The Condition of College and Career Readiness | 2011

Colorado

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ACT is an independent, not-for-profit organization that provides assessment, research, information, and program management services in the broad areas of education and workforce development. Each year we serve millions of people in high schools, colleges, professional associations, businesses, and government agencies, nationally and internationally. Though designed to meet a wide array of needs, all ACT programs and services have one guiding purpose—helping people achieve education and workplace success.

A copy of this report can be found at

www.act.org/readiness/2011

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The Condition of College and Career Readiness | Class of 2011

Annually, ACT provides a snapshot of the college and career readiness of ACT-tested high school graduates. We offer this report as a service to inform policymakers and practitioners about selected indicators of effectiveness and how that translates into readiness. It is designed to stimulate discussion, inquiry, and action. In interpreting and using the results, keep in mind that the number and percentage of 2011 graduates who took the ACT in your state determine how representative these findings are.

Our Unique Added Value

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's data system includes each of these areas for 8th and 10th graders and has been monitoring student readiness and success for nearly two decades. Since 1996, and every three to five years thereafter, ACT surveys thousands of high school and college educators to pinpoint the knowledge and skills needed for first-year college coursework. ACT is the only organization with decades of empirical data showing exactly what happens to high school graduates once they get to college or to work and how they can maximize success—based on their preparation from kindergarten through 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–16 education system.

College and Career Readiness Defined

ACT has long defined college and career readiness as the acquisition of the knowledge and skills a student needs to enroll and succeed in credit-bearing first-year courses at a postsecondary institution (such as a two- or four-year college, trade school, or technical school) without the need for remediation. ACT's definition of college and career readiness was adopted by the Common Core State Standards Initiative, which serves as validation of our extensive research and ACT's College and Career Readiness Standards.™

Using This Report[1]

This report is designed to help inform the following questions that are driving national efforts to strengthen P–16 education.

- Are your students prepared for college and career?
- Are enough of your students taking core courses?
- Are your core courses rigorous enough?
- Are your younger students on target for college and career?
- What other dimensions of college and career readiness should we track?

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, Biology, and an introductory social science course. Based on a nationally representative sample, 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	Subject Area Test	EXPLORE® Benchmark	PLAN® Benchmark	ACT® Benchmark
English Composition	English	13	15	18
Social Sciences	Reading	15	17	21
College Algebra	Mathematics	17	19	22
Biology	Science	20	21	24

College and Career Readiness in

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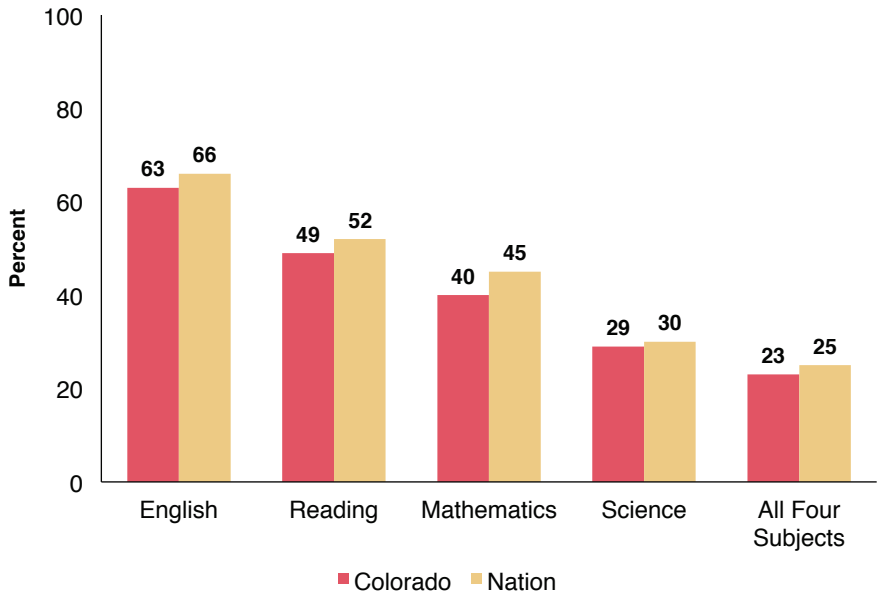
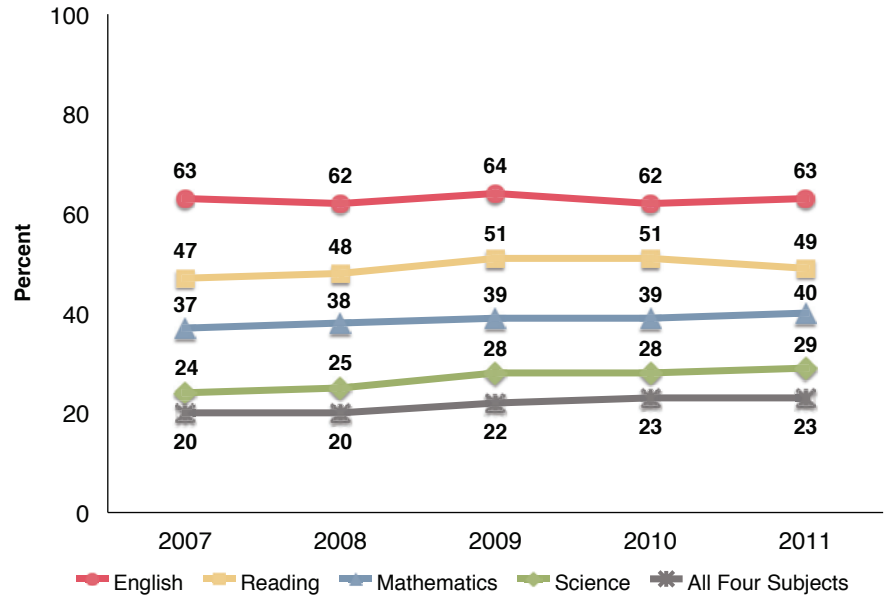
Attainment of College and Career Readiness

- 52,930 of your graduates, which is an estimated 100% of your graduating class, took the ACT.*
- From 2007–2011, the number of ACT test-taking graduates has increased by 7.7%, while the number of graduates in your state has increased by 2.3%.

Percent of 2011 ACT-Tested High School Graduates Meeting College Readiness Benchmarks by Subject



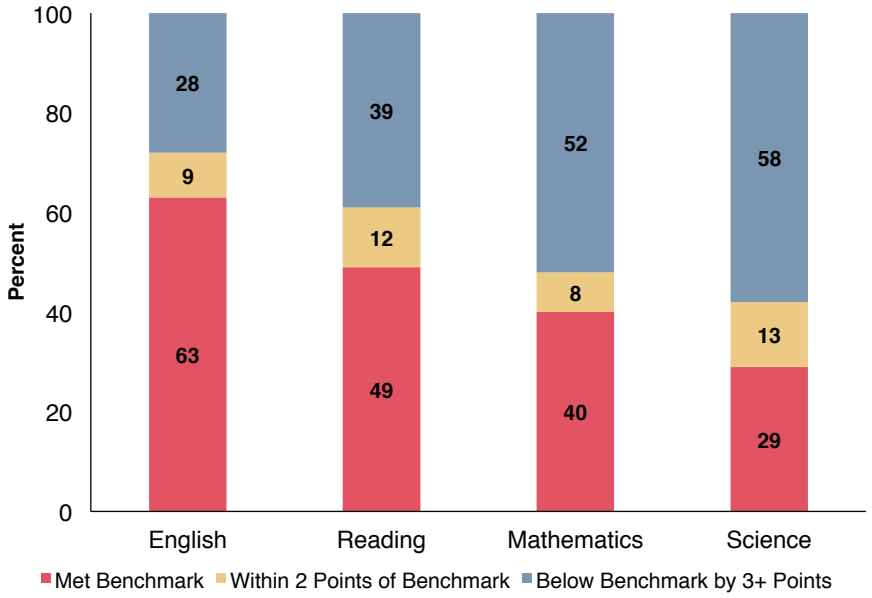
Percent of 2007–2011 ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks



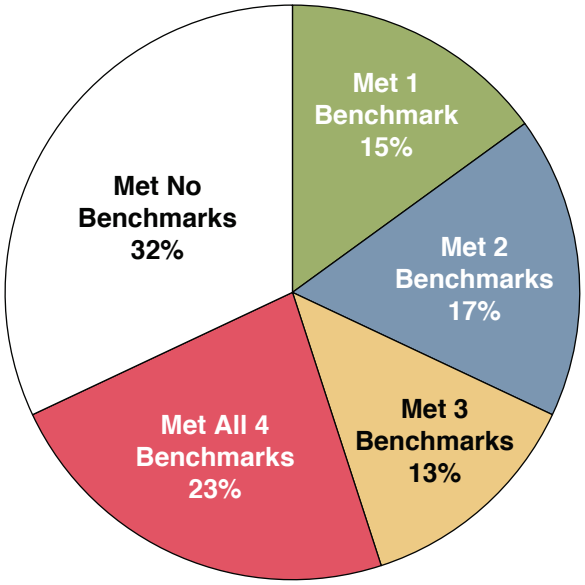
* Totals for graduating seniors were obtained from *Knocking at the College Door: Projections of High School Graduates by State and Race/Ethnicity, 1992 to 2022*, 7th edition. © March 2008 by the Western Interstate Commission for Higher Education.

Note: Percents in this report may not sum to 100% due to rounding.

Percent of 2011 ACT-Tested High School Graduates by Benchmark Attainment and Subject



Percent of 2011 ACT-Tested High School Graduates by Number of ACT College Readiness Benchmarks Attained



Near Attainment of College and Career Readiness

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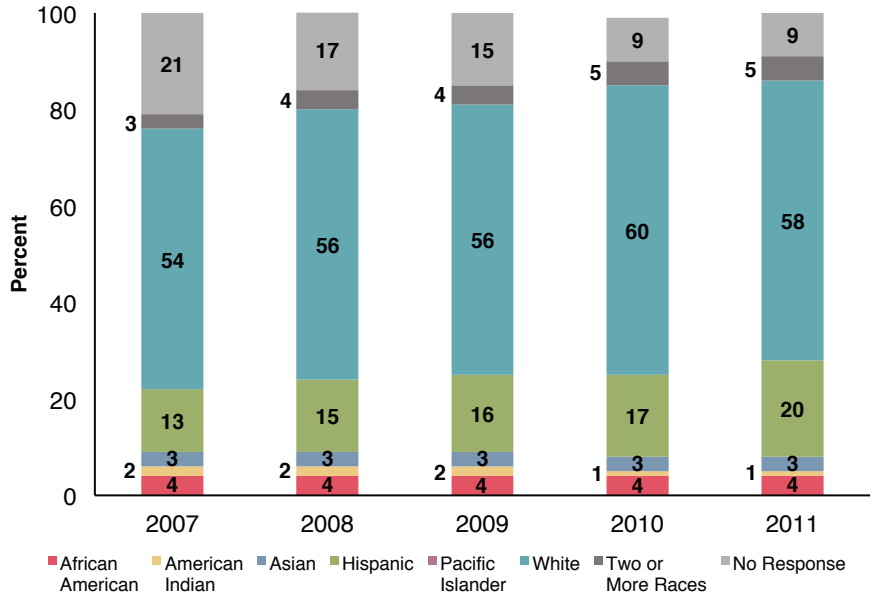
Participation and Opportunity

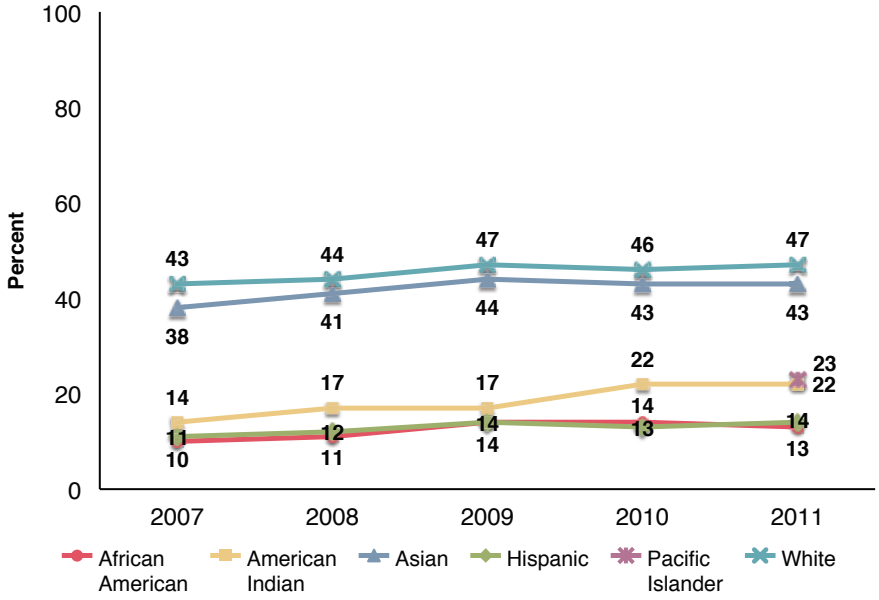
Over the past decade, ACT has experienced unprecedented growth in the number of students tested, as well as statewide partnerships in ten different states and in many districts across the country. As a result, the 2011 *Condition of College and Career Readiness* report provides a much deeper and more representative sample in comparison to a purely self-selected college-going population.

Percent of 2007–2011 ACT-Tested High School Graduates by Race/Ethnicity*



Note: Less than 0.5% will not appear.

Percent of 2007–2011 ACT-Tested High School Graduates Meeting Three or More Benchmarks by Race/Ethnicity*

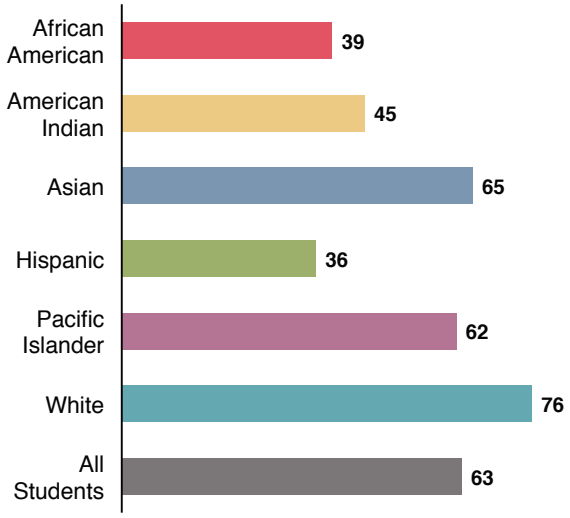


* Race/ethnicity categories have been changed to reflect updated US Department of Education reporting requirements.[2]

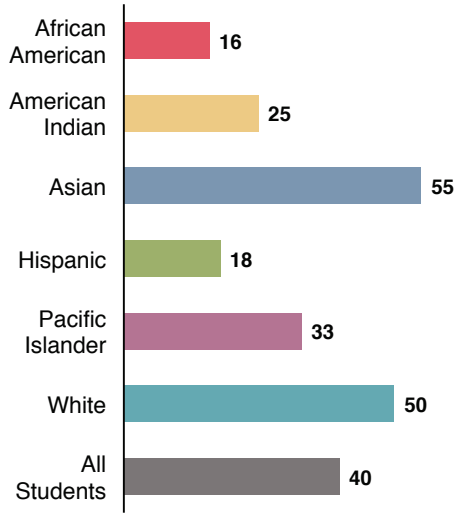
Participation and Opportunity by Subject

Percent of 2011 ACT-Tested High School Graduates Meeting College Readiness Benchmarks by Race/Ethnicity and Subject*

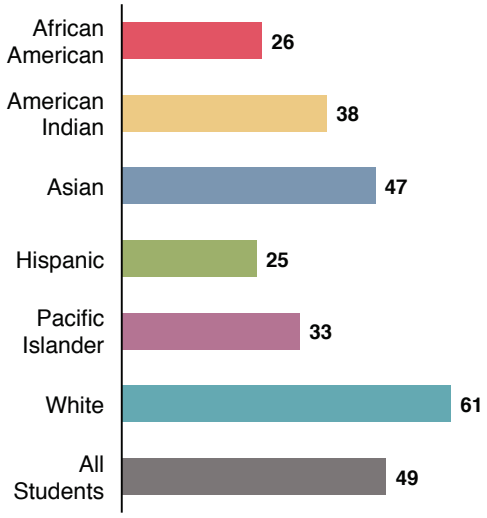
English



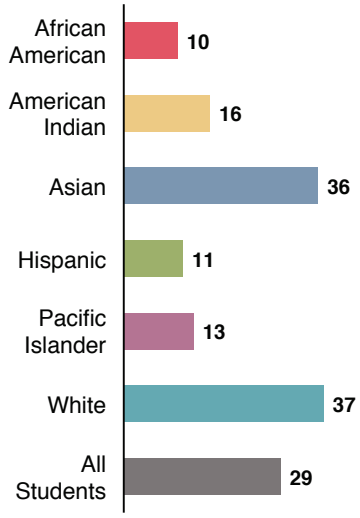
Mathematics



Reading



Science



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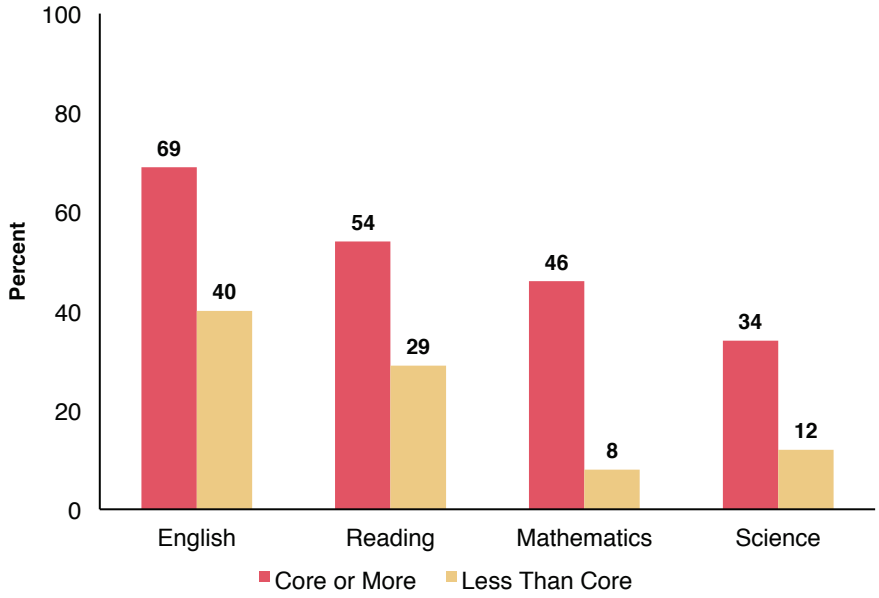
Course-Taking Patterns and Benchmark Performance

