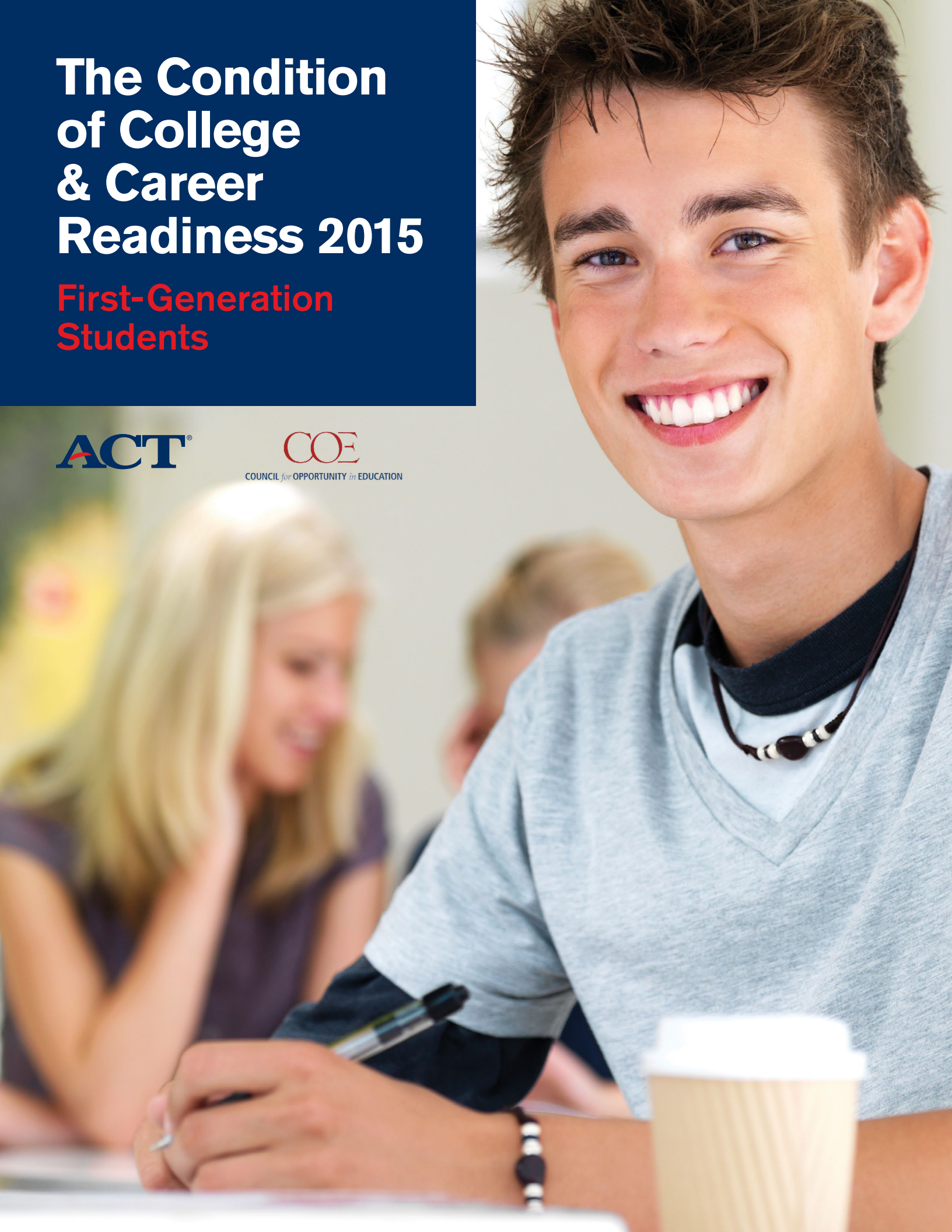


# The Condition of College & Career Readiness 2015

## First-Generation Students

**ACT**<sup>®</sup>

**COE**  
COUNCIL for OPPORTUNITY in EDUCATION





Dear Colleagues,

For more than 50 years, the federal government has supported a set of college access and support service programs known as TRIO to address social, academic, and cultural barriers to college opportunity facing low-income students and their families. Although these initiatives began as anti-poverty programs in 1980, Congress later added first-generation college status as an eligibility criterion for the programs to reflect the challenges facing students from families with no college experience.

This year's report from ACT and the Council for Opportunity in Education (COE)—*The Condition of College & Career Readiness 2015: First-Generation Students*—shows, not surprisingly, that first-generation students demonstrate college readiness in key academic areas at a much lower rate than their peers. We now know more about how lack of access to a rigorous academic curriculum constitutes a major barrier to matriculation for first-generation students. Those who have had access to a core curriculum in English, reading, math, and science are more likely to meet ACT College Readiness Benchmarks.

But we have also known for many decades that young people whose parents graduated from college—in addition to their time in school—most often participate in a 17-year, 12-month, seven-day-a-week, invisible curriculum. Many of the factors related to college success—information, counsel, experiences, and the expectation that a young person will indeed graduate from college—are included in that curriculum. It is vital that students who have not benefited from this information, experience, and support receive it both in and out of school if they are to be truly college ready.

A partial solution highlighted in the report is increasing the investment in college access programs such as TRIO and GEAR UP. The decades-long track record of these programs demonstrates that providing academic tutoring, mentoring, counseling, and other supportive services can level the playing field for students who are the first in their families to attend college. But other avenues to communicate the invisible curriculum both in and out of school must also be explored.

COE and ACT want to increase the focus within the national and state education policy and practice communities on the dimensions of college readiness and access as they pertain to first-generation students. We hope this report increases understanding of the relationship of academic performance to the complex array of barriers facing students from families without college backgrounds.



**Marten Roorda**  
CEO, ACT



**Maureen Hoyler**  
President, Council for Opportunity in Education

# First-Generation Students

## The Condition of College & Career Readiness 2015

*The Condition of College & Career Readiness 2015* is the ACT annual report on the progress of US high school graduates relative to college readiness. This year's report shows that 59% of students in the 2015 US graduating class took the ACT® test, up from 57% last year and 49% in 2011. 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 college readiness as well as offering a glimpse at the emerging educational pipeline.

### *The ACT: Now More Than Ever*

ACT has a longstanding commitment to improving college and career readiness. Through our research, our thought leadership, and our solutions, we seek to raise awareness of issues and best practices aimed at helping individuals achieve education and workplace success. As the landscape of education and assessment rapidly shifts and state education and economic development agendas converge, ACT is uniquely positioned to inform decisions at the individual, institutional, system, and agency levels.

As a research-based nonprofit organization, ACT is committed to providing information and solutions to support the following:

- **Holistic View of Readiness.** Our research shows that the ACT College and Career Readiness Standards can help prepare students for college and career success. However, we understand that academic readiness is just one of several factors that contribute to educational success. One 2014 ACT report, *Broadening the Definition of College and Career Readiness: A Holistic Approach*, shows academic readiness—long the sole focus of monitoring college readiness—as one of four critical domains in determining an individual's readiness for success in college and career. Crosscutting skills, behavioral skills, and the ability to navigate future pathways are also important factors to measure and address. 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.
- **Stability and Validity of Data.** ACT is committed to maintaining the integrity and credibility of the 1–36 score scale, a scale that is familiar to and valued by the many stakeholders served by ACT. Leveraging the power of longitudinal data means avoiding dramatic shifts in the reporting structure.
- **Promoting Access.** Serving the needs of our many stakeholders is a focal point for ACT. We will continue to explore ways to expand college access for all students, promoting initiatives to better meet the needs of underserved learners and developing solutions and

services that make a difference in the lives of those we serve. Through new avenues such as online testing, initiating campaigns targeted at underserved students, and supporting organizations aligned with our mission, ACT is working to reach and help a greater number of individuals.

- **Continuous Improvement Without the Need for Radical Change.** ACT is committed to providing a wider range of solutions, across a broader span of life's decision points, in an increasingly individualized manner so that all can benefit. This has led us to a mode of continuous improvement. However, our goal is to avoid radical change so as to assist our users with transition. Our research agenda takes into account the changes in education and workplace practice and the demographics and evolving needs of those we serve. Accordingly, when research and evidence dictate, we will continue to make necessary changes in our recommendations and/or solutions, including discontinuing outdated programs and services, to bring clarity to the market.
- **Providing Meaningful Data for Better Decisions.** ACT is focused on providing better data to students, parents, schools, districts, and states so that *all* can make more informed decisions to improve outcomes. We accomplish this goal by taking a holistic view and using consistent and reliable historical information, so that individuals and institutions have a better context to make critical decisions about the journey they have undertaken.

### *Using This Report<sup>1</sup>*

This report is designed to help educators understand and answer the following questions:

- Are your students graduating from high school prepared for college and career?
- Are enough of your students taking core courses necessary to be prepared for success, and are those courses rigorous enough?
- What are the most popular majors/occupations, and what does the pipeline for each look like?
- What other dimensions of college and career readiness, outside of academic readiness, should educators measure and track?

We sincerely hope this report will serve as a call to action—or even as a wake-up call—that our nation's current policies and practices are not having the desired effect of increasing the college and career readiness levels of US high school graduates. We remain committed to providing more and better data so individuals and institutions can make better-informed decisions leading to the improved educational outcomes we all desire and help more individuals achieve education and workplace success.

# Key Findings

## The Condition of College & Career Readiness 2015— First-Generation Students

Key Findings	Implications	Recommendations
<p>Almost 80% of first-generation ACT® test takers aspire to earn a bachelor's degree or higher, while only 14% aspire to earn an associate's degree.</p>	<ul style="list-style-type: none"> <li>Asset-based positive pathways, strategies, and structures must be established early to enable first-generation students to meet their goals to pursue a bachelor's degree or beyond.</li> </ul>	<ul style="list-style-type: none"> <li>Services should be designed to foster students' efficacy in meeting their aspirations and fully developing their diverse talents to create knowledge.</li> <li>An asset-based rather than a deficit-based approach must be adopted to empower students to reach their goals by building on their strengths and learning interests.</li> <li>More significant investment must be made in supportive services (school counseling, college access programming, etc.).</li> <li>Students need clear, concrete plans to help them understand the relationship between their school learning and long-term goals.</li> </ul>
<p>While about one-third (28%) of all ACT test takers meet ACT College Readiness Benchmarks across all subjects, only 10% of first-generation ACT test takers do the same.</p>	<ul style="list-style-type: none"> <li>This difference is consistent with other national and international studies of student performance (for example, NAEP, NCES Educational Longitudinal Study, and PISA) that point to parent education as the most significant predictor of achievement on assessments.</li> <li>Research shows that on average, first-generation students enter college with a different set of experiences and a lower level of academic preparation than other students. Research by the National Survey of Student Engagement (NSSE) has found that low-income and first-generation students and underprepared students, on average, have less exposure to high-impact practices. However, this research also found that these high-impact experiences have the greatest impacts for those who begin college at lower achievement levels.</li> </ul>	<ul style="list-style-type: none"> <li>Colleges and universities must align their services and academic supports to reflect the diverse needs of all the students they serve and develop more inclusive structures and ways to measure success.</li> <li>First-generation students must have wider exposure to high-impact practices early in their college careers. Research findings from NSSE have identified specific, interrelated, high-impact practices, including: 1) first-year experience seminars; 2) learning communities; 3) writing-intensive courses; 4) early research opportunities with faculty; 5) collaborative assignments and projects; 6) service learning; 7) diversity/global learning; 8) integrating work and learning through internships and work study; and 9) capstone courses and projects.</li> <li>Approaches such as place-based co-learning and mastery-based learning need to be more widely adopted to improve college readiness.</li> </ul>

# Key Findings

## The Condition of College & Career Readiness 2015— First-Generation Students

Key Findings	Implications	Recommendations
On average, there is a 20 percentage-point difference for each subject area (English, reading, mathematics, and science) between first-generation test takers and all ACT test takers. This gap would be even greater if the data reflected the difference between first-generation and non-first-generation test takers. Among first-generation test takers, those who enrolled in the core high school curriculum or more outperformed their first-generation peers who did not across all subject areas.	<ul style="list-style-type: none"> <li>A large body of research indicates students from first-generation backgrounds are more likely to attend lower-resourced high schools. Thus, on average, school-level preparation of first-generation test takers differs from that of their peers.</li> </ul>	<ul style="list-style-type: none"> <li>Schools must create alternatives to accelerate the preparation of first-generation students and avoid the need for remediation in their first years of college.</li> <li>Schools must encourage more students to complete the full core curriculum. High-needs schools need resources to provide access to more than the core courses for as many students as possible.</li> </ul>
Since 2011, the percentage of first-generation test takers meeting all Benchmarks has remained virtually unchanged.	<ul style="list-style-type: none"> <li>While a host of reform efforts have been launched in the states, many of these changes have not resulted in increased student performance.</li> <li>School reforms in assessment are often made hastily and without much attention to how previous test performance on one assessment relates to performance on subsequent assessments. Additionally, it is not often clear (especially in resource-challenged schools) how the school-level curriculum matches the domains on which students are assessed. This misalignment bears itself out in lower performance across years.</li> </ul>	<ul style="list-style-type: none"> <li>State education agencies and local education agencies need to better collaborate to ensure that the assessment strategy best captures the curricular experiences that students receive.</li> <li>The promise of mastery education and using self-assessment as a tool for mastery learning must be fully explored.</li> </ul>
Performance on the science Benchmark has consistently been the lowest level of achievement for first-generation test takers.	<ul style="list-style-type: none"> <li>This finding is consistent with the national calls for improvement in student engagement with the sciences.</li> </ul>	<ul style="list-style-type: none"> <li>Science and environmental literacy and engagement must be emphasized for first-generation students to become fully informed citizens in an increasingly global workforce and society.</li> <li>First-generation students must have access to course options that include a more robust offering of the sciences.</li> </ul>
The ACT longitudinal study of 8th-grade test takers found that in addition to prior grades, psychosocial and behavioral factors accounted for nearly the same percentage of variation as ACT assessments.	<ul style="list-style-type: none"> <li>This finding underscores the need for a more holistic approach to measuring college readiness.</li> </ul>	<ul style="list-style-type: none"> <li>College readiness is becoming an increasingly significant component of school accountability measures across a number of states. These school-level measures need to be aligned with the admissions requirements at local four-year institutions and must include more proactive interventions than FAFSA completion and college application support.</li> </ul>

