Low-Income Students

The Condition of College & Career Readiness | Class of 2012

Annually, ACT provides a snapshot of the college and career readiness of ACT-tested high school graduates. We offer this report as a service to inform policymakers and practitioners about selected indicators of effectiveness and how that translates into readiness. It is designed to stimulate discussion, inquiry, and action.

Our Unique Added Value
ACT has been measuring the academic achievement of 11th- and 12th-grade students since 1959, their career aspirations since 1969, and their academic preparation in high school since 1985. ACT’s data system includes each of these areas for 8th and 10th graders and has been monitoring student readiness and success for nearly two decades. Since 1996, and every three to five years thereafter, ACT surveys thousands of high school and college educators to pinpoint the knowledge and skills needed for first-year college coursework. ACT is the only organization with decades of empirical data showing exactly what happens to high school graduates once they get to college or to work and how they can maximize success—based on their preparation from kindergarten through high school.

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

Measuring academic performance in the context of college and career readiness—focusing on the numbers and percentages of students meeting or exceeding the ACT College Readiness Benchmarks—provides meaningful and compelling information about the academic readiness of students. The Condition of College & Career Readiness highlights that information.

Early Student Monitoring and Intervention
ACT research continues to show the importance of early monitoring of student achievement and appropriate interventions. In the recently released research report Staying on Target (ACT 2012), students who are monitored early are more likely to be college and career ready than those not monitored early (i.e., those who take the ACT only), regardless of the high school they attend and their level of prior achievement. In fact, students who are monitored early are more likely to meet three or all four of the ACT College Readiness Benchmarks than students who are not monitored early, regardless of gender, race, or annual family income.

The groundbreaking ACT research report The Forgotten Middle (ACT 2008) suggests that being on target for college and career readiness by 8th grade puts students on a trajectory for success in high school and beyond. This research shows 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. This research also reveals that students’ academic readiness for college and career can be further supported and improved when they acquire and demonstrate behaviors in the upper elementary grades and in middle school shown to be related to successful academic performance.

The problems are clear and very well documented. ACT research strongly supports the need for an integrated, longitudinal, data-driven system to inform and encourage coherence in school, district, and state efforts to prepare all high school graduates for college and career. Our high schools must provide rigorous courses that are aligned with college and career readiness standards, and more students must be prepared and have the opportunity to take these core courses. All students must also have systematic guidance and feedback about their progress and get that feedback early and often.

Use of Student Growth Models in Early Monitoring
As states and districts implement college and career readiness standards, metrics aligned to those standards are needed to gauge individual and school progress toward this goal. Using these metrics, growth modeling has strong potential to help stakeholders measure progress—for individual students and for school systems. Growth model results can serve a variety of purposes. Educators and policymakers can use growth modeling results as part of accountability systems, to measure student and school improvement, to more accurately diagnose areas of strength and weakness, and to inform educator professional development initiatives. Early monitoring of academic growth toward the college and career readiness goal can help identify problems, so that interventions can be made to get the individual or school system back on track.
A Comprehensive Framework of Best Practices
One compelling reason for undertaking early and continuous monitoring of student performance that includes student growth models and for implementing aligned, outcomes-focused education standards is that there is strong empirical evidence for these educational practices.1 In addition to these, other key practices for increasing readiness can be implemented at the district, school, and classroom levels as part of a comprehensive framework of best practices. The Core Practice™ Framework is an example of this. Empirically developed and validated, the Core Practice Framework outlines the evidence-based educator practices at each level of a school system—district, school, and classroom—that will help all students master high standards. The Framework focuses on five themes: 1) Curriculum and Academic Goals, 2) Staff Selection, Leadership, and Capacity Building, 3) Instructional Tools, 4) Monitoring Performance and Progress, and 5) Intervention and Adjustment. Included in the Framework are Critical Actions—steps on how to implement the 15 core practices.

Building a System
ACT is pleased to announce that we will provide an aligned, coherent system that will now begin in the earlier grades, giving states, districts, and schools a suite of opportunities spanning grades 3–12. This new system is aligned to our College Readiness Standards, which allows monitoring and intervening to take place much earlier and will help to get more students prepared to succeed at college-level work. The system is built on the framework of our College Readiness Standards, essentially pulling these standards down into the lower grades and defining what students need to know and when in order to be on track for college. We have created these standards, and our test blueprints, around the results of the ACT National Curriculum Survey®. This survey is given every few years to educators in postsecondary, secondary, and now in the elementary grades to determine both what is being taught in the classroom and the expectations of what is needed to succeed at the next level, be it middle school, high school, or college. It is a representative sample of educators from across the country. For the first time, this survey has been enhanced to drill into what is being taught and the specific expectations in the lower grades and how that aligns to success in college. As you may expect, there is a disconnection between what is being taught and the expectations for success at the next level. The ultimate goal of this system is to give educators assessment tools to intervene and get more students on the right track to college and career success. Arguably, this is one of the reasons the Common Core State Standards were developed. A system like this will give you a jump-start into implementation of a more robust, standards-based system centering on the right number and right types of assessments all tied to appropriate interventions.

Using This Report2
This report is designed to help inform the following questions driving national efforts to strengthen P–16 education.
• Are low-income students prepared for college and career?
• Are enough low-income students taking core courses?
• Are core courses rigorous enough?
• Are younger low-income students on target for college and career?
• What other dimensions of college and career readiness should we track?
• Are low-income students who are ready for college and career actually succeeding?

How does ACT determine if students are college ready?
Empirically derived, ACT’s 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. These college courses include English Composition, College Algebra, Biology, and an introductory social science course. Based on a nationally representative sample, the Benchmarks are median course placement values for these institutions and as such represent a typical set of expectations. The ACT College Readiness Benchmarks are:

<table>
<thead>
<tr>
<th>College Course</th>
<th>Subject Area Test</th>
<th>EXPLORE® Benchmark</th>
<th>PLAN® Benchmark</th>
<th>ACT® Benchmark</th>
</tr>
</thead>
<tbody>
<tr>
<td>English Composition</td>
<td>English</td>
<td>13</td>
<td>15</td>
<td>18</td>
</tr>
<tr>
<td>Social Sciences</td>
<td>Reading</td>
<td>15</td>
<td>17</td>
<td>21</td>
</tr>
<tr>
<td>College Algebra</td>
<td>Mathematics</td>
<td>17</td>
<td>19</td>
<td>22</td>
</tr>
<tr>
<td>Biology</td>
<td>Science</td>
<td>20</td>
<td>21</td>
<td>24</td>
</tr>
</tbody>
</table>
Attainment of College and Career Readiness

- Low-income students are those whose family income is less than $36,000 per year.
- 399,590 low-income high school 2012 graduates took the ACT.

Note: Percents in this report may not sum to 100% due to rounding. Data herein represent a substantial number of low-income high school graduates but may not necessarily constitute a nationally representative sample.
Low-Income Students

Percent of 2012 ACT-Tested Low-Income High School Graduates by Benchmark Attainment and Subject

- **English**: Met Benchmark 40%, Within 2 Points of Benchmark 13%, Below Benchmark by 3+ Points 48%
- **Reading**: Met Benchmark 54%, Within 2 Points of Benchmark 12%, Below Benchmark by 3+ Points 34%
- **Mathematics**: Met Benchmark 67%, Within 2 Points of Benchmark 8%, Below Benchmark by 3+ Points 25%
- **Science**: Met Benchmark 74%, Within 2 Points of Benchmark 11%, Below Benchmark by 3+ Points 15%

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Percent of 2012 ACT-Tested Low-Income High School Graduates by Number of ACT College Readiness Benchmarks Attained

- **Met No Benchmarks**: 46%
- **Met 1 Benchmark**: 18%
- **Met 2 Benchmarks**: 16%
- **Met 3 Benchmarks**: 10%
- **Met All 4 Benchmarks**: 10%
College & Career Readiness

Low-Income 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 12 different states and in many districts across the country. As a result, the 2012 Condition of College & Career Readiness report provides a much deeper and more representative sample in comparison to a purely self-selected college-going population.