Within subjects, ACT has consistently found that students who take the recommended core curriculum are more likely to be ready for college or career than those who do not. A core curriculum is defined as four years of English and three years each of mathematics, social studies, and science.[3]

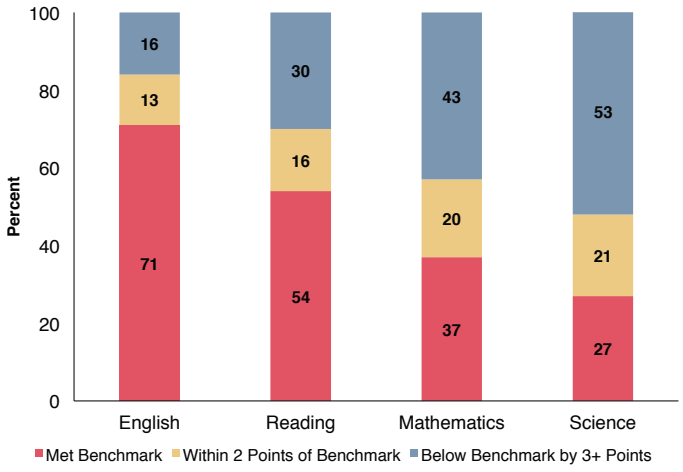
Percent of 2011 ACT-Tested High School Graduates in Core or More vs. Less Than Core Courses Meeting College Readiness Benchmarks by Subject

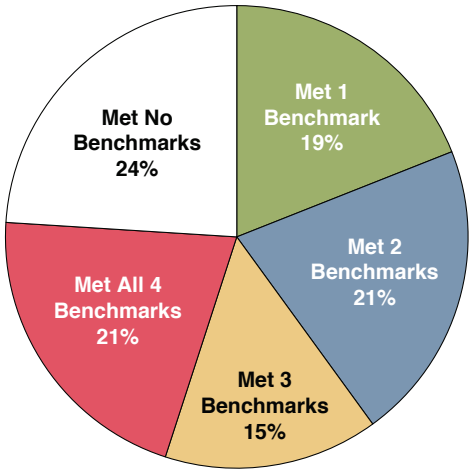


Early Preparation

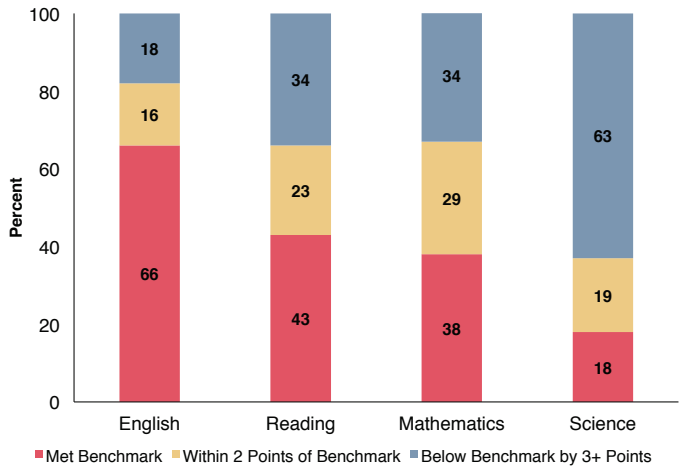
ACT research shows that younger students who take a rigorous curricula are more prepared to graduate from high school ready for college or career. Moreover, our recent research (*The Forgotten Middle*, 2008) found that "the level of academic achievement that students attain by 8th grade has a larger impact on their college and career readiness by the time they graduate high school than anything that happens academically in high school."

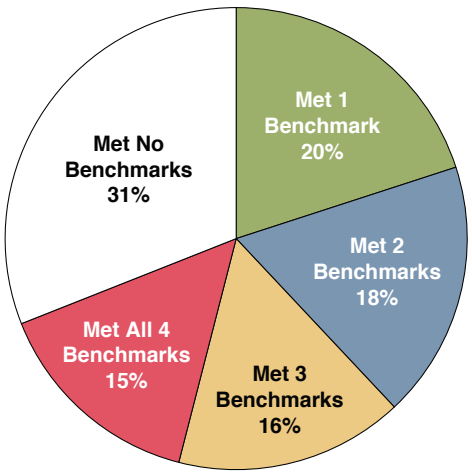
Percent of 2010–2011 PLAN-Tested 10th Graders Meeting College Readiness Benchmarks (N=40,547)





Percent of 2010–2011 EXPLORE-Tested 8th Graders Meeting College Readiness Benchmarks (N=17,342)





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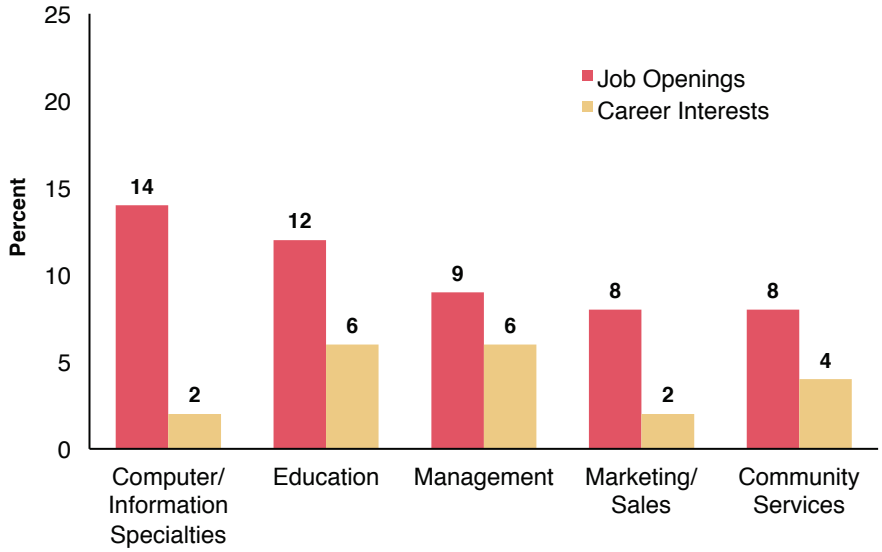
Other College and Career Readiness Factors

ACT has found several other substantial factors that impact college and career readiness for students. They include career and educational planning and the academic behaviors of students.

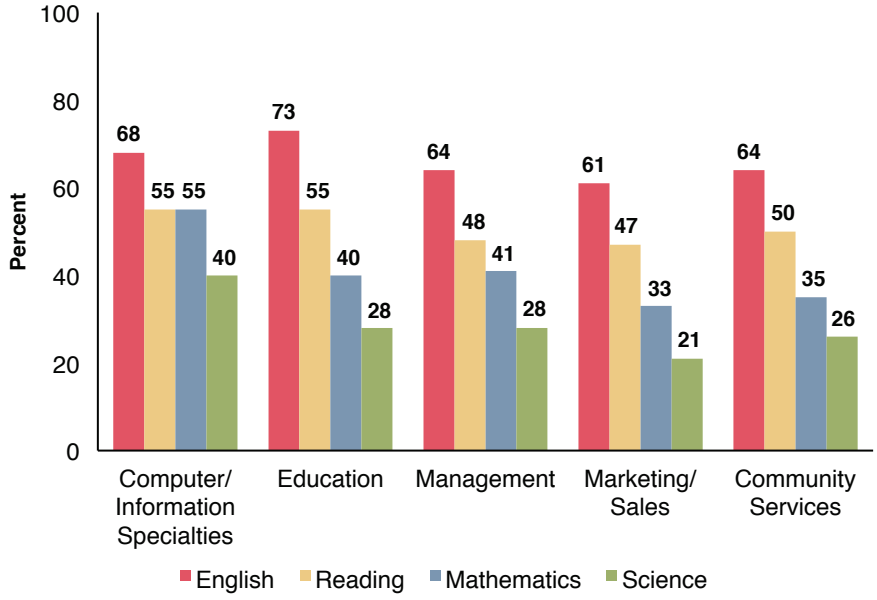
Percent of 2011 ACT-Tested High School Graduates with Career Interests in Jobs Calling for a Two-Year Degree or More in the State's Five Fastest-Growing Career Fields[4]



Preparation for Careers in High-Growth Fields

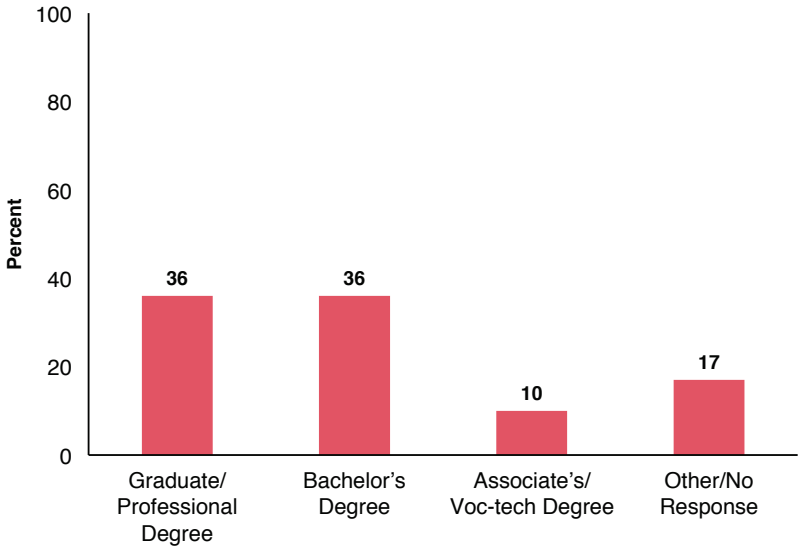
Many students who are interested in these career areas fall short of meeting ACT's College Readiness Benchmarks, suggesting that they are not on the right path to take advantage of career opportunities in these high-growth fields.

Percent of 2011 ACT-Tested High School Graduates Interested in High-Growth Careers Meeting College Readiness Benchmarks by Subject



Other College and Career Readiness Factors

Percent of 2011 ACT-Tested High School Graduates by Educational Aspirations

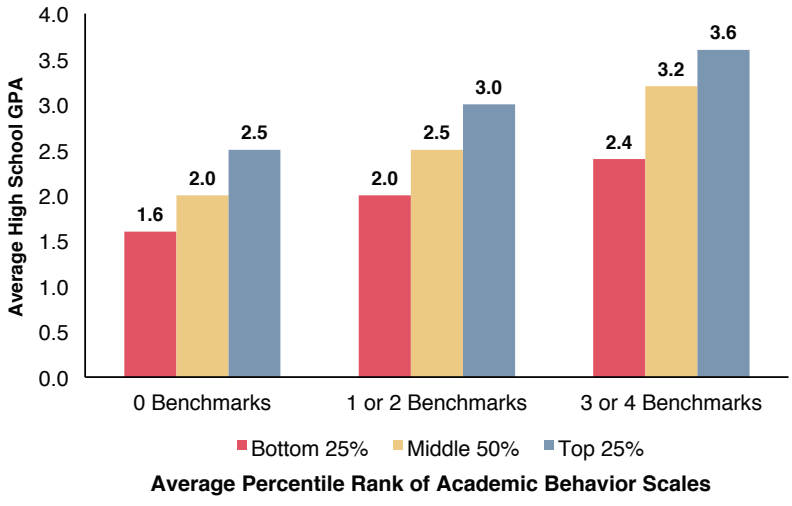


Aligning Student Behaviors, Planning, and Aspirations

Most students aspire to a post-high school credential. To help them meet those aspirations, educational planning, monitoring, and interventions must be aligned to their aspirations, begin early, and continue throughout their educational careers.

