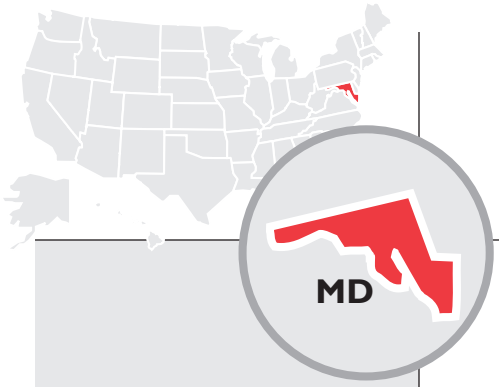

MARYLAND

Measuring College and Career Readiness

The Class of 2009

ACT®

August 2009

intro

Measuring College and Career Readiness: The Class of 2009

Our Unique Value-Added

ACT is uniquely qualified to help states and school districts prepare more of their students for college and careers.

ACT has been measuring the academic achievement of 11th and 12th grade students since 1959, their career aspirations since 1969, and their academic preparation in high school since 1985. ACT has built a data monitoring system that includes each of these areas for 8th and 10th graders and has been monitoring student readiness and success for nearly two decades. Moreover, every 3–4 years ACT surveys more than 20,000 high school and college educators to pinpoint the knowledge and skills needed for first-year college coursework.

ACT is the only organization with decades worth of empirical data showing exactly what happens to high school graduates once they get to college or to work — based on how well they were prepared in middle and high school.

These unique data sets are an invaluable resource as ACT works closely with states and school districts to transform the nation's P–20 education system.

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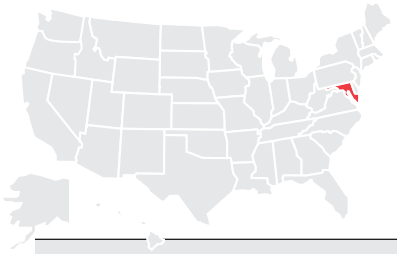
College and career readiness is the new measure of educational excellence at the K–12 level. In an increasingly complex, diverse, and technology-driven world, simply earning a high school diploma is no longer enough. High school graduates must be prepared to succeed at the next level — whether they choose to attend college or begin a career. The goal of high school should be clear: to prepare graduates for life after high school by teaching them the skills and knowledge that are *essential to college and workforce training readiness*.

Despite encouraging progress, too many American students are not prepared for 21st-century opportunities.

ACT, a mission-driven nonprofit organization, is helping national, state, and local leaders respond to this challenge. In the process, we are committed to sharing our expertise with policymakers and practitioners.

Working together, we envision a day soon when every American student will benefit from these six policy recommendations, put forth in ACT's report *Making the Dream a Reality,* which have shown to be critical for college and career success.

- Fewer — but essential — high school standards that are valued by colleges and employers;
- Common academic expectations recognizing the reality that students need a comparable level of knowledge and skills, whether they're going to college or work;
- Clear and consistent messages about what level of performance is "good enough" to demonstrate college and career readiness;
- A rigorous curriculum that guarantees both the right number and the right kinds of courses taught by well-qualified teachers;
- An early monitoring and intervention system that ensures younger students are on target to be ready for college and career; and
- A longitudinal data system that helps students stay on target by monitoring their performance from the early years through college.



Maryland at a Glance: The Class of 2009

ACT's College Readiness Benchmarks

The minimum ACT® test scores that indicate whether high school graduates are likely ready for entry-level college coursework are:

- English = 18
- Mathematics = 22
- Reading = 21
- Science = 24

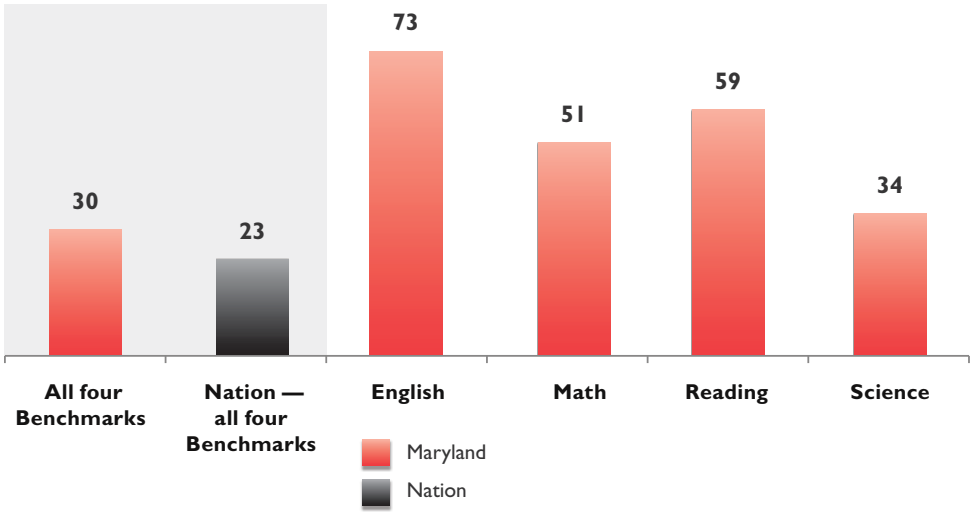
These Benchmarks reflect the level of preparation needed for students to have at least a 50 percent chance of achieving a grade of B or higher, or at least a 75 percent chance of a grade of C or higher, in entry-level, credit-bearing college English Composition, Algebra, Social Science, and Biology courses. (The maximum ACT score is 36.)

The results shown in this report reflect students' performance on ACT's College Readiness Benchmarks, which may or may not be equal to your state's college readiness indicators. If you would like assistance, ACT is available to help establish or review your state-set indicators.

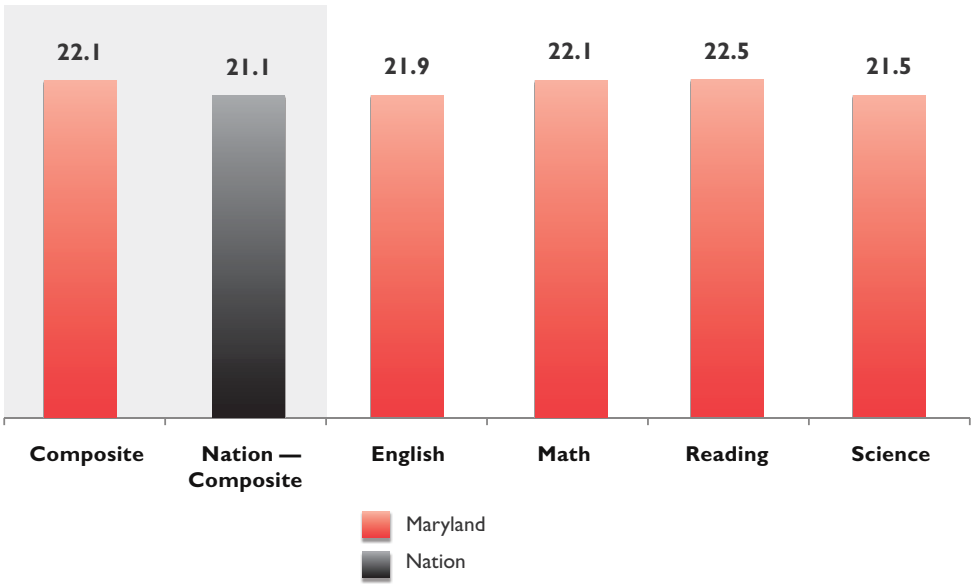
- 11,317 graduates took the ACT.
- 17 percent of graduates took the ACT.
- Students taking Calculus scored 8.1 higher than students taking Math-Core.
- Students taking Physics scored 3.0 higher than students taking Science-Core.
- 48,292 college reports were sent to Maryland postsecondary institutions/agencies in 2007–08.

