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

**Maryland Key Findings**

**Performance**

- In Maryland, the percent of students meeting the ACT College Readiness Benchmarks increased in all four subject areas:
  - A 2% increase in reading, from 57% to 59%
  - A 2% increase in mathematics, from 55% to 57%
  - A 1% increase in both English and science
  - The achievement of African American students continues to lag behind that of their ethnic peers (18.5 vs 23.0 all students). The gap in English is most notable (almost 5 points).
  - On average, students (including African American students) who retested saw an increase in their ACT Composite scores.

- Relative to Composite scores, Maryland saw the following:
  - Even as the size of the state’s graduating class taking the ACT has grown, the average ACT Composite score has increased from 22.7 to 23.0. This is notable, as average scores tend to decrease with a broadening of the testing base.
  - The average state Composite score, 23.0, currently exceeds the national average of 20.8.
  - The average Composite score of African American graduates increased 0.6 point from 2012.

**STEM**

- In Maryland, 33% of students met the ACT STEM College Readiness Benchmarks, exceeding the national of 20%.

- Maryland graduates who took advanced science and math courses show higher levels of achievement:
  - Students who took physics 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, significantly outperformed those students who did not, in both ACT mathematics scores and in Benchmark attainment.

**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 Maryland 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 Maryland, 80% of ACT tested graduates are considered making progress towards at least a gold ACT NCRC level. This compares to 68% nationally.
Behaviors that Impact Access and Opportunity

- 64% of Maryland ACT-tested graduates took the exam only once—higher than the national average of 57%.
- In comparison to their White counterparts, higher percentages of Hispanic and African American students take their first and only test as seniors (31% White, 42% Hispanic, and 54% African American).
- For the last three years, the ethnic breakdown of test takers has remained fairly consistent, while the number of students has increased significantly.
- Below are the top five colleges and universities to which Maryland graduates sent their ACT scores:
  - University of Maryland College Park
  - Towson University
  - University of Maryland Baltimore County
  - Salisbury University
  - Frostburg State University
- Virginia Tech is the out-of-state school that receives the most scores from Maryland students.
- In Maryland, more than 66.6% of students opt in to the ACT Educational Opportunity Service (EOS). Colleges use that service to contact students who appear to be good matches and to jump-start the recruitment process. Nationally, 73.1% opt in to EOS.
- Fee Waiver Usage
  - In Maryland, there were 3,626 fee waivers issued and 2,684 of those were used. This equates to a 74.0% usage rate. The national rate was 74.5%.
  - 68.2%, or 642, of all unused fee waivers were issued to African American students.
  - ACT provides students fee waivers to provide more access and opportunity for students.

Pipeline

- Only 4% of ACT-tested Maryland 2016 graduates expressed an interest in pursuing education as a major or career. Those students earned an average ACT Composite score of 20.8, lower than the state average of 23.1. In comparison, 13% expressed an interest in pursuing Health Sciences and Technologies.
- Aspirations matter. Students in Maryland who aspire to a higher level of postsecondary education achieve higher ACT Composite scores:
  - Graