2019

EARLY COLLEGE BLUEPRINT
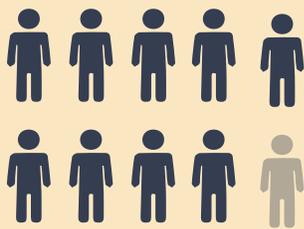
A GUIDE TO GETTING STARTED WITH EARLY COLLEGE IN MASSACHUSETTS

RENNIE CENTER
EDUCATION RESEARCH & POLICY

65%
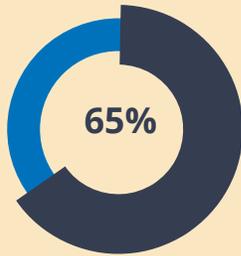
By 2020, **65%** of all jobs will require postsecondary education or training.[1]

More than **3** in **5** Early College students enrolled in college as part of their postsecondary plans.[2]

86% of Early College students who enroll in college persist to their second year, compared to **72%** college students nationally.[3]

I n many high-wage industries, a high school degree no longer prepares students to enter the workforce. By 2020, labor market analysts predict that 65 percent of all jobs will require postsecondary education or training. Though high schools across the Commonwealth seek to prepare students for both higher education and the workforce, too many students graduate underprepared. Concerns about affordability or their ability to succeed in college coursework prompt many students to drop out or not enroll in college at all. This challenge disproportionately affects students who are underrepresented in higher education, including students of color, students with disabilities, English learners, and students from low-income families.

Instead of remediation, educators around the nation now recognize that providing early exposure to rigorous college coursework is a promising pathway to long-term success for many students. Early college models allow high school students to participate in college coursework while earning credit at both their high school and college. These programs equip students with the habits of mind that lead to postsecondary success while also making college more affordable. Across the nation, states invested in early college have employed a range of strategies to scale the model. The results are promising—86% of early college students who enroll in college persist to their second year compared to 72 percent of all college students nationally.

A Guide for Massachusetts

Though Massachusetts' educational system is a national model in many areas, the Commonwealth trails other states such as Texas and North Carolina in scaling early college. This provides Massachusetts with the opportunity to learn from best practices that support the implementation and scalability of high-quality programs. In 2016, the Department of Elementary and Secondary Education (DESE), Department of Higher Education (DHE), and Executive Office of Education (EOE) established an early college designation process that seeks to expand access to early college in schools across the Commonwealth. The designation process identifies five research-based design principles, which guide effective early college programs:

EQUITABLE ACCESS TARGETING STUDENTS UNDERREPRESENTED IN HIGHER EDUCATION

ACADEMIC PATHWAYS THAT ARE WELL-INTEGRATED AND ALIGNED WITH COLLEGE AND CAREER

ROBUST STUDENT SUPPORT IN BOTH ACADEMICS AND ADVISING

CONNECTIONS TO CAREER THROUGH WORKPLACE AND EXPERIENTIAL LEARNING EXPERIENCES

HIGH-QUALITY AND DEEP PARTNERSHIPS BETWEEN HIGH SCHOOLS AND COLLEGES

In Massachusetts, scaling early college models requires new or evolved partnerships between high schools and colleges. While other states have opened new schools where every enrolled student participates in early college, most Massachusetts programs are the result of partnerships between existing institutions. The school districts and institutions of higher education that have successfully launched programs within this context have done so by modifying practices at both institutions and finding new ways to work together. This blueprint, intended to guide high school and college partners in designing and implementing effective early college programs, combines research-based best practices with lessons learned from existing Massachusetts early college programs. It includes four sections detailing the early college implementation process:

PREPARE   **DESIGN**   **IMPLEMENT**   **EVOLVE**

PREPARE
What are the conditions for success in an early college design team?

DESIGN
How can teams incorporate the components of a high-quality early college into their planning?

IMPLEMENT
What is the recommended timeline for rolling out a high-quality program?

EVOLVE
How can programs monitor success and continuously improve?

Is your school ready to start an early college program?

Complete this short survey to determine whether early college is the right fit for your school or district.

Note: The Massachusetts early college initiative is designed to serve students who face barriers in accessing a college education, including students of color, low-income students, English language learners, first-generation college students, and students with disabilities. Though early college programs can serve any student, traditionally underserved students benefit most from participation in these programs.

1. Have you established a trusting relationship with your early college partner(s)? If not, do you have the capacity to build a strong relationship?

2. Will your program focus recruitment on students of color, low-income students, English language learners, and students with disabilities?

3. Will you base eligibility for early college on multiple measures of readiness rather than solely GPA or test scores?

4. Do you have capacity at the college, high school, and/or in the community to provide wraparound supports for early college students?

5. Will you adjust your school's schedule to accommodate early college? (e.g., discontinuing a rotating block schedule to allow students to attend college courses)

6. Will you negotiate with the union if early college requires changes to high school or college faculty working conditions?

7. Will both institutions shift budgets and/or explore outside funding opportunities to finance transportation, staffing, student supports, materials, and instructional costs?

8. Will college courses provided be part of the [MassTransfer program](#)?

9. Will the program include experiential learning or internships to expose students to a high-wage career in a field of interest?

If you answered yes to the questions above, the following blueprint provides a resource to guide you in the early college design and implementation process. Please note that the questions above highlight key readiness elements but are not intended to serve as a comprehensive list.

Glossary

In the following sections we use these terms to call out specific examples worth sharing:

Quality Indicators: Research-based components of a high-quality early college program

Strategies: Specific ways in which early college programs within and outside Massachusetts have met each quality indicator

Readiness Metrics: Benchmarks at each phase of the design process that allow teams to assess their preparedness to implement the early college program

Spotlights: Deeper dives into elements of early college practice that research participants noted as most influential to their programs

Photo from Lawrence Public Schools

Create a vision

A successful early college program relies on the collective efforts of a range of stakeholders, including high school educators and administrators, college faculty and administrators, community partners, students, and families. Effective collaboration begins with a shared vision for the early college program.