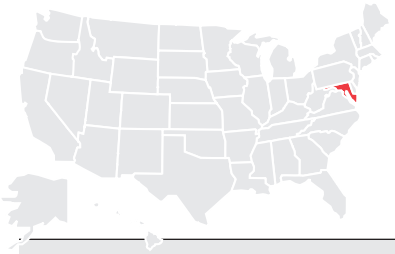
State of college readiness in Maryland

Percentage of 2009 ACT-tested graduates meeting College Readiness Benchmarks



Average ACT scores, 2009



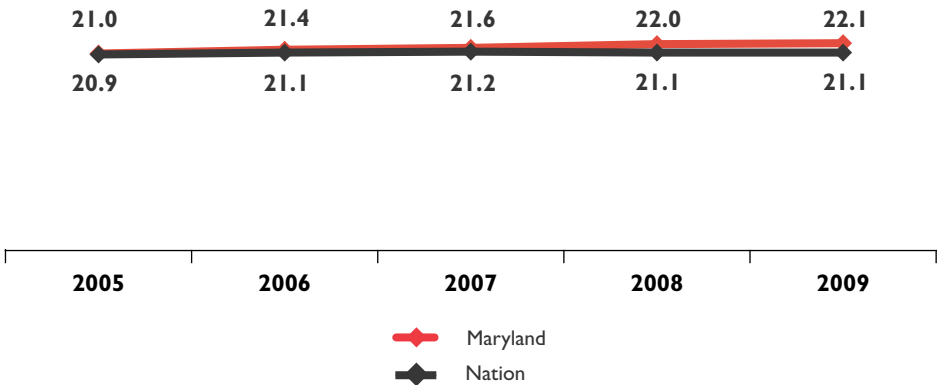


Maryland at a Glance: The Class of 2009 *(cont.)*

Five-year trends show the extent to which student performance has changed and whether more students in your state are getting the access and opportunity they need.

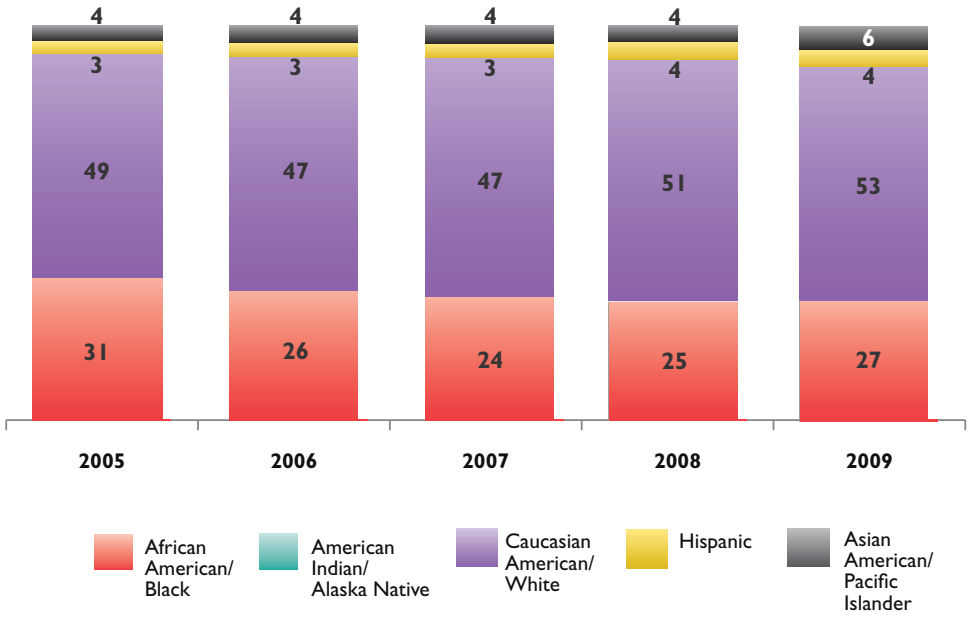
Trends in student performance in Maryland

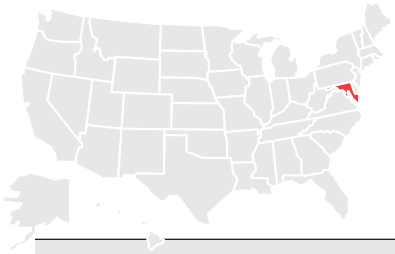
ACT Composite scores, 2005–09



Level of participation in Maryland

Percentage of ACT test-takers by race/ethnicity, 2005–09





Maryland at a Glance: The Class of 2009 *(cont.)*

- 88 percent of the graduates indicated an interest in obtaining a bachelors degree or higher.
- The most frequently listed major/career interest is Health Sciences/Business and Management.
- 9 Maryland high school graduates scored a "36" Composite.
- 1,292 10th grade students took PLAN®.
- 832 8th grade students took EXPLORE®.
- 49,438 COMPASS® units and 1,250 ASSET® units were purchased by Maryland postsecondary institutions in 2007–08. These programs assist colleges and universities with proper course placement for students.
- In June 2008, ACT completed a match of the ACT assessments and College Readiness Standards with the Maryland Voluntary State Curriculum.
- A list of the top Maryland colleges and universities receiving ACT scores in 2007 and 2008 is on page 26 of the Maryland High School Profile Report.

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Key Questions

This annual report from ACT provides a snapshot of the ACT-tested graduates in the class of 2009, focusing on their readiness for college and careers.

ACT offers this report as a service to inform policymakers and practitioners about selected indicators of effectiveness. It is not meant to be comprehensive but instead is designed to stimulate discussion, inquiry, and action.

In interpreting and using the results, keep in mind that the number and percentage of students who took the ACT in your state determine how representative these findings are.

The report is organized around six questions that are driving national efforts to strengthen K–12 education.

1. Are your students prepared for college and careers?
2. Do your standards reflect college and career readiness?
3. Are enough of your students taking core courses?
4. Are your core courses rigorous enough?
5. Are your younger students on track for college and careers?
6. Are you collecting the right data to keep students on track for college and careers?

1 Are your students prepared for college and careers?

ACT's College Readiness Benchmarks

ACT has developed its College Readiness Benchmarks to identify students who are likely prepared for entry-level college coursework.

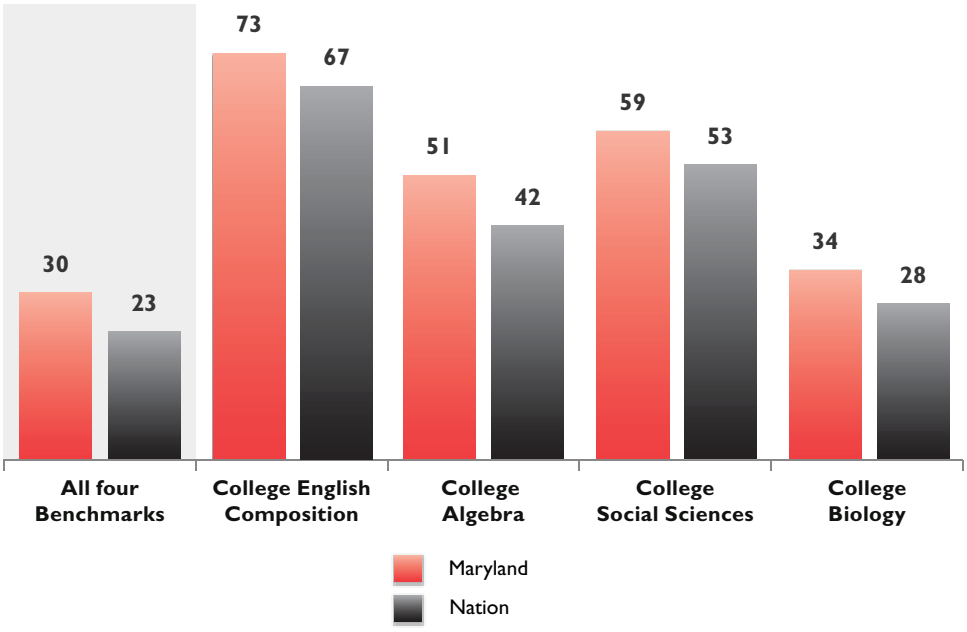
The ACT Benchmarks (a minimum ACT test score of 18 in English, 22 in Mathematics, 21 in Reading, and 24 in Science) reflect the level of preparation needed for students to have at least a 50 percent chance of achieving a grade of B or higher, or at least a 75 percent chance of a grade of C or higher, in typical entry-level, credit-bearing college English Composition, Algebra, Social Science, and Biology courses. (The maximum ACT score is 36.)

