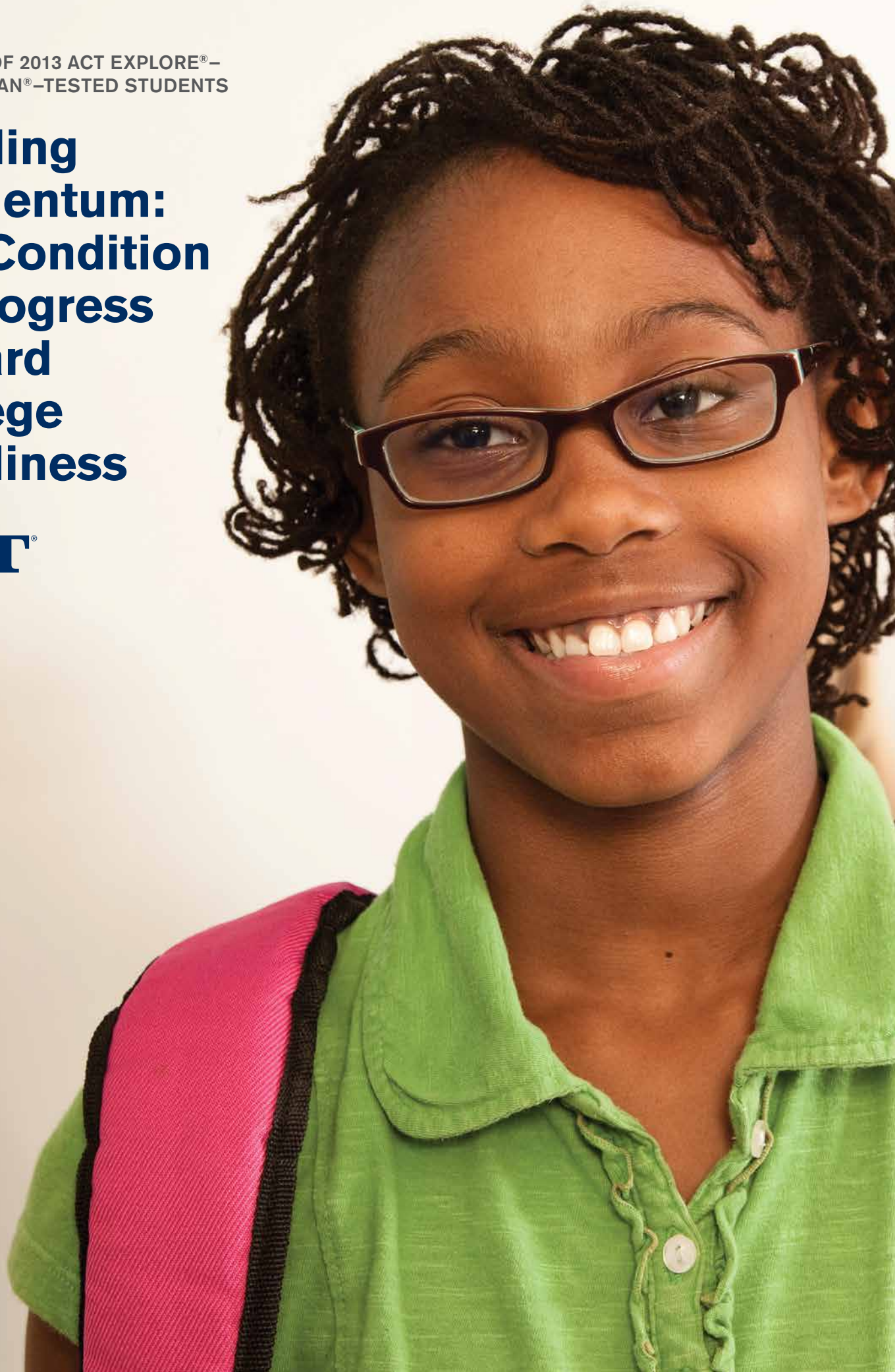


A PROFILE OF 2013 ACT EXPLORE®–
AND ACT PLAN®–TESTED STUDENTS

Building Momentum: The Condition of Progress Toward College Readiness

ACT®



Building Momentum: The Condition of Progress Toward College Readiness

About Building Momentum: The Condition of Progress Toward College Readiness 2013

Since 1959, ACT has collected and reported data on students' academic readiness for college. As a trusted, nonprofit leader in research on college and career readiness, ACT is committed to continuing our efforts to provide data and information to help solve the daunting problems faced by our nation. In the near future, ACT research and data will provide insights not only on academic achievement but also on student behavior and goals. These additional insights will help individuals better prepare for success throughout their lives, from kindergarten through career. These new efforts will broaden and extend our core mission: helping people achieve education and career success.

This report examines the progress toward college readiness made by middle school students and students at the midpoint of high school who took ACT Explore and ACT Plan during the 2012–13 school year.¹ The data in this report provide insights to help inform and guide our collective efforts to improve college and career readiness for the next generation of students now making their way through the US education system.

What is the ACT College and Career Readiness System?

The ACT College and Career Readiness System provides a suite of integrated, curriculum-based assessments designed to measure progress over time. The system includes components to assess English, math, reading, and science skills, as well as behavioral aspects and career interests. The system includes three components: ACT Explore, ACT Plan, and the ACT[®] college readiness assessment. These assessments are curriculum based and take a longitudinal approach to assessment, career and educational planning, instructional support, and evaluation.

What are ACT Explore and ACT Plan?

ACT Explore and ACT Plan are two of the three components that make up the ACT College and Career Readiness System. ACT Explore is the first test in the series, typically administered to 8th- and 9th-grade students. ACT Plan, typically administered to 10th graders, serves as the midpoint measure of academic progress in the series. Like the ACT, which is the capstone of the ACT College and Career Readiness System, both ACT Explore and ACT Plan are standardized academic achievement tests that measure student learning in four subject areas: English, reading, mathematics, and science.

¹ The data in this report are from the 2008–2009 to 2012–13 ACT Explore and ACT Plan national data release files. Prior to the 2012–2013 school year, students were excluded from analyses if they tested under extended time or participated in an equating study. Starting in the 2012–2013 school year, students were excluded from analyses if they participated in an equating study, but students tested under ACT-approved accommodated administrations that result in college-reportable ACT scores were included. ACT Explore analyses were limited to 8th-grade participants, and ACT Plan analyses were limited to 10th-grade participants. Students were only included if they had a valid (non-missing) Composite score. For the 2012–13 ACT Explore cohort, N = 1,120,585; for the 2012–13 ACT Plan cohort, N = 1,307,189.

What do the ACT Explore and ACT Plan benchmarks mean for college readiness?

The ACT Explore and ACT Plan benchmarks² can be used to gauge a student's progress in the 8th and 10th grades toward becoming college ready. These benchmarks gauge this progress by estimating a student's probability of successfully meeting the four ACT College Readiness Benchmarks. Students who meet a benchmark on ACT Explore or ACT Plan are likely to have a 50% chance of earning a B or higher or about a 75% chance of earning a C or higher in the corresponding college courses by the time they graduate from high school.

ACT uses data from the ACT to measure information about academic performance in the context of college and career readiness for *The Condition of College & Career Readiness*, an annual ACT report. However, looking at progress toward college readiness during the middle school and early high school years—focusing on the number or percentages of students meeting or exceeding the ACT Explore and ACT Plan benchmarks—adds to the college readiness conversation by providing meaningful and compelling information about the earlier academic achievement of students. For students, parents, teachers, and other educators, having such information early provides more opportunity to capitalize on academic strengths, address academic challenges, and better plan for high school and college. This report highlights that information.

The report has three parts. First, the **cross-sectional** portion of the report presents the results of 8th-grade students who took ACT Explore and 10th-grade students who took ACT Plan during the 2012–13 school year. Second, the **longitudinal** portion of the report presents the results of a cohort of students who graduated from high school in 2013 and took ACT Explore during 8th grade in 2008–09, ACT Plan during 10th grade in 2010–11, and the ACT during 11th or 12th grade in 2011–12 or 2012–13. Each of these two parts have been organized into three sections:

- **Progress Toward College Readiness**—the percentage of students meeting the ACT Explore and ACT Plan benchmarks in each subject area
- **Access**—the number of students exposed to ACT Explore or ACT Plan
- **Academic Performance and Preparation**—student test performance and the impact of rigorous coursework on benchmark attainment

The third and final part of the report, **Policy and Practice Recommendations for Increasing Readiness**, suggests policies and practices states and schools can implement to improve the college readiness of students.

ACT encourages educators to focus on trends (e.g., three, five, ten years), not year-to-year changes, which can represent normal—even expected—fluctuations. Trend lines offer more insight into what is happening in a school, district, state, or the nation than can data from any single year.

²The ACT Explore and ACT Plan College Readiness Benchmarks used in this report are aligned for the sample of students described in note 1. In 2013, new College Readiness Benchmarks were developed for students taking ACT Explore and ACT Plan during the 2012–13 school year. The new benchmarks were used for any results pertaining to students tested during the 2012–2013 school year, whereas the old benchmarks were used for any results pertaining to students tested prior to the 2012–2013 school year. For more information, please see the “Notes” section of this report.

Contents

Building Momentum: The Condition of Progress Toward College Readiness 3

Cross-Sectional Analyses—Students Taking ACT Explore and ACT Plan During the 2012–13 School Year 6

Progress Toward College Readiness	6
ACT Explore Benchmarks by Subject	6
ACT Plan Benchmarks by Subject	6
ACT College Readiness Benchmarks—On Target and Attained	7
ACT Explore Benchmarks Over Time	8
ACT Plan Benchmarks Over Time	8
ACT Explore Benchmarks—Attainment and Near Attainment	9
ACT Plan Benchmarks—Attainment and Near Attainment	9
Number of ACT Explore Benchmarks Attained	10
Number of ACT Plan Benchmarks Attained	10
ACT Explore Benchmarks by Race/Ethnicity	11
ACT Plan Benchmarks by Race/Ethnicity	11

Access 12

Percent of 8th Graders Who Took ACT Explore by State	12
Percent of 10th Graders Who Took ACT Plan by State	12
Number of 8th Graders Who Took ACT Explore by Race/Ethnicity	13
Number of 10th Graders Who Took ACT Plan by Race/Ethnicity	14

Academic Performance and Preparation 15

ACT Explore Scores Over Time	15
ACT Plan Scores Over Time	15
ACT Explore Scores Over Time by Race/Ethnicity	16
ACT Plan Scores Over Time by Race/Ethnicity	16
ACT Explore Benchmarks by Planned High School Coursework	17
ACT Plan Benchmarks by Planned and Taken High School Coursework	17

Longitudinal Analyses—Students Who Took ACT Explore, ACT Plan, and the ACT and Graduated in 2013 18

Comparability of Scores of Longitudinal and Cohort Data 19

ACT Explore, ACT Plan, and ACT Composite Scores, Longitudinal and Cohort Data	19
-------------------------------------------------------------------------------	----

Access 20

ACT Explore–, ACT Plan–, and ACT-Tested 2013 High School Graduates by Race/Ethnicity	20
ACT Explore–, ACT Plan–, and ACT-Tested 2013 High School Graduates by Parent's Income	20

Progress Toward College Readiness 21

College Readiness Benchmarks	21
Benchmark Attainment and Near Attainment	21
Changes in Benchmark Attainment and Near Attainment from ACT Explore to the ACT	22
Changes in Benchmark Attainment and Near Attainment	23
Number of Benchmarks Attained	26
Benchmark Attainment by Race/Ethnicity	26
Benchmark Attainment by Parental Income	27

Academic Performance and Preparation 28

Average Scores by Subject	28
Average Scores by Race/Ethnicity	28
Average Scores by Parental Income	29
Academic Preparation—Planned or Taken Core Curriculum	29
ACT College Readiness Benchmarks by Planned and Taken High School Coursework	30

Policy and Practice Recommendations for Increasing Readiness 31

High Academic Expectations for All Students	31
Rigorous Course Content Aligned to Readiness	31
Early, Consistent Monitoring of Progress Toward Readiness	32
Early Implementation of Interventions	32
Use of Data-Based Decision Making	32
Improve Access to High-Quality Early Education	32

Notes 33

ACT College Readiness Benchmarks	33
----------------------------------	----

Cross-Sectional Analyses—Students Taking ACT Explore and ACT Plan During the 2012–13 School Year

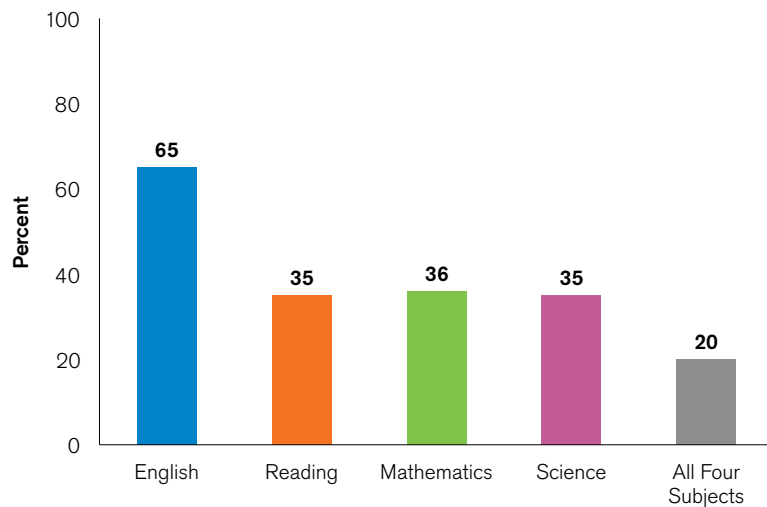
Progress Toward College Readiness

ACT Explore Benchmarks by Subject

The relative percentages of students meeting the ACT Explore benchmarks in 2013 were similar to the percentages of students meeting the ACT benchmarks, with the English benchmark being the most commonly met. Smaller percentages of students met the benchmarks in reading, mathematics, and science.

