
II. THE EARLY COLLEGE MOVEMENT

The Early College High School Initiative: An Overview of Five Evaluation Years

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In 2002, the Bill & Melinda Gates Foundation started the Early College High School Initiative (ECHSI). Through this initiative, more than 200 Early College Schools (ECSs) opened by fall 2009. All of the schools aim to provide underserved students access to college classes while in high school. This article will provide an overview of the first 6 years of the ECHSI, and key findings across 5 years of the ECHSI evaluation, in particular highlighting how participants have implemented the ECHSI's core principles. However, the ECS is not a rigid model, and this article describes the variations in ECS implementation. Finally, this article documents outcomes such as attendance, grade-to-grade progression and graduation rates, student performance on assessments, and college credit accrual.

INTRODUCTION

Nationally, there has been a lot of attention paid to the importance of “college readiness” for high school students. This attention reached a zenith in 2009 with Congress’s use of federal stimulus dollars as a lever to improve student achievement through a commitment to “making progress toward rigorous college- and career-ready standards” (U.S. Department of Education, 2009).

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Coupled with this intense focus on the quality of secondary education is a focus on improving underserved students' likelihood for college completion, a commitment formalized by the Bill & Melinda Gates Foundation's funding strategy concentrated on improving college completion rates for underrepresented students (Bill & Melinda Gates Foundation, 2009).

The Bill & Melinda Gates Foundation's Early College High School Initiative (ECHSI), which began its development in 2002, comes at the intersection of these two important goals: improving students' secondary and postsecondary experiences. This initiative was inspired by the Bard Early College High School, a school formed through a partnership between Bard College and the New York City Public Schools that opened its doors in 2001. Schools in the ECHSI were conceptualized as institutions that would serve students who are traditionally underrepresented in postsecondary education, offering them the opportunity to simultaneously pursue a high school diploma and earn a substantial number of college credits. The ECHSI targets underrepresented groups, broadly defined to include students who are the first in their families to attend college, including students from minority backgrounds, English language learners, and low-income students of any background (Jobs for the Future [JFF], 2008).

The promise of earning college credit while in high school as part of the ECHSI is built largely on long-existing dual enrollment programs. Nationally, approximately 57% of postsecondary institutions in 38 states have dual enrollment programs (Hoffman, 2005; National Center for Educational Statistics [NCES], 2005a). A study conducted in two states provided evidence that dual enrollment can lead to a range of positive outcomes: Students who had taken college classes while in high school were more likely to earn a high school degree, enroll in college, enroll in a 4-year college, enroll full-time, and persist in college, compared with students without college experience (Karp, Calcagno, Hughes, Jeong, & Bailey, 2007). In addition, students who received college credits while in high school had higher college grade point averages (GPAs) and earned more college credits within 3 years of high school graduation. Adelman (2006) suggested that if students can graduate from high school with at least six college classes, it will make college completion more likely.

However, dual enrollment programs in isolation do not improve student success. Despite the generally wide availability of programs allowing high school students to take college classes, very few students take advantage of them. In 2002–03, only 5% of students nationally participated in dual enrollment programs (NCES, 2005b) and only 17% of first-time college students in 2003–04 earned credits from a college while in high school (NCES, 2007). In many instances, high schools and school districts restrict access to dual enrollment opportunities, for example, allowing only honor students to participate.

The hypothesis underlying both Bard Early College High School and the ECHSI is that even reluctant or discouraged high school students, who may be unengaged in traditional school settings, can be motivated at a relatively early age to view themselves as successful participants in the college experience. Recent research has supported this hypothesis. An examination of programs that allow high school students to take college-level classes for college credits, such as Tech-Prep programs, International Baccalaureate programs, and Middle College high schools, found three primary benefits for students: (a) the opportunity to earn free college credit, (b) gaining "a taste" of college, and (c) increasing students' confidence in their academic abilities (Hughes, Karp, Fermin, & Bailey, 2005). The National Center for Restructuring Schools and Teaching has a publication that provides evidence that Middle College high schools associated with the Middle College National Consortium, one of the grantee organizations in the ECHSI, have succeeded in

providing their students with early access to college courses and that each year higher numbers of students from diverse racial/ethnic and socioeconomic backgrounds participate in college coursework (Kim & Barnett, 2008).