In today's more competitive and diverse world, earning a high school diploma alone is not enough. A more accurate measure of success is whether students are prepared for college and careers. ACT is at the forefront of a national movement to help states raise awareness of these higher expectations, expand opportunities for more students to take challenging courses, and in the process, ensure that they are ready to succeed after high school, whichever postsecondary path they choose.

This first section addresses the current level of college and career readiness in your state, while the remaining five sections address key steps that policymakers and educators can take to raise the levels.

More students need to be ready for college-level courses

Percentage of 2009 ACT-tested graduates meeting College Readiness Benchmarks



1 Are your students prepared for college and careers? *(cont.)*

College Readiness Equals Career Readiness

ACT's landmark 2006 report *Ready for College and Ready for Work: Same or Different?* shows that all graduates need the same level of knowledge and skills, whether they enroll in a two- or four-year college, are hired for a job that offers a career path at a self-supporting wage, participate in an apprenticeship or related training, or join the military.

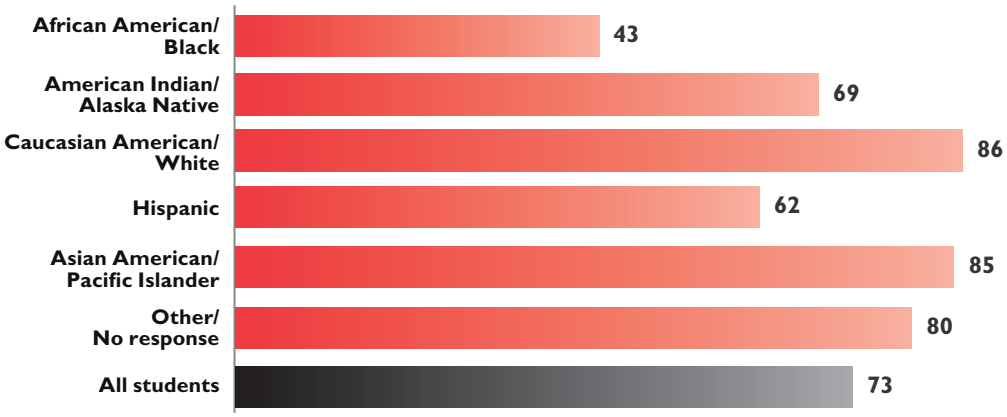
The report was based on empirical research:

- Identifying the skills needed for family-supporting jobs, such as electrician, construction worker, upholsterer, and plumber; and
- Comparing student performance on our college-readiness ACT test and career-readiness WorkKeys® test.

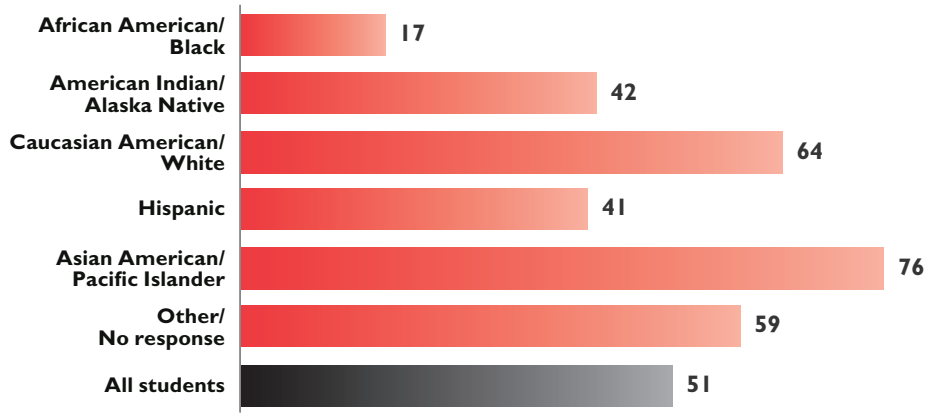
Some student groups are more prepared than others for …

Percentage of your 2009 ACT-tested graduates meeting College Readiness Benchmarks

… College English Composition



… College Algebra

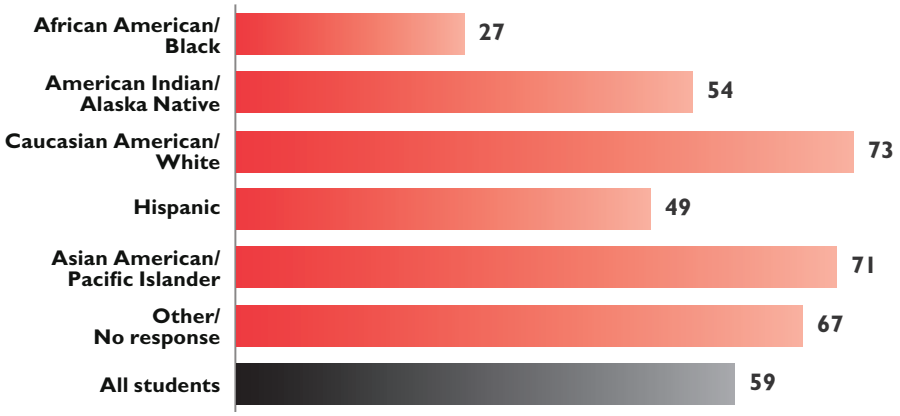


1 Are your students prepared for college and careers? *(cont.)*

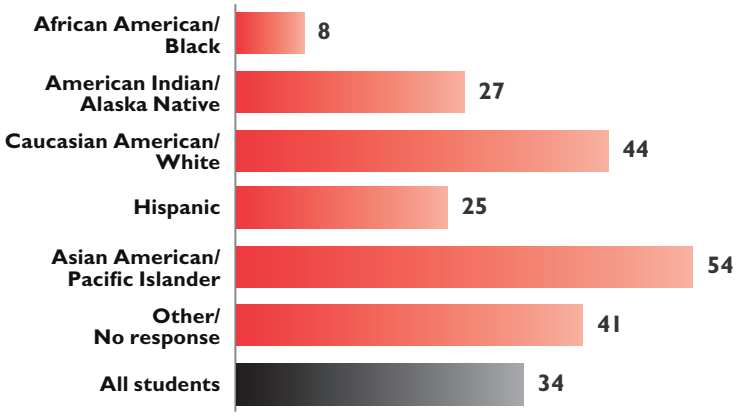
Some student groups are more prepared than others for …

Percentage of your 2009 ACT-tested graduates meeting College Readiness Benchmarks

… College Social Sciences



… College Biology

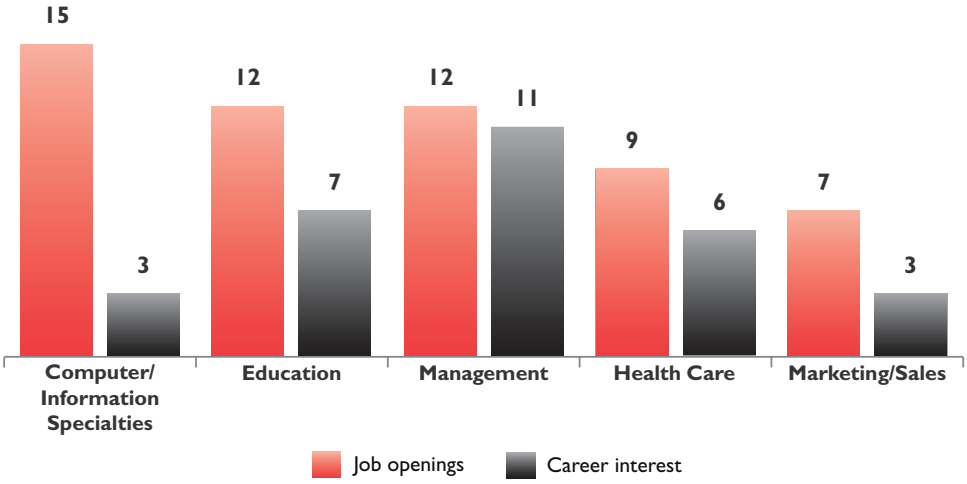


1 Are your students prepared for college and careers? *(cont.)*

Even more to the point from an economic development perspective, are students interested in and prepared for the projected *high-growth jobs* in your state?

