

The Early College Challenge

Navigating Disadvantaged Students' Transition to College



BY JAMES E. ROSENBAUM AND
KELLY IWANAGA BECKER

In her senior year of high school, the low-income student with the C-minus average—the one who almost dropped out—is not only looking forward to graduation, but plans to attend college. Her college counselor, her teachers, her parents, and her peers have all told her that a college degree will land her a good-paying job.

No one has told her that she must pass a college placement test before she can take college classes. No one has told her that if she fails, she must pay for remedial courses for which she will receive

James E. Rosenbaum is a professor of education and social policy at Northwestern University, a sociology faculty fellow with the university's Institute for Policy Research, the principal investigator for several major studies of how to improve outcomes for urban youth, and the author of several books and dozens of academic papers. Kelly Iwanaga Becker is a graduate student in Northwestern University's Department of Sociology and a graduate research assistant with the university's Institute for Policy Research.

no credit. No one has told her that she probably lacks the academic preparation to do well in remedial courses, much less college courses. No one has told her that most students like her never earn a college degree.

What if, instead of hoping poorly prepared students will catch up in college, we supported them in taking rigorous courses—even college-level courses—before they graduate from high school? What if, instead of lamenting the fact that many students struggle in transitioning from high school to college, our high school and college educators worked together to create a clear path from high school graduation to college graduation? What if:

1. Instead of relying on student choice, those educators showed students what content and skills they need for college and provided a *package-deal curriculum* leading to mastery of that content and those skills?
2. Instead of assuming students are motivated, those educators *fostered motivation* by offering incentives and bolstering students' confidence?

3. Instead of student-initiated guidance, those educators *kept students on track* by providing frequent mandatory guidance and closely monitoring students' progress?
4. Instead of a student-initiated college search, those educators *managed the transition* from high school to college?
5. Instead of assuming study skills, those educators explicitly *taught study skills*?

More—possibly millions more—of our students would beat the odds.

Successful early college high schools (ECHSs), which are formed through partnerships between high schools and colleges (usually community colleges), do all these things. Think of it as preparation through acceleration. ECHSs enroll disadvantaged students who have not excelled with ordinary grade-level academic content and have them take college courses while still in high school. It is not easy—and it does not always work. But successful ECHSs support their students in the five ways listed above, and their results are impressive.

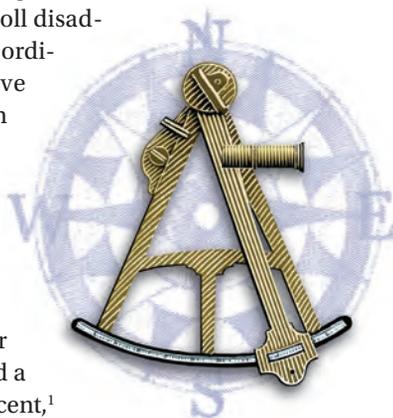
While studies of these schools' long-term outcomes don't meet "gold standard" criteria for research methods,* they are encouraging. For the class of 2008, one study of 22 ECHSs found a four-year high school graduation rate of 92 percent,¹ which is high compared with the national rate for all high schools of about 70 percent² (and very high compared with the rates of 40 to 60 percent that are typical of high schools with lots of at-risk students). A recent study of 64 ECHSs that had been open for at least four years found that, of the 3,000 students who graduated in 2009, 44 percent earned at least one year of transferable college credit, while 25 percent earned two years of college credit or an associate's degree.³ Immediately after high school graduation, 86 percent enrolled in postsecondary education. ECHS advocates note that "compared with national averages, a higher percentage of ECHS students are students of color and from low-income families—which makes these college-going rates even more striking."⁴ Finally, in the one experimental study we could find, early results show that freshmen in ECHSs were more likely to be on track to attend college, had better attendance, and reported that they were more engaged in school than students in the control group.⁵

The fact that some ECHSs have produced strong results, while many traditional high schools struggle to help at-risk students achieve grade-level standards (much less college-level standards), is impressive. What's more remarkable is that ECHSs mostly work with community colleges, institutions where many regular college-age and adult students don't succeed; less than half of students entering community colleges earn any degree.⁶

Wanting to know how successful ECHSs worked with students who usually flounder, we culled the ECHS research for any indications of key elements. We also compared procedures

*In brief, the "gold standard" for research methods requires random sample selection, random assignment to treatment and control groups, pretesting to ensure initial group equivalence, posttesting to look for treatment effects, and minimal attrition between pre- and posttesting. For a more detailed discussion, see the explanation of randomized controlled trials in *Identifying and Implementing Educational Practices Supported by Rigorous Evidence: A User Friendly Guide*, available at www2.ed.gov/rschstat/research/pubs/rigorous/vid/rigorousvid.pdf.