Moving students who are at an academic disadvantage into college early cannot be done in isolation: Early College Schools (ECSs)¹ provide a comprehensive experience, focusing on providing small learning environments with an emphasis on strong student supports. A report by the Community College Research Center discusses how dual enrollment programs are increasingly preparing a wide range of students for postsecondary education and suggests that ECSs offer extensive academic support services for their students, such as tutoring, mentoring, and college success seminars, to help them be successful in their college-credit courses (Gollan & Hughes, 2008). As a result of these supports, ECSs can move students through their schooling more quickly. One experimental study of the North Carolina ECSs is under way. Findings from one pilot school demonstrated that the ECS students were more likely to take geometry in 9th grade than students who were not selected to attend the ECS, and this benefit of attending an ECS was particularly pronounced for low-income students (Glennie, Edmunds, Bernstein, & Purtell, 2009).

The primary research on the ECHSI has been conducted by American Institutes for Research (AIR) and SRI International (SRI) since 2002. This evaluation is the only nationally focused examination of the ECHSI. As such, it is well positioned to inform both the participants in the ECHSI who are doing this work and the broader community who are interested in what this initiative is and how successful it is. This article summarizes key findings culled from 5 years of annual evaluation reports produced by AIR and SRI for the Bill & Melinda Gates Foundation. The evaluation is largely descriptive, focusing on documenting the ECHSI across time. Extensive theoretical and methodological details and statistical tables can be found in the body and technical appendices of these reports (all cited in the References section). Table 1 includes a summary of the data sources, the years the data were collected, and the sample size of each data-collection activity.

In this article, we provide a brief history of the ECHSI. Next, we describe ECSs in this initiative using the ECHSI's core principles as the framework for the discussion. Finally, we present data on the student outcomes of the ECSs thus far.

HISTORY OF THE ECHSI

In 2002, the Bill & Melinda Gates Foundation funded seven grantee organizations to serve as intermediaries in launching the ECHSI.² The first responsibility of an intermediary is to assist in brokering local partnerships between institutions of higher education (IHEs) (2-year, 4-year, or

¹Note that the term "schools" rather than "high schools" is now preferred by the ECHSI because a number of the schools start with the middle school grades to ensure that students will be prepared for an accelerated high school program that includes college courses.

²The seven founding intermediaries included the Center for Native Education at Antioch University in Seattle, the KnowledgeWorks Foundation, the Middle College National Consortium, the National Council of La Raza, the Southeast Consortium for Minorities in Engineering, the Utah Partnership for Education, and the Woodrow Wilson National Fellowship Foundation.

TABLE 1
Overview of ECHSI Evaluation Data Collection Activities and Samples, 2002–08

Data Collection Activities	Sample Sizes					
	2002–03 (pilot)	2003– 04	2004– 05	2005– 06	2006– 07	2007– 08
ECS site visits —Evaluation team members visited ECS sites, and during these visits they observed classes, held focus groups with students, and interviewed ECS and college instructors, staff, and administrators as well as district staff. Topics included the school environment, partnerships, policy context, students' experiences, sustainability, and implementation successes and challenges.	1	12	14	10	20	6
ECS leader interviews —Telephone interviews with ECS and IHE leaders to obtain updates on the status of implementation.		10	10	14		
ECS alumni interviews —Telephone interviews with ECS graduates enrolled in college. Topics included the ECS experience, the transition into college after the ECS, and current postsecondary experiences.						5 ECSs; 16 alums
ECS school survey —This is an annual survey administered at all open schools in the ECHSI. Response rates have been at least 93% each year. Topics include school characteristics and designs, structural features, curricular offerings, college partners, and student enrollment, achievement, and progress.		22	50	60	120	151
ECS student survey —This survey was administered twice with a response rate of 89% or higher in both years. This survey focused on students' ECS experiences (including measures of student supports, school climate, instruction, and college course exposure), ECS academic outcomes, and outcomes regarding their preparation for post-ECS life.					20 ECSs; 1,396 students	35 ECSs; 2,102 students
Extant data (SIS) —Student data was obtained from the student-level SIS, a system maintained by JFF for the accumulation of student-level data ECHSI-wide.				18	28	84
Extant data (publicly available) —Data from state and district Web sites was accumulated for school-level demographic and assessment data.				58	80	104

