The Condition of College and Career Readiness

This report looks at the progress of the 2016 ACT®-tested graduating class relative to college and career readiness. This year's report shows that **64%** of students in the 2016 US graduating class took the ACT test, up from 59% in 2015 and 49% in 2011. The increased number of test takers over the past several years enhances the breadth and depth of the data pool, providing a comprehensive picture of the current graduating class in the context of college readiness, as well as offering a glimpse at the emerging educational pipeline.

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

- **Holistic view of readiness.** The 2014 ACT report, *Broadening the Definition of College and Career Readiness: A Holistic Approach*, shows academic readiness is only one of four critical domains in determining an individual's readiness for success in college and career. Cross-cutting capabilities, behavioral skills, and the ability to navigate future pathways are also important factors to measure and address. Together, these elements define a clear picture of student readiness for postsecondary education.
- **Providing meaningful data for better decisions.** ACT is focused on providing better data to students, parents, schools, districts, and states so that all can make more informed decisions to improve outcomes. We accomplish this goal by taking a holistic view and using consistent and reliable historical information so that individuals and institutions have a better context to make critical decisions about the journey they have undertaken.

The Condition of College & Career Readiness 2016

Montana Key Findings

Performance

- In Montana, 9,568 students in the 2016 graduating class took the ACT. This is a very slight increase of 79 students from 9,489 in 2015. However, since 2012, the number of Montana students taking the ACT has increased by 59%.
- The percents of Montana students meeting the ACT College Readiness Benchmarks are:
  - A 1% decrease in English, from 57% to 56%
  - A 3% decrease in mathematics, from 41% to 38%
  - A 3% decrease in reading, from 44% to 41%
  - 22% of Montana students met all four ACT College Readiness Benchmarks. In 2015, 24% met all four Benchmarks.
- Relative to ACT Composite score and subject level scores, Montana saw the following:
  - The proportion of Hispanic students in the testing pool has increased, from 3% in 2012 (205 students) to 6% in 2016 (528 students), contributing to the increase in Montana graduates taking the ACT since 2012.
  - Even as the size of the state's graduating class taking the ACT has grown, the average ACT Composite score has only slightly decreased from 20.4 to 20.3. This is normal, as average scores tend to decrease with a broadening of the testing base.

STEM

- Montana graduates who took advanced science and math courses show higher levels of achievement:
  - Students who took physics earned higher average ACT science scores and were more likely to meet or surpass the ACT College Readiness Benchmark in science than those who did not.
  - Students who took a fourth year of math in high school, regardless of course, outperformed students who did not, in both ACT mathematics scores and in Benchmark attainment.
- STEM Benchmark Achievement
  - 16% of Montana students met the ACT STEM Benchmark of 26 in 2016
  - Montana's average ACT STEM score was 20.6, while the national average ACT STEM score was 20.9
    - Of the Montana students meeting the STEM Benchmark:
      - Montana's average ACT mathematics score was 28.1, while the national average ACT mathematics score was 28.7. (The mathematics STEM Benchmark is 27.)
      - Montana's average ACT science score was 28.2, while the national average ACT science score was 28.6. (The science STEM Benchmark is 25.)
- Overall, Montana ACT mathematics scores have gone down 0.3 since 2014, while ACT science scores have increased by 0.1. As a result, the percent meeting the STEM Benchmark has dropped 1% and the average STEM score has dropped 0.1.

Career Readiness

- This year, for the first time, ACT has provided an indicator of career readiness based on ACT composite scores. Table 3.4 in the state ACT Profile Report details how ACT-tested Montana graduates are progressing toward the ACT National Career Readiness Certificate™ (ACT NCRC®).
- Progress toward career readiness is based on research linking ACT Composite scores to ACT NCRC levels. The ACT Composite cut score for each ACT NCRC level corresponds to a 50% chance of obtaining that level. If a student's ACT Composite score surpassed the cut score for an ACT NCRC level, they are categorized as making progress towards the next higher ACT NCRC level. Attainment of ACT NCRC levels indicates workplace employability skills that are critical to job success.
- In Montana, 67% of ACT tested graduates are considered making progress towards at least a gold ACT NCRC level. This compares to 68% nationally.