Academic Achievement and Academic Behaviors

Average High School GPA by EXPLORE Benchmarks and Academic Behavior Scales



Impact of Academic Behaviors on High School Performance

ACT research based on a large sample shows that the combination of academic achievement (as measured with EXPLORE) and academic behaviors (as measured with ENGAGE™) provide the strongest prediction of high school academic performance and success. This chart highlights the need to address students' academic behaviors to improve performance across all achievement levels.[5]

College and Career Readiness in

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2011 State Percent of High School Graduates Tested, Average Composite Score, and Percent Meeting Benchmarks by Subject

State	Percent of Graduates Tested*	Average Composite Score	Percent Meeting English Benchmark	Percent Meeting Reading Benchmark	Percent Meeting Math Benchmark	Percent Meeting Science Benchmark
Alabama	81	20.3	65	48	32	22
Alaska	40	21.2	65	56	47	30
Arizona	34	19.7	53	43	39	22
Arkansas	91	19.9	61	44	33	21
California	24	22.1	72	57	57	34
Colorado	100	20.7	63	49	40	29
Connecticut	26	23.9	86	72	68	46
Delaware	16	22.4	74	60	57	39
District of Columbia	28	20.0	53	45	38	26
Florida	66	19.6	55	44	36	20
Georgia	47	20.6	63	48	41	25
Hawaii	24	21.3	68	52	50	30
Idaho	64	21.7	72	59	47	32
Illinois	100	20.9	65	48	42	28
Indiana	29	22.3	75	62	57	36
Iowa	61	22.3	77	62	52	40
Kansas	79	22.0	73	60	51	34
Kentucky	100	19.6	57	43	28	21
Louisiana	100	20.2	67	45	33	21
Maine	9	23.3	82	68	63	40
Maryland	20	22.1	72	58	53	36
Massachusetts	22	24.2	86	74	73	47
Michigan	100	20.0	58	44	35	26
Minnesota	72	22.9	78	64	62	43
Mississippi	100	18.7	52	33	20	13
Missouri	71	21.6	73	56	44	32
Montana	60	22.1	75	63	53	35
Nebraska	76	22.1	76	60	50	36

Colorado

2011 State Percent of High School Graduates Tested, Average Composite Score, and Percent Meeting Benchmarks by Subject

State	Percent of Graduates Tested*	Average Composite Score	Percent Meeting English Benchmark	Percent Meeting Reading Benchmark	Percent Meeting Math Benchmark	Percent Meeting Science Benchmark
Nevada	31	21.4	68	55	47	30
New Hampshire	18	23.7	85	71	66	43
New Jersey	19	23.2	81	67	66	41
New Mexico	72	19.8	55	44	32	21
New York	28	23.4	80	67	68	45
North Carolina	18	21.9	70	58	56	34
North Dakota	98	20.7	63	48	43	26
Ohio	69	21.8	71	58	49	35
Oklahoma	76	20.7	67	52	35	25
Oregon	35	21.5	66	55	49	32
Pennsylvania	17	22.3	75	62	58	37
Rhode Island	12	23.0	81	68	59	38
South Carolina	56	20.1	59	45	39	23
South Dakota	81	21.8	72	58	52	37
Tennessee	100	19.5	58	41	27	20
Texas	36	20.8	60	48	48	28
Utah	73	21.8	73	60	47	33
Vermont	28	22.7	78	63	58	39
Virginia	24	22.3	76	61	55	36
Washington	20	22.8	76	64	60	40
West Virginia	65	20.6	70	53	32	23
Wisconsin	71	22.2	75	60	54	39
Wyoming	100	20.3	61	49	36	24
National	49	21.1	66	52	45	30

* 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. © March 2008 by the Western Interstate Commission for Higher Education.

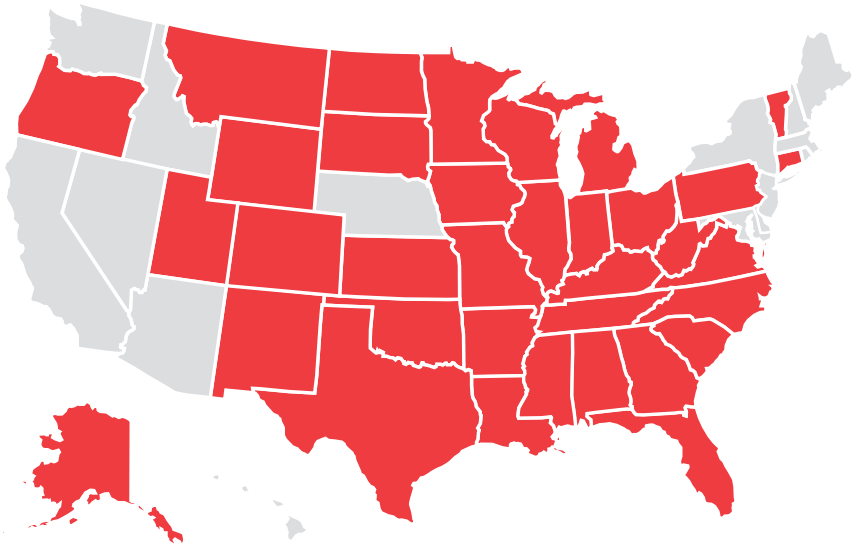
Resources

States that incorporate ACT's college and career readiness solutions as part of their statewide assessments provide greater access to higher education and increase the likelihood of student success in postsecondary education. Educators also have the ability to establish a longitudinal plan using ACT's assessments, which provide high schools, districts, and states with unique student-level data that can be used for effective student intervention plans.

State administration of ACT's programs and services:

- Increases opportunities for minority and middle- to low-income students.
- Promotes student educational and career planning.
- Reduces the need for remediation.
- Correlates with increases in college enrollment, persistence, and student success.
- Aligns with state standards.

