Condition of

College
& Career
Readiness
2010







# About The Condition of College & Career Readiness

Since 1959, ACT has collected and reported data on students' academic readiness for college. Because becoming ready for college and career is a process that occurs throughout elementary and secondary education, measuring academic performance over time in the context of college and career readiness provides meaningful and compelling information about the readiness of students. A focus on the number and percentage of students meeting or exceeding the ACT College Readiness Benchmarks does just that.

Empirically derived—based on the performance of students in college—a College Readiness Benchmark is the minimum score needed on an ACT subject-area test to indicate a 50% chance of obtaining a B or higher or about a 75% chance of obtaining a C or higher in the corresponding first-year credit-bearing college course. These college courses include English Composition, College Algebra, an introductory social science course (e.g., History, Psychology, Sociology, Political Science, and Economics), and Biology.

Using ACT test scores and the ACT College Readiness Benchmarks, this report provides a snapshot of college readiness of the graduating seniors of the class of 2010 who took the ACT in high school.<sup>1</sup>

The data presented herein are based on the ACT Profile Report—National: Graduating Class 2010, accessible through the ACT webpage at www.act.org/news/data.html. With the exception of the graphs on pages 3 and 16, data related to students who did not provide information, or who responded "Other" to questions about gender, race/ethnicity, high school curriculum, etc., are not presented explicitly.

# About The Condition of College & Career Readiness

The Condition of College & Career Readiness is organized into five sections:

Access & Preparation—the number of graduates exposed	
to college entrance testing and the percent of students pursuing	
a core curriculum	1
Academic Performance—student test performance and the	
impact of rigorous coursework on achievement	5
College Readiness—the percentage of students meeting the	
ACT College Readiness Benchmarks in each content area	8
Educational/Career Aspirations & Economic Development—	
the extent to which student aspirations match workforce demands	16
Policies & Practices to Increase Readiness—	
policies and practices states and schools can implement	
to improve the college readiness of students	19

ACT encourages educators to focus on trends (e.g., 3, 5, 10 years), not year-to-year changes, which can represent normal—even expected—fluctuations. Trend lines offer more insight into what is happening in a school, district, state, or the nation than data from any single year can.



# **Contents**

Access & Preparation	
Percent of U.S. Graduates Who Took the ACT  Percent of U.S. Graduates Who Took the ACT by State  Number of Graduates Who Took the ACT by Race/Ethnicity  Percent of Graduates Who Took a Core Curriculum by Race/Ethnicity	2
Academic Performance  ACT Scores Over Time	6
College Readiness  College Readiness Benchmarks by Subject  Number of College Readiness Benchmarks Attained  College Readiness Benchmarks by State  College Readiness Benchmarks—Attainment and Near-Attainment  College Readiness Benchmarks—On Target and Attained  College Readiness Benchmarks Over Time  College Readiness Benchmarks by Level of High School Preparation  College Readiness Benchmarks by Race/Ethnicity	9 . 10 . 1 <sup>2</sup> . 10 . 14



continued

# **Contents**

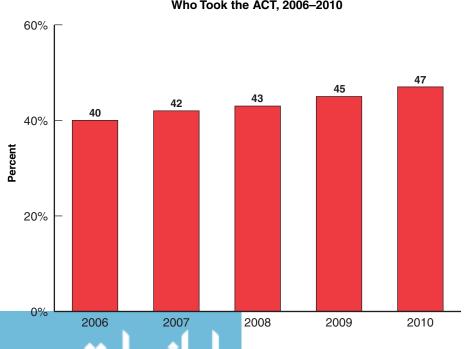
continued

Educational/Career Aspirations & Economic Development  Educational Aspirations by Race/Ethnicity	17
College Readiness Benchmarks by Career Field	18
Policies & Practices to Increase Readiness	
How to Increase Readiness	
Essential Standards	
Common Expectations	19
Clear Performance Standards	
Rigorous High School Courses	20
Early Monitoring and Intervention	
Data-Driven Decisions	
Notes	22



#### Percent of U.S. Graduates Who Took the ACT





About 47% of all 2010 high school graduates in the United States took the ACT during high school, or about 1.57 million graduates.