In 2013, 65% of all ACT Explore–tested 8th graders met the English benchmark, while only 20% met the benchmark in all four subjects.

Percent of ACT Explore–Tested 8th Graders Meeting ACT Explore Benchmarks by Subject, 2013

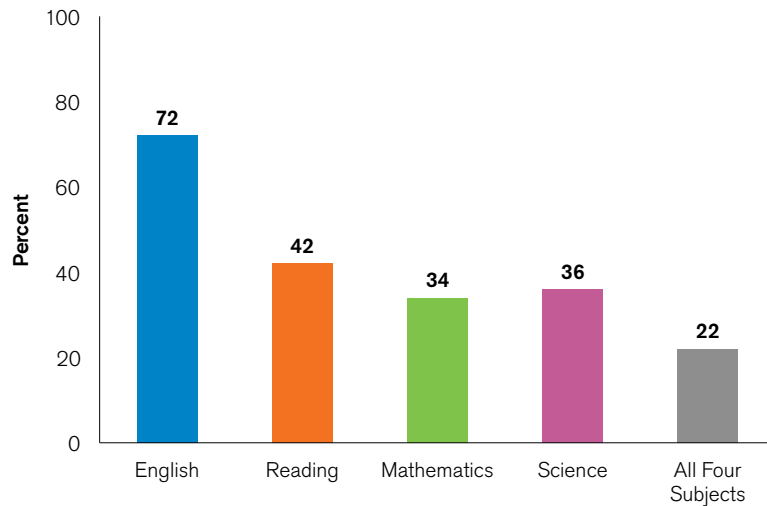


ACT Plan Benchmarks by Subject

The relative percentages of students meeting the ACT Plan benchmarks in 2013 were similar to the percentages of students meeting the ACT Explore benchmarks, with the English benchmark being the most commonly met.

In 2013, 72% of all ACT Plan–tested 10th graders met the English benchmark, while only 22% met the benchmark in all four subjects.

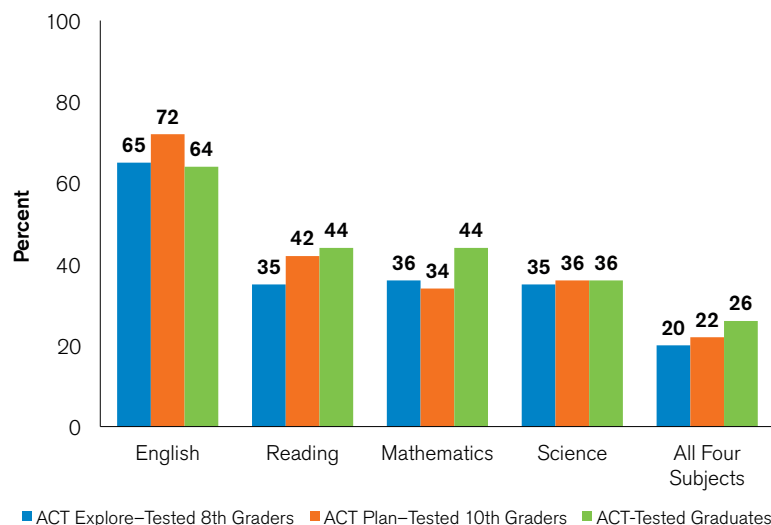
Percent of ACT Plan–Tested 10th Graders Meeting ACT Plan Benchmarks by Subject, 2013



Progress Toward College Readiness

ACT College Readiness Benchmarks—On Target and Attained

Percent of 2012–2013 ACT Explore–Tested 8th Graders, 2012–2013 ACT Plan–Tested 10th Graders, and 2013 ACT–Tested Graduates Meeting ACT College Readiness Benchmarks, 2013



With the exception of the mathematics benchmark, the percentages of 10th graders meeting the ACT College Readiness Benchmarks were higher than the corresponding percentages of 8th graders. With the exception of English, the percentages of high school graduates meeting the benchmarks were equal to or higher than the corresponding percentages of 10th graders.

More than a quarter (26%) of 2013 ACT-tested graduates met all four ACT College Readiness Benchmarks, while only 22% of 2012–13 ACT Plan–tested 10th graders and 20% of 2012–13 ACT Explore–tested 8th graders did so. Across grade levels, only the English benchmark was met by more than 50% of all tested students, regardless of grade.

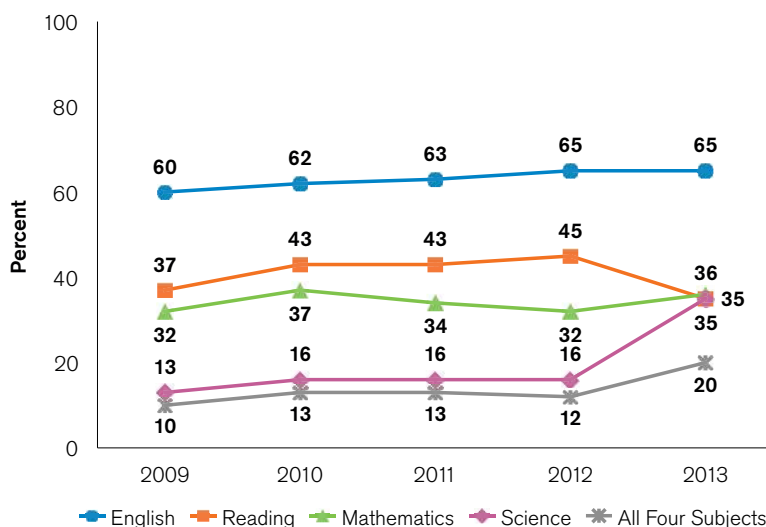
Note: Data represented in the above figure are cross-sectional and not longitudinal, reflecting three different groups of students.

Progress Toward College Readiness

ACT Explore Benchmarks Over Time

Between 2009 and 2013, ACT Explore benchmark attainment percentages increased slightly in English, from 60% to 65%, and in mathematics, from 32% to 36%. Benchmark attainment for reading increased steadily from 2009 (37%) to 2012 (45%), with a drop in 2013, due primarily to the update to the reading benchmark. The percentage of students meeting the science benchmark was relatively stable from 2009 (13%) to 2012 (16%), with a large increase in 2013, due primarily to the update to the science benchmark. The percentage of students meeting all four benchmarks increased slightly from 2009 (10%) to 2012 (12%), with a large increase in 2013, due primarily to the update to the benchmarks.

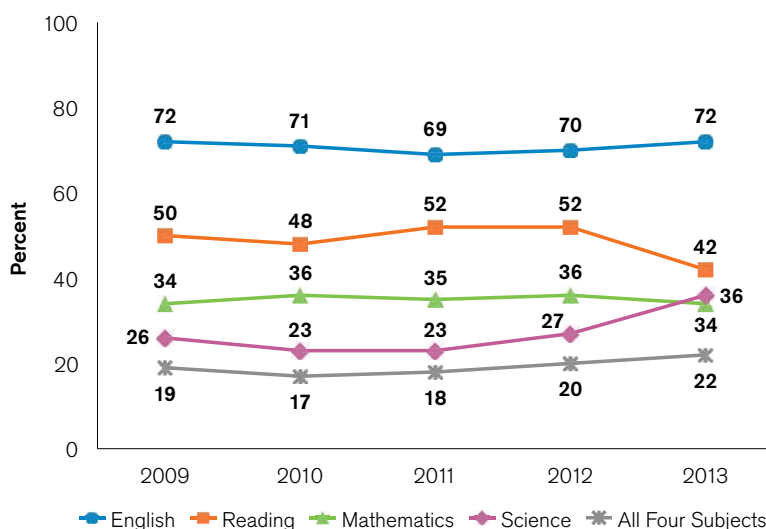
Percent of ACT Explore–Tested 8th Graders Meeting ACT Explore Benchmarks, 2009–2013



ACT Plan Benchmarks Over Time

Between 2009 and 2013, ACT Plan benchmark attainment percentages remained relatively stable, except for a decrease in benchmark attainment in reading and an increase in benchmark attainment for science, primarily due to the update of the benchmarks in 2013.

Percent of ACT Plan–Tested 10th Graders Meeting ACT Plan Benchmarks, 2009–2013

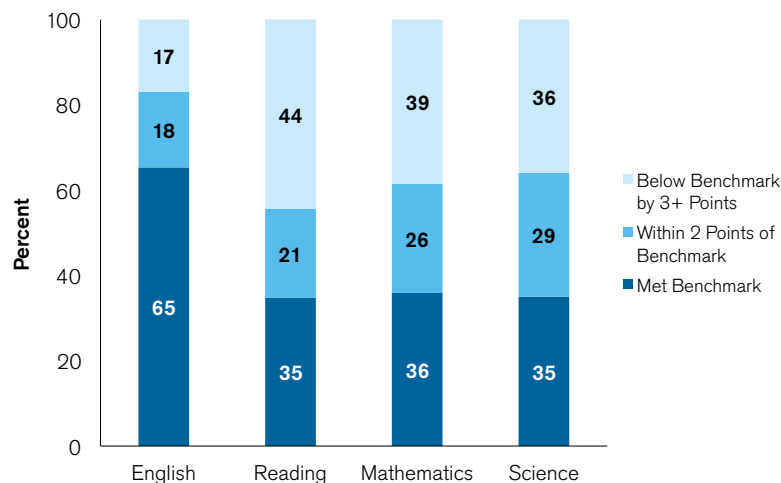


Note: Reading and science benchmarks were updated in 2013.

Progress Toward College Readiness

ACT Explore Benchmarks—Attainment and Near Attainment

Percent of ACT Explore–Tested 8th Graders by Benchmark Attainment and Subject, 2013

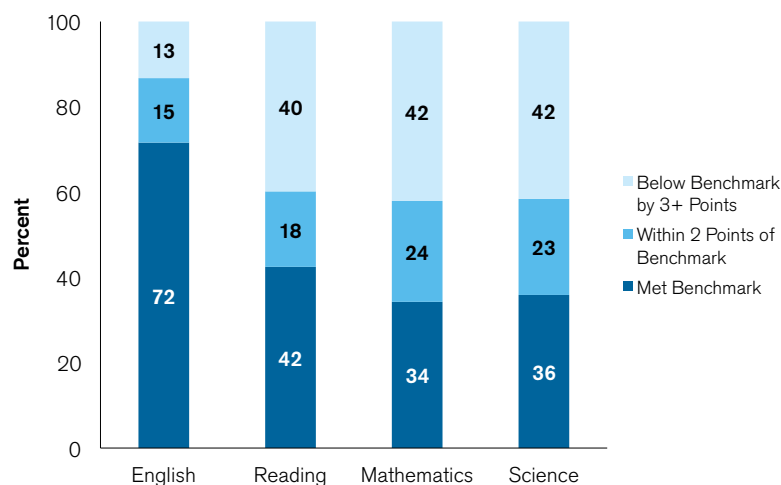


About 18% to 29% of ACT Explore–tested 8th graders were within two scale points of meeting an ACT Explore benchmark in 2013, depending on subject area. This represents approximately 199,000 to 325,000 additional students who were close to being on track to college readiness within a subject area.

In 2013, 65% of ACT Explore–tested 8th graders met the English benchmark, while another 18% were within two scale points of doing so. The percentages of students within two scale points of the ACT Explore benchmarks were even more impressive in reading (21%), mathematics (26%), and science (29%).

