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INNOVATIONS IN COLLEGE READINESS

How **EARLY COLLEGE SCHOOLS**
Are **PREPARING STUDENTS**
Underrepresented in Higher
Education for College **SUCCESS**

By Thad Nodine



JOBS FOR THE FUTURE

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ABOUT JOBS FOR THE FUTURE

Through research, action, and advocacy, Jobs for the Future develops promising education and labor market models, expands successful models in communities across the country, and shapes the policy environment that enables American families and companies to compete in a global economy.

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INTRODUCTION

Immediately upon taking office, President Barack Obama articulated in speeches and policy what Americans already knew: achieving some form of education or training beyond high school—whether it’s a one-year training certificate, a two-year Associate’s degree, or a four-year Bachelor’s degree—is critical to our country’s future.¹

The relationship between educational attainment and income confirms that individuals with a Bachelor’s degree earn about 75 percent more annually than those with a high school diploma but no college experience.² Similarly, those states that have a more highly educated population also tend to benefit from higher personal income per capita (see *Figure 1*). Higher levels of education are also associated with greater social mobility and access to a middle-class standard of living.

Perhaps this is one reason why President Obama, in addressing Congress in February 2009, described the need to attain some postsecondary education not just as an individual issue but as a challenge for the nation:

Tonight, I ask every American to commit to at least one year or more of higher education or career training. This can be community college or a four-year school; vocational training or an apprenticeship. But whatever the training may be, every American will need to get more than a high school diploma. And dropping out of high school is no longer an option. It’s not just quitting on yourself, it’s quitting on your country; and this country needs and values the talents of every American.³

One of the compelling aspects of this call to education is its egalitarian nature. America needs each of her citizens, not just a few, to stay in school and earn a postsecondary certificate or degree.

Despite the need to increase the educational levels of all Americans, educational inequities persist. Consider the following trends:

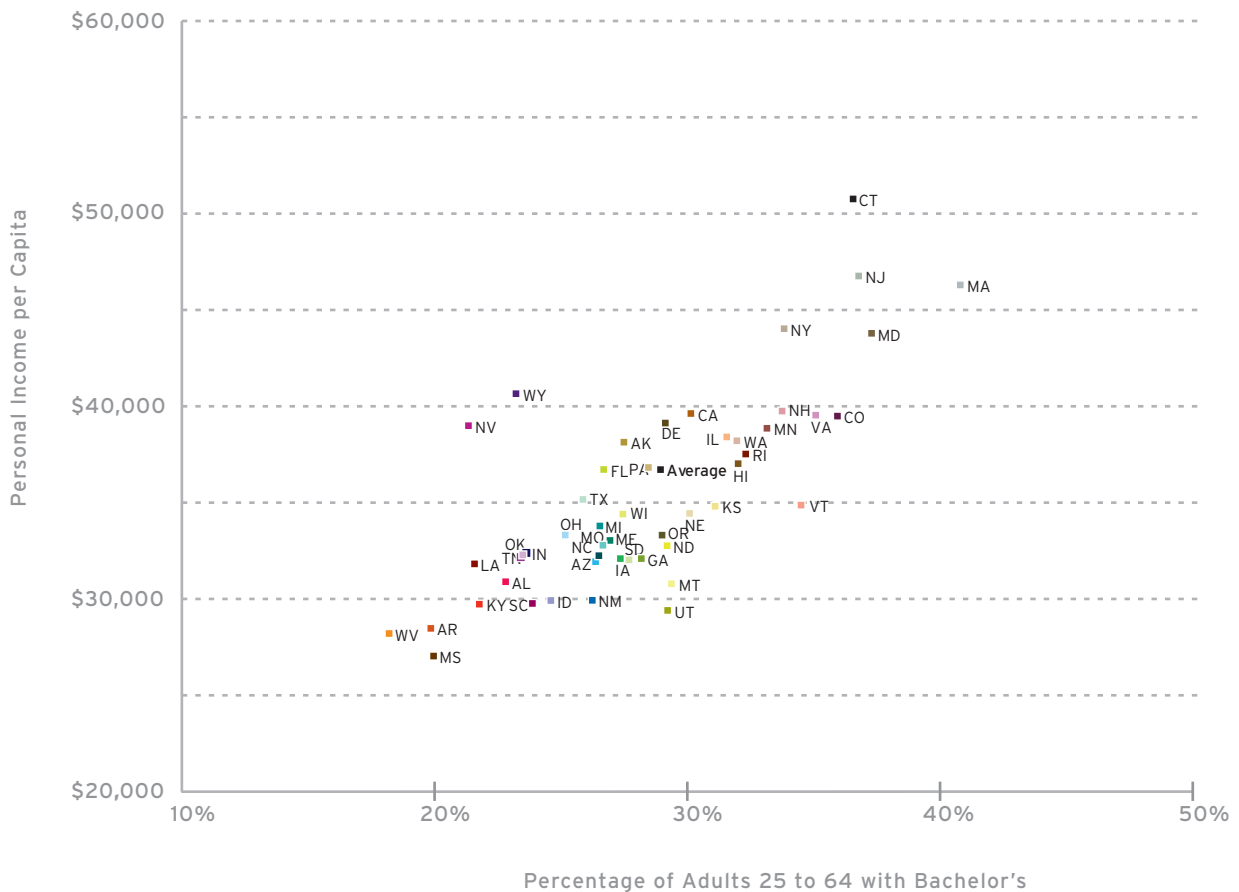
- **Student achievement:** National assessments continue to show persistent gaps in K-12 school achievement by race, ethnicity, and income.⁴
- **High school graduation:** About 65 percent of low-income students complete high school, compared with 91 percent of middle- and upper-income students (Goldberger 2007). In *A Core Curriculum for All Students*, Patte Barth and Kati Haycock point out that elementary schools have grown more effective over the past decades, but the “value added by secondary schools has declined” (Barth & Haycock 2004).
- **College enrollment:** High school graduates from low-income families who score in the top testing quartile are no more likely than their lowest-scoring, affluent peers to attend college (Advisory Committee on Student Financial Assistance 2001). Over the past two decades, the gaps in college participation by ethnic group have grown wider (Ryu 2008).
- **College completion:** Young people from the middle and upper ends of the socioeconomic scale are almost five times more likely to earn a two-year or four-year college degree than those from low-income families (Advisory Committee on Student Financial Assistance 2001).

Innovations in College Readiness describes a young national effort—the Early College High School Initiative—that in seven years has made headway in contesting those trends. The initiative has done so by focusing on the same challenge President Obama enunciated: getting more students prepared for and successfully completing postsecondary education.⁵ Through the creation of 201 early college high schools in 24 states, the initiative today reaches students who typically fall through the cracks between America’s system of K-12 schools and its system

of postsecondary education: low-income youth, first-generation college goers, English language learners, students of color, and other young people underrepresented in higher education. In a bold approach, early college schools, as they are also called, engage these students in a rigorous and supportive educational program that enables them to succeed in college classes *before they graduate from high school*.⁶

Many schools in the United States allow their students to take college classes while they are still enrolled in high school.⁷ Traditionally,

Figure 1
Higher Levels of Educational Attainment are Correlated with Higher Personal Income at the State Level, 2006



SOURCE: U.S. Census Bureau, American Community Survey, 2006, and Bureau of Economic Analysis; data available through National Center for Higher Education Management Systems, at www.higheredinfo.org.

these dual enrollment or concurrent enrollment programs have served advanced students. Early college schools, in contrast, provide dual enrollment opportunities and comprehensive student supports to broader populations of students who are underrepresented in postsecondary education. The philosophy behind this approach is grounded in the expectation that most students have the intellectual ability to succeed in college. What many students do not have—particularly students whose parents did not go to college—is college expectations, meaningful college exposure, sufficient academic rigor in their K-12 classes, and the habits of mind required for college success. These claims are not extraordinary. In fact, all educational reform programs that seek to improve college readiness and success are grounded in the belief that larger numbers of students can succeed in college, given appropriate preparation, motivation, and support.

What's particularly ambitious about the Early College High School Initiative is that it goes further to claim that most high school students—including students with average and below-average academic records—can succeed in college courses *during their junior or senior years of high school*. This philosophy is built into the design of the schools, which supports broad populations of students in earning high school diplomas and up to two years of college credit (including an Associate's degree) while in high school. The school design includes the following key elements:

- providing high school students with deep, diverse, and sustained experiences on college campuses that help to demystify the process of applying to and attending college;
- immersing the students in rigorous coursework building to and including college courses while in high school;
- providing comprehensive student supports to improve success;
- changing the incentive structure for high school students by offering free college credits; and

- building local partnerships to create seamless transitions between high school and college.

Several longitudinal studies of student experiences and instructional practices at early college schools continue to follow cohorts of students. However, early outcomes suggest that broad populations of students are succeeding in a comprehensive, rigorous high school program that builds to and includes college coursework. Based on the results of the most recent graduating class (2008), it appears that early college students are beating the odds: They are more likely to graduate from high school, and are more likely to enroll in college right after graduation than the average high school student. And those who enroll in postsecondary institutions are more likely to attend four-year colleges—which in turn increases their likelihood of college completion.

As the reach of early college schools has expanded to 24 states, the initiative has garnered the attention of policymakers and education leaders nationwide. Several states and state college systems have supported statewide early college programs, including California, Georgia, Ohio, North Carolina, Texas, and Michigan. Many more states, influenced by the early college high school design, are encouraging and investing in early college and dual enrollment strategies to increase high school graduation rates, improve college readiness of high school students, and get more students into and through postsecondary programs.

In examining the history, outcomes, and emerging practices of early college schools, this report explores how the schools are helping students transform their own educational opportunities. In the process, young people are raising the expectations of others about what they can accomplish.

HISTORY AND CONTEXT OF EARLY COLLEGE SCHOOLS

College-level educational programs tailored to high school students have been in existence at least since the Advanced Placement program began as a pilot project in the 1950s. The inception of AP can be traced to a group of educators at prestigious private high schools and universities who sought to create ways for advanced high school juniors and seniors to engage in college-level work and take achievement exams to enter college with advanced standing (Members of the Faculties 1953).⁸ In 1966, while AP remained a small but growing program, Simon's Rock, which later became part of Bard College, was founded as a liberal arts college that enrolls academically advanced students before their graduation from high school.

In 1974, Middle College High School at LaGuardia Community College expanded the concept of college programming for high school students by focusing on youth from populations that were underserved by postsecondary education. At this high school on a community college campus, students in grades 9 through 12 received extensive exposure to college, personalized instruction, and support services in a small-school setting. Within a decade, with funding from the Ford Foundation and other sources, 20 additional middle college high schools were created on college campuses across the country. Extensive college course taking was not necessarily an objective of these schools—yet many students did complete some college courses—as much as it was exposure to the power of a college site to motivate high school students. By 1993, a network of middle college high schools coalesced and became known as the Middle College National Consortium.⁹

Two other developments are also important precursors of early college schools: the small schools movement and efforts to invigorate the senior year of high school.

While small schools have long been an important part of the educational landscape in the United States, the 1980s and 1990s witnessed the development of small schools—or small “learning communities” and “academies”—specifically in response to the failures of large comprehensive high schools, particularly in cities. The creation of small schools has included local efforts by educators and activists, most notably in New York City, Philadelphia, Chicago, Oakland, Boston, and Cincinnati.

The late 1990s and early years of the twenty-first century also saw the coordination of efforts to invigorate the senior year of high school. In 2000, a National Commission on the High School Senior Year, sponsored by several leading foundations and the U.S. Department of Education, brought together educational leaders to examine and improve the academic rigor of students' experiences during the senior year. In its final report, the commission found that the United States needed to enroll more high school students in rigorous academic programs and to prepare more of them for college and “an increasingly complex world of work” (National Commission on the High School Senior Year 2001). Toward this end, the commission offered three overall recommendations, which foreshadowed several central goals of early college schools: improve the alignment of high school and college curriculum; raise the achievement levels of high school students; and provide more rigorous alternatives than are currently available to high school students.

THE CREATION OF THE EARLY COLLEGE HIGH SCHOOL INITIATIVE

In 2002, building on all these efforts, the Early College High School Initiative was inaugurated under the leadership of the Bill & Melinda Gates Foundation and with support from the Carnegie Corporation of New York, the Ford Foundation, the W. K. Kellogg Foundation, and local philanthropies. The initiative drew upon several key aspects of the middle college concept, most notably its emphasis on providing meaningful college exposure for broad student populations underrepresented in postsecondary education. Like middle college high schools, early college schools also incorporated a small-schools

approach in seeking to provide student-centered learning environments that featured close and high-quality contacts with adults and structured academic supports.

Early college schools, however, differed from the middle college high school design in important ways. For example, not all early college schools are located on college campuses, although over half of the schools are. More significantly, early college schools offer their students the opportunity to earn a significant number of transferable college credits, up to an Associate's degree and a high school diploma within four to five years of starting ninth grade; this is not a tenet of middle college high schools. While not every student will earn two years of college

Early College Schools: What's the Experience Like for Students?

Early college students are diverse in terms of ethnicity, family income, and past academic performance.

In a summer academy before the first year of early college school, many students start planning for college and take courses in math or writing. During the school year, many students take accelerated courses in some subjects to reach grade level. The sequence of high school and college courses helps prepare them for college.

As high school freshmen and sophomores, students participate in many activities on the campus of the college partner, including freshman orientation and computer training. The students may begin taking college classes as well as high school classes.

During junior or senior years, students start taking more college courses. Students can take courses on how to succeed in college, which teach skills such as critical reading and analysis in addition to the content of specific academic disciplines. Students receive high school and college credit for college-level courses. Comprehensive academic support ensures that all students can be successful in college coursework.

College tuition is free for early college students—an important motivator for students. Early college jump-starts students' college careers without a financial cost.

NOTE: These describe common opportunities across early college schools, although educational practices and supports vary.

credit in high school, all are expected to enroll in college courses, and the schools support them in doing so. This expectation—that most students, not just advanced ones, can succeed in a challenging pathway leading to significant, transferable college credit while in high school—distinguishes the Early College High School Initiative from other reform efforts. Since the inception of the initiative, evidence has emerged that high school students in the lowest quartile of performance post higher test-score gains when placed in more rigorous courses, and that with proper supports low-achieving students are as likely to pass challenging, rigorous classes as they are the watered-down courses in which they are typically placed (Barth & Haycock 2004).

Coordinating Organization

Jobs for the Future

Partner Organizations

Board of Regents University System of Georgia

Center for Native Education

City University of New York

Communities Foundation of Texas

Foundation for California Community Colleges

Gateway to College National Network

KnowledgeWorks Foundation

Middle College National Consortium

National Council of La Raza

North Carolina New Schools Project

SECME, Inc.

Utah Partnership Foundation

Woodrow Wilson National Fellowship Foundation

At the start of the initiative, the Gates Foundation tasked Jobs for the Future, based in Boston, Massachusetts, with developing relationships with partner organizations that had the interest and capability of launching new early college schools and providing strategic planning and implementation support to these organizations. Given the range of organizations that were brought on board, JFF also functioned as a cross-fertilizer: it worked to build a professional learning community among the community foundations, constituency-based organizations, national school developers, and higher education systems that became part of the initiative.

The Gates Foundation initially invested in seven partner organizations that were charged with opening and supporting one hundred schools; the network has now expanded to thirteen organizations that include national school reform models, constituency-based organizations, and community foundations (see box, “Partner Organizations”). With this growth, JFF continues to play a strong role in coordinating and supporting the initiative partners and the network.

In 2001, before the initiative began, Stanford University professor Michael Kirst wrote that “with the exception of the AP program, there are no major [nationwide] efforts to provide curricular coherence and sequencing between the senior year [of high school] and postsecondary education” (Kirst 2001). In a significant way, the initiative sought to stimulate the development of such coherence and sequencing. For several years there had been efforts in many states to invest in K-16 educational partnerships, with little traction.¹⁰ One problem was—and continues to be—that no single entity had responsibility for the transition of students from high school to college. As Patrick Callan and others wrote (2006), “There are few accountability systems that track college readiness from secondary to postsecondary education. And no one is held responsible for the students who drop between the cracks of the two systems.”

By focusing on student populations that have been inadequately served as a result of the divide between the K-12 and postsecondary systems, the Early College High School Initiative challenged the prevailing view about what these students could accomplish in high school. In addition, the initiative created schools that spanned the divide between high school and college—or, more accurately, it sought to remove the divide for students. This transformation made each school responsible not just for preparing students for college but also for supporting them as they enrolled and sought to complete college courses while they were in high school.

During the growth of its network, each of the initiative partners took on stronger roles in providing professional development and technical support to schools, supporting public policies to clarify financing and other public priorities, and contributing to a JFF-managed Student Information System that could provide feedback about effective practices, outcomes, and impacts (see “*The Network of Partners*” section, page 22). The initiative partners also developed and honed five core principles that clarified the vision for school design (see box, “*Core Principles of the Early College High School Initiative*”).

As these principles emphasize, the schools are driven toward providing students underrepresented in higher education with rigorous academic coursework and comprehensive support services leading to college completion. Moreover, they clearly establish the locus of responsibility for the success of the students: within newly formed partnerships among local institutions, rather than within either the K-12 or postsecondary systems.

Core Principles of the Early College High School Initiative

Early Colleges:

- are committed to serving students underrepresented in higher education;
- are created and sustained by a local education agency, a higher education institution, and the community, all of whom are jointly accountable for student success;
- jointly develop an integrated academic program with their higher education partners so all students earn one to two years of transferable college credit leading to college completion;
- engage all students in a comprehensive support system that develops academic and social skills as well as the behaviors and conditions necessary for college completion; and
- work with initiative partners to create conditions and advocate for supportive policies that advance the early college movement.