Many programs begin as the result of a needs assessment or strategic plan that identifies postsecondary persistence challenges, skills gaps in the regional labor force, inequity in high school advanced course taking, or similar problems. Leaders of established programs recommend conducting a needs assessment to demonstrate the specific local need that the early college program is designed to address.

A shared understanding of the need and purpose of the program, as expressed in a vision statement, will ground decision-making throughout the implementation period and support effective collaboration across stakeholder groups. A vision statement should be succinct, memorable, and aligned to the program's intended impact. As your team develops a vision statement, consider the following questions:

- What problem does the early college program address?
- How does early college address this problem?
- What will be different if the early college program is successful in addressing this problem?

EARLY COLLEGE READINESS METRIC

☑ **Vet vision statement with key stakeholders**

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Identify a partner (or partners)

Most early college programs currently operating in Massachusetts involve a partnership between one or more high schools and a local college or university. This includes some instances where early college partnerships exist without close proximity between the high school and the college.

All early college programs interviewed for this blueprint identified trust and flexibility as essential elements of an effective partnership. They acknowledge that these core elements are often interrelated. Both the college and the high school will likely need to shift standard practices and protocols to successfully implement an early college program. This may include changing schedules, adjusting standard communication protocols, etc. Leaders noted the importance of creating a context in which high school and college leaders can work through difficult decisions related to program design. They said that this is best accomplished when the vision for the early college program is aligned to the strategic goals of both the high school and the college. Successful programs also explained that the design team, with both high school and college stakeholders, must include those with decision-making authority. With these elements in place, regular time for collaboration strengthens a sense of trust across stakeholder groups.

Program leads voiced the importance of engaging high school and college faculty early in the design process. Early college partnerships often require high school and college faculty to work together on curriculum alignment, course preparation, and regular monitoring of student progress. Leaders of established programs ensure that faculty and staff have a voice in programmatic decisions. They also recommend writing expectations for regular communication between high school and college faculty into the terms of an MOU.

EARLY COLLEGE READINESS METRICS:

- ☑ **Identify institute of higher education (IHE) and school district policies and procedures that may serve as barriers to implementing early college**
- ☑ **Identify existing partnership strengths and policies that support early college implementation**
- ☑ **Create a plan to build staff capacity to execute the early college program**
- ☑ **Establish regular time for IHE and school district collaboration**

Build a trusting and committed team

Without a strong team, representative of all parties involved in the early college partnership, it is unlikely that early college design and implementation will proceed effectively. A successful early college program includes 1) a leadership team and 2) a designated program coordinator from each institution. The leadership team should involve a range of stakeholders including college and high school administrators, community partners, students, and faculty. Research participants suggested that this group meet quarterly to discuss program design, identify improvements, and monitor progress towards established goals.

Program coordinators, who oversee day-to-day early college work for their institutions, meet far more frequently to monitor student progress, support faculty, and handle program logistics including scheduling and transportation. While some school districts and colleges employ full-time early college coordinators, many assign this responsibility to an existing administrator or staff member. In

organizations where an existing staff member assumes responsibility for this task, programs noted that the role requires a significant time commitment, particularly in the initial years of planning and implementation.

For more information on building a team and assessing its effectiveness, please refer to the Rennie Center teaming rubric.

EARLY COLLEGE READINESS METRICS:

- ✓ **Form a leadership team inclusive of a range of stakeholders and determine the role of each individual**
- ✓ **Designate a point person at both the IHE and high school to serve as the program coordinator**

Engage community partners

Many early college programs engage community partners to provide college and career advising, work-based learning experiences, tutoring, and other critical aspects of a comprehensive program. For example, partners may include a local youth development organization to assist with student supports and the Chamber of Commerce to provide linkages to work-based learning. Leaders of established programs recommend identifying community partners whose services align with the early college vision and needs. Several administrators recommend focusing on one or two key partners who are invested in the early college effort, engaging them in the design process, and including them on the leadership team.

EARLY COLLEGE READINESS METRICS:

- ✓ Conduct an inventory of community partners aligned to the early college vision
- ✓ Include key partners on the early college leadership team

Develop a communications plan

Commitment from a range of stakeholders, including students, families, staff, funders, community partners, and policymakers, strengthens an early college program. The leadership team should produce a communications plan that details a strategy to target identified audiences and ensure stakeholders are aware of implementation progress. Some programs develop an early college website where they share detailed information about the program and post regular updates. View an example of a strategic communications plan from the El Dorado Union High School District.

EARLY COLLEGE READINESS METRICS:

- ✓ **Write a communications plan designed to strengthen stakeholder investment in the early college program**

Photo from Lawrence Public Schools

DESIGN ⟫⟫

With a trusting and committed team in place, IHE and school district partners are ready to design an early college program that aligns with the articulated vision. The following section describes the five research-based design principles that guide the Massachusetts Early College Initiative and the strategies that effective MA programs employ to align their programs with these principles. Each element below includes a list of quality indicators with examples, a spotlight on a particular effective practice, and a set of readiness measures.

Equitable Access
TARGETING STUDENTS UNDERREPRESENTED IN HIGHER EDUCATION

Massachusetts early college stakeholders agree that a laser-like focus on enhancing educational equity is the most critical component of an effective program. Described by many as their "reason for being," early college programs provide students of color, low-income students, English learners, first-generation college students, and students with disabilities exposure to the instructional rigor, habits of mind, campus experience, and robust supports that will allow them to persist through college graduation. Though programs serve students from all backgrounds, effective early colleges prioritize underrepresented students in their admissions processes and are designed to eliminate academic, financial, and social barriers to participation.

