

College- and Work-Ready Graduation Requirements

The U.S. economy can no longer absorb employees with inadequate educations into low-skill jobs, as it has in past decades. Those jobs no longer exist or are fast disappearing. Jobs that pay well and support a middle-class lifestyle require higher level mathematics and communication skills than ever before. In the past, students bound for the workforce needed less-rigorous preparation than those bound for college. Times have changed. Research shows that the skills needed for success in college and good jobs are converging, particularly jobs that pay well and allow for career advancement. Unfortunately, while workplaces and higher education institutions have elevated expectations, high schools have not generally kept pace with these growing demands.

The Convergence of College and Work Requirements

It is clear that we must provide all students with a curriculum that will open the door to better opportunities, including post-secondary education and well-paying jobs. Research by the American Diploma Project (ADP) and ACT indicates that whether students go directly into college or into the workforce after graduation they need the same knowledge and skills, particularly in English and mathematics. Yet it is not yet common practice for states to hold all students to the same academic standards. Currently, schools tend to have a special track for college-bound students and a less rigorous curriculum for everyone else.

The ADP research is based on both statistical analysis of employment data and extensive research involving more than 300 faculty members from two- and four-year postsecondary institutions, front-line managers, and high school educators, led to the creation of the ADP benchmarks. Its key findings: employers' and colleges' academic demands for high school graduates have converged, yet states' current high-school exit expectations fall well short of those demands. This led to the creation of the ADP college- and work-ready benchmarks, which concretely define the English and math that graduates must master to succeed in credit-bearing college courses and high-performance, high-growth jobs.¹

ADP calls for four years of grade-level English, including literature, writing, reasoning, logic and communication skills. The English benchmarks demand strong oral and written communication skills because these skills are staples in college classrooms and most 21st century jobs. They also contain analytic and reasoning skills that were formerly associated with advanced or honors courses in high school. Today, however, colleges and employers agree that all high school graduates need these essential skills. In mathematics the ADP benchmarks require four years of math, including Algebra I and II, geometry, data analysis, and statistics. The ADP benchmarks provide the framework states need for developing an innovative college and workplace readiness curriculum and the evidence they need to require all students to follow it. Requiring all students to take and pass specific courses and course sequences (e.g. Algebra I, Geometry, Algebra II) rather than simply "three years" of mathematics or "four years" of English will substantially increase the number of low-income and minority students, in particular, who graduate from high school academically prepared for the demands of college and work.

Access and Equity

The research is overwhelming and clear: students who complete more rigorous coursework are more likely to be successful in college and work. This is particularly true in mathematics, where data show a strong correlation between taking higher-level mathematics courses in high school and achieving success in college and employment in high-growth, high-performance jobs.² Moreover whether students are going on to a two- or four-year college or directly into the workplace, taking challenging mathematics in high school is the gatekeeper that either opens or shuts the door to opportunity.

¹ *Ready or Not* is available at www.achieve.org

² Adelman, et. al., *Postsecondary Attainment, Attendance, Curriculum, and Performance: Selected Results From the NELS:88/2000 Postsecondary Education Transcript Study (PETS)*, 2000, September 2003, Table 11. Carnevale and Desrochers, Educational Testing Service, *Connecting Education Standards and Employment: Course-Taking Patterns of Young Workers*, American Diploma Project: Workplace Study, 2002. ACT, *Crisis at the Core: Preparing All Students for College and Work*, October 2004.

Rigorous course taking matters for all students, but it is particularly important for students from disadvantaged backgrounds. Taking a challenging high school curriculum, including but not limited to Algebra II, cuts in half the gap in college completion rates between white students and African American and Latino students.³ Making a rigorous curriculum mandatory will improve access for minority students. Among the high school graduating class of 2000, nearly half (47 percent) of white students and more than two-thirds (69 percent) of Asian students took a math course beyond Algebra II, but only 29 percent of American Indian, 31 percent of Latino and 32 percent of African American students did.⁴ In communities where a college-preparatory curriculum is not required, disadvantaged students are less likely to be in schools that offer college-prep courses, may not know which courses they need to take, or may require approval of a guidance counselor or school administrator to enroll.

Defining Real-World Expectations

Aligning high school standards and course requirements with college and workplace expectations can be accomplished only with the formal involvement of the postsecondary and business communities. Postsecondary institutions must clearly define the skills that high school graduates need to be ready to take credit-bearing, non-remedial courses, and business leaders likewise must articulate the skills that graduates need to be successful and advance in their career. High school standards and course requirements must be anchored in these real-world expectations.

Adopting and implementing policies to ensure that all graduates are ready for work or college is critical to our students, whose future depends, in large measure, on being well-prepared for the challenging world in which they will find themselves. It sets and communicates very clear expectations for what courses students should take to be prepared for life after high school, and it removes obstacles students frequently encounter in gaining access to advanced college- and work-prep courses. Many graduates soon realize how much they should have done while they were still in high school. In fact, in a poll commissioned by Achieve of recent high school graduates, students routinely stated that knowing what they know today, they would have applied themselves more and taken harder courses in high school.⁵

State Action

To move forward in preparing all students to meet the demands of college and work, states should:

- Define specific course-taking requirements in English and mathematics for high school graduation (such as Algebra I, Geometry, Algebra II rather than simply “three years” of mathematics or “four years” of English), and specify the core content for those courses, ensuring that it aligns well with the American Diploma Project (ADP) benchmarks.
- Insist that all students are held to the same English and mathematics standards, using the same measures, regardless of whether students are in traditional schools, charter schools, small theme-based schools or other alternative programs.
- Help define how other subjects (such as science, history and the arts) can prepare students to meet college and workplace readiness demands in mathematics and English.

The Bottom Line

When students take challenging courses in high school, they have more options when they graduate. What used to be thought of as “college-prep” curriculum is now the basic level of preparation all students need to be successful in college and the workplace. It is our collective responsibility to be sure that high school students understand the demands of the world they are about to enter and that they are ready. Not only is this critical for the individuals themselves, but for states and our nation as a whole. To compete in the global marketplace, we need graduates who are ready to meet and exceed the challenges of the 21st century.

³ Adelman, *Anders in the Tool Box: Academic Intensity, Attendance Patterns, and Bachelor's Degree Attainment*, Office of Educational Research and Improvement, U.S. Department of Education, June 1999.

⁴ National Center for Education Statistics, *The Condition of Education 2004*

⁵ *Rising to the Challenge* is available at www.achieve.org