EARLY COLLEGE SCHOOLS WITHIN A FRAMEWORK OF EDUCATION REFORM

In *The Future of Educational Entrepreneurship: Possibilities for School Reform*, educational policy experts Sarah Mead and Andrew Rotherham (2007) suggest that one of the important features of charter schools is that they are designed to create “space for innovative and successful educational models.” In writing about educational entrepreneurship, Frederick Hess (2008), director of educational policy at the American Enterprise Institute for Public Policy Research, likewise emphasizes the importance of investing in innovations and “problem-

solvers.” He suggests that “supply-side reform” in education, “rather than centering on isolated strategies to fix schools or promote school choice . . . focuses on making the ecosystem more hospitable to the emergence and expansion of effective problem-solvers.”

As this report reveals, although only a minority of early colleges are charter schools, the Early College High School Initiative has created local “space” for educational innovations within schools and colleges to develop on-the-ground designs for bridging the secondary/postsecondary divide for students. Over time, JFF and the initiative partners have provided increasing levels of professional development and policy support to advance the early college “ecosystem.” Central to the policy support has

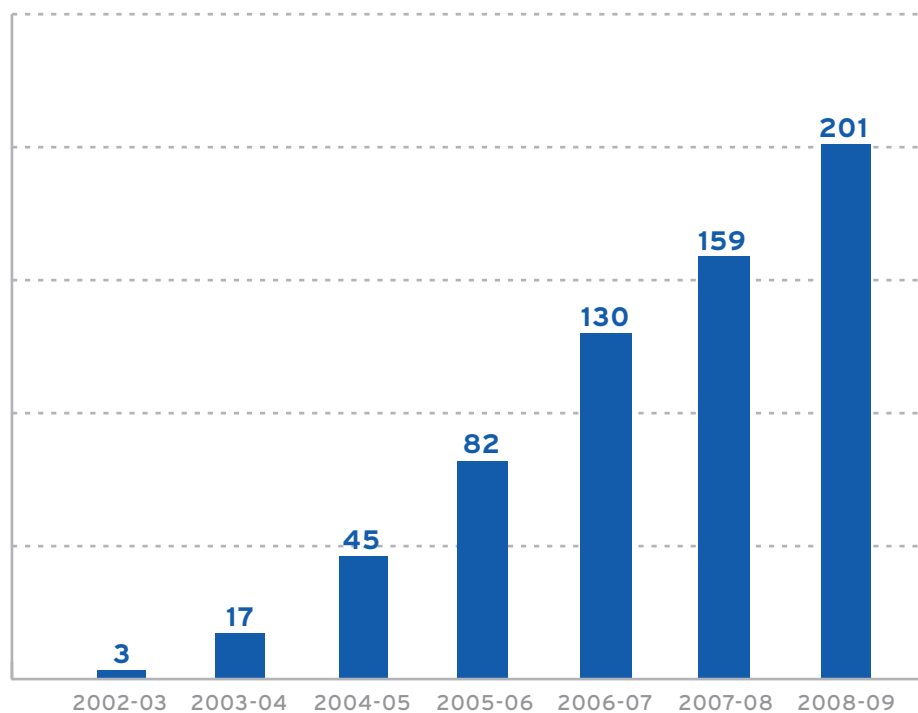
been advocating for the advancement of college readiness generally, including aligning high school assessment and college placement exams, working with those seeking to expand pathways to college, and improving dual enrollment policies. Within this overall framework, however, it is the work on the ground by teachers, professors, administrators, and others that appears to be reshaping the student experience. If there is a “disruptive technology,” in Hess’s words, it lies at the center of early college schools, where innovative “problem solvers” in local partnerships are removing the barriers between high school and college courses. This is where the heat is, where change occurs, and where tens of thousands of students are challenging accepted norms about what they can accomplish.

THE EARLY COLLEGE HIGH SCHOOL INITIATIVE TODAY

The Early College High School Initiative is in the midst of intense growth. Since 2002, the 13 initiative partners have started or redesigned more than 200 schools in 24 states (see Figure 2).¹¹ Most schools have been inaugurated by enrolling an incoming freshman class; the schools grow annually as that class advances and a new first-year class is enrolled. As of 2008-09, 96 of the total 201 early college schools had completed their expansion to include all grade levels, which

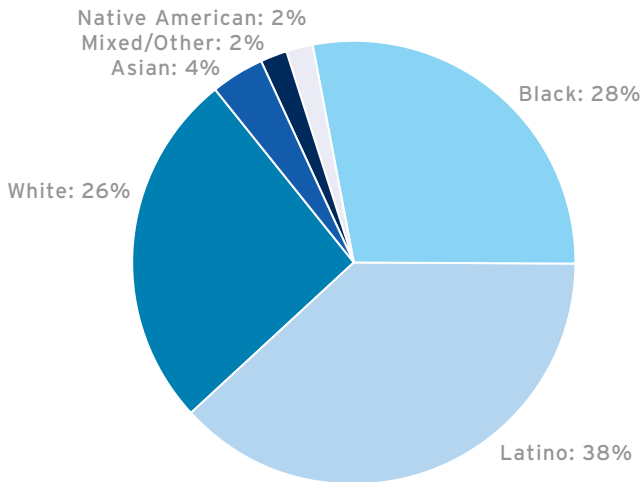
means that almost half of the schools have had a graduating class.¹² Across the network, 41,972 students were enrolled in 2008-09, according to the Student Information System developed by JFF. It is expected that the number of early college high schools and related integrated high school-college designs will increase as a result of funding from the American Recovery and Reinvestment Act.

Figure 2
Number of Early College Schools Since Inception



SOURCE: Student Information System, Jobs for the Future

Figure 3
Race and Ethnicity of Early College Students, 2008-09



NOTE: Total number of students equals 41,972.

SOURCE: Student Information System, Jobs for the Future

Enrollments in early college schools confirm that the initiative is serving students who are underrepresented in higher education, primarily low-income students and students of color (see *Figure 3*). For the 2008-09 school year:

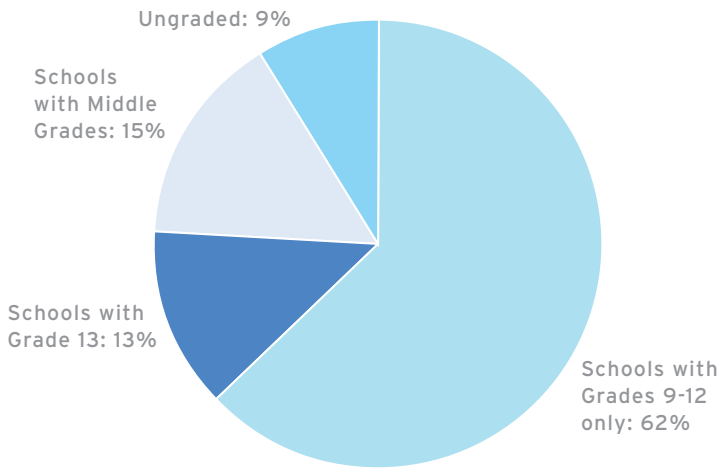
- 74 percent (31,128) were students of color.
- 56 percent (23,282) were eligible for free or reduced lunch.¹³
- 10 percent (3,978) were English language learners.
- 32 schools served students who previously dropped out of traditional high school or were at risk of dropping out.
- 10 schools served Native-American youth and were located in the communities where native students live.

Early college schools also have a higher percentage of low-income students and students of color than the districts from which they draw students.

Within the Early College High School Initiative, there is a great variety in the types of schools created because the initiative partners have great latitude in designing schools to meet local needs. While all schools are grounded in the initiative's core principles, the configuration (see *Figure 4*), audience, and curricular themes vary. Some schools are start-ups; others are transformed from existing schools or are created as schools within schools. Some serve mostly Native-American populations on reservations; many are in cities serving Latino and African-American students; some are in rural communities; still others serve youth who have dropped out of high school. Currently, about two-thirds of the schools choose a theme—for example, math, science, and technology—in order to focus resources in specific academic areas (Wolk 2005). The initiative is also agnostic toward the charter school debate; schools include charter, “regular” public, and contract institutions.

All early college schools share a commitment to removing barriers between secondary and postsecondary curricula for students, but the nature of the partnerships between high schools and colleges varies across the network. Currently, about three-quarters of schools partner with community colleges and about a quarter partner with four-year institutions. All the schools are located near a postsecondary institution, but just over half of the schools are located on the campus of a higher education partner (see *Figure 5*).