# Key Findings

## The Condition of College & Career Readiness 2015— First-Generation Students

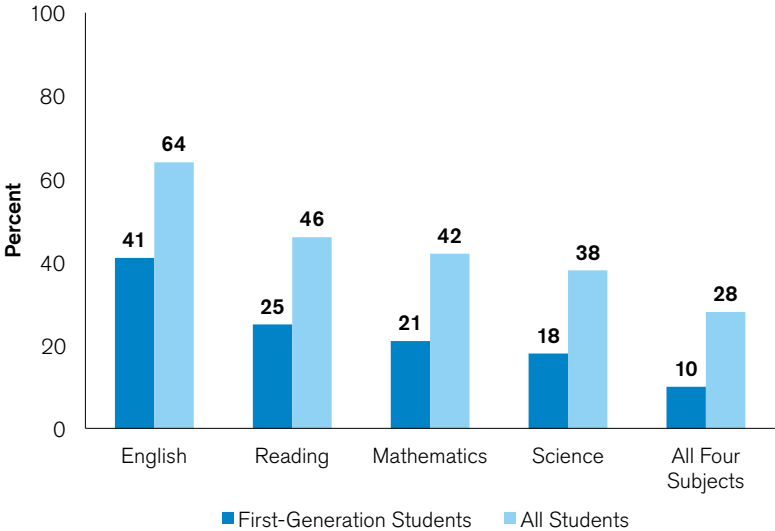
Key Findings	Implications	Recommendations
<p>ACT Engage scores (as measured across Academic Discipline, Commitment to College, and Social Connection domains) were a significant predictor of college completion.</p>	<ul style="list-style-type: none"> <li>• Students who are more engaged in school and in cocurricular activities are more likely to have a successful transition to college and to persist.</li> <li>• Student engagement is widely disparate across school type (i.e., public vs. private, urban vs. rural vs. suburban, etc.) and students' characteristics. Students often have fewer opportunities for engagement at resource-challenged schools, where large populations of first-generation students are concentrated.</li> </ul>	<ul style="list-style-type: none"> <li>• Schools must have resources to provide first-generation students with mentors and offer noncompetitive opportunities for social and academic engagement.</li> <li>• Schools must develop project and local place-based learning and knowledge co-creation projects to help empower students to become engaged in contributory learnings and problem solving in their communities.</li> </ul>
<p>Nearly 80% of first-generation test takers selected a major they intended to pursue. Depending on a specific major, from 58% to 9% of students were a “good fit” for the major they selected.</p>	<ul style="list-style-type: none"> <li>• Students, particularly first-generation test takers, typically have limited knowledge about the wide range of collegiate majors and career fields available to them. As a consequence, they often do not avail themselves of the course-taking patterns or enrichment activities that would make the majors they choose the best fit for their academic preparation.</li> </ul>	<ul style="list-style-type: none"> <li>• Schools and partners must make full use of technology to provide students early awareness about a wide range of career and academic opportunities.</li> <li>• Schools must bring the community into the school to help students understand real professional options as they exist in the world around them.</li> </ul>

# First-Generation Students

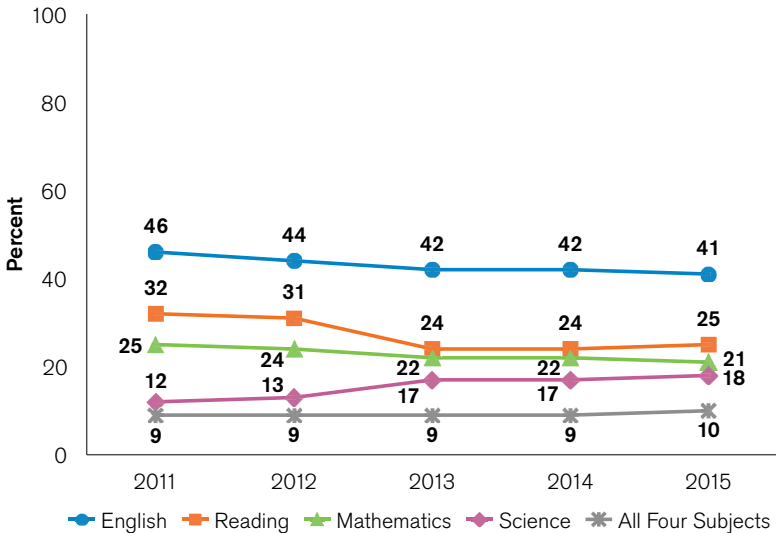
## Attainment of College and Career Readiness

- First-generation students are those whose parents did not enroll in postsecondary education.<sup>2</sup>
- 350,455 first-generation 2015 high school graduates took the ACT.

Percent of 2015 ACT-Tested First-Generation High School Graduates Meeting ACT College Readiness Benchmarks by Subject



Percent of 2011–2015 ACT-Tested First-Generation High School Graduates Meeting ACT College Readiness Benchmarks

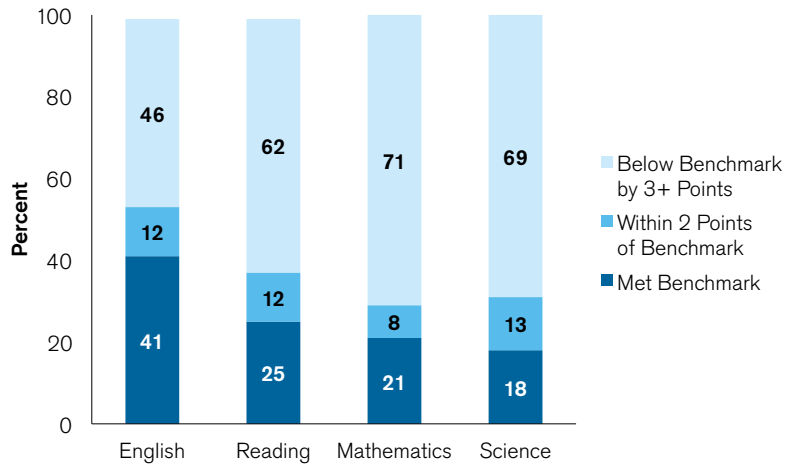


Note: Percents in this report may not sum to 100% due to rounding.

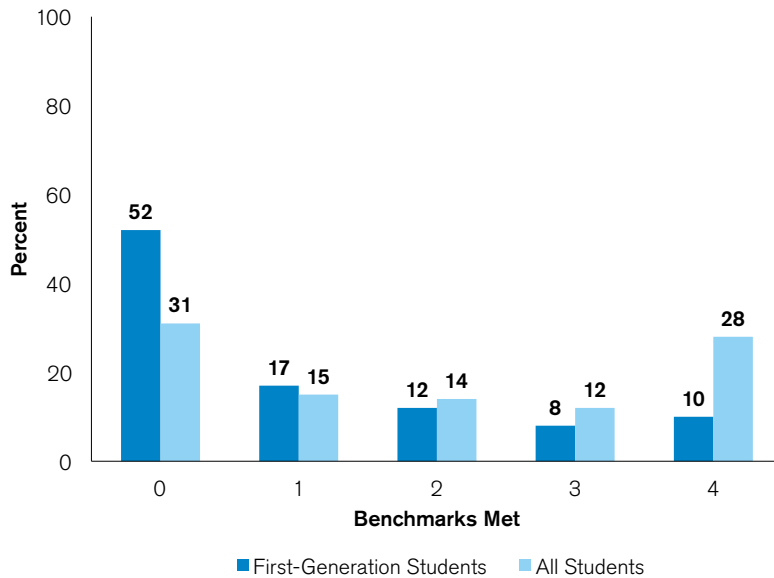


## Near Attainment of College and Career Readiness

Percent of 2015 ACT-Tested First-Generation High School Graduates by ACT College Readiness Benchmark Attainment and Subject



Percent of 2015 ACT-Tested First-Generation High School Graduates by Number of ACT College Readiness Benchmarks Attained

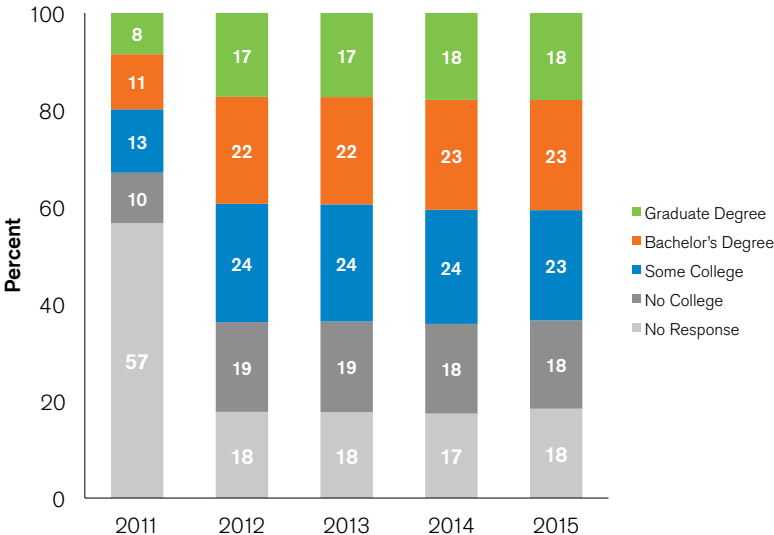


# First-Generation Students

## Participation and Opportunity

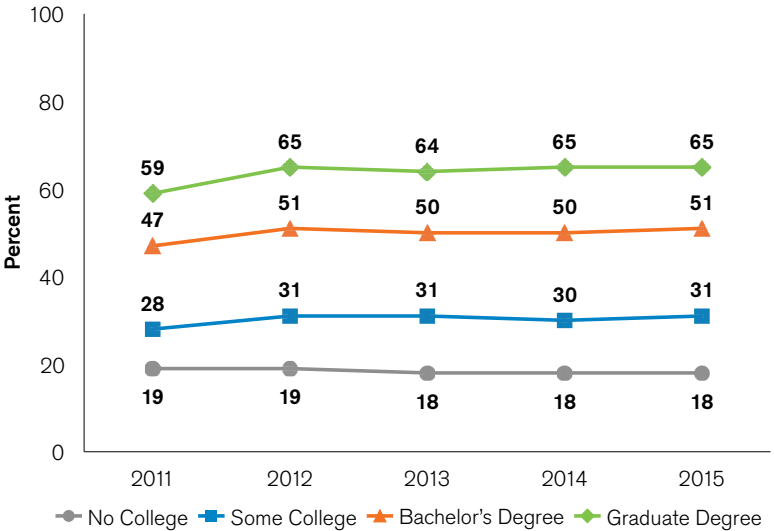
Over the past decade, ACT has experienced unprecedented growth in the number of students tested, as well as statewide partnerships in 14 states and in many districts across the country. As a result, the 2015 *Condition of College & Career Readiness* report provides a much deeper and more representative sample in comparison to a purely self-selected college-going population.

**Percent of 2011–2015 ACT-Tested High School Graduates by Parental Education**



Note: Values less than 0.5% will not appear. Parental education data were available only to 2011 graduates who tested as seniors and to other grades in later years. This availability might affect findings.

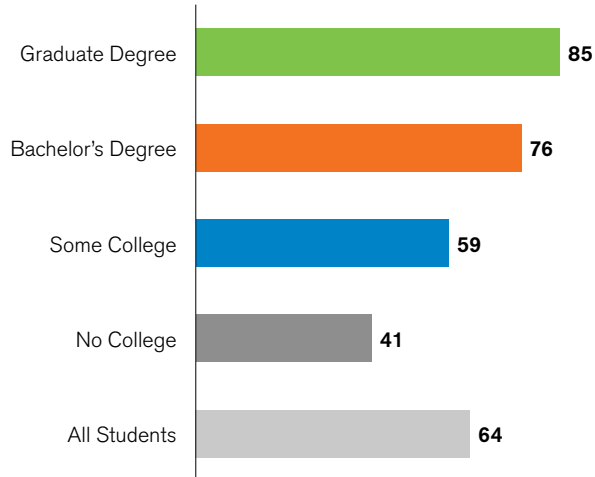
**Percent of 2011–2015 ACT-Tested High School Graduates Meeting Three or More Benchmarks by Parental Education**



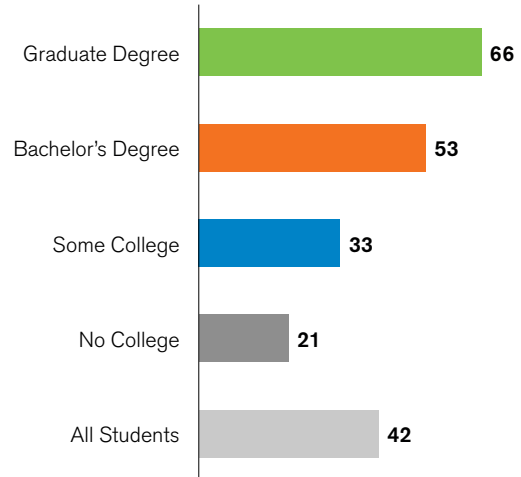
## Participation and Opportunity by Subject

Percent of 2015 ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Parental Education and Subject