INDICATORS OF HIGH QUALITY

Quality Indicator	Program offered within school hours and at no cost to participants
STRATEGIES	• School district/IHE covers costs of tuition, fees, textbooks, and transportation • Early college courses occur during typical school hours • Courses take place on a college campus
MASSACHUSETTS EXAMPLE	In designing early college programs, Lawrence Public Schools (LPS), Merrimack College, and Northern Essex Community College agreed to offer all courses on the college campuses. The district sought grant funding to pay for buses that would transport students to and from college classes. LPS schedules all college classes during the last two blocks of the school day to streamline transportation and ensure that a group of LPS students attend courses together.
MASSACHUSETTS EXAMPLE	In the second year of their early college program, Holyoke High School (HHS) 11th grade students will take at least two courses on the campus of Holyoke Community College (HCC). Funds from the Massachusetts Early College Initiative allow HHS to fully cover the cost of tuition, books, and transportation to and from the HCC campus during normal school hours. Should they choose to do so, students also have the option to take on additional HCC courses through dual enrollment.

Quality Indicator	Recruitment is culturally relevant and focuses on students underrepresented in higher education
STRATEGIES	• Focus recruitment on students of color, low-income students, English language learners, first-generation college students, and students with disabilities • Ensure recruitment strategies are culturally relevant • Inform students and families of targeted supports designed to meet the needs of English learners and students with disabilities • Provide recruitment materials in multiple languages • Provide professional development for program leaders and faculty on eliminating implicit or unintended bias in student selection • Base eligibility for college courses on multiple measures of readiness (no minimum GPA) • Provide direct outreach to all students interested in early college (measured by survey or other methods) • Partner with guidance counselors to identify students and conduct targeted outreach • Offer college courses at every level including remedial, foundational, and advanced • Provide academic English as a Second Language (ESL) classes to prepare English language learners for academic content courses

MASSACHUSETTS EXAMPLE	The Chelsea High School (CHS)/Bunker Hill Community College (BHCC) early college partnership is designed to serve everyone, particularly students of color, English learners, and low-income students who are underrepresented in higher education. CHS students have opportunities to enroll in developmental, first-level, and second-level classes at BHCC, including coursework designed specifically for English language learners. This range of course options enables CHS students to enroll in early college regardless of GPA or an entrance examination, ensuring that the program is truly accessible for all students. Staff from CHS and BHCC meet weekly to monitor student progress and connect struggling students with academic and non-academic supports. The program currently enrolls approximately 300 CHS students each year.
MASSACHUSETTS EXAMPLE	In partnership with Leominster and Fitchburg High School, Project Healthcare at Mount Wachusett Community College (MWCC) created a survey to gauge student interest in health professions. The survey includes a range of characteristics, such as interest in STEM and interacting with others, that indicate whether a student may be a good fit for healthcare. MWCC visits every 9th grade biology class to describe the program and explain the survey. Every student who meets a certain level of interest based on this survey receives a Project Healthcare application. The college also partners with high school guidance counselors to identify students and encourage them to apply.
MASSACHUSETTS EXAMPLE	Many early college programs enroll students who have gaps in the academic knowledge necessary to access non-remedial college coursework. Westfield State addresses this challenge by offering stretch courses, a typical semester-long college course taught over a full school year. Stretch courses offer increased instructional time between classes for students to strengthen both the academic and non-academic skills necessary to succeed.

Spotlight: The Early College Application

Given the many program structures in Massachusetts, application and acceptance policies vary significantly across programs. For some, students apply and are accepted into early college in 8th, 9th or 10th grade, though they may not begin college coursework in the first year of the program. In others, students are not formally coded as early college participants until they enroll in a college course. Regardless of admissions policies, it is critical that both the high school and college clearly articulate what criteria they use to identify early college students. This becomes especially important as programs track student data to identify programmatic strengths, areas for improvement, and early college persistence.

See below for two differing examples of MA program admissions policies.

SALEM PUBLIC SCHOOLS/SALEM STATE UNIVERSITY
Early college admission process in grade 10

All students receive an application for the Forman Scholars Early College program in grade 10. Those who are interested complete a short essay explaining why they would like to participate and provide two optional references who can speak to their interest in participating in the program. Students are considered early college participants upon acceptance to the program.

CHELSEA PUBLIC SCHOOLS/BUNKER HILL COMMUNITY COLLEGE
Open enrollment in college courses

All interested Chelsea High School students complete the BHCC Dual Enrollment/Early College application which mirrors the general college application. As BHCC is an open-access institution, the application is not a barrier to entry. Early college is available to students at every level. Students with a qualifying GPA as well as those who completed a Bunker Hill exit exam through their high school coursework do not need to take the Accuplacer test to determine the level of course in which they will enroll. Chelsea High School early college enrollment is available to students on a first-come, first-served basis, with nearly 300 students participating each year. More information.

EARLY COLLEGE READINESS MEASURES:

- ☑ Develop a recruitment plan targeting students underrepresented in higher education

- ☑ Create an application process that accounts for multiple measures of readiness

- ☑ Identify a range of supports to ensure that accepted students will be successful in college coursework [See Robust Student Supports]

Academic Pathways
THAT ARE WELL-INTEGRATED AND ALIGNED WITH COLLEGE AND CAREER

Early college involves far more than students simply enrolling in college coursework while in high school. Programs begin by visualizing a graduate equipped with the academic content knowledge, career awareness, and employability skills that will allow for success in both higher education and the workplace. In equipping students with credits towards a postsecondary credential, early college programs bridge the transition between high school, college, and the workforce.

