

Early College High School/Dual Enrollment 2.0: Evidence-Based Approaches to Engage Youth and Families for Educational, Career, and Community Development

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Abstract

Urban universities have long faced a critical challenge to help K-12 schools, students, and families effectively access a college education. While colleges and universities have embraced strategies such as charter and partner schools, these interventions do not always result in a robust pipeline of students entering the higher education system. For higher education leaders, addressing the needs of students and their families to attain an affordable college degree is an important part of education and community development in the communities near campus. Early college programs, particularly those with a focus on equity and student support, can provide high school students with an exemplary preparation for college, as well as college credits that can be used to reduce time to degree and college costs. In three case studies of early college programs, students' college credits earned, grades earned while enrolled in the program, and eventual college enrollment and graduation rates are the key metrics. Lessons learned include the importance of leadership and policy support for these programs, as well as designing the program to address equity issues from the beginning.

Keywords: Education, Community Development, College Affordability, College Success, Low Income Students

Early College as a Strategy for Metropolitan Universities

Urban universities face a series of key challenges in order to survive and thrive over the next two decades. In most locations nationwide, the population of high school graduates is shrinking, making it more difficult to recruit a freshmen class (Grawe, 2018). Second, low-income university students struggle to navigate the college/university system, and may drop out/stop out or graduate slowly, while still incurring student debt (Bjorklund-Young, 2016; Yuen, 2019). Finally, colleges and universities struggle with how to best leverage their resources to help the surrounding community, with the local K-12 system often the greatest area of need. Deepening and extending these key relationships has been an area of focus for many metropolitan universities, who have attempted to focus their efforts on top institutional priorities (Holton, et al., 2016).

Early college strategies, while not a panacea for urban and metropolitan colleges and universities, can help address each of these issues. Early college programs, in which high school students take college classes on a college campus, can help colleges and universities develop academically talented students while those students are still enrolled in local high schools, can help boost enrollments in key areas of the college, and help increase the educational access and educational achievement level of the surrounding community. Unlike dual enrollment programs, where high school students take college-level classes from high school faculty at their present school, or university-connected partner schools, students in early college programs:

(a) typically take courses on the college campus; (b) are part of a state designation process, and are committed to K-16 alignment; (c) provide comprehensive wrap-around services to students; and (d) possess a purposeful process for developing college readiness in academics and social emotional learning. The success of these interventions make early college programs a rich source of learning for higher education in terms of retention, student success, and developing a culture of inclusive excellence.

Early college programs have existed for two decades, and the research evidence on their effectiveness, mostly drawn from the evaluation of the Bill and Melinda Gates Foundation funded-projects, has been compelling (Berger, et al., 2013; Nodine, 2011). However, one weakness of the model to date has been that those students who might benefit the most from this programming (non-white students, immigrant students, students from low-income families, first generation college students) can be left out of this programming, with middle and upper-class families taking advantage of the program disproportionately (Education Trust, 2020; Fraire, 2018).

To address this weakness, early college programs being launched now by urban colleges and universities and their partner K-12 school districts have embraced a program design that focuses on equity, and using an evidence-based approach, connecting youth less likely to attend college

directly out of high school with programming designed to support their efforts. This article presents perspectives from a range of institutions (high school, two-year institutions, four-year institutions, and philanthropic investors) that are rethinking these early college models to maximize community impact and affordability to students and families (American Institutes for Research, 2009).

From Dual Enrollment/Early College to Early College 2.0

The evidence of early college success in Texas and North Carolina, the two states with the greatest participation in early college programs, has been among the most promising in the area of high school reform and higher education transformation (Hall, 2013; Nodine, 2011). In both states, colleges and universities developed early college programs that gave students greater access to college credits, often on the college campus itself. The programs in Nodine's study drew from a diverse group of students in Texas, 66% Hispanic, 63% economically disadvantaged, and 74% first generation college students. The evidence from these efforts is largely positive: as high school students took more college-level classes, their odds of graduating high school, enrolling in college, and succeeding in college level coursework improved. For example, more than a third of the early college students in Nodine's study had already received enough credit for an Associate degree while still in high school (2011).