TABLE 1
Overview of ECHSI Evaluation Data Collection Activities and Samples, 2002–08 (Continued)

Data Collection Activities	Sample Sizes					
	2002–03 (pilot)	2003– 04	2004– 05	2005– 06	2006– 07	2007– 08
Intermediary and JFF interviews —Annual interviews with leaders of each grantee organization. These interviews covered topics such as vision, grant distribution, partnership development, technical assistance, policy and advocacy, grant management, organizational capacity, data use, and sustainability.	7	14	15	18	18	18
State policy Web searches —Examination of updates on relevant policies.					12 states	12 states
State policymaker interviews —Telephone interviews with state representatives about state policy developments and the facilitators and barriers to change.					5 states	
Total population of open ECSs in the ECHSI	3	25	50	62	130	157

Note. ECHSI = Early College High School Initiative; ECS = Early College School; IHE = institution of higher education; SIS = Student Information System; JFF = Jobs for the Future.

both) and one or more other organizations, including school districts, community organizations, tribes, high schools, and charter management organizations. The resulting partnerships are the bedrock of the ECHSI model, representing an agreement between educational sectors to cooperate in a new approach to blending secondary and postsecondary education for students who might not otherwise consider themselves “college material.”

The ECHSI has grown steadily, nurtured by an overarching intermediary—JFF—as well as the Bill & Melinda Gates Foundation staff. Six intermediaries were added over time.³ As of the 2009–10 school year, the 13 intermediaries had opened over 200 ECSs. Most ECSs are new schools that did not exist before the ECHSI—66% of ECSs in 2007–08. However, 22% were existing small schools that became ECSs, 5% were small learning communities created when a larger high school reformed, and 5% were programs within existing high schools. Another common characteristic is that ECSs are small, with an average of 211 students in 2007–08 (AIR & SRI, 2009).

The ECHSI began in 2002 guided by a loose set of core principles (JFF, 2002). Over time, certain aspects of these principles were debated and modified by individual intermediaries. Approximately 5 years into the implementation period, all partners to the ECHSI undertook prolonged discussions to articulate and codify a set of core principles based not only on shared

³The additional intermediaries include the City University of New York, the Foundation for California Community Colleges, Gateway to College, the North Carolina New Schools Project, the Texas High School Project, and the University System of Georgia.

objectives but also on their experiences and the fact that the 13 intermediaries had not pursued a monolithic ECS model. Intermediaries ratified five core principles in 2008:

1. “Early college schools are committed to serving students underrepresented in higher education.
2. “Early college schools 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.
3. “Early college schools and their higher education partners and community jointly develop an integrated academic program so all students earn 1 to 2 years of transferable college credit leading to college completion.
4. “Early college schools 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.
5. “Early college schools and their higher education and community partners work with intermediaries to create conditions and advocate for supportive policies that advance the early college movement.” (JFF, 2008, p. 2)

These core principles are central to the concept of an ECS, as understood by the ECHSI’s stakeholders. Skeptics argue that the model can succeed only if ECSs screen out the underachievers. Participants in the ECHSI disagree—this approach can be motivating for a wide spectrum of students who would not otherwise consider college. Skeptics also claim that secondary and postsecondary systems cannot work together. Participants have proven that the two educational sectors can, at a minimum, create an academic plan that integrates high school and college courses.

ECSs AND THE CORE PRINCIPLES

Because the current core principles guiding the ECHSI were ratified in 2008, not all ECSs opened with this vision. However, all intermediaries have committed to working with their ECSs toward meeting these core principles. In this section, we detail how ECSs are implementing the first four core principles. The fifth core principle (involving advocacy and policy work) has not yet been studied.

Core Principle 1: Early College Schools Are Committed to Serving Students Underrepresented in Higher Education

ECSs recruited high percentages of minority and low-income students. In the 1st year of the evaluation, 22 open ECSs reported that 80% of their students were from racial or ethnic minorities and 70% were from low-income families (AIR & SRI, 2005). Since then ECSs have consistently enrolled higher percentages of minority students, with an average of 70% versus 64% at comparison districts and, for low-income students, 57% versus 55% (AIR & SRI, 2006, 2007, 2008, 2009). If ECSs were simply enrolling a random or select group of students, we would

expect their enrollment percentages to be the same or lower than district averages. Therefore, the higher enrollment rates in ECSs reflect their concerted efforts to serve their target populations.