Job openings and students' interests don't coincide[1]

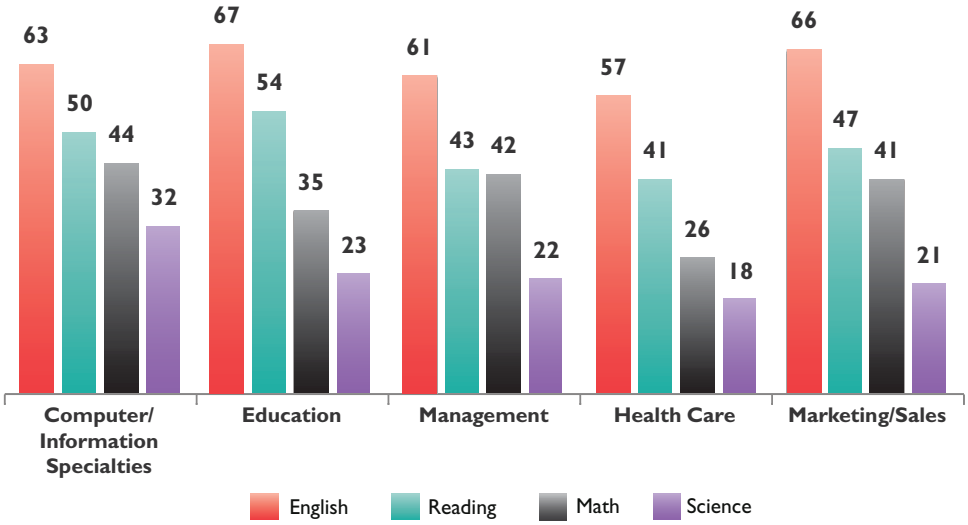
Percentage of projected annual job openings in your state requiring a two-year college degree or more and 2009 ACT-tested graduates interested in those jobs



Many students who are interested in these careers fall short of ACT's College Readiness Benchmarks, suggesting that they are not on the right path to take advantage of career opportunities in these high-growth fields.

Preparation varies for careers in high-growth fields[2]

Percentage of your 2009 ACT-tested graduates interested in high-growth careers meeting College Readiness Benchmarks, by subject



Note: Missing bars indicate that an insufficient number of students in your state reported the career choice.

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2 Do your standards reflect college and career readiness?

How Do Your State's Standards Compare?

The majority of states have asked ACT to compare their standards to ACT's College Readiness Standards.

A full list of ACT's Standards are available at www.act.org/standard. The state comparisons are available at www.act.org/education/statematch.

If you haven't had your standards matched, ACT would be pleased to conduct a comparison at your request.

ACT's National Curriculum Survey®

ACT conducts a one-of-a-kind survey every 3–4 years of some 20,000 postsecondary and K–12 educators. The survey compares the knowledge and skills postsecondary institutions require of their entering students to what middle and high school teachers are teaching. States are using this information to align their standards and close expectation gaps.

Too often, high school students graduate to find out that what they learned in high school has not truly prepared them for their freshman courses in college or their first day on the job. States should adopt fewer — but essential — college- and career-readiness standards as their new high school graduation standards.

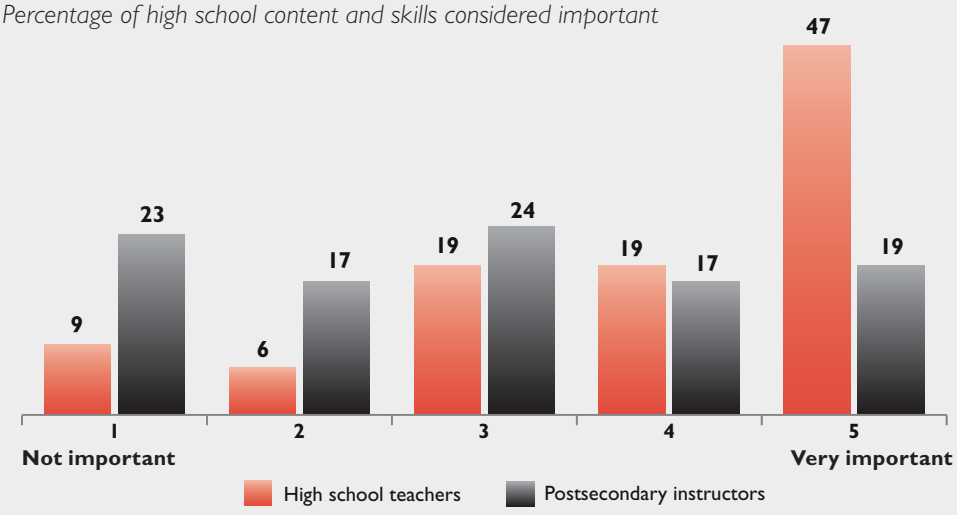
ACT's research has identified essential standards — the ACT College Readiness Standards™ — that reflect a range of knowledge and skills. The Standards have been "backmapped" to K–8. And a third-party, independent international study has revealed a high degree of alignment and consistency between ACT's College Readiness Standards and the national frameworks and standards of two high-performing countries, Singapore and Finland.

In addition, ACT has identified the minimum ACT scores in each subject area (ACT's College Readiness Benchmarks) that indicate whether students are prepared for college and careers (see page 3). These Benchmarks are based on the actual performance of college students in typical entry-level, credit-bearing courses who have taken ACT's assessments over the past few decades.

Although ACT's College Readiness Standards reflect a broad range of skills, this report focuses on the skills and standards at the College Readiness Benchmark level. (To see a sample of the College Readiness Standards, see pages 18–19.)

High School and College Educators Disagree

Percentage of high school content and skills considered important



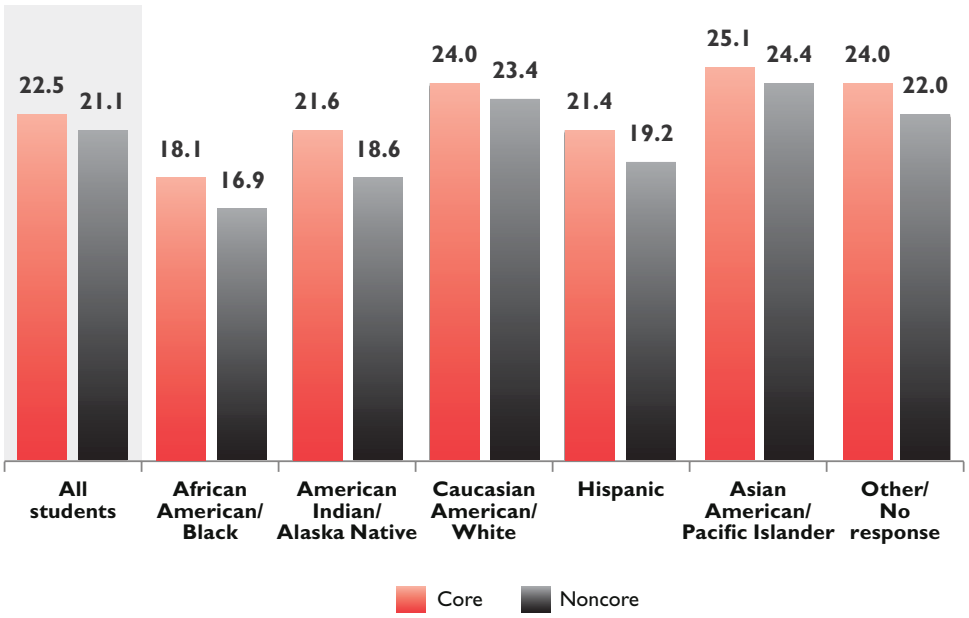
ACT's 2005–06 national curriculum survey shows that high school teachers in all content areas tend to rate far more content topics and skills as "important" or "very important" than do postsecondary instructors, who are more selective (see chart, categories 4 and 5). This finding is consistent with recent evaluations that show some states are requiring too many K–12 standards to be taught and measured and, in the process, sacrificing depth for breadth.

3 Are enough of your students taking core courses?

A growing number of states are raising their standards and, just as important, ensuring that their curriculum is aligned with these higher expectations. They are doing this to give more students access to the courses that ACT's research shows better prepare them for college and careers — preparation that results in consistent positive impacts on student performance.

Students who take a core curriculum, or more, perform better than students who do not

Average scores of your 2009 ACT-tested graduates who took a core curriculum and those who did not



Core Curriculum

ACT defines the high school core curriculum as at least four years of English and at least three years each of mathematics, social studies, and natural sciences (4-3-3-3).