While the students above seem like ideal students to develop and recruit, early college and dual enrollment students remain controversial in higher education. The recent report from the University of Texas system illuminates the gulf between the views of some college faculty about these programs, and the quantitative evidence of student success. This report was initiated by faculty concerns about dual enrollment students, who allegedly were not performing up to standard in their classes and in the next classes in sequence (Troutman et al., 2018). The quantitative evidence of dual enrollment/early college success in the Texas study was overwhelmingly positive. As stated within a report from the University of Texas system, "compared to students who are not credit-bearing at the time of the college admission process, dual credit students: are more likely to be retained and to graduate from a UT System institution; have higher 1st-, 2nd-, and 3rd-year GPAs; and have fewer semester credit hours at the time of graduation." Though the report cannot make a distinction between dual enrollment and early college efforts, it highlights the positive impact of students arriving on campus having successfully completed college level work (Troutman, et al., 2018, p. 4).

However, the benefits of early college and dual enrollment did not always reach the students who might need it most. Particularly in dual enrollment programs, higher income families, students, and their high schools might be able to access these programs at a higher rate than their lower income peers (Jones, 2014). The students who would benefit the most from early college, including non-white students, first generation college students, and immigrant students, would be

left at the mercy of the information they might receive from their guidance counselor or school district. In a study of dual enrollment in Pennsylvania, Museus, Lutovsky, and Colbeck wrote that “unfortunately, in the Commonwealth of Pennsylvania, dual enrollment programs at the institutional level have disproportionately served already privileged high school students” (2007).

This selection bias meant that even if early college and dual enrollment were having a positive impact in these states, it might have an impact that would only make educational gaps more pronounced. Gilbert has argued that, at the college level, he sees inequality in his survey course classroom, as students from higher income families fulfill his requirement before college through dual enrollment coursework. He writes that, “for middle-class suburbanites, college is potentially one year shorter and thousands of dollars cheaper than it is for students of lesser means, who must spend more time in college and take on more debt to earn the same degree” (Gilbert, 2017).

As states have drawn on the models of Texas and North Carolina, they have attempted to correct for this selection bias by building equity into the early college system from the beginning. In Massachusetts, a coalition that includes local foundations, the Massachusetts Department of Higher Education, the Massachusetts Department of Elementary and Secondary Education, and Jobs for the Future have all insisted on a model that foregrounds equity and access. Colleges or schools seeking early college designation must demonstrate a commitment to student access to early college programming. As a result, the programs in Massachusetts have been developed explicitly to serve low-income families, with a focus on students of color and students from immigrant backgrounds. Prospective programs must also show that they are addressing the needs of students with learning challenges, as well as students with English Language Learner status (Massachusetts Early College Initiative, 2019).

The Massachusetts Departments of Higher Education and Elementary and Secondary Education collaborated to create principles for officially designated early colleges in the Commonwealth. These would guide efforts by the state’s public and private institutions in creating early college opportunities. The principles are: (a) Equitable Access: targeting underrepresented students in higher education; (b) Academic Pathways that are well integrated and aligned with college and career; (c) Robust Student Support in both academics and advising; (d) Connections to Career through workplace and experiential learning experiences; and (e) High-Quality and Deep Partnerships between high schools and colleges. While not every approved program is equally strong in all five areas, the approval and continuing review process help programs develop more equitable programming as they scale up (Massachusetts Department of Higher Education, 2020). In Michigan, early colleges apply for recognition through the state Department of Education, and are held to the design standards of the National Middle College Consortium, which includes deep sustained collaboration with college partners, aligned academic programs from the ninth grade through 60 credits, student support appropriate to the needs of the students and the demands of

the college, and continuous organizational improvement (National Middle College Consortium, 2020).