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Behaviors that Impact Access and Opportunity

- Testing patterns
  - 75% of Montana students take the ACT only once, compared to 57% nationally.
- Below are the top five colleges and universities to which Montana graduates sent their ACT scores:
  1. Montana State University–Bozeman
  2. University of Montana
  3. Montana State University–Billings
  4. Montana Tech–University of Montana
  5. Carroll College
- University of Washington is the out-of-state school that receives the most scores from Montana students.
- 69.1% of Montana students who registered for the ACT opted to participate in the ACT Educational Opportunity Service (EOS), which is on par with the national average of 73.1%. Participating in EOS exposes students to numerous academic and scholarship opportunities they might not have otherwise found on their own. ACT research has shown that college enrollment rates increase for those that opt in to EOS, regardless of academic achievement levels

  **Please note this number will drop significantly for the 2017 graduating class due to PII opt-out requirements.*
- The "Get Your Name in the Game" campaign provides students an opportunity to find colleges that would be a good fit and helps students who were not thinking about postsecondary education to realize that college is a possibility
  - Four Montana colleges and universities—Carroll College, Montana State University–Bozeman, Montana State University–Northern, and University of Great Falls—used EOS to access names of underserved learners to increase access and diversity on their campuses. In 2015, this resulted in providing information access for 16,731 students nationally. In 2016, the number of names Montana colleges and universities accessed increased by 29% (23,489 names).*

    **Please note the number of names accessible is based on the criteria of each institution search for specific types of students (e.g. major, location, Composite score)*
- Fee Waiver Usage
  - In Montana, there were 544 fee waivers issued and 373 of those were used. This equates to a 68.6% usage rate. The national rate was 74.5%.
  - ACT provides students fee waivers to provide more access and opportunity for students.

Pipeline

- 6% of ACT-tested Montana 2016 graduates expressed an interest in pursuing education as a major or career. Those students earned an average ACT Composite score of 19.7, lower than the state average of 20.3. In comparison, 8% expressed an interest in pursuing visual and performing arts.
- The top five educational majors reported by the 2016 Montana graduating class are:
  - Health Sciences and Technologies—1,587; average Composite score of 21.0
  - Undecided—819; average Composite score of 20.7
  - Arts, Visual & Performing—720; average Composite score of 19.6
  - Engineering—715; average Composite score of 23.2
  - Social Sciences and Law—620; average Composite score of 21.3
- Aspirations matter. Students in Montana who aspire to a higher level of postsecondary education achieve higher ACT Composite scores:
  - 893 students aspiring to an associate's degree had an average Composite score of 17.0
  - 4,170 students aspiring to a bachelor's degree had an average Composite score of 20.4
  - 1,000 students aspiring to a graduate degree had an average Composite score of 23.0

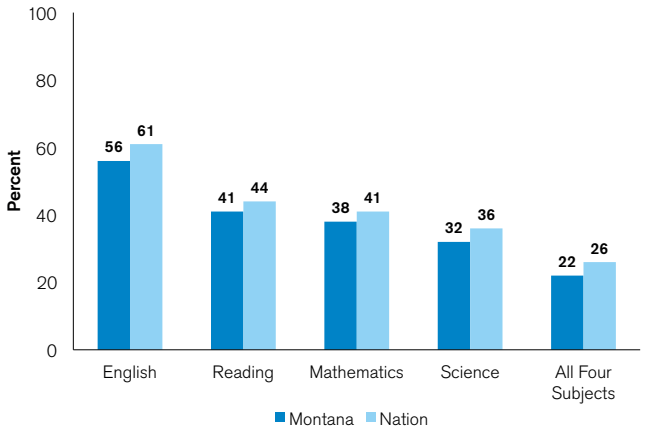
2016 College & Career Readiness Campaign Award Recipients:

- High School—Hamilton High School
- Student—Nicole Allerdings (Plevna High School)

Your State College and Career Readiness Attainment, Participation, and Opportunity