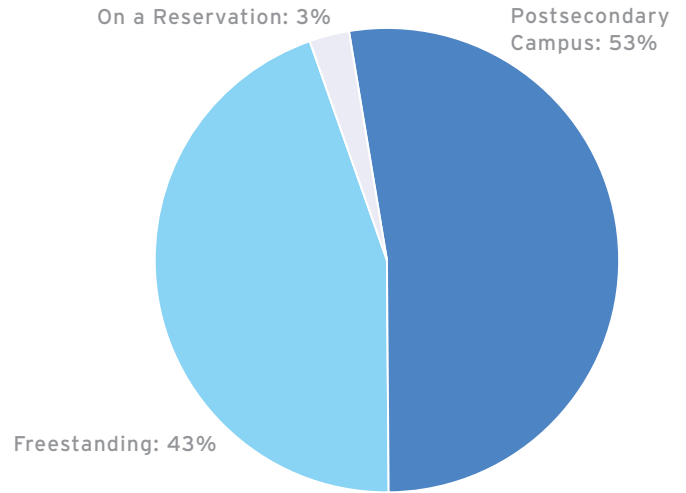
Figure 4
Grade Levels Served, 2008-09



NOTE: Data include 197 schools.

SOURCE: Student Information System, Jobs for the Future

Figure 5
Location of Early College Schools, 2008-09



NOTE: Data include 197 schools.

SOURCE: Student Information System, Jobs for the Future

Partnerships with Postsecondary Institutions

High schools and colleges each have their own professional cultures, and these affect the development of local partnerships that shape the curriculum and practices of each early college school. Based on the experience of existing schools, several factors at the college level have helped support the development of successful partnerships (Richards & Haynes 2009):

- The college's history and mission are supportive of serving broad populations of students, particularly low-income students and ethnic groups underrepresented in higher education.
- Faculty and administrators have roots in the community.
- The president's office gives support, leverages resources, and executes policies.
- The dean's office and departmental chairs are supportive.
- Recruitment of faculty is selective, targeting those with interest in the target population and track record of working with public schools.
- The early college school has a college liaison who understands the high school and university cultures, can communicate well in negotiating differences among groups, and can find ways to reach mutual goals that serve the students' needs.

OUTCOMES FOR EARLY COLLEGE GRADUATES

In 2008, 2,360 students earned high school diplomas from 37 early college schools that had been open for more than four years.¹⁴ While longitudinal studies on the class of 2008 are still under way, the early data suggests that:

- Higher percentages of early college students are graduating compared with high school students nationally.
- Early college graduates have higher college-going rates than other high school graduates.
- A higher proportion of early college graduates are enrolling in four-year colleges—which may suggest higher completion rates as well, based on degree attainment patterns at higher education institutions.

These findings, which are examined below, are particularly notable considering that early college schools serve high proportions of low-income students and students of color, populations that are traditionally underrepresented in postsecondary education.

GRADUATION RATES AND COLLEGE CREDITS WHILE IN HIGH SCHOOL

Early college students fare better than national averages in high school graduation rates. The four-year graduation rate for early college schools for 2008 was approximately 92 percent.¹⁵ Owing to inconsistent data gathering across states, it is difficult to arrive at a comparative national rate, but *Education Week's Diplomas Count 2009* identified a national graduate rate for 2005-06 of 69 percent. Various recent reports have estimated national four-year graduation rates ranging from about 70 to 83 percent.¹⁶

In light of the student populations attending early college schools, the graduation rates achieved by students at these schools are particularly impressive. The National Center for Education Statistics reported that, based on national averages in 2005 and 2006, students from low-income families are approximately four times as likely as those from high-income families to drop out of high school (Laird et al. 2008). Over half of the students attending early college schools are eligible for free or reduced lunch, and these students are included in the graduation rates achieved by early college schools.

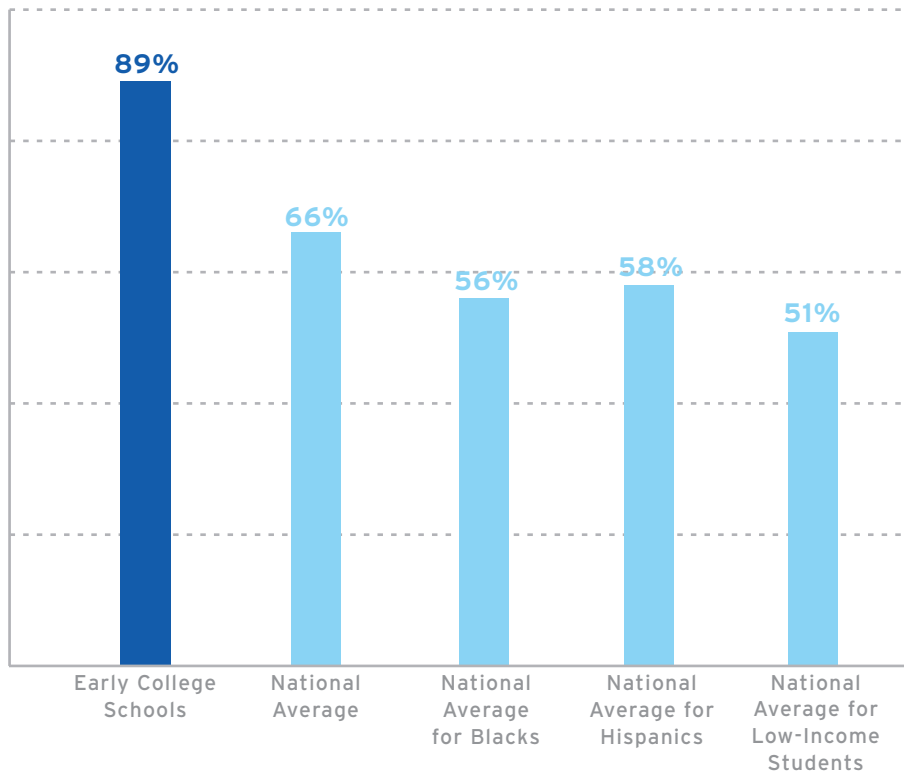
*Forty percent of graduates at early college schools operating for four or more years earned more than one year of college credits while in early college.*¹⁷ These students may be more likely than high school graduates without credits to complete a college degree. In *The Toolbox Revisited*, Clifford Adelman (2006) found that traditional first-year college students who earn at least 20 credits during their first year are more likely to complete a degree. While early college students aren't technically in their first year of college, many enter college with the knowledge that they have successfully completed a year of college work, and it appears likely that many of these students will go on to earn a B.A. degree. In fact, in a study conducted in Florida and New York, Melinda Karp and others (2007) found that students who had taken courses in high school were more likely to receive a high school diploma, enroll in college, and persist in college compared to students without college experience. The study reported that, in many cases, the benefit of dual enrollment was greater for low-income students than for their peers.

Eighty-three percent of early college graduates earned at least some college credits, indicating that they gained concrete knowledge about what it takes to succeed in postsecondary education. This data is based on a 2008 survey of 4,198 early college graduates, conducted by JFF. The National Center for Education Statistics (2007a) found that accumulation of college credits while in high school is much lower nationally; only 17 percent of high school graduates in the United States enter higher education having earned college credit in high school.

COLLEGE-GOING RATES AFTER HIGH SCHOOL

Early college graduates achieve higher college-going rates than their peers. Eighty-nine percent of early college graduates in 2008 went on to some form of postsecondary education that fall. Nationally, 66 percent of all high school graduates enrolled in college immediately after high school in 2006, the most recent year available.¹⁸ Compared with national averages, a higher percentage of early college students are students of color and from low-income families—which makes these college-going rates even more striking.

Figure 6
Percentage of Graduates Enrolling in College Immediately after High School



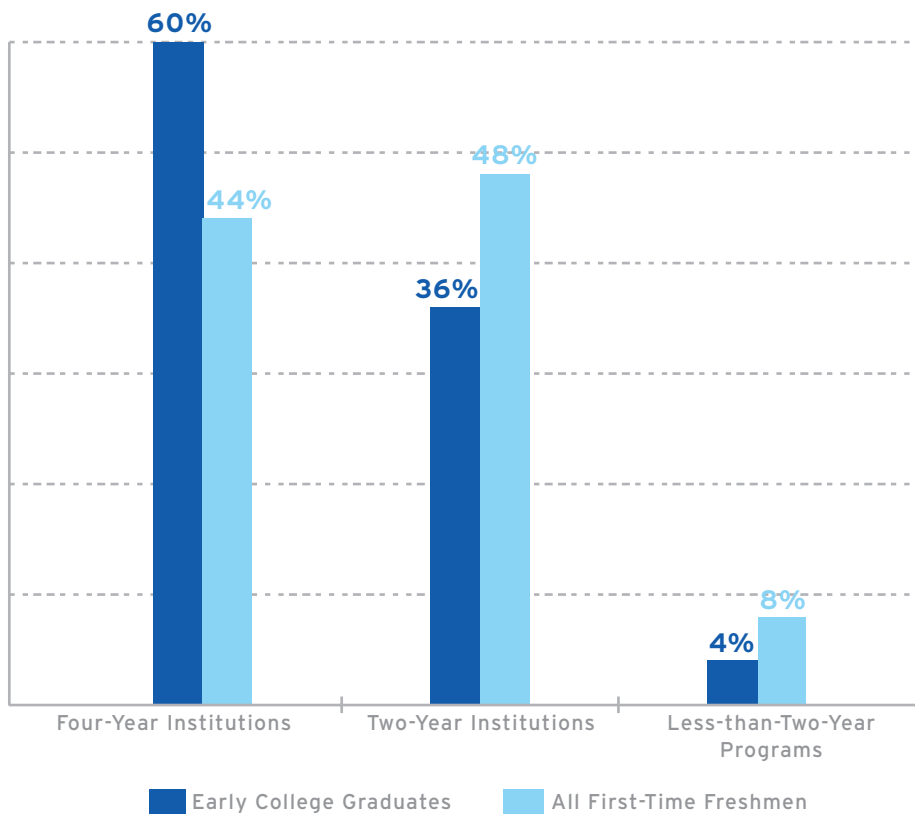
NOTE: “Low-income students” refers to the bottom 20 percent of all family incomes. Data for early college schools are for 2008; national averages are based on 2006 data, the most recent year available.