Stakeholders note that an early college program leading to 12 college credits looks very different than a program leading to an associate degree. It is critical that all stakeholders agree early in the process on the end goal for early college graduates. Programs should produce a course of studies, shared with students and families, that leads to the desired number of transferrable college credits. Many programs begin with a goal of 12 credits and increase this goal as the program matures. In order to ensure that credits are transferrable, stakeholders recommend that early colleges partnering with public IHEs offer MassTransfer courses to the greatest extent possible. These general education foundation courses are accepted at any community college, state university, or University of Massachusetts campus.

Quality Indicator	Alignment between high school and college coursework
STRATEGIES	• Discuss curriculum alignment process while developing a memorandum of understanding (MOU) • Address curriculum gaps before offering classes • Arrange meetings between high school and college faculty to review curriculum before each semester or academic year
MASSACHUSETTS EXAMPLE	BHCC partners with several local high schools to align Math and English curriculum to ensure that students are ready for credit-bearing coursework by the time they enroll in college. High schools participating in the partnership may take BHCC's Foundations of Algebra exit exam at the end of 10th grade. A passing grade on this exam allows students to bypass the Accuplacer, an exam used across many colleges to determine students' readiness for college coursework. Reflecting on their curriculum alignment work, staff from BHCC and partner high schools noted the importance of faculty leadership in the alignment process. They recommend beginning alignment conversations at least one year before offering early college courses.
MASSACHUSETTS EXAMPLE	When Salem Public Schools began offering students the opportunity to participate in college-level math courses, they met with faculty at Salem State University to review high school and college curricula. This review surfaced an instructional gap: the high school students had not yet received instruction in trigonometry, which was prerequisite knowledge for Salem State math courses. The team decided to offer a math bootcamp for all students the summer before the college courses began, providing them with the foundational trigonometry knowledge necessary for their success.

Quality Indicator	Students graduate with 12+ transferrable college credits
STRATEGIES	• Establish a course of study, combining high school and college coursework, that leads students to an associate degree and/or 12+ college credits • Ensure all early college students complete entry-level college English and math courses prior to high school graduation • Ensure all college coursework aligns with MassTransfer Pathways to the greatest extent possible
MASSACHUSETTS EXAMPLE	Beacon Pathways, an early college program at Wentworth Institute of Technology (WIT), is designed to provide students with deep coursework in two fields: computer science and construction management. In designing this program, WIT staff developed a roadmap detailing both academic and nonacademic components of the early college experience, extending from the second semester of 10th grade through college enrollment. In addition to required coursework, the roadmap provides a timeline of industry exposure, internships, and college advising milestones.

Quality Indicator	Academic rigor mirrors that of a traditional college course
STRATEGIES	• College and high school leaders conduct observations of early college courses • Students, families, professors, and staff at both institutions are aware of grading standards and expectations • Programs provide supports that allow younger students to access rigorous coursework • Coursework emphasizes higher-order thinking skills • Academic preparation begins in 9th and 10th grade
NATIONAL EXAMPLE	The Bard Early Colleges, located in several US cities including New York, Baltimore, and Newark, provide students with a rigorous liberal arts curriculum emphasizing inquiry and discussion-based coursework. Students begin the program by participating in an intensive Writing & Thinking Workshop, a small-group environment where students learn to think differently, share their ideas, and explore alternative ideas. The workshop provides a foundation of critical reading and writing skills that students build upon in their later coursework. At Bard Early College New Orleans (BECNO), every student attending a partner high school participates in the Writing & Thinking workshop, led by Bard faculty, in 9th and 10th grade. Bard faculty also co-teach modules lasting two weeks to a month in some 9th and 10th grade courses, primarily English Language Arts. The program recognizes that college faculty involvement early in students' high school careers can pique interest in early college while reducing or eliminating students' need for remedial coursework upon entry into the early college program.

Quality Indicator	Faculty qualifications are identical in early college and traditional college courses
STRATEGIES	• Include early college expectations in IHE faculty hiring • Provide cultural competency training for all faculty • Provide orientation and training for faculty to understand high school norms • Provide opportunities for high school and college faculty collaboration
MASSACHUSETTS EXAMPLE	Early college leaders across Massachusetts agree that who teaches early college courses is of paramount importance. If new faculty must be hired to support the program, leaders recommend hiring those with degrees and experience that meet the same expectations as faculty hired to teach traditional college classes, including advanced or terminal degrees in their fields and college-level teaching experience. Experienced faculty are well-positioned to ensure that student expectations and course rigor mirror those of a traditional college course. The Bard Early College network prioritizes hiring faculty with terminal degrees in their disciplines. Each of their campuses has successfully recruited individuals with PhDs to lead early college courses.

Spotlight: Bridging High School and College Learning

Academic content and pedagogy differ significantly between high school and college. Research participants emphasized that programs must bridge this gap before implementing an early college program, though the extent to which they do so will vary across programs. Comprehensive curriculum alignment is a large undertaking that requires significant staff time and buy-in to do well. Baseline curriculum alignment, described below, must be completed before beginning an effective program. As the program evolves, many partnerships embark on more intensive course-level or comprehensive curriculum alignment. Stakeholders noted that comprehensive curriculum alignment is particularly critical for programs seeking to graduate students with a higher number of college credits or an associate degree.

1. **Baseline**: High school and college faculty meet to review curriculum and identify gaps that must be addressed before students are prepared for the college course. The team determines a plan to address these gaps without making major changes to existing coursework. This often includes a summer bootcamp, such as the math bootcamp provided for Salem Public Schools' early college students. Other methods include offering an intensive early college orientation or a college prep course that takes place during the school day.