The Evidence for Early College High School Success: Three Case Studies

Over the past decade, early college and dual enrollment strategies have proven to be a powerful strategy for helping low-income and underrepresented students gain access to higher education and be more successful students once they arrive to college full time (An, 2013; Troutman, 2018). The What Works Clearinghouse (WWC) has validated two important studies that show the power of the early college model. Research done in North Carolina on early colleges using random assignment, where students were selected for the program based on chance, revealing that early college outcomes are not simply due to selection effects. The college enrollment rates of students in racial/ethnic minorities enrolled in early college in this study was 8% higher than their comparison peers, and the rate of college enrollment for economically-disadvantaged students in these programs was 11% higher than their non-program peers (Edminds, et al, 2017). The second WWC-endorsed study drew on data from five states to show that 63% of students randomly assigned to early college enrolled in post-secondary education, as opposed to their traditional peers who enrolled only 23% of the time (Song and Zeiser, 2019).

Financial analyses show that early college programs are a solid financial investment, generating a return of 15:1 on dollars spent (AIR, 2019). However, the real power of the early college model for metropolitan universities can be found in local case studies that show how institutions can adapt this strategy to meet their educational and community development goals. The three case studies of early college programs described below were chosen to represent the breadth of this field by institutional type (four year and two-year institutions, public and private colleges). The case studies also capture programs at different stages of development and evaluation; one program has years of quantitative data about student achievement, one that has three years of data, and one that is just launching its first cohorts of students. Each case study uses student achievement data, retention data, and data about enrollment and persistence in higher education to measure success against that of traditional high school students.

Case Study 1: Two-year public urban community college

Bristol Community College (Bristol) is located in southeastern Massachusetts and serves the city of New Bedford, one of the most impoverished cities in the Commonwealth, with a poverty rate over 20%, almost double the Massachusetts average (Southcoast Health, 2016, p. ii). The area has traditionally been home to industries that required little formal education, such as commercial fishing, and the decline of these industries has left many in the community, particularly recent immigrants, out of the recent economic boom. While there have been efforts to rebuild the economy around new fields, such as renewable energy, there is a mismatch

between the jobs coming available and the characteristics of the population, a situation which Bristol has stepped in to bridge.

One way to address this skills gap has been to focus early college efforts on fields that the area will need to build new industries, particularly engineering. Community colleges exist at the perfect point to address this issue, as they work intensively with local K-12 schools, including technical and career high schools, as well as with four-year universities. In this case, the community college leveraged these relationships to build a pipeline from high school into B.S.E. programs while also reducing the cost to families.

Through the early college program, students at local technical and career high schools are able to take classes in high school that count towards their Associate degree at Bristol. Many of these high schools have invested heavily in pre-engineering programs and have the equipment and personnel necessary to give their students a solid start on obtaining the Associate degree. Next, the students transition to Bristol, but are guaranteed future admission to the University of Massachusetts–Dartmouth if they are successful in their courses and complete their Associate degree. While students are at the community college, the program also provides connection to UMass Dartmouth, including: (a) access to the university's library, fitness center, bookstore and dining halls, while attending Bristol full-time; (b) collaborative on-site academic advising and priority registration at UMass Dartmouth; (c) career development workshops; and (d) a UMass Dartmouth ID card that provides access to UMass Dartmouth events including sporting events, musical and theatre productions, and speaker programs.

Graduating from Bristol, students in the program are then eligible for UMass Dartmouth award merit scholarships of at least \$2,500 a year if they have earned a cumulative GPA of 3.0 or higher and are enrolled as a full-time student. The program reduces overall costs as well; Bristol students who sign up for and meet the guidelines of the Commonwealth Commitment program attend UMass Dartmouth at a fixed rate of tuition and fees throughout their remaining two years of study, a 10% rebate on tuition and fees per semester, as well as the MassTransfer tuition credit, which this year covered 10% of tuition and fees, a total of approximate 40% savings. Bristol also creating a health careers early college program for English Language Learners, in which high school students will take college level ESL coursework as well as health classes. By the time of graduation from Bristol, these students will be fully bilingual health workers, a needed group in the workforce of an area that has many aging residents.

