

The Condition of College & Career Readiness 2014

Students from
Low-Income
Families

ACT[®]



NATIONAL COUNCIL FOR
Community and Education
Partnerships

July 2015

Dear colleagues,

It's a question we ask constantly: are we doing enough to level the playing field in education for students from low-income families?

We have known for a long time that family income and educational success are strongly correlated, and the data in this report starkly affirm it. Despite the fact that more students from low-income families took the ACT® college readiness assessment than ever before, the number of low-income students meeting three or more ACT College Readiness Benchmarks remained flat in 2014, as it has been for the past five years. Even more concerning, 50% of ACT-tested low-income students didn't meet a single Benchmark.

Closing the persistent opportunity and attainment gaps between low-income students and their higher-income peers is paramount to our nation's social and economic viability. In this regard, accelerating the college and career readiness of low-income students is certainly one of the most profound challenges of our time.

Clearly we need more, not less, educational planning, monitoring, and interventions across the K–12-to-postsecondary continuum to make a substantial difference for students from low-income families. One such program, the federally funded Gaining Early Awareness and Readiness for Undergraduate Programs (GEAR UP) initiative, is an example of how a research-based partnership among secondary, postsecondary, and state partners can be a powerful vehicle to deliver key research-based interventions to low-income families early, and consistently, on their path to postsecondary education.

Given our shared mission and commitment to evidence, ACT and the National Council for Community and Education Partnerships (NCCEP) have partnered with 14 GEAR UP state grantees to form the College and Career Readiness Evaluation Consortium, an ambitious, multiyear project to examine which targeted interventions are most effective in attaining important outcomes from the middle grades through postsecondary completion. The partnership will collect and analyze GEAR UP intervention and outcomes data and examine the relationships between specific interventions to student achievement. We look forward to sharing the findings from our studies to inform educational practice and policy for years to come.

In our view, the following report serves as a critical benchmark of our society's health and well-being. It is a clarion call for our nation to act with greater purpose and urgency to equalize college readiness for all students. We invite you to join us in mobilizing around this critical challenge.

Jon Erickson

ACT

Ranjit Sidhu

National Council for Community
and Education Partnerships (NCCEP)

Key Findings

Condition of College & Career Readiness 2014— Students from Low-Income Families

Key Findings	Implications	Recommendations
<p>Academic readiness and family income. Overall, most students are not ready for the academic rigors of college, but low-income students are especially vulnerable (pp. 5–9). The performance gap between student groups based on income is substantial and persistent.</p>	<ul style="list-style-type: none"> • While there is a wide gap between the college readiness of lower- and higher-income students in secondary school, research demonstrates that academic gaps emerge far earlier • Without the requisite academic foundation, most low-income students will have limited postsecondary education opportunities, struggle academically, and will complete college at lower rates than their higher-income peers 	<ul style="list-style-type: none"> • The roots of college success are planted early. Therefore, to improve college outcomes, it's essential that we expand college access and readiness programs no later than the middle grades to monitor, support, and accelerate the academic growth of low-income students • The secondary-to-postsecondary transition is particularly challenging for low-income students and requires systemic approaches about how to effectively advise, guide, and support students academically, socially, and financially • Colleges should embrace emerging research on how innovative approaches to developmental education can put students on the path to success more effectively with key supplemental supports
<p>Postsecondary aspirations. Regardless of income, most students aspire to some postsecondary education (p. 12).</p>	<ul style="list-style-type: none"> • Over time, the aspiration gap between lower- and higher-income peers has narrowed substantially • Despite high counselor-to-student ratios, schools, districts, and states are succeeding in fostering higher postsecondary expectations among students 	<ul style="list-style-type: none"> • The roots of college success are planted early. Therefore, to improve college outcomes, it is essential that we expand college access and readiness programs no later than the middle grades to monitor, support, and accelerate the academic growth of low-income students • The secondary-to-postsecondary transition is particularly challenging for low-income students and require systemic approaches to how to effectively advise, guide, and support students • Colleges should embrace emerging research on how innovative approaches to developmental education can put students on the path to success more effectively with key supplemental supports
<p>Core course taking and readiness. Low-income students who take a core high school curriculum are more likely to be academically ready for college (p. 9).</p>	<ul style="list-style-type: none"> • Taking the right high school courses is a decision that has profound consequences, yet we aren't seeing enough low-income students enrolling • While not every student will pursue a traditional four-year postsecondary degree, completing the core curriculum ensures that students have a range of viable options • While offering the right courses is essential, schools and districts must also ensure they are of sufficient quality and intensity to prepare students for college 	<ul style="list-style-type: none"> • Establish practices, interventions, and policies to ensure that students and their families are sufficiently supported as they select and enroll in the right high school courses • An effort must be made at the state and local levels to ensure that not only are the right courses available, but that they are sufficiently rigorous and aligned to postsecondary expectations • School and system leaders should strongly consider making the core curriculum the default option for all students
<p>Academic achievement, behaviors, and college retention. Students, regardless of income, are more likely to persist in college if they have exhibited higher degrees of academic discipline, commitment to college, and social connections (p. 12).</p>	<ul style="list-style-type: none"> • There are core noncognitive skills that are strongly correlated with college success and should be developed and nurtured over time • A better understanding of the noncognitive skills can help better advise students through the college readiness process and guide students into academic interventions when necessary 	<ul style="list-style-type: none"> • Incorporate noncognitive measures into broader assessment, advising, and college readiness programming to help tailor the quality, intensity, and regularity of student interventions • Help students understand and develop essential skills and behaviors through academic and mentoring programs that teach study skills, foster resilience, and reaffirm one's commitment to college • Colleges should incorporate noncognitive measures to complement first-year advising, placement, and developmental education programs

Students from Low-Income Families

The Condition of College & Career Readiness 2014

The Condition of College & Career Readiness 2014 is ACT's annual report on the progress of the graduating class relative to college readiness. This year, 57% of the high school graduating class took the ACT® college readiness assessment. The increased number of test takers over the past several years enhances the breadth and depth of the data pool, providing a comprehensive picture of the current graduating class in the context of readiness levels as well as offering a glimpse of the emerging educational pipeline.

Our Commitment to College and Career Readiness

As a research-based nonprofit, ACT is committed to providing a wider range of solutions across a wider range of life decision points in an increasingly individualized manner so everyone can benefit. This commitment has led ACT to a mode of continuous improvement in an ever-changing educational and workplace landscape. Over the last year, ACT has made several key announcements, including:

- **Release of ACT Aspire®.** In spring 2014, ACT released an assessment system that spans grades 3–10. It aligns to the ACT College Readiness Standards, which allows monitoring and intervening to take place much earlier and helps prepare students to succeed at college-level work, culminating with the ACT college readiness assessment. To date, more than 1 million assessments have been taken.
- **Enhancements to the ACT college readiness assessment.** Several key modifications to the ACT were announced. These include:
 - ~ Online, computer-based administration of the ACT, with more than 4,000 students tested in spring 2014
 - ~ Optional constructed-response computer-based testing tasks in mathematics, reading, and science—offered alongside the existing optional Writing Test—assessing whether students can justify, explain, and use evidence to support claims
 - ~ Additional questions on the Reading Test that address whether students can integrate knowledge and ideas across multiple texts
 - ~ Additional statistics and probability items on the Mathematics Test to allow for reporting of student achievement in this area
 - ~ Additional reporting to include a STEM score, career readiness indicator, English language arts score, text complexity indicator, and reporting categories consistent with college and career readiness language
 - ~ Enhanced Writing Test based on the newly developed ACT writing competency framework that provides results in four domains

While the evolution of the ACT continues and additional scores will be provided, it will remain a curriculum-based achievement exam, and the 1–36 score scale will not change.

- **A continued commitment to evidence and validity monitoring.** The ACT National Curriculum Survey®, completed every three to five years, is used to build and update a valid suite of ACT assessments, empirically aligned to the ACT College Readiness Standards. The survey informs the test blueprint for the assessments. Assessment results validate the ACT College Readiness Standards and the ACT College Readiness Benchmarks. This evidence and the validity cycle drive the development and continuous improvement of ACT's current and future solutions, as well as the associated research agenda.
- **Release of ACT Profile™.** ACT Profile is a first-of-its-kind college and career planning community, built on 30-plus years of ACT research. Mobile, social, and *free to students* (over the age of 13), ACT Profile develops personalized insights and populates an interactive career graph to show students the best career matches based on their self-assessment results. The tool then extends those insights to help students make informed career and educational plans.

ACT is committed to being a leader in education and career success by infusing innovation into our foundation of assessment excellence. We make changes only after a thorough analysis of user need, coupled with our commitment to the highest-quality test development and helping *all* students achieve college and career success.

A Holistic View of College Readiness

ACT continues in its steadfast support of the purpose and intent of the Common Core State Standards, which focus on the key essential standards that can prepare students for college and career success. However, we also believe that academic readiness is just one of several factors that contribute to educational success. Other key factors include the academic behaviors of students and informed career planning (e.g., based on interests). Together, these elements define a clear picture of student readiness for postsecondary education. To encourage progress, the educational system needs to monitor and sustain all key factors of success.

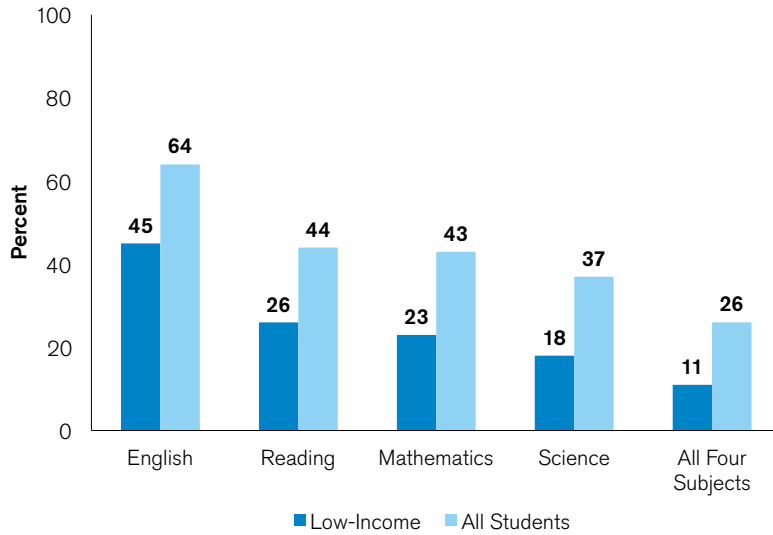
Using This Report¹

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

- Are students from low-income families prepared for college and career?
- Are enough students from low-income families taking core courses?
- Are core courses rigorous enough?
- What other dimensions of college and career readiness should we track?
- Are students from low-income families who are ready for college and career actually succeeding?

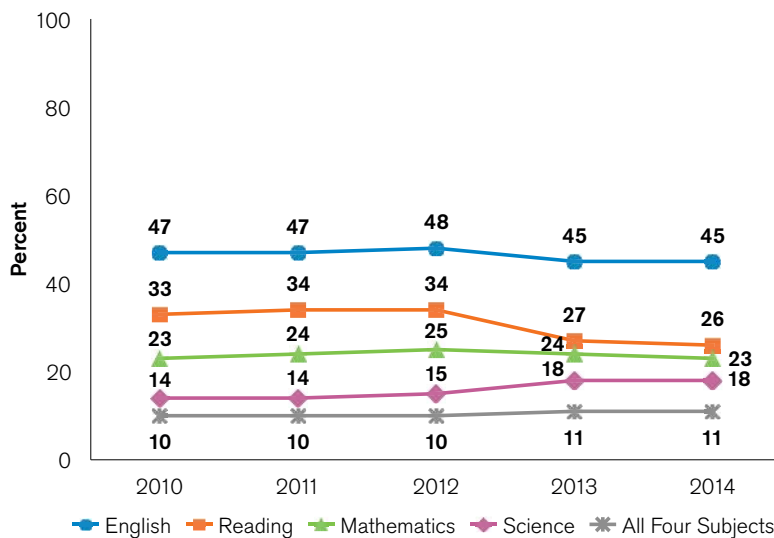
Attainment of College and Career Readiness

Percent of 2014 ACT-Tested Low-Income High School Graduates Meeting ACT College Readiness Benchmarks by Subject



- Low-income students are those who report that their family income is less than \$36,000 per year.²
- 433,963 low-income high school 2014 graduates took the ACT.