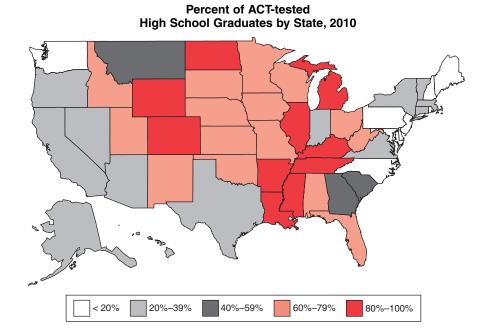
From 2006 to 2010, the number of high school graduates who took the ACT increased by approximately 30%. This represents a 7 percentage point increase of all U.S. high school graduates who took the ACT.

Graph reads: In 2006, 40% of all U.S. high school graduates had taken the ACT test at least once during their sophomore, junior, or senior year.

## Percent of U.S. Graduates Who Took the ACT by State

At least 60% of all 2010 high school graduates took the ACT in 25 states. In 10 states, at least 80% of their high school graduates took the ACT.

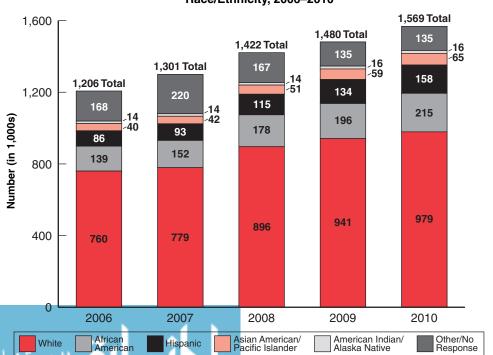
In 3 states, between 40% and 59% of their 2010 high school graduates took the ACT during high school, while another 13 states saw between 20% and 39% of their high school graduates take the ACT. Less than 20% of 2010 graduates took the ACT in 9 states.



Graph reads: In 2010, less than 20% of the high school graduates in 9 states (e.g., Washington) took the ACT test at least once during their sophomore, junior, or senior year.

### Number of Graduates Who Took the ACT by Race/Ethnicity

## Number of ACT-tested High School Graduates by Race/Ethnicity, 2006–2010



About 363,000 more high school graduates completed the ACT in 2010 than in 2006, an increase of 30%.

In 2010, 62% of all ACT-tested graduates were White, 14% were African American, 10% were Hispanic, 4% were Asian American/ Pacific Islander, 1% were American Indian/ Alaska Native, and 9% were Other/No Response. From 2006 to 2010, the number of ACT-tested high school graduates increased from 1.206 million to 1.569 million students. Substantial numerical increases occurred for White students (increase of about 219.000). African American students (76,000), Hispanic students (72,000), and Asian American/ Pacific Islander students (25,000). Proportionally, the largest increases were by Hispanic (84%) and Asian American/Pacific Islander students (about 63%).

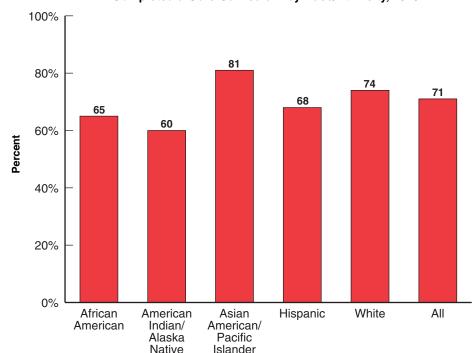
Graph reads: In 2006, about 1,206,000 U.S. high school graduates had taken the ACT test at least once during their sophomore, junior, or senior year, of which about 760,000 were White and 139,000 were African American. Note: Counts by race/ethnicity might not sum to total due to rounding.

### Percent of Graduates Who Took a Core Curriculum by Race/Ethnicity

Seventy-one percent of all 2010 ACT-tested high school graduates took at least a minimum core high school curriculum to prepare them for college (defined as 4 years of English and 3 years each of mathematics, social studies, and science).

Asian American/Pacific Islander students (81%) were most likely to complete a core curriculum, while 74% of White students did so. A smaller percentage of African American (65%), American Indian/Alaska Native (60%), and Hispanic (68%) students completed a core curriculum than all students on average.

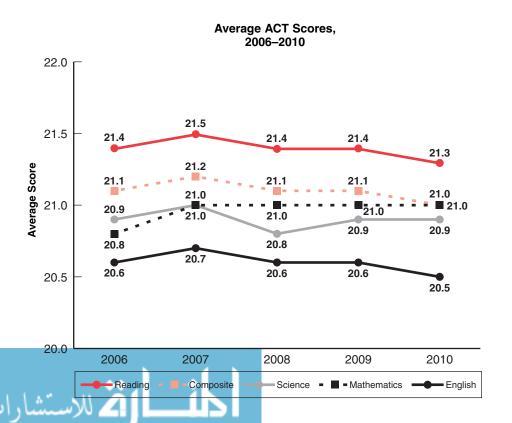
## Percent of ACT-tested High School Graduates Who Completed a Core Curriculum by Race/Ethnicity, 2010



Graph reads: In 2010, 65% of all African American high school graduates who had taken the ACT test had completed, or had planned to complete, at least a core curriculum.