As an initiative focused on launching underserved students into and through college, ECSs target students who will be the first in their families to attend college. In 2007–08, 31% of ECS students reported that their mothers had graduated from college and 28% reported that their fathers had graduated from college (AIR & SRI, 2009).⁴ Unfortunately, district data on this variable was rarely publicly reported. However, in another study in 2007–08 with a sample of students nationwide, 24% of students' mothers and 29% of students' fathers had graduated from college (Ingles, Burns, Charleston, Chen, & Cataldi, 2005).⁵ This comparison indicates that ECS students are not particularly likely to be from first-generation college-going families. However, students are not a particularly reliable source for parental education levels (Levine, Huberman, Allen, & DuBois, 2001), and in fact, 14% of ECS students reported that they did not know the education levels of their mothers and 23% did not know the education levels of their fathers (AIR & SRI, 2009). It is likely that the “unknown” group includes additional first-generation college-going students.

A corollary of this core principle is that ECSs cannot make decisions for admission based solely on academic criteria. In 2007–08, although some ECSs had minimum entrance assessment requirements, many of these requirements were set quite low (e.g., students cannot be in the lowest 20% on the state assessment; AIR & SRI, 2009). Instead, most ECSs relied on alternative criteria such as essays (77%) and interviews (79%). During site visits to 20 ECSs in 2006–07 (AIR & SRI, 2008), ECS staff noted that the student interviews and essays informed subjective judgments about students, such as “having unrealized potential” and “most interested”; they were generally trying to use these data to find “the diamond in the rough” rather than using them to evaluate academic skills.

Core Principle 2: Early College Schools 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

Since the ECHSI began, a key defining feature of an ECS has been the involvement of an institution of higher education as a partner. In 2007–08 most ECSs had 2-year IHE partners (65%). Community colleges are natural choices as partners in the ECHSI given their missions to serve diverse communities and their inclusive enrollment policies. Twenty-four percent of ECSs had a 4-year IHE as a partner (AIR & SRI, 2009). Although primarily public institutions, the 4-year IHE partners represented a wide variety of colleges and universities—for example, Hunter College, the University of Utah, Stanford University, and multiple campuses within the California State University and University of Texas systems. Finally, some ECSs decided to take advantage of the strengths of these two IHE types and partner with both: 11% of ECSs had both a 2-year and a 4-year IHE partner.

⁴These data are based on the student survey, which was only administered in 2006–07 and 2007–08. The data for 2006–07 are very similar to 2007–08.

⁵These data are based on student and parent reports.

This core principle emphasizes an expectation that the partner institutions jointly create an ECS. Although all ECSs are public, they are not all district schools. Seventy percent of ECSs are district schools and 30% are public charter schools (AIR & SRI, 2009). Local education agency partners include districts, charter management organizations (e.g., Aspire Public Schools), and even state-level charter organizations.

Given that some ECSs are not district schools and that all have at least one IHE partner, ECSs are situated in a variety of facilities and locations. Many ECS developers subscribe to the idea of the “power of place” (Cunningham & Matthews, 2007). This idea suggests that locating an ECS on a college campus improves outcomes for students, theoretically because they have access to an authentic college environment (Cavalluzzo, Corallo, & Jordan, 2002). As a result, more than half of ECSs (53%) are located on a college campus. The remaining ECSs are primarily located in traditional school buildings, either their own (42%) or with another school (3%), in a nonschool building (2%), or have substantial distance learning elements (1%; AIR & SRI, 2009).

The final partner included in this core principle is the community. In some ECSs, community partners, such as Native American tribes, play a central role in the school’s development, and in others, community organizations collaborate with schools, districts, and IHEs. Community partners may provide facilities, supports for securing resources, and professional development, as well as tutoring, counseling, and social services (AIR & SRI, 2007). Forty-six percent of ECSs had community partners on their advisory boards in 2004–05 (AIR & SRI, 2006). Although the inclusion on an advisory board does not indicate that the community is providing support, it does suggest that many ECSs are working to engage the community in the school.

