## Readiness

2009

ACT



## About The Condition of College Readiness

Since 1959, ACT has collected and reported data on students' academic readiness for college. Because becoming ready for college is a process that occurs throughout elementary and secondary education, measuring academic performance over time in the context of college readiness provides meaningful and compelling information about the college 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 ${ }^{\oplus}$ test scores and the ACT College Readiness Benchmarks, this report provides a snapshot of the college readiness of the graduating seniors of the class of 2009 who took the ACT in high school. ${ }^{1}$

## About The Condition of College Readiness

The Condition of College Readiness is organized into five sections:

ACT encourages educators to focus on trends (e.g., 3, 5, 10 years), not year-toyear 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 can data from any single year.

## Contents

## Access \& Preparation

Percent of U.S. Graduates Who Took the ACT ..... 1
Percent of U.S. Graduates Who Took the ACT by State ..... 2
Number of Graduates Who Took the ACT by Race/Ethnicity. ..... 3
Percent of Graduates Who Took a Core Curriculum by Race/Ethnicity ..... 4
Academic Performance
ACT Scores Over Time ..... 5
ACT Scores Over Time by Level of High School Preparation ..... 6
ACT Scores Over Time by Race/Ethnicity ..... 7
College Readiness
College Readiness Benchmarks by Subject ..... 8
Number of College Readiness Benchmarks Attained ..... 9
College Readiness Benchmarks by State ..... 10
College Readiness Benchmarks—Attainment and Near-Attainment ..... 11
College Readiness Benchmarks-On Track and Attained ..... 12
College Readiness Benchmarks Over Time ..... 13
College Readiness Benchmarks by Level of High School Preparation ..... 14
College Readiness Benchmarks by Race/Ethnicity ..... 15

## Contents

## continued

Educational/Career Aspirations \& Economic Development
Educational Aspirations by Race/Ethnicity ..... 16
Graduate Career Interests \& Projected Job Openings ..... 17
College Readiness Benchmarks by Career Field ..... 18
Policies \& Practices to Increase College Readiness
How to Increase College Readiness ..... 19
Essential Standards ..... 19
Common Expectations ..... 19
Clear Performance Standards ..... 20
Rigorous High School Courses ..... 20
Early Monitoring and Intervention ..... 20
Data-Driven Decisions ..... 21
Notes ..... 22

## Access \& Preparation

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

Percent of U.S. High School Graduates Who Took the ACT, 2005-2009


About 45\% of all 2009 high school graduates in the United States took the ACT during high school, or about 1.48 million graduates.

From 2005 to 2009, the number of high school graduates who took the ACT increased by approximately $25 \%$. This represents a 5 percentage point increase of all U.S. high school graduates who took the ACT.

## Access \& Preparation

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

Percent of ACT-tested
High School Graduates by State, 2009
At least 60\% of all 2009 high school graduates took the ACT in 23 states. In 8 states, at least $80 \%$ of their high school graduates took the ACT.
In 5 states, between $40 \%$ and $59 \%$ of their 2009 high school graduates took the ACT during high school, while another 10 states saw between 20\% and 39\% of their high school graduates take the ACT. Less than $20 \%$ of 2009 graduates took the ACT in 12 states.


Graph reads: In 2009, between 0\% and 19\% of the high school graduates in 12 states (e.g., California) took the ACT test at least once during their sophomore, junior, or senior year.

## Access \& Preparation

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

## Number of ACT-tested High School Graduates by <br> Race/Ethnicity, 2005-2009



About 294,000 more high school graduates completed the ACT in 2009 than in 2005, an increase of $25 \%$.
In 2009, 64\% of all ACT-tested graduates were White, $13 \%$ were African American, 9\% were Hispanic, 4\% were Asian American/ Pacific Islander, 1\% were American Indian/ Alaska Native, and 9\% were Other/No Response. From 2005 to 2009, the number of ACT-tested high school graduates increased from 1.186 million to 1.480 million students. Numerical increases occurred with White students (increase of about 160,000), African American students ( $+57,000$ ), Hispanic students (+50,000), Asian American/Pacific Islander students ( $+20,000$ ), and American Indian/Alaska Native students (+2,000). Proportionally, the largest increases were by Hispanic (60\%) and Asian American/Pacific Islander students (50\%).

