

EDUCATION WEEK

Published: April 26, 2006

Views Differ on Defining College Prep

How to gauge readiness sparks vexing questions.

By Lynn Olson

One of the overarching goals of the national push to redesign high schools is increasing the number of students who graduate ready for college. Yet pinning down what people mean by “college readiness” and how to measure it is no easy task.

**Beyond
Grade 12:
Preparing for
College and Careers**

“It’s really like the dropout issue,” said Michael W. Kirst, a professor of education at Stanford University. “There are multiple definitions, with no clear consensus on which one is the most appropriate.”

Should high school students who successfully complete a college-preparatory curriculum, for example, automatically be considered ready for higher education? What about those who score above a certain level on admissions or placement tests, or who earn good grades in high school?

About This Series
**Beyond Grade 12:
Preparing for College and
Careers**

March 22, 2006

Economic trends, including heightening global competition and widening income gaps within the United States, are propelling issues of academic and workforce preparation to the forefront of the nation's education policy debate.

- **Economic Trends Fuel Push to Retool Schooling**
- **Talk of U.S. Crisis in Math, Science is Largely Misplaced, Skeptics Say**

April 26, 2006

A major objective of the current push to redesign high schools is increasing the number of students who graduate ready

Is college-readiness best defined by the skills and knowledge professors view as needed to do credit-bearing work? Or is it better thought of as the ability to avoid remedial coursework?

And what about those more elusive “habits of mind” that students bring to college, such as a willingness to cope with frustrating and ambiguous learning tasks?

Part of the problem is that the United States has more than 4,200 postsecondary institutions, ranging from two-year colleges with few admission requirements to elite research universities that take just a small fraction of their applicants. Yet few people identify what types of schools they’re talking about when they use the phrase “college ready.”

“I think, for the most part, people are not really defining it,” said Patrick M. Callan, the president of the National Center for Public Policy and Higher Education, a nonprofit group that advocates policies to increase postsecondary opportunities and achievement, based in San Jose, Calif. To do so, he and others contend, will require a concerted, collaborative effort by those in K-12 and higher education alike.

“What we’re up against now is the fruits of higher education not having participated in the whole standards movement of the 1990s,” said Mr. Callan, referring to the push for state academic standards and testing for elementary and secondary students. “And so higher education, unlike K-12, in most states has very little or no tradition, and very little capacity, to act collectively on an issue like this,” he said of college readiness. “I’m distressed by how far away from this we are, and how much triumphant rhetoric we hear.”

graduate ready for college. But pinning down what people mean by "college readiness" and how to measure it is no easy task.

- [Views Differ on Defining College Prep](#)
- [An Alternative Approach to Gauging Readiness](#)
- [Calif. High Schoolers Get Preview of College-Placement Test](#)

Part of what's driving the discussion is a set of alarming statistics about college-completion rates. While nearly three-fourths of recent high school graduates enter some form of postsecondary education, far too many of those who start college never finish.

Of those entering four-year colleges, just over six in 10 earn a bachelor's degree within six years. The figures are worse for poor, minority, and first-generation college students and for those enrolled in two-year institutions.

Traditionally, it's been assumed that high school students who pass a core set of academic courses are ready to do college-level work. And, indeed, studies have found that taking a full slate of academically intense courses in high school—including mathematics beyond Algebra 2, and at least three years of laboratory science—increases students' chances of earning a bachelor's degree. That's led states such as Arkansas, Indiana, and Texas, as well as some school districts, to make a college-prep curriculum the default for all students.

Rigor Questioned

But research by ACT Inc., which produces one of the nation's two major college-admissions tests, suggests that while taking a full set of academic courses is important, it doesn't necessarily ensure college success.

In 2004, the Iowa City, Iowa-based nonprofit organization looked at the relationships between high school coursetaking, ACT scores, and students' grades in college. The ACT defined college readiness as having a 75 percent chance of earning a C or better, and a 50 percent chance of earning a B or better, in four common first-year courses.

It found, for example, that students who scored a 22 out of a possible 36 on the ACT math test were likely to earn at least a C in college algebra. But only 13 percent of students who had completed high school math through Algebra 2, and only 37 percent who had completed math through trigonometry, achieved the score that the ACT identified as ready for college-level work.

"It does call to question whether our courses are at an appropriate level of rigor," said Cyndie Schmeiser, the ACT's senior vice president for research and development. "When students take Algebra 1, Algebra 2, and geometry courses in high school, why aren't they ready for a college algebra course?"