Core Principal 3: Early College Schools and Their Higher Education Partners and Community Jointly Develop an Integrated Academic Program so All Students Earn 1 to 2 years of Transferable College Credit Leading to College Completion

The original version of this core principle specified that students would earn 2 years of college credit or an associate’s degree. However, as schools gained implementation experience, many ECSs made modifications in how they interpreted this core principle (AIR & SRI, 2007). Some ECSs had an academic plan that allowed some, but not all, students to earn up to 2 years of college credit. Other ECSs focused on getting *all* students at least some college credit, many with a goal of at least 1 year’s worth. As a result, by 2008, the core principle was changed to clarify that the college attainment goals should be for *all* students to earn at least 1 year’s worth of college credit.

One key structural feature that facilitates success in this core principle is increasing the number of years that a student spends in an ECS. In 2007–08, 13% of ECSs enrolled middle school grades. Also, many schools choose to incorporate a Grade 13, or 5th year of high school. By 2007–08, 39% of ECSs either had or planned to have a Grade 13. Taken together, these figures demonstrate that more than 50% of ECSs have developed academic programs of longer than 4 years to give them more time to impact student learning.

Each ECS develops curricular plans that will work for their students. More than half of ECSs (59%) in 2007–08 had at least some students enrolled in college credit-bearing classes in 9th grade (AIR & SRI, 2009). By the 11th grade, 92% of ECSs had at least some students enrolled in college classes, and by Grades 12 and 13, it rose to 94%. Thus, it is rare for an ECS to have no students taking college classes.

However, these figures point to some challenges with this core principle. First, not all ECSs had students in college classes by 12th or 13th grade. Second, these data do not demonstrate the student participation levels. Based on a representative sample of ECS students who completed a survey, 61% reported taking at least one college class.⁶ However, only 73% of the 12th- and 13th-grade students reported taking at least one college class. This core principle specifies that by high school graduation, 100% of students should have had access to at least one college class. Therefore, there is work to be done to fully realize the intent of this core principle. In the student outcomes section next, we discuss students' actual college credit accrual.

Core Principle 4: Early College Schools 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

Research has documented the benefits of providing support structures to students who may be inadequately prepared, academically and emotionally, for college-level work and learning (Howell, 2001). These supports are particularly important in the ECS setting given the specific needs of the target populations (e.g., students with low academic achievement prior to high school) and the rigor of the ECS curriculum.

It is safe to say that all ECSs have student academic and social support systems, but there is variation in how formalized and integrated the supports are. In the early stages of the ECHSI, many ECSs had developed supports, yet some support activities were too informal or poorly attended to have dramatic impacts, and some schools put off setting up formal programs (AIR & SRI, 2005). Also, in the early years of the ECHSI, ECSs often did not have adequate supports when they started, but as enrollments and funding levels increased and schools learned more about their students, they put more supports into place.

By 2007–08, most ECSs offered formal support classes, including those that occurred as part of students' course loads (e.g., college life-skills classes). Eighty-nine percent of the ECSs reported on the school survey in 2007–08 that they provided academic or social support courses or seminars to assist students with skills such as literacy, research skills, and mathematics (AIR & SRI, 2009). Examples include a requirement of a one-credit Advancement via Individual Determination (AVID) class before students enrolled in college courses, or a noncredit advisory class once a week to ensure that at least one adult in the school had a handle on the academic and emotional needs of each student (referred to as a "safety net" by one school leader). This percentage has remained fairly steady—84% of ECSs in 2006–07 and 85% of ECSs in 2005–06 offered support courses (AIR & SRI, 2007, 2008)—suggesting that intermediaries and schools learned the levels of support ECS students required from the first wave of ECSs to open.

In 2007–08, most ECSs (84%) had formal tutoring programs available as well. This number remained remarkably stable over time—86% and 85% of ECSs had tutoring in 2006–07 and 2005–06, respectively, and in 2004–05, of the many support activities offered, tutoring was overwhelmingly the most common, offered by nearly all (93%) of the ECSs open at the time (AIR & SRI, 2006, 2007, 2008). In 2007–08, programs varied with regard to who provided the tutoring

⁶For comparison purposes, in 2003–04, 17% of new college students had taken a college class while in high school (NCES, 2007).

services. In many cases, high school instructors provided the tutoring (81%). In other cases, tutoring was provided by college faculty (25%; AIR & SRI, 2009). As these percentages indicate, student academic support was primarily provided by the ECS and its staff rather than the IHE.