A sample core mathematics course sequence includes Algebra I, Algebra II, and Geometry. A sample core science course sequence includes Biology, Chemistry, and Physics. Many course options and sequences are possible, but the key is whether the courses are based on high standards that prepare students for success after high school.

ACT research validates that college students who take a core curriculum in high school are more likely to meet the College Readiness Benchmarks and, as a result, are more likely to:[3]

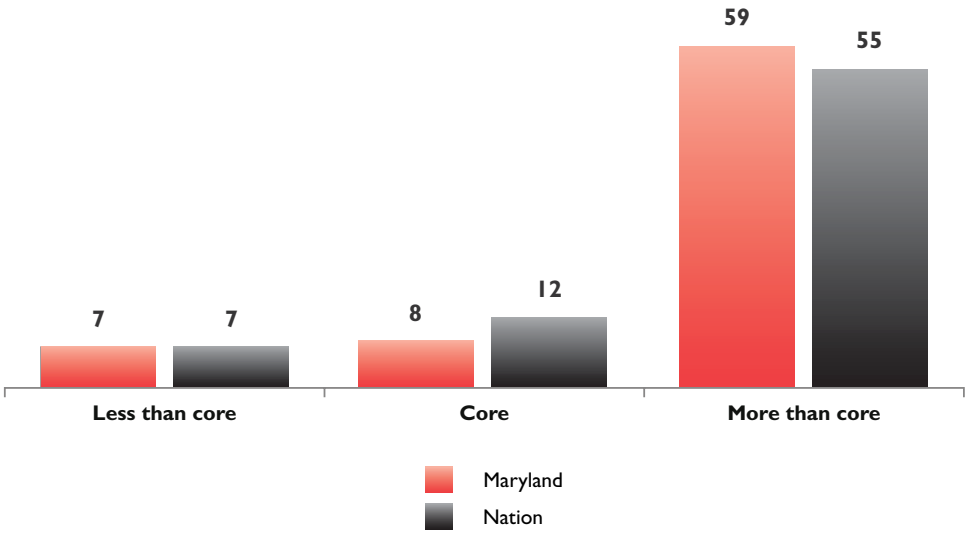
- Persist to a second year at the same postsecondary institution
- Earn a B or higher in first-year college courses
- Earn a first-year college GPA of 2.5 or higher
- Progress toward a college degree
- Complete a college degree

4 Are your core courses rigorous enough?

Taking the right kind of courses — rigorous courses — matters as much as, if not more than, taking the right number of courses. Students taking high-level **mathematics and science** courses beyond the core coursework are more prepared for college and careers than those taking only the core curriculum or less. Nationally, the percentage of students meeting or exceeding the ACT College Readiness Benchmarks in Mathematics and Science is higher for those students taking more than the core than for those students taking the core or less.

Students taking math courses beyond the core curriculum are more prepared than their peers

Percentage of your 2009 ACT-tested graduates meeting or exceeding College Readiness Benchmarks in Mathematics



Rigor at Risk

ACT's 2006 research *(Rigor at Risk)* found that under current conditions, students do not have a reasonable chance of becoming ready for college unless they take additional higher-level courses beyond the minimum core. And even when students take substantial numbers of additional courses, no more than three-fourths of them are ready for first-year college coursework. This suggests that the quality and intensity — in other words, the *rigor* — of the high school curriculum needs to be improved.

Reading Between the Lines[4]

Only about half of our nation's ACT-tested high school graduates are ready for college-level reading. What's worse, more 8th and 10th grade students are on track to being ready for college-level reading than end up ready in 12th grade.

States should consider strengthening their standards and assessments, providing targeted support to struggling students, and supporting teachers with quality professional development.

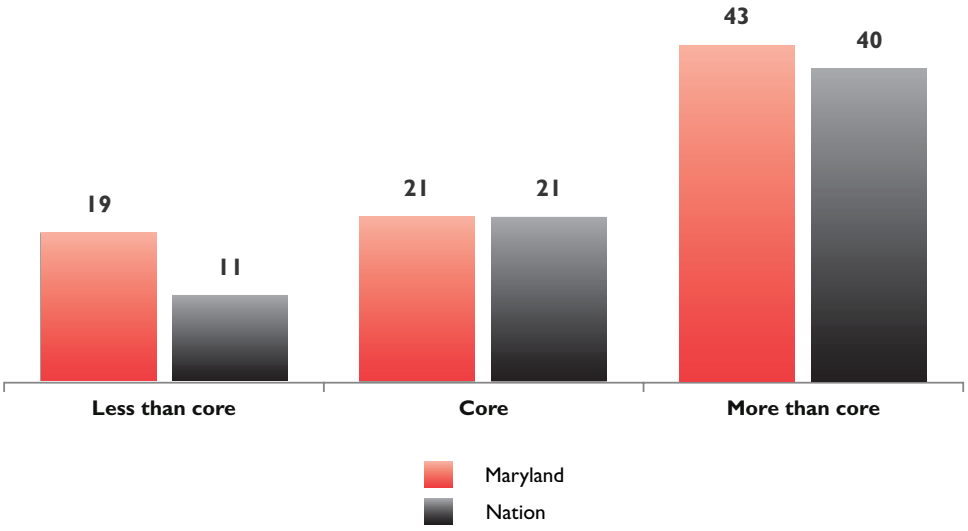
4 Are your core courses rigorous enough? *(cont.)*

ACT research shows that rigor pays off. We analyzed close to 400 schools across the country that are offering rigorous core courses to *all* their students — and teaching them well — and found that their students are outpacing the national averages in college and career readiness across the board.

For example, students at these top-performing schools who took a rigorous Algebra II course (beyond Algebra I and Geometry) or a rigorous Chemistry course (beyond Biology) scored 17 and 16 percentage points higher, respectively, than all ACT-tested students who took the same courses in their high schools. These students also had greater success in college: Both college enrollment and retention were higher for students in these schools.

Students taking science courses beyond the core curriculum are more prepared than their peers

Percentage of your 2009 ACT-tested graduates meeting or exceeding College Readiness Benchmarks in Science



Teacher Quality Affects Course Rigor

Another important contributor to the rigor of the high school core curriculum is teacher quality, and teacher quality has a huge impact on high school students' readiness for college. Schools need to determine whether they are assigning the right teachers to the right core courses — and to the students who need them most.

According to a recent study:[5]

- Students in high-poverty and high-minority schools are disproportionately assigned to new teachers.
- Teachers in high-poverty and high-minority secondary schools are more likely to be lacking a major — or even a minor — in the subjects they teach.

States need to strengthen professional development and examine instructional practices to make sure courses are focused on college-readiness preparation.

5 Are your younger students on track for college and careers?

Early Exposure

Early exposure to challenging curriculum can help educators, parents, and students alike determine if middle grade students are on track for college.

ACT research shows that using aligned curricula, such as EXPLORE® (for 8th and 9th graders) and PLAN® (for 10th graders),[6] results in better performance on the ACT as well as:

- Increases educational achievement
- Encourages students to take more college-preparatory courses in high school
- Increases students' readiness for college
- Promotes educational and career planning
- Promotes college enrollment, persistence, and achievement

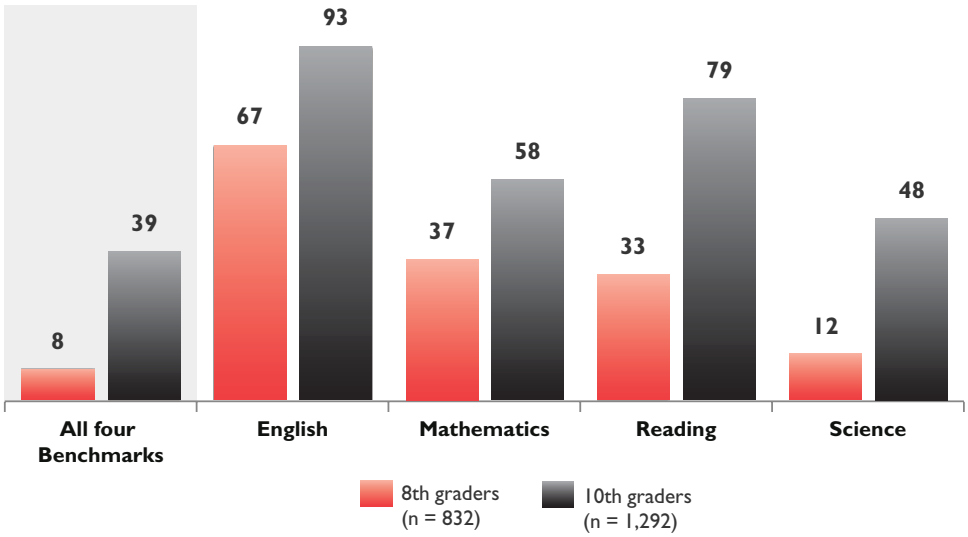
High school is too late to learn if your students are on target for college and careers. We know from our research that younger students who take challenging curricula are much better prepared to graduate high school ready for college. Moreover, recent ACT research *(The Forgotten Middle)* found that, "Under current conditions, the level of academic achievement that students attain by 8th grade has a larger impact on their college and career readiness by the time they graduate from high school than anything that happens academically in high school."