SOURCE: Student Information System, Jobs for the Future; National Center for Education Statistics, available at <http://nces.ed.gov/programs/coe/2008/section3/table.asp?tableID=902>.

Early college graduates are more likely than their peers to attend four-year institutions. Of the early college students who enrolled in postsecondary education after graduating in 2008, about 60 percent attended four-year institutions, 36 percent attended two-year colleges, and 4 percent enrolled in certificate or other programs of less than two years (see Figure 7). Nationally, about 44 percent of beginning

postsecondary students attend four-year colleges and universities, 48 percent attend two-year institutions, and 8 percent attend certificate or other programs of less than two years (Berkner & Choy 2008).¹⁹ Given that completion rates are significantly higher at four-year institutions than at two-year colleges, these comparisons suggest that early college students will be more likely than their peers to complete a degree.

Figure 7
Where Do Students Enroll after Graduation?



NOTE: Data for early college schools are for 2008; national figures are for students entering college in 2003-04, the most recent year available.

SOURCE: Survey by Jobs for the Future of 4,198 early college graduates in 2008. Data for all first-time freshmen are from Berkner & Choy (2008).

INSIDE EARLY COLLEGE SCHOOLS: EMERGENT PRACTICES TO SUPPORT STUDENTS

Rather than prescribing a specific instructional or curricular approach, the Early College High School Initiative describes a school design. It includes free college coursework and features the development of local partnerships to prepare underserved students for postsecondary education, with technical support and professional development from local, state, and national partner organizations. These partnerships, all of which are driven by local needs and innovative leaders, are structured and supported in ways that have proven successful across the network. Depending on the agreements and requirements of the local partnerships, there are a variety of arrangements for college instruction of high school students (see *Figure 8*). In all cases, the schools share a commitment to the same outcome: the achievement of up to two years of transferable college credit by young people underrepresented in higher education.

Early college schools seek to create agreement among stakeholders on an academic mission based on student needs and driving toward

student success in college, with a common focus on key goals. Most schools are small; learning takes place in personalized settings with meaningful adult contacts and with extensive activities on college campuses. The schools seek to provide an aligned, sequenced curriculum that builds toward college. Comprehensive academic and social supports help students succeed in a challenging course of study. Mastery and competence are rewarded with enrollment in college-level courses and the opportunity to earn two years of college credit for free.

At the same time that the initiative's history reveals flexibility and innovation in instructional design, its investment in research evaluations, professional development, and information systems shows a commitment to research-based instructional strategies for serving low-income students and students of color. Longitudinal studies of school practices are under way, but based on observations, surveys, research studies, and other information collected by the partner organizations and JFF, three emerging areas of focus appear to be important in building

Figure 8
Who Teaches College Courses at Early College Schools?

	Number of Schools
Postsecondary faculty	154
High school teachers appointed by college as adjuncts	13
High school and college faculty co-teach	8
Other	2

NOTE: Data are based on a total of 177 schools.

SOURCE: ECHSI Student Information System, Jobs for the Future

college readiness and success for these student populations:

- From orientation to college classes, the student experience is structured to raise expectations and increase knowledge about college.
- Aligned sequences of rigorous high school classes build to college coursework.
- Comprehensive academic and social support services sustain student success.

BUILDING AN ENVIRONMENT THAT RAISES STUDENT EXPECTATIONS AND KNOWLEDGE ABOUT COLLEGE

Early college schools demystify college by providing high school students with structured and regular experiences that expose the academic and cultural requirements of college.

Early college schools, from their first contacts with students, are geared to raising student expectations about attending college. In addition, by enrolling students in college classes, the schools provide them with concrete experience in succeeding in college-level work and a college environment.

For example, imagine walking into an early college school in the Bronx and seeing a notice to ninth-grade students that reads:²⁰

Freshman Seminars have begun! All 9th grade students are to report each Friday (for 6 consecutive Fridays) to the Brooklyn College campus . . . to experience instruction on topics explored in the fall from Brooklyn College Professors.

Or imagine seeing this announcement to parents in an early college school in Fayetteville, North Carolina:²¹

All our students will . . . have the opportunity to complete up to 60 hours of college credit, taught by college professors, tuition free to the student. Those college courses will replace the traditional high school electives and will fulfill many general education requirements at the university level.

The opportunities and expectations apparent in these kinds of notices are reinforced by teachers and administrators, as well as by the programming, coursework, and supports provided by the schools. Over half the schools are located on a college campus and benefit from the power of the site; schools that are not on campuses organize bridge programs and other activities regularly to expose students to college. At most early college schools, freshmen attend a summer academy where college expectations are explored in depth and plans for college study are laid out clearly. Other common activities for freshmen and sophomores include participation in on-campus activities and services, intensive academic boot-camp sessions, planning of strategies for college success, interactions with college students and professors, and opportunities to sit in on or take college classes.

Early college schools also coordinate programs to help juniors and seniors transition into college classes. For example, incoming juniors at Alameda Science and Technology Institute take part in a summer bridge program that includes a day-long field trip to the University of California, Santa Cruz and a week-long seminar-style class that focuses on the academic and social aspects of college. In addition, because many higher education partners require early college students to complete a college application before they can enroll in classes, early college schools typically provide extensive assistance in the application and registration process. This helps avoid the often daunting application process that most first-time college applicants face during their senior year.

In a longitudinal study tracking students of two early college schools over several years, Harvard researchers Michael Nakkula and Karen Foster (2007) note that at these schools “college expectations are communicated in every facet of the early college high school experience, from application and placement interview, through ninth-grade orientation,” and later through college planning. The researchers also found that when they interviewed freshmen near the end of the school year, the students “commonly spoke

of 'feeling like a college student'; they attributed this feeling to being a part of the college campus, including using the dining areas, classrooms, and the larger campus."

These findings are reinforced at other early college schools. Susan Doyle, the founding principal of Middle Early College High School in Buffalo, New York, expressed a similar sentiment saying early college students "are part of the campus climate. This provides them with a connection to the next stage of learning, making it a realistic goal."²² Researcher Anne Newton (2008) reports that Georgia College Early College, which serves seventh to twelfth graders, recruits students performing scoring at the 25-45th percentile and immerses them in a culture that accustoms them to moving between the early college school and the college campus. In this environment where students interact with college students and professors, students find that their plans for college solidify very early. An eighth grader, for example, said that the school "has really changed me. It has made me more responsible and organized. At first I wouldn't think about what I wanted to do when I got older or what college I would like to attend, but now I think about all those things."

In their work, Nakkula and Foster emphasize that expectations are not the same as concrete experience. Student expectations "can be dashed when students experience a profound disconnection between college and high school course work," they note. "Implicit in the early college high school model is the conviction that high expectation and college exposure is insufficient if not accompanied by college-level academic challenges." They found that for third-year students who had participated in some college courses over the summer, "it was apparent that those students . . . experienced a major boost in academic self confidence. . . . We could see a shift from hope that they could succeed in college to a belief that they could do so." Moreover, the researchers found that "the *shift from hope to belief* seemed to extend beyond the students who succeeded in their first dose of real college coursework. Their peers

benefited by association. Many strong students who did not enroll in the summer courses still discussed their peers' experiences in the interviews" (Nakkula & Foster 2008).

CREATING ACCELERATED AND ALIGNED CURRICULAR PATHWAYS LEADING TO COLLEGE COURSES

Early college schools scaffold academic coursework to help students reach college-level competency while in high school. This approach features accelerated rather than remedial approaches to educating students who are below grade level.

Across the country, several reform initiatives are identifying and establishing high school academic standards that align with college-level expectations. Through on-the-ground partnerships between high school teachers and college faculty, early college schools draw from this work in establishing aligned sequences of high school classes and supports that lead to and include college coursework. (See figure 9 for details about early college students' college coursework, and see boxes "Hidalgo Early College High School" and "STAR Early College School," for two different approaches at early college schools.)