These strategies are both enrollment strategies and community development strategies for Bristol, which is a community college that serves several urban centers. It is both encouraging students to complete their K-12 credential, and then providing a clear, finite pathways, in terms of both time to degree and cost, to students and families who are wary of both higher education and the associated load debt. This program strengthens the ties between K-12

schools and the community college, as well as between the community college and its 4-year partner university. Finally, it embraces the emerging diversity of the area, seeing the strengths of the Spanish and Portuguese speaking population as an asset in health care fields, rather than viewing it as a deficit to be remediated.

Case Study 2: Public College, Urban Master's Institution

Early College Alliance @ Eastern Michigan University (ECA@EMU) began as a K-12 effort to improve access to high quality education across Washtenaw County in Michigan. The program's cornerstone was a local intermediate school district, which brought together member districts to form an innovative consortium to govern the program. These K-12 leaders approached Eastern Michigan University about the program, and built an agreement to house the program at the university, and to purchase courses and credits for the students through the consortium.

ECA@EMU is a good example of community "in-reach" to a university. ECA was not part of an educational or enrollment strategy on the part of the university, but instead an attempt by K-12 educational leadership to utilize the university as one component of a larger plan to improve educational outcomes. This relationship developed organically over several university presidencies, and now ECA is a critical partner in EMU's education and broader student retention efforts.

Ellen Fischer's research on the Early College Alliance students documented the impact of the program at Eastern Michigan University, providing hard numbers and fair comparisons of the impact early colleges can have (Fischer, 2016; Fischer & Olwell, 2018). While the few studies published on early colleges have examined national and state data, they do not dig into the post-graduate experiences of students from one institution, and do not have a readily available comparison group to track early college students against. Fischer, studying one institution, Eastern Michigan University, was able to compare early college students directly to the students with whom they are sitting in class, traditional college first year students. When examined this way, some key results stand out:

- Early graduates have earned Bachelor's degrees at far higher rates than their non-ECA peers, with most ECA graduates continuing their education at Eastern Michigan University.
- Early college students were equal or greater in diversity than their peers across the county.
- African-American students benefited from early college enrollment and were able to graduate at a higher rate as a result.

In addition, National Clearinghouse data for ECA@EMU cohorts demonstrates just how powerful the early college model is for diverse students. For the 2010 ECA cohort, the

percentage of students graduating from a four-year college in four years was 74%, compared to a statewide average of 27%. For African American students, the difference is even more stark: 67% of students graduated within four years of college, as opposed to a statewide average of 13%. The 2012 cohort has maintained these high levels of achievement, with students in that cohort graduating college at a rate of 71%, as opposed to a state rate of 29%, and African American students graduated at a 71% rate, as opposed to a 13% rate statewide. For African American students, early college provided an edge of over 500% in four-year college graduation rates (National Clearinghouse Data, provided by Early College Alliance, 2019).

Programs such as ECA have a lot to teach urban colleges and universities about how to help students develop the skills and resources to navigate the college classroom and broader campus. Students in ECA spend the first part of their early college experience working with ECA teachers, who work with students on academic as well as “soft skills” that are critical for college success. As students prove that they are ready for the college classroom, they are enrolled in Eastern Michigan University classes, with a goal of earning up to 60 college credits in the experience. Students in ECA choose what courses to take and can build a program around their strengths as well as on their future educational and career path.

Early college programs such as ECA have developed facilitated support for students as they move into college classes, and expertise in the type of teaching, mentoring, and advising that allows students to thrive. College leaders can emulate the focus that early colleges have on social and emotional learning. Early college students learn non-academic strategies to successfully navigating a college classroom. They learn explicitly how to interact with professors, how to seek help when not succeeding in class, and how to learn from failure. Additionally, they directly learn what college-readiness guru David Conley describes as key “academic behaviors,” such as note-taking and study skills (Conley, 2007). Finally, early colleges can provide a pipeline of students ready to be successful on campus, and who are used to navigating the foibles of that system.