That's why ACT is working closely with states to raise parent and student awareness about the importance of the middle grades, begin monitoring early to make sure younger students are on track for college and careers, and help teachers intervene in more timely ways.

Nationally, 10 percent of students met all four EXPLORE Benchmarks in 2008–09 and 19 percent met all four PLAN Benchmarks in 2008–09.

Early preparation is essential to college readiness and success

Percentage of your 8th and 10th graders on track to meet College Readiness Benchmarks, 2009



6

Are you collecting the right data to keep students on track for college and careers?

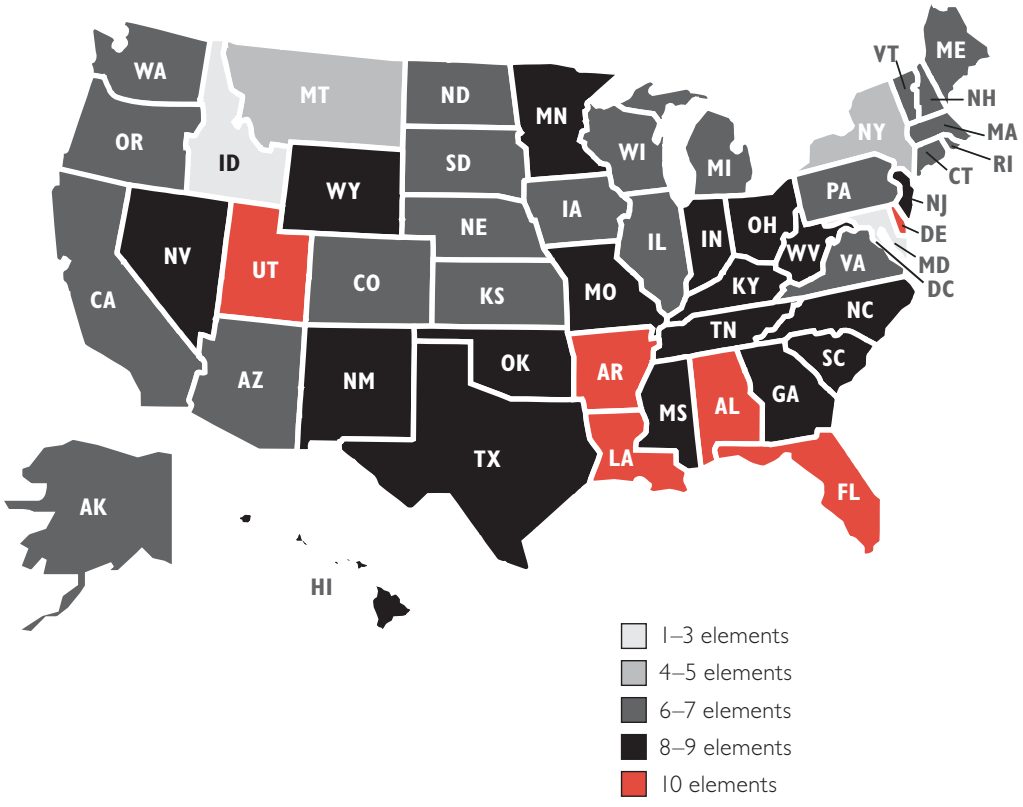
10 Essential Elements of a State Longitudinal Data System

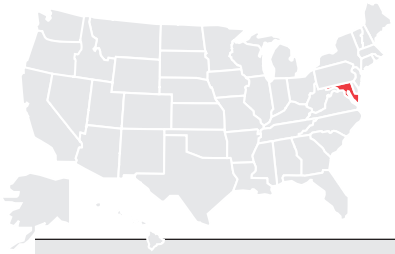
1. Statewide student identifier *(48 states have this element)*
2. Student-level enrollment data *(49 states)*
3. Student-level test data *(48 states)*
4. Information on untested students *(41 states)*
5. Statewide teacher identifier with a teacher-student match *(21 states)*
6. Student-level course completion (transcript) data *(17 states)*
7. Student-level SAT, ACT, and AP exam data *(29 states)*
8. Student-level graduation and dropout data *(50 states)*
9. Ability to match student-level P–12 and higher education data *(28 states)*
10. State data audit system *(45 states)*

If states are serious about ensuring that more of their students are prepared for college and careers in the 21st century, they must establish longitudinal P–20 data systems — closely monitoring student performance at every stage of the learning pipeline, from preschool through the elementary, middle, and high school grades and all the way through college and into the workforce.

That's why ACT supports the Data Quality Campaign (DQC), a national, collaborative effort to improve the collection, availability, and use of high-quality education data to boost student achievement. DQC has identified 10 essential elements for building a longitudinal data system. It is also working with states to ensure that all policymakers, educators, parents, and others have access to this information and know how to use it (www.dataqualitycampaign.org).

Maryland has 3 of the 10 essential data elements[7]





Notes and Next Steps

- Please visit www.act.org/crr/2009 for additional information, interactive charts, and a listing of other state and national data.
- ACT conducted a study to correlate PLAN scores with AP® success. The study can be found at www.act.org/research/policymakers/pdf/UsingPlan.pdf
- ACT has developed College Readiness Benchmarks for the COMPASS Program, which is scored on a 1–99 scale. ACT produces "Entering Student Descriptive Reports" for the nation, specific states and systems each year. The separate four-year and two-year college national results for students who tested with COMPASS in 2007–08 can be found at www.act.org/research/services/esdr/index.html.
- ACT has introduced QualityCore®, an instructional improvement program, featuring twelve end-of-course assessments, research-based educator's resources, and an aligned formative item pool.
- ACT has several programs that assist postsecondary institutions with early outreach to better prepare secondary students for postsecondary success. These programs can assist Maryland initiatives such as those funded through ARRA, Title 1, GEAR UP and others.
- ACT offers professional development opportunities through ACT's annual College and Career Readiness Workshops, held throughout the state. Locations can be found by visiting www/act.org/ccrw.
- Maryland/Delaware/District of Columbia ACT State Organization serves as a communication link between secondary and postsecondary educational institutions and ACT, and it sponsors an annual P–16 professional development event.
- ACT partners and supports the state through our various sponsorships of organization's events.

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Resources: ACT's College Readiness Standards

ACT's College Readiness Standards are detailed, research-based descriptions of the skills and knowledge associated with what students are likely to know and to be able to do based on their performance on the ACT. Standards are provided for different score ranges.

This table provides a sample of the Standards covering the knowledge and skills students need to receive College Readiness Benchmark scores in English, Mathematics, Reading, and Science. For a complete list of the Standards, go to www.act.org/standard/pdf/CRS.pdf.