in exemplary ECHSs with those in exemplary two-year colleges (which enroll many at-risk high school graduates), including some private occupational colleges that have focused on supporting disadvantaged youth.[†] We tried to understand what ECHS procedures might explain their unexpected successes and what those procedures suggest about problems with the regular high school-to-college transition. We have already outlined the five ways that successful ECHSs resemble exemplary two-year colleges and differ from typical high schools. Before discussing them in detail, it is worth emphasizing that these lessons learned do not translate into a silver bullet. While the ECHS model has consistently attracted significant media



Standards alone are much too vague. Students need specific information about college requirements and how to reach them.

attention, we wish to move beyond the hype that sometimes surrounds these schools. Like other education reforms, ECHSs have often been presented as a sure-fire way to boost student achievement. After all, these schools seem to offer a simple solution: just incorporate college courses into high school. However, by taking a close look at each of the five features of successful ECHSs, we will show how the reality of these schools is much more complex.

1. Instead of relying on student choice, ECHSs show students what content and skills they need for college and provide a package-deal curriculum that leads to mastery of that content and those skills.

Most high schools in the United States offer abundant options and only minimal requirements. Students may choose easy courses, unaware of the disadvantages, because no one informs them that harder courses pay off in college preparation. As a result, far too many students' high school coursework is poorly coordinated with college standards. In contrast, Japan and Finland, which produce some of the highest-achieving students in the world, have well-integrated curricula based on consistent standards across schools, and between high schools and university entrance

[†]There are two main approaches to inferring the essential elements of a program. One is to rely on participants' and/or researchers' impressions of what elements have an impact. Participants can report interactions that solve problems as they arise, while researchers can observe several sites or classrooms implementing a program to tabulate success and failure rates associated with different procedures, and perhaps contrast them with settings that lack similar procedures. The other approach is to examine research on related programs and discover what kinds of problems arise and how they are addressed. If different programs successfully use procedures with similar elements, they may help us see underlying processes explaining their effectiveness. The fact that these are different programs provides some perspective on the general features that are effective. For this paper, we have used both approaches.

exams. In the United States, school reform movements often point to the creation of “high standards” or “college-ready standards” as important components in improving student achievement and degree completion. But these many disjointed reform movements are not coordinated, and they have not led to coordination between high schools and colleges.

While recognizing the importance of setting high standards, we find the strategy to be nothing more than a first step. Standards alone are much too vague. Students need specific information about college requirements and how to reach them. The research and reports on ECHSs indicate that they use three specific procedures: having students take college placement exams early in high school, developing clear curricular pathways aligned with college-level coursework, and providing teacher professional development for implementing high standards. We will address each of these points.

a. College placement exams early in high school

Many ECHSs create consistent, visible standards by giving students college placement exams early in high school and focusing the high school curriculum on continual improvement on these tests. In some ECHSs, such as the Dayton Early College Academy in Ohio, students take a college placement exam in ninth grade, and many other ECHSs require it during tenth or eleventh grade.

This is in stark contrast to the typical student experience. For many entering college students, the placement exam is a surprise. Research shows that many community college students do not know a placement test will be required, and even among those who know, some don’t know how they should prepare or what is at stake.⁷ Furthermore, other research shows that, after receiving their placement test scores, first-year college students often are surprised to find out that they are unprepared for college coursework.⁸ Unfortunately, many students only understand these exams after it is too late to prepare. Indeed, states contribute to this confusion. Many states require high school exit exams, but set pass levels so low that they mislead students. Many students are surprised when, three months after passing the state exam for “high school competency,” they fail a test for “college readiness.”⁹

Nationally, over 60 percent of entering community college students must enroll in remedial coursework, and in some urban areas, the rates exceed 90 percent.¹⁰ Because remedial placements create unexpected increases in college costs (both in time and money), college completion rates are much lower for students taking several remedial courses.¹¹

Many ECHSs avoid placement test surprises by testing students early. Because exams are given prior to senior year, students have opportunities to