ACT Plan Benchmarks—Attainment and Near Attainment

Percent of ACT Plan–Tested 10th Graders by Benchmark Attainment and Subject, 2013



About 15% to 24% of ACT Plan–tested 10th graders were within two scale points of meeting an ACT Plan benchmark in 2013, depending on subject area. This represents approximately 198,000 to 309,000 additional students who were close to being on track to college readiness within a subject area.

In 2013, 72% of ACT Plan–tested 10th graders met the English benchmark, while another 15% were within two scale points of doing so. The percentages of students within two scale points of the respective benchmark in the other subject areas were the same or greater, including 18% in reading, 24% in mathematics, and 23% in science.

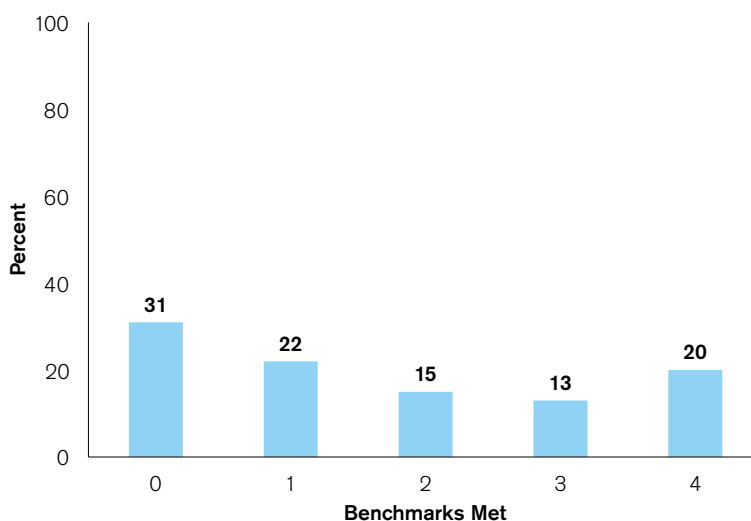
Note: Percents in this report may not sum to 100% due to rounding.

Progress Toward College Readiness

Number of ACT Explore Benchmarks Attained

About 69% of ACT Explore–tested 8th graders met at least one of the four ACT Explore benchmarks in English, reading, mathematics, or science. Thirty-one percent of the students did not meet any of the benchmarks, and about 49% of the students met between one and three benchmarks. Only 20% met all four of the benchmarks, meaning that only about one in five ACT Explore–tested 8th graders were academically on track for college readiness in all four subject areas.

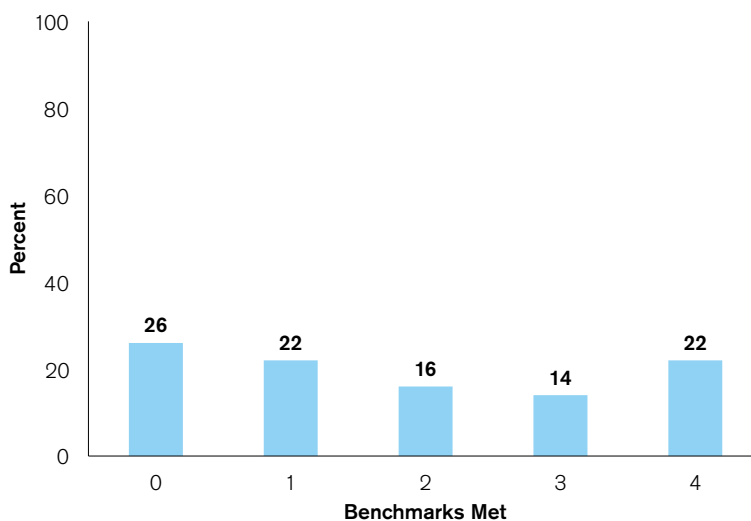
Percent of ACT Explore–Tested 8th Graders by Number of Benchmarks Attained, 2013



Number of ACT Plan Benchmarks Attained

About 74% of ACT Plan–tested 10th graders met at least one of the four ACT Plan benchmarks in English, reading, mathematics, or science. Twenty-six percent of the students did not meet any of the benchmarks, and about 52% of the students met between one and three benchmarks. Only 22% met all four of the benchmarks, meaning that a little more than one in five ACT Plan–tested 10th graders were academically on track for college readiness.

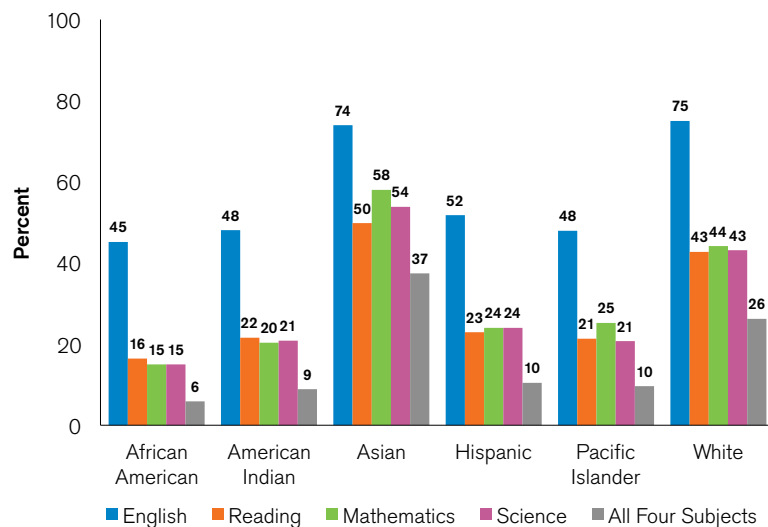
Percent of ACT Plan–Tested 10th Graders by Number of Benchmarks Attained, 2013



Progress Toward College Readiness

ACT Explore Benchmarks by Race/Ethnicity

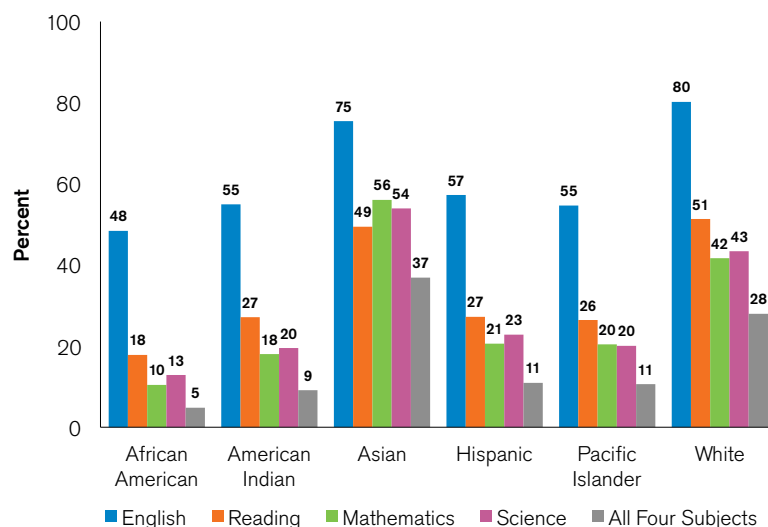
Percent of ACT Explore–Tested 8th Graders Meeting Benchmarks by Race/Ethnicity, 2013



More than one in three (37%) ACT Explore–tested Asian 8th graders met all four ACT Explore benchmarks in 2013, more than students from all other racial/ethnic groups. African American students were least likely to meet the benchmarks; only 6% met all four. Across all racial/ethnic groups, more students met the English benchmark than any other subject area.

ACT Plan Benchmarks by Race/Ethnicity

Percent of ACT Plan–Tested 10th Graders Meeting Benchmarks by Race/Ethnicity, 2013



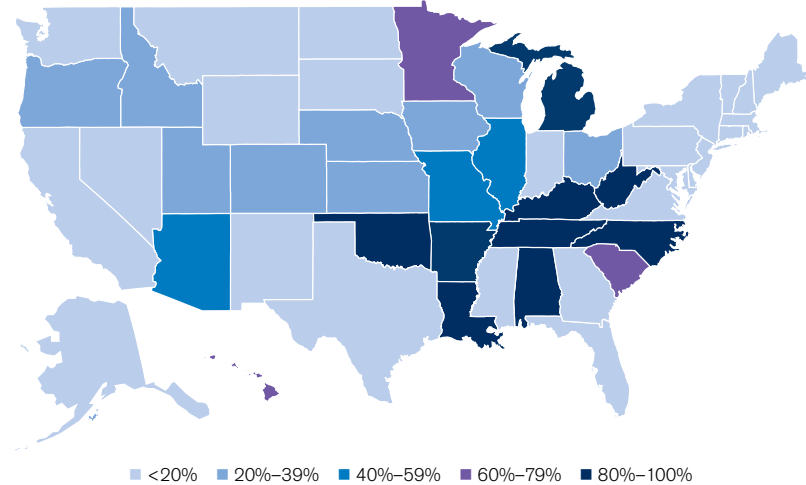
More than one in three (37%) ACT Plan–tested Asian 10th graders met all four ACT Plan benchmarks in 2013, more than students from all other racial/ethnic groups. African American students were least likely to meet the benchmarks; only 5% met all four. Across all racial/ethnic groups, more students met the English benchmark than any other subject area.

Access

Percent of 8th Graders Who Took ACT Explore by State

At least 60% of all 8th graders took ACT Explore in 2013 in 12 states. In nine states, at least 80% of 8th-grade students took ACT Explore. In three states, between 40% and 59% of 8th graders took ACT Explore in 2013, while another nine states saw between 20% and 39% of their 8th graders take ACT Explore. Less than 20% of 8th graders took ACT Explore in 27 states and Washington, DC.

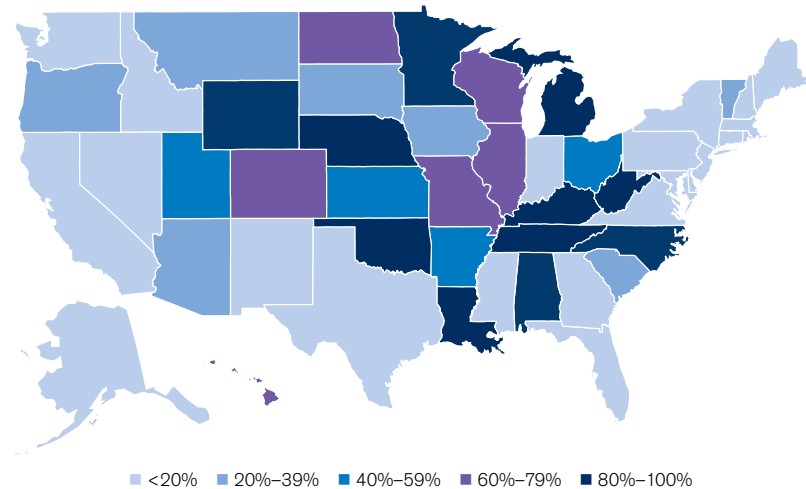
Percent of ACT Explore–Tested 8th Graders by State, 2013



Percent of 10th Graders Who Took ACT Plan by State

At least 60% of all 10th graders took ACT Plan in 2013 in 17 states. In 11 states, at least 80% of 10th-grade students took ACT Plan. In four states, between 40% and 59% of 10th graders took ACT Plan in 2013, while another seven states saw between 20% and 39% of their 10th graders take ACT Plan. Less than 20% of 8th graders took ACT Plan in 23 states and Washington, DC.

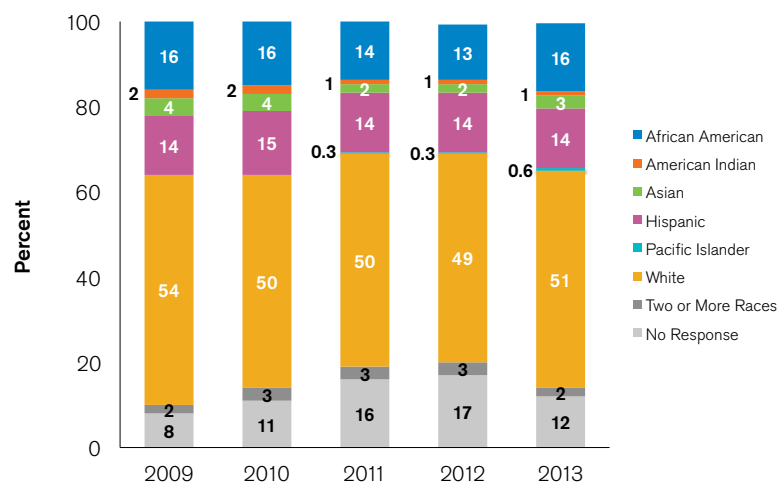
Percent of ACT Plan–Tested 10th Graders by State, 2013



Access

Number of 8th Graders Who Took ACT Explore by Race/Ethnicity

Percentage of ACT Explore–Tested 8th Graders by Race/Ethnicity, 2009–2013



The number of 8th-grade students taking ACT Explore increased by 62% between 2009 and 2013. During that time, the demographic makeup of the students changed; in 2009, 54% of ACT Explore–tested 8th graders were White, whereas in 2013, White students made up a little more than half (51%) of the tested students. Proportionally, the largest increases were Hispanic students (63% increase) and students of two or more races (59% increase). The number of American Indian students taking ACT Explore showed the smallest increase (16%).

