



The American  
Diploma Project

# Ready or Not

Executive Summary



## Creating a High School Diploma That Counts

*A partnership of*

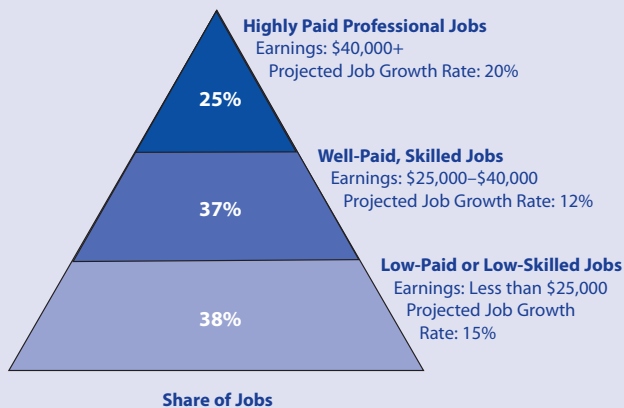


## THE PROBLEM

For too many graduates, the American high school diploma signifies only a broken promise. While students and their parents may still believe that the diploma reflects adequate preparation for the intellectual demands of college or work, employers and postsecondary institutions know that it often serves as little more than a certificate of attendance. Consider:

- **Most high school graduates need remedial help in college.** More than 70 percent of graduates enter two- and four-year colleges, but at least 28 percent of those students immediately take remedial English or math courses. Transcripts show that during their college careers, 53 percent of students take at least one remedial English or math class. The percentages are much higher for poor and minority students.
- **Most college students never attain a degree.** While a majority of high school graduates enter college, fewer than half leave with a degree. Significantly fewer blacks and Hispanics than whites attain bachelor's degrees. Many factors influence this attrition, but the preparation students receive in high school is the greatest predictor of bachelor's degree attainment — more so than family income or race.

### More Jobs Are Highly Paid or Skilled, Require More Education



Source: American Diploma Project, 2002

- **Most employers say high school graduates lack basic skills.** More than 60 percent of employers rate graduates' skills in grammar, spelling, writing and basic math as only "fair" or "poor." One study estimated the cost of remedial training in reading, writing and mathematics to a single state's employers at nearly \$40 million a year.
- **Too few high school students take challenging courses.** Most states require high school students to take a certain

number of courses in English and mathematics, but very few can ensure that the course content reflects the knowledge and skills that colleges and employers demand, such as Algebra I, Geometry and Algebra II.

- **Most high school exit exams don't measure what matters to colleges and employers.** Nearly half the states require students to pass exit exams to graduate, but these exams generally assess 8th or 9th grade content, rather than the knowledge and skills that adequately prepare students for credit-bearing college courses or high-performance, high-growth jobs.

## THE SOLUTION

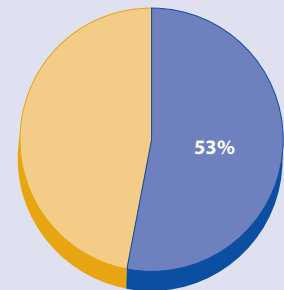
What will it take to restore value to the American high school diploma? *First*, state policymakers need to anchor high school graduation requirements and assessments to the standards of the real world: the knowledge and skills that colleges and employers actually expect if young people are to succeed in their institutions. *In return*, colleges and employers need to start honoring and rewarding student achievement on state standards-based assessments by using these performance data in their admissions, placement and hiring decisions.

To help advance this agenda, Achieve, Inc.; The Education Trust; and the Thomas B. Fordham Foundation launched the American Diploma Project (ADP). The goal was to determine the English and mathematics skills that high school graduates need in order to be successful in college and the workplace and to help states incorporate those skills into their standards, assessments and high school graduation requirements.

After two years of intensive work with high school teachers, college professors and employers, the ADP partnership has released a set of benchmarks that describe the specific English and mathematics knowledge and skills that graduates must have mastered if they expect to succeed in postsecondary education or in high-performance, high-growth jobs. The report also includes actual workplace tasks and postsecondary assignments that illustrate the practical application of the “must-have” competencies described in the benchmarks.

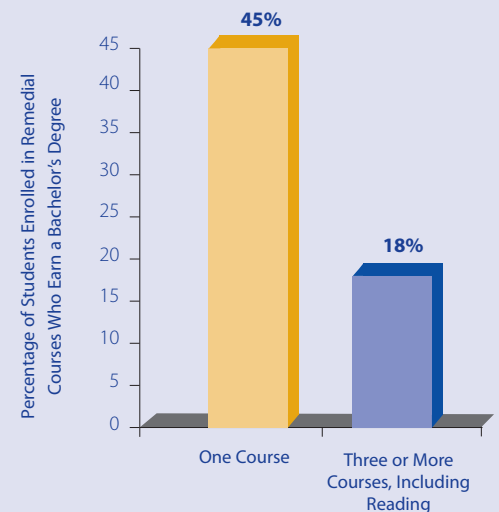
In addition to establishing benchmarks for what high school graduates need to know, the ADP partnership has created an action agenda and challenged policymakers, educators and business leaders across the country to do their part to make the high school diploma count.