2. **Course-level**: After completing baseline alignment and identifying gaps, high school and college faculty working in the same discipline embark on a backwards design process. The process involves making changes to existing coursework to ensure that all students have the prerequisite knowledge required for credit-bearing college coursework in their discipline of choice. For more information, visit the Bunker Hill Community College curriculum alignment webpage.

3. **Comprehensive**: After successfully aligning curriculum in a single discipline, the team may elect to repeat the course-level alignment process across disciplines.

EARLY COLLEGE READINESS METRICS

☑ Conduct a comprehensive curriculum review and identify gaps between high school and college coursework

☑ Develop a plan to address gaps in content knowledge

☑ Review pathways to ensure that each provides deep exposure to a chosen course of studies

☑ Agree upon the number of college credits that students will have the opportunity to earn through the program

Robust Student Supports
IN BOTH ACADEMICS AND ADVISING

Many early college programs are designed to serve students who did not previously consider college to be an option. Effective programs make college accessible by proactively addressing social, emotional, and academic barriers that inhibit student success. Programs accomplish this by combining early identification with a comprehensive set of wraparound services that support college persistence.

Quality Indicator	Advisory program that prepares students for the cultural norms and expectations of college
STRATEGIES	• Offer a weekly advisory period where students learn to take advantage of college resources • Link students with college mentors who can offer guidance on study strategies and help students navigate the college environment • Provide a new student orientation that includes technology students will use in college (BlackBoard, Excel, email, calendar)
MASSACHUSETTS EXAMPLE	Many Massachusetts programs, including those whose classes take place at the high school, offer an initial orientation located on the college campus. Programs at Westfield State and NECC, among others, provide a summer orientation before classes begin. During the orientation, students learn to navigate the campus, access college resources, communicate with professors, and utilize academic technology. The orientation also provides an opportunity to introduce students to college policies and procedures, such as absence or class cancellation policies. Finally, it provides an opportunity for students to meet others who will be participating in their early college cohort.

Quality Indicator	Commitment to family engagement
STRATEGIES	• Host early college pre-orientation for students and families • Conduct home visits for first-year early college students • Call families if students are struggling with attendance or early college coursework
MASSACHUSETTS EXAMPLE	Before early college courses begin, Lawrence High School (LHS) provides an information session for students and families to learn about early college offerings and expectations. All LHS early college courses take place onsite at NECC or Merrimack College, so the program represents a significant shift in routines and expectations for participating students. LHS recognizes that parent involvement is key to a successful early college experience. The high school conducts home visits for all first-year students where high school staff discuss program expectations. During this visit, each student and his/her parent sign a contract detailing the student's responsibilities as a participant in the program. If students miss classes or are struggling with their coursework, the high school early college coordinator calls the family to develop a plan to get the student on track.

Quality Indicator	College access supports
STRATEGIES	• Offer college application assistance • Provide financial aid counseling • Provide college and career advising
MASSACHUSETTS EXAMPLE	MWCC partners with Fitchburg and Leominster high schools on an embedded advising model. All Project Healthcare students enroll in a series of courses including "Health Care Career Exploration," "First Year Experience," and "College, Career and Community Service." During these courses, students research college options aligned to their interests, complete financial aid applications, write personal statements, visit colleges, and engage in other preparatory activities.

Quality Indicator	Academic monitoring and supports
STRATEGIES	• Daily attendance monitoring • Frequent communication with students on academic progress • Early identification of students at risk of course failure • Explicit process designed to connect struggling students to academic resources
MASSACHUSETTS EXAMPLE	Though colleges offer students a range of resources, including tutoring and counseling services, students often are unaware of the resources available and therefore have difficulty accessing them. Merrimack College employs a graduate fellow to support Lawrence Public Schools (LPS) students while they are on the college campus. The fellow develops personal relationships with LPS students and assists them in leveraging campus resources.
MASSACHUSETTS EXAMPLE	A partnership between Boston Public Schools (BPS) and the Wentworth Institute of Technology (WIT) provides an early college pathway in Computer Science and Construction Management for students at Dearborn STEM Academy and Madison Park Vocational Technical High School. WIT College Access Coordinators use the college's Early Alert system to identify students who are struggling with attendance, grades, or engagement in their courses. When a student is identified, the WIT coordinator visits the high school and has a problem-solving meeting with the student and the high school guidance counselor. During this meeting, the team identifies the area of need and connects the student to appropriate on-campus resources, such as scheduling an appointment at the college tutoring center.
MASSACHUSETTS EXAMPLE	As a requisite piece of Holyoke High School's (HHS) early college partnership with Holyoke Community College (HCC), sophomores take on a supplemental AVID elective course a full semester before their early college courses begin. AVID—Advancement Via Individual Determination—is a nationally recognized program that provides the academic and social supports students need to succeed in increasingly rigorous courses. Within the AVID elective course, volunteer and professional tutors visit students to deliver an inquiry-based tutoring program. The tutoring program's approach is designed specifically to help sophomores develop the unique strategies and skills necessary to thrive in college-level coursework. For example, students practice focused note taking via the Cornell note taking process and they engage in inquiry-based peer tutoring.

Spotlight: Supportive Student–Faculty Relationships

Many of the students in early college programs are the first in their family to go to college. Several programs provide opportunities for students to connect with faculty outside the classroom, including linking each student with a faculty advisor. Staff note that these connections are instrumental in demystifying the college experience. Advisors often encourage students to access college resources, such as the tutoring center or the career center, thereby supporting student success both inside and outside the classroom. A student from the Bard Early College network noted that personal relationships with her professors were instrumental to her motivation and career aspirations. She was able to share challenges in her personal life with her faculty advisor. Having someone on campus who knew what she was dealing with and believed that she would succeed helped this student persist through academic and nonacademic challenges.