## **Academic Performance**

#### **ACT Scores Over Time**



Test scores remained essentially the same between 2006 and 2010 even though 30% more high school students have taken the ACT over this period and the group of students has become more heterogeneous, including more graduates from each racial/ethnic group.

Composite score averages ranged between 21.0 and 21.2 points during this time. The four subject score averages (English, Mathematics, Reading, and Science) showed similar changes in absolute value ranging between 0.1 and 0.2 point depending on the subject area.

Graph reads: Between 2006 and 2010, the average ACT Reading score for all high school graduates decreased slightly from 21.4 to 21.3.

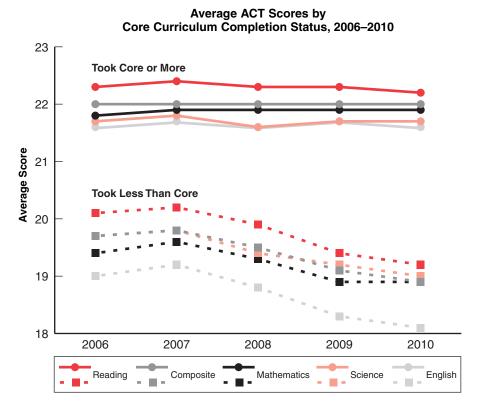
## **Academic Performance**

## ACT Scores Over Time by Level of High School Preparation

For each year from 2006 to 2010, ACT Composite and subject scores were higher for graduates who completed a core curriculum or more in high school than for graduates who did not.

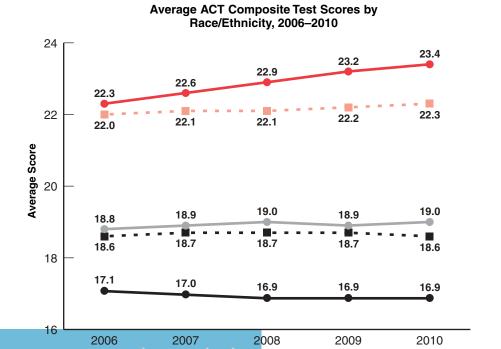
On average, high school graduates who completed at least a core curriculum earned Composite test scores 2.2 to 3.1 points higher than the scores of students who did not take a core curriculum. Similar ranges of higher scores for core or more than core curriculum completers are noted for each subject test: English (2.5 to 3.5 points), Mathematics (2.3 to 3.0), Reading (2.2 to 3.0), and Science (2.0 to 2.7).

Graph reads: Between 2006 and 2010, the average ACT Reading score for high school graduates who had completed or had planned to complete a core curriculum remained about the same, but was higher than that of graduates who had not completed or had not planned to complete a core curriculum.



## **Academic Performance**

### ACT Scores Over Time by Race/Ethnicity



Asian American/

Pacific Islander

African

American

American Indian/

Alaska Native

- -

Hispanic

- -

White

Average ACT Composite scores for American Indian/Alaska Native, Asian American/Pacific Islander, and White graduates increased between 2006 and 2010. Hispanic graduates' average ACT Composite scores remained essentially the same, while those of African American graduates declined by 0.2 scale point.

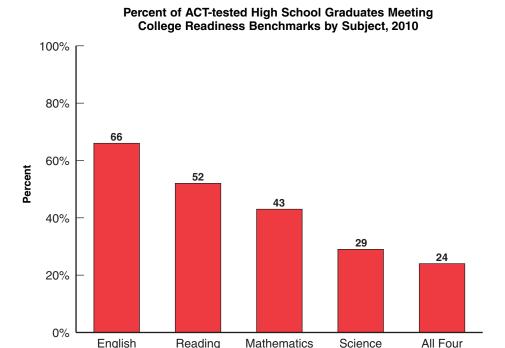
Asian American/Pacific Islander graduates had the highest average ACT Composite scores and the largest score increase (+1.1 scale points). Average ACT Composite scores for American Indian/Alaska Native and White graduates increased by 0.2 and 0.3 point, respectively. These score changes have occurred as more graduates from each racial/ethnic group have taken the ACT.