Number of 2008–2012 ACT-Tested High School Graduates by Family Income

Percent of 2008–2012 ACT-Tested High School Graduates Meeting Three or More Benchmarks by Family Income
Low-Income Students

Participation and Opportunity by Subject

Percent of 2012 ACT-Tested High School Graduates Meeting College Readiness Benchmarks by Family Income and Subject

**English**

- $100K+: 85
- $60K–$100K: 77
- $36K–$60K: 66
- < $36K: 48

**Mathematics**

- $100K+: 68
- $60K–$100K: 54
- $36K–$60K: 41
- < $36K: 25

**Reading**

- $100K+: 71
- $60K–$100K: 61
- $36K–$60K: 50
- < $36K: 34

**Science**

- $100K+: 49
- $60K–$100K: 37
- $36K–$60K: 26
- < $36K: 15
Course-Taking Patterns and Benchmark Performance

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

**Percent of 2012 ACT-Tested Low-Income High School Graduates in Core or More vs. Less Than Core Courses Meeting College Readiness Benchmarks by Subject**

<table>
<thead>
<tr>
<th>Subject</th>
<th>Core or More</th>
<th>Less Than Core</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>49</td>
<td>28</td>
</tr>
<tr>
<td>Reading</td>
<td>36</td>
<td>22</td>
</tr>
<tr>
<td>Mathematics</td>
<td>27</td>
<td>5</td>
</tr>
<tr>
<td>Science</td>
<td>16</td>
<td>7</td>
</tr>
</tbody>
</table>

**Percent of 2012 ACT-Tested High School Graduates Taking a Core Curriculum by Family Income**

<table>
<thead>
<tr>
<th>Income Interval</th>
<th>Percent Taking Core</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; $36K</td>
<td>71</td>
</tr>
<tr>
<td>$36K–$60K</td>
<td>76</td>
</tr>
<tr>
<td>$60K–$100K</td>
<td>81</td>
</tr>
<tr>
<td>$100K+</td>
<td>84</td>
</tr>
</tbody>
</table>
Other College and Career Readiness Factors

Percent of 2012 ACT-Tested High School Graduates with Career Interests in Jobs Calling for a Two-Year Degree or More in the Five Fastest-Growing Career Fields

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

Preparation for Careers in High-Growth Fields

Many low-income students who are interested in the five fastest-growing career fields fall short of meeting ACT’s College Readiness Benchmarks, suggesting that they are not on the right path to take advantage of career opportunities in these high-growth fields.
Other College and Career Readiness Factors

Aligning Student Behaviors, Planning, and Aspirations

Most low-income 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.

Impact of Academic Behaviors on High School Persistence

ACT research illustrates how the combination of academic achievement and behavior yields more information than either measure alone when differentiating students for high school persistence.5 Most importantly, this information is available in 8th grade—allowing for early identification of students at risk of not completing high school.6
Percent of 2010 ACT-Tested High School Graduates Immediately Enrolling into College the Fall Following High School Graduation by Family Income and Type of Institution

As is the case for all 2010 ACT-tested high school graduates, low-income graduates who met more of the ACT College Readiness Benchmarks were more likely to immediately enroll into college. This demonstrates that college readiness helps reduce socioeconomic gaps in college enrollment.

Note: College enrollment rates are based on National Student Clearinghouse (NSC) data for fall 2010 enrollments. Colleges include two- and four-year postsecondary institutions and a small number of institutions for which the type of institution could not be determined. The category “Other” includes students simultaneously enrolled in both two- and four-year institutions, as well as students enrolled in an unknown institution type.
Low-income students had lower college retention rates, regardless of the number of ACT Benchmarks met.

Note: College retention rates are based on NSC data for fall 2010 and fall 2011 enrollments. The 2010 ACT-tested college-enrolled freshmen include 2010 ACT-tested high school graduates who immediately enrolled into college the fall following high school graduation (i.e., in fall 2010). Students simultaneously enrolled in two- and four-year institutions are included in the calculations of retention rates for both types of institutions.
How to Increase College Readiness

Approximately 28% of all 2012 ACT-tested high school graduates did not meet any of the ACT College Readiness Benchmarks, meaning they were not prepared academically for first-year college courses in English Composition, College Algebra, Biology, and social sciences. There are steps that states, districts, schools, and classrooms can take to increase student readiness for college-level work.

**Essential Standards.** Since ACT first released *Making the Dream a Reality* in 2008, we have called for states to adopt education standards that prepare all students for the rigors of college or career training programs. With the adoption of the Common Core State Standards by 45 states and the District of Columbia, most states have taken that first step on the road to ensuring all students are ready for college or career. It is imperative now that policymakers and practitioners continue this process by aligning all aspects of their systems to college and career readiness.