Statewide Partnerships in College and Career Readiness



EXPLORE® 8th- and 9th-grade students	PLAN® 10th-grade students	The ACT® 11th- and 12th-grade students	QualityCore® 8th- thru 12th-grade students	WorkKeys® 11th- and 12th-grade students	National Career Readiness Certificates	WorkKeys®-based certificates
Alabama	Arkansas	Arkansas	Kentucky	Illinois	Alaska	Alabama
Arkansas	Florida	Colorado		Michigan	Connecticut	Arkansas
Illinois	Illinois	Illinois		North Dakota	Iowa	Colorado
Kentucky	Kentucky	Kentucky		Wyoming	Kentucky	Florida
Louisiana	Louisiana	Michigan			Louisiana	Georgia
Minnesota	Minnesota	North Dakota			Michigan	Indiana
Oklahoma	Oklahoma	Tennessee			Missouri	Kansas
South Carolina	South Carolina	Texas			Montana	Mississippi
Tennessee	Tennessee	Utah			New Mexico	North Carolina
Texas	Texas	Wyoming			North Dakota	Oklahoma
Utah	Utah				Ohio	South Carolina
West Virginia	West Virginia				Oregon	Virginia
Wyoming					Pennsylvania	West Virginia
					South Dakota	Wyoming
					Tennessee	
					Utah	
					Vermont	
					Wisconsin	

Policies & Practices

How to Increase College Readiness

Nationally, approximately 28% of all 2011 ACT-tested high school graduates did not meet any of the College Readiness Benchmarks, meaning they were not prepared academically for first-year college courses in English Composition, College Algebra, Biology, and social sciences. 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. Since ACT first released *Making the Dream a Reality* in 2008, we have called for states to adopt essential standards that prepare all students for the rigors of college or career training programs. With the adoption of the Common Core State Standards by 45 states and the District of Columbia, most states have taken that first step on the road to ensuring all students are ready for college or career. It is imperative now that policymakers and practitioners continue this process by aligning all aspects of their systems to college and career readiness.

Common Expectations. All states—especially those that have adopted the Common Core State Standards—should be aligning college and career readiness standards to 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 consisting of at least four years of English and three years each of mathematics, science, and social studies.

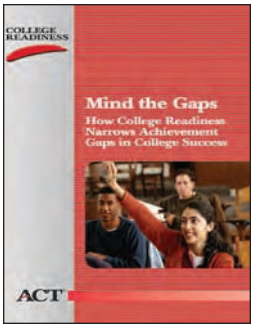
Clear Performance Standards. States must define "how good is good enough" for college and career readiness. In addition to a consistent, rigorous set of essential K–12 *content* standards, states must define performance standards so that students, parents, and teachers know how well students must perform 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 a 50% chance of earning a grade of B or higher or about a 75% chance of earning a grade of C or higher in first-year college English Composition; College Algebra; Biology; or History, Psychology, Sociology, Political Science, or Economics.

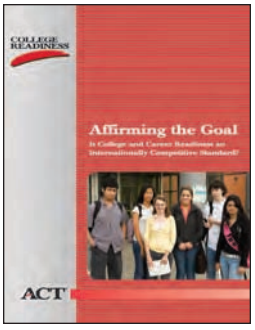
Rigorous High School Courses. Having appropriate and aligned standards, coupled with a core curriculum, will adequately prepare high school students *only* if the courses are truly challenging. That is, taking the right *kinds* of courses matters more than taking the right *number* of courses. Students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

Early Monitoring and Intervention. We know from our empirical data that students who take challenging curricula are much better prepared to graduate high school ready for college or career training opportunities. If students are to be ready for college or career when they graduate, their progress must be monitored closely so that deficiencies in foundational skills can be identified and remediated early, in upper elementary and middle school. In addition, age-appropriate career assessment, exploration, and planning activities that encourage students to consider and focus on personally relevant career options should be a part of this process so that students can plan their high school coursework accordingly.

Data-Driven Decisions. States have been hard at work in developing longitudinal P–16 data systems—this work must continue and accelerate. If states are serious about ensuring more of their students are prepared for college and work in the 21st century, they must develop systems that allow schools and districts to 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. Such systems also 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.

Resources





ACT Research

As a not-for-profit educational research organization, ACT is committed to producing research that focuses on key issues in education and workforce development. Our goal is to serve as a data resource. We strive to provide policymakers with the information they need to inform education and workforce development policy and to give educators the tools they need to lead more students toward college and career success. What follows are some of ACT's recent and most groundbreaking research studies. To review these studies, go to **www.act.org/research/summary**.

The Condition of College and Career Readiness

Using ACT test scores and the ACT College Readiness Benchmarks, *The Condition of College and Career Readiness 2011* provides a series of graphics highlighting the college and career readiness of the ACT-tested high school class of 2011. This report is updated annually.

A First Look at the Common Core

Forty-five states have adopted the Common Core State Standards. Now, efforts to implement the standards take on primary importance. ACT provides this first look at student performance relative to the Common Core State Standards and college and career readiness.

Mind the Gaps

In the research report *Mind the Gaps: How College Readiness Narrows Achievement Gaps in College Success*, ACT looks at steps that can be taken to improve college and career readiness and success among underserved populations. As a nation, we must close the achievement gap across racial/ethnic and family income groups. The report shows the types of policies that work to improve college and career readiness and success.

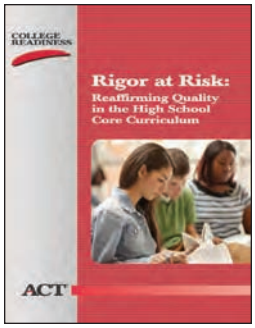
Affirming the Goal

In our most recent research report, *Affirming the Goal: Is College and Career Readiness an Internationally Competitive Standard?*, we examine how performance standards in reading and math on PLAN compare to performance on the Programme for International Student Assessment (PISA), a worldwide assessment of 15-year-old students' academic achievement.