English (ACT College Readiness Benchmark score = 18)

Topic Development in Terms of Purpose and Focus

- Identify the basic purpose or role of a specified phrase or sentence
- Delete a clause or sentence because it is obviously irrelevant to the essay

Organization, Unity, and Coherence

- Select the most logical place to add a sentence in a paragraph

Word Choice in Terms of Style, Tone, Clarity, and Economy

- Delete obviously synonymous and wordy material in a sentence
- Revise expressions that deviate from the style of an essay

Sentence Structure and Formation

- Determine the need for punctuation and conjunctions to avoid awkward-sounding sentence fragments and fused sentences
- Decide the appropriate verb tense and voice by considering the meaning of the entire sentence

Conventions of Usage

- Solve such grammatical problems as whether to use an adverb or adjective form, how to ensure straightforward subject-verb and pronoun-antecedent agreement and which preposition to use in simple contexts
- Recognize and use the appropriate word in frequently confused pairs such as "there" and "their," "past" and "passed," and "led" and "lead"

Conventions of Punctuation

- Provide appropriate punctuation in straightforward situations (e.g., items in a series)
- Delete commas that disturb the sentence flow (e.g., between modifier and modified element)

Mathematics (ACT College Readiness Benchmark score = 22)

Basic Operations and Applications

- Solve routine two-step or three-step arithmetic problems involving concepts such as rate and proportion, tax added, percentage off, and computing with a given average

Probability, Statistics, and Data Analysis

- Calculate the missing data value, given the average and all data values but one
- Translate from one representation of data to another (e.g., a bar graph to a circle graph)
- Determine the probability of a simple event
- Exhibit knowledge of simple counting techniques

Numbers: Concepts and Properties

- Exhibit knowledge of elementary number concepts including rounding, the ordering of decimals, pattern identification, absolute value, primes, and greatest common factor

Expressions, Equations, and Inequalities

- Evaluate algebraic expressions by substituting integers for unknown quantities
- Add and subtract simple algebraic expressions
- Solve routine first-degree equations
- Perform straightforward word-to-symbol translations
- Multiply two binomials

Graphical Representations

- Locate points in the coordinate plane
- Comprehend the concept of length on the number line
- Exhibit knowledge of slope

Properties of Plane Figures

- Find the measure of an angle using properties of parallel lines
- Exhibit knowledge of basic angle properties and special sums of angle measures (e.g., 90°, 180°, and 360°)

Measurement

- Compute the area and perimeter of triangles and rectangles in simple problems
- Use geometric formulas when all necessary information is given

Functions

- Evaluate quadratic functions, expressed in function notation, at integer values

Reading (ACT College Readiness Benchmark score = 21)

Main Ideas and Author's Approach

- Infer the main idea or purpose of straightforward paragraphs in uncomplicated literary narratives
- Understand the overall approach taken by an author or narrator (e.g., point of view, kinds of evidence used) in uncomplicated passages

Supporting Details

- Locate important details in uncomplicated passages
- Make simple inferences about how details are used in passages

Sequential, Comparative, and Cause-Effect Relationships

- Order simple sequences of events in uncomplicated literary narratives
- Identify clear relationships between people, ideas, and so on in uncomplicated passages
- Identify clear cause-effect relationships in uncomplicated passages

Meanings of Words

- Use context to determine the appropriate meaning of some figurative and nonfigurative words, phrases, and statements in uncomplicated passages

Generalizations and Conclusions

- Draw generalizations and conclusions about people, ideas, and so on in uncomplicated passages
- Draw simple generalizations and conclusions using details that support the main points of more challenging passages

Science (ACT College Readiness Benchmark score = 24)

Interpretation of Data

- Compare or combine data from two or more simple data presentations (e.g., categorize data from a table using a scale from another table)
- Compare or combine data from a complex data presentation
- Interpolate between data points in a table or graph
- Determine how the value of one variable changes as the value of another variable changes in a complex data presentation
- Identify and/or use a simple (e.g., linear) mathematical relationship between data
- Analyze given information when presented with new, simple information

Scientific Investigation

- Understand the methods and tools used in a complex experiment
- Understand a complex experimental design
- Predict the results of an additional trial or measurement in an experiment
- Determine the experimental conditions that would produce specified results

Evaluation of Models, Inferences, and Experimental Results

- Select a simple hypothesis, prediction, or conclusion that is supported by two or more data presentations or models
- Determine whether given information supports or contradicts a simple hypothesis or conclusion and why
- Identify strengths and weaknesses in one or more models
- Identify similarities and differences between models
- Determine which model(s) is(are) supported or weakened by new information
- Select a data presentation or a model that supports or contradicts a hypothesis, prediction, or conclusion

Resources: 2009 ACT State Averages and Percentages of Graduates Tested

This table provides a compiled list of the state averages and percentages of graduates who took the test in 2009. In providing this table, ACT is not advocating ranking the various states' educational systems. In most states, students who take the ACT are self-selected and do not represent the state's entire student population.

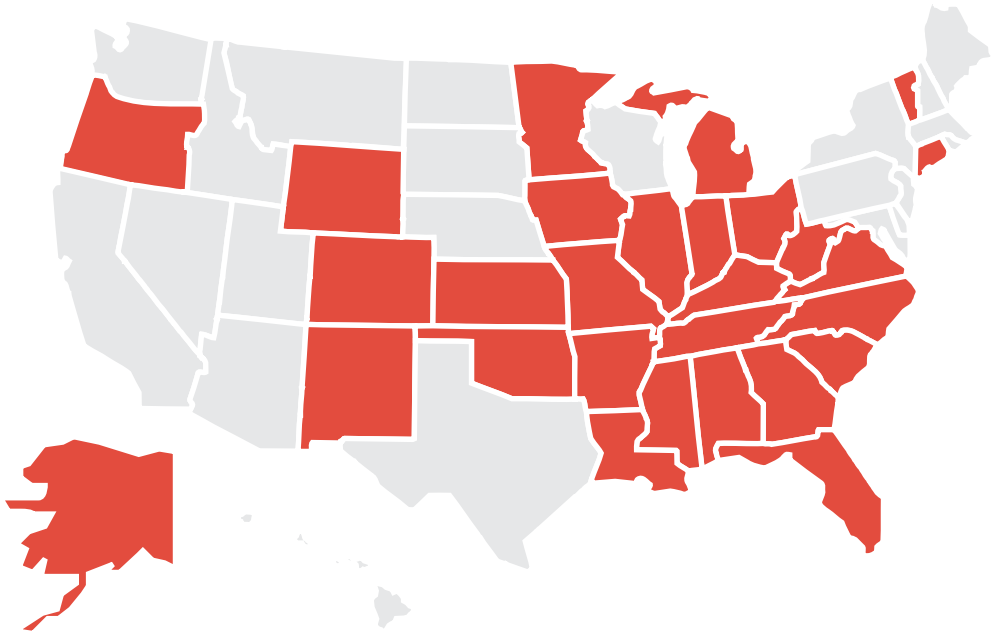
Further, the percentages of students who take the ACT vary significantly from state to state, as do the backgrounds and characteristics of those students. Many factors — among them, motivation, the desire to learn, parental support, the quality of teaching received, socioeconomic status, and extracurricular experiences — contribute to individual and group student achievement. However, ACT research has shown a core college-preparatory program to be a significant precondition to success both on the ACT and in postsecondary studies. (ACT defines a core college-preparatory program as four years of English and three or more years each of mathematics [starting with Algebra I], science, and social studies courses.)

State	Percentage of graduates tested*	Average Composite score	Average English score	Average Math score	Average Reading score	Average Science score
Alabama	76	20.3	20.5	19.5	20.7	20.1
Alaska	29	21.0	20.1	21.1	21.7	20.7
Arizona	15	21.9	21.3	22.1	22.4	21.3
Arkansas	73	20.6	20.6	20.1	21.0	20.2
California	19	22.2	21.8	22.8	22.4	21.4
Colorado	100	20.8	20.1	20.5	21.1	20.8
Connecticut	21	23.5	23.6	23.5	24.0	22.6
Delaware	11	22.6	22.2	22.5	23.1	22.0
Florida	62	19.5	18.7	19.7	20.2	19.0
Georgia	40	20.6	20.1	20.6	20.9	20.3
Hawaii	22	21.5	20.9	22.1	21.4	21.0
Idaho	58	21.6	20.9	21.3	22.3	21.4
Illinois	97	20.8	20.5	20.7	20.8	20.7
Indiana	24	22.2	21.6	22.4	22.6	21.6
Iowa	59	22.4	21.9	21.9	22.9	22.4
Kansas	74	21.9	21.4	21.7	22.4	21.8
Kentucky	100	19.4	18.8	19.0	19.8	19.7
Louisiana	89	20.1	20.3	19.6	20.2	20.0
Maine	9	23.1	23.0	23.0	23.6	22.3
Maryland	17	22.1	21.9	22.1	22.5	21.5
Massachusetts	18	23.9	23.9	24.3	24.3	22.8
Michigan	100	19.6	18.6	19.6	19.6	20.1
Minnesota	68	22.7	22.0	22.7	23.1	22.6
Mississippi	93	18.9	19.1	18.3	19.0	18.7
Missouri	67	21.6	21.5	20.9	22.1	21.5
Montana	54	22.0	21.2	21.7	22.7	21.7
Nebraska	72	22.1	21.9	21.8	22.5	22.0