Graph reads: In 2005, 1,186,000 U.S. high school graduates had taken the ACT test at least once during their sophomore, junior, or senior year; of that number, 782,000 were White and 139,000 were African American.

## Access \& Preparation

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

Percent of ACT-tested High School Graduates Who

Seventy percent of all 2009 ACTtested high school graduates took or planned to take a minimum core high school curriculum or more 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 ( $80 \%$ ) were most likely to complete a core curriculum, while $73 \%$ of White students did so. A smaller percentage of African American (64\%), American Indian/Alaska Native (59\%), and Hispanic (67\%) students completed at least a minimum core curriculum than all students on average.

Graph reads: In 2009, 64\% of all African American high school graduates who had taken the ACT test had curriculum

Completed a Core Curriculum by Race/Ethnicity, 2009


## Academic Performance

## ACT Scores Over Time

## Average ACT Scores, <br> 2005-2009



Test scores remained essentially the same between 2005 and 2009 even though 25\% more high school graduates have taken the ACT over this period and the group of graduates has become more heterogeneous.

Composite scores ranged between 20.9 and 21.2 points during this time. The four subject scores (English, Mathematics, Reading, and Science) showed similar changes ranging between 0 and 0.3 point depending on subject area.

## Academic Performance

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

# Average ACT Scores by Core Curriculum Completion Status, 2005-2009 

For each year from 2005 to 2009, ACT composite and subject scores were higher for students who completed or planned to complete a core curriculum or more in high school than for students who did not.

On average, high school graduates who completed or planned to complete at least a core curriculum realized composite test scores 2.2 to 2.9 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 3.4 points), Mathematics (2.3 to 3.0), Reading (2.2 to 2.9), and Science (2.0 to 2.5).

Graph reads: Between 2005 and 2009, 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

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6
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## Academic Performance

## ACT Scores Over Time by Race/Ethnicity

## Average Composite ACT Test Score by

Race/Ethnicity, 2005-2009


Average composite ACT scores for American Indian/Alaska Native, Asian American/Pacific Islander, Hispanic, and White graduates increased between 2005 and 2009. African American graduates' average ACT score, however, declined by 0.1 scale point over this period.
Asian American/Pacific Islander graduates had the highest average composite ACT scores and the largest score increase (+1.1 scale points) during this time. The average composite ACT scores for American Indian/Alaska Native, White, and Hispanic graduates increased between 0.1 and 0.3 point. These score changes have occurred although $25 \%$ more high school graduates have taken the ACT.

Graph reads: Between 2005 and 2009, the average ACT composite score for Asian American/Pacific Islander high school graduates increased from 22.1 to 23.2.

## College Readiness

## College Readiness Benchmarks by Subject

About 67\% of all ACT-tested high school graduates met the English College Readiness Benchmark in 2009. Just under 1 in 4 (23\%) met all four College Readiness Benchmarks.
In 2009, 53\% of graduates met the Reading Benchmark, while 42\% met the Mathematics Benchmark. Over 1 in 4 (28\%) met the College Readiness Benchmark in Science.

Graph reads: In 2009, 67\% of ACT-tested high school graduates met the ACT College Readiness Benchmark in English

Percent of ACT-tested High School Graduates Meeting College Readiness Benchmarks by Subject, 2009


## College Readiness

## Number of College Readiness Benchmarks Attained

Percent of ACT-tested Graduates by Number of ACT College Readiness Benchmarks Attained, 2009


Seventy-two percent of all ACTtested 2009 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 49\% met between 1 and 3 Benchmarks. Twentythree percent of all 2009 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 in 2009.

Graph reads: In 2009, 23\% of ACT-tested high school graduates met all four College Readiness Benchmarks, 15\% met 3 Benchmarks, 18\% met 2 Benchmarks, 16\% met 1 Benchmark, and $28 \%$ met none of the Benchmarks

## College Readiness

## College Readiness Benchmarks by State

Percent of ACT-tested High School Graduates Meeting All Four College Readiness Benchmarks by State, 2009
Of the 28 states where at least 40\% of all 2009 high school graduates took the ACT, 30\%-32\% of graduates in 2 of these states met all four College Readiness Benchmarks. In another 8 states, 25\%-29\% of graduates met all four Benchmarks.