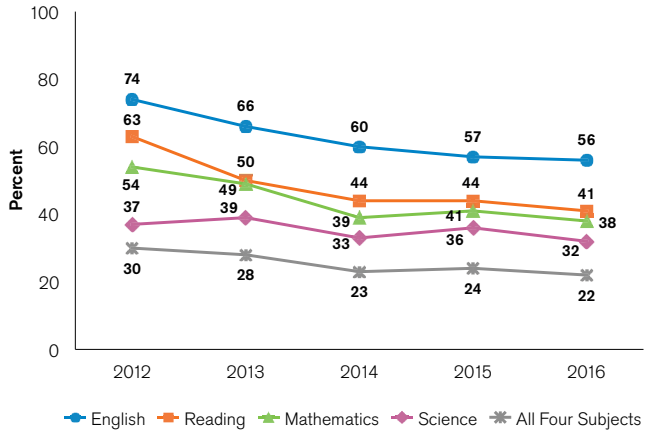
Montana

Percent of 2016 ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Subject



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

Percent of 2012–2016 ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks*



* ACT College Readiness Benchmarks in reading and science were revised in 2013.

Student Data Trends

- Between 2012 and 2016, the number of students taking the ACT in Montana increased by 58.8%.

Student Condition Data Interest Trends: 2012–2016, State vs. Nation

Outcome	Cohort	2012	2013	2014	2015	2016
Percent Tested	Montana	61%	72%	100%	100%	100%
	Nation	52%	54%	57%	59%	64%
N Tested	Montana	6,024	6,631	9,611	9,489	9,568
	Nation	1,666,017	1,799,243	1,845,787	1,924,436	2,090,342
Average English Score	Montana	21.1	20.2	19.3	19.1	19
	Nation	20.5	20.2	20.3	20.4	20.1
Average Reading Score	Montana	22.6	21.9	21.1	21	20.8
	Nation	21.3	21.1	21.3	21.4	21.3
Average Mathematics Score	Montana	21.9	21.4	20.5	20.4	20.2
	Nation	21.1	20.9	20.9	20.8	20.6
Average Science Score	Montana	22	21.2	20.4	20.5	20.5
	Nation	20.9	20.7	20.8	20.9	20.8
Average Composite Score	Montana	22	21.3	20.5	20.4	20.3
	Nation	21.1	20.9	21	21	20.8

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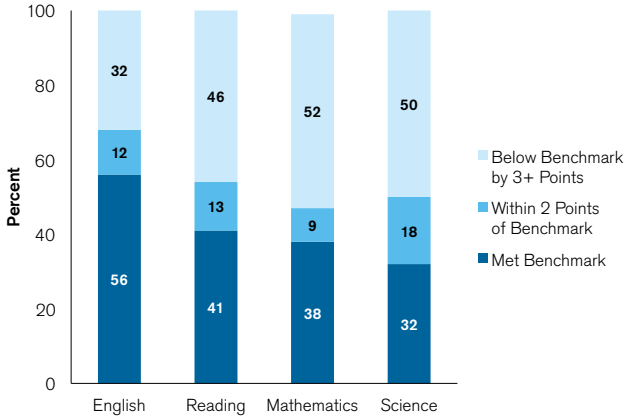
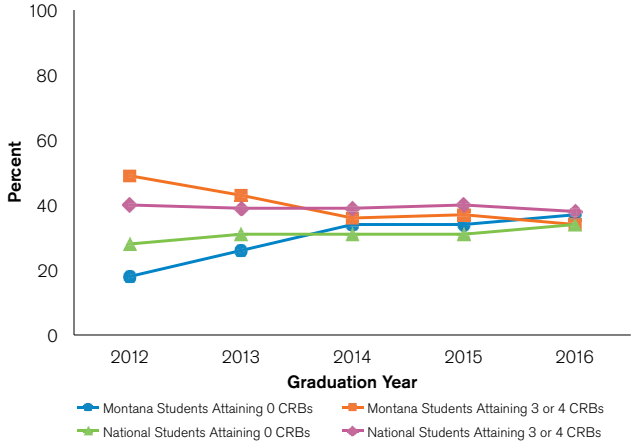
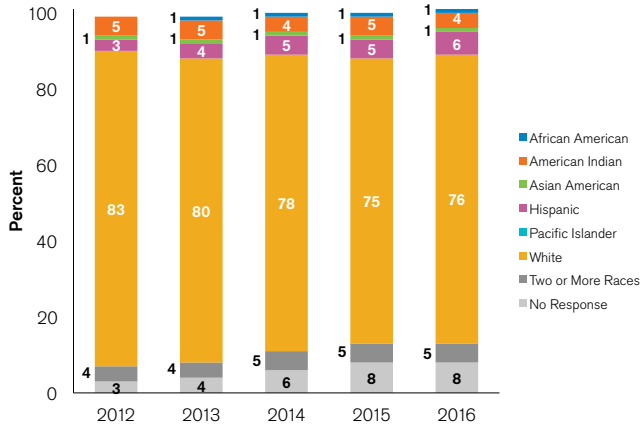
Percent of 2016 ACT-Tested High School Graduates by ACT College Readiness Benchmark Attainment and Subject