Although these formal supports fit within a school's comprehensive system of supports, ECSs are trying to strike a balance between requiring students to attend support activities and teaching students to be self-advocates and find supports on their own when they need assistance. Although most ECSs offered some type of tutoring, most students in the 2007–08 survey sample did not take advantage of it (66% of students). Schools had different policies regarding how much student choice was involved in participation. Often, tutoring was required for some students (74% of schools), and at some schools it was required for all students (16%). In other cases, participation in tutoring was entirely voluntary (10%; AIR & SRI, 2009).

Research has shown that the transition between high school and college is where many students are lost (Kirst, 2004), and that all students and their families should receive assistance in preparing for college (Kirst, Antonio, & Bueschel, 2004). Most ECSs offered assistance to students around this transition; on the 2007–08 school survey, schools noted providing supports for college entrance exam preparation (63%), college tours (73%), and scholarship information sessions (74%). In addition, 81% of ECSs offered career guidance. ECSs seemed to be reaching most students in college transition activities. Although students in higher grades were more likely to have used these supports, even students in lower grades used supports for many college entrance-related activities.

On balance, the evidence from school and student surveys and site visits is that the vast majority of ECSs are providing multiple supports to help students be successful in both high school and college courses. Further, perhaps because of both their relatively small size and their commitment to the core principles, it appears that ECSs may ensure that a higher proportion of students actually take advantage of the supports offered than might be true in a large comprehensive high school. Nevertheless, the ECSs are also aware that although the supports they provide are critical in the short term, the larger goal is to help students to be independent self-advocates who recognize when they need assistance and who know where to turn to find the kind of support they need.

Overall, these findings indicate that although ECSs have taken many different approaches, most are meeting the four ECHSI core principles:

- ECSs are seeking out students who might not have been successful in their education in the past.
- ECSs are uniformly paired with an IHE and often with other partners, including school districts and their communities.
- ECSs offer students an academic program that can result in both high school graduation and 1 to 2 years of college credit.
- ECSs support students to be successful in their academic endeavors at both high school and college levels.

The next section examines how students are doing in ECSs.

STUDENT OUTCOMES

This section reports on how ECS students are doing both behaviorally and academically, particularly in comparison to other high school students where possible. It also notes where outcomes

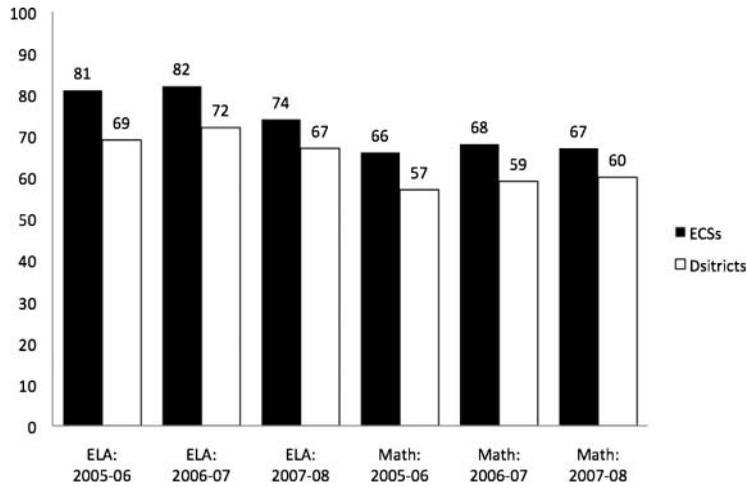


FIGURE 1 Early College Schools' (ECSs') and comparison districts' average proficiency rates on English Language Arts (ELA) and mathematics assessments in 2005–06 to 2007–08. *Note.* *N*s—2005–06: 44; 06–07: 80; 07–08–104. *Sources:* AIR & SRI, 2006, 2007, 2008, 2009.

differ, based on both school and student characteristics. As ECSs strive to offer students educational opportunities far beyond what most high school students have access to, we present findings for both typical high school outcomes (e.g., attendance and performance on state assessments) and unique outcomes (e.g., college credit accumulation).