Percent of 2010–2014 ACT-Tested Low-Income High School Graduates Meeting ACT College Readiness Benchmarks*



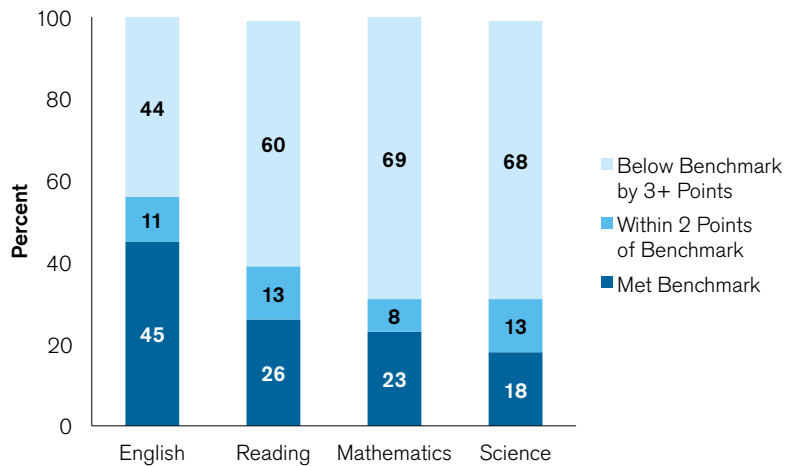
* ACT College Readiness Benchmarks in reading and science were revised in 2013. See page 17 for details.

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

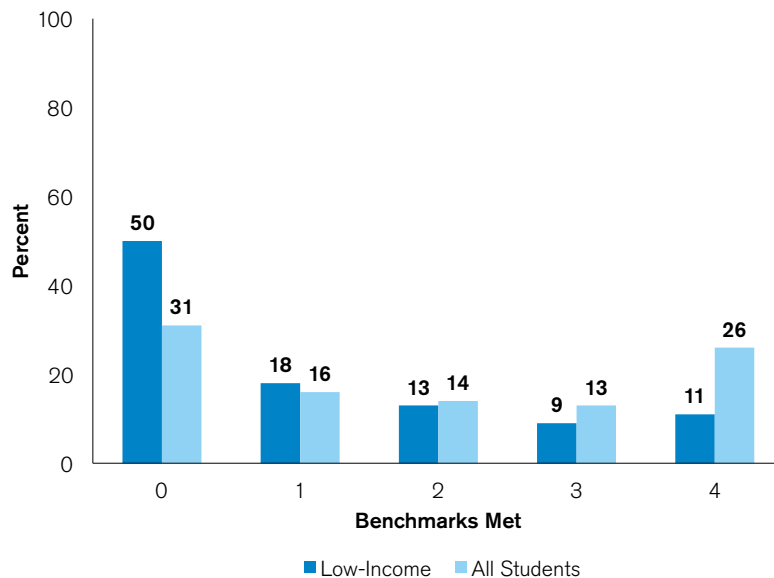
Students from Low-Income Families

Attainment of College and Career Readiness

Percent of 2014 ACT-Tested Low-Income High School Graduates by ACT College Readiness Benchmark Attainment and Subject

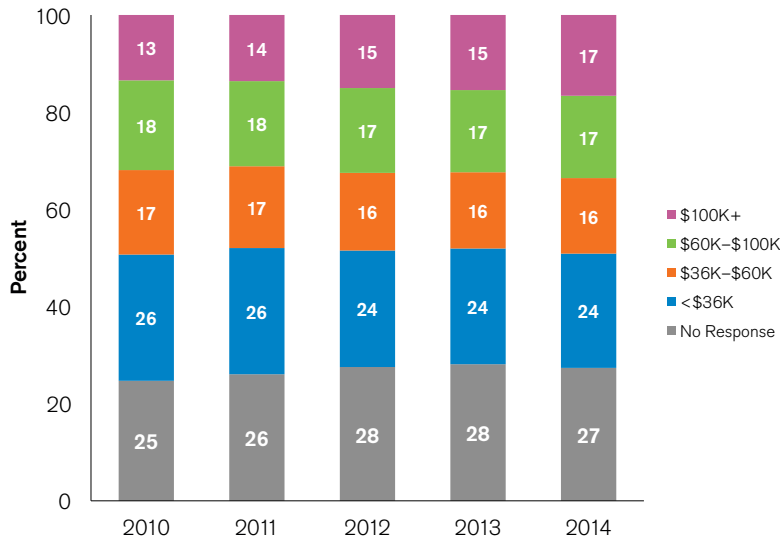


Percent of 2014 ACT-Tested Low-Income High School Graduates by Number of ACT College Readiness Benchmarks Attained



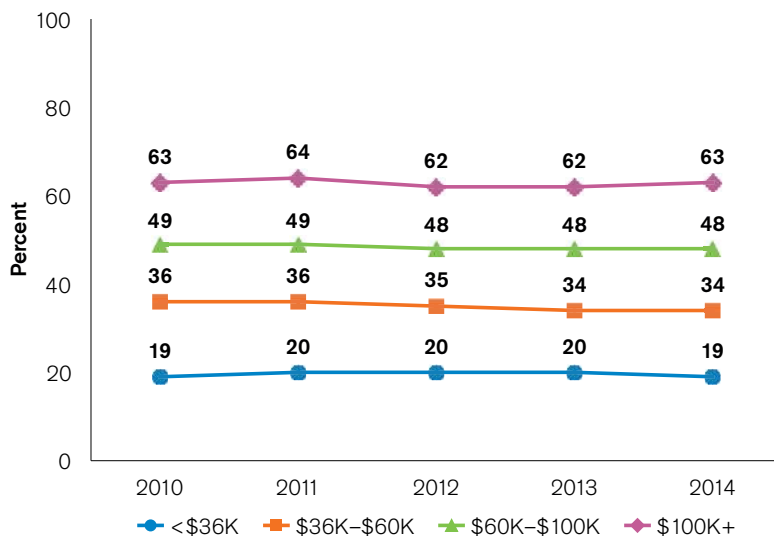
Participation and Opportunity

Percent of 2010–2014 ACT-Tested High School Graduates by Family Income



Over the past decade, ACT has experienced unprecedented growth in the number of students tested, as well as statewide partnerships in 13 states and in many districts across the country. As a result, the 2014 *Condition of College & Career Readiness* report provides a much deeper and more representative sample in comparison to a purely self-selected college-going population.

Percent of 2010–2014 ACT-Tested High School Graduates Meeting Three or More Benchmarks by Family Income

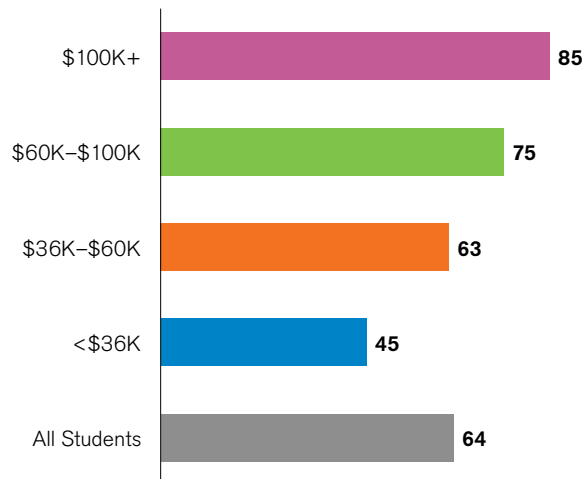


Students from Low-Income Families

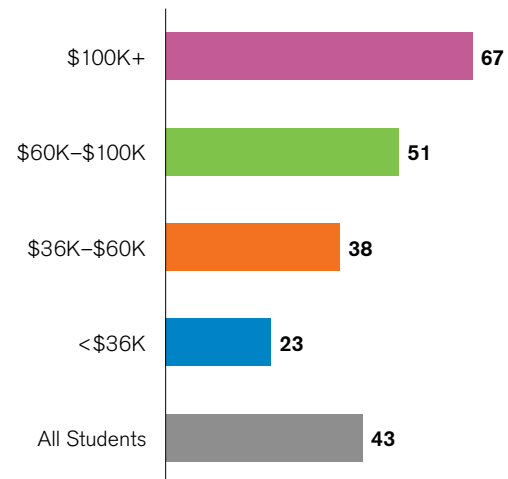
Participation and Opportunity by Subject

Percent of 2014 ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Family Income and Subject

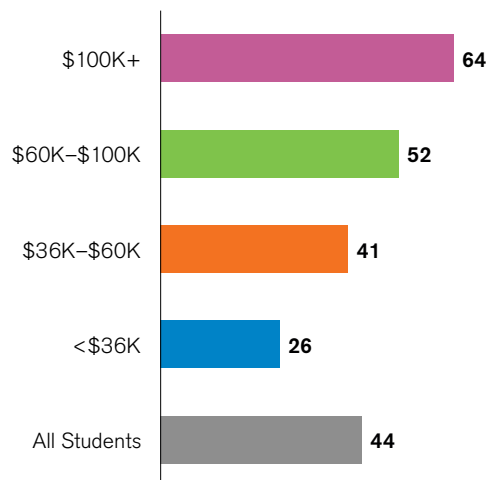
English



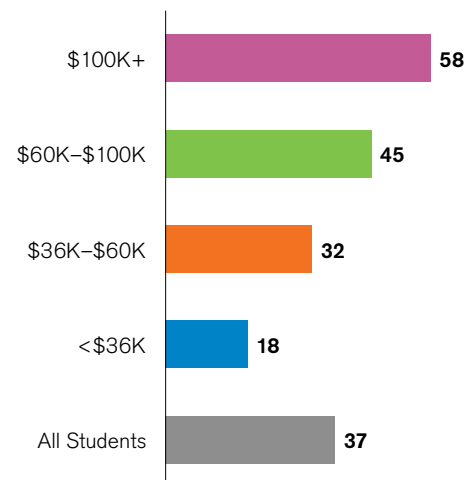
Mathematics



Reading

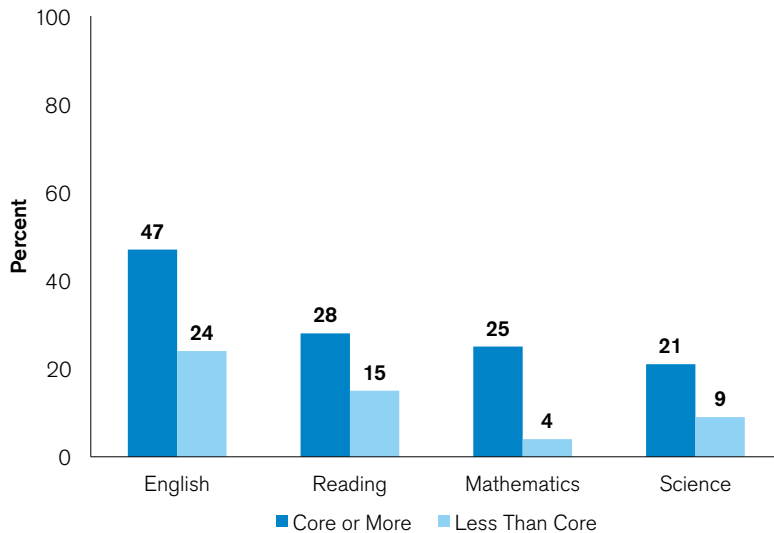


Science



Course-Taking Patterns and Benchmark Performance

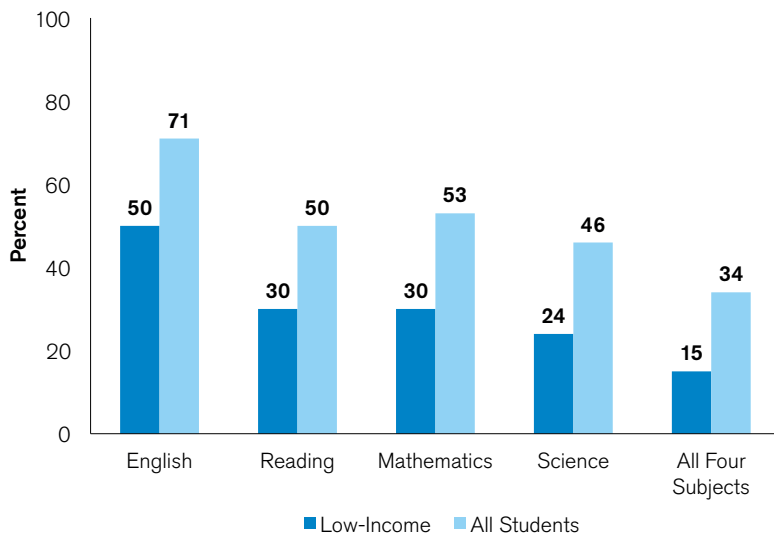
Percent of 2014 ACT-Tested Low-Income High School Graduates in Core or More vs. Less Than Core Courses Meeting ACT College Readiness Benchmarks by Subject



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

A First Look at STEM

Percent of 2014 ACT-Tested Low-Income High School Graduates with an Interest in STEM Meeting ACT College Readiness Benchmarks by Subject



This chart describes ACT College Readiness Benchmark attainment for 2014 low-income high school graduates nationwide who have an interest in STEM majors or occupations. Characteristics of students with an interest in STEM were addressed in greater depth in the ACT *Condition of STEM 2014* report.

Students from Low-Income Families

ACT College Readiness Benchmark Attainment for Top Planned College Majors: 2014 Graduates

When students register for the ACT, they can select a college major—from a list of 294 majors—that they plan to pursue in college. Among recent ACT-tested high school graduates nationwide, about 80% selected a specific planned major, whereas about 20% indicated that they were undecided or did not select a major.

This table ranks the nation's top (most frequently selected) majors among 2014 graduates from low-income families. The percentages of students meeting the ACT College Readiness Benchmarks are shown for each major. Across these planned majors, there are considerable differences in the percentage of students who are ready to succeed in college.

Major Name	N	English	Reading	Math	Science	All Four
Undecided	47,152	45	28	24	20	11
Nursing, Registered (BS/RN)	26,367	41	21	15	12	5
Medicine (Pre-Medicine)	13,997	68	45	44	36	24
No Major Indicated	12,605	14	7	4	4	1
Business Administration and Management, General	11,175	42	23	22	16	9
Criminology	9,299	38	21	15	12	6
Law (Pre-Law)	7,953	43	27	20	17	10
Psychology, Clinical and Counseling	7,040	60	37	24	21	12
Medical Assisting	6,876	28	14	10	7	3
Mechanical Engineering	6,775	43	26	36	26	16
Biology, General	6,147	64	41	39	32	21
Accounting	5,736	47	24	36	21	11
Hospital/Facilities Administration	4,999	31	16	12	8	4
Nursing, Practical/Vocational (LPN)	4,689	28	11	8	6	2
Physical Therapy (Pre-Physical Therapy)	4,659	47	25	22	18	9
Athletic Training	4,525	39	20	18	14	6
Pharmacy (Pre-Pharmacy)	4,519	59	34	38	29	17
Psychology, General	4,433	64	42	30	26	16
Computer Science and Programming	4,385	63	44	46	40	26
Graphic Design	4,342	46	27	19	16	8
Veterinary Medicine (Pre-Veterinarian)	4,227	53	33	23	21	12
Music, General	3,977	46	25	18	17	9
Music, Performance	3,924	46	26	18	16	9
Elementary Education	3,805	50	28	20	15	8
Engineering (Pre-Engineering), General	3,676	54	34	45	34	23
Physical Therapy Assisting	3,490	30	14	11	8	3
Biochemistry and Biophysics	3,374	65	44	48	37	27
Early Childhood Education	3,292	36	18	11	9	4
Health/Medical Technology, General	3,225	45	24	21	17	9
Art, General	3,190	43	25	14	12	6

Note: *Undecided* and/or *No Major Indicated* are included in the table, if applicable. The former refers to students who selected the option *Undecided* from the list of majors. The latter refers to students who did not respond to the question.

ACT College Readiness Benchmark Attainment for the Top Planned College Majors with Good Fit: 2014 Graduates

Many students gravitate toward majors that align with their preferred activities and values. ACT research has shown that greater *interest-major fit* is related to important student outcomes such as persistence in a major or college. This table shows, for each planned major, the numbers and percentages of students from low-income families displaying good interest-major fit⁴, as well as the percentages of students meeting the ACT College Readiness Benchmarks. Since only students who completed the ACT Interest Inventory during ACT registration are included here, this table shows results for a subset of the students in the prior table. These planned majors vary considerably in the percentage of students displaying good interest-major fit and meeting the ACT College Readiness Benchmarks. The results highlight the importance of examining multiple predictors of college success and affirm the value of a holistic view of college readiness.

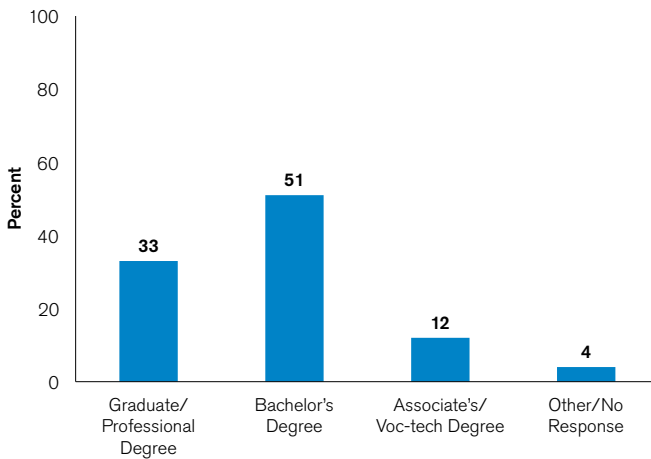
Major Name	N Fit	% Fit	English	Reading	Math	Science	All Four
Undecided			No profile available				
Nursing, Registered (BS/RN)	7,127	27	49	26	18	15	7
Medicine (Pre-Medicine)	6,170	44	74	50	49	41	28
No Major Indicated			No profile available				
Business Administration and Management, General	3,871	35	46	25	26	19	11
Criminology	1,194	13	44	25	15	13	5
Law (Pre-Law)	2,506	32	54	35	26	22	13
Psychology, Clinical and Counseling	1,109	16	74	49	29	28	17
Medical Assisting	1,602	23	32	16	14	10	4
Mechanical Engineering	2,164	32	47	30	39	30	19
Biology, General	2,979	48	69	46	42	37	24
Accounting	3,275	57	49	27	40	24	13
Hospital/Facilities Administration	994	20	30	15	11	7	4
Nursing, Practical/Vocational (LPN)	953	20	39	18	14	8	4
Physical Therapy (Pre-Physical Therapy)	1,014	22	55	31	29	24	12
Athletic Training	716	16	49	26	24	18	10
Pharmacy (Pre-Pharmacy)	1,639	36	66	41	48	36	23
Psychology, General	923	21	74	53	33	33	20
Computer Science and Programming	1,247	28	66	48	49	44	30
Graphic Design	1,963	45	50	31	19	18	9
Veterinary Medicine (Pre-Veterinarian)	1,533	36	60	40	28	28	16
Music, General	1,652	42	55	30	20	19	11
Music, Performance	1,656	42	52	30	17	18	9
Elementary Education	945	25	56	32	21	17	8
Engineering (Pre-Engineering), General	1,240	34	56	36	47	38	25
Physical Therapy Assisting	550	16	35	19	17	10	5
Biochemistry and Biophysics	1,795	53	70	48	52	41	30
Early Childhood Education	721	22	44	22	11	9	5
Health/Medical Technology, General	974	30	51	30	26	23	13
Art, General	1,280	40	57	35	17	16	10

Note: *Undecided* and/or *No Major Indicated* are included in the table, if applicable. The former refers to students who selected the option *Undecided* from the list of majors. The latter refers to students who did not respond to the question.

Students from Low-Income Families

Other College and Career Readiness Factors

Percent of 2014 ACT-Tested Low-Income High School Graduates by Educational Aspirations

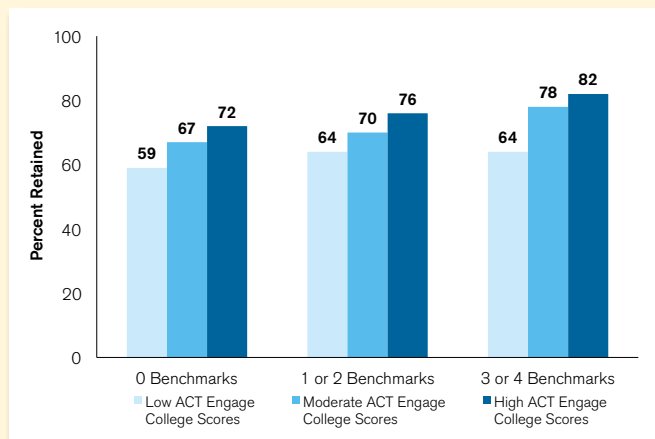


Aligning Student Behaviors, Planning, and Aspirations

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, Behaviors, and College Retention

College Retention Rates by Number of ACT Benchmarks Met and ACT Engage® College Scores*



Across all ACT College Readiness Benchmark attainment levels, students with higher ACT Engage College scores (based on the mean percentile scores of ACT Engage scales Academic Discipline, Commitment to College, and Social Connection) remain enrolled in a postsecondary institution after the first year of college at substantially higher rates than students with lower ACT Engage College scores.

* Based on N = 13,697 ACT-tested graduates of 2011 and 2012 who also took the ACT Engage College assessment and enrolled in college. Students with a mean percentile score of less than 25 were classified as low, those with scores between 25 and 75 were classified as moderate, and those with scores greater than 75 were classified as high. Data describe all students regardless of family income.

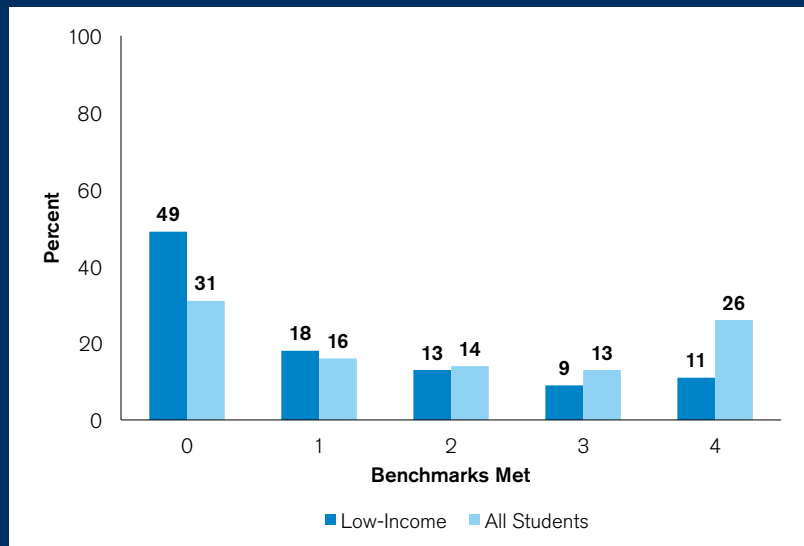
Looking Back at the Class of 2013

Students from Low-Income Families

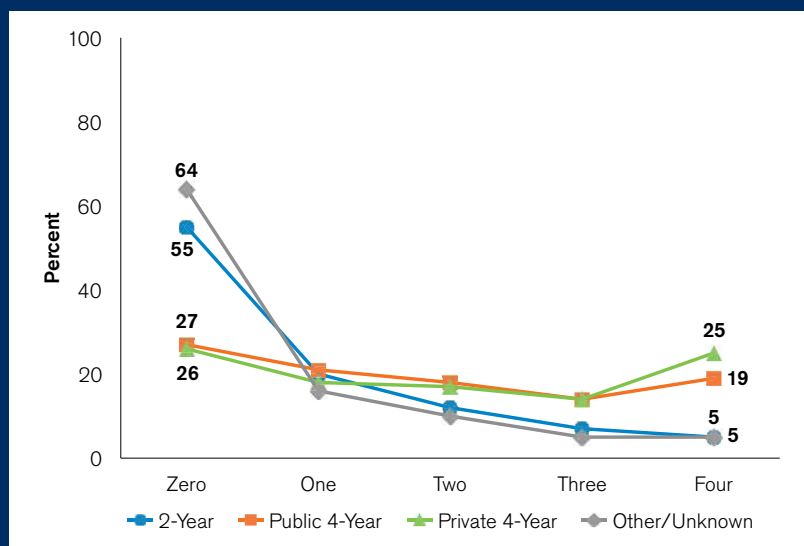
ACT College Readiness Benchmarks and Fall 2013 College Enrollment

Academic achievement, as measured by ACT College Readiness Benchmark attainment, has a clear and distinctive relationship with the path taken by high school graduates. Those who were more academically ready were more likely to enroll in 4-year institutions. Graduates who enrolled in 2-year colleges or pursued other options after high school were more likely to have met fewer Benchmarks. For the sizable number of 2013 graduates who did not meet any Benchmarks, their post-high school opportunities appear to have been limited compared to their college-ready peers.

Percent of 2013 ACT-Tested Low-Income High School Graduates by Number of ACT College Readiness Benchmarks Attained



Percent of 2013 ACT-Tested Low-Income High School Graduates by Number of ACT College Readiness Benchmarks Attained and Fall 2013 College Enrollment Status



Policies and Practices

How to Increase Readiness

Approximately 11% of all 2014 ACT-tested low-income high school graduates met all four of the ACT College Readiness Benchmarks indicating academic readiness for credit-bearing first-year college courses in English Composition, College Algebra, Biology, and the social sciences. At the same time, 18% of all 2014 ACT-tested low-income high school graduates met only one Benchmark, and 50% met none. Based on decades of ACT research, the following recommendations include steps that states, districts, schools, and classrooms can take to increase student readiness for college-level work.

Advance college and career readiness through a renewed focus on teaching and learning. With the majority of states and the District of Columbia having adopted more rigorous college and career readiness standards—and assessments to measure student progress toward those standards—it is more important than ever for state and local systems to align other educational elements to these standards. These elements include curriculum alignment to standards; experiential learning opportunities; and teacher professional development, especially as it relates to integrating the standards into current teaching practices and increasing assessment literacy. Research shows that systemic alignment of key policies and school activities empowers educators to support students in making notable gains in student achievement.

Set clear performance standards to evaluate college and career readiness. States must define performance standards so that everyone knows “how good is good enough” for students to have a reasonable chance of success at college or on the job. ACT defines college readiness in English, reading, math, and science using decades of student performance data. For each area, students who are considered college ready have a 50% chance of earning a B or higher or about a 75% chance of earning a C or higher in the corresponding first-year English Composition, introductory social science, College Algebra, or Biology course. Longitudinal, real-world data and research on what constitutes student success are now available to every state and district, as are standards and benchmarks against which the performance of students and schools can be measured and state progress noted.

Implement a high-quality student assessment system. As states adopt and implement new high-quality assessment systems, they should ensure that those systems measure and provide timely and actionable information about student performance aligned to college and career readiness.

High-quality assessments must:

- Monitor growth over a student's educational experience, starting in elementary school and through high school, so that educators can make timely instructional decisions and interventions based on reliable information.
- Be aligned, linked, and longitudinal in nature to be an effective tool for students, teachers, administrators, and parents in monitoring student progress.
- Be mindful of and incorporate the unique accessibility needs of English language learners and students with disabilities, and the tests must be constructed in deep consultation with experts on these populations.
- Vary according to the type of standards that need to be measured. These multiple measures can be used to offer more comprehensive evaluations of student achievement, from multiple-choice and constructed-response assessments to performance tasks and project-based learning.
- Be offered through multiple platforms. While computer-based testing is highly applicable to formative assessments that can be conducted on an on-demand basis, paper-and-pencil testing may be a reality for states and districts with less technological capacity. Until computer and broadband access for such large groups of students are sufficiently widespread in schools, both platforms must be available.
- Offer multiple stakeholders—especially teachers—ongoing, real-time, interactive reporting and access to assessment results and other related data.

These principles are consistent with the goals of other principles for high-quality college and career readiness assessments set forth by experts in the field.⁵

Support programs targeted at developing behaviors that aid students' academic success. Monitoring students' academic performance is critical, but certain academically related behaviors also contribute to student persistence and success. If students are to be successful in meeting a core set of academic standards, they need to be sufficiently motivated to persist at their work. The behavioral habits that contribute most directly to student postsecondary success include motivation, social engagement, and self-regulation.⁶ Measuring these and other academically related factors is possible, and doing so can assess risk at important points in students' academic trajectories and identify areas of need and support.⁷ Cultivating behavioral habits that contribute to postsecondary and workforce achievement can have a noticeable impact on students' achievement and persistence levels.

Policies and Practices

Provide all students with access to a rigorous high school core curriculum. While in recent years, most states have increased course requirements for high school graduation, too often those requirements have not specified the particular courses that prepare students for postsecondary success. In the absence of such specific and rigorous high school graduation requirements, too many students are not taking either the right number or the right kinds of courses they need to be ready for college and career. All states, therefore, should specify the number and kinds of courses that students need to take to graduate academically ready for life after high school. At minimum, ACT recommends the following:

- Four years of English
- Three years of mathematics, including rigorous courses in Algebra I, Geometry, and Algebra II
- Three years of science, including rigorous courses in Biology, Chemistry, and Physics
- Three years of social studies

Invest in early childhood education programs so that more children are ready to learn. Improving college and career readiness for all students begins as early as kindergarten—where gaps between low-income students and their more advantaged peers already exist.⁸ Large numbers of underserved students enter kindergarten behind academically in early reading and mathematics skills, oral language development, vocabulary, and general knowledge. Gaps also exist in the development of academic and social behaviors such as listening, following instructions, and resolving conflicts. States should not only continue to invest in, but also expand access to, high-quality, research-based early learning opportunities for *all* students from prekindergarten to third grade to address learning gaps well before eighth grade, by which time these gaps become much more difficult to reverse.

Continue to implement monitoring and early warning systems that help educators identify and intervene with at-risk students. An effective monitoring system should provide an evolving picture of students over time and identify their unique learning needs at various points along their educational careers. Adoption of such systems in states

where they do not yet exist—as well as expansion of system capabilities in states where they currently exist—will support earlier and more effective interventions by providing teachers with information to implement the necessary interventions to maximize student potential. Teachers, who have been consistently identified as the most important school-based factor in student achievement, should be equipped with as much relevant data as possible to inform and supplement their efforts.⁹ The data should help to identify students in need of intervention and model student growth toward college and career readiness.

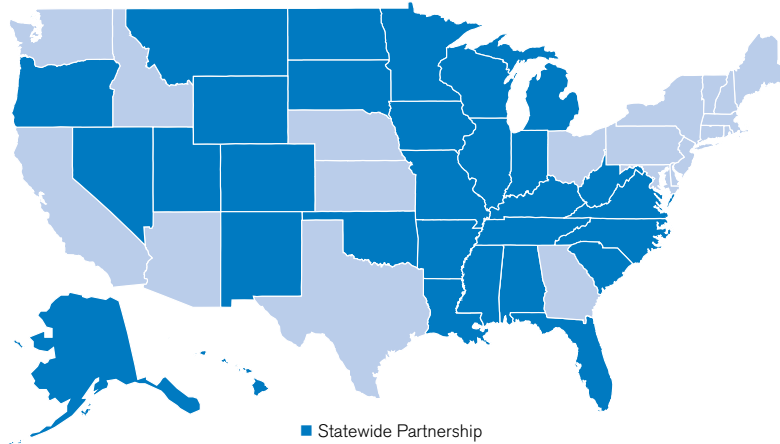
Increase support for the development of STEM-related courses to meet the coming demand for a larger STEM workforce. Education in science, technology, engineering, and mathematics (STEM) is vital to the ability of the United States to maintain its position of global leadership and economic competitiveness. With more than 8.6 million STEM-related jobs anticipated by the year 2018, preparing and encouraging students to pursue STEM majors and careers becomes even more important. To identify new programs that will better attract students to and retain them in STEM-related careers, states should seek opportunities to collaborate with multiple entities, including business; national workforce and job readiness groups; local chambers of commerce; and universities, community colleges, and technical schools.

Implement policies for data-driven decision making. Teachers must have access to high-quality, actionable data that can be used to improve instruction. Without such data, opinion can overly influence key instructional decisions. To address this challenge, states have been hard at work developing longitudinal P–16 data systems. This work should continue, but more must be done. To ensure that students are prepared for the 21st century, states must have systems that allow schools and districts to closely monitor student performance at every stage of the learning pipeline, from preschool through college. Policies governing teacher and administrator preparation and professional development must include an emphasis on developing skills to use data appropriately to improve the practices of teaching and learning for all students in the pipeline.

Resources

Statewide Partnerships in College and Career Readiness

States that incorporate ACT 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 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 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.

ACT[®] Aspire[™]	ACT[®] Explore[™]	ACT[®] Plan[™]	The ACT[®]	ACT[®] QualityCore[™]	ACT[®] WorkKeys[™]		ACT National Career Readiness Certificate[™]
3rd- through 8th-grade students	8th- and 9th-grade students	10th-grade students	11th- and 12th-grade students	8th- through 12th-grade students	11th- and 12th-grade students		
Alabama	Alabama	Alabama	Alabama	Alabama	Alaska	Alabama	Oklahoma
South Carolina	Arkansas	Arkansas	Arkansas	Kentucky	Illinois	Alaska	Oregon
	Hawaii	Florida	Colorado		Hawaii	Arkansas	South Carolina
	Illinois	Hawaii	Hawaii		Michigan	Indiana	South Dakota
	Kentucky	Illinois	Illinois		North Carolina	Iowa	Tennessee
	Louisiana	Kentucky	Kentucky		North Dakota	Kentucky	Tennessee
	Michigan	Louisiana	Louisiana		Wyoming	Minnesota	Utah
	Minnesota	Michigan	Michigan			Missouri	Virginia
	North Carolina	Minnesota	Minnesota			New Mexico	Wisconsin
	Oklahoma	New Mexico	Mississippi			North Carolina	
	South Carolina	North Carolina	Missouri				
	Tennessee	Carolina	Montana				
	Utah	Oklahoma	Nevada				
	West Virginia	Tennessee	North Carolina				
	Wyoming	Utah	North Dakota				
		West Virginia	South Carolina				
		Wyoming	Tennessee				
			Utah				
			Wisconsin				
			Wyoming				

All listed partnerships are effective as of December 31, 2014.

ACT Research

The continued increase of test takers enhances the breadth and depth of the data pool, providing a comprehensive picture of the current college readiness levels of the graduating class as well as offering a glimpse of the emerging national educational pipeline. It also allows us to review various aspects of the ACT-tested graduating class, including the following reports:

Releasing in the 2014–2015 Academic Year

- *The Condition of STEM 2014*
- *The Condition of College & Career Readiness—African American Students*
- *The Condition of College & Career Readiness—American Indian Students*
- *The Condition of College & Career Readiness—Asian Students*
- *The Condition of College & Career Readiness—Hispanic Students*

- *The Condition of College & Career Readiness—Pacific Islander Students*
- *The Condition of College & Career Readiness—First-Generation Students*
- *The Condition of College & Career Readiness—Students from Low-Income Families*

Other ACT Research Reports

College Choice Report (for the graduating class of 2012)

- *Part 1: Preferences and Prospects*—November 2012
- *Part 2: Enrollment Patterns*—July 2013
- *Part 3: Persistence and Transfer*—April 2014

College Choice Report (for the graduating class of 2013)

- *Part 1: Preferences and Prospects*—November 2013
- *Part 2: Enrollment Patterns*—July 2014
- *Part 3: Persistence and Transfer*—April 2015

To be notified of exact release dates, please subscribe here:

www.act.org/research/subscribe.html.

How Does ACT Determine if Students Are College Ready?

The ACT College Readiness 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. Based on a nationally stratified sample, the Benchmarks are median course placement values for these institutions and represent a typical set of expectations. ACT College Readiness Benchmarks were revised for 2013 graduating class reporting. The ACT College Readiness Benchmarks are:

College Course	Subject Area Test	Original ACT College Readiness Benchmark	Revised ACT College Readiness Benchmark
English Composition	English	18	18
Social Sciences	Reading	21	22
College Algebra	Mathematics	22	22
Biology	Science	24	23

Notes

1. With the exception of the top graph on page 7, data related to students who did not provide information or who responded “Other” to questions about gender, family income, high school curriculum, etc., are not presented explicitly.
2. The definition of “low-income” does not take family size into account.
3. Data reflect subject-specific curriculum. For example, English “Core or More” results pertain to students who took at least four years of English, regardless of courses taken in other subject areas.
4. The interest-major fit score measures the strength of the relationship between the student's profile of ACT Interest Inventory scores and the profile of students' interests in the major shown. Interest profiles for majors are based on a national sample of undergraduate students with a declared major and a GPA of at least 2.0. Major was determined in the third year for students in 4-year colleges and in the second year for students in 2-year colleges. Interest-major fit scores range from 0–99, with values of 80 and higher indicating good fit.
5. See, for example, Council of Chief State School Officers, *Transition to High-Quality, College- and Career-Ready Assessments: Principles to Guide State Leadership and Federal Requirements* (Washington, DC: Council of Chief State School Officers, May 23, 2013), http://www.ccsso.org/Documents/2013/CCSSO_State_Principles_on_Assessment_Transition_5-23-13.pdf; and Linda Darling-Hammond et al., *Criteria for High-Quality Assessment* (Stanford, CA: Stanford Center for Opportunity Policy in Education, June 2013), https://edpolicy.stanford.edu/sites/default/files/publications/criteria-higher-quality-assessment_2.pdf.
6. ACT, *Enhancing College and Career Readiness and Success: The Role of Academic Behaviors* (Iowa City, IA: ACT), http://www.act.org/engage/pdf/ENGAGE_Issue_Brief.pdf.
7. ACT, *Importance of Student Self-Regulation* (Iowa City, IA: ACT, January 2013), <http://www.act.org/research/researchers/briefs/pdf/2013-3.pdf>.
8. Chrys Dougherty, *College and Career Readiness: The Importance of Early Learning Success* (Iowa City, IA: ACT, February 2013), <http://www.act.org/research/policymakers/pdf/ImportanceofEarlyLearning.pdf>.
9. Daniel F. McCaffrey, J.R. Lockwood, Daniel M. Koretz, and Laura S. Hamilton, *Evaluating Value-Added Models for Teacher Accountability* (Santa Monica, CA: RAND Corporation, 2003), http://www.rand.org/content/dam/rand/pubs/monographs/2004/RAND_MG158.pdf.

ACT is an independent, nonprofit 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.

For more information, visit www.act.org.



A quality education is one of the single most important factors in determining an individual's success in life. Yet, millions of young people from low-income communities find the door to higher education all but shut to them. The National Council for Community and Education Partnerships (NCCEP) is dedicated to the fundamental principle that every child deserves an equal chance to obtain a high-quality college education. NCCEP is a national nonprofit, nonpartisan organization working to increase access to higher education for economically disadvantaged students.

For more information, visit www.edpartnerships.org.



NATIONAL COUNCIL FOR
Community and Education
Partnerships

A copy of this report can be found at
www.act.org/readiness/2014