In 4 states, 20\%-24\% of graduates met all four College Readiness Benchmarks in 2009, while less than $20 \%$ of graduates met all four Benchmarks in 14 states. In no state did more than 32\% of ACT-tested graduates meet all four benchmarks.

Graph reads: In 2009, less than 20\% of the ACT-tested high school graduates in 14 states (e.g., Florida) met al four College Readiness Benchmarks. An insufficient percentage of high school graduates in some states (e.g. California) took the ACT to include Benchmark attainment rates in this graph

## College Readiness

## College Readiness Benchmarks—Attainment and Near-Attainment

Percent of ACT-tested High School Graduates by
Benchmark Attainment and Subject, 2009


An additional 10\% to 15\% of graduates were within 2 scale points of meeting an ACT College Readiness Benchmark in 2009, depending on subject area. This represents an additional 148,000 to 222,000 students who are close to being college ready, depending on subject area.
In 2009, 67\% of graduates met the English Benchmark, while another $10 \%$ were within 2 scale points of doing so. The percentages of students within 2 scale points of the respective College Readiness Benchmark in the other subject areas are the same or greater, including 10\% of graduates in Mathematics, $13 \%$ in Reading, and $15 \%$ in Science.

Graph reads: In 2009, 67\% of ACT-tested high schoo graduates met the College Readiness Benchmark in English, while $10 \%$ scored 1 or 2 points below the Benchmark, and $23 \%$ scored 3 points or more below the Benchmark
Note: Numbers may not sum to $100 \%$ due to rounding.

## College Readiness

## College Readiness Benchmarks—On Track and Attained

In 2009, less than 1 in 4 PLAN-tested students or ACT-tested graduates met all four College Readiness Benchmarks, and only $10 \%$ of EXPLORE-tested students did so. Only the English Benchmark was met by more than $50 \%$ of students from each of the three tests.

With the exception of Mathematics, larger increases in the percentage of students who met the Benchmarks occurred between EXPLORE and PLAN than between PLAN and the ACT, the largest being the 13 percentage point increase for students meeting the Reading and Science Benchmarks. In Mathematics, however, there was an increase of 2 percentage points in the number of students who met the Benchmark between EXPLORE and PLAN, while there was an 8 percentage point increase between PLAN and the ACT.

Graph reads: In 2009, 60\% of EXPLORE-tested students met the College Readiness Benchmark in English, whil $72 \%$ of PLAN-tested students and $67 \%$ of ACT-tested graduates did so
12

Percent of EXPLORE- and PLAN-tested Students and ACT-tested Graduates Meeting ACT College Readiness Benchmarks, 2009


## College Readiness

## College Readiness Benchmarks Over Time

Percent of Students Meeting ACT College
Readiness Benchmarks, 2005-2009


The percent of students meeting all Benchmarks remained essentially the same between 2005 and 2009. Annually, about 1 in 5 ACT-tested high school graduates met all four ACT College Readiness Benchmarks during this period.
From 2005 to 2009, about 68\% of ACT-tested high school graduates met the English Benchmark, while about $53 \%$ met the Benchmark in Reading. Fewer students met the Mathematics Benchmark (about 42\%) or the Science Benchmark (about 27\%) in each of the five years.

Graph reads: Between 2005 and 2009, the percentage of ACT-tested high school graduates who met the College Readiness Benchmark in English decreased from 68\% to $67 \%$.

## College Readiness

## College Readiness Benchmarks by Level of High School Preparation

Percent of Students Meeting ACT College Readiness Benchmarks by High School Curriculum, 2009

Graduates who took a core curriculum in high school were more likely to meet the ACT College Readiness Benchmarks in 2009 than graduates who did not take a core curriculum. For all four subject areas, a higher percentage of graduates who took more than a core curriculum met the Benchmarks than did other graduates.