Attendance is a particular concern for ECSs, as many students demonstrated poor attendance at previous schools. In addition, attendance is a prerequisite, though not a guarantee, for successful learning. In 2006–07, the most recent year for which data were reported, the average daily attendance rate at ECSs was 94%. This rate has been fairly stable across the evaluation years (AIR & SRI, 2006, 2007, 2008, 2009) and very similar to national figures (94% in 2003–04; Izrael & deFriesse, 2006). Therefore, at a minimum, these ECSs have largely succeeded in keeping students in attendance, thus increasing the likelihood that they will learn.

Although not the primary goal of an ECS, all schools strive to help all of their students meet their state's proficiency standards on assessments. Figure 1 shows ECSs' and districts' proficiency rates on English Language Arts and mathematics tests across the evaluation years. Generally, for the ECSs, ELA proficiency rates were approximately 80% and mathematics rates were approximately 70%. Despite being quite far from the goal of 100% proficiency, in every year the evaluation tracked proficiency rates, ECSs, on average, outperformed district averages on statewide assessments. These findings demonstrate that ECSs are not bypassing the high school basics as they push students to move quickly into college-level classes.

Although the focus within the ECHSI is on college progression, students typically must complete courses for their high school diploma before they can be awarded a college degree.⁷ At the time of our analyses, few schools had seen a cohort of students graduate. Therefore,

⁷We say “typically” because many students graduate from high school with a college degree in hand; several have even earned degrees prior to high school graduation.

one major focus of our analysis was grade-to-grade progression rates. These progression rates ranged from 85% on average for the 9th-to-10th-grade progression rate to 87% on average for the 12th-to-graduation or Grade 13 progression rate. These grade-to-grade progression rates can be combined to provide an estimate of the percentage of 9th-grade students who will graduate on time.⁸ This estimate, called the Cumulative Promotion Index (CPI), is useful because many school districts' CPIs are publicly available (Editorial Projects in Education Research Center, n.d.). For the 12 ECSs with data to provide this estimate, the average CPI was 66%. Although lower than ECHSI stakeholders would hope for, each ECS's CPI was higher than its districts' CPI, by 14% on average.

Students' progress in college courses is at the center of this initiative. These data are crucial to understanding if ECSs are meeting the bold promises of the ECHSI. Yet, data on high school students' college attendance can be hard to come by given the incompatibility between secondary and postsecondary data systems. Therefore, we present the results from two different data sources. In 2006–07, 56 ECSs reported that students earned, on average, 23 college credits (about seven or eight college classes) by the time they graduated from high school (AIR & SRI, 2009). In fact, in 2005–06, 7 of the 11 most established ECSs reported that at least one graduate earned an associate's degree by high school graduation (on average 20% of graduates earned an associate's degree at these 7 schools; AIR & SRI, 2008). We also examined students' actual college transcripts for the 21 ECSs with these data available.⁹ By averaging the number of college classes that students took at each grade level, we estimated that students will graduate with 10 college classes by the end of 12th grade (about 1 year's worth of college credit; AIR & SRI, 2009).¹⁰ Together these data sources present a powerful demonstration of what ECSs have been able to achieve through their partnerships with 2-year and 4-year IHEs.

One goal of the evaluation team is to link ECSs' level of implementation, as defined by the core principles, to student outcomes. Although these analyses have not been completed, in two reports (AIR & SRI, 2008, 2009), we examined several key structural characteristics of ECSs for their relationships to student outcomes. These characteristics include enrollment size, the age of the ECS, whether the ECS was a start-up site (i.e., a new school), whether the ECS had a 4-year IHE partner, and whether the ECS was located on a college campus. One characteristic frequently had a positive relationship to student outcomes across the 2 years—location. ECSs located on a college campus had higher proficiency rates on state assessments relative to their districts,¹¹ higher attendance rates, and higher 9th-to-10th-grade progression rates than ECSs not located on a college campus. This finding lends support to the existing belief of many stakeholders within the ECHSI of the “power of place”—that is, having high-school-aged students attend school daily on a college campus engenders in them an idea of themselves as individuals who can negotiate an adult environment and succeed intellectually.