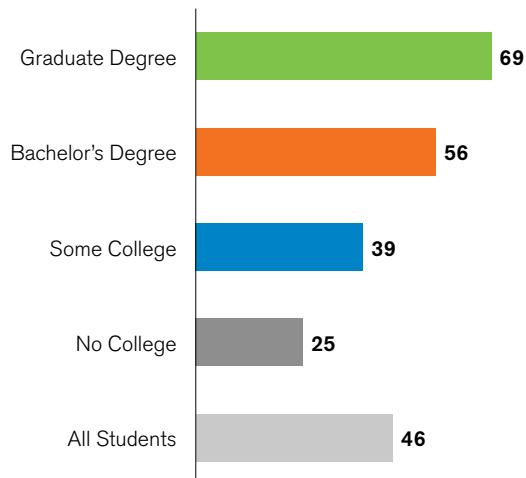
### English



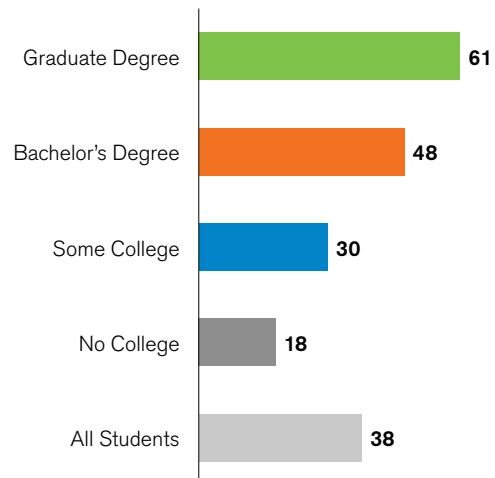
### Mathematics



### Reading



### Science

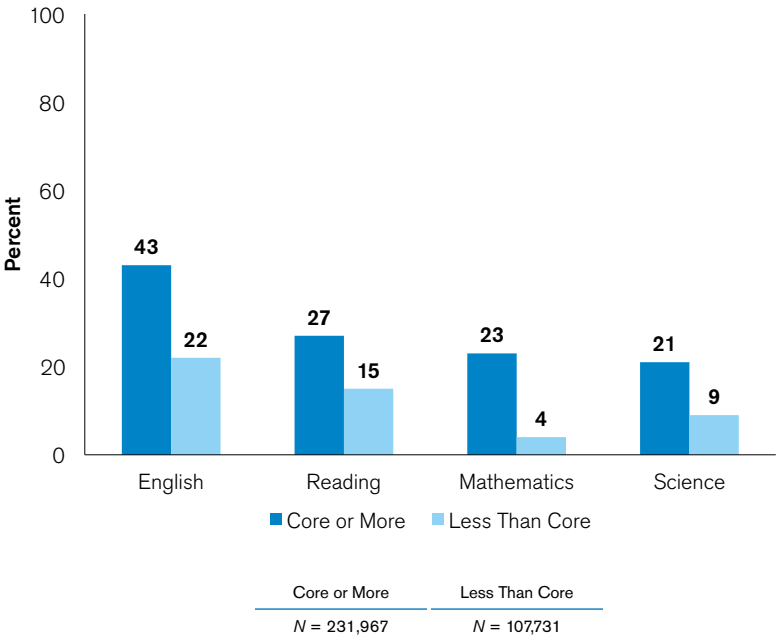


# First-Generation Students

## Course-Taking Patterns and Benchmark Performance

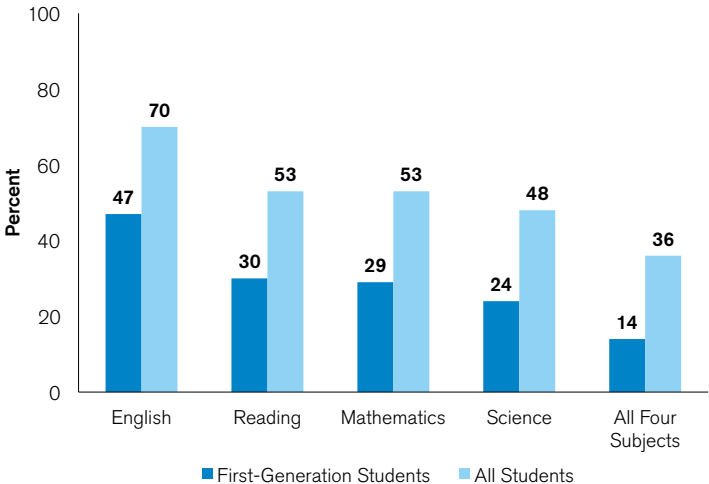
Within subjects, ACT has consistently found that students who take the recommended core curriculum are more likely to be ready for college or career than those who do not. A core curriculum is defined as four years of English and three years each of mathematics, social studies, and science.<sup>3</sup>

**Percent of 2015 ACT-Tested First-Generation High School Graduates in Core or More vs. Less Than Core Courses Meeting ACT College Readiness Benchmarks by Subject**



## A Look at STEM

**Percent of 2015 ACT-Tested First-Generation High School Graduates with an Interest in STEM Meeting ACT College Readiness Benchmarks by Subject (N = 126,467)**

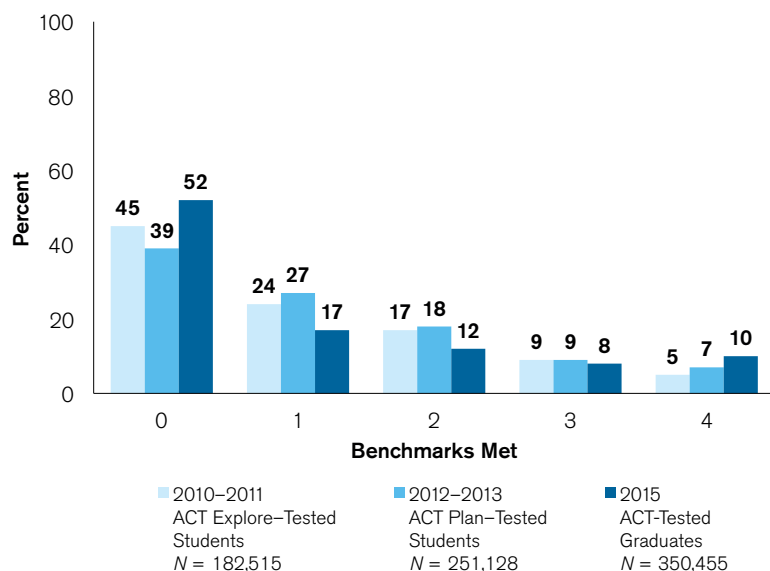


This chart compares ACT College Readiness Benchmark attainment for 2015 high school graduates nationwide who have an interest in STEM majors or occupations to STEM-interested graduates nationally. Characteristics of students with an interest in STEM were addressed in greater depth in the *Condition of STEM 2014* report.

## Early Preparation

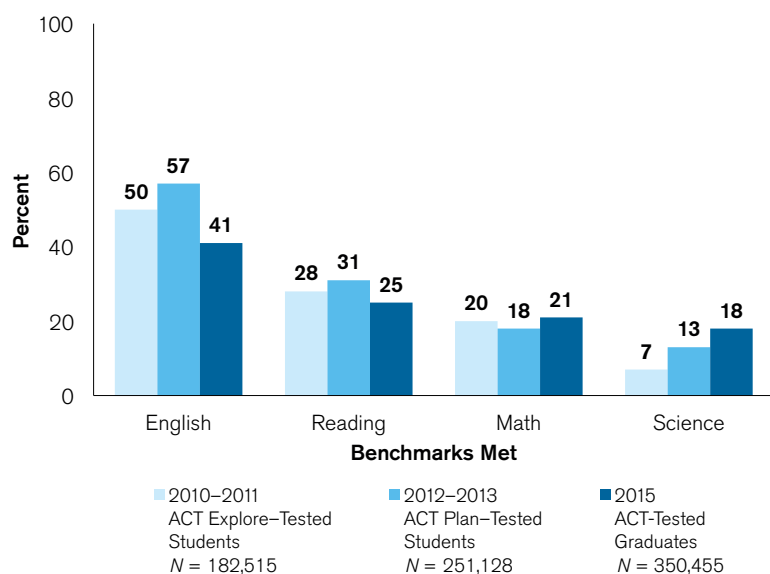
ACT research shows that younger students who take rigorous curricula are more prepared to graduate from high school ready for college or career. Moreover, our research (*The Forgotten Middle*, 2008) found that “the level of academic achievement that students attain by 8th grade has a larger impact on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

**Percent of Students Meeting ACT College Readiness Benchmarks at Three Stages of Academic Development**



In past *Condition* reports, ACT Explore®, ACT Plan®, and ACT results all reflected data from students testing or graduating in the current year. This year, ACT Explore and ACT Plan results reflect 2015 graduating class examinees (both tested and not tested with the ACT) when they were assessed in 8th and 10th grades. The goal of this change is to describe the condition of college and career readiness for this year's graduates and their counterparts as they progressed from 8th grade to 10th grade and through graduation.