Early college programs such as ECA@EMU also can help colleges and universities fill seats in classes that have become less popular with traditional undergraduates. ECA pays for the seats it purchases in EMU’s classrooms (at a discount), providing a steady stream of tuition revenue from students that the university does not need to pay to recruit. Most of these classes are traditional general education and introductory STEM classes, which many traditional students avoid with the help of AP and transfer credits (Gilbert, 2017). For colleges and universities facing a declining population of traditional-age high school graduates, early college provide customers for classes who often stay to matriculate at the college, providing high caliber academic students who are already familiar with the campus and its operations

Case Study 3: Four Year, Private Institution

The Merrimack College - Abbott Lawrence Academy (ALA) Early College Program was launched in the 2017-18 academic year, as part of the effort to reform the nearby Lawrence public schools. The process was initiated by the superintendent/receiver of Lawrence public schools, Jeffrey Riley, who requested a new program in a lunch meeting with Merrimack's President Christopher Hopey. The design for the program was to allow students in the high school's Abbott Lawrence Academy, a competitive exam school, to take courses on Merrimack's campus during their junior and senior years. This would help the school attract and retain top high school students in the district (many of whom were leaving for private school options in eighth grade), and give those students in the program a better chance at admission to selective colleges. Support teachers at the high school worked with early college students when they were not on the college campus to help provide needed academic assistance.

Lawrence public schools serves a city that is among the poorest in Massachusetts, with a population in schools that is majority non-white, majority immigrant, and majority first in their family to attend college. The students attending the program were representative of school children in the city: 84% Latinx, and over 80% eligible for free or reduced lunch. By focusing on Lawrence high school, this program addressed the needs of students in the region who would benefit from this effort, as well as bringing greater diversity to the college campus, as the college student body is currently 15% students of color (Registrar Data, 2018). To make attending Merrimack a real possibility for the Lawrence students, Hopey also made plans for a scholarship program for top graduates of the program. Ten of the inaugural cohort of early college students were selected as Pioneer Scholars at Merrimack College for Fall 2019, receiving a full-tuition/room and board scholarship for their four years on campus (Merrimack College Pioneer Scholars, 2020).

In fall 2017, the first cohort of 64 students was divided into two sections of political science/United States government, and two sections of human biology which included a 2-hour weekly lab. Students take the other subjects in the spring term. Last year, these students achieved equal or higher grades in classes than their college counterparts enrolled in the same Merrimack courses, taught by the same faculty, and the overall course pass rate in the early college was 98% (Merrimack College Registrar Data, 2019). In fall 2018, Merrimack added choices for the ALA senior class in the subjects of psychology and engineering. Starting in spring 2019, the program expanded by offering courses in areas including human development and human services, education, computer science, politics, criminology and criminal justice, and mathematics, including calculus I and introduction to statistics. The program serves over 150 students, both juniors and seniors at Lawrence High School, at the present time.

Sample programs of study to continue at Merrimack were created to help students see the opportunity to finish college early or to get a head start on graduate school, and to see the connection between their studies and a career path. Possible pathways for these students include education, human development and human services, biology, STEM fields, and political science. As a result of this curriculum work, the Merrimack/Lawrence high school program has been designated by the State of Massachusetts as an official early college program, the only private college in the state to have achieved this recognition.

Since the beginning of the program, ALA students have scored in the same range as their Merrimack peers, with some courses/semesters higher than first-year Merrimack students in similar classes, and some slightly below. The high school seniors, in classes mixed with Merrimack peers, have scored above a 3.0 GPA overall, even without the academic support that was built into their junior year classes (Merrimack College Registrar Data, 2019).

Early college student perspectives

A key framework in the field of evaluating early colleges comes from the work of Michael Nakkula and Karen Foster, who, in their case studies of two pioneer early colleges, drew attention to the changes in the way early college students think about themselves. They found that early college programs changed students' view of themselves (Nakkula & Foster, 2007; Jobs for the Future 2011). Longitudinal research showed that early college graduates were adept at problem solving on their new campus, took on leadership and service commitments while in college, and drew upon the academic strengths of their school in their choice of major (JFF, 2013). In a well-designed and implemented program, early college students move from hoping or believing that they can be successful in college to a student who has successfully completed college-level coursework; students go from thinking about college as a "possible self" to an "expected self," confident they can navigate upcoming challenges in college and beyond (Nakkula & Foster, 2007). These findings and this framework have held up throughout the longitudinal studies of early college outcomes directed by Nakkula, which continues to the present.