EARLY COLLEGE READINESS METRICS

- ✓ Establish an orientation plan that prepares students for the cultural norms and expectations of college

- ✓ Identify a mechanism to quickly identify struggling students and connect them to academic and nonacademic resources

- ✓ Include support with college and financial aid applications in early college coursework

Connections to Career
THROUGH WORKPLACE AND EXPERIENTIAL LEARNING

Effective programs provide opportunities for students to understand job opportunities, explore careers that align with their interests, and develop the skills they need to thrive in higher education and the workplace. Through experiential learning and internships, programs expose students to career opportunities while also providing the rigorous academics and advising that students need to pursue their field of interest.

Quality Indicator   **Career pathways aligned to regional job opportunities**

STRATEGIES	• Students gain an understanding of the labor market • Pathways focus on high-demand, high-wage jobs • Pathways lead to high-value labor market credentials • Pathway options guided by regional labor market data
MASSACHUSETTS EXAMPLE	Lawrence Public Schools' high school redesign process included a comprehensive analysis of regional labor market projections, led by Boston-based nonprofit Jobs for the Future. The labor market analysis led LHS to select five pathways: health, tools and technology, business, arts, and public administration. Regardless of pathway, LHS's early college programs are designed to maximize transferrable credits in each student's field of interest. For example, students in the health pathway complete foundational coursework for health and science majors at state colleges, including chemistry and human biology. The high school plans to align electives to career exploration, such as offering a first aid elective wherein students are trained in cardiopulmonary resuscitation (CPR).

Quality Indicator	Career awareness, exploration, and immersion activities
STRATEGIES	• Internships and experiential learning opportunities available in selected pathways • Six-year college and career plans
MASSACHUSETTS EXAMPLE	Clinical experience is a central component of Project Healthcare at Mount Wachusett Community College. Students apply what they have learned in their coursework through positions at local organizations including Leominster Lifecare, a long-term residential healthcare facility. Supervised patient care experience exposes students to a range of career opportunities within the healthcare field while allowing them to gain the clinical experience required for a Certified Nursing Assistant (CNA) credential.
MASSACHUSETTS EXAMPLE	Industry site visits supplement coursework for BPS students participating in the Beacon Pathways program at the Wentworth Institute of Technology. When the program began early 2019, computer science students visited Amazon Robotics and other local companies, exposing them to the day-to-day work of employees in the technology field. A partnership with the Boston Private Industry Council helps students access mandatory summer internships in their field of choice.

Spotlight: Strengthening Opportunity through Diverse Options

In developing programs with intentional career connections, stakeholders caution against narrowing the definition to focus exclusively on vocational programming. As one early college leader noted, "the variety of options under the 'early college' umbrella should replicate the diversity of options under the 'college' umbrella." This includes providing pathways in the liberal arts and sciences and supporting students in identifying the many transferrable skills gained through these disciplines that will be valuable in their field of choice. Given that career connections are not as immediately obvious in liberal arts as they are in career-focused training, stakeholders recommend convening liberal arts graduates to speak to students about the wide range of career options that will be available upon completion of a degree.

EARLY COLLEGE READINESS METRICS

☑ Review regional labor market projections and align pathways with high-wage opportunities

☑ Develop a plan to connect students with local employers to provide work-based learning opportunities

☑ Identify individuals or organizations to provide career advising aligned with students' selected pathways

High-Quality and Deep Partnerships
BETWEEN HIGH SCHOOLS AND COLLEGES

Every college and/or high school leader interviewed for this study identified shared accountability for student success as the foundation of an effective program. To create and sustain a program that aligns with the four design principles listed above, staff from both institutions must engage in ongoing, collaborative problem solving aimed at the program's student outcome goals.

Interviewees expressed that early college design teams will inevitably face logistical challenges during the planning process. A shared commitment to the vision for early college creates an environment in which leaders can resolve these challenges. Many programs noted that strong relationships forged through the early college planning process have strengthened high school and college collaboration in other areas.

The following section includes guiding questions designed to support the development of a high-quality MOU between partners:

SCHEDULING

1. Where will early college courses be held?
2. If courses will take place at the college, how will students get there?
3. At what time will courses be offered?

ACADEMIC PATHWAYS

1. Which pathway(s) will the program focus on?
2. Which college courses will high school students access?
3. What prerequisites, if any, exist for college courses?
4. How will the team determine student eligibility for college coursework?
5. Which high school courses will students take in alignment with their selected college coursework?
6. How will courses be approved for dual credit?
7. What is the minimum grade needed for dual credit?

INSTRUCTION

1. Who will teach early college courses?
2. How will the team prepare faculty to teach early college courses?
3. For college courses serving only high school students, how will the team ensure that instructional rigor aligns with that of a typical college course?
4. How will high school and college faculty collaborate?
5. How will college GPA align with the high school grading scale?
6. How will grades be shared between the high school and the college?

7. How will curriculum be shared between the high school and the college?
8. How will the team address academic gaps?
9. What is the hiring process for new faculty?
10. What are the required qualifications for early college faculty?
11. Will courses be taught in a cohort model, so that high school students are only in classes with other high school students?

STUDENT SUPPORTS

1. How will the team monitor students in need of support?
2. Who is responsible for connecting students with supports, including on-campus resources?
3. Which college resources can high school students access?
4. How will students receive college and academic advising services?

FEES

1. What is the cost of each college course?
2. Who is responsible for covering the costs of college coursework?
3. What other fees (books, transportation, etc.) are associated with the early college program?
4. Who is responsible for covering these fees?