### More Than Half of All College Students Take Remedial Courses ...



■ Percentage of postsecondary students taking remedial English or math courses

### ... And Students Who Take Remedial Courses Are Less Likely To Finish College



Source: National Center for Public Policy and Higher Education, National Center for Education Statistics, 1998

## What States and Postsecondary Institutions Should Do

### ***Anchor Academic Standards in the Real World***

The academic standards that states have developed over the past decade generally reflect a consensus among experts in each discipline about what is *desirable* for students to learn, but not necessarily what is *essential* for them to be prepared for further learning, work or citizenship after completing high school. These “first generation” standards were critical in getting standards-based reform launched in every state, but it is time to update them.

States should:

- Align academic standards in high school with the knowledge and skills required for college and workplace success, using the ADP benchmarks as a starting point.
- Back-map standards to create a coherent, focused, grade-by-grade progression from kindergarten through high school graduation.

### **About the American Diploma Project**

When Achieve, The Education Trust and the Thomas B. Fordham Foundation launched the American Diploma Project (ADP), we wanted to be able to answer a key question for high school students: “*Is what I’m learning in school worth it — is it preparing me for college or a ‘good job’?*” Unfortunately, the answer for the majority of students is “No.”

With support from the William and Flora Hewlett Foundation, we spent nearly two years working with two- and four-year postsecondary faculty and front-line managers in high-growth, high-skill occupations to define the core knowledge and skills that high school graduates need in order to be ready to succeed in their organizations. We worked especially closely with policymakers, educators and business executives in our five partner states: Indiana, Kentucky, Massachusetts, Nevada and Texas.

The full report, including the policy recommendations, English and math benchmarks, workplace tasks, and postsecondary assignments, is available at [www.achieve.org](http://www.achieve.org). We welcome your questions and comments.

### ***Require All Students To Take a Quality College and Workplace Readiness Curriculum***

Successful preparation for both postsecondary education and employment requires learning the same rigorous English and mathematics content and skills. No longer do students planning to go to work after high school need a different and less rigorous curriculum than those planning to go to college.

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 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 standards in mathematics and English.

### ***Measure What Matters and Make It Count***

States have developed high school assessments without much regard for what colleges need, and colleges use admissions and placement exams that are disconnected from the curriculum students study in high school. The result is too many tests and a mixed set of messages to students, parents and teachers about which ones matter most. States must streamline their assessment systems so that high school graduation and college admissions and placement decisions are based on student achievement of college and workplace readiness content.

States should:

- Use high school graduation exams to ensure that students meet standards before earning a high school diploma.
- Ensure that the graduation “floor” is not set too low; graduation exams that primarily measure 8th and 9th grade content say little about college and workplace readiness.
- Prevent the floor from becoming the ceiling; ultimately, all 12th grade students should be able to do 12th grade work, not just pass a 10th or an 11th grade test.
- Find ways to assess graduates in addition to large-scale, paper-and-pencil assessments, which are inadequate to measure such essential skills as making effective oral arguments and conducting significant research projects.
- Regularly validate high school assessments as accurate predictors of postsecondary performance in terms of grades, persistence and degree attainment.

### ***Bridge the Gap Between High School and College***

In almost every state, K–12 and postsecondary education systems are governed, financed and operated independently. As a result, young people face needless obstacles in moving from one system to the next — different expectations, different standards and different assessments. Many students find their college aspirations needlessly frustrated by conflicting signals about “necessary” academic preparation. In addition to using the ADP benchmarks to establish appropriate graduation requirements, states and postsecondary institutions can take several key steps to ensure that students and high school and college officials receive clear, consistent and helpful information.

Postsecondary institutions should:

- Use high school assessments for college admissions, placement and/or the awarding of merit scholarships.
- Provide information to high schools on the academic performance of their graduates in college, which schools can use to help improve their programs.

## Challenging Standards, Real-World Tasks

ADP's cornerstone is a set of standards in English and mathematics that clearly define the knowledge and skills that high school graduates need to be successful. ADP asked leading economists to examine market projections for the most promising jobs — those that pay enough to support a family well above the poverty level and that provide real potential for career advancement — to help pinpoint the academic knowledge and skills required for success after high school. ADP also worked closely with two- and four-year post-secondary faculty to determine the prerequisite knowledge and skills required for success in entry-level, credit-bearing courses. The result is a set of benchmarks that should serve as the anchor for every state's system of high school assessments and graduation requirements.

The ADP benchmarks are ambitious. They reflect an unprecedented convergence in what employers and postsecondary faculty need from new employees and entering freshmen. In math, they contain content typically taught in Algebra I, Algebra II, Geometry, and Data Analysis and Statistics. In English, they demand strong oral and written communication skills that are staples in college classrooms and high-performance workplaces. They also describe analytical and research skills currently associated only with advanced and honors courses.