**Common Expectations.** All states—especially those that have adopted the Common Core State Standards—should be aligning college and career readiness standards to a rigorous core curriculum for all high school students whether they are bound for college or work. The levels of expectation for college readiness and workforce training readiness should be comparable. To ensure students master the knowledge and skills to succeed after high school, ACT supports the core curriculum recommendations of *A Nation at Risk: The Imperative for Educational Reform*—specifically that students take a core curriculum consisting of at least four years of English and three years each of mathematics, science, and social studies.

**Clear Performance Standards.** States must define “how good is good enough” for college and career readiness. In addition to a consistent, rigorous set of essential K–12 content standards, states must define performance standards so that students, parents, and teachers know how well students must perform academically to have a reasonable chance of success at college or on the job. Based on decades of student performance data, ACT defines “college readiness” as students having a 50% chance of earning a grade of B or higher or about a 75% chance of earning a grade of C or higher in first-year college English Composition; College Algebra; Biology; or History, Psychology, Sociology, Political Science, or Economics.

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

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

**Data-Driven Decisions.** States have been hard at work developing longitudinal P–16 data systems—this work must continue and accelerate. If states are serious about ensuring more of their students are prepared for college and work in the 21st century, they must develop systems that allow schools and districts to closely monitor student performance at every stage of the learning pipeline, from preschool through the elementary, middle, and high school grades, all the way through college. Use of a longitudinal data system enables educators to identify students who are in need of academic interventions at an early stage, thus giving teachers and students more time to strengthen these skills before graduation. Longitudinal data systems provide a tool to schools to ensure all their students take and complete the right number and kinds of courses before graduation. Using a longitudinal assessment system also permits schools to evaluate the value added by each core course in helping students to become ready for college and career. Such systems allow colleges to offer feedback reports to high schools that examine how well prepared each high school’s graduates are for college. These reports can be used to strengthen high school curricula.
District, School, and Classroom Practices

The Path to Readiness: It Takes a System
Research by the National Center for Educational Achievement (NCEA)—a department of ACT—shows that no single program or isolated reform can be a substitute for a coherent, long-term, systemwide approach to improving teaching and learning. We all want our students to graduate prepared to take on future opportunities with success. So, what are consistently higher performing schools doing to place more students on the path to college and career readiness?

The Core Practice Framework, built upon the study of more than 550 schools across 20 states, identifies the core practices that distinguish a higher performing school from its average performing counterparts. NCEA studies the practices of those schools and school systems that have more success in preparing their students for college and careers than their peers who serve similar student populations. Our ongoing research supports the Framework and adds content and information to each of the core practices below.

The 15 Practices of Higher Performing School Systems
The Core Practice Framework outlines the evidence-based educator practices at each level of a school system—district, school, and classroom—that will help all students master high standards. The Framework focuses on five themes:

Theme 1: Curriculum and Academic Goals
District Practice: Provide clear, prioritized learning objectives by grade and subject that all students are expected to master.
School Practice: Set expectations and goals for teaching and learning based on the district’s written curriculum.
Classroom Practice: Study and use the district’s written curriculum to plan all instruction.

Theme 2: Staff Selection, Leadership, and Capacity Building
District Practice: Provide strong principals, a talented teacher pool, and layered professional development.
School Practice: Select and develop teachers to ensure high-quality instruction.
Classroom Practice: Collaborate as a primary means for improving instruction.

Theme 3: Instructional Tools—Programs and Strategies
District Practice: Provide evidence- and standards-based instructional tools that support academic rigor for all students.
School Practice: Promote strategies and build structures and schedules to support academic rigor.
Classroom Practice: Use proven instructional tools to support rigorous learning for students.

Theme 4: Monitoring Performance and Progress
District Practice: Develop and use student assessment and data management systems to monitor student learning.
School Practice: Monitor teacher performance and student learning.
Classroom Practice: Analyze and discuss student performance data.

Theme 5: Intervention and Adjustment
District Practice: Respond to data through targeted interventions or curricular/instructional adjustments.
School Practice: Use targeted interventions to address learning needs of teachers and students.
Classroom Practice: Use targeted interventions or adjustments to address learning needs of students.