Graph reads: Between 2006 and 2010, the average ACT Composite score for Asian American/Pacific Islander high school graduates increased from 22.3 to 23.4.

## College Readiness Benchmarks by Subject

Sixty-six percent of all ACT-tested high school graduates met the English College Readiness Benchmark in 2010. Just under 1 in 4 (24%) met all four College Readiness Benchmarks.

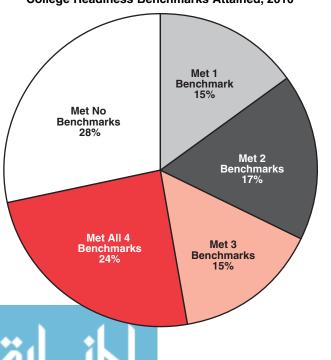
In 2010, 52% of graduates met the Reading Benchmark, while 43% met the Mathematics Benchmark. Over 1 in 4 (29%) met the College Readiness Benchmark in Science.



Graph reads: In 2010, 66% of ACT-tested high school graduates met the ACT College Readiness Benchmark in English.

### Number of College Readiness Benchmarks Attained

## Percent of ACT-tested Graduates by Number of ACT College Readiness Benchmarks Attained, 2010



About 71% of all ACT-tested 2010 high school graduates met at least one of the four College Readiness Benchmarks in English, Mathematics, Reading, or Science.

Approximately 28% of all graduates met no College Readiness Benchmarks, while 47% met between 1 and 3 Benchmarks. Twenty-four percent of all 2010 ACT-tested high school graduates met all four College Readiness Benchmarks, meaning that less than 1 in 4 were academically ready for college coursework in all four subject areas.

Graph reads: In 2010, 24% of ACT-tested high school graduates met all four College Readiness Benchmarks, 15% met 3 Benchmarks, 17% met 2 Benchmarks, 15% met 1 Benchmark, and 28% met none of the Benchmarks. Note: Percentages may not sum to 100% due to rounding.

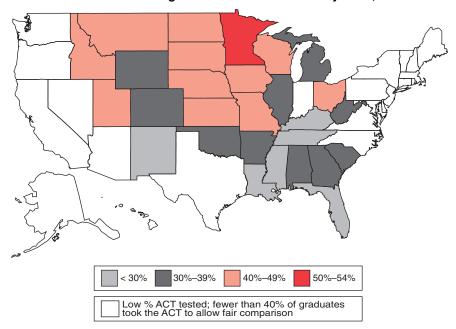
## College Readiness Benchmarks by State

Of the 28 states where at least 40% of all 2010 high school graduates took the ACT, in only 1 did more than 50% of their ACT-tested graduates meet at least three College Readiness Benchmarks. In no state did more than 54% of ACT-tested graduates meet three or four Benchmarks.

In 11 states, 40%–49% of their graduates met at least three of the four Benchmarks. In another 10 states, 30%–39% of graduates met at least three of the four College Readiness Benchmarks in 2010, while less than 30% of graduates did so in 6 states.

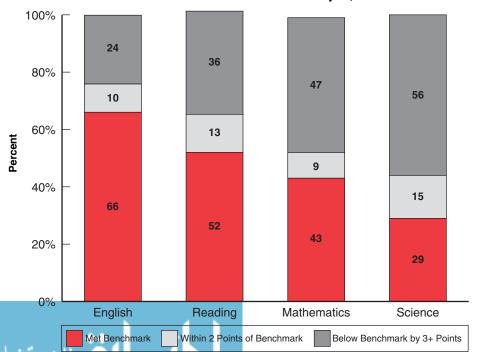
Graph reads: In 2010, less than 30% of the ACT-tested high school graduates in 6 states (e.g., Florida) met three or four College Readiness Benchmarks. Results are not shown for 22 states (e.g., Washington) within which fewer than 40% of graduates took the ACT.

## Percent of ACT-tested High School Graduates Meeting Three or Four College Readiness Benchmarks by State, 2010



### College Readiness Benchmarks—Attainment and Near-Attainment

#### Percent of ACT-tested High School Graduates by Benchmark Attainment and Subject, 2010



An additional 9% to 15% of graduates were within 2 scale points of meeting an ACT College Readiness Benchmark in 2010, depending on subject area. This represents an additional 146,000 to 234,000 students who are close to being college ready, depending on subject area.

In 2010, 43% of graduates met the Mathematics Benchmark, while another 9% were within 2 scale points of doing so. The percentages of students within 2 scale points of the Benchmark in the other subject areas are greater, including 10% of graduates in English, 13% in Reading, and 15% in Science.