**Percent of Students Meeting ACT College Readiness Benchmarks by Content Area at Three Stages of Academic Development**



# First-Generation Students

## ACT College Readiness Benchmark Attainment for Top Planned College Majors: 2015 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 top (most frequently selected) majors among 2015 first-generation graduates. 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
<b>Undecided</b>	39,092	42	27	23	19	11
<b>Nursing, Registered (BS/RN)</b>	21,456	40	22	14	13	6
<b>No Major Indicated</b>	15,299	15	7	4	4	1
<b>Business Administration and Management, General</b>	9,731	41	24	23	18	9
<b>Medicine (Pre-Medicine)</b>	9,190	64	44	41	36	24
<b>Criminology</b>	7,454	37	22	15	13	6
<b>Mechanical Engineering</b>	6,553	39	25	33	25	16
<b>Medical Assisting</b>	5,894	28	15	11	8	3
<b>Law (Pre-Law)</b>	5,213	40	26	19	16	9
<b>Accounting</b>	5,094	47	27	36	25	14
<b>Psychology, Clinical and Counseling</b>	4,686	58	37	23	22	12
<b>Biology, General</b>	4,537	63	43	39	34	22
<b>Nursing, Practical/Vocational (LPN)</b>	4,158	26	12	8	8	3
<b>Hospital/Facilities Administration</b>	4,042	28	16	11	9	4
<b>Computer Science and Programming</b>	3,913	61	44	48	41	27
<b>Engineering (Pre-Engineering), General</b>	3,618	50	32	39	34	20
<b>Physical Therapy (Pre-Physical Therapy)</b>	3,501	46	27	22	19	10
<b>Athletic Training</b>	3,395	38	21	18	17	8
<b>Pharmacy (Pre-Pharmacy)</b>	3,224	58	37	38	31	19
<b>Psychology, General</b>	3,159	61	41	28	26	15
<b>Graphic Design</b>	3,149	42	25	17	16	7
<b>Veterinary Medicine (Pre-Veterinarian)</b>	3,123	49	30	20	20	11
<b>Elementary Education</b>	3,054	47	25	19	16	8
<b>Music, General</b>	2,927	39	22	15	15	7
<b>Criminal Justice</b>	2,623	28	15	10	8	3
<b>Physical Therapy Assisting</b>	2,614	31	17	13	10	4
<b>Health/Medical Technology, General</b>	2,597	44	24	21	17	9
<b>Early Childhood Education</b>	2,567	32	17	10	8	3
<b>Medical/Clinical Assisting, General</b>	2,528	30	15	11	9	4
<b>Health-Related Professions and Services, General</b>	2,477	50	30	26	21	11

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: 2015 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 first-generation students displaying good interest-major fit<sup>4</sup>, 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
<b>Undecided</b>			No profile available				
<b>Nursing, Registered (BS/RN)</b>	5,897	27	49	28	17	16	7
<b>No Major Indicated</b>			No profile available				
<b>Business Administration and Management, General</b>	3,525	36	45	28	27	20	11
<b>Medicine (Pre-Medicine)</b>	4,225	46	71	50	46	42	28
<b>Criminology</b>	893	12	45	28	14	16	7
<b>Mechanical Engineering</b>	2,175	33	41	28	35	28	18
<b>Medical Assisting</b>	1,498	25	33	18	12	11	4
<b>Law (Pre-Law)</b>	1,554	30	52	34	25	20	13
<b>Accounting</b>	2,940	58	50	29	39	27	15
<b>Psychology, Clinical and Counseling</b>	687	15	71	54	30	32	18
<b>Biology, General</b>	2,262	50	67	46	43	39	25
<b>Nursing, Practical/Vocational (LPN)</b>	860	21	36	18	11	13	5
<b>Hospital/Facilities Administration</b>	768	19	26	16	9	8	4
<b>Computer Science and Programming</b>	1,251	32	64	47	49	45	30
<b>Engineering (Pre-Engineering), General</b>	1,241	34	52	34	43	38	23
<b>Physical Therapy (Pre-Physical Therapy)</b>	831	24	56	34	28	25	12
<b>Athletic Training</b>	573	17	51	29	25	22	11
<b>Pharmacy (Pre-Pharmacy)</b>	1,247	39	65	44	47	41	25
<b>Psychology, General</b>	620	20	69	48	30	28	17
<b>Graphic Design</b>	1,354	43	47	29	14	17	7
<b>Veterinary Medicine (Pre-Veterinarian)</b>	1,171	37	55	37	24	25	14
<b>Elementary Education</b>	673	22	54	32	22	18	10
<b>Music, General</b>	1,206	41	49	28	17	17	8
<b>Criminal Justice</b>	223	9	42	26	12	12	5
<b>Physical Therapy Assisting</b>	488	19	36	21	16	15	6
<b>Health/Medical Technology, General</b>	861	33	51	31	27	23	12
<b>Early Childhood Education</b>	497	19	40	22	10	9	3
<b>Medical/Clinical Assisting, General</b>	562	22	35	19	15	13	5
<b>Health-Related Professions and Services, General</b>			No profile available				

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.

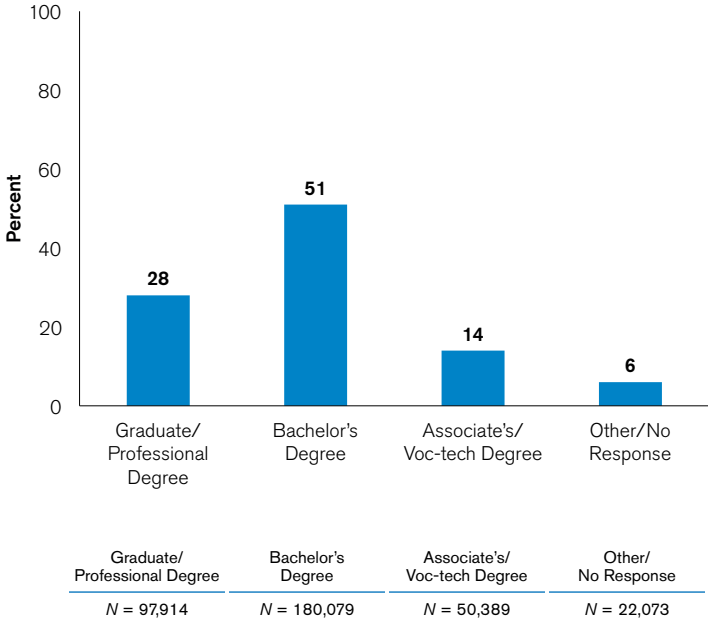
# First-Generation Students

## Other College and Career Readiness Factors

### *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.

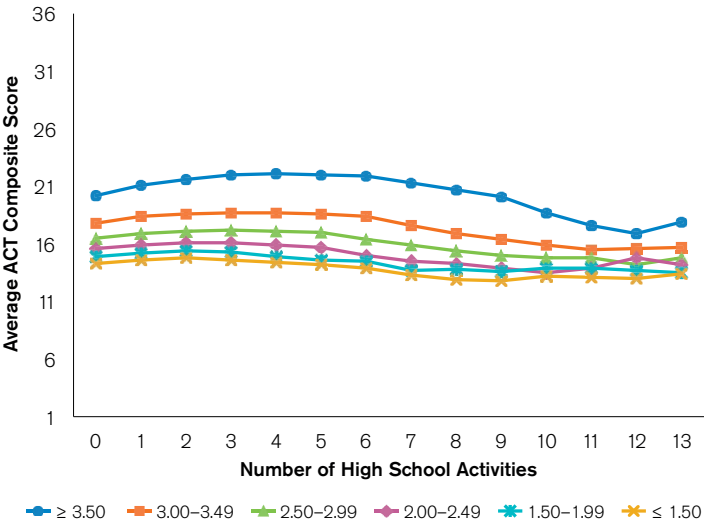
**Percent of 2015 ACT-Tested First-Generation High School Graduates by Educational Aspirations**



### *Activity and Achievement: What's the Connection?*

There are wide-ranging benefits to student participation in high school activities. Students can develop new skills, broaden their experiences, practice social skills, and increase their appeal to college admissions personnel. In addition, ACT data indicate that, regardless of a student's high school GPA, involvement in high school activities is often associated with higher ACT Composite scores. At the same time, results typically identify a point of diminishing returns, one where many activities are associated with a drop in ACT scores. The adjacent graph depicts the relationship between ACT scores and the number of high school activities for 2015 graduates.