When students in early college programs talk about their experiences, they point to both an individual gain of educational skills, but also to a broader community and civic impact that the program can have. Participating in an early college program, for students in cities such as Lawrence, is an act of resistance and defiance to the stereotypes about their city and about their community. Thus, early college programs are a way in which local colleges and universities can both support youth and the urban communities they are part of, and to help redefine the public image of those communities. As one of early college students wrote about the Lawrence program:

As a student in the Lawrence Public School system, it is easy to feel counted out. There are so many stereotypes of us being lazy, stupid, ungrateful, or uninterested. But in Abbott, everyone who is enrolled in these Merrimack courses has a goal, has big plans for their future. Allowing us to take these courses further prepares us for these bright futures we aspire to, and shows Lawrence in a different light. We aren't dropouts, class skippers, etc. A focal point of being an Abbott student is "being the future of Lawrence". This partnership with Merrimack College is helping not only US see that, but the rest of our city, and those around us... Taking college classes has raised my self-esteem, and made me feel as though I am paving the way for my future. (Quoted in Cherney, 2019)

Another Lawrence student, who was awarded a scholarship, connected the early college program to larger issues of community development and university/community relations in her graduation speech, stating:

[The early college program] shows that Lawrence has so much to offer and that we are not "the city of the damned" as we have been portrayed as. ... This partnership between Abbott and Merrimack College is the first of its kind: kids are graduating high-school with college credits from a private 4-year university, and that is something to celebrate. Merrimack College is doing what other colleges or universities wish they could do: creating and maintaining hard-working and goal-oriented individuals who will stop at nothing to achieve their goals. (Student graduation speech, 2019)

For students in Lawrence, this struggle to redefine their community and their image is intrinsically political, a direct rebuttal to political figures such as President Trump, who has denounced the city of Lawrence by name of several occasions for contributing to New Hampshire's opioid issues (Lawrence Eagle, March 19, 2018).

For the city of Lawrence, early college programs, such as Merrimack's, provide a chance to develop leaders among youth, who will hopefully return to the area as adults. As more students in the high school are able to attain a college education, the proportion of college graduates in the city will rise, and young people will have a network of parents, uncles, aunts, cousins, neighbors, and community members who are able to reach back and help them navigate the college process. For Merrimack College, the early college and Pioneer Scholars are a major investment in the future of the community, and a way to encourage student and community aspirations for college degrees. The Pioneer Scholars program was recognized by Massachusetts Governor Charlie Baker in his 2020 State of the Commonwealth address as an example of boosting educational impact and saving families' tuition dollars (Baker, 2020).

Lessons from Case Studies for Urban and Metropolitan College Leadership

The communities served by most urban colleges and universities are often in former industrial or manufacturing areas, where a college degree was not previously a prerequisite for middle-class income. Early college can be a strategy for areas such as these to develop a larger population of

residents with a 2 or 4-year college degree, who can both raise the average earnings in the area, as well as be a resource for helping family members and community members aspire to and succeed in college.

In all three cases, there were very similar lessons for college and university leaders. First, a strong partnership between K-12 and college and university leaders was needed to make the system work. Unlike many educational partnerships, early college is a strategy that is “all in,” as K-12 leaders are trusting the college with their students, and the college is trusting that the K-12 students will achieve on campus. Strong personal relationships between K-12 and higher education leaders is a prerequisite for success in this area.