Another layer behind the Framework, the Critical Actions, provides additional support for educators by outlining how to successfully implement the key components of each core practice.

The Core Practice Framework
Reading from bottom to top, the path to readiness begins with ACT’s College and Career Readiness Standards, Common Core State Standards, and district learning objectives. Applying the 15 core practices of teaching and learning leads to high-quality instruction, which in turn creates the opportunity for all students to reach ACT’s College Readiness Benchmarks.

To learn more, please visit www.nc4ea.org.
States that incorporate ACT’s college and career readiness solutions as part of their statewide assessments provide greater access to higher education and increase the likelihood of student success in postsecondary education. Educators also have the ability to establish a longitudinal plan using ACT’s assessments, which provide high schools, districts, and states with unique student-level data that can be used for effective student intervention plans.

State administration of ACT’s programs and services:
- Increases opportunities for minority and middle-to low-income students.
- Promotes student educational and career planning.
- Reduces the need for remediation.
- Correlates with increases in college enrollment, persistence, and student success.
- Aligns with state standards.
ACT Research

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

The Condition of College & Career Readiness
Using ACT test scores and the ACT College Readiness Benchmarks, *The Condition of College & Career Readiness 2012* provides a series of graphics highlighting the college and career readiness of the ACT-tested high school class of 2012. This report is updated annually.

The 20 Non-Negotiable Characteristics of Higher Performing School Systems
Discover the 20 hard-hitting characteristics that make school systems successful at preparing students for college and careers.

A Better Measure of Skills Gaps
This report proposes a simple definition to describe the increasing mismatch between labor market supply and demand in America and sets forth detailed and specific measures to analyze skills gaps in four major industry sectors.

Enrollment Management Trends Report
This report provides enrollment managers and other college administrators with information about students’ patterns during their college choice process for 2011 high school graduates who took the ACT test.

A First Look at the Common Core and College and Career Readiness
Forty-five states and the District of Columbia have adopted the Common Core State Standards. Now, efforts to implement the Standards take on primary importance. ACT provides this first look at student performance relative to the Common Core State Standards and college and career readiness.

A First Look at Higher Performing High Schools
There are high schools across the country that are demonstrating strong growth toward college and career readiness. ACT provides this first look at school qualities that personnel at these high schools believe make the greatest difference in preparing students for college and careers.

The Forgotten Middle
This report examines the factors that influence college and career readiness. The percentage of 8th graders on target to be ready for college-level work by the time they graduate from high school is so small that it raises questions not only about the prospect that these students can eventually be ready for college and career but also about whether they are even ready for high school.

2. The data presented herein are based on the 2012 ACT-tested high school graduates who provided information about their parents’ total combined income before taxes the previous year. Low-income students are defined as students with a family income of less than $36,000 per year. High-income students are defined as students with a family income of more than $100,000 per year.

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. Five highest-growth fields were identified by using the 2010–2020 projected job openings from the US Department of Labor, Bureau of Labor Statistics. Example occupations for the five highest-growth career fields nationally are: Education (secondary school teachers, secondary school administrators); Computer/Information Specialties (computer programmers, database administrators); Community Services (social workers, school counselors); Management (hotel/restaurant managers, convention planners); Marketing/Sales (insurance agents, buyers).

5. Across all EXPLORE Benchmark attainment levels, students with higher ENGAGE Graduation Index scores, which are based on a combination of ENGAGE scale scores and other self-reported student information, had higher high school persistence rates than students with lower Graduation Index scores.

6. Data are based on 2,986 8th graders in 24 middle schools across the country who took EXPLORE and ENGAGE Grades 6–9, an assessment of academic behaviors. High school persistence is defined as having graduated high school or being on track to graduate within four years of starting 9th grade. These data do not reflect the entire 2012 ACT-tested high school graduate cohort.
ACT is an independent, not-for-profit organization that provides assessment, research, information, and program management services in the broad areas of education and workforce development. Each year, we serve millions of people in high schools, colleges, professional associations, businesses, and government agencies, nationally and internationally. Though designed to meet a wide array of needs, all ACT programs and services have one guiding purpose—helping people achieve education and workplace success.

A copy of this report can be found at www.act.org/readiness/2012

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