**Average ACT Composite Score by Number of Activities within High School GPA Ranges for 2015 Graduates**



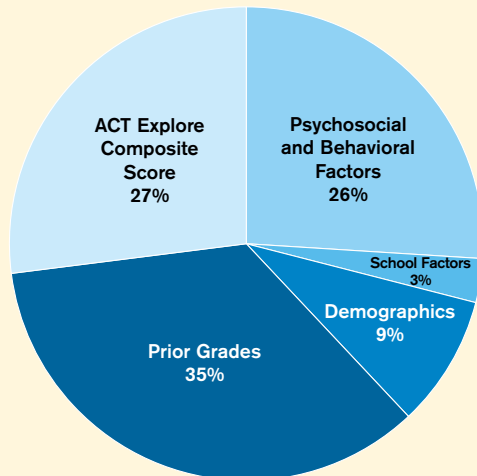
Note: In some cases, high activity counts may represent low numbers of students, giving rise to missing and outlying data points.



# Other College and Career Readiness Factors

## Early Prediction of High School Outcomes

**Relative Importance of Predictors of 12th-Grade Cumulative High School Grade Point Average**

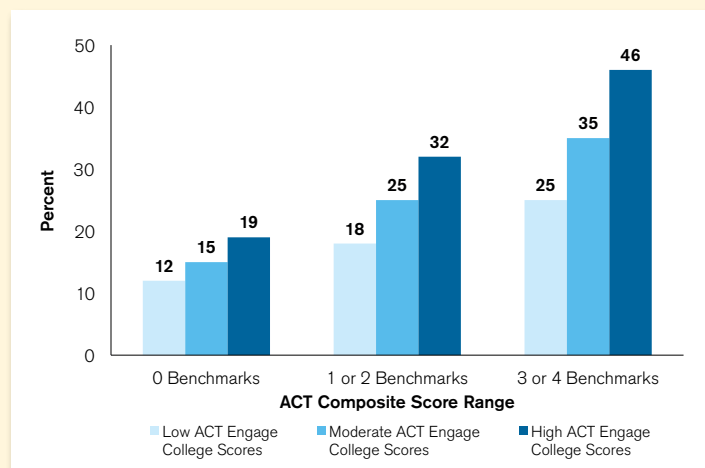


Note: The data used for this analysis came from a longitudinal sample of 3,768 students from 21 schools who took both ACT Explore and ACT Engage Grades 6–9 in 2006, when most students were in 8th grade. Additional waves of data were collected each fall, ending in 2011, when most students should have graduated from high school. The total variance explained in the model was  $R^2 = 0.51$ .

Understanding which student characteristics can predict future performance is essential to early identification and support for students at risk for later academic difficulties. A longitudinal research study found that, in 8th grade, the most important predictor of 12th grade GPA was student grades, followed by academic achievement (measured by ACT Explore) and psychosocial and behavioral factors (measured by ACT Engage® Grades 6–9). Demographics (gender, race/ethnicity, and parent education) and school factors (percent eligible for free/reduced lunch eligible and percent minority) were less important predictors. These findings underscore the value of using multiple measures, including academic achievement and behaviors, to provide a more holistic approach to assessment that can better assist students in developing the knowledge and skills needed for success.

## Academic Achievement, Behaviors, and College Completion

**Percentage Attaining a Postsecondary Degree by ACT and ACT Engage College Scores**



Academic behaviors also matter for college outcomes. Across all ACT College Readiness Benchmark 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) attained a postsecondary degree within four years of college at higher rates than students with lower ACT Engage College scores. For students meeting three or four Benchmarks, those with high ACT Engage College scores attained a timely postsecondary degree at nearly twice the rate as those with low ACT Engage College scores.

Note: Based on a longitudinal sample of 9,446 ACT-tested students from 48 postsecondary institutions who took ACT Engage College during their first semester of college in 2003. Additional waves of data were collected each semester through 2008. 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.

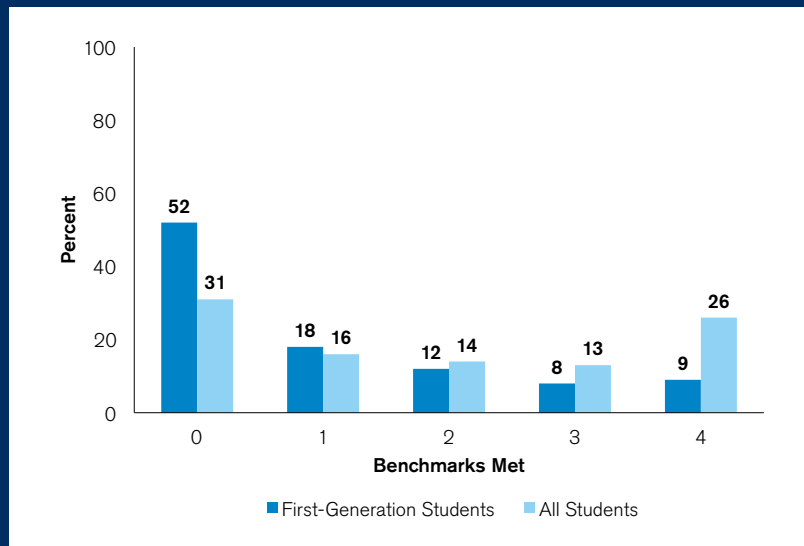
# Looking Back at the Class of 2014

## First-Generation Students

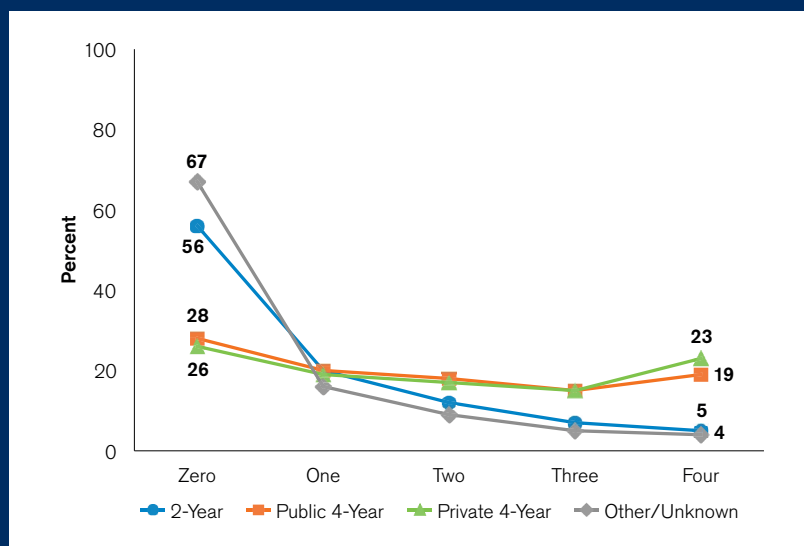
### *ACT College Readiness Benchmarks and Fall 2014 College Enrollment*