Number of ACT Explore–Tested 8th Graders by Race/Ethnicity, 2009–2013

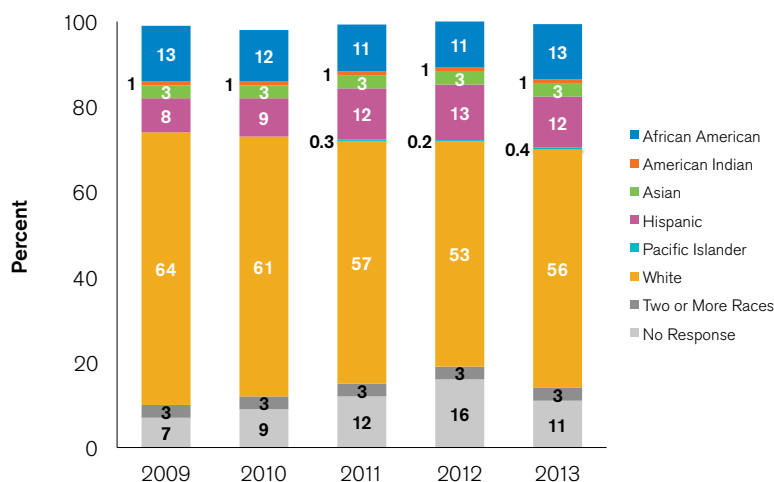
ACT Explore	2009	2010	2011	2012	2013	% Change
African American	113,964	127,683	122,103	122,710	176,631	55%
American Indian	11,292	12,148	9,544	10,184	13,142	16%
Asian	24,639	30,751	18,983	20,406	29,914	21%
Hispanic	96,572	119,491	122,776	130,123	157,327	63%
Pacific Islander			2,336	2,343	6,554	
White	371,649	388,816	425,618	453,307	576,484	55%
Two or More Races	17,043	19,734	22,537	25,861	27,068	59%
No Response	58,159	85,293	133,747	160,196	133,465	129%
Total	693,318	783,916	857,644	925,130	1,120,585	62%

Access

Number of 10th Graders Who Took ACT Plan by Race/Ethnicity

The number of 10th-grade students taking ACT Plan increased by 28% between 2009 and 2013. During that time, there were some changes to the demographic makeup of students tested. Proportionally, the largest increases were in Hispanic students (83% increase) and students of two or more races (36% increase). The number of American Indian students taking ACT Plan declined by 15%.

Percentage of ACT Plan–Tested 10th Graders by Race/Ethnicity, 2009–2013



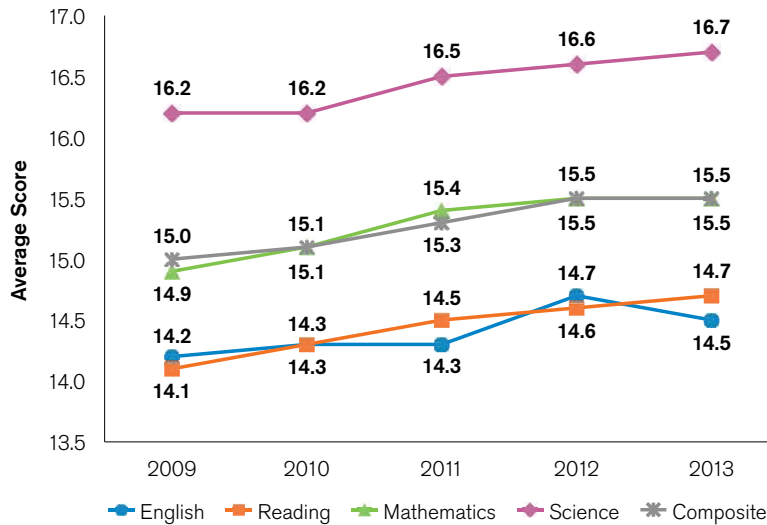
Number of ACT Plan–Tested 10th Graders by Race/Ethnicity, 2009–2013

ACT Plan	2009	2010	2011	2012	2013	% Change
African American	132,210	128,360	129,026	137,669	171,159	29%
American Indian	14,537	14,945	10,714	11,074	12,427	-15%
Asian	34,418	36,022	30,996	35,780	42,081	22%
Hispanic	86,566	95,982	137,410	158,919	158,430	83%
Pacific Islander			3,373	2,866	5,611	
White	654,353	632,821	645,694	666,219	738,508	13%
Two or More Races	26,127	27,384	33,922	39,092	35,587	36%
No Response	73,254	94,404	136,740	197,585	143,386	96%
Total	1,021,465	1,029,918	1,127,875	1,249,204	1,307,189	28%

Academic Performance and Preparation

ACT Explore Scores Over Time

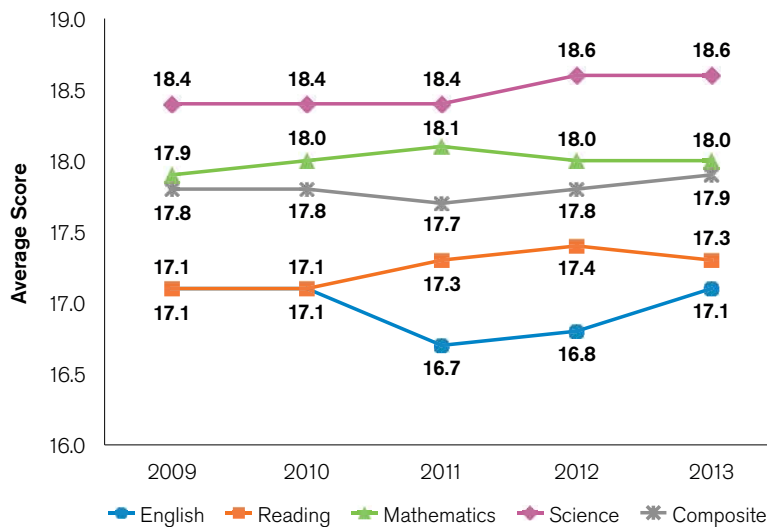
Average ACT Explore Scores, 2009–2013



ACT Explore scores increased slightly between 2009 and 2013 by about 0.3 points in English, 0.6 points in reading and mathematics, and 0.5 points in science. The average Composite score increased from 15.0 to 15.5.

ACT Plan Scores Over Time

Average ACT Plan Scores, 2009–2013



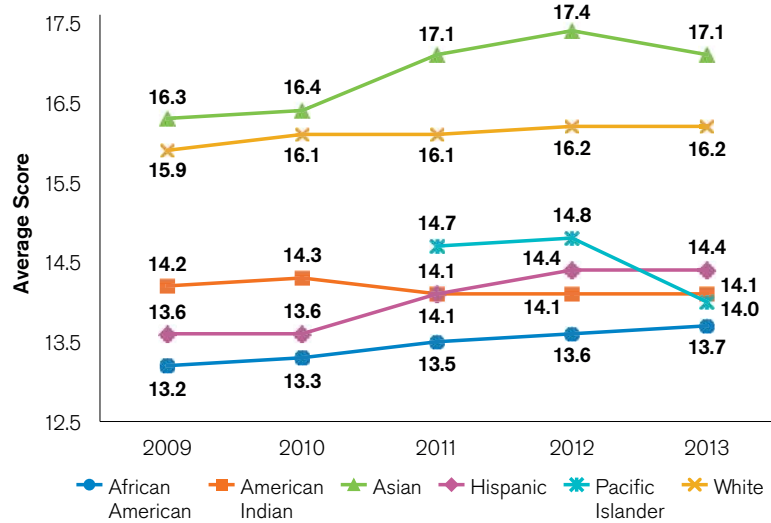
ACT Plan scores remained essentially the same between 2009 and 2013. A slight increase was seen in reading scores from 17.1 in 2009 to 17.3 in 2013 and science scores from 18.4 in 2009 to 18.6 in 2013, while the Composite score ranged between 17.7 and 17.9.

Academic Performance and Preparation

ACT Explore Scores Over Time by Race/Ethnicity

Average ACT Explore Composite scores of African American, Asian, and Hispanic students increased by half a score point or more between 2009 and 2013, while scores of White students increased by 0.3 points. Scores of American Indian students remained essentially the same, decreasing by 0.1 points, while Pacific Islander students dropped from 14.7 to 14.0.

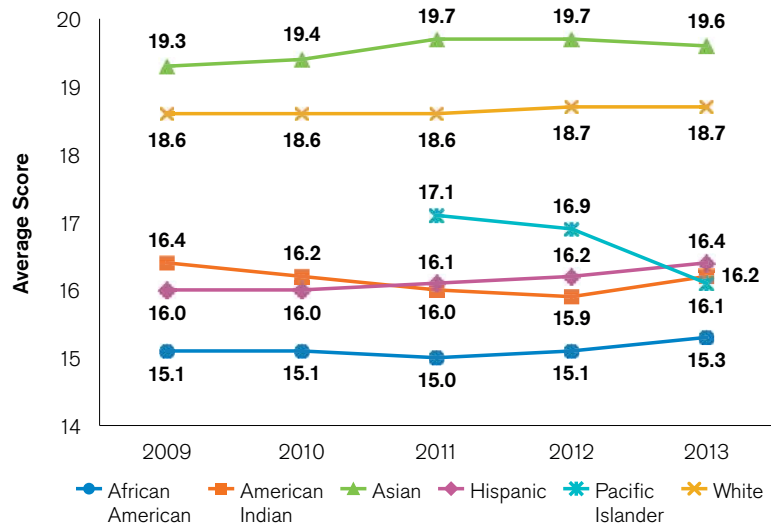
Average ACT Explore Composite Test Scores by Race/Ethnicity, 2009–2013



ACT Plan Scores Over Time by Race/Ethnicity

Average ACT Plan Composite scores increased slightly between 2009 and 2013 for Hispanic students, from 16.0 to 16.4. Scores of students in other race/ethnicity categories remained essentially the same, although Pacific Islander students' scores dropped a full score point, from 17.1 to 16.1.

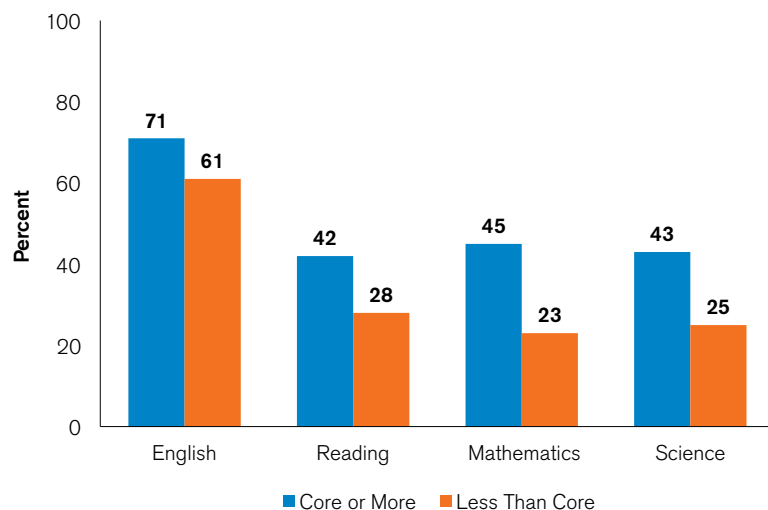
Average ACT Plan Composite Test Scores by Race/Ethnicity, 2009–2013



Academic Performance and Preparation

ACT Explore Benchmarks by Planned High School Coursework

Percent of ACT Explore–Tested 8th Graders Meeting the ACT Explore Benchmarks by Grade 8 High School Coursework Plans, Within Subject, 2013

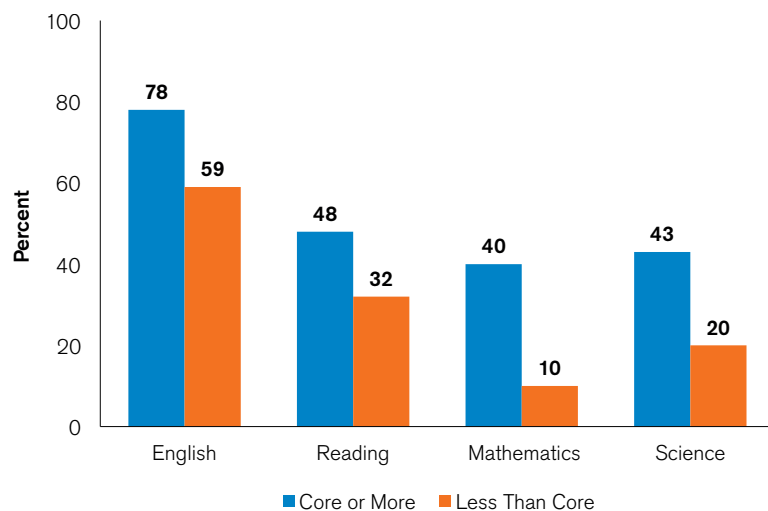


Within each subject area, students who plan to take a core curriculum or more (defined as four years of English and three years each of social studies, mathematics, and science) are more likely to meet the corresponding ACT Explore benchmark than students who plan to take less than a core curriculum in each subject area.