PROGRAM MONITORING

1. How will the team measure the success of the early college program?
2. How and when will the MOU be renewed?

Photo from Lawrence Public Schools

IMPLEMENT ›››

The following project plan is designed to guide the rollout of the early college program. The timeline required to develop a program may vary significantly depending on several factors, including a history of collaboration between the high school and college and the extent to which both groups find themselves naturally in alignment. The following project plan provides general guidance and is designed to be edited based on the specifications of individual programs.

Activity	Subtasks	Person(s) Responsible	Deadline	Recommended Timeframe
1-2 years prior to launch				
Create a vision	• Early college needs assessment • Vision vetted by key stakeholders			1-2 years prior to launch
Identify a partner	• Identify programs leads at both the high school and college • Identify policies and procedures at both organizations that support or hinder early college			1-2 years prior to launch
Create a leadership team	• Engage community partners • Begin MOU process			1-2 years prior to launch
Develop a communications plan	• Identify key stakeholders for ongoing communication			1-2 years prior to launch
Determine pathway options	• Review regional labor market data			1-2 years prior to launch
Develop funding plan	• Determine costs covered by IHE/ school district • Discuss sustainability of funding			1-2 years prior to launch
Conduct curriculum review	• Identify curricular gaps • Develop plan to address gaps • Produce curriculum map leading to 12+ college credits			1-2 years prior to launch
Provide professional development	• Provide training to all staff in culturally relevant curricula and pedagogy			1-2 years prior to launch
Develop recruitment plan	• Engage stakeholders who will be involved in recruitment (guidance staff, community partners, etc.) • Produce written recruitment plan including events and timelines			1-2 years prior to launch
<1 year prior to launch				
Develop student support plan	• Plan early college orientation • Identify IHE and high school student support responsibilities			<1 year prior to launch
Finalize MOU	• Vet MOU with leadership team			<1 year prior to launch
Prepare staff	• Provide professional development for high school staff and college faculty engaged in the program			<1 year prior to launch
Implement recruitment plan	• Conduct student and family outreach			<1 year prior to launch
<6 months prior to launch				
Develop schedules	• Schedule students into early college courses • Determine high school and college faculty schedules			<6 months prior to launch
Arrange transportation	• Provide bus passes/transportation stipends to students (if applicable) • Confirm contract with transportation provider (if applicable)			<6 months prior to launch
Gather materials	• Purchase textbooks and/or other supplies needed for college coursework			<6 months prior to launch
Launch early college program	• Monitor program data • Conduct regular leadership team meetings			Launch

EVOLVE

"What should be different is the age of the students and the point in their education at which they undertake college coursework, rather than the rigor of those courses. As we design programs, we need to anticipate being called on to defend the integrity of (early) college standards."
– Early college leader

The ability of early college to unlock further opportunity for participating students hinges on program quality. As districts and colleges partner to design, implement, and evolve programs, a commitment to rigor must remain at the center. It is essential that programs establish quality measures and continually monitor progress to ensure that the rigor of coursework and early college standards are identical to those of traditional college courses. For students struggling with college coursework, the response to this concern must be to strengthen supports and preparation, rather than to lower standards and expectations. Early college leaders noted that as programs set quality benchmarks and monitor data, this commitment to high standards and expectations must remain at the forefront of every conversation.

Guidance regarding continuous improvement in early college is included below. A continuous improvement plan must be grounded in agreed-upon metrics of programmatic success. These metrics may include demographics, achievement, participation, and feedback survey data aligned to the early college design variables.

Establish benchmarks

The leadership team must agree upon success metrics for the early college program. Effective measures allow the team to monitor accessibility, effectiveness, and outcomes.

Potential metrics are included below. For additional outcome measures, please refer to the Texas Education Agency's Early College High School Blueprint.

STUDENT DEMOGRAPHICS

Is the program accessible to all students, especially those underrepresented in higher education?

Group	Metric
% African American students	≥ district average
% Hispanic students	≥ district average
% Economically disadvantaged students	≥ district average
% Students with IEPs	≥ district average
% English Language Learners	≥ district average

STUDENT ACHIEVEMENT AND PERSISTENCE

How are early college students performing in college courses? Are students continuing their education through high school and college?

Group	Metric
Year over year retention in early college program	90%
Earning 12+ credits by graduation	100%
Earning postsecondary credential by graduation	50%* *Outcome measure should be adjusted based on program-specific goals and implementation. Refer to Academic pathways section for more information.
Average daily attendance	> district average
High school dropout rate	< statewide average
% enrolling in 2-or 4-year college after graduation	> statewide average
% completing a bachelor's degree within 6 years	> statewide average

STAKEHOLDER PERCEPTIONS

To what extent are students, families, and staff satisfied with the early college program?

Group	Metric
% of students expressing satisfaction with early college course options	90%
% of students expressing satisfaction with early college instructional methods	90%
% of students expressing satisfaction with early college supports	90%
% of students indicating interest in continuing education after high school	100%

Solicit feedback

Develop a plan to collect feedback data from students, families, staff, community partners, and other stakeholders.

Monitor data

Devote time at regular leadership team meetings to review data and adjust programming based on findings.

Continuous Improvement Template

The following template is designed to guide the team's improvement planning and monitoring:

Vision

Goal	Measurement	Benchmark	Aim	Timeframe
Specific goals that will lead to the program's vision	Data used to measure progress towards each goal	Current data	Goal data	Date by which this goal will be accomplished

Goal Tracking Sheet

The following sheet is used to track progress towards each goal identified above. Add columns as needed for each new data point. Data should be tracked and presented, at a minimum, before each leadership team meeting.