Several approaches to acceleration and alignment are emerging from early college schools that appear to hold promise for improving student success:

Accelerated bridge courses: In many cases, freshmen and sophomores participate in programs, often offered in the summer, that move quickly through subject areas where they need additional help, creating a "bridge" to success in the regular school year.

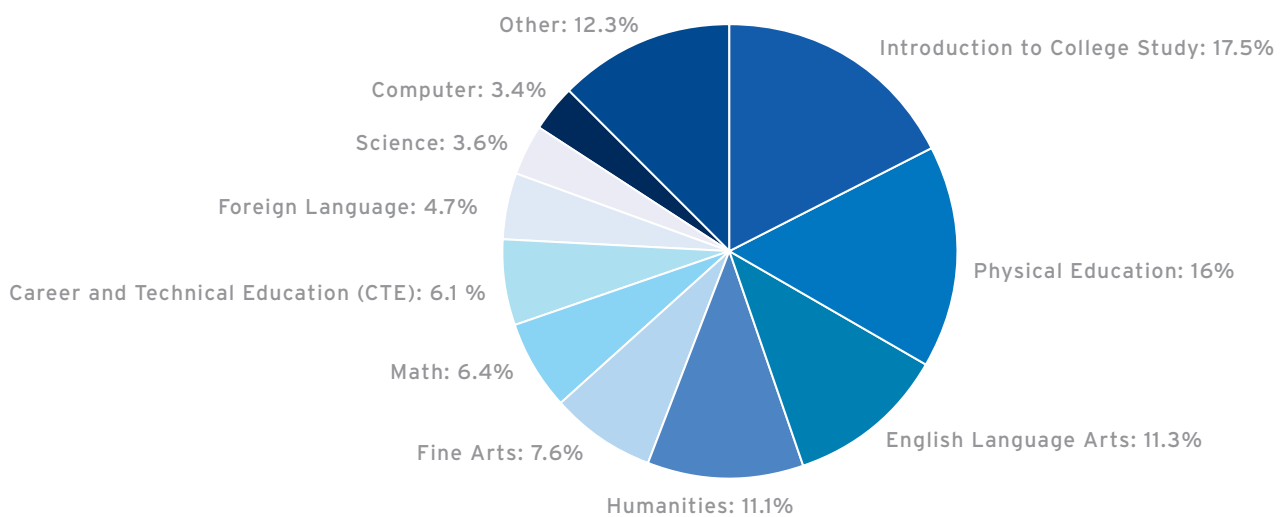
Focus on writing and math: Many early college schools teach writing throughout the curriculum, and many double up on time spent on math or English, depending on student needs (Bayerl 2007). Students also access tutoring and other comprehensive support services during and after regular school hours.

Designs with middle grades: Some early college schools begin at the middle school level to provide students with additional time to prepare for the rigor of college work. All of the schools started by the City University of New York begin in grade 6. Some early college schools with middle school students offer noncredit mini-courses that provide students in as early as seventh or eighth grade with college course experiences before they begin the core college curriculum. A mini-course might be taught in a six-week period by a college professor, or it might take place during a Friday elective slot and be staffed by multiple college professors and graduate student teachers over the course of a semester.

Theme-based schools: Many early college schools are associated with particular themes, such as science or technology, thus focusing resources on specific academic pathways and supports.

College preparation courses: Many students begin with “College 101” courses that teach what David Conley, an expert on the knowledge and skills necessary for college readiness, has called “foundational capabilities” for college success (Conley 2003). Skills include critical reading, reasoning and logic, analysis, study skills, and the spirit of inquiry associated with collegiate work rather than content from a specific academic discipline. Students typically earn one to three college credits in these courses. Similar courses are taught for credit to freshmen on many college campuses.

Figure 9
What College Courses Did Early College Students Take and Pass?



* Includes health, speech, business, and criminal justice

NOTE: Percentages are of total courses passed; based on a review of transcripts of 41 early college schools in 2007-08. Number of students taking courses: 3,703.

SOURCE: Student Information System, Jobs for the Future.

“Shadow” high school seminars: Some early college schools offer high school seminars that students take in conjunction with specific college courses. The seminars parallel the work of the college course, providing students with practice in developing pertinent discussion skills, vocabulary, and study habits. Students also collaborate in the seminars to develop strategies for understanding assignments, solving homework problems, and taking assessments.

Stretch courses: Some early college schools increase the time it takes to complete college credit-bearing courses—for example, by transforming semester courses into yearlong courses. This provides additional time for students to master the rigorous material.²³

PROVIDING COMPREHENSIVE AND WELL-ALIGNED SUPPORT SERVICES TO SUSTAIN STUDENT SUCCESS

Early college schools provide students with a wide range of academic and social support services to increase and sustain student success.

In providing students with scaffolded and aligned high school coursework, early college schools also provide comprehensive academic and social support services. These twin characteristics distinguish early college schools from dual enrollment programs that primarily serve academically advanced students. Although the best single indicator of college success is the quality and rigor of a student’s high school curriculum (Adelman 1999), many students need additional supports in order to benefit from

Hidalgo Early College High School, Hidalgo, Texas

- The Hidalgo Independent School District is predominantly low-income (90.6 percent) and Hispanic (99.8 percent). Hidalgo High School, the only comprehensive high school serving the district’s students, adopted an early college design in 2006 through support from the Communities Foundation of Texas and the Texas High School Project. With 850 students, Hidalgo Early College High School is larger than most early college schools.
- Middle school students in the district begin preparing for college by taking pre-Advanced Placement courses.
- All early college students must take a recommended high school program, which emphasizes preparation for postsecondary coursework, including Career and Technical Education (CTE) pathways.
- Freshmen and sophomores can take introductory college classes in art or music appreciation, or other electives outside core college academics, from instructors certified by neighboring South Texas College.
- All students are encouraged to take AP courses, particularly in Spanish language and Spanish literature, to leverage the community’s cultural and linguistic assets.
- By eleventh grade, Hidalgo students can take college courses in general education sequences or CTE college course pathways. The students typically must pass a readiness standard for CTE courses.
- The Hidalgo design ensures that students experience a focused college-prep academic core and some college-level work in the ninth and tenth grades. By eleventh grade, they can pursue an academic path based on their level of interest and preparation.

SOURCE: Jobs for the Future (2009)

STAR Early College School, Brooklyn, New York

STAR is a theme-based school focusing on science, technology, and research. STAR is a collaboration between two partner organizations: the Woodrow Wilson National Fellowship Foundation and City University of New York. The student body is 80 percent African-American and about 62 percent low-income. More than a quarter of students arrive with reading and math skills below grade level.

In grades 9 and 10, students participate in “early immersion” activities:

- an intensive summer bridge academy at Brooklyn College for incoming ninth graders focuses on English, math, and college study skills.
- weekly precollege orientation seminars in the fall introduce ninth graders to college departments and facilities and provide a hands-on look at scientific study.
- six-week academic seminars in the second semester of ninth grade begin in-depth study of areas such as anatomy, archaeology, and law.
- in a university library-based research project, ninth and tenth graders work in groups to develop a college research paper.

In grades 11 and 12, the challenge builds gradually as students take on college courses for credit.

Courses include:

- summer bridge courses that fill in skill and knowledge gaps between high school and college work.
- summer immersion courses, such as the Archaeology Field School, that offer college credit for experiential learning.
- cohort courses that are specially designed for STAR students but taught by college faculty on the college campus; and
- integrated classes, which are traditional college courses, that are open to anyone.

Both STAR and Brooklyn College offer a wide array of support services to help ensure that students succeed in both high school and college coursework. These include:

- extra academic support, such as after-school homework help, Regents exam preparation classes, and individual interventions;
- a “College 101” preparatory class for students enrolled in their first college course, covering topics ranging from time management to plagiarism; and
- tutoring by undergraduates hired to attend class with STAR students and help them grasp difficult content.

SOURCE: Newton & Vogt (2008).

rigorous academic programs. This is particularly the case for students who are underachieving in high school and underrepresented in postsecondary education.

In early college schools, many academic and social supports are blended into the academic programming to improve student engagement and provide students with a seamless experience in preparing for college. Examples of support services that are aligned (often blended) with academic programming include:

- *Freshmen orientation sessions on college campuses*, offered by many early college schools, that offer freshmen supportive social experiences and accelerated academic programming in math and English during the summer. By being on college campuses, the sessions also provide important exposure to college activities and services, from the dining hall and recreation facilities to the library, computer labs, and counseling center. Some early colleges also offer students the chance to participate in freshman convocation ceremonies when they begin college coursework.
- *Individual and group tutoring* can include after-school study centers associated with specific academic subjects. For students enrolled in college classes, undergraduate tutoring on college campuses and in academic labs are also often available (Goldberger & Haynes 2005).
- *Individual and small group mentoring* are offered at some schools to help provide academic support and socialization. For example, small groups may be offered once a week and individual mentoring can be offered for high-need students. In some cases the mentoring is provided by older peers; in other cases, counselors, teachers, or volunteers provide the services (Newton 2005).
- *Saturday test-prep and other academies* assist students in preparing for assessment tests at the high school and college levels.
- *Academic counseling* at the high school and college assists students in raising their college expectations as they plan for college. Revisiting the plans regularly gives students experience in adjusting their short-term objectives as their preparation for college improves, their understanding of college increases, and their interests evolve.
- *Small-school settings and regular team meetings* assist in the early identification of students who are falling off track academically. These students are directed to interventions to help them succeed.
- *College prep courses*, double periods of math or English, *“shadow” high school seminars*, and *“stretch” classes* are other examples of academic programming blended with student support.