Graph reads: In 2010, 66% of ACT-tested high school graduates met the College Readiness Benchmark in English, while 10% scored 1 or 2 points below the Benchmark, and 24% scored 3 points or more below the Benchmark.

Note: Columns may not sum to 100% due to rounding.

## College Readiness Benchmarks—On Target and Attained

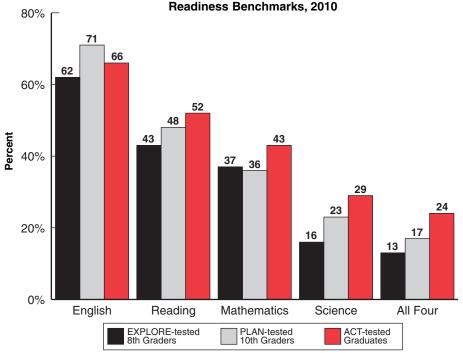
Less than 1 in 4 2009–10 PLAN-tested 10th graders or ACT-tested 2010 graduates met all four College Readiness Benchmarks, and only 13% of 2009–10 EXPLORE-tested students did so. Across the grade levels, only the English Benchmark was met by more than 50% of the students.

Students were most likely to meet the English Benchmark followed by the Reading, Mathematics, and Science Benchmarks.

Graph reads: In 2010, 62% of 2009–10 EXPLORE-tested students met the College Readiness Benchmark in English, while 71% of 2009–10 PLAN-tested students and 66% of ACT-tested 2010 graduates did so.

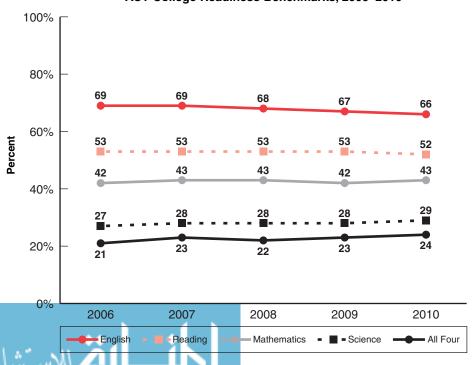
Note: Data here are cross sectional and not longitudinal, reflecting three different groups of students.

# Percent of 2009–10 EXPLORE-tested 8th Graders, 2009–10 PLAN-tested 10th Graders, and ACT-tested 2010 Graduates Meeting ACT College Readiness Benchmarks, 2010



### College Readiness Benchmarks Over Time

## Percent of ACT-tested High School Graduates Meeting ACT College Readiness Benchmarks, 2006–2010



The percent of students meeting all four Benchmarks increased slightly between 2006 and 2010. About 1 in 5 ACT-tested high school graduates met all four ACT College Readiness Benchmarks in 2006, compared to about 1 in 4 doing so in 2010.

Between 2006 and 2010, Benchmark attainment percentages remained relatively stable in Reading and Mathematics: about 53% of ACT-tested graduates met the Reading Benchmark while about 43% met the Mathematics Benchmark. A slightly higher percentage of graduates met the Science Benchmark in 2010 than in 2006. In English, there was a slight decrease in the percentage of graduates meeting the Benchmark over this period.

Graph reads: Between 2006 and 2010, the percentage of ACT-tested high school graduates who met the College Readiness Benchmark in English decreased from 69% to 66%

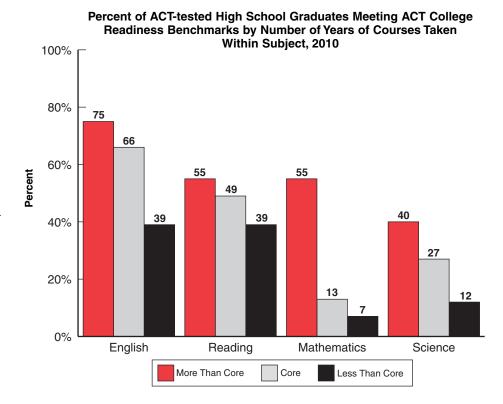
### College Readiness Benchmarks by Level of High School Preparation

Within a subject, graduates who took a core curriculum in high school were more likely to meet the corresponding College Readiness Benchmark in 2010 than those who took less than a core curriculum. For all four subject areas, the highest percentages of graduates who met the Benchmarks took more than a core curriculum.

The largest curriculum-based difference in Benchmark attainment rates was in Mathematics. Graduates who completed more than 3 years of mathematics were more likely to meet the Mathematics Benchmark than those who did not, by at least 42 percentage points.