The largest curriculum-based difference in benchmark attainment rates was in mathematics. Students who planned to complete three or more years of mathematics were more likely to meet the mathematics benchmark—by 22 points—than students who planned to take less than three years of mathematics. The smallest difference was in English (10 points).

ACT Plan Benchmarks by Planned and Taken High School Coursework

Percent of ACT Plan–Tested 10th Graders Meeting the ACT Plan Benchmarks by Grade 10 High School Coursework Completed or Planned, Within Subject, 2013



Within each subject area, students who planned to take a core curriculum or more (defined as four years of English and three years each of social studies, mathematics, and science) were more likely to meet the corresponding ACT Plan benchmark than students who planned to take less than a core curriculum in each subject area.

The largest curriculum-based difference in benchmark attainment rates was in mathematics. Students who planned to complete three or more years of mathematics were more likely to meet the mathematics benchmark—by 30 points—than students who planned to take less than three years of mathematics. The smallest difference was in English (19 points).³

Note: 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.

³ The curriculum-based differences in benchmark attainment rates were higher for ACT Plan than ACT Explore across all four subject areas. In 8th grade, students reported only planned high school coursework, whereas in 10th grade, students reported both planned high school coursework and courses already taken.

Longitudinal Analyses—Students Who Took ACT Explore, ACT Plan, and the ACT and Graduated in 2013⁴

The following analyses are based on a sample of 321,342 students who completed all three of the ACT College and Career Readiness System academic progress assessments, including ACT Explore in 8th grade, ACT Plan in 10th grade, and the ACT in 11th or 12th grade. The majority of these students took ACT Explore during the 2008–2009 school year, ACT Plan during the 2010–2011 school year, and the ACT during the 2011–2012 or 2012–2013 school years.

Because the same students were tested at each time point, we can make direct comparisons between student performance on ACT Explore, ACT Plan, and the ACT and assess growth over time. However, keep

in mind that these analyses are based on a subset of the total tested populations reported in *The Condition of College & Career Readiness (2013)* report. To the extent that the students who completed all three assessments differ systematically from the total tested populations, then the results presented here might not be generalizable to the entire populations of ACT Explore–, ACT Plan–, and ACT-tested students. Where relevant, these differences will be highlighted in this report.

Any analyses of ACT benchmarks presented in this report are based on the ACT benchmarks updated in 2013.⁵

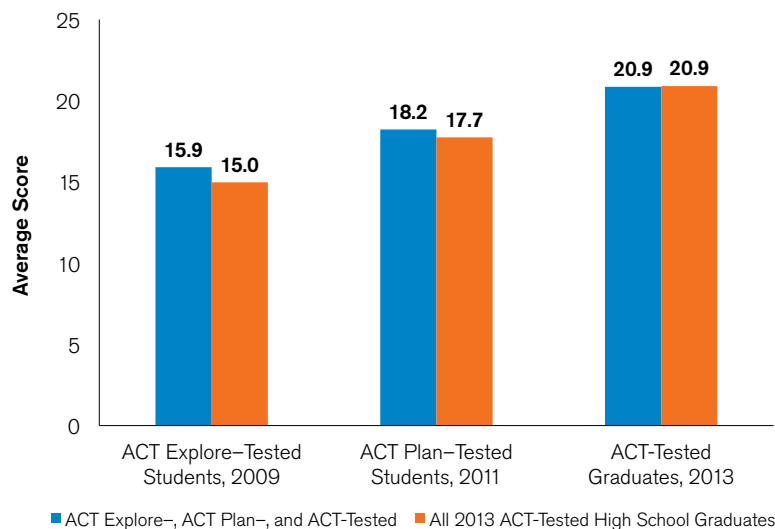
⁴It should also be noted that because the ACT Explore and ACT Plan results presented here are largely students who took ACT Explore in 2008–2009 and ACT Plan in 2010–2011, these results should not be confused with the 2013 ACT Explore and ACT Plan results presented earlier in this report. The most appropriate comparison groups for the analyses presented here would be to the 2009 ACT Explore–tested students and 2011 ACT Plan–tested students presented earlier in this report, and the ACT-tested high school graduates from *The Condition of College & Career Readiness (2013)*, keeping in mind the differences between the groups of students.

⁵ACT College Readiness Benchmarks (2013) can be found in the Notes section of this report.

Comparability of Scores of Longitudinal and Cohort Data

ACT Explore, ACT Plan, and ACT Composite Scores, Longitudinal and Cohort Data

Average ACT Explore, ACT Plan, and ACT Test Composite Scores, Longitudinal and Cohort Data



Students who took all three of the ACT College and Career Readiness System academic progress assessments are a subset of all 2013 ACT-tested high school graduates. To further understand how representative the longitudinal data are of the entire populations of students who took ACT Explore in the 8th grade during the 2008–2009 school year, ACT Plan in the 10th grade during the 2010–2011 school year, and the ACT in 11th or 12th grade during the 2011–2012 or 2012–2013 school years, the chart to the left compares the average ACT Explore, ACT Plan, and ACT Composite scores for each group.

As the chart shows, students who took all three assessments tended to have higher ACT Explore scores (15.9) than the 2009 ACT Explore–tested population (15.0) and higher ACT Plan scores (18.2) than the entire 2011 ACT Plan–tested population (17.7), although there was a smaller difference by the 10th grade. ACT Composite scores were nearly the same between the two groups. The reasons for the score differences in the earlier grades is unknown but could be due to one or more of several factors, such as:

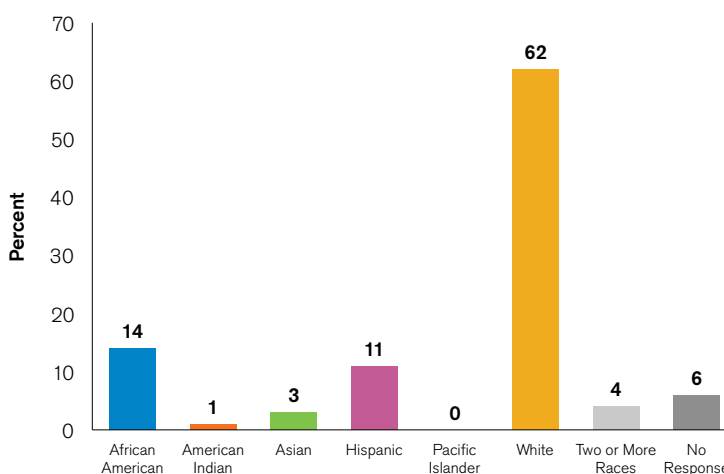
1. In states that do not administer the ACT statewide, the ACT is more likely to be taken by college-bound students who may have higher achievement levels than students who do not intend to enroll in postsecondary education after high school, whereas ACT Explore and ACT Plan tend to be administered to entire cohorts of students within a state or school district. Therefore, students who take the ACT may be a higher-achieving subset of students, whereas students who take ACT Explore or ACT Plan may be more representative of all students, including the non–college bound.
2. The longitudinal data represent students who were still enrolled in high school in 11th or 12th grade and took the ACT; it is possible that some of the lower-achieving students who took ACT Explore and/or ACT Plan left the education system before taking the ACT. Therefore, they were not included in the sample of students who took all three assessments.

Access

ACT Explore–, ACT Plan–, and ACT-Tested 2013 High School Graduates by Race/Ethnicity

The race/ethnicity of ACT Explore–, ACT Plan–, and ACT-tested students was based on students' self-reported race/ethnicity at the time they took the ACT test.⁶

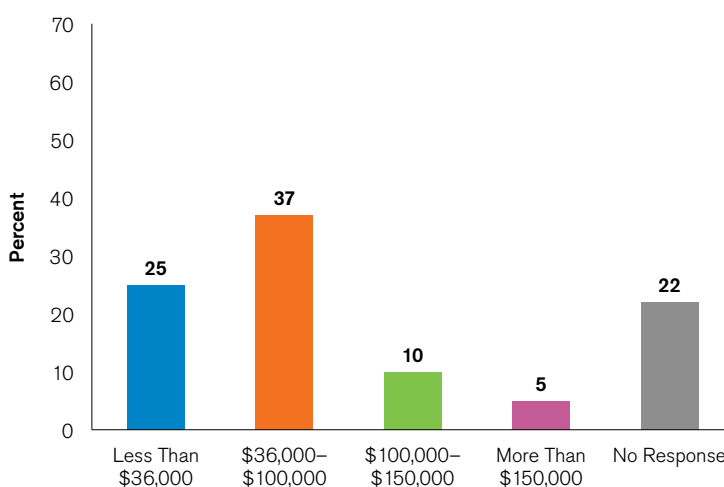
Percent of ACT Explore–, ACT Plan–, and ACT-Tested 2013 High School Graduates by Race/Ethnicity⁷



ACT Explore–, ACT Plan–, and ACT-Tested 2013 High School Graduates by Parent's Income

Parental income is based on student responses at the time the student took the ACT.⁸ More than one-quarter of students reported their parents' income at less than \$36,000 per year, and only 5% reported their parents' income at more than \$150,000 per year. More than one in five students did not report their parents' income level.⁹

Percent of ACT Explore–, ACT Plan–, and ACT-Tested 2013 High School Graduates by Parental Income Level



⁶ N counts for each race/ethnicity category: African American, 44,364; American Indian, 3,175; Asian, 8,634; Hispanic, 35,031; Pacific Islander, 461; White, 198,760; Two or More Races, 12,232; No Response, 18,685.

⁷ Students who took all three assessments were slightly more likely to be African American or White than the entire ACT-tested population and were slightly less likely to be Asian or Hispanic. Overall, the demographic breakdown of the 2013 high school graduates who took ACT Explore in 8th grade, ACT Plan in 10th grade, and the ACT in 11th or 12th grade was similar to the 2013 ACT-tested high school graduating class.

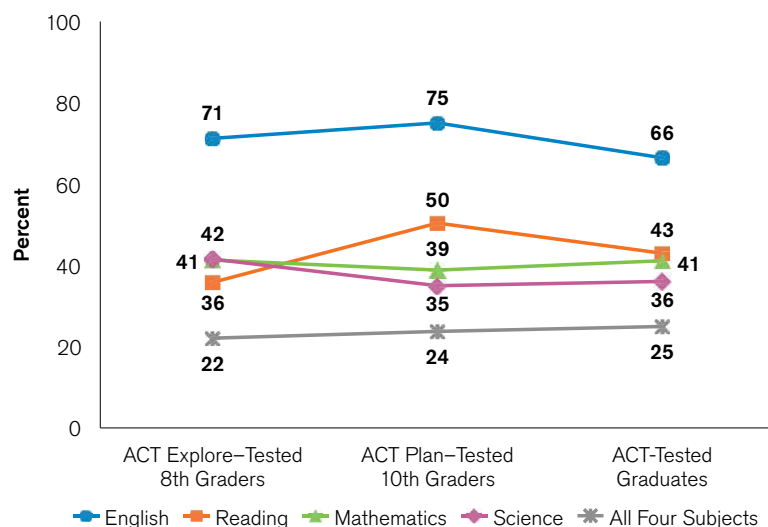
⁸ ACT Explore and ACT Plan do not ask for information regarding parental income of test takers. Family income designations are based on student responses to the ACT.

⁹ N counts for parental income level: Less Than \$36,000, 81,698; \$36,000–\$100,000, 118,254; \$100,000–\$150,000, 33,002; More Than \$150,000, 17,078; No Response, 71,310.