Many early colleges appoint a liaison between the high school and college to advise students, arrange course schedules, and link students to support services in the high school and college settings. Some early college schools select a limited number of academic pathways—for instance, those associated with the academic themes of the school—for which they provide a higher level of academic support services. This enables them to target their resources in high-need areas.

In addition, early college schools offer a wide range of social supports, including counseling, peer networking and advising, career exploration activities, and college connection activities and games.

THE NETWORK OF PARTNERS: SUPPORTING THE SCHOOLS

Since 2004-05, the size of the Early College High School Initiative has doubled twice, and the network of organizations managing the schools has matured. New organizations have been brought into the network, including the Texas High School Project, the Foundation for California Community Colleges, and the North Carolina New Schools Project. Meanwhile, the responsibilities of these initiative partners—and the role of JFF in coordinating and supporting the overall network—has evolved in several key areas:

- targeted professional development to provide instructional support for teachers, faculty, and administrators;
- research and improved data systems to provide schools with support in local decision making about best practices and student success; and
- policy support and advocacy to improve statewide and national dual enrollment opportunities for underrepresented students.

PROFESSIONAL DEVELOPMENT

Since 2006, the Early College High School Initiative has graduated its first four classes of students and overseen the creation of more than 100 new schools. During this time, there was a recognition that early college staff require different professional development than staff at other schools as they are charged with implementing an instructional program and culture that enables all students to reach a college-ready standard while in high school. In response, the initiative partners, JFF, and the Gates Foundation have all increased their support efforts. For example, each of the partners has brought together its own group of schools more

frequently to share experiences, breakthroughs, and challenges through focused professional development—including intensive summer learning institutes, collaborative retreats, and visits to school sites.

In addition, the initiative partners and JFF have developed more robust and standardized technical assistance models, including coaching on particular aspects of design and implementation, such as partnerships between schools and colleges, joint curriculum development between teachers and faculty, community engagement, action research projects, and schoolwide literacy practices. Most of the partners offer ongoing, job-embedded, and site-based services. These efforts have marked a strategic shift from a loose affiliation of schools to more active learning communities using data and best practices to understand and improve student outcomes. (See box, “Examples of Professional Development across the Network.”)

RESEARCH AND IMPROVED DATA SYSTEMS

As the Early College High School Initiative has matured, the Gates Foundation, the initiative partners, and JFF have invested in a wide range of research and evaluative studies to better understand and improve early college schools. For example, several longitudinal studies are under way, including one examining changes in student expectations in two early college schools and another examining North Carolina early college schools.

Examples of Professional Development across the Network

The University Park Campus School Institute for Student Success has emerged as an important professional development resource for early college schools. The institute's training curriculum focuses on leadership strategies and instructional design elements that have led to universal college readiness at University Park Campus School in Worcester, Massachusetts. During summer institutes, short residencies during the academic year, and local follow-up trainings, UPCS faculty work with early college teachers on research-based instructional practices that support accelerated learning for low-performing students. UPCS faculty also work with school leaders in identifying schoolwide practices that support the development of aligned, sequenced college preparatory programs for all students.

Several initiative partners have made the UPCS experience a foundational activity for their school leaders, postsecondary partners, and instructional change agents. The City University of New York worked with the UPCS Institute to inform the school design, culture, and instruction at the six early college high schools that it has opened in New York. As CUNY's schools were developing, UPCS Institute trainings played a key role in the orientation of staff because UPCS offered a compelling picture of the instruction and culture that they were in the process of creating at their own schools. Currently, in partnership with the North Carolina New Schools Project and the Communities Foundation of Texas, the UPCS Institute provides support to 42 early college high schools in Texas and more than 100 schools in North Carolina.

The Middle College National Consortium, one of the original initiative partners, provides a wide range of professional development opportunities for teachers, counselors, principals, administrators, college liaisons, and others. These opportunities range from ongoing support and exchanges during the year to technical-assistance workshops, principals' leadership institutes, student-leadership conferences, and summer professional development institutes. The offerings are developed for those who are new to early college schools, as well as those who are more experienced with the model. Workshops cover such topics as literacy throughout the curriculum, the role of critical friends and peer review, inventing new forms of student support for college classes, creating e-portfolios, using wikis to do inquiry projects, and using data for improvement. School teams attend the institutes, work together on schoolwide challenges, and share approaches and strategies with other school teams.

In California, a new model of sharing data and using it to advocate for improved policies and practices is emerging through the efforts of the **Foundation for California Community Colleges**. FCCC has brought together a nascent coalition of early college high school principals and postsecondary partners to identify ways to improve early and middle college high schools in the state, both in terms of policy and curriculum. To identify opportunities for improving outcomes, principals and college liaison partners in the coalition will analyze statewide data about early and middle college high schools. At the first meeting in May 2009, coalition members shared information about statewide and local policies concerning concurrent enrollment, including caps on community college enrollment, issues involving undocumented students, and establishing priorities for college enrollment. Coalition members have also jointly identified professional-development needs statewide, including effective strategies for managing and supporting growth in early and middle college schools.

In North Carolina, researchers from the SERVE Center at the University of North Carolina, Greensboro are using an experimental design to compare outcomes between students who are attending early college high schools after winning spots in the admissions lottery and students who applied but did not win a spot. This methodology—considered the gold standard in education research—will enable researchers to confidently attribute any differences in outcome to the early college high school design. Researchers have identified preliminary first-year findings suggesting that by the end of the ninth grade, more early college students were farther along in the advanced math course curriculum than their peers in the control group. Researchers noted that “the differences were particularly large for economically disadvantaged students. This suggests that certain populations of students can reap large benefits from the higher expectations and more accelerated course-taking offerings” (Glennie et al. nd).

A host of other studies and evaluations are also under way, including several by the National Center for Restructuring Education, Schools and Teaching (NCREST) in partnership with the Middle College National Consortium. The National Council of La Raza, the Woodrow Wilson National Fellowship Foundation, and the KnowledgeWorks Foundation have produced separate studies identifying best practices. In addition, JFF has developed several briefs on: designing an integrated program leading to college study; scaffolding experiences for students and faculty; the use of literacy techniques in science classes to prepare students for college; and identifying benchmarks for developing effective schools and programs.²⁴ Research of the early years of the initiative was conducted by American Institutes for Research and SRI International.²⁵

The initiative’s partners have also formed a research work group. Its members have identified research gaps and priorities across the network, written RFPs, and contracted with NCREST and the SERVE Center to conduct two two-year research projects. One focuses on persistence,

the other on effective math and English language arts instruction in early college schools.

Other evidence that the early college schools and network are committed to using research and data to improve outcomes can be found in the investment and use of a national Student Information System.²⁶ Through the system, launched in 2006 by JFF, the initiative can track the academic achievement and progress of students in early college schools. The data can include prior academic information going back to at least the eighth grade and college attainment after graduation from early college. The purpose of the system is to improve the effectiveness of early college schools. Many of the findings in this report are based on data from this system.

POLICY SUPPORT AND ADVOCACY

For several years, the initiative partners have advocated for state policies that support the key goals of early college schools. As part of this work, they have collaborated with school leaders to better understand how to implement the unique early college design, given local and state policies. They have collected and used early college student data to make the case for increasing state and federal support. In addition, they have worked with district, state, and federal policymakers to remove policy barriers, paving the way for expansion.

Early in the initiative, JFF and the initiative partners learned that the educational policies that best support early college students are those that allow for the seamless movement of students, credits, finances, data, and personnel between high schools and colleges. The problem is that most state K-12 and postsecondary systems are in fact disconnected. This is evident in the following common barriers:

- **Dual credit:** Some states do not allow credits earned in a college course to count for both high school and college credit, even if the course covers and surpasses high school standards. Some states make no provision for dual credit at all.

- Funding college courses:** Paying for the college courses of high school students can be difficult, even if early college improves the preparation of students and their timely completion of a high school degree and results in savings to the state over time. (See box, “*The Costs and Benefits of Early College.*”) This is especially so because federal (and most state) financial aid programs do not allow high school students to use need-based aid to pay for college courses. A second funding challenge arises because early college students take college courses based on performance as they are ready, and success in college coursework demonstrates mastery of high school and college standards. But many states do not allow the postsecondary partner and the early college high school to claim state funding for early college students, even though they are both responsible for the success of students in this advanced course of study.
- Transfer of college credit:** A benefit of early college to students and taxpayers is the potential savings in college costs when students get a head start on college by applying the credits they earned early toward a postsecondary degree. Because not all states have articulation agreements, it is possible that some students will not be able to transfer all their credit. States that have statewide articulation agreements can provide more assurances.
- Data:** To create changes that lead to improved student performance, educators and policymakers need to be able to track individual student progress from high school through college. This is imperative for early college schools because college is an integral part of the high school course of study. While district and state data systems are improving, few can link to college data systems and even fewer track student participation in dual enrollment programs. Consequently, there is little comprehensive research on the impact of early college and dual enrollment on postsecondary success.