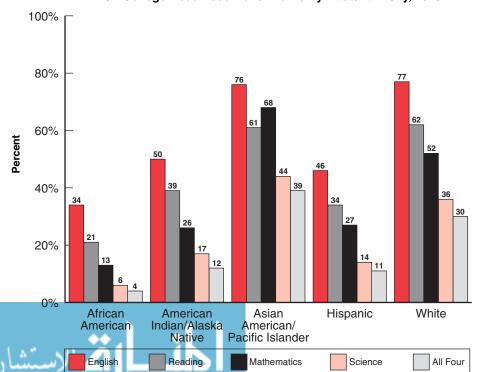
Graph reads: In 2010, 75% of ACT-tested high school graduates who took more than a core high school curriculum in English met the College Readiness Benchmark in English, whereas 66% of graduates who took a core curriculum in English and 39% of those who took less than a core curriculum in English did so.

Note: Data reflects content-specific curriculum. For example, English "More Than Core" results pertain to students who took more than four years of English, regardless of courses taken in other content areas.



### College Readiness Benchmarks by Race/Ethnicity

## Percent of ACT-tested High School Graduates Meeting ACT College Readiness Benchmarks by Race/Ethnicity, 2010



Almost 4 in 10 (39%) of all Asian American/Pacific Islander graduates met all four College Readiness Benchmarks, more than graduates from all other racial/ethnic groups in 2010. African American graduates were least likely to meet the Benchmarks—4% met all four.

Graduates from most racial/ethnic groups were most likely to meet the English Benchmark, followed in order by the Reading, Mathematics, and Science Benchmarks. In three of the four subject areas, individual Benchmarks were met by at least 50% of Asian American/Pacific Islander and White students, while one was met by at least 50% of American Indian/Alaska Native students. None of the Benchmarks were met by at least 50% of Hispanic or African American students.

Graph reads: In 2010, 34% of ACT-tested African American high school graduates met the College Readiness Benchmark in English, while 21% did so in Reading.

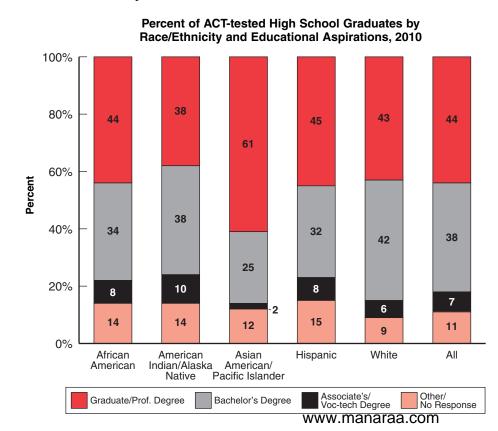
## **Educational/Career Aspirations & Economic Development**

## Educational Aspirations by Race/Ethnicity

At least 89% of all 2010 ACT-tested high school graduates aspired to attain at least a 2-year postsecondary degree, regardless of race/ethnicity.

About 86% of Asian American/Pacific Islander graduates aspired to earn at least a bachelor's degree, with 61% aspiring to continue their formal education beyond a 4-year degree. American Indian/Alaska Native graduates were the least likely to aspire to a graduate or professional degree (38%); a greater percentage of African American (44%), Hispanic (45%), and White (43%) graduates aspired to a graduate or professional degree.

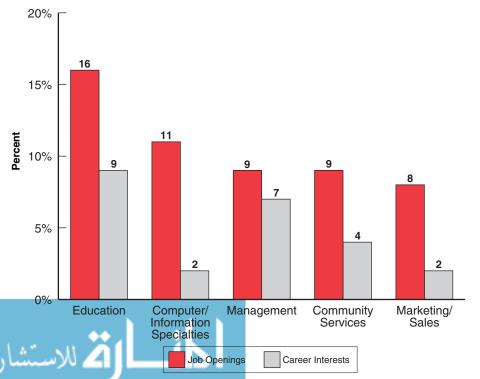
Graph reads: In 2010, 44% of ACT-tested African American high school graduates aspired to a graduate or professional degree, 34% to a bachelor's degree, 8% to an associate's or voc-tech degree, and 14% to another degree type (or provided no response).