Yet defining college readiness in terms of a cutoff score on a college-admissions test may be missing the point, says David S. Spence, the president of the Southern Regional Education Board, based in Atlanta.

"It's as if, as long as we test all these students and tell them whether they're ready according to a score, that that's going to get them ready," he said. "The thing is to back up and make sure these standards are fully part of the curriculum."

A study tracking graduates of the Chicago public schools, released last week, found that grades in core academic courses were a more important predictor of college enrollment and graduation than scores on admissions exams. ("[Major College-Going Caps Found in Chicago](#)," this issue.)

"Grades are an indicator of students' ability to complete assignments and prepare high-quality work, something necessary for success in college," explained co-author Elaine M. Allensworth, an associate director at the Consortium on Chicago School Research at the University of Chicago.

Ask the Professors

Other efforts to define college readiness have brought together higher education faculty members to identify what entering students need to know.

Among them was a two-year study by Standards for Success, a project of the Association of American Universities and the Philadelphia-based Pew Charitable Trusts, at the University of Oregon. It brought together more than 400 faculty and staff members from 20 leading research universities to identify what students must do to succeed in entry-level, credit-bearing courses at those institutions. The resulting standards were published in 2003 with a document that offered samples of college work up to the standards.

Standards for Success developed two sets of standards, one for all students and one for potential majors in particular subjects. While the standards focus on English, math, science, social science, second languages, and the arts, one of the dominant themes is the importance of the “habits of mind” students need to acquire in high school and bring with them to college.

Those include critical thinking, analytical thinking, and problem-solving; an inquisitive nature; the willingness to accept critical feedback and to adjust on the basis of that feedback; openness to possible failures from time to time; and the ability and desire to cope with frustrating and ambiguous learning tasks.

Other critical skills include the ability to express oneself in writing and orally, to discern the relative importance and credibility of various sources of information, to draw inferences and reach conclusions independently, and to use technology as a tool for learning.

“Our finding, which has been replicated in a half-dozen other studies we’ve done, is that higher education faculty emphasize ways of thinking as much as or more than specific content knowledge,” said David T. Conley, the University of Oregon professor of educational leadership and policy who led the study. “In my opinion, that might be the largest single disconnect between high school and college.”

Surveys of college professors and K-12 educators have found large gaps between how well prepared high school teachers think their students are for college and what college faculty members think. A survey released last month by *The Chronicle of Higher Education*, for example, found that while 31 percent of high school teachers believed their students were “very well” prepared for college-level work, only 13 percent of professors agreed.

The problem with such surveys, said Mr. Kirst of Stanford, “is

Ready or Not

A variety of initiatives have attempted to define and measure “college readiness.”

• **Standards for Success:** In 2003, this project, sponsored by the Association of American Universities and the Pew Charitable Trusts, published a document describing the knowledge and skills students would need to succeed in entry-level courses and to major in specific academic areas in the nation’s leading research universities. The standards have since been licensed by the College Board, the sponsor of the SAT and Advanced Placement exams. Among other purposes, the College Board has used the standards to develop SpringBoard, a mathematics, reading, and writing program for 6th through 12th graders designed to prepare all youngsters for college-level work, including ap courses.

<http://cepr.uoregon.edu>

• **American Diploma Project:** In 2004, this project published “Ready or Not: Creating a High School Diploma That Counts,” that spells out the knowledge and skills students need to succeed in postsecondary education and the workplace. Since then, 22 states have joined the American Diploma Project Network, based on their commitment to align high school standards, tests, graduation requirements, data, and accountability systems with the demands of college and work.

www.achieve.org

• **College-Readiness Rates:** Jay P. Greene and Marcus A. Winters of the Manhattan Institute for Policy

I've been following what college professors say about students for 30 years, and they're never happy. I don't know what it takes to satisfy those people. To me, it tends to be what the ideal student would look like, rather than someone who could pass the work."

He added that most efforts to identify entry-level prerequisites have not focused on community colleges, which enroll 45 percent of undergraduates. Just identifying the common entry-level courses at such institutions is hard, he said.

In an institution with five levels of college English and three levels of remedial reading, Mr. Kirst said, "Which one is college-ready?"

Remediation Free?