Trends in Percent of ACT-Tested High School Graduates by Number of ACT College Readiness Benchmarks (CRBs) Attained

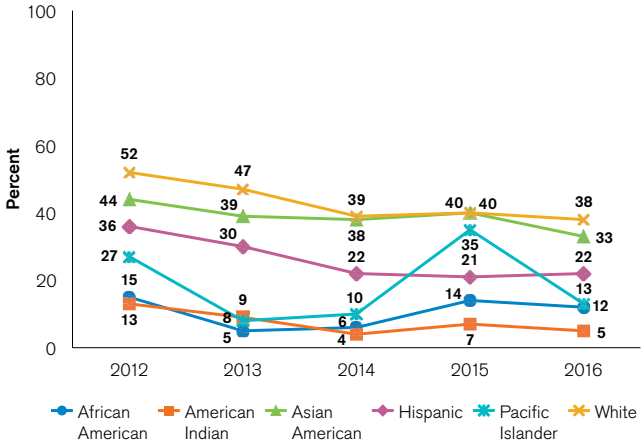


Percent of 2012–2016 ACT-Tested High School Graduates by Race/Ethnicity

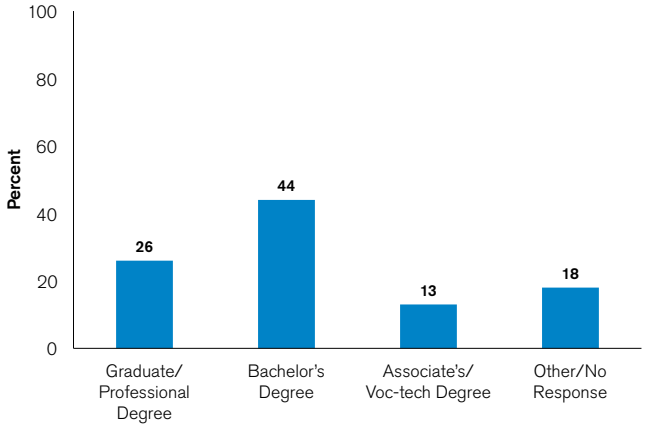


Note: Values less than 0.5% will not appear.

Percent of 2012–2016 ACT-Tested High School Graduates Meeting Three or More Benchmarks by Race/Ethnicity



Percent of 2016 ACT-Tested High School Graduates by Educational Aspirations



There is good news in that 82% of Montana's 2016 ACT-tested graduates aspired to postsecondary education. Interestingly enough, 83% of Montana's 2015 ACT-tested graduating class aspired to enroll in postsecondary education, compared to 46% who actually did enroll. If we fully closed the aspirational gap, an additional 3,510 of the 2015 ACT-tested graduates from Montana would have enrolled in postsecondary education.

What You Need to Know

At ACT, we are inspired every day to make a positive difference. Here are a few ways we are making an impact each day in the lives of students, teachers, education, policy makers, and workforce leaders.