Given that ECSs strive to serve students who are disengaged or marginally successful in traditional schools and who are members of groups that are underrepresented in the postsecondary

⁸This index is based on Swanson's (2003) calculation. Details can be found in the technical appendix of AIR and SRI's 2009 evaluation report.

⁹This is the only finding presented in this article that is not based on a representative sample of ECSs.

¹⁰No student had all college transcripts available. Therefore, we summed the average college credit accrual for each grade level.

¹¹ECSs that were not located on a college campus did not differ significantly from district averages on assessment proficiency rates.

population, we examined differences in outcomes for different groups of students.¹² One finding was that students who reported that they would be the first in their family to go to college reported lower high school and college GPAs, had lower educational aspirations, and felt less positively about ECSs than other students (AIR & SRI, 2009). This challenge with first-generation students is certainly not novel to ECSs; however, it is discouraging, as these are the students who need academic success to help them prepare for and succeed in college. The experience of minority and low-income students was more mixed; although both groups reported lower high school GPAs, no differences were evident on other outcomes. On the other hand, students who come from non-English-speaking homes appeared to be having very positive ECS experiences. For example, they reported higher high school GPAs. ECSs appear to be having success with their targeted students, yet those in the ECHSI will have to continue to work to eliminate the academic gaps among students.

FUTURE DIRECTIONS

Over 6 years and five reports, AIR and SRI have documented the development of the ECHSI. The findings demonstrate that it is an initiative that has set very high standards for schools and students. Schools have accepted that challenge by adhering to the core principles, and students are reaping the rewards of the ECSs' efforts and their own hard work.

In terms of the design, how “core” are the core principles? In other words, should ECSs continue to adhere to *all* of the core principles? For example, how important is the formal engagement of the college partner? If a school develops a program that allows students access to college through existing dual enrollment programs and supports them in those classes, a formal collaboration may not be necessary to achieve major improvements in students' preparation for college. Therefore, perhaps not all of the core principles are needed to implement a program that improves student outcomes. Although the ECHSI is based on the assumption that there is a correlation between the implementation of all the core principles and student success, this correlation has not been tested. Future research should examine the strength of the correlation between each core principle, and in aggregate, to student success.

Finally, in terms of the impact on student success, do ECSs have an impact on students who are otherwise at risk for not participating in postsecondary education? Or are more academically engaged students attracted to ECSs—particularly if the school fairly quickly acquires a local reputation for innovativeness and results? Experimental studies, such as the study in North Carolina (Glennie et al., 2009), are crucial for determining if this is truly a reform effort with an impact and, if so, for which students and in which types of schools.

All of these remaining questions are important to consider, as the ECHSI shows great promise both as a demonstration of what students can achieve and as a model upon which other reforms may be based. In these schools, students are moved quickly through a high school curriculum with a focus on advancing students efficiently, leaving more time during the traditional high school years for students to make serious inroads into college completion.

¹²These analyses were run using hierarchical linear modeling. Details for the analyses and results tables can be found in AIR and SRI's (2009) evaluation report.

Already, others have been inspired by what has been achieved, and the core principles of the ECHSI are being adopted in whole or in part elsewhere. Several states, such as Michigan and Texas, and other school networks, such as Aspire Public Schools, are either opening early colleges or adding an emphasis on college access while students are in high school (Hoffman & Webb, 2009). As these principles are adopted more broadly, we may start to see the focus shift from “college ready” to “college successful.”

However, we are hesitant to count this national interest in the ECHSI as proof of the model’s longevity. First, we are wondering how high school students will fare in the competition for seats at overcrowded and underfinanced IHEs, particularly at 2-year IHEs (Katsinas & Tollefson, 2009). In addition, although evidence suggests that ECSs are improving high school graduation rates and could improve college graduation rates, their higher per-pupil expense could challenge their sustainability.

Although many research questions remain, including those concerning the impact of the ECHSI, the evidence thus far is that high schools can be created where all students are prepared for and most receive early experiences in college. This is an important and powerful message for all high schools at a time when many states have set a 21st-century goal for graduating *all* students college and career ready—not just those who arrive at high school seemingly destined for college. Schools in the ECHSI can serve as models to educators looking for strategies to cultivate college-ready students.

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