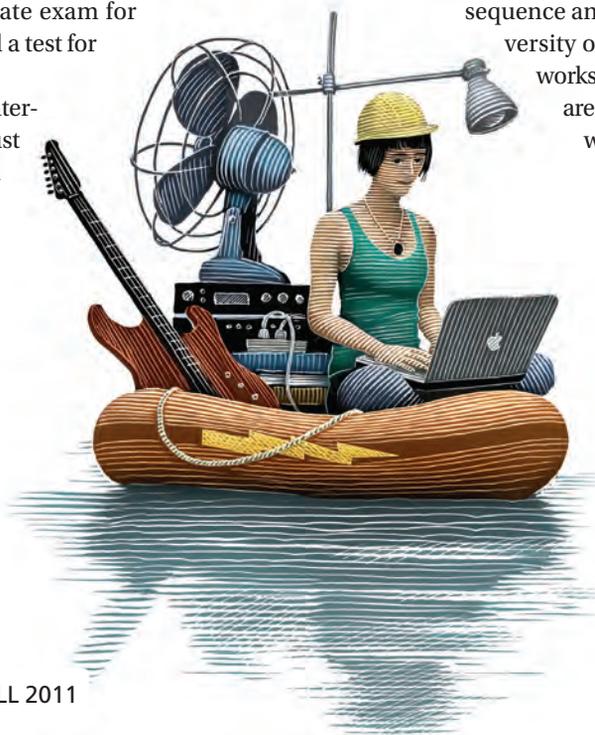
understand the test, their own skill level, and what they need to do to pass. Furthermore, while low placement test scores indicate a “failure” when the test is given at the beginning of college, low scores among high school students are not stigmatized because high school students are not expected to have attained college-level standards. The placement test indicates what skills students need to master in the near future. Other reformers have proposed using early testing in this way so students are prepared before they get to college.¹² However, those reformers have usually focused on testing students at the end of eleventh grade or even later, and they use the test to add isolated lessons, not to shape the high school curriculum. Successful ECHSs use the placement test to make the college standards visible from the start, thereby posing clear, consistent goals throughout high school.

Many students are surprised when, three months after passing the state exam for “high school competency,” they fail a test for “college readiness.”

b. Clear curricular pathways aligned with college-level coursework

Pathways to College Access and Success,¹³ a report published by the U.S. Department of Education, contends that “the primary component of an ideal curriculum would be the presence of a clear curricular pathway encompassing high school and developmental course work, aligned with the demands of college course work, and culminating in student enrollment in a college course.” It argues that best practices stress that curriculum be transparent so that students understand what they need to do.

The most effective ECHSs create a clear set of courses that lead to a college-level curriculum. They help students understand from the beginning of high school where they are in the course sequence and what they need to do next. A City University of New York (CUNY) administrator who works with a partner ECHS states, “Our students are actually planning for college-level coursework from their first day in the [high] school.... And their teachers plan backwards from college, to make sure they’ll know what they need to be successful in college-level classes.”¹⁴ ECHS counselors explain the curriculum and at what point students can enroll in college courses. Thus, students are aware that they are being assessed on college standards so that they can complete college-level coursework while in high school. Overall, ECHSs provide clear routes so that students better understand the path to college-level curriculum.



c. Teacher professional development for implementing standards

Previous research with college students has shown that when students struggle in college-level classes, it is usually because they are not used to the accelerated pace of the curriculum and are not prepared for the writing and critical thinking necessary to succeed at that level.¹⁵ In particular, there is a large disconnect between the minimal writing instruction in high school and the lengthy writing requirements in college.¹⁶ For example, the National Commission on Writing in America's Schools and Colleges¹⁷ found that about 75 percent of high school students never received a writing assignment in social science or history, whereas those courses in college require large amounts of writing.¹⁸ To address this problem, courses need to be better aligned through collaboration between high school and college faculty.¹⁹ Because more than half



of ECHSs are located on college campuses, their proximity facilitates partnerships between faculties. Holding students to “high standards” can be abstract, but teachers in ECHSs and college faculty work together to clarify what content and skills students need for college-level work.

The proximity of ECHSs to college campuses also enables college faculty to “influence high school curriculum and content mastery.”²⁰ As a result, high school teachers learn how to adapt their materials or content to better reflect what is asked of students at the college level. At one ECHS, English high school teachers and college faculty share departmental office space. They learn from one another’s expertise and strategies, adapt materials as appropriate, and share teaching methods. While college faculty members are usually more knowledgeable in their discipline because they hold subject-area master’s degrees or doctorates, high school teachers usually have more expertise in pedagogical methods and evaluation.²¹ These areas of differential knowledge provide opportunities for sharing information about how to meet students’ needs. At some ECHSs, special professional development days are used specifically for aligning

curriculum, adapting materials, and sharing teaching methods.²² At Georgia College Early College, teachers have one hour of common planning time per day and additional time on Fridays while students participate in college preparation activities.²³ This provides time for high school and college faculty to confer about new ideas and gain insight into what has worked in other classrooms.

In some ECHSs, high school teachers and college professors “team teach.” At International High School, located at CUNY’s LaGuardia Community College in New York City, high school and college faculty design courses to be taught together.²⁴ Because team teaching requires a great deal of cooperation between the high school and college, it creates a dialogue and motivates both faculties to prepare students for college-level courses.

2. Instead of assuming students are motivated, ECHSs foster motivation by offering incentives and bolstering students’ confidence.

High school and college staff often assume that students’ motivation, or lack thereof, is a fixed attribute. Because they assume that students understand the payoffs of education, they conclude that students who do not exert themselves must lack personal motivation.