Second, as programs get underway, leaders must find ways to expand them or extend their impact. At Bristol, early college efforts expanded from a program designed to provide a cost and time-effective means to training engineers to a program that could meet the needs of English Language Learners in local high schools and the needs of local employers for a skilled workforce. At Eastern Michigan University, early college changed from being a tenet in buildings and purchaser of credits to a partner in developing student success programming. At Merrimack College, early college moved from being a program for local 11th and 12th grade students to become part of the campus, through the Pioneer Scholars initiative.

A third lesson is that early college programs can also make urban areas more appealing to parents and students. ECA@EMU brought many families to Ypsilanti, Michigan each day for school, giving them a different perspective on a city long dismissed as blighted. The programming at Bristol is part of an economic renewal of this gateway city, as it transitions towards a future based on industries such as renewable energy and health care. In Lawrence, students and families view the early college program as a way to prove critics of the city wrong, and to raise the profile of their dynamic and entrepreneurial hometown.

In all cases, early college students are a key source of learning for college and university leaders. Understanding how early college students can be able to achieve such high grades in the classroom can help college and university help all of their students. This access to data and learning is a key advantage of early college over partner school and professional development school models, as it provides a real-time look at student success and barriers right on campus.

At the state and policy levels, the key lesson is that attention to diversity and equity needs to be central to policy and processes from the beginning. As early college programs are developing and spreading, a strong state policy that promotes equitable access and backs it up with sufficient, stable, and sustainable funding can make a significant difference in student outcomes.

A Caveat: The challenge of funding for early colleges

One of the key challenges for any leadership in early college is to find funding. While early colleges can be lean, and can take advantage of district and college resources, they remain resource intensive. Successful early colleges build powerful relationships between faculty, staff, and students, and these require smaller-than-usual ratios of students. School finance often relies on the lower costs for students in the lower grades to subsidize the expenses of high school programs, and separate early colleges cannot draw on this funding. Unless school finance policy allows for per pupil support of early college programming, this funding will always be cobbled together from grants, K-12 budgets, and higher education subsidies, which is an unstable base on which to build any educational venture.

Conclusion

While many colleges and universities in cities across the nation have invested in creating partner schools, often helping create charter schools in their areas, fewer have taken the full jump to creating early college programs. While there is value in creating partner schools, and in creating pipeline programs with local schools, there is a quantum leap of commitment to creating and running an early college. Early college programs represent a commitment by higher education to bring local students onto their campus every day, and to encouraging and developing those students towards a college education, whether it is at the home campus or elsewhere. These programs represent an investment of time, energy, and mentoring that is far beyond what is usually possible at a partner school. Ultimately, campuses learn and gain as much from early college programs as the students, families, and K-12 teachers. However, these programs represent a leap of faith in young people, and campus leaders, faculty, staff and the campus community must decide is worth the effort.

References

- American Institutes of Research. (2019). The cost and benefits of early college high school programs. Washington, D.C. AIR. Retrieved from <https://www.air.org/resource/costs-and-benefits-early-college-high-schools-0>
- An, B.P. (2013). The impact of dual enrollment on college degree attainment. *Educational Evaluation and Policy Analysis* 35(1), 57 – 75.
<https://doi.org/10.3102/0162373712461933>.
- Baker, C. (2020). State of the Commonwealth Address Transcript. Retrieved from <https://www.mass.gov/news/governor-baker-delivers-2020-state-of-the-commonwealth-address>
- Berger, A., Turk-Bicakci, L., Garet, M., Song, M., Knudson, J., Haxton, C., ... & Keating, K. (2013). Early College, Early Success: Early College High School Initiative Impact Study. *American institutes for research*.
- Bjorklund-Young, A. (2016). Family Income and the College Completion Gap. Retrieved from <https://edpolicy.education.jhu.edu/wp-content/uploads/2016/03/FamilyincomeandcollegegapmastheadFINAL.pdf>
- Cherney, I. (2019). Early Colleges: Pathways to Higher Education for Low-Income, First Generation, Under-represented Students. World Future Forum.
- Conley, D. (2007). Redefining college readiness.
<http://www.aypf.org/documents/RedefiningCollegeReadiness.pdf>
- Edmunds, J.A., Unlu, F. Glennie, E., Bernstein, L., Fesler, L., Furey, J. & Arshavsky, A. (2017). Smoothing the Transition to Postsecondary Education: The Impact of the Early College Model. *Journal of Research on Educational Effectiveness*, 10:2, 297-325, DOI: 10.1080/19345747.2016.1191574
- Education Trust. (2020). Inequities in advanced coursework: What's driving them and what leaders can do. Retrieved from <https://s3-us-east-2.amazonaws.com/edtrustmain/wp-content/uploads/2014/09/08183916/Inequities-in-Advanced-Coursework-Whats-Driving-Them-and-What-Leaders-Can-Do-January-2019.pdf>
- Fischer, E. L. (2016). Laying the foundation: An investigation of bachelor's degree attainment rates of early college high school graduates." Master's theses and Doctoral Dissertations. Paper 668.
- Fraire, J. (2018). Dual credit at Texas community colleges. Retrieved from https://tacc.org/sites/default/files/documents/2018-09/senate_higher_education_testimony_09.12.18_-_dual_credit.pdf
- Gilbert, E. (2017). How dual enrollment contributes to inequality, *Chronicle of Higher Education*. Retrieved from <https://www.chronicle.com/article/How-Dual-Enrollment/241668>.