What makes the ADP benchmarks unique is that they are accompanied by actual examples of the kinds of workplace tasks and postsecondary assignments that high school graduates will confront. These real-world examples demonstrate how the academic skills in the ADP benchmarks are used in jobs from an actuary to a manufacturing technician and in first-year classes at colleges from Purdue University to Western Nevada Community College.

For example, an apprentice training to become a machine operator at Eastman Chemical Company in Kingsport, Tennessee (above right) must be able to solve multistep arithmetic problems such as computing the concentration and density of a solution given the weight of each component — a task requiring solid mathematics skills. And a first-year student at Sam Houston State University must be able to analyze a piece of contemporary media, identifying the theme and discussing how the words and images come together to create that theme (right). Additional samples are available in the full report and on the Achieve Web site at [www.achieve.org](http://www.achieve.org).



### Sample Workplace Task — Machine Operator Apprentice, Eastman Chemical Company

Ask the apprentice to mix a solution (#1) of 5 g Peters fertilizer and 50 g distilled water.

- **Determine the percent concentration-by-weight of this solution.**

The basic formula is *Weight of the solute divided by the combined weight of the solute and solvent equals percent concentration-by-weight.*

- **Example:**  $5 \text{ g} \div (5 \text{ g} + 50 \text{ g}) = 5 \text{ g} \div 55 \text{ g} \approx 0.09$  or 9% concentration-by-weight.

- **Calculate the density of this solution (#1).**

*Divide the weight by the volume to determine the density in gm/ml.*

Ask the apprentice to make a solution (#2) using 10 g of Peters and 50 g of distilled water.

- **Determine the percent concentration-by-weight.**
- **Ask the apprentice:** Why is the concentration-by-weight of solution #2 not double the concentration-by-weight of solution #1 since the solute is doubled?

$$C = \frac{x}{x+V} \text{ and } \frac{2x}{2x+V} \neq 2 \frac{x}{x+V}$$

- **Ask the apprentice to use the formula to explain.**



### Sample Postsecondary Assignment — Introductory English, Sam Houston State University

**Day One:** Based on your close “reading” of this painting (below), what do you think the painter was trying to “say”? Look at the painting for any details that seem important, startling or hard to explain. If you are still having trouble, consider the title: *The Fall of Icarus*. Do an Internet search for “Icarus.” Using what you have discovered, determine the main idea presented by Pieter Bruegel’s painting *The Fall of Icarus*.

**Day Two:** We will begin by reading two poems about *The Fall of Icarus*: “Landscape with the Fall of Icarus,” by William Carlos Williams, and “Musee des Beaux Arts,” by W. H. Auden. The painting seems to be saying something about how life goes on despite tragic events. Think about how this idea is conveyed in images and could be (or, in the case of the poems we read, is) conveyed in words.



**Paper:** Locate an example of how words and images work together to create a theme (which also might mean to make a point or sell a product). Your example may be a printed magazine or television ad, music video, cartoon (moving or still), or practically any other medium. You will have a week to locate your subject and write a preliminary draft of a paper analyzing the interplay between the visual and the verbal in it. (You might even choose an example in which there is dissonance rather than harmony between the verbal and the visual.) After the preliminary draft, we will proceed to the final paper.



States should:

- Hold postsecondary institutions accountable for the academic success of the students they admit — including learning, persistence and degree completion — rather than allowing them to continue to place ill-prepared students in remedial, non-credit-bearing courses and then replace dropouts with new students the following year.

## What the Federal Government Should Do

While the bulk of responsibility for this agenda falls to states and their leaders, the federal government can take several steps to provide important support.

In particular, the President and Congress should:

- Provide incentives such as additional Pell grant funds for high school students to take a college and workplace readiness curriculum.
- Offer resources, through the reauthorization of the Higher Education Act or other legislation, for states to align high school standards, assessments and graduation requirements with the knowledge and skills necessary for postsecondary education and work.
- Require, through the reauthorization of the Higher Education Act, postsecondary education institutions to report annually to students, parents and the public evidence of student achievement, as well as rates of remediation, persistence and degree completion.
- Align the 12th grade National Assessment of Educational Progress in English and mathematics with the ADP benchmarks and require all states to administer this test, as the No Child Left Behind (NCLB) law now requires for 4th and 8th grades.

## What Business Leaders Should Do

Business leaders have been a consistent voice for higher standards and achievement, sustaining momentum through changes in governors, presidents and partisan control of legislatures.

Business leaders must continue their strong advocacy and, in particular:

- Encourage states to align standards, assessments and graduation requirements with the knowledge and skills necessary for success in postsecondary education and work — even as they grapple with implementing NCLB.
- Consider evidence such as high school assessment results and transcripts in making hiring decisions, and encourage other employers to do the same.

State leaders began the standards movement more than two decades ago. Then, as now, they were driven by an urgent need to better prepare *all* young people for success. While states have made substantial progress improving standards, assessments and accountability, it is now time to take the next steps and make the high school diploma count.

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