Progress Toward College Readiness

College Readiness Benchmarks

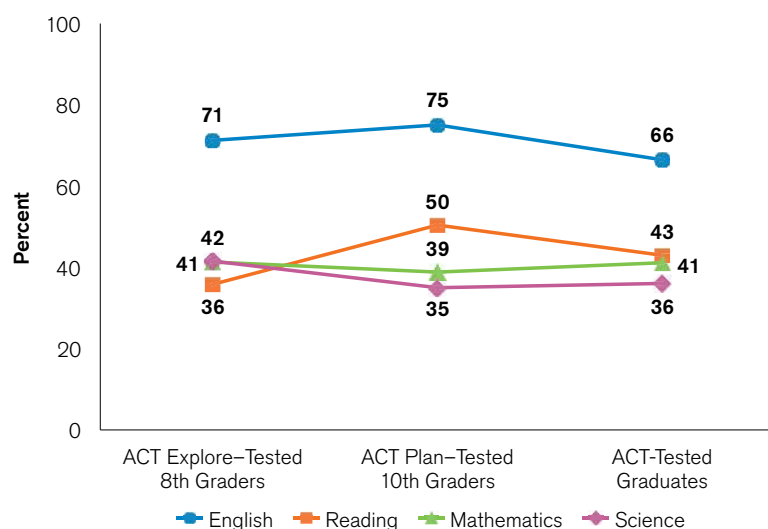
Percent of ACT Explore–, ACT Plan–, and ACT-Tested 2013 Graduates Meeting the ACT College Readiness Benchmarks



The patterns of benchmark attainment across ACT Explore, ACT Plan, and the ACT are similar to what we saw when considering non-longitudinal benchmark attainment across the three assessments.

Benchmark Attainment and Near Attainment

Percent of ACT Explore–, ACT Plan–, and ACT-Tested 2013 High School Graduates Meeting Benchmark, by Subject and Test



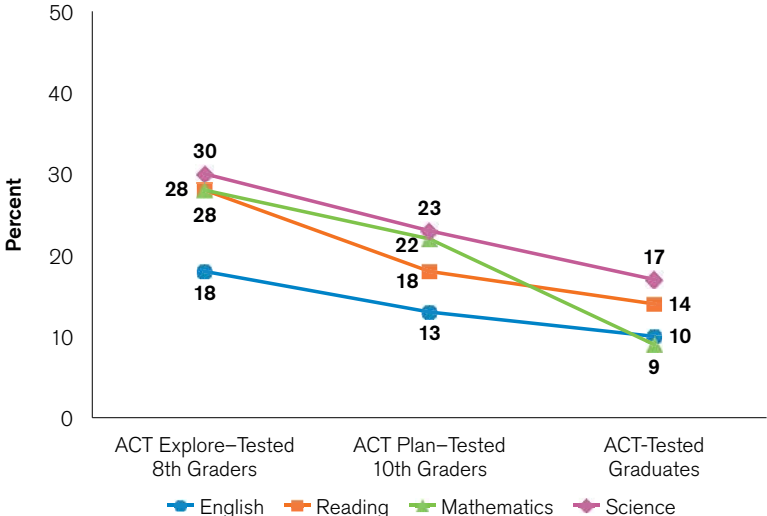
The figures to the left and on page 22 show the percentages of students who met each benchmark, were within two scale points of meeting each of the benchmarks, or three or more scale points below each of the benchmarks. The patterns of attainment and near attainment are similar to what we saw earlier in this report and in *The Condition of College & Career Readiness* (2013). The main finding of interest for this section is that there are large percentages of students who are within two points of meeting the benchmarks in the 8th grade, but as they progress through high school, fewer students are within two points of meeting the benchmarks. This pattern holds across subject areas.

With the exception of reading, the percentages of students who were three or more points below the benchmark steadily increased from ACT Explore to ACT Plan to the ACT. The percentage of students who were three or more points from the reading benchmark decreased from ACT Explore to ACT Plan but increased from ACT Plan to the ACT; overall, the percentage of students who were three or more points from the reading benchmark increased between ACT Explore and the ACT.

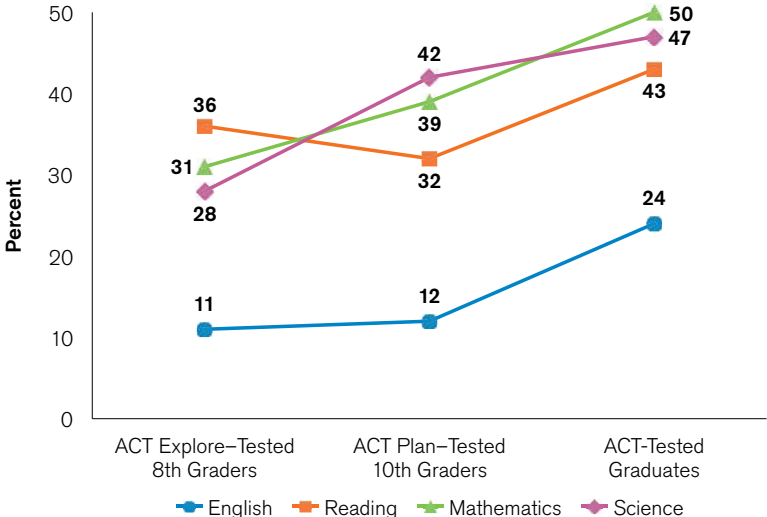
Progress Toward College Readiness

Benchmark Attainment and Near Attainment

Percent of ACT Explore-, ACT Plan-, and ACT-Tested 2013 High School Graduates Within Two Points of Meeting Benchmark, by Subject and Test



Percent of ACT Explore-, ACT Plan-, and ACT-Tested 2013 High School Graduates Below the Benchmark by Three or More Score Points, by Subject and Test



Progress Toward College Readiness

Changes in Benchmark Attainment and Near Attainment from ACT Explore to the ACT

The previous section illustrated that as students progress from ACT Explore to ACT Plan to the ACT, they are less likely to have scores within two points of the College Readiness Benchmarks. What happens to these students? Are they able to catch up, or do they fall further behind?

The following table shows the percentages of students who met, were within two points of, or were three or more points below each of the ACT benchmarks, conditioned on ACT Explore benchmark attainment level. ACT Plan benchmark attainment level is not considered in this analysis.

As the table shows, for each subject area, the largest percentages of students were those who met the

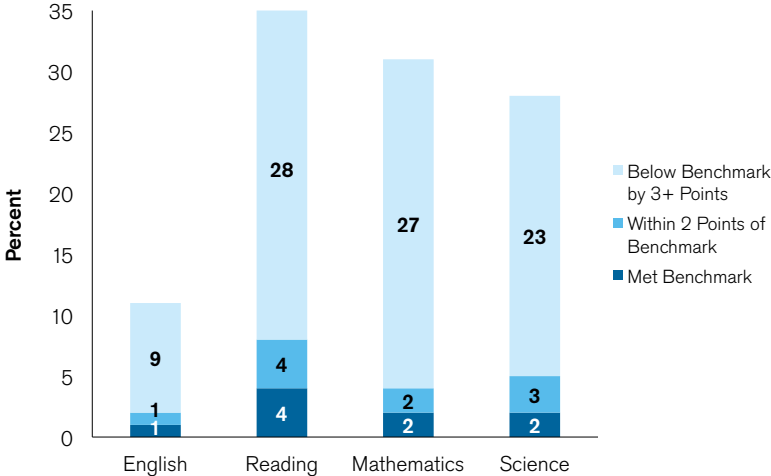
benchmark on both ACT Explore and the ACT. Students who were three or more points below the ACT Explore benchmark tended to remain three or more points below the ACT benchmark. Students who were within two points of meeting the ACT Explore benchmark were more likely to decline to three or more points below the benchmark than to improve and meet the ACT benchmark; however, they were more likely to meet the ACT benchmark than to remain within two points of it. Students who met the ACT Explore benchmark were more likely to meet the ACT benchmark and less likely to fall below the ACT benchmark.

Changes in Benchmark Status from ACT Explore to the ACT

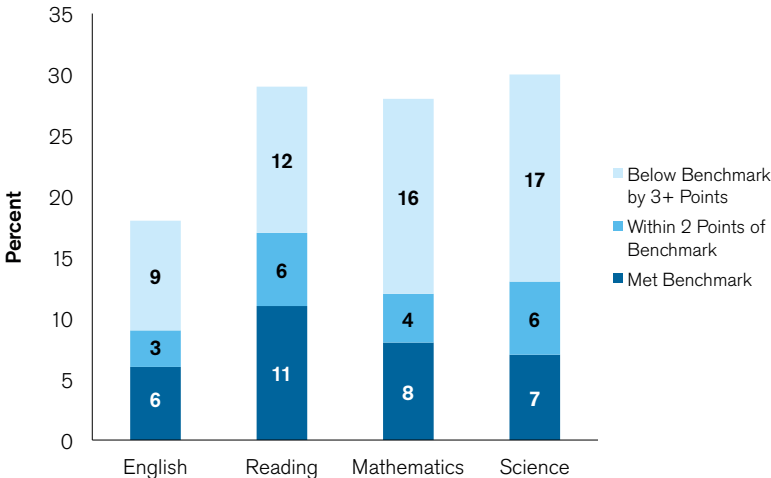
ACT Explore Status	ACT Status	English	Reading	Mathematics	Science
Below by 3+	Below by 3+	9	28	27	23
	Within 2 Points	1	4	2	3
	Met Benchmark	1	4	2	2
Within 2 Points	Below by 3+	9	12	16	17
	Within 2 Points	3	6	4	6
	Met Benchmark	6	11	8	7
Met Benchmark	Below by 3+	6	4	7	7
	Within 2 Points	5	4	4	7
	Met Benchmark	60	28	31	27

Progress Toward College Readiness

Changes in Benchmark Status from ACT Explore to the ACT, Students Below ACT Explore Benchmark by 3+ Points by Subject

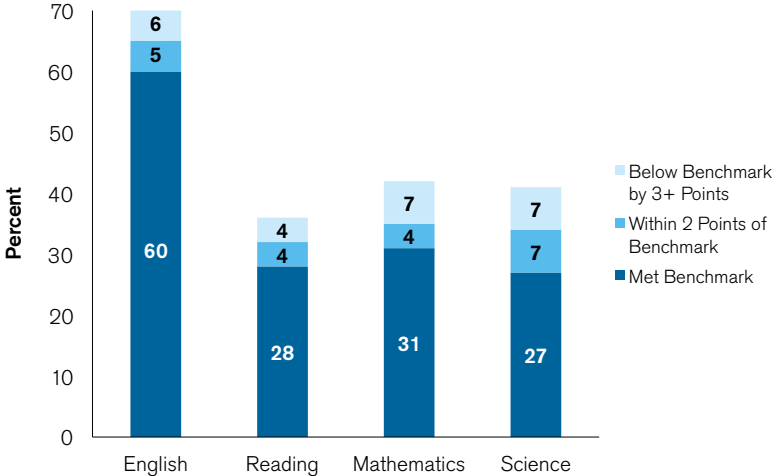


Changes in Benchmark Status from ACT Explore to the ACT, Students Within 2 Points of ACT Explore Benchmark by Subject



Progress Toward College Readiness

Changes in Benchmark Status from ACT Explore to the ACT, Students Meeting ACT Explore Benchmark by Subject

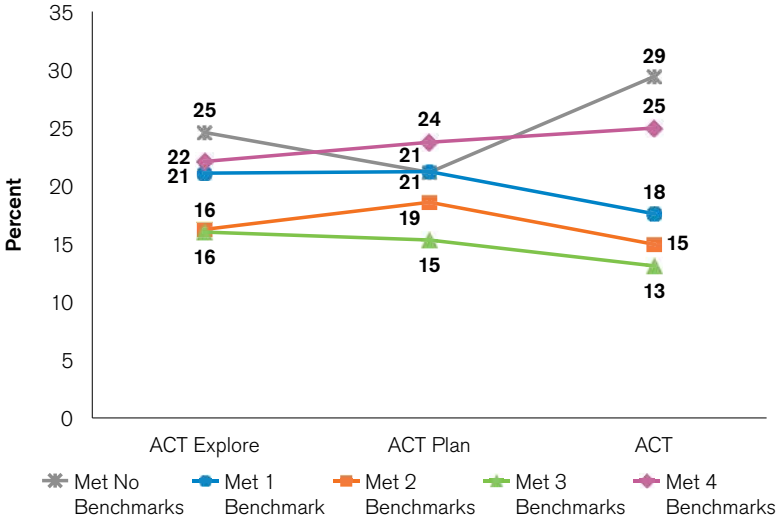


Progress Toward College Readiness

Number of Benchmarks Attained

The numbers of benchmarks attained across ACT Explore, ACT Plan, and the ACT are similar to what we saw when considering non-longitudinal samples.