- Grawe, N. D. (2018). *Demographics and the demand for higher education*. Johns Hopkins University Press.
- Hall , A.L.(2013) Program Implementation and Student Outcomes at Four Western North Carolina Early College High Schools: A Study Synopsis, Community College Journal of Research and Practice, 37:9, 677-690, DOI: [10.1080/10668926.2013.774893](https://doi.org/10.1080/10668926.2013.774893)
- Holton, V., Early, J., Resler, M., Trussel, A., and Howard, C. (2016). The University Next Door: Developing a Centralized Unit that Strategically Cultivates Community Engagement at an Urban University. *Metropolitan Universities*. <https://doi.org/10.18060/21120>
- Jobs for the Future, (2011). Early college graduates: Adapting, thriving, and leading in college.
- Jones, S. J. (2014). Student participation in dual enrollment and college success. *Community College Journal of Research and Practice*, 38(1), 24-37.
- Massachusetts Department of Higher Education (2020). Retrieved from <http://www.mass.edu/strategic/earlycollege.asp>.
- Merrimack College Pioneer Scholars. (2020). Retrieved from <https://www.merrimack.edu/about/leadership/innovative-partnerships/pioneer-scholars-program/>.
- Miller, T., Kosiewicz, H., Wang, E.L., Marwah, E., Delhommer, S. and Daugherty, L. (2017). Dual Credit Education in Texas: Interim Report, Santa Monica, Calif. RAND Corporation. Retrieved from https://www.rand.org/pubs/research_reports/RR2043.html
- Museus, S. D., Lutovsky, B. R., & Colbeck, C. L. (2007). Access and equity in dual enrollment programs: Implications for policy formation. *Higher Education in Review*, 4, 1-19.
- Nakkula, M., & Foster, K. (2007). Academic identity development: Student experiences in two early college high schools. *Minding the gap: Why integrating high school with college makes sense and how to do it*, 151-158.
- National Middle College Consortium (2020), Design principles. Retrieved from <http://mcnc.us/our-design/#top>
- Nodine, T. (2011). Making the Grade: Texas Early College High Schools Prepare Students for College. *Jobs for the Future*.
- Song, M., & Zeiser, K. (2019). Early College, Continued Success: Longer-Term Impact of Early College High Schools. American Institutes for Research.
- Southcoast Health (2016), Community Needs Assessment.
- Troutman, D., Hendrix-Soto, A., Creusere, M., Mayer, E. (2018). *Dual Credit and Success in College*. University of Texas System. Retrieved from <https://data.utsystem.edu/sites/default/files/upload/UTSystem-DualCreditStudy.pdf>
- Yuen, V. (2019). New insights into attainment for low-income students. Center for American Progress. Retrieved from <https://files.eric.ed.gov/fulltext/ED596190.pdf>