Goal	Benchmark	Data Point 1	Data Point 2	Data Point 3	Data Point 4
		Include date	Include date	Include date	Include date

Conclusion

Reflecting on the success of early college graduates, program leaders noted that the difficulty of initial program design and implementation proved worthwhile. In Chelsea, 294 students participated in early college during the 2017-2018 school year. The 180 participating seniors earned a combined 1,374 college credits, equaling 458 college courses. Cumulatively, these students saved $250,000 on tuition and $40,000 on books. The early success that these students have experienced will make them more likely to persist through postsecondary education and ultimately earn a family-sustaining wage in a field of interest. Early college leaders at Chelsea Public Schools and Bunker Hill Community College recognize this success while continually seeking to improve their program. By 2021, the partners hope to graduate every Chelsea High School student with an associate degree and/or credential in addition to a high school diploma.

At the Bard High School Early Colleges (BHSECs), 83 percent of 2018 graduates completed an associate degree and 96 percent completed at least one year of transferrable college credit. Recent graduates expressed that their success in rigorous coursework raised their expectations for themselves and dramatically altered their aspirations for college and beyond. A group of current college juniors, who had recently graduated from one of the BHSECs with associate degrees, reflected on their seamless transitions into four-year institutions. Programs including the Bard Early Colleges, Chelsea High School/Bunker Hill partnership, and many others featured in the blueprint illustrate the impact of a well-designed early college program in preparing students for success in college, career, and life.

END NOTES

[1] Carnevale, A. P., Smith, N., & Strohl, J. (2013). Recovery: Job growth and education requirements through 2020. Washington, D.C.: Georgetown University Center on Education and the Workforce.

[2] American Institutes for Research (2019). Early College, Continued Success: Longer-Term Impact of Early College High Schools. Washington, DC: American Institutes for Research.

[3] Webb, M. (2013). Early college expansion: propelling students to postsecondary success at a school near you. Boston, MA: Jobs for the Future. Retrieved from https://files.eric.ed.gov/fulltext/ED559689.pdf

REFERENCES

American Institute for Research. (2007). Evaluation of the Early College High School Initiative: Select Topics on Implementation. Retrieved from https://docs.gatesfoundation.org/Documents/ECHSI_Synth_Report.pdf

American Institute for Research, Garet, M., Turk-Bicakci, L., Berger, A., Song, M., Knudson, J., ... SRI International. (2013). Early College, Early Success: Early College High School Initiative Impact Study (Impact Study). Retrieved from https://files.eric.ed.gov/fulltext/ED577243.pdf

Carnevale, A. P., Smith, N., & Strohl, J. (2013). Recovery: Job growth and education requirements through 2020. Washington, D.C.: Georgetown University Center on Education and the Workforce.

CELL at UIndy » Tips for Writing an Early College MOU. (n.d.). Retrieved November 21, 2018, from http://cell.uindy.edu/news/2012/06/tips-for-writing-an-early-college-mou/

College in High School Alliance. (2017). How to Scale College in High School (Policy Guide). Retrieved from https://cec.bard.edu/_documents/How-to-Scale-College-in-High-School-CHSA.pdf

Hoffman, N., & Vargas, J. (2010). A Policymaker's Guide to Early College Design: Expanding a Strategy for Acheiving College Readiness for All. (Policy). Jobs for the Future. Retrieved from https://files.eric.ed.gov/fulltext/ED520109.pdf

Edmunds, Julie A., et al. Preparing Students for College: The Implementation and Impact of the Early College High School Model. Peabody Journal of Education, vol. 85, no. 3, 2010, pp. 348–364., doi:10.1080/0161956x.2010.491702.

Edmunds, Julie A., A Better 9th Grade: Early Results from an Experimental Study of the Early College High School Model (Greensboro: SERVE Center, 2010)

National High School Center. (2007). Findings From the Early College High School Initiative: A Look at Best Practices and Lessons Learned Regarding a Dual Enrollment Program (Research Brief). Retrieved from https://files.eric.ed.gov/fulltext/ED501071.pdf

Parthernon-EY Education Practice. (2016). Breaking Down Silos to Put Students on the Path to Success: The Promise of Early College in Massachusettes. Ernst & Young LLP. Retrieved from http://cdn.ey.com/parthenon/pdf/perspectives/Early-college_Report_final_web.122016.pdf

Pathways to Prosperity Network. (2015). Marlborough STEM Early College Pathways (Draft). Jobs For the Future. Retrieved from http://sites.bu.edu/miccr/files/2016/06/Case-Study-Marlborough-STEM-Early-College-Pathways.pdf

Thompson, C. & Ongaga, K. (2011). "Flying the Plane While We Build It": A Case Study of an Early College High School. The High School Journal 94(2), 43-57. The University of North Carolina Press. Retrieved November 26, 2018, from Project MUSE database.

Texas Education Agency. (2017). The Early College High School Blueprint (Blueprint) (pp. 1–14). Retrieved from https://tea.texas.gov/ECHS_Blueprint.pdf

Texas Education Agency. (2018). Roadmap to Early College High School Opening (Blueprint). Jobs For the Future. Retrieved from https://ptopnetwork.jff.org/sites/default/files/Roadmap_to_ECHS%20Opening042718.pdf

Vargas, J., Hooker, S., & Gerwin, C. (2017, October 25). Blending high school and college can sharpen the focus of each. Retrieved November 21, 2018, from https://www.kappanonline.org/vargas-dual-enrollment/

Webb, M. (2013). Early college expansion: propelling students to postsecondary success at a school near you. Boston, MA: Jobs for the Future. Retrieved from https://files.eric.ed.gov/fulltext/ED559689.pdf

Zinth, J. (2016). Early College High Schools: Model Policy Components (Policy Analysis). Education Commission of the States. Retrieved from https://www.ecs.org/wp-content/uploads/Early_College_High_Schools-__Model_policy_components.pdf

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