## **Educational/Career Aspirations & Economic Development**

## Career Interests & Projected Job Openings

#### Percent of ACT-tested 2010 High School Graduates with Career Interests and Projected 2018 Annual Job Openings by Career Field



The five fastest-growing career fields based on 2008–2018 annual projected job openings account for 53% of the demand for jobs requiring at least a 2-year degree. The percentage of 2010 high school graduates interested in careers in these fields was less than the projected demand.

For Computer/Information Specialties, Community Services, and Marketing/Sales, the projected demand was from 2.3 to 5.5 times the potential supply. For Education and Management fields, the projected demand was 1.8 and 1.3 times the potential supply, respectively.

Graph reads: In 2010, Education was projected to be one of the five fastest-growing career fields, accounting for 16% of all job openings in 2018. About 9% of all ACT-tested 2010 high school graduates indicated a career interest in Education.

Note: 2008–2018 projected job openings data are from the U.S. Department of Labor. Bureau of Labor Statistics.

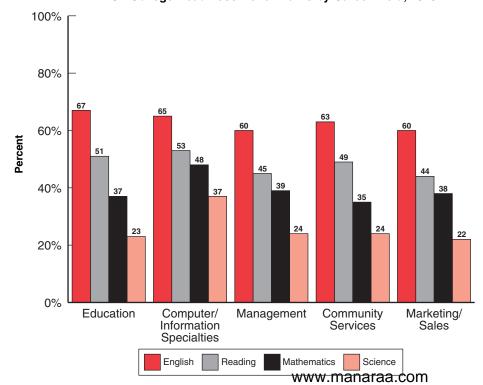
## **Educational/Career Aspirations & Economic Development**

## College Readiness Benchmarks by Career Field

For each of the 2018 projected five fastest-growing career fields, more than half of the 2010 high school graduates interested in careers in these fields did not meet the College Readiness Benchmark in Mathematics or Science. In none of the five career fields were all four Benchmarks met by at least 50% of the 2010 graduates.

Across all five career fields, graduates were most likely to meet the English Benchmark, followed by meeting the Reading and Mathematics Benchmarks, respectively. Graduates were least likely to meet the Science Benchmark in all five career fields.

Percent of ACT-tested High School Graduates Meeting ACT College Readiness Benchmarks by Career Field, 2010



Graph reads: In 2010, 67% of all ACT-tested high school graduates who indicated a career interest in Education met the College Readiness Benchmark in English.

## **Policies & Practices to Increase Readiness**

#### How to Increase Readiness

Only 24% of all 2010 graduates met all four ACT College Readiness Benchmarks, meaning that 76% were not adequately prepared academically for first-year college courses in English Composition, College Algebra, social sciences, and Biology. States and schools can implement six policies and practices that can systemically increase the percentage of their students who are ready for college-level work.

**Essential Standards.** States should adopt fewer—but essential—learning standards as their new high school graduation standards, and those they adopt must lead to college and career readiness. To ensure that all students are ready for college or career, it is imperative that policymakers be guided by a real-world definition of "readiness"—that is, a definition that reflects those standards that have been validated as the most essential for success in college classrooms or on the job. States should make sure that their state standards include the essential skills from ACT's College Readiness Standards that are required for students to meet the College Readiness Benchmarks for the ACT.

**Common Expectations.** States should adopt a rigorous core curriculum for *all* high school students whether they are bound for college or work. The levels of expectation for college readiness and workforce training readiness should be comparable. To ensure students master the knowledge and skills to succeed after high school, ACT supports the core curriculum recommendations of *A Nation at Risk: The Imperative for Educational Reform*, specifically, that students take a core curriculum of at least four years of English and three years each of mathematics, science, and social studies.

## **Policies & Practices to Increase Readiness**

**Clear Performance Standards.** States must define "how good is good enough" for college and career readiness. In addition to a consistent, rigorous set of essential K–12 *content* standards, states must define performance standards on assessments aligned with college and career readiness learning standards, so that students, parents, and teachers know how well students must perform academically to have a reasonable chance of success at college or on the job. Based on decades of student performance data, ACT defines "college readiness" as students having approximately a 75% chance of earning a grade of C or higher or a 50% chance of earning a grade of B or higher in first-year college English Composition; College Algebra; History, Psychology, Sociology, Political Science, or Economics; and Biology.

**Rigorous High School Courses.** Having appropriate and aligned standards, coupled with a core curriculum, will adequately prepare high school students *only* if the courses are truly challenging. That is, taking the right *kinds* of courses matters more than taking the right *number* of courses. Students who take a rigorous core curriculum should be ready for credit-bearing first-year college courses without remediation.