Resources

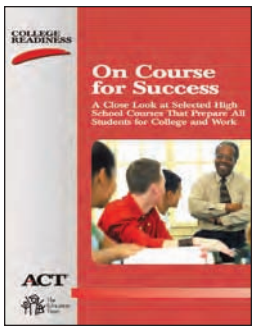
Rigor at Risk

Among the motivations behind the federal government's publication of *A Nation at Risk* in 1983 were the desire to see more students graduate from high school prepared for college and work and the need for more students to attend and graduate from college. *A Nation at Risk* proposed that every US high school require graduates to take a "core" curriculum—a minimum number of courses that would provide students with a "foundation of success for the after-school years." Nearly a quarter-century later, in a climate in which US workers are dealing with new forms of technology and facing the challenges of a global economy, it is not only reasonable but increasingly urgent to ask: Have we succeeded in fulfilling the goals of *A Nation at Risk*?



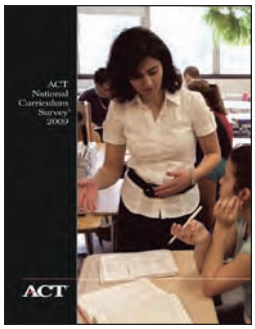
On Course for Success

In *On Course for Success,* ACT and The Education Trust examine ten high schools with challenging student populations that have overcome the odds by fostering greater access to college. We found that when students are provided with high-level courses, qualified and experienced teachers, teaching that is flexible and responsive to students, and extra support when they need it, all students can be prepared to succeed.



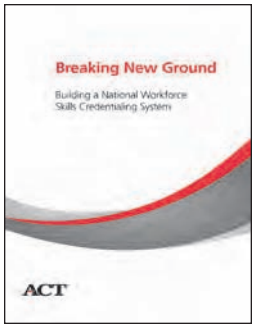
ACT National Curriculum Survey®

Obtained every three to four years from middle, secondary, and postsecondary educators, this study collects data about what entering college students should know and be able to do to be ready for college-level coursework in English, math, reading, and science. The survey results inform ongoing efforts to develop, refine, and update common academic standards such as the Common Core State Standards, as well as to inform policymakers and educators. Results are also used to guide development of ACT's curriculum-based assessments to ensure they meet the needs of college and career readiness.



Breaking New Ground

Breaking New Ground: Building a National Workforce Skills Credentialing System introduces the need and associated benefits for establishing a national workforce credentialing system. The report outlines the importance of bringing together a critical mass of state, national, and public and private workforce leaders to co-construct this foundational framework to address our national workforce challenges.



Endnotes

1. The data presented herein are based on the ACT Profile Report—State: Graduating Class 2011 for each respective state, and accessible at **www.act.org/readiness/2011**. With the exception of the top graph on page 6, 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.
2. The race/ethnicity categories have been changed from previous editions to now reflect updated US Department of Education reporting requirements; trends to previous reports may not be available for all race/ethnicity categories.
3. Data reflects content-specific curriculum. For example, English "Core or More" results pertain to students who took more than four years of English, regardless of courses taken in other content areas.
4. State long-term occupational projections for 2008–2018 (based on job growth and job replacement provided by Colorado Department of Labor and Employment). The occupations that are used to calculate the projected high-growth career fields are based on a combination of the following: the occupational criteria used by the US Bureau of Labor Statistics to obtain state-level occupation data, occupational shifts that reflect a state's economic situation, and the ACT Career Classification System that organizes occupations into career fields. Career interests and achievement results based on 2011 ACT-tested Colorado students (n=35,059) with valid career information and subject scores. Sample occupations within state 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.); Marketing/Sales (insurance agents, buyers, etc.); Community Services (social workers, school counselors, etc.).
5. As 7th or 8th graders, 3,289 students were tested with EXPLORE, as well as with an assessment of academic behaviors. The students came from 22 middle schools across eight states; the data reported in the graph are not specific to any particular state. The students were followed over time and most completed high school in 2011. The chart presents the mean high school GPA for nine groups of students. Each student's group is determined by the number of EXPLORE Benchmarks met (0, 1 or 2, 3 or 4) and by the average percentile rank of ten academic behavior scales measuring motivation, self-regulation, and social engagement. ACT's ENGAGE Grades 6–9 assessment was used to measure academic behaviors. Performance in high school courses was higher for students with more EXPLORE Benchmarks met, and also higher for students with greater motivation, self-regulation, and social engagement. The combination of pre-high school academic achievement and academic behaviors provided the strongest prediction of high school academic performance. These data highlight the need to address students' academic behaviors to improve their future academic performance.

ACT National and Regional Offices

ACT National Office
500 ACT Drive
P.O. Box 168
Iowa City, Iowa 52243-0168
Telephone: 319/337-1000

West Region

Sacramento Office
2880 Sunrise Boulevard
Suite 214
Rancho Cordova, California
95742-6103
Telephone: 916/631-9200

Mountain/Plains Region

Denver Office
3131 South Vaughn Way
Suite 218
Aurora, Colorado 80014-3507
Telephone: 303/337-3273

Southwest Region

Austin Office
8701 N. MoPac Expressway
Suite 200
Austin, Texas 78759-8364
Telephone: 512/320-1850

Midwest Region

Chicago Office
300 Knightsbridge Parkway
Suite 300
Lincolnshire, Illinois 60069-9498
Telephone: 847/634-2560

Lansing Office
1001 Centennial Way
Suite 400
Lansing, Michigan 48917-8249
Telephone: 517/327-5919

Columbus Office
700 Taylor Road
Suite 210
Gahanna, Ohio 43230-3318
Telephone: 614/470-9828

Northeast Region

Boston Office
144 Turnpike Road
Suite 370
Southborough, Massachusetts
01772-2121
Telephone: 508/229-0111

Southeast Region

Atlanta Office
3355 Lenox Road NE
Suite 320
Atlanta, Georgia 30326-1332
Telephone: 404/231-1952

Tallahassee Office
1315 East Lafayette Street
Suite A
Tallahassee, Florida 32301-4757
Telephone: 850/878-2729

NCEA

Austin Office
8701 N. MoPac Expressway
Suite 200
Austin, Texas 78759-8364
Telephone: 512/320-1800

A copy of this report can be found at

www.act.org/readiness/2011

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