JFF and the initiative partners have had success in addressing these and other barriers in some states. They have obtained waivers, changed policy, or secured charter school-like autonomies for early college schools. The national early college Student Information System has helped to compensate for the lack of district and state longitudinal data by providing data to schools and initiative partners. In addition, JFF and the initiative partners have collaborated with other organizations that, like early college schools, seek to raise high school and college success rates by improving state policies on standards, assessments, accountability, and data systems.

Finally, JFF has also taken a leadership role in identifying policies that support dual enrollment for underrepresented students, whether or not they are in an early college. This is because dual enrollment is a powerful state policy lever for breaking down the divide between high school and college. Most states have dual enrollment policies, but these are typically designed for students who are already college bound. The advocacy of JFF and several initiative partners has led several states—including Georgia, Illinois, New York, North Carolina, Pennsylvania, Rhode Island, Ohio, Texas, and Utah—to craft statewide dual enrollment policies specifically for broader student populations. In this way, lessons from early college are informing state policies that can enable the creation of similar college course-taking opportunities for underrepresented students generally.

The Costs and Benefits of Early College: Financing Grades 9 to 14

State finance policies are critical to the sustainability of early college. Particularly during challenging fiscal conditions, states need to weigh the likely costs and benefits of a statewide strategy that supports early college schools. It is clear that by providing free tuition early college can reduce college costs for students and their families. To the state, however, there are additional upfront and ongoing investments for early college schools, including the costs of developing better-aligned courses, creating support systems, training teachers, and offering college courses tuition free.

JFF has estimated that the ongoing costs of early college schools are, on average, from 0 to 20 percent higher than spending per student in K-12 public schools (Webb 2004).²⁷ However, these figures do not account for the extent to which early college schools can reduce costs to states by lowering remediation rates and reducing students' time to degree completion. When more students graduate from college on time, their education requires fewer state resources.

Using this cost-to-completion modeling and early outcomes from early college schools in California, a study commissioned by JFF estimates that "Californians could save as much as \$1,662 per student who completes an associate's degree and \$9,178 per student who completes a bachelor's degree. At these rates, for every ten early college schools serving 300 students, the state would be projected to save \$5 million in costs to the associate's degree" (Kirst, Venezia, & Nodine forthcoming).

Over the long run, states stand to benefit even more. An independent education finance firm has projected that, due to increased future tax revenues, states would more than recover their financial investment in these schools (see *figure 10*). This return on investment is projected based on three factors: higher educational attainment for early college students; increased earnings based on education attainment; and a longer working life.

Although more research needs to be completed on state costs, these estimates suggest that early college schools appear to be a cost-effective strategy for improving student preparation for and completion of college.

Figure 10
Projected Return on Investment for Early College Schools

For every \$100 invested in early college high schools...	
Projected return over 15 years	\$133-\$221
Projected return over 25 years	\$251-\$395

SOURCE: Adapted from Palaich et al. 2006

CONCLUSION

In the United States, secondary and postsecondary systems of education are funded through entirely different revenue streams. These systems are supported by distinct groups of professional organizations that rarely cross paths. Their incentive structures are very different, as are their administrative hierarchies, their policy adoption mechanisms, their governance systems, and their political spheres of influence. Their advocates are equally passionate and vocal, yet often at cross-purposes with each other.

Now imagine these systems working together to serve the same students.

Given the functional divide between secondary and postsecondary education, it is perhaps no surprise that creating seamless paths from high school to college requires investment in local leaders, innovations and partnerships, as well as the support of a national network for research, professional development, policy change, and advocacy. Overall, the Early College High School Initiative is still small and quite new, and we need to know more about many things—for example, aligned, scaffolded coursework from high school to college; accelerated learning programs for underachieving students; professional development for teachers and faculty; and whether student outcomes can be sustained. We need to understand better the long-term savings—and costs—of investing in early college schools. And we need to know more about the early college graduates who are now in college and how they are faring.

What has emerged so far is impressive—a school design that includes:

- providing high school students with rich and diverse experiences on college campuses that help to demystify the process of applying to and attending college;
- immersing the students in rigorous coursework building to and including college courses while in high school;
- providing comprehensive student supports to improve success;
- changing the incentive structure for high school students by offering free college credits; and
- building local partnerships to create seamless transitions between high school and college.

Based on the outcomes so far, it appears that broad populations of students have responded—particularly students who have been underserved by higher education. Thousands of these high school students have participated in accelerated programs, prepared themselves for college, taken college classes and earned college credits, graduated from high school, and enrolled in postsecondary education—at higher rates than their peers. In the process, these students are exceeding expectations about how fast they can learn, how deeply they want to succeed, and how far they can go.

ENDNOTES

¹ As recently as 2000, 67 percent of Americans said that there are many ways to succeed in the work world without a college degree. In 2009, however, only 43 percent felt that way, and 55 percent said that a college degree is not just important but necessary for people to succeed (Immerwahr & Johnson 2009).

² In 2007, high school graduates earned \$26,894 on average, while those with a Bachelor's degree brought in \$46,805, according to the U.S. Census Bureau, American Community Survey, 2007, www.census.gov/acs/www/index.html.

³ Available at www.whitehouse.gov/the_press_office/remarks-of-president-barack-obama-address-to-joint-session-of-congress, accessed July 25, 2009.

⁴ National Assessment of Educational Progress, The Nation's Report Card, 2008, available at http://nationsreportcard.gov/ltt_2008.

⁵ Postsecondary education here refers to all education and training beyond high school, including training programs, community colleges, and four-year colleges.

⁶ The initiative uses the terms "early college high school" and "early college school" interchangeably. When the initiative began, it was thought the schools would all begin in ninth or tenth grade. However, some schools start earlier, so "early college school" has come into use to accommodate this development.

⁷ In 2002-03, about three of every four high schools permitted their students to take college courses, with about 813,000 high school students enrolling in a college course that year (Waits, Setzer, & Lewis 2005).

⁸ See also: <http://apcentral.collegeboard.com/apc/public/program/history/8019.html>.

⁹ See: www.simons-rock.edu/about/story and http://www.mcnc.us/about_history.htm.

¹⁰ For examples of such K-16 efforts, see: Venezia et al. (2006) and the related case studies of Florida, Georgia, New York, and Oregon, available at www.highereducation.org/reports/reports_center_2006.shtml.

¹¹ There are increasing numbers of early college high schools funded by states, districts, and foundations without support of the Bill & Melinda Gates Foundation. These schools operate independent of the Early College High School Initiative.

¹² The number of grade levels varies depending on the local school configuration.

¹³ This percentage is probably higher and does not include students who would be eligible but do not request participation in the program.

¹⁴ There were just over 900 graduates in 2007 and 115 in the first graduating class in 2006.

¹⁵ This rate was calculated by Jobs for the Future using the federal definition. The calculation includes all 22 schools for which there was a graduating class, entering ninth-grade cohort data, and data on transfers, dropouts, etc.

¹⁶ See: www.centerforpubliceducation.org/site/c.kjJXJ5MPIwE/b.1806639/k.C4FD/Atag glance_Calculating_high_school_graduation_rates.htm, accessed April 28, 2009.

¹⁷ Based on data for a total of 43 schools graduating four-year cohorts in 2008.

¹⁸ See: National Center for Education Statistics, *Student Effort and Educational Progress*, Table 24.1 "Transition to College," derived from U.S. Department of Commerce, Census Bureau, Current Population Survey, October Supplement, 1972-2006, available at <http://nces.ed.gov/programs/coe/2008/section3/table.asp?tableID=902>, accessed May 1, 2009.

¹⁹ These national figures are for students entering college in 2003-04, the most recent year available.

²⁰ See: www.starec.org/home.aspx, accessed March 2009.

²¹ See www.ccechs.ccs.k12.nc.us/AdditionalInfo.htm, accessed March 2009.

²² See: "Middle Early College High School at Erie Community College a Success," Early Community College of New York, March 29, 2007, available at <http://www.ecc.edu>.

²³ For more information about most of these approaches, see: Cunningham & Matthews (2007) and several briefs on emergent practices at www.earlycolleges.org.

²⁴ Available at www.earlycolleges.org/publications.html.

²⁵ Available at www.earlycolleges.org/publications.html#evaluations.

²⁶ As of the 2007-08 school year, 65 (or 41 percent) of the 159 early college schools participated in the Student Information System.

²⁷ These findings are based on a pilot study.

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