**Early Monitoring and Intervention.** States should begin monitoring student academic performance early to make sure younger students are on target to be ready for college and career. Interventions are needed for students who are off target. We know from our empirical data that students who take challenging curricula are much better prepared to graduate high school ready for college and career. If students are to have a chance

## **Policies & Practices to Increase Readiness**

at college and career readiness, their progress must be monitored closely so that deficiencies in foundational skills can be identified and remediated early, in the upper elementary grades and middle school. In addition, age-appropriate career assessment, exploration, and planning activities encourage students to consider and focus on personally relevant career options so that they can plan their high school coursework accordingly.

**Data-Driven Decisions.** States need to establish longitudinal P–16 data systems. If states are serious about ensuring that more of their students are prepared for college and work in the 21st century, they must closely monitor student performance at every stage of the learning pipeline, from preschool through the elementary, middle, and high school grades, all the way through college. Use of a longitudinal data system enables educators to identify students who are in need of academic interventions at an early stage, thus giving teachers and students more time to strengthen these skills before graduation. Longitudinal data systems provide a tool to schools to ensure all their students take and complete the right number and kinds of courses before graduation. Using a longitudinal assessment system also permits schools to evaluate the value added by each core course in helping students to become ready for college and career. In addition, such systems allow colleges to offer feedback reports to high schools that examine how well prepared each high school's graduates are for college. These reports can be used to strengthen high school curricula.

## **Notes**

**The ACT® test**, one component of ACT's College and Career Readiness System that also includes **EXPLORE®** and **PLAN®**, measures students' academic readiness to make successful transitions to college and work after high school. Like EXPLORE (typically taken in 8th and 9th grades) and PLAN (typically taken in 10th grade), the ACT is first and foremost an achievement test. It is a measure whose tasks correspond to recognized high school learning experiences, measuring what students are able to do with what they have learned in school. The ACT is the most widely accepted and used test by postsecondary institutions across the United States for college admission and course placement.

**ACT National Curriculum Survey**. Every three to four years, ACT conducts a National Curriculum Survey, in which we ask more than 20,000 educators nationwide across grades 7–14 to identify the knowledge and skills that are important for students to know to be ready for college-level work. We also examine the standards for instruction in grades 7–12 for all states. We then analyze the information to refine the scope and sequence for each section of the ACT. In this way, rather than imposing a test construct without empirical support, the ACT is able to represent a consensus among educators and curriculum experts about what is important for students to know and be able to do. ACT also uses this data to identify and define for educators and policymakers the content and skill alignment gaps that currently exist in the important transition from high school to college. For example, the most recent ACT National Curriculum Survey



revealed that what postsecondary instructors expect entering college students to know is far more targeted and specific than what high school teachers view as important.

ACT's College Readiness Benchmarks™. Benchmarks are scores on the ACT subject-area tests that represent the level of achievement required for students to have a 50% chance of obtaining a B or higher or about a 75% chance of obtaining a C or higher in corresponding credit-bearing first-year college courses. These college courses include English Composition, College Algebra, an introductory social science course, and Biology. Based on a nationally representative sample of 98 institutions and more than 90,000 students, the Benchmarks are median course placement values for these institutions and as such represent a *typical* set of expectations. The ACT College Readiness Benchmarks are:

College Course	ACT Subject-	EXPLORE	PLAN	ACT
	Area Test	Benchmark	Benchmark	Benchmark
English Composition	English	13	15	18
Social Sciences	Reading	15	17	21
College Algebra	Mathematics	17	19	22
Biology	Science	20	21	24



## **Notes**

**ACT's College Readiness Standards** are precise descriptions of the essential skills and knowledge that students need to become ready for college and career, beginning in grade 8 and continuing through grade 12. Informed by the National Curriculum Survey, the College Readiness Standards are validated by actual student academic performance data through their alignment with the College Readiness Benchmarks. With the Benchmarks, the College Readiness Standards represent a single academic expectation for all students, regardless of whether they go on to college or career after high school.

Career Fields and Projected Job Openings. Data on the 2008–2018 projected job openings come from the U.S. Department of Labor, Bureau of Labor Statistics. The following are example occupations for the 5 highest growth career fields, nationally: Education—secondary school teachers, secondary school administrators Computer/Information Specialties—computer programmers, database administrators Management—hotel/restaurant managers, convention planners Community Services—social workers, school counselors Marketing/Sales—insurance agents, buyers

For more information on interpreting data in this report, or to learn how ACT can help your students increase their readiness for college and the workplace, go to