In contrast, exemplary two-year colleges and ECHSs believe that institutional measures that bolster incentives and students’ confidence can increase motivation. For example, many occupational colleges structure curriculum to confer early successes in the form of certificates and other credentials that do not take long to earn.²⁵

Similarly, in most high schools, nearly all students aspire to attend college, but the path is much less certain for disadvantaged students, who often doubt whether their college efforts will lead to success. Like the better occupational colleges, the better ECHSs attempt to identify the “institutional factors that create students’ negative attitudes, fears and inability to display their potential.”²⁶ ECHSs also aim to improve students’ confidence that their efforts in high school will pay off.²⁷ Typically, these students have not experienced much prior success in school. ECHSs help students develop “educational identities” by providing multiple incentives, frequent successes, and socialization opportunities.

In the ECHS literature, we find both formal and informal incentives. The formal incentives, like the time and money saved by earning college credit while in high school, are often touted as powerful motivators. ECHSs also offer informal incentives that we suspect may improve motivation as much or more than the formal ones. ECHSs give students autonomy and independence not found in traditional high schools. Unlike typical students, who are confined to the high school building, ECHS students can leave to attend college classes. And instead of being confined to a rigid time schedule for classes, as high school students typically are, ECHS students have more discretion over their time as they move between high school and college classes. They discover that in college, “there are no bells, no hall monitors, and no metal detectors.” Instead, “there are personal responsibility, trust, and encouragement.”²⁸

Students also enjoy symbols of college status. For instance, at Georgia College Early College, ninth-graders receive college identification cards that give them access to college facilities (libraries, recreation facilities, and computer labs).²⁹ Research has noted that being on the college campus has “a powerful appeal for students, including its symbolic meaning as a sign of capability and adult trust.”³⁰ ECHSs give students added responsibility, discretion, and the perks of being a college student with the associated adult-like status.

More superficially, but perhaps no less important, many ECHSs allow discretion around personal appearance. Since they want students to feel more like college students, some ECHSs exempt students from high school dress codes—at least when they are on the college campus. While the literature on ECHSs does not describe these perks as incentives, we suspect that students see them as inducements to stay in the program.

Similar to procedures used in some occupational colleges,³¹ some ECHSs also increase motivation through cohorts. At Georgia College Early College, students are placed into “small learning communities” of three or four students at the beginning of their ECHS careers. These students share all the same classes, and the cohort provides social support, study groups, and positive role models for dealing with common problems.³² In an interview, one student mentioned that attending an ECHS was difficult but that having the support of peers was tremendously beneficial. He said, “We’re all united, and we’re going to support each other to be successful.... That’s the key to this program.”³³ Not every ECHS pays attention to developing cohorts, but the ones that do find that cohorts provide positive peer pressure so students feel encouraged and motivated.

Many ECHSs also increase confidence by reducing abrupt discontinuities. Instead of forcing students to face dramatically higher standards at entry, exemplary private occupational colleges adjust the initial demands to foster early success in classes. Similarly, many ECHSs boost student confidence by creating first experiences that lead to early success. The STAR (Science, Technology and Research) Early College School in Brooklyn, New York, eases the transition to high school with “low-risk introductory activities in the ninth and tenth grades, which aim to build confidence in students’ ability to succeed.”³⁴ This allows students to experience fewer doubts about meeting standards. Additionally, ECHS students often can pace themselves through the curriculum. For example, at Dayton Early College Academy, the school that requires entering ninth-graders to take a college placement test, students must go through a series of gateway proficiency tests to demonstrate their competency in an academic area, rather than complete a specific amount of time in each course. This series of tests lets students learn at their own pace and move to new goals when they are ready. It also prevents them from moving on before they are ready, as so many low-achieving

students in traditional schools do.

After students enter college-level courses, this incremental approach increases students’ confidence and their motivation to enter college. Students learn that they can handle college-level work, socialize with college students, and gain familiarity with the college system so they don’t fear it.³⁵ In particular, ECHS students are better prepared to become college students; they have more realistic, detailed, and nuanced conceptions of the role than peers in traditional schools, which makes the transition into the college environment a smoother one.³⁶

3. Instead of student-initiated guidance, ECHSs keep students on track by providing frequent mandatory guidance and closely monitoring students’ progress.

Most high schools and community colleges rely on student-initiated guidance, which leads to problems because students often don’t know they need guidance until their problems have become serious. In contrast, many occupational colleges and most ECHSs require frequent mandatory advisory sessions, and they closely monitor students’ progress. Usually, ECHS students have a weekly (and in some schools, daily) advisory period for academic and emotional counseling. About 84 percent of schools offer support courses that meet often “to ensure that at least one adult in the school had a handle on the academic and emotional needs of each student.”³⁷ The advisory, led by a counselor or a faculty member, provides a safe space for students to discuss school and home issues that might be affecting their academic performance. These sessions also give teachers an opportunity to recommend productive ways of handling situations and better behavior strategies. ECHSs refer to these courses as a safety net so that no students fall through the cracks.³⁸