One reason for the concern about college readiness is the large proportion of high school graduates who end up taking remedial courses in college for which they earn no credit—at considerable cost to themselves and to their institutions. Research has found that those who take two or more remedial courses are unlikely to graduate.

"I think colleges are more and more recognizing that they have a role to play in this," said Gaston Caperton, the president of the New York-based College Board, home of both the SAT college-admissions exam and the Advanced Placement program. "One of the things that colleges recognize is that they don't want to bring all their kids in and have to serve as a remedial program. That's not what they're there for."

But experts caution against defining college readiness as the ability to avoid any remedial courses — starting with the fact that it's so hard to identify what's a remedial course and what's not, and to get a firm fix on remediation rates. Moreover, a student may need remediation in writing but not in reading, or in math but not in biology. At what point is the student "college

Students' Preparation for College-Level Demands

The views of teachers and professionals on students' college readiness vary sharply.

*Click image to see the full chart.

	14%	55%	26%	5%	
Oral communication	18	64	15	3	High school College
Science	8	44	38	11	High school College
Mathematics	9	46	37	7	High school College
Writing	10	49	36	4	High school College
Reading/understanding difficult materials	15	56	26	3	High school College
Study habits (organization, planning)	30	53	15	2	High school College
Motivation to work hard	27	54	17	2	High school College
Ability to seek and use support resources	19	54	23	4	High school College

Research have calculated "college-readiness rates" for each state, based on what they describe as the minimum standards of the least-selective four-year colleges. The index is based on the percentages of students who graduated on time with a standard high school diploma; passed four years of English, three years of math, and two years each of science, social science, and a foreign language (based on a national study of high school transcripts); and scored at the basic level or higher on the National Assessment of Educational Progress in reading (administered to students and reported as part of the high school transcripts study). They estimated last year that about 1.3 million students were college-ready in the class of 2002, a figure just under the nearly 1.4 million who had actually enrolled in college for the first time the year before.

www.manhattan-institute.org

• **ACT Inc.:** The nonprofit testing organization, which produces the ACT college-entrance exam, has conducted a series of studies looking at students' preparedness for college, based on the relationship between their scores on the ACT subtests, the courses the students have taken in high school, and their grades in college-level courses. In "Crisis at the Core: Preparing All Students for College and Work," released in 2004, ACT Inc. found that a majority of students who took the exam were far from ready for the academic rigors of college.

www.act.org

SOURCE: *Education Week*

ready”?

Research skills	18	53	26	3	High school
	49	42	4	6	College

SOURCE: Copyright 2006, *The Chronicle for Higher Education*. Reprinted with permission.

Depending on the source, estimates are that between 28 percent and 40 percent of first-time freshmen in four-year public institutions, and between 42 percent and 63 percent of first-time freshmen in two-year public institutions, enroll in at least one remedial course.

In most states, individual colleges and universities select their own placement tests and their own standards for how well students must perform to avoid remediation, sending mixed messages to incoming students.

“Very few places set one set of readiness standards and one way to assess them,” said Mr. Spence of the 16-state SREB, who formerly served as the executive vice chancellor for the California State University system. “Most leave it up to individual systems or campuses within a state and, therefore, high schools have no idea.”

California’s community colleges alone give an estimated 495 English, math, and English-as-a-second-language placement exams. “So the first step is for higher education to really get its act together—or at least our broad-access, open-door institutions—to say here’s what we mean by being ready, and second, to define that in performance terms,” Mr. Spence said.

Mr. Callan of the Center for Public Policy and Higher Education worries, however, that “the focus has been so heavily on just cutting down on remediation.” Ultimately, he said, college readiness would mean students succeed in college and graduate.

Mr. Callan’s definition of college readiness is “the ability to do credit-bearing work in the most accessible higher education institutions in the state the day you enroll.” Roughly 80 percent of students, he noted, go to either open-access or broadly accessible institutions, such as regional universities, community colleges, and two-year technical colleges.

Tracking Success

Some studies and programs have begun to follow high school graduates into college to look at the factors that contribute to students’ success. And they’ve identified a set of skills that go beyond traditional academics.

AVID, for Advancement Via Individual Determination, is a secondary school program that prepares underachieving students, primarily those who are African-American and Latino, for success in four-year colleges. The program is now in nearly 2,300 schools nationwide and around the world. Three-quarters of 2004 AVID graduates were accepted to four-year colleges and, according to the program’s founder, Mary Catherine Swanson, nearly nine in 10 AVID graduates re-enroll for sophomore year fully academically qualified.