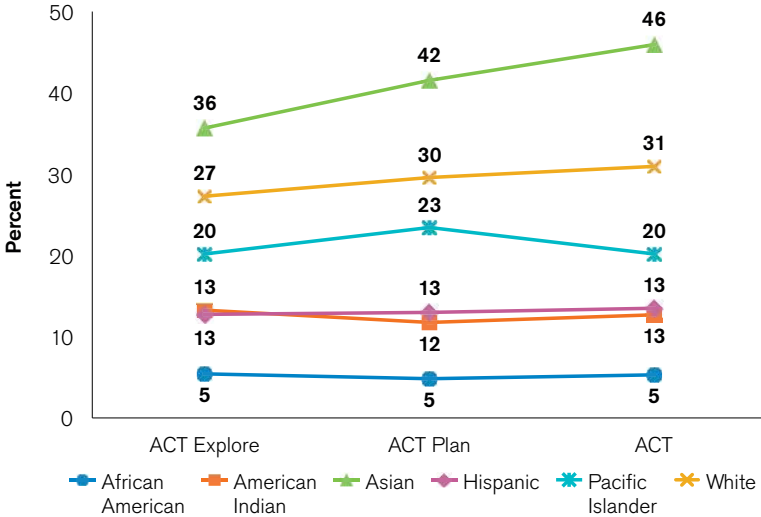
Percent of ACT Explore-, ACT Plan-, and ACT-Tested 2013 High School Graduates by Number of Benchmarks Attained and Test



Benchmark Attainment by Race/Ethnicity

The percentages of students meeting the ACT Explore, ACT Plan, and ACT benchmarks by race/ethnicity are similar to what we saw when considering non-longitudinal samples.

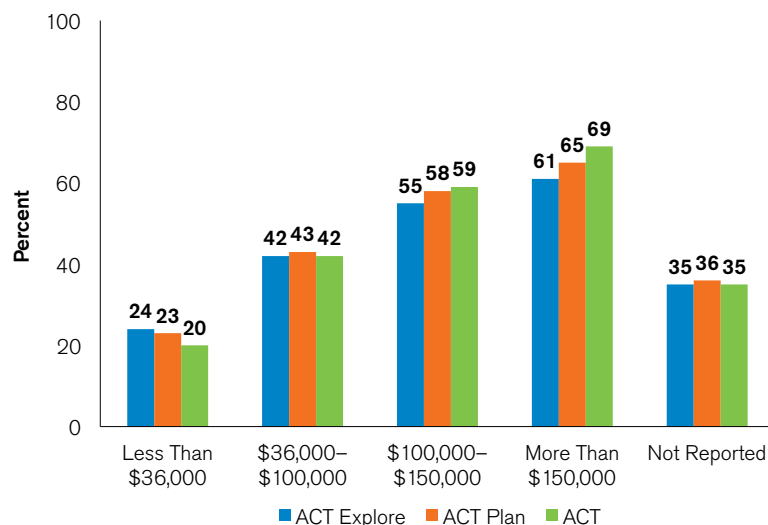
Percent of ACT Explore-, ACT Plan-, and ACT-Tested 2013 High School Graduates Meeting Benchmarks for All Four Subjects by Race/Ethnicity and Test



Progress Toward College Readiness

Benchmark Attainment by Parental Income

Percent of ACT Explore–, ACT Plan–, and ACT-Tested 2013 High School Graduates Meeting Three or Four Benchmarks, by Test and Parent Income



Across all three assessments, the percentages of students meeting three or four of the benchmarks increases as parents' income level increases. This pattern holds across all four subject areas.

For students in families making less than \$36,000 per year, nearly the same percentages of students meet three or four of the ACT Explore, ACT Plan, and ACT benchmarks; while at higher income levels, the percentage of students meeting three or four benchmarks increases from ACT Explore to ACT Plan to the ACT. Because each income level corresponds to the same group of students across the three assessments, this suggests that students with higher family incomes show higher score gains over time than students with lower family incomes, which is further explored in the next section.

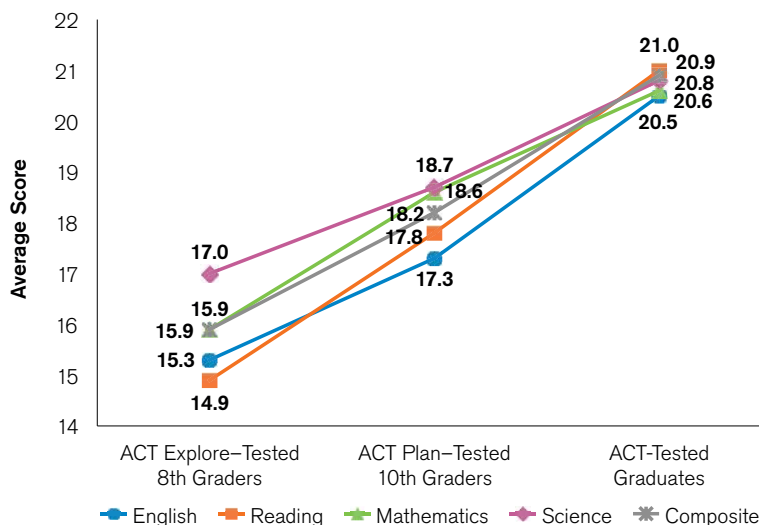
Differences by parents' income in the percent of students meeting each benchmark are apparent across assessments and across subject areas, with larger differences as student progress from ACT Explore to ACT Plan to the ACT. The largest differences by income are in math, followed by science, reading, and English, across all three assessments.

Academic Performance and Preparation

Average Scores by Subject

Comparing average scores from ACT Explore to ACT Plan to the ACT, students made the most growth in reading, gaining six score points between ACT Explore and the ACT, and the least growth in science, gaining 3.8 points between ACT Explore and the ACT. Overall, students' Composite scores grew by an average of 4.9 points between ACT Explore and the ACT, including 2.3 points from ACT Explore to ACT Plan and 2.6 points from ACT Plan to the ACT. The spread of scores across subject areas decreased between ACT Explore and the ACT, with a spread of 2.1 points between the lowest- and highest-scored subject areas for ACT Explore, to 1.4 points for ACT Plan, and 0.5 points for the ACT.

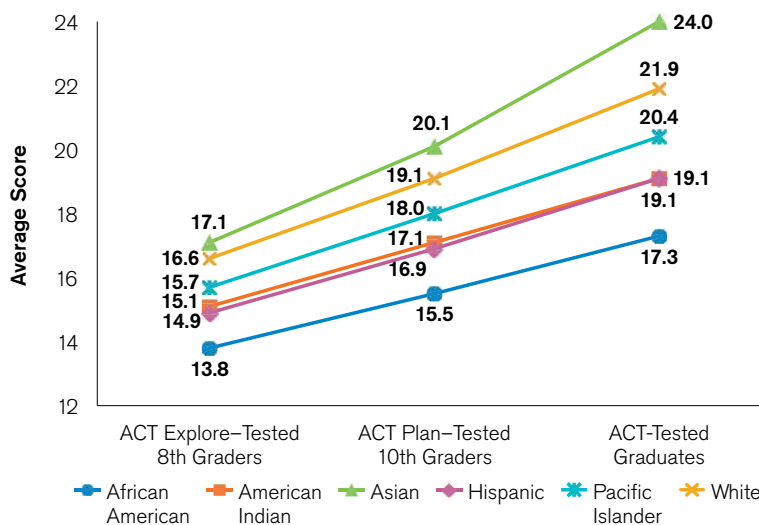
Average ACT Explore, ACT Plan, and ACT Scores, by Subject



Average Scores by Race/Ethnicity

There was a large amount of variation in growth between ACT Explore and the ACT by race/ethnicity, such that groups that started at lower average scores grew at slower rates and groups that started at higher average scores grew at faster rates. African American students had the lowest average ACT Explore Composite scores, and they gained the fewest number of points (3.4). Asian students had the highest average ACT Explore Composite scores, and they gained the largest number of points (6.9). As a result, the spread of Composite scores by race/ethnicity increased between ACT Explore and the ACT, with a spread of 3.2 points between the lowest- and highest-scoring groups for ACT Explore, to 4.6 points for ACT Plan, and 6.7 points for the ACT.

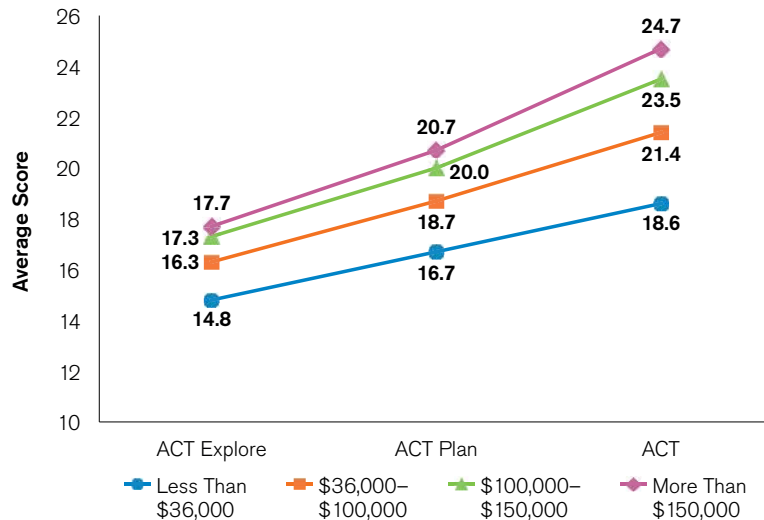
Average ACT Explore, ACT Plan, and ACT Scores, by Race/Ethnicity



Academic Performance and Preparation

Average Scores by Parental Income

Average ACT Explore, ACT Plan, and ACT Composite Scores by Parent Income



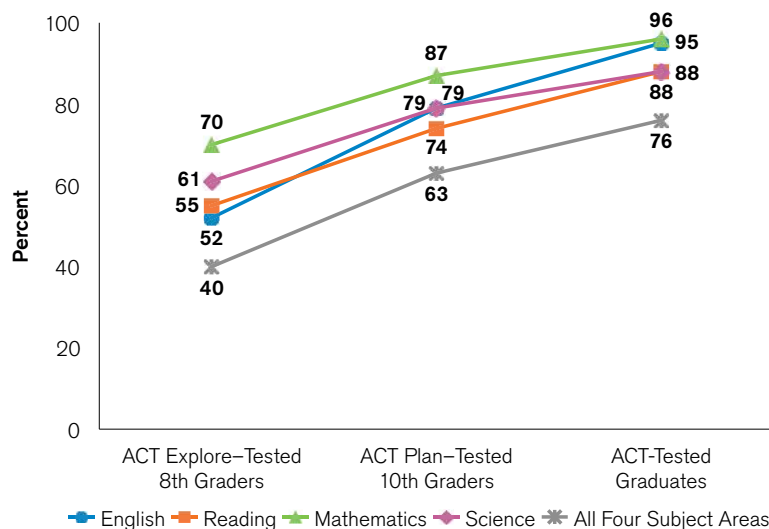
Across all three assessments, average Composite scores increase as parents' income level increases. This pattern holds across all four subject areas.

Of students who reported their parents' income at less than \$36,000 per year, average growth from ACT Explore to the ACT was 3.9 points, whereas students in the highest income category gained 7 points from ACT Explore to the ACT. This mirrors the findings in the longitudinal results showing that students who start lower grow slower and those who start with higher scores show higher gains.

Across all income levels, the largest gains from ACT Explore to the ACT were in reading, with the lowest income group gaining 4.9 score points and the highest income group gaining 8.1 points. Across all income levels, the smallest gains from ACT Explore to the ACT were in science, with the lowest income group gaining 2.7 score points and the highest income group gaining 5.8 points.

Academic Preparation—Planned or Taken Core Curriculum

Percent of ACT Explore–, ACT Plan–, and ACT-Tested 2013 High School Graduates Indicating Core Curriculum Planned or Taken at Time of Testing, by Subject



When students take ACT Explore, they indicate their high school coursework plans with respect to the number of years they plan to study in each subject area. When students take ACT Plan and the ACT, they indicate which courses they have taken and plan to take, which can be used to determine the number of years they have studied or plan to study in each subject area.¹⁰

In 8th grade, 40% of ACT Explore–, ACT Plan–, and ACT-tested 2013 high school graduates indicated that they planned to take a core curriculum in all four subject areas, and the percentages increased over time such that by the time they took the ACT, more than three-quarters of students indicated that they had or were planning to take a core curriculum.

¹⁰ A core curriculum is defined as four years of English and three years each of social studies, mathematics, and science.

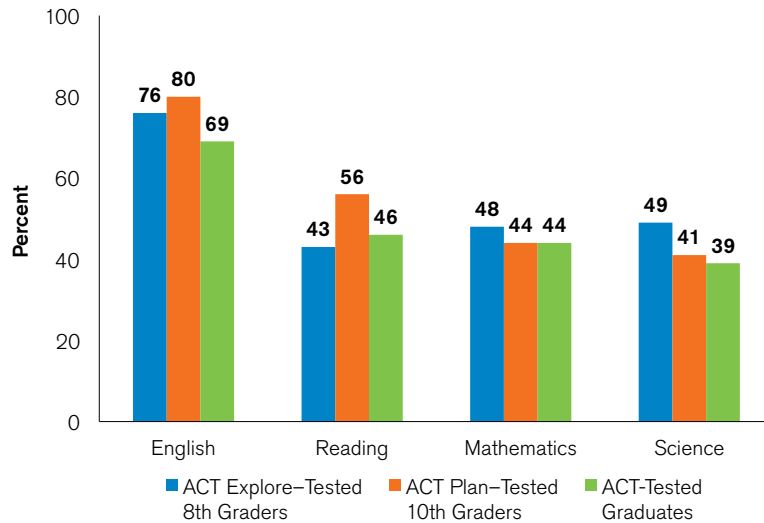
Academic Performance and Preparation

ACT College Readiness Benchmarks by Planned and Taken High School Coursework

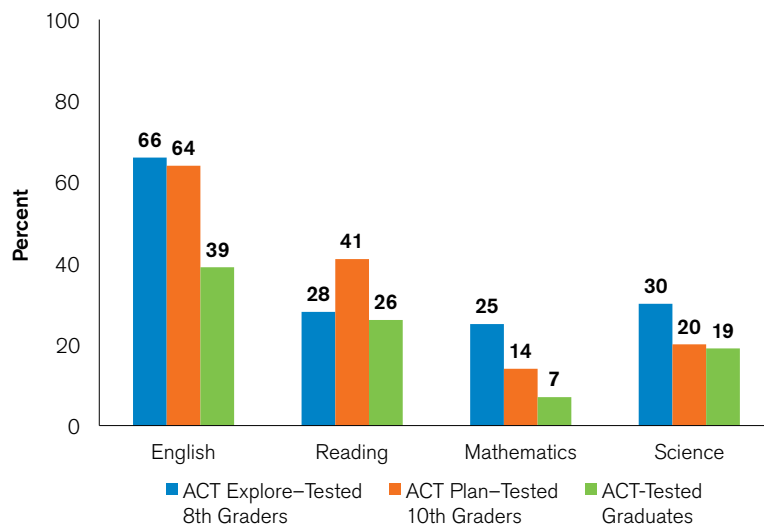
Within each subject area, students who plan to take a core curriculum or more (defined as four years of English and three years each of social studies, mathematics, and science) are more likely to meet the corresponding ACT College Readiness Benchmarks than students who plan to take less than a core curriculum in each subject area.

The curriculum-based differences in benchmark attainment rates were higher when taking ACT Plan than when taking ACT Explore across English, mathematics, and science and were approximately the same for reading. Additionally, the curriculum-based differences in benchmark attainment rates were higher for the ACT than ACT Plan across all subject areas except for science. Students who took ACT Explore in 8th grade reported only planned high school coursework, whereas students who took ACT Plan in 10th grade reported both planned high school coursework and courses already taken. High school coursework for the ACT was based on courses planned and courses already taken at the time students registered for the ACT, typically in 11th or 12th grade.

Percent of ACT Explore–, ACT Plan–, and ACT-Tested 2013 High School Graduates Meeting the College Readiness Benchmarks by Planned/Completed “Core or More” High School Coursework, Within Subject



Percent of ACT Explore–, ACT Plan–, and ACT-Tested 2013 High School Graduates Meeting the College Readiness Benchmarks by Planned/Completed “Less Than Core” High School Coursework, Within Subject



Note: 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.

Policy and Practice Recommendations for Increasing Readiness

ACT's *The Forgotten Middle*¹¹ reported that the level of academic achievement attained by the 8th grade, as measured by ACT Explore scores, influences eventual college and career readiness more than any academic factors during the high school years. If students are not on target for college and career readiness before high school, it will be very difficult, if not impossible, for them to catch up and become college ready by the end of high school. This is why it is imperative to look at academic readiness early, long before students get to high school.

Only 20% of 8th graders who took ACT Explore during the 2012–13 school year met all four of the ACT College Readiness Benchmarks, and 31% met no benchmarks. Students who took ACT Plan showed slightly better progress toward college readiness by 10th grade, with 22% meeting or exceeding all four benchmarks on ACT Plan. However, more than a quarter (26%) of 10th graders who took ACT Plan in 2012–13 met no benchmarks, leaving little time before graduation to prepare for rigorous college-level work. In order to increase the number of students on track for college readiness, states and districts should consider implementing the following policies and practices, with an emphasis on instilling a culture of college readiness throughout the K–12 system:

High Academic Expectations for All Students

ACT has long advocated for the adoption of rigorous academic standards designed to prepare all students for the challenges of a variety of postsecondary education settings. While the majority of states have taken this step by adopting the Common Core State Standards, all states should ensure that their college and career readiness standards are aligned to a rigorous curriculum in not only the high school grades but also during middle school and earlier. Curricula in the upper elementary grades and middle school

should focus on preparing students for rigorous high school expectations and teaching them the foundational skills necessary to progress toward college and career readiness. These skills should be taught to *all* students, not just those perceived as having a better chance of attaining college readiness before high school graduation.

Rigorous Course Content Aligned to Readiness

The 2012 ACT National Curriculum Survey[®] reported a large gap between high school teachers' perceptions of their graduating students' college readiness and college instructors' perceptions of the readiness of their first-year students.¹² The report states that this may be “due at least in part to a lack of alignment between K–12 and postsecondary curricula” (ACT 2013, 12), which could affect students' ability to become prepared for college-level work. Implementing more rigorous academic standards, like the Common Core State Standards, in the middle and high school grades and aligning curricula to college readiness are critical to closing this perceived readiness “gap” in college-bound students, but schools and districts must also do more to prepare teachers to teach rigorous course content. Not all schools and teachers are prepared to teach the content associated with new, more rigorous college and career readiness standards, and school and district administrators must support teachers by providing the training and materials necessary to ensure that teachers are well equipped to implement the improved standards as intended. Development of K–12 instructional practice, particularly in the middle and high school grades, is critical to support teachers and elevate course content and teaching to the levels that will prepare students for postsecondary-level coursework.

¹¹ ACT, *The Forgotten Middle: Ensuring that All Students Are on Target for College and Career Readiness before High School* (Iowa City, IA: Author, 2008).

¹² ACT, *ACT National Curriculum Survey 2012: Policy Implications on Preparing for Higher Standards* (Iowa City, IA: Author, 2013), 12.

Early, Consistent Monitoring of Progress Toward Readiness

College and career readiness does not happen overnight during the high school years. In fact, past research has shown that students who are off-track academically in middle school have a limited chance of becoming college ready before graduation.¹³ Because of this, it is critical to begin monitoring development of foundational skills beginning in the elementary grades. Longitudinal data systems enable identification of deficiencies that are occurring during the early years, and they will allow teachers and administrators to monitor a student's progress toward college and career readiness as he or she progresses through the K–12 system to high school graduation.

Early Implementation of Interventions

As previously noted, early identification of deficiencies in foundational skills is a key step in improving college readiness rates. It is just as important to implement high-quality academic interventions as soon as a deficiency is identified to give a student the best chance of catching up. These interventions should be demonstrated as effective by rigorous scientific research, and any interventions should be monitored to ensure that they are having positive effects for each individual student. Intervention alone will not solve the problem of being off track for college readiness, but it is a critical part of ensuring that students will have the knowledge and skills they need to be ready for college-level work before they graduate from high school.

Use of Data-Based Decision Making

States should continue to develop the capacity among teachers and administrators to effectively use and act on information generated by their statewide longitudinal P–16 data systems. All states currently have “robust statewide longitudinal data systems,” according to the Data Quality Campaign.¹⁴ Use of these longitudinal data systems will allow schools and districts to monitor student performance and, eventually, readiness for postsecondary education

and career, throughout a child's P–12 school years and beyond. The data collected through such systems enable administrators and educators to identify students in need of academic interventions at the earliest age possible. This early identification of academic needs and subsequent monitoring of progress through data will give students a better chance of improving achievement and skills before high school graduation. States and districts should also provide adequate preparation and professional development for teachers and administrators in the appropriate use of longitudinal data for planning instruction and interventions.

Improve Access to High-Quality Early Education

States should work to improve access for pre-K and kindergarten for all children, as learning during this period of a student's development is so important to future progress as a learner. According to a 2014 report, children benefit from a full day of kindergarten—but full-day kindergarten is only required in 11 states.¹⁵ Improving access to early education and getting students off to a good start at an early age is critical for several reasons. First, learning takes time. A student who begins his or her journey as a learner at a later age may be at a disadvantage compared to peers who have access to early education opportunities. Second, learning is cumulative. We build upon concepts and knowledge we have learned previously, and a student who does not have access to early education may miss vital opportunities to learn important concepts and knowledge. Finally, early learning facilitates later learning. Students who already know about a certain topic or concept have an easier time learning additional information about the same topic or concept.¹⁶ The federal government took a positive step toward improved access to early education in fiscal year 2014 by increasing Head Start funding by \$612 million, but more needs to be done to ensure that all children have access to critically important early education opportunities.

¹³ ACT, *College and Career Readiness: The Importance of Early Learning* (Iowa City, IA: Author, 2013).

¹⁴ Data Quality Campaign, *Data for Action 2012: Focus on People to Change Data Culture* (Washington, DC: Author, November 2012), www.dataqualitycampaign.org/your-states-progress/executive-summary/.

¹⁵ Lisa Guernsey, Laura Bornfreund, Clare McCann, and Conor Williams, *Subprime Learning: Early Education in America since the Great Recession* (Washington, DC: New America, 2014). www.newamerica.org

¹⁶ ACT (2013). *The Importance of Early Learning*.

Notes

ACT College Readiness Benchmarks

The ACT College Readiness Benchmarks are the minimum ACT scores required for students to have a high probability of success in credit-bearing college courses—English Composition, social sciences courses, College Algebra, or Biology. In addition to the benchmarks for the ACT, there are corresponding benchmarks for ACT Explore, taken in 8th and/or 9th grades, and ACT Plan, taken in 10th grade, to gauge student progress in becoming ready for college.

The College Readiness Benchmarks for ACT Explore and ACT Plan were developed in 2005 using about 150,000 records of students who had taken ACT Explore, ACT Plan, and the ACT. First, we estimated the probabilities at each ACT Explore and ACT Plan test score point associated with meeting the appropriate benchmark for the ACT. We then identified the ACT Explore and ACT Plan test scores

in English, reading, mathematics, and science that corresponded most closely to a 50% probability of success at meeting each of the four benchmarks established for the ACT.

ACT introduced updated ACT College Readiness Benchmarks in August 2013. The updated benchmarks for ACT Explore were based on large samples of students who had taken ACT Explore, ACT Plan, and the ACT. The sample sizes were approximately 425,000 for the ACT Explore grade 8 benchmarks, 210,000 for the ACT Explore grade 9 benchmarks, and 1,513,000 for the ACT Plan benchmarks.

Any results presented in this report prior to 2013 used the old benchmarks, and any results based on 2013 data used the new benchmarks. For more information, please see www.act.org/research/policymakers/pdf/benchmarks.pdf.

ACT College Readiness Benchmarks (2005–2012)

College Course or Course Area	ACT Subject-Area Test	ACT Explore Benchmark Grade 8	ACT Explore Benchmark Grade 9	ACT Plan Benchmark	ACT Benchmark
English Composition	English	13	14	15	18
Social Sciences	Reading	15	16	17	21
College Algebra	Mathematics	17	18	19	22
Biology	Science	20	20	21	24

ACT College Readiness Benchmarks—Updated 2013

College Course or Course Area	ACT Subject-Area Test	ACT Explore Benchmark Grade 8	ACT Explore Benchmark Grade 9	ACT Plan Benchmark	ACT Benchmark
English Composition	English	13	14	15	18
Social Sciences	Reading	16	17	18	22
College Algebra	Mathematics	17	18	19	22
Biology	Science	18	19	20	23

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.

This report can be found online at
www.act.org/buildingmomentum