Researchers have noted that combining academic and emotional counseling works better than a single focus on academics because problems are often intertwined;³⁹ advisories are a place for students to bring up personal issues that might affect their academic performance and progress, such as trying to study in a noisy home.⁴⁰

ECHSs vary in the ways that they monitor student progress, but they typically focus on early detection. At one ECHS, teachers regularly generate a list of students receiving Ds or Fs in their classes (as often as every week, in some cases). ECHSs also create various interventions to help students improve. These include required attendance at special study halls that provide extra tutoring with a teacher, and required meetings between parents and staff so that homework gets done on time. A study of over 150 ECHSs found that, in the 2007–2008 school year, 84 percent offered formal tutoring, with 16 percent requiring it of all students and 74 percent making it



mandatory for at least some.⁴¹ At one school, struggling students are required to attend extra academic support meetings supervised by a teacher. Researchers found that students who were involved made significant gains; most did not have to continue after the next set of progress reports. Administrators suggest that the program works because it is more structured than general study halls and because it is mandatory for struggling students.⁴²

After students enter college classes, their performance continues to be closely monitored. Staff members in successful ECHSs regularly contact college professors and check college attendance records.⁴³ For example, the counselor at Contra Costa Middle College High School in San Pablo, California, meets with college faculty for monitoring the “progress of the high school students and sharing ideas for instructional strategies to help students succeed.”⁴⁴ At another ECHS, a high school staff person “checks with professors at the end of the third and eighth weeks of each semester and follows up with individual students.”⁴⁵ As a result, students and staff are aware of any problems early, and ECHS staff intervenes if needed. The timing of the intervention is particularly important; not only does early intervention increase the odds that a student can be helped to succeed, but if a college class turns out to be too challenging, students can withdraw before it shows up as a failure on their transcripts.⁴⁶

Unlike in traditional high schools, ECHS counselors have time to detect problems and refer students to resources. While community colleges typically have abysmal student-counselor ratios—often greater than 1,000 to 1—one study found that ECHSs had between 125 and 250 students per counselor.⁴⁷ This is much better than the national average⁴⁸ for all high schools of 457 to 1. Even better, the ECHS counselors focus primarily on student advising, unlike the typical high school counselor whose many other administrative duties distract from student advising. One ECHS counselor, for instance, reserves Monday mornings just to meet with students facing new crises over the weekend.⁴⁹ Moreover, in ECHSs, counselors are not the only advisers; teachers and administrators also staff advisory periods. By allowing counselors to focus on advising, and by supplementing their counseling function with other school staff, ECHSs keep students on track and quickly solve problems (academic or otherwise) before they become serious.

4. Instead of a student-initiated college search, ECHSs manage the transition from high school to college.

The typical high school-to-college transition is abrupt and unsupervised. Even among seniors admitted to four-year colleges, research has found that 20 percent do not show up at any college in the fall.⁵⁰ Of course, showing up is just the first step: research has identified many ways that students from traditional high schools have trouble with the transition, including being surprised by placement tests and not understanding remedial courses or the various types of degree programs and subsequent career options.⁵¹ In the typical high school-to-college transition, institutions often blame each other. No one takes responsibility for the huge numbers of students who want to earn a college degree but do not even complete a certificate.*

In contrast, effective ECHSs take responsibility. They create

the kindergarten through fourteenth-grade partnerships that many reformers argue would help with the problems of too much remedial coursework and too little college persistence.⁵² As we discussed above, ECHSs smooth this transition by ensuring that their coursework directly leads into college-level work. In addition, ECHS staff members closely monitor students as they enter college, meeting regularly with students and checking in with professors. Beyond this work, high-quality ECHSs also prepare students for graduating from high school and continuing their college educations.

While ECHS students take college classes in high school, they still must navigate the college admissions process if they choose to attend a different college after they graduate from high school. This can be difficult, especially for low-income and first-genera-

While fragmented curricula, too many course offerings, and uneven teaching quality characterize most high schools, the better early college high schools use college placement tests to coordinate curricula and teaching methods across classrooms.

tion college students who usually have little help from home. Assisting these students in executing a plan for college admissions and attendance is crucial.⁵³ A survey in the 2007–2008 school year found that 63 percent of ECHSs provided preparation for college entrance exams (ACT and SAT), and approximately 75 percent of ECHSs offered college tours and scholarship information sessions.⁵⁴ Additionally, many of the partner colleges and universities require a complete college application before the student can enroll in college-level courses. As a result, ECHS staff members guide students through what can be an intimidating and challenging application and registration process.⁵⁵

5. Instead of assuming that students have study skills, ECHSs explicitly teach study skills.

Study skills are essential for success in education, particularly postsecondary education;⁵⁶ however, most schools in the United States do not explicitly teach them. In contrast, Japanese schools teach study skills and simple habits that improve school performance and make schoolwork easier.⁵⁷ While research suggests that these skills are taught in some suburban high schools,⁵⁸ schools serving students from academically disadvantaged backgrounds typically do not offer similar opportunities, although these students might benefit the most from learning such skills.