“So what is it that they have learned?” Ms. Swanson said. “We have been able to give them the study skills and the resiliency skills to be able to succeed.”

Part of that preparation, she argues, is making students savvy consumers of higher education.

“Our students tell us, so many of the colleges now have professors whose first language isn’t English, and it’s hard for the kids to understand,” she said as an example. “Also, a lot of the professors’ teaching skills, quite frankly, are not what they are in high schools.

“We make the kids learn how to be advocates for themselves because we teach them no system is going to be totally fair.”

AVID graduates, for example, know how to work collaboratively and to reach out for help, rather than thinking they can handle college on their own. The program also works with students and their families, beginning in grade 6, on how to pay for college. And it provides practical guidance on the college-search and -application process.

Research by Mr. Kirst and others has found that minority and first-generation college students, in particular, may lack information about what’s needed for college preparation and admissions.

Ms. Swanson’s perspective echoes findings from two New York studies—one following the graduates from a group of 28 small public high schools, and the other following graduates from one small high school. ("**An Alternative Approach to Gauging Readiness,**" this issue.)

“I do think the way we’re talking about college readiness has been way too narrowly defined,” argued Lori Chajet, a doctoral student at the City University of New York Graduate Center who is conducting one of the studies. “More often than not, when people think about college readiness, they think almost exclusively about academic preparation.”

While that’s necessary, she said, it’s not sufficient. “In my reading, most of this K-16 pipeline people are talking about is about matching up standardized tests, and that’s missing so much of the larger picture,” Ms. Chajet said.

And students’ success in college depends on the postsecondary institutions they attend as well as the high schools they graduate from. One study, by the Washington-based Education Trust, a research and advocacy group that focuses on the education of disadvantaged students, found that even colleges that are similar have graduation rates that vary by as much as 30 percentage points or more.

Among other factors, the study by Kevin Carey found, colleges with better completion rates focused on getting students engaged and connected to campus starting freshman year, emphasized the quality of undergraduate teaching and learning, monitored student progress, and made student success a top institutional priority.

Beyond Talk

At the National Education Summit on High Schools, held in Washington in February 2005, state governors agreed to an agenda that would better prepare all high school students for college and work. But more than a year later, said Mr. Callan, “I think that we’re still in the talking-about-it stage of college readiness.”

If progress is to occur, many analysts say, it will come at the state level. “I think states are going to have to act to get higher education to set one set of standards,” said Mr. Spence of the SREB, “and they’re going to have to insist on this kind of collaboration with the public schools.”

Missing the Mark

Many students tested on the ACT college-admissions tests in 2004 below levels seen as predicting college success.

ACT Subject-Area Tests	Benchmark Scores on Subject-Area Tests*	College Course	Percent Meeting Benchmark
English	18	English	68
Mathematics	22	College Algebra	40
Science	24	Biology	26
Reading	21	Social Studies	51**

* Score indicates a student has a 75 percent chance of earning a grade of C or better and a 50 percent chance of earning a grade of A or B in the related college course.

** Data are from 2005.

SOURCE: ACT Inc.

“The only way to really solve this is for the two levels [K-12 and higher education] to get together to hammer this out,” Mr. Kirst of Stanford agreed. “One level cannot impose it on the other, and state governments cannot mandate something this complex.”

Vol. 25, Issue 33, Pages 1,26,28-29

FROM THE ARCHIVES

“Graduates Can’t Master College Text,” March 1, 2006.

“States Acting to Raise Bar on H.S. Skills,” February 22, 2006.

“States Target High Schools for Changes,” February 8, 2006.

“ACT Scores Suggest Students Not Ready for College,” August 17, 2005.

“Colo. Launches Push to Boost College Readiness, Completion,” June 15, 2005.

“College-Based High Schools Fill Growing Need,” May 25, 2005.

For background, previous stories, and Web links, read **College Access**.

See other stories on education issues for **all states mentioned in this story**. See **data** on the public school systems for all states mentioned in this story.

RESOURCES ON THE WEB

"The Governance Divide: A Report on a Four-State Study on Improving College Readiness and Success" is posted by the **The National Center for Public Policy and Higher Education**. 

Ads by Google

Weak Reading Scores?

Get the 19 Tips to Improve Critical
Reading Skills - Free Report

top19tips.meritsoftware.com

Advertise on this site

© 2006 Editorial Projects in Education