The largest curriculum-based difference in Benchmark attainment rates was in Mathematics. Students who completed more than core were more likely to meet the Mathematics Benchmark than those who took core and those who took less than core by 43 and 48 percentage points, respectively.
Graph reads: In 2009, 76\% of ACT-tested high school graduates who had taken more than a core high schoo curriculum met the College Readiness Benchmark in English, whereas 68\% of graduates who took a core high school curriculum and $42 \%$ of graduates who took less than a core high school curriculum did so.


## College Readiness

## College Readiness Benchmarks by Race/Ethnicity

Percent of Students Meeting ACT College Readiness
Benchmarks by Race/Ethnicity, 2009


One-third (36\%) of all Asian American/ Pacific Islander graduates met all four College Readiness Benchmarks, more than students from all other racial/ethnic groups in 2009. African American graduates were least likely to meet the Benchmarks-4\% met all four College Readiness Benchmarks.

Students from most racial/ethnic groups were most likely to meet the English Benchmark, followed in order by the Reading, Mathematics, and Science Benchmarks. Three 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 2009, 35\% of ACT-tested African American high school graduates met the College Readiness Benchmark in English, while 20\% did so in Reading.

## Educational/Career Aspirations \& Economic Development

## Educational Aspirations by Race/Ethnicity

Percent of ACT-tested High School Graduates by Race/Ethnicity and Educational Aspirations, 2009

At least 88\% of all 2009 ACT-tested high school graduates aspired to attain at least a 2-year postsecondary degree, regardless of race/ethnicity.
About 89\% of Asian American/Pacific Islander graduates aspired to earn at least a bachelor's degree, with almost $62 \%$ 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 (39\%). A greater percentage of African American (45\%), Hispanic (46\%), and White (43\%) graduates aspired to a graduate or professional degree.

Graph reads: In 2009, 45\% of ACT-tested African American high school graduates aspired to a graduate or professional degree, 34\% to a Bachelor's degree, $7 \%$ to an Associate's or Voc-tech degree, and 14\% to another degree type (or provided no response)

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## Educational/Career Aspirations \& Economic Development

## Graduate Career Interests \& Projected Job Openings

Percent of 2009 Graduates with Career Interests and Projected 2016 Annual Job Openings by Career Field


The five fastest-growing career fields based on 2006-2016 annual projected job openings account for $56 \%$ of the demand for jobs requiring at least a 2 -year degree. The percentage of 2009 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 difference between projected demand and potential supply was greater than $50 \%$. For Education and Management fields, the differences between projected demand and potential supply were $47 \%$ and $11 \%$, respectively.

Graph reads: In 2009, education was projected to be one of the five fastest growing career fields, accounting for $17 \%$ of all job openings in 2016. About $9 \%$ of all ACTtested 2009 high school graduates indicated a career interest in education.
Note: 2006-2016 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

Percent of Graduates Meeting ACT College Readiness Benchmarks by Career Field, 2009

For each of the 2016 projected five fastest-growing career fields, more than half of the 2009 high school graduates interested in careers in these fields did not meet the College Readiness Benchmarks in Mathematics and Science. In none of the five career fields were all four Benchmarks met by at least $50 \%$ of the 2009 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.

[^0] met the College Readiness Benchmark in English.


## Policies \& Practices to Increase College Readiness

## How to Increase College Readiness

Only $23 \%$ of all 2009 graduates met all four ACT College Readiness Benchmarks, meaning that $77 \%$ 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 recommends that students take a core curriculum consisting of at least four years of English and three years each of mathematics (Algebra I and II and Geometry), science (Biology, Chemistry, and Physics), and social studies.

## Policies \& Practices to Increase College 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 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. If students are to have a chance at college


## Policies \& Practices to Increase College Readiness

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.
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## Notes

The ACT ${ }^{\circledR}$ Test, one component of ACT's College Readiness System that also includes EXPLORE ${ }^{\circledR}$ and PLAN $^{\star}$, 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 ${ }^{\text {® }}$. 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

## Notes

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 subjectarea 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- <br> Area Test | EXPLORE <br> Benchmark | PLAN <br> Benchmark | ACT <br> 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 ${ }^{\text {m" }}$ 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 2006-2016 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
Community Services-social workers, school counselors
Management-hotel/restaurant managers, convention planners
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

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[^0]:    Graph reads: In 2009, 68\% of all ACT-tested high schoo graduates who indicated a career interest in education