By comparison, almost 90 percent of ECHSs require that students take a specific course in order to learn the skills necessary

*To learn what traditional high schools can do to better prepare students for the transition to college, see “Beyond One-Size-Fits-All College Dreams: Alternative Pathways to Desirable Careers” in the Fall 2010 issue of *American Educator*, available at www.aft.org/newspubs/periodicals/ae/fall2010/index.cfm.



for academic success.⁵⁹ The titles of these courses vary from “Study Skills” to “College 101,” but their aim remains the same: to give students the skills they need to manage their time well, be organized, and effectively study—skills that provide academic benefits across disciplines.

The timing and content of these courses varies. For example, in the STAR Early College School in Brooklyn, students take an intensive class at Brooklyn College in the summer prior to ninth grade that focuses on study skills, as well as English and mathematics. The class also introduces students to college departments and the college campus where the school is located.⁶⁰ In many ECHSs, these courses include “foundational capabilities,”⁶¹ which are primarily academic skills such as critical reading, logic, and analysis. Similarly, the Middle College High School at Southwest Tennessee Community College has a precollege course focused on helping students improve their verbal and writing skills in multiple subject areas.⁶² Other course objectives are to teach study skills, time management, and organizational skills (including how to use a planning book to plan for assignments and deadlines).

Other courses offered later in high school are designed to prepare students for their first college-level course. At many ECHSs, these classes focus on helping students prepare for college-level research and writing. Topics include library research, revising papers, understanding and avoiding plagiarism, taking notes in lectures, finding good mentoring in college, and managing a college-level workload.⁶³ Occasionally, these courses also cover orientation material so that students become acquainted with campus facilities, which are particularly important when the ECHS is not located near the campus.⁶⁴ Other courses include information on college searches and career choices.⁶⁵

Time management, organization, and academic skills benefit students across the curriculum and throughout their academic careers. One can’t help but wonder how students manage the high school-to-college transition when they attend schools that don’t offer such courses.

We’ve all seen the economic forecasts regarding the high-skill jobs of the future, and we know that higher education is crucial for virtually all youth. But the fact is, most high schools in the United States have enormous difficulties getting at-risk students to achieve grade-level standards, much less college-level standards. Some reformers seek quick and easy solutions while blaming teachers or students; ECHSs focus on devising organizational procedures for giving teachers and students the support they need.

ECHSs attempt a very ambitious goal; those that are succeeding deserve our attention. Even though ECHSs are able to motivate students with potential college credits, most of the strategies devised by ECHSs could be adopted by any high school. While fragmented curricula, far too many course offerings,⁶⁶ and uneven teaching quality characterize most high schools, the better ECHSs use the college goal and college placement tests to coordinate curricula and teaching methods across classrooms. They also provide additional time for teachers to plan and coordinate lessons, require study skills courses, and show students that they can complete college-level work. Knowing that most low-income students live in stressful environments, successful ECHSs provide frequent advising, support, and problem solving. In addition, ECHSs take responsibility for the high school-to-college transition.

Like other education reforms, ECHSs are often hyped as magical—powerful changes from simple and easy procedures. ECHSs seem to offer a simple solution: just incorporate college courses into high school. In fact, the reality of ECHSs is much more complex and much more promising. □

Endnotes

1. Thad Nodine, *Innovations in College Readiness: How Early College Schools Are Preparing Students Underrepresented in Higher Education for College Success* (Boston: Jobs for the Future, 2009).
2. *Education Week*, “Executive Summary,” in *Diplomas Count 2011: Beyond High School, Before Baccalaureate—Meaningful Alternatives to a Four-Year Degree*, June 9, 2011, www.edweek.org/ew/articles/2011/06/09/34execsum.h30.html.
3. Nancy Hoffman and Joel Vargas, *A Policymaker’s Guide to Early College Designs: Expanding a Strategy for Achieving College Readiness for All* (Boston: Jobs for the Future, 2010).
4. Nodine, *Innovations in College Readiness*, 13.
5. Julie A. Edmunds, *A Better 9th Grade: Early Results from an Experimental Study of the Early College High School Model* (Greensboro, NC: SERVE Center, 2010).
6. Jennifer L. Stephan, James E. Rosenbaum, and Ann E. Person, “Stratification in College Entry and Completion,” *Social Science Research* 38, no. 3 (2009): 572–593.
7. Andrea Venezia, Kathy Reeves Bracco, and Thad Nodine, *One-Shot Deal? Students’ Perceptions of Assessment and Course Placement in California’s Community Colleges* (San Francisco: WestEd, 2010).
8. Elisabeth Barnett and Katherine Hughes, *Issue Brief: Community College and High School Partnerships*, prepared for the White House Summit on Community College (New York: Community College Research Center, 2010); and Patrick M. Callan, Joni E. Finney, Michael W. Kirst, Michael D. Usdan, and Andrea Venezia, *Claiming Common Ground: State Policymaking for Improving College Readiness and Success* (San Jose, CA: National Center for Public Policy and Higher Education, 2006).
9. James E. Rosenbaum, *Beyond College for All: Career Paths for the Forgotten Half* (New York: Russell Sage Foundation, 2001).
10. James E. Rosenbaum, Regina Deil-Amen, and Ann Person, *After Admission: From College Access to College Success* (New York: Russell Sage Foundation, 2006); and James E. Rosenbaum, Julie Redline, and Jennifer L. Stephan, “Community College: The Unfinished Revolution,” *Issues in Science and Technology* (Summer 2007): 49–56.
11. Rosenbaum, Deil-Amen, and Person, *After Admission*; and Rosenbaum, Redline, and Stephan, “Community College.”
12. Sam Dillon, “High Schools to Offer Plan to Graduate 2 Years Early,” *New York Times*, February 17, 2010; Bridget Terry Long and Erin K. Riley, “Sending Signals to Students: The Role of Early Placement Testing in Improving Academic Preparation,” in *Minding the Gap*:

(Continued on page 39)

Early College High Schools

(Continued from page 20)

Why Integrating High School with College Makes Sense and How to Do It, ed. Nancy Hoffman, Joel Vargas, Andrea Venezia, and Marc S. Miller (Cambridge, MA: Harvard Education Press, 2007), 105–112; and Rosenbaum, *Beyond College for All*.

13. U.S. Department of Education, *Pathways to College Access and Success* (Washington, DC: Office of Vocational and Adult Education, 2005), 30.
14. Tamar Lewin, "For Students at Risk, Early College Proves a Draw," *New York Times*, February 7, 2010.
15. David T. Conley, *Understanding University Success* (Eugene, OR: Center for Educational Policy Research, University of Oregon, 2003); and David T. Conley, *Redefining College Readiness*, vol. 3 (Eugene, OR: Educational Policy Improvement Center, 2007).
16. Conley, *Redefining College Readiness*.
17. National Commission on Writing in America's Schools and Colleges, *The Neglected "R": The Need for a Writing Revolution* (New York: College Entrance Examination Board, 2003).
18. Tamar Lewin, "Writing in Schools Is Found Both Dismal and Neglected," *New York Times*, April 26, 2003.
19. Conley, *Redefining College Readiness*; and Jason Quiara, Wendy Harbour, Joshua Keniston, and Billie Jo Day, *Aligned by Design: Models and Lessons for Linking K–12 and Higher Education to Measure and Achieve Postsecondary Readiness* (Boston: New England Board of Higher Education, 2009).
20. Janet E. Lieberman, "Creating Structural Change: Best Practices," *New Directions for Community Colleges*, no. 103 (1998): 15.
21. Janet E. Lieberman, "Combining High School and College: LaGuardia's Middle College High School," in *New Directions for Teaching and Learning*, no. 24 (1985): 47–57.
22. Anne Newton, *Empowering Students: How Georgia College Early College Changes Student Aspirations* (Boston: Jobs for the Future, 2008); and Nancy Hoffman and Michael Webb, "From Hope to Belief," *Educational Leadership* 67, no. 7 (April 2010): 54–58.
23. Newton, *Empowering Students*.
24. Kathy Moran, "MCNC Early College Transitions Project," *Fulfilling Promises: The Middle College High School National Consortium Newsletter*, Winter 2009, 8.
25. Rosenbaum, Deil-Amen, and Person, *After Admission*, 188.
26. Lieberman, "Creating Structural Change," 17.
27. Ronald A. Wolk, *It's Kind of Different: Student Experiences in Two Early College High Schools* (Boston: Jobs for the Future, 2005).
28. Janet E. Lieberman, *The Early College High School Concept: Requisites for Success* (Boston: Jobs for the Future, 2004), 1.
29. Newton, *Empowering Students*.
30. Wolk, *It's Kind of Different*, 10.
31. James E. Rosenbaum, Pam Schuetz, and Amy Foran, "How Students Make College Plans and Ways Schools and Colleges Could Help" (working paper, Institute for Policy Research, Northwestern University, 2010).
32. Newton, *Empowering Students*.
33. Nicole Bode, "They're Going to Both HS and College," *Daily News* (New York), Section Suburban, September 17, 2002, 5.
34. Anne Newton and Kristen Vogt, *Ensuring College Success: Scaffolding Experiences for Students and Faculty in an Early College School* (Boston: Jobs for the Future, 2008), iii.
35. Patricia L. Farrell and Kim Allan Seifert, "Lessons Learned from a Dual-Enrollment Partnership," *New Directions for Community Colleges*, no. 139 (2007): 69–77.
36. Farrell and Seifert, "Lessons Learned."
37. Andrea Berger, Nancy Adelman, and Susan Cole, "The Early College High School Initiative: An Overview of Five Evaluation Years," *Peabody Journal of Education* 85, no. 3 (2010): 341.
38. Berger, Adelman, and Cole, "The Early College High School Initiative."
39. Lieberman, "Combining High School and College."
40. Hoffman and Vargas, *A Policymaker's Guide*.
41. Berger, Adelman, and Cole, "The Early College High

School Initiative."