State	Percentage of graduates tested *	Average Composite score	Average English score	Average Math score	Average Reading score	Average Science score
Nevada	30	21.5	20.9	21.4	22.0	21.0
New Hampshire	15	23.5	23.3	23.4	24.1	22.6
New Jersey	16	23.1	22.9	23.5	23.2	22.1
New Mexico	65	20.0	19.3	19.6	20.7	20.0
New York	25	23.1	22.5	23.4	23.3	22.7
North Carolina	15	21.6	20.9	22.0	21.9	21.1
North Dakota	78	21.5	20.7	21.5	21.8	21.6
Ohio	64	21.7	21.1	21.4	22.2	21.7
Oklahoma	71	20.7	20.5	19.9	21.4	20.5
Oregon	33	21.4	20.5	21.5	21.9	21.1
Pennsylvania	14	22.1	21.7	22.2	22.4	21.5
Rhode Island	10	22.8	23.0	22.5	23.4	21.8
South Carolina	50	19.8	19.2	20.0	19.9	19.8
South Dakota	74	22.0	21.2	21.8	22.3	22.0
Tennessee	92	20.6	20.7	19.8	21.0	20.4
Texas	30	20.8	19.9	21.3	20.9	20.6
Utah	68	21.8	21.4	21.1	22.6	21.6
Vermont	24	23.1	22.9	22.9	23.7	22.5
Virginia	20	21.9	21.7	21.8	22.3	21.4
Washington	18	22.8	22.4	22.9	23.5	22.1
Washington, DC	30	19.4	19.1	19.5	19.7	18.6
West Virginia	62	20.7	20.8	19.6	21.4	20.5
Wisconsin	67	22.3	21.7	22.2	22.6	22.3
Wyoming	99	20.0	18.9	19.8	20.4	20.2
National	45	21.1	20.6	21.0	21.4	20.9

* Totals for graduating seniors were obtained from *Knocking at the College Door: Projections of High School Graduates by State and Race/Ethnicity, 1992 to 2022*, 7th edition. Boulder, CO: Western Interstate Commission for Higher Education, March 2008.

Resources: Statewide Partnerships in College and Career Readiness



EXPLORE® 8th and 9th grade students	PLAN® 10th grade students	WorkKeys® 11th and 12th grade students	The ACT® 11th and 12th grade students	★ Affiliated with ACT's National Career Readiness Certificate	★ State Career Readiness Certificate based on ACT's WorkKeys
Arkansas	Arkansas	Illinois	Arkansas	Alaska	Alabama
Illinois	Florida	Michigan	Colorado	Connecticut	Arkansas
Kentucky	Illinois	Wyoming	Illinois	Iowa	Florida
Louisiana	Kentucky		Kentucky	Louisiana	Georgia
Minnesota	Louisiana		Michigan	Michigan	Indiana
Oklahoma	Minnesota		Tennessee	New Mexico	Kansas
South Carolina	Oklahoma		Wyoming	Oregon	Kentucky
Tennessee	South Carolina			Vermont	Mississippi
West Virginia	Tennessee				Missouri
	West Virginia				North Carolina
					Ohio
					Oklahoma
					South Carolina
					Tennessee
					Virginia
					West Virginia
					Wyoming

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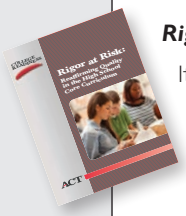
Resources: ACT Research

***The Forgotten Middle: Improving Readiness for High School,* December 2008**

The percentage of 8th graders on target to be ready for college-level work by the time they graduate from high school is so small that it raises questions not just about the prospect that these students can eventually be ready for college but also about whether they are even ready for high school. *Available at www.act.org/research/policymakers/pdf/ForgottenMiddle.pdf.*

***College Readiness Standards,* October 2008**

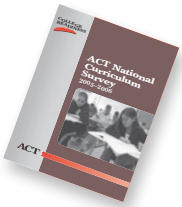
The College Readiness Standards are research-based descriptions of the skills and knowledge associated with what students are likely to know and to be able to do based on their EXPLORE, PLAN, and ACT test scores. The Standards offer learning strategies designed to help students meet state standards and acquire the more advanced concepts associated with higher ACT assessment scores and, more important, increased college readiness. *Available at www.act.org/standard/pdf/CRS.pdf.*



***Rigor at Risk,* May 2007**

It has become increasingly apparent that although taking the right number of courses in high school is better than not, it is no longer enough to guarantee that students will graduate ready for life after high school. This report identifies the large gap between secondary and postsecondary education in the United States and focuses on successful strategies for eliminating that gap. *Available at www.act.org/research/policymakers/pdf/rigor_report.pdf.*

***National Curriculum Survey,* April 2007**

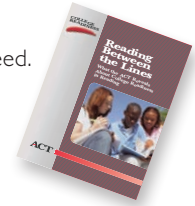


A one-of-a-kind nationwide survey that collects a wealth of information about what middle school, secondary, and postsecondary educators believe entering college students should know and be able to do to be ready for college-level work. *Available at www.act.org/research/policymakers/pdf/NationalCurriculumSurvey2006.pdf.*

***Ready for College and Ready for Work: Same or Different?* May 2006**

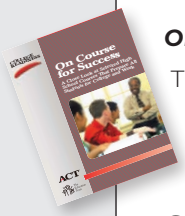
High school students who plan to enter workforce training programs after they graduate need academic skills similar to those of college-bound students. ACT research suggests that the math and reading skills needed to be ready for success in workforce training programs are comparable to those needed for success in the first year of college. *Available at www.act.org/research/policymakers/pdf/ReadinessBrief.pdf.*

***Reading Between the Lines,* March 2006**



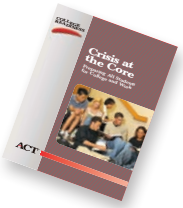
Too many high school students are graduating without the reading skills they will need. This report shows that the clearest differentiator in reading between students who are college ready and students who are not is the ability to comprehend complex texts. *Available at www.act.org/research/policymakers/pdf/reading_report.pdf.*

***On Course for Success,* February 2005**



The study defines the specific rigorous academic skills that need to be taught in English, math, and science courses for high school graduates to be ready for college and work. The report provides detailed descriptions of courses that prepare students for college English, math, and science coursework. *Available at www.act.org/research/policymakers/pdf/success_report.pdf.*

***Crisis at the Core: Preparing All Students for College and Work,* October 2004**



This policy report clearly shows the relationship between the rigor of high school coursework and increased college readiness. *Available at www.act.org/research/policymakers/pdf/crisis_report.pdf.*

Endnotes

1. State long-term occupational projections for 2006-2016 (based on job growth and job replacement) provided by Maryland Department of Labor, Licensing, & Regulation. Career interests and achievement results based on 2009 ACT-tested Maryland students (n = 7,301) with valid career information and subject scores. Example occupations of the state's high-growth career fields are Computer/Information Specialties (computer programmers, database administrators, etc.); Education (secondary teachers, administrators, etc.); Management (convention planners, hotel/restaurant managers, etc.); Health Care (nurses, occupational therapists, etc.); Marketing/Sales (insurance agents, buyers, etc.).
2. Ibid.
3. ACT (2006). *ACT's College Readiness System: Meeting the Challenge of a Changing World*. Iowa City, IA: Author.
4. ACT (2006). *Reading Between the Lines*. Iowa City, IA.
5. Peske, H. G., & Haycock, K. (2006). *Teaching Inequality: How Poor and Minority Students Are Shortchanged on Teacher Quality*. Washington, DC: The Education Trust.
6. ACT (2006). *EPAS: A System that Works*. Iowa City, IA: Author.
7. Data Quality Campaign, www.dataqualitycampaign.org.

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