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 2014 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 2014 ACT-Tested First-Generation High School Graduates by Number of ACT College Readiness Benchmarks Attained



Percent of 2014 ACT-Tested First-Generation High School Graduates by Number of ACT College Readiness Benchmarks Attained and Fall 2014 College Enrollment Status



# Policies and Practices

## Call to Action

*The Condition of College & Career Readiness 2015* points to the need for federal, state, and local policymakers and agency heads to support the readiness of *all* students for college and career. Over the last several years, the average national ACT Composite score and ACT College Readiness Benchmark attainment of students taking the ACT has remained relatively constant. This is commendable given the increase in the number of students taking the ACT but little comfort to the students, teachers, and administrators working every day to increase student achievement. Because the current direction and aim of our education system is to prepare all students for postsecondary and career success, this year's results continue to signal the need for increased wholesale systemic supports and reforms.

As a research-based nonprofit organization, ACT is committed to identifying solutions that are informed by data and that reinforce the need for students to meet appropriate achievement benchmarks at every point along the continuum from kindergarten through career. As part of this commitment, ACT released a series of policy platforms (<http://www.act.org/policyplatforms>) in December 2014 containing extensive recommendations in three areas: K–12 education, postsecondary education, and workforce development.

In this same spirit, ACT offers the following recommendations as a call to action for the entire education community: students; parents; educators; and policymakers at the district, state, and federal levels.

### Data Use

**Ensure that student data collected are appropriately safeguarded and used responsibly, balancing data's potential to help students achieve education and workplace success with the responsibility to ensure students' privacy and confidentiality.** ACT takes steps to protect the privacy of student data and encourages others to do so, as well. The science behind the ACT assessments—the evidence base and ongoing research—relies on our ability to collect and analyze student assessment data and is critical in answering the key question of what matters most in helping people to succeed in education and work. Further, some student data are used for the ACT Educational Opportunity Service, an opt-in program that provides students—including many underserved and first-generation college students—with information about educational, scholarship, career, and financial aid opportunities. We call on policymakers to seek innovative solutions that secure student data and at the same time provide expanded opportunities for students and advance educational research.

### System Alignment

**Encourage education system alignment so that all components work together.** In a climate conditioned to the

strict accountability mandates in the No Child Left Behind Act, alignment seems to refer only to how assessments align to particular standards, and in many cases has forced educators to think only about test scores. True education system alignment means that all components—standards, curricula, assessments, and instruction—work together to achieve desired goals (Ananda, 2003; Resnick, Rothman, Slattery, and Vranek, 2003; Webb, 1997b). State and federal policymakers must prioritize funding to ensure that the necessary pieces are in place to help all students meet college and career readiness standards.

### Teacher Support and Development

**Develop robust teacher evaluation systems.** Efforts to safeguard and use data appropriately and to fully align the education system are moot if we do not invest in one of the most important components of student learning: teachers. As stated in our K–12 education platform, ACT applauds states' and districts' development and use of robust teacher evaluation systems that include multiple measures of performance to identify effective teaching and focus on professional development. All teacher evaluations should include classroom observations, parent and student surveys, and measures of student growth on assessments, and teachers should be involved in the creation and rollout of these systems.

**Strengthen admissions criteria for teacher education programs and offer professional development to new teachers.** We must ensure that the admissions criteria for teacher education programs are rigorous and produce high-quality candidates armed with the tools—sound instructional methods, content mastery, and data literacy—to teach effectively. Once in the classroom, teachers must have the opportunity to participate in professional development opportunities that enhance their work.

**Increase teacher compensation.** Given that teachers are the most important school-based factor in student achievement, if we truly want the best teaching force in the world, teachers must be compensated correspondingly. Doing so demonstrates investment not only in teachers but in students.

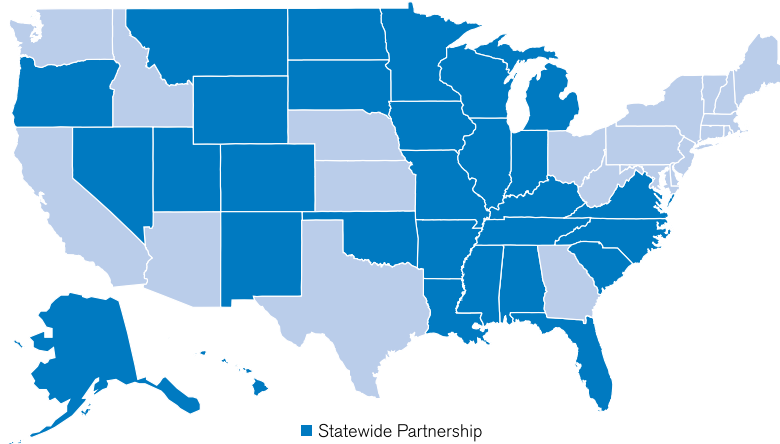
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It is time to take these and other meaningful steps to solve the issues hindering student success. ACT sincerely hopes that this call to action, informed by decades of educational research, contributes to the enhancement of education and career opportunities for all students, including our nation's most underserved individuals. ACT stands ready to work with like-minded organizations to support systemic education reforms. Ensuring a world-class US educational system should be a responsibility shared by all of us: our future rests on the education of tomorrow's leaders. We must do better.

# 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.

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

All listed partnerships are effective as of July 2015.

# 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 2015–2016 Academic Year

### *The Condition of STEM 2015*

- National report
- State reports
- Underserved learners

### *The Condition of College and Career Readiness 2015*

- National report
- State reports
- African American students
- American Indian students
- Asian students

- Hispanic students
- Pacific Islander students
- First-generation students
- Linguistically diverse students
- Students from low-income families

## Other ACT Research Reports

### **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

### **College Choice Report (for the graduating class of 2014)**

- *Part 1: Expanding Opportunities: Preferences and Prospects*—November 2014
- *Part 2: Expanding Opportunities: Enrollment Patterns*—July 2015

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

[www.act.org/research/subscribe.html](http://www.act.org/research/subscribe.html).

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## 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 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 term “first-generation student” is defined differently by a number of organizations, often differing in the extent of exposure to postsecondary education (e.g., enrolled, attended, or completed) as experienced by disparate combinations of parent/guardian arrangements (e.g., highest extent of exposure for one parent/guardian or both parents/guardians). The definition used in this report’s analysis is consistent with that used by the National Center for Education Statistics (NCES).
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.



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](http://www.act.org).



The Council for Opportunity in Education (COE) is a nonprofit 501(c)(3) organization whose membership includes more than 1,100 colleges and community-based organizations with a particular commitment to expanding college opportunity. COE, which was incorporated in 1981, is the only national organization with affiliates in all 50 states, the Caribbean, and Pacific Islands focused on assuring that low-income students and first-generation students have a realistic chance to prepare for, enter, and graduate from college.

For more information, visit [www.coenet.us](http://www.coenet.us).



COUNCIL *for* OPPORTUNITY *in* EDUCATION

A copy of this report can be found at  
[www.act.org/research](http://www.act.org/research)