42. American Institutes for Research/SRI International, *Evaluation of the Early College High School Initiative: Select Topics in Implementation* (Washington, DC: American Institutes for Research, 2007).
43. Linda Cavalluzzo, Will Jordan, and Christopher Corallo, *Case Studies of High Schools on College Campuses: An Alternative to the Traditional High School Program* (Charleston, WV: AEL, 2002).
44. Cavalluzzo, Jordan, and Corallo, *Case Studies of High Schools on College Campuses*, 46.
45. Newton and Vogt, *Ensuring College Success*, 11.
46. Newton and Vogt, *Ensuring College Success*.
47. Cavalluzzo, Jordan, and Corallo, *Case Studies of High Schools on College Campuses*, 10.
48. American School Counselor Association, "Student-to-Counselor Ratios," www.schoolcounselor.org/content.asp?contentid=460 (data taken from NCES Common Core Data, "State Nonfiscal Survey of Public Elementary/Secondary Education: 2008–2009 School Year).
49. Cavalluzzo, Jordan, and Corallo, *Case Studies of High Schools on College Campuses*, 46.
50. Melissa Roderick, Jenny Nagaoka, Vanessa Coca, Eliza Moeller, Karen Roddie, Jamiliyah Gilliam, and Desmond Patton, *From High School to the Future: Potholes on the Road to College* (Chicago: Consortium on Chicago School Research at the University of Chicago, 2008), 33.
51. Rosenbaum, Deil-Amen, and Person, *After Admission*.
52. Neil Scott Kleiman, *Building a Highway to Higher Ed: How Collaborative Efforts Are Changing Education in America* (New York: Center for an Urban Future, 2001).
53. Barnett and Hughes, *Issue Brief: Community College and High School Partnership*; and Michael W. Kirst, Anthony Lising Antonio, Samuel H. Bersola, and Andrea Conklin Bueschel, "Improving the Transition from High School to Postsecondary Education" (Working Paper Series 04-1, Policy Analysis for California Education, University of California, Berkeley and Davis, and Stanford University, 2004), accessed January 24, 2011, http://gse.berkeley.edu/research/pape/reports/WP.04_1.pdf.
54. Berger, Adelman, and Cole, "The Early College High School Initiative," 342.
55. Nodine, *Innovations in College Readiness*.
56. Conley, *Understanding University Success*; and David T. Conley, *College Knowledge: What It Really Takes for Students to Succeed and What We Can Do to Get Them Ready* (San Francisco: Jossey-Bass, 2005).
57. Harold W. Stevenson and James W. Stigler, *The Learning Gap: Why Our Schools Are Failing and What We Can Learn from Japanese and Chinese Education* (New York: Simon and Schuster, 1992).
58. Nancy Hoffman, Joel Vargas, and Janet Santos, "Blending High School and College: Rethinking the Transition," *New Directions for Higher Education*, no. 144 (2008): 15–25.
59. American Institutes for Research/SRI International, *Fifth Annual Early College High School Initiative Evaluation Synthesis Report; Six Years and Counting: The ECHSI Matures* (Washington, DC: American Institutes for Research, 2009).
60. Nodine, *Innovations in College Readiness*.
61. Conley, *Understanding University Success*.
62. MaLinda F. Wade, "College Perspective—Diversity: A Tool for Academic Transition," *Fulfilling Promises: The Middle College High School National Consortium Newsletter*, Winter 2009, 9.
63. Michael J. Nakkula and Karen C. Foster, "Academic Identity Development: Student Experiences in Two Early College High Schools," in *Minding the Gap: Why Integrating High School with College Makes Sense and How to Do It*, ed. Nancy Hoffman, Joel Vargas, Andrea Venezia, and Marc S. Miller (Cambridge, MA: Harvard Education Press, 2007), 151–157; Hoffman, Vargas, and Santos, "Blending High School and College"; and Nodine, *Innovations in College Readiness*.
64. American Institutes for Research/SRI International, *Evaluation of the Early College High School Initiative*, 39.
65. Nodine, *Innovations in College Readiness*.
66. William H. Schmidt, Leland S. Cogan, and Curtis C. McKnight, "Equality of Educational Opportunity: Myth or Reality in U.S. Schooling?" *American Educator* 34, no. 4 (Winter 2010–2011): 12–19.

INTENTIONALLY
LEFT BLANK