The ACT®

- Enhancements to ACT Score Reports starting in September 2016
- Introduction of ACT Kaplan Online Prep Live in September 2016
- New Score Reports

Pre ACT™

- Affordable cost—$12 per student tested for schools, districts, and states
- Flexible administration—Schools, districts, and/or states may administer on any date between September 1, 2016 and June 1, 2017
- Structured test environment—Similar to what the student will experience when taking the ACT test

Online Prep Live

ACT® KAPLAN

- A virtual classroom experience that delivers all the benefits of ACT Online Prep, plus an interactive teaching experience
- Live learning experiences available at no cost to students who register for the ACT using a fee waiver
- Recorded sessions available on demand to provide maximum flexibility to students

ACT® Aspire®

- New Performance Level Descriptors coming in August 2016
- More than 5 million ACT Aspire online assessments administered to US students since January 2016, a major milestone for the program and up by more than 130% compared to the previous year
- New Score Reports

ACT® Engage®

- Helps schools face the challenge of preparing students for success after high school. Read the latest white paper, *Identifying Skills to Succeed in School, at Work, and in the "Real World."*
- New Score Reports

ACT® WorkKeys®

- Updated versions of the ACT National Career Readiness Certificate (ACT NCRC) assessments and credential coming in summer 2017
- Fully updated ACT WorkKeys curriculum and test prep available in summer 2017 to support the updated ACT NCRC assessments
- Will include a new test delivery platform that will introduce features and functionality important to ACT WorkKeys customers

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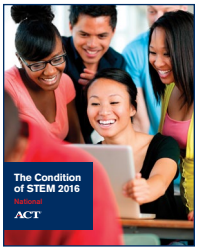
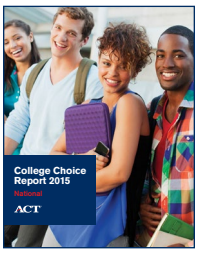
Key ACT Research



The Condition of STEM 2016—Releasing November 2016
This report provides national and state data about the 2016 graduating class in the context of STEM-related fields (Science, Technology, Engineering, Mathematics) to determine student interest levels in specific STEM fields and, more importantly, readiness in math and science of those interested in STEM careers.



College Choice Report 2015
This report follows the ACT-tested high school graduating class of 2015, focusing on specific testing behaviors that may expand college opportunities available to students. This is an important topic for enrollment managers and admissions officers to consider, as students' participation in these testing behaviors have implications for colleges' chances to recruit, advise, and place these prospective students.

Recommendations

1. **Create an assessment model that measures a variety of skill domains and competencies required for college and career success.**
   Historically, college and career readiness assessments have focused only on academic skills. ACT research has clearly established areas of competency important for college and career readiness success. While our research shows that ACT solutions independently measure key components of college AND career readiness, we and others have begun to realize that no single solution can measure the full breadth of this readiness, nor should it. Simply put, the ACT alone is not enough to measure the full breadth of career readiness. A more holistic assessment model, incorporating multiple domains and specific skills associated with career clusters or occupations, will typically be most appropriate for describing and evaluating student readiness for college and career.

2. **Optimize opportunities to influence awareness and engagement of underserved learners.**
   Initiatives designed to aid underserved learners are only as effective as they are visible. We must inform advocates and ALL underserved learners about the available and effective programs designed for this purpose. For example, in the 2015–2016 academic year, approximately 730,000 students registered to take the ACT using fee waivers valued at more than $36 million. Yet, not all eligible students took advantage of this offer. Similarly, institutions must use data to inform intervention strategies if they are going to help underserved students be prepared for postsecondary success.

3. **Take the guesswork out of STEM.**
   It is critically important to align STEM initiatives to capitalize on performance, measured interest, and expressed interest. Essential to this effort is expanding and nurturing interest in STEM, which will impact the emerging pipeline of STEM majors, teachers, and workers. This requires capturing a wider range of students and employing concrete measures to inform intervention and programming. To do so, states and districts must look for partnering opportunities from K–12 to postsecondary education to the workplace.

4. **Focus on the implementation of fewer, higher, clearer, standards in K–12 classrooms to raise the bar for all students.**
   No matter the adopted standards, proper implementation must focus on the most critical component for increasing readiness—effective, high-quality teaching. This requires investment in postsecondary teaching programs, professional development, and state-level collaboration among K–12 and higher education.

5. **Don't over test students.**
   When states, schools, and districts build an assessment strategy that recognizes the limits and promise of test scores, they will reduce the likelihood of over testing. Used ethically and appropriately, assessments can inform decisions at individual and institutional levels. Misunderstood, misused, or abused, assessments cause confusion, can be perceived as punitive, or result in ill-conceived strategies. To quote ACT founder E.F. Lindquist, "Assessment is valuable to the extent it bridges teaching and learning."