTION TO THE LOOMING WORKFORCE CRISIS

## I. INTRODUCTION

The painful labor shortages many sectors of our economy face today foreshadow far more grueling challenges in the coming years. Absent aggressive action, projections show the Commonwealth will lose hundreds of thousands of skilled workers before the end of this decade.<sup>1</sup> While Massachusetts has never led a workforce development intervention at the scale now required, there are numerous reasons why Early College can, and should, be the first.

For starters, North Carolina and Texas have demonstrated that the strategy delivers exceptional results at scale. These states put thousands of students through Early College each year, dramatically increasing their odds of completing postsecondary degrees.<sup>2</sup> Although still relatively small in comparison, Early College programs in Massachusetts appear to be on course to replicate these gains; students in the first few cohorts are twice as likely to enroll in college after high school and stick with it for a second consecutive year.<sup>3</sup>

Equally important from a workforce development perspective, Early College can help more graduates build skills that align with the needs of employers. In recent years, there has been considerable mismatch.<sup>4</sup> This is largely due to insufficient college readiness, not because students lack interest in STEM fields, where labor supply and demand are especially unbalanced.<sup>5</sup> By engaging students at the beginning of their journey, Early College is uniquely situated to help them hone the skills that jobs in our knowledge industries require.

Equity is a third compelling argument for making Early College a primary response to the state's skilled worker shortage. The intervention is clearly benefiting all students, but consistent with results in other states, it is producing outsized postsecondary completion gains for low-income students and students of color in Massachusetts.<sup>6</sup> Other potential avenues to find more skilled labor, such as providing tax incentives to attract and retain workers or advocating for a larger number of H1B visas, will not reduce inequality.

To get the most from Early College across these three dimensions—providing impact at scale, matching employer demand for skilled workers, and ensuring that we achieve equitable outcomes—Massachusetts must continue to enhance its programs.

Our relatively young Early Colleges remain underdeveloped in terms of both the number of college credits that students can earn, and the industry-focused counseling, mentoring, and career development experiences that they receive. The combination of fewer credits and modest career development opportunities means Early College is not living up to its full potential to provide underserved students with a firm boost into the fields where they are less represented.

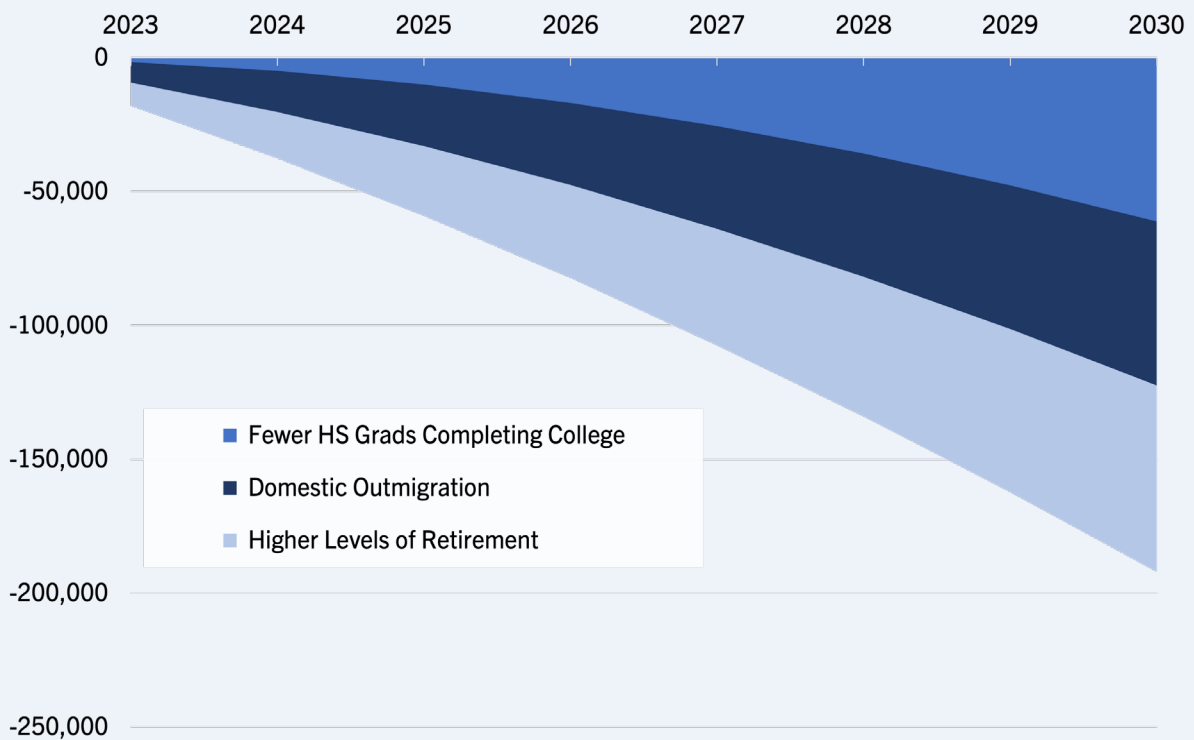
While this is largely a function of not having sufficient and predictable resources available at the start, it is also important to recognize hesitancy among some education policy leaders, who are understandably uneasy about rushing high school students onto narrow college and career paths.

In this paper, we show how Early Colleges that firmly root students in a field of study and expose them to related careers are exactly what is needed if we want to disrupt powerful forces of inequality in Massachusetts and ensure that all students can thrive in all aspects of the state’s innovation economy. We begin with research on college and career identity formation to establish our theory of change. Then we survey the current landscape and present design guidelines to help programs strengthen their college and career pathways. The paper concludes with policy recommendations to position Early Colleges to build to this blueprint.

### SIZING UP MASSACHUSETTS’ LOOMING SKILLED-WORKER SHORTAGE

Last June, MassINC released a study showing Massachusetts will lose far more college-educated workers in the coming years than previous projections indicated.<sup>7</sup> A confluence of forces has put the Commonwealth’s knowledge economy in this precarious position. The Great Recession pushed steadily declining birthrates down even further, leading to a much smaller generation entering high schools today. Students of color, a large majority of whom have spent their formative years in severely underfunded high-poverty school districts, make up a much larger share of those entering the workforce today than in past generations in Massachusetts. In addition, immigration has slowed considerably, and domestic outmigration is accelerating. Together, MassINC estimates show the state’s working-age college-educated population will fall by approximately 192,000 residents by 2030 (**Figure 1**).

**Figure 1: Projected Change in Massachusetts’ Working-Age College-Educated Labor Force**



This represents a 10 percent reduction in the state’s college-educated workforce from current levels. But the change from steady growth to decline will feel far more intense because of the abrupt deceleration. Over the past 40 years, Massachusetts has averaged a roughly 25 percent increase in college-educated workers per decade.

## II. CAREER THEORY AND THE DESIGN OF EARLY COLLEGE PATHWAYS

Education policymakers who do not come from underserved backgrounds must avoid reflexively thinking about Early College in the context of their own higher education and career preparation experiences. Research from counseling psychology shows that low-income students and students of color face very different environmental conditions, which heavily influence college and career identity formation in adolescence. A careful review of this research leads us to conclude that the benefits of helping underserved students find firm footing on college and career pathways far outweigh the risks of prematurely tracking them into college majors and associated professions.

### CAREER IDENTITY DEVELOPMENT AND UNDERSERVED YOUTH

When attempting to explain the large benefits that Early College produces, most leaders in the field list exposure to more rigorous academics in high school, acclimation to the college campus, and cost savings. While these are all important, we must explicitly recognize that the intervention is powerful precisely because it reaches underserved students at a profoundly important stage.

Developmental psychologists view identity formation as the key task of adolescence. As high school students consider what they like, what they can do, and where they belong, a distinct career identity takes shape. This component of identity has major ramifications for long-term well-being because work consumes so much time and energy in our society, and it offers significant rewards, both financial and non-financial. Building a career identity in adolescence is strongly associated with healthy adjustment in emerging adulthood and self-fulfillment throughout life.<sup>8</sup>

Changes in the brain that occur in adolescence initiate this stage of development by giving students the cognitive ability to scrupulously consider hypothetical scenarios and assess options for their futures for the first time. These neurological changes also make teens more adept at sensing how others<sup>9</sup> perceive them, and at defining themselves as individuals in relation to others. As they process this information, high school students become especially sensitive to signals from peers, along with cues from teachers (particularly for male students) and parents (particularly for female students).<sup>10</sup>

How adolescents respond to all of these inputs depends heavily on their environment, including the culture, resources, and reputation of schools, families, and communities; and the marginalization of groups by race, ethnicity, and gender. For low-income students and students of color, a range of environmental challenges can interfere with career identity development, including lack of access to jobs, parents who have had negative professional experiences due to discrimination, attending schools with poor reputations, and reduced future orientation resulting from the ever-present threat of violence in many low-income communities.

These forces exert considerable influence on students of color, especially as they intersect with the development of a racial and ethnic identity. While racial and ethnic identities<sup>11</sup> first appear in early childhood, the cognitive skills that youth gain in adolescence lead them to ponder how this identity will influence their fate, how they will choose to express it in various settings, and how this expression will vary relative to their parents, family, and peers.<sup>12</sup> A voluminous body of research shows many adolescents of color struggle with the ubiquitous presence of racial stereotypes, which present a “social identity threat,” reducing their ability and desire to learn, as well as the intention to pursue careers that require postsecondary education.<sup>13</sup>

Evidence indicates teens who face these obstacles to positive career identity development are much more likely to thrive when they have structured professional opportunities.<sup>14</sup> This finding is consistent with career development theory, which suggests career success is largely a function of hope and self-efficacy (i.e., an individual’s beliefs about their ability to build and execute a plan).

High school students who lack hope and self-efficacy often put the brakes on themselves at this critical developmental stage. This is one reason why high-achieving students of color are more likely to fall behind similarly gifted White students in their teens.<sup>15</sup> Disengaging in adolescence is extremely damaging to career development, because by 10th grade students are already selecting courses that will heavily influence their options for college and their ability to enter a variety of professions.<sup>16</sup>

Whether students disengage or find resilience during this challenging developmental period may depend heavily on the signals that they receive from teachers, parents, and employers:

**Teachers.** As noted previously, students look to their teachers for signals when assessing their potential and forming their college and career identities. Substantial evidence suggests that educators often send the wrong message by lowering their expectations for disadvantaged high school students.<sup>17</sup> Black and Hispanic students are significantly more likely than White and Asian students to place into lower-track courses, even when they score in the top percentiles on standardized tests. This has particularly serious consequences for students with STEM aspirations.<sup>18</sup>

Many studies suggest White educators reduce expectations for students of color because of bias. However, some educators may act in this manner not because they believe these youth are less capable, but rather because experience tells them that they will not get the opportunities necessary to succeed in the most challenging courses, and fear the harm that failure will cause. Evidence suggests such a response is not entirely without merit. With more rigorous courses, access to experienced teachers, tutors, summer enrichment, and assistance from parents becomes all the more important.<sup>19</sup> And underperforming at this critical stage of development can exact heavy costs. For instance, research shows students who score low on AP exams are significantly less likely to pursue STEM majors in college.<sup>20</sup>

**Parents.** Parents also send various signals that shape the development of career identities. One of the loudest is participating in the college and career process, particularly for students pursuing STEM fields.<sup>21</sup> In addition to establishing expectations, involvement signals that parents believe their children are worthy and capable, which in turn increases motivation and helps to foster self-confidence.

Lower socioeconomic status parents are less likely to perform this function because they often lack time and financial resources and have limited knowledge of the processes, which leads many to believe that their involvement will not be beneficial. Discrimination and school culture may further deter these parents. A school's efforts to increase parental involvement in college and career planning can make a significant difference, especially given evidence that students benefit not just from the engagement of their own family, but from the college and career readiness behaviors of parents in the entire school community.<sup>22</sup>

**Employers.** Numerous studies show teens who have positive work experiences have both higher levels of academic achievement and greater occupational attainment. Lower-income youth have difficulty accessing jobs, and when they do find work, it is generally in lower-wage positions outside of professional settings. As such, their employment experiences have more limited impact on career development outcomes in comparison to those available to peers in more advantaged circumstances.<sup>23</sup>

In addition to these agents, it is important to recognize how the curriculum students are exposed to can play an important role shaping a positive career identity. A growing body of research links career self-efficacy with sociopolitical development, or what some term "critical consciousness." Gaining deeper knowledge of the processes behind oppression and inequality can empower adolescents, giving them a sense that they can actively work to create change through their career choices and more optimism for their future.<sup>24</sup> Research shows sociopolitical development in high school predicts adult occupational attainment among low-income students and students of color.<sup>25</sup>

## IMPLICATIONS FOR MAXIMIZING EARLY COLLEGE'S IMPACT

This literature review underscores our belief that the theory of change for Early College is giving students structured environments that inspire them during a formative stage of adolescence, helping them build hope and self-efficacy, and offering refuge from omnipresent stereotypes that are corrosive to college and career identity. This theory of change is also consistent with the notion that programs that give students a firm boost into the fields where they are underrepresented will deliver fully on Early College's potential across all three dimensions noted in the introduction: providing impact at scale, matching labor force skills with employer demand, and increasing equity in the state's innovation economy.

Deeper college and career offerings should attract a much larger number of students. This is vital to achieving impact at scale because Massachusetts must dramatically increase enrollment from today's levels for the strategy to close large equity gaps in postsecondary completion and contribute meaningfully to the state's skilled worker shortage. Evidence suggests increasing participation is not just a matter of offering Early College in more high schools, but also serving a larger share of the student population within each high school. While Massachusetts' programs continue to grow, there is some indication that participation stalls out at between 15 and 20 percent of high school enrollment with the current model.

Limited take-up is at least partially due to large gender imbalances. Male students make up just 35 percent of enrollment in the state's Early College programs, which is even more unbalanced than public higher education in Massachusetts.<sup>26</sup> Evidence suggests Early College models with strong career themes attract more male students.<sup>27</sup> Notably, New York City's P-Tech high schools, which provide heavy doses of

both college and vocational training, draw more male than female applicants. Rigorous research with random assignment shows that they are closing very large gender gaps in postsecondary enrollment.<sup>28</sup>

As programs seek to achieve greater scale, the studies reviewed above also shed light on how Early College designers think about the role of agents of college and career identity development. Students respond to teachers who encourage them to enter Early College; teachers will be more likely to recommend Early College to a broader range of students when the offerings are robust enough to inspire and fully support them. Similarly, while many parents encourage their children because these programs increase college access, this proposition is not compelling to all. Some parents will be more inclined to provide strong backing when they see a well-developed career component.

Many Early College programs include anthropology, sociology, and political science courses on college campuses. Educators have frequently mentioned how they believe taking students outside of their high schools for these classes is particularly valuable because it gives them the opportunity to analyze their communities with some distance and greater objectivity. This is consistent with the literature on critical consciousness and likely contributes to the growth of career self-efficacy.

Finally, by strengthening their career development offerings, programs will garner stronger support from the business community. This will give more employer partners the chance to show Early College students how the state's cutting-edge companies value their talent and how they are fully committed to building inclusive workplaces.

# III. DESIGNING NEXT-GENERATION EARLY COLLEGE PATHWAYS

Early College leaders have long recognized that providing pathways through a field of study and into a related career will advantage students and improve outcomes. Current state policy in Massachusetts reflects this understanding, and programs have built numerous pathways. However, significant work remains to fully develop them. With Early College drawing more funding from the state and serious attention from the business community, now is the moment for ambitious efforts to build out Early College pathways so that students who follow them have full access to our innovation economy. In this section, we unpack the current policy landscape and outline design standards for next-generation pathways.

## THE CURRENT PATHWAYS LANDSCAPE

To receive state funding, Early Colleges in Massachusetts must receive designation from the Department of Elementary and Secondary Education. The application process addresses pathways most substantively with two of its five design principles: “Guided academic pathways” and “connections to career.”

### GUIDED ACADEMIC PATHWAYS

Under the state’s most recent application guidance, guided academic pathways should include sequenced coursework and substantive exposure to career opportunities in related fields.<sup>29</sup> The evidence-based Early College design calls for academic pathways that allow students to earn an associate degree or up to two years of transferable postsecondary credit.<sup>30</sup> Tackling this much coursework in high school builds momentum, accelerates progress, and most important, it ensures that students are supported in efforts to get through “weed-out” classes and into challenging STEM majors and degree programs.

With limited resources, the state’s designation currently asks programs to provide students with an opportunity to earn a minimum of just 12 credits. While some offer more, most are built to give students far fewer college classes than the associate degree or two years of transferable credit evidence-based design standard.

This means students are not penetrating deeply into STEM majors. Low-credit pathways also tend to be heavily laden with general education coursework. While this ensures that students are earning credits that will lead to postsecondary progress no matter what degree they eventually choose, programs modeled this way are likely to have less appeal to high school students than pathways heavier in applied learning and direct connections to career.

With more sustainable funding to reimburse colleges, programs are now far better positioned to build longer academic pathways. Designing for more postsecondary coursework will require considerable effort to increase high school and college alignment, both in terms of the curriculum and master schedules. Equally important, where degree programs require competitive admissions, Early College and higher education partners must develop a predictable process to evaluate students and ensure that there is sufficient capacity to serve those who meet the entry requirements.

### CONNECTIONS TO CAREER

For the connections to career component, the state’s application guidance calls on programs to show how they will expose students to a variety of career opportunities related to their academic pathway, including targeted career skills development, career counseling, and work-based learning. However, there are no minimum requirements for this critical component of the designation.

This is in part due to a recognition that programs face major capacity barriers to offering robust career development opportunities to all students. It can be difficult to find employers in advanced industries that are willing to bring teens into the workplace. While this hesitancy may be overcome through strong outreach and organizing, there is limited staff to undertake this work. Subsidizing wages is another strategy to increase employer involvement, but funding for this purpose has been limited.

Beyond resources, time constraints are another structural barrier. Early Colleges typically work to accommodate all programming during the regular school day to ensure that all students can participate. For Early

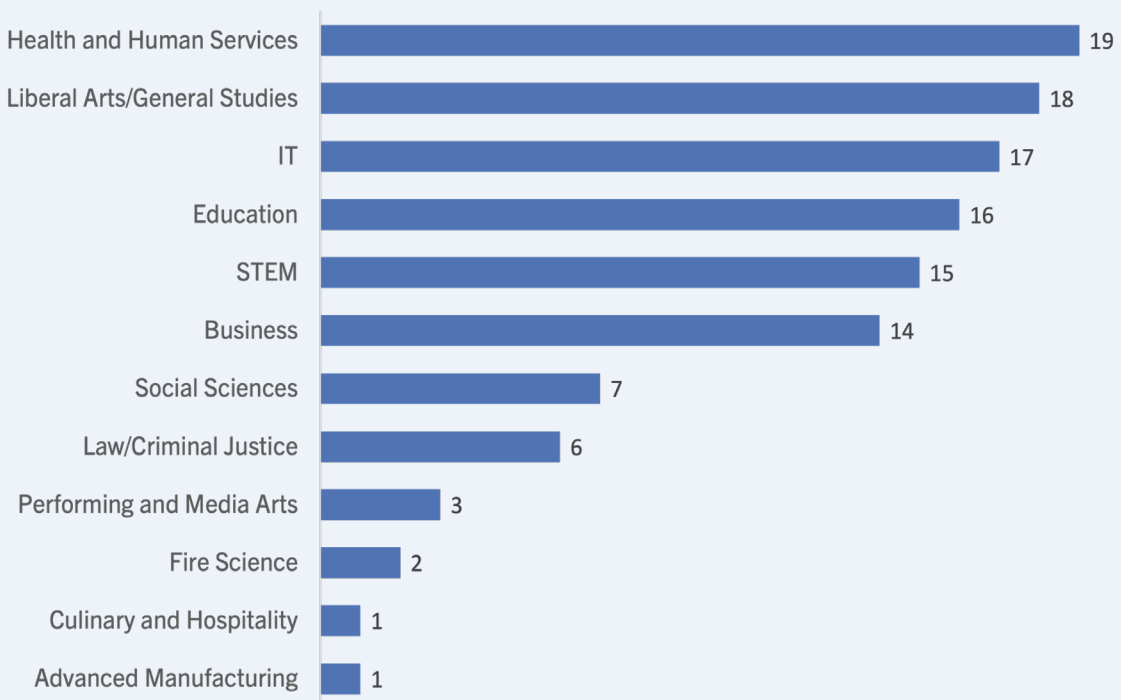
College students working to complete a large number of college credits, classes and coursework consume most of this time. While students can receive college credit for internships and other career-connected experiential learning opportunities, creating these opportunities and ensuring that these credits will transfer toward major requirements is challenging and requires significant staff capacity.

### TODAY'S EARLY COLLEGE PATHWAYS

Thirty-one high schools responded to our request for information on the guided academic pathways that they currently offer. On average, programs give students the choice of four pathway options. Lawrence High has the most, with seven. At the other end of the spectrum, five schools provide only a general education path.

Nearly three-quarters of the programs responding to our request provide a health, IT, or STEM track. Half have an education pathway. A few provide more specialized programs. For instance, Marlborough High has an advanced manufacturing course of study, and students at Fitchburg High and the Leominster Center for Excellence can pursue fire science.

**Figure 2: Number of Early College high schools offering pathway**



Source: Data provided by Early College partnerships

## DESIGN GUIDELINES FOR NEXT-GENERATION PATHWAYS

Helping programs take advantage of this moment to construct more robust pathways begins by articulating and building consensus around next-generation design principles. Below we offer several ideas to initiate dialogue around what programs should aspire to build, and what the state should require for minimums as it moves toward next-generation design standards:

- 1. Establish clear, compelling, and varying progress goals for each pathway.** As noted above, pathways are currently designed to achieve the ambiguous goal of graduating students with a “significant number” of college credits. Students and educators alike need something more compelling to inspire them. For many pathways, challenging students to graduate from high school with an associate degree will make the most sense. While this may be inappropriate or impractical for some, all pathways should provide students with a compelling stretch goal that they can strive to achieve.

Students should also have the ability to achieve meaningful milestones short of the stretch goal. These may include earning non-credit-bearing credentials. These certifications can give students relevant industry experience and the opportunities to earn higher pay as they work their way through college. However, earning these credentials often requires significant time and there can be substantial costs. The goal of Early College is to accelerate progress toward postsecondary degrees. Programs must consider whether incorporating opportunities to earn these credentials into their pathways will support or supplant this objective.

- 2. Encourage programs to achieve consistency for economies of scale, but give them flexibility to select major offerings based on current local labor market conditions.** Massachusetts’ Early College programs will be in the best position to offer robust college and career experiences when they work together to take advantage of economies of scale, rather than building one-off pathways. The structure and offerings of a health pathway in Boston should look very similar to one in Springfield. However, they will rarely look identical. Within each pathway, students should have access to several degree programs that prepare students for specific occupations. Pathway designers must focus on offering those that align with regional labor market conditions. The local

partners must regularly review earnings and job opening data to make informed decisions about which majors to offer, as regional health care labor markets fluctuate significantly over time.

- 3. Create long pathways that start in ninth grade, but extend entry into a college major as long as possible.** At present, Early College students generally select a pathway in their junior or senior year. This allows them time to participate in career exploration activities while they complete general education requirements and gain an understanding of the widest range of postsecondary options possible. However, this approach dulls the potential impact of Early College, particularly for students interested in STEM fields. If students have the ambition to pursue STEM careers, programs should nurture this identity and help students begin their journey as soon as possible so that they will be in the best position to build the necessary academic foundation.

While pathway designers must plan to receive students at the beginning of high school, rushing major selection for those seeking to complete an associate degree is not necessary. In most fields, there is considerable uniformity across majors in the first-year course requirements.

- 4. Build in the time necessary to provide high-quality career exploration, internships, and mentoring experiences.** Creating pathways that begin in the ninth grade will help ensure that students have sufficient time for both substantial college coursework and meaningful career development activities. But programs must find other creative strategies, especially given that many employers will want students to be in their junior or senior year before they welcome them into the workplace, and this is when students are most likely to undertake intensive college coursework. Pathways can build in more time by structuring schedules to allow for short winter terms and extending programming through the summer months.



## A BRIEF LOOK AT SEVEN HIGH-POTENTIAL EARLY COLLEGE CAREER PATHWAYS

**Health.** Health is arguably the foremost opportunity, given the demand for clinical workers and the implications of fulfilling these jobs for one of the state's most important sectors and for the well-being and productivity of all Massachusetts residents. The academic foundation students build in high school and the grit and perseverance needed to tackle challenging college-level science coursework are fundamental to success in this field. Early College is uniquely positioned to help students in these areas.

**Life Sciences.** The growth of the life sciences industry in the region is creating a lot of high-demand, high-wage employment opportunities. At the same time, it is furthering inequality, because entry into this field requires postsecondary education and, like health, preparation from a young age. Early College can open the door to what is happening all around these students and ensure that they are on a trajectory that affords them the opportunity to participate.

**Clean Energy.** Converting to renewable energy technology in time to meet our carbon reduction commitments will require extremely intense workforce development efforts. In contrast to life sciences, these employment opportunities will be more geographically balanced throughout the state. While many of the new hires will be in the building trades, which do not require college, Massachusetts will still need large numbers of college graduates to fill other essential roles, including engineering, design, and project management.

**Information Technology.** IT has historically been a large sector for Early College programs. The field seems to perpetually generate a large number of job openings with varied postsecondary requirements and well-defined career ladders.

**Education.** Staffing classrooms with talented teachers is key to ensuring the long-term competitiveness of the Massachusetts workforce. Even with declining school enrollment, the state is struggling to find enough teachers. It is especially challenging to recruit a diverse workforce. Grow-your-own educator programs have long been seen as a successful strategy to keep young leaders connected to their communities.

**Criminal Justice.** Training police and correctional officers is key to criminal justice reforms that lead to a safer, more effective approach to public safety. Numerous studies show that providing higher education helps professionals in these fields manage the complex demands and stressors they encounter.

**Trades.** A number of career vocational and technical education high schools in Massachusetts offer Early College. Students in these schools get a double dose of preparation, which represents an especially large commitment of state dollars in their education and training. This makes it crucial to build pathways that produce outsized return on investment by tackling stark disparities and/or meeting major strategic needs. An example might be a pathway built specifically to help students of color launch and lead construction companies to address especially large racial and ethnic disparities in business ownership in the sector.

## IV. DOUBLING DOWN ON EARLY COLLEGE AS A SCALABLE WORKFORCE SOLUTION

Massachusetts can increase the impact of Early College by lengthening academic pathways and enhancing their career development components. This will make the challenge more enticing to underserved high school students, and help ensure that these programs build their career self-efficacy.

Engaging workforce development and business leaders in this undertaking should be an easy sell. The Massachusetts Early College Initiative seeks to achieve unprecedented scale and rigor, which provides a unique opportunity to align the state's young adult workforce investments, magnifying their impact to generate a more powerful response to our skilled worker shortage. With deeper cross-sector partnership, Early Colleges will be able to provide more robust career development opportunities as well as postsecondary instruction more closely aligned with the ever-changing needs of advanced industries.

Toward these ends, we offer seven actionable policy recommendations::

- 1. Build an Early College Council that includes business and workforce development leaders and codify its powers.** The Massachusetts Early College Initiative has been well served for the past five years by the Early College Joint Committee (ECJC). The seven-member body, which includes the Secretary of Education, the commissioners of Higher Education and Elementary and Secondary Education, the chairs of the Board of Higher Education and the Board of Elementary and Secondary Education, and one member of the Board of Elementary and Secondary Education, meets roughly four times per year to oversee administration of the initiative. This includes setting policy, approving designations, and making budget recommendations. The two boards have informally delegated these powers to the ECJC.  
  
While this model has been effective, as Early College grows and leadership changes, codifying the governance structure in legislation will ensure that all members are clear about their role and the authority vested in the body. More important, the governance structure must evolve from a subcommittee of the two boards to a robust council that reflects the diverse set of actors that Early College programs rely on to flourish. The council's membership should expand to include leaders from labor, workforce development, community-based organizations, and private industry. These voices will help ensure that efforts to strengthen the career development component of the Early College pathway receive adequate focus and attention from those setting policy.
- 2. Enhance the designation.** With the state putting sufficient resources on the table and many school districts eager for these dollars, the time has come to push all programs to work toward a true evidence-based Early College design. This means requiring multiple guided academic pathways that each provide students with the opportunity to pursue appropriate and meaningful postsecondary milestones up to an associate degree or two years of transferable college credit.  
  
To maintain designation, the state should also require all programs to meet certain standards with respect to the career connections component. This could include completing an internship, earning badges and other industry-recognized competency-based credentials, or participating in a number of career development activities, such as job shadowing, mock interviewing, and career seminars.
- 3. Standardize pathways as much as possible to generate economies of scale.** As noted previously, programs must tailor certain aspects of their pathways to meet the needs of their regional economies, but there should be far more similarities than differences. The state can encourage pathway developers, especially those working to launch new programs for designation, to borrow from one another as they structure their pathways. The state can also create incentives for programs to work in combination for efficiency when delivering services and experiences to students.

#### 4. **Work with intermediaries to build a menu of scalable career development opportunities.**

Building a range of high-quality work-based learning opportunities requires expertise and capacity that school districts and many higher education institutions lack. Fortunately, Massachusetts has a number of both public and private workforce development intermediaries to fill this void. In addition to providing design support and training, these intermediaries can play hands-on roles conducting outreach to key industries to ensure that coursework and credentials align with their changing needs. Workforce intermediaries can also provide important administrative functions, such as serving as an employer of record that handles payroll and provides liability and workers' compensation insurance for co-ops and internships.

A few Early College programs already rely on local workforce investment boards and other intermediaries to enhance their career development offerings in this manner. However, this is far from universal. The Massachusetts Early College Initiative can create economies of scale by delegating some of this work to a single statewide intermediary. An organization that provides capacity to all programs can also take some of the pressure off the DESE's limited internal staff. A statewide intermediary could also help coordinate a growing stream of key work-based-learning resources.

5. **Align funding with high-value degree and credential completion.** Under the ECJC's FY 2024 budget recommendation, the state plans to provide institutions of higher education a reimbursement of \$200 per-credit. This level is significantly below the per credit instructional expenses that institutions report to the US Department of Education through the Integrated Postsecondary Education Data System (IPEDS). The state has commissioned a study to examine the costs that institutions incur serving Early College and recommend appropriate reimbursement rates as enrollment rises. This review is almost certain to show that these costs vary considerably. When Massachusetts developed a performance-based formula for higher education funding in the 2010s, it included weighted funding based on 13 different areas of study. For example, a credit in a trade was worth 2.5 times as much as a credit completed in business.<sup>31</sup>

If Massachusetts wants more students in these high-value pathways, it must find ways to cover the significantly higher instructional expenses associated with them. Similarly, these pathways often require more time to complete. Many Early Colleges in other states provide a fifth year of instruction to give students a seamless pathway to an associate degree. Massachusetts is currently piloting this approach in a number of Early College districts. Drawing on the experience in these communities, the state can explore options to institutionalize this approach so that programs have a dependable funding stream to support this extended pathway.

#### 6. **Continue to leverage Early College to pioneer more robust data and evaluation protocols for college and career readiness initiatives.**

Early College has established a strong paradigm for tracking long-term postsecondary outcomes in Massachusetts. Next the initiative can pioneer robust methods for monitoring career development. This begins with tracking the number of students enrolled in each guided pathway, the number of transferable credits students earn prior to high school graduation by pathway, and the number of badges and other industry-recognized credentials awarded to students prior to graduation. In addition, the state can make plans to monitor the labor market impacts relative to students in statistical comparison groups to gauge how Early College influences employment and earnings during and after postsecondary studies.

#### 7. **Make career readiness matter to schools and students by prioritizing it in the state accountability system.**

This recommendation echoes the words of the Council of Chief State School Officers, previous MassINC research, the Massachusetts Business Alliance for Education, and many others over the years.<sup>32</sup> In Texas, which is arguably the most advanced Early College state in the US, "College, Career, and Military Readiness" accounts for 40 percent of a high school's accountability rating. This category incorporates several outcomes measures that Early College is uniquely positioned to drive, including the number of students earning an associate degree or industry-recognized credential prior to high school graduation. In contrast, Massachusetts' accountability system only includes students who took one or more advanced courses, and this measure receives very little weight in the school rating formula.

With the legislature now providing substantial funding to help school districts position students for college and career success through the Student Opportunity Act (and significantly more funding to make public colleges and universities more affordable beginning next year with the introduction of Question One revenue), it is time for education agencies to adopt accountability measures that produce strong incentives to deliver on state investment. This means giving meaningful weight to immediate postsecondary enrollment and persistence when measuring the performance of all Massachusetts high schools.

# Notes

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## ABOUT MASSINC

MassINC’s mission is to make Massachusetts a place of civic vitality and inclusive economic opportunity by providing residents with the nonpartisan research, reporting, analysis, and civic engagement necessary to understand policy choices, inform decision making, and hold the government accountable.

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11 Beacon Street, Suite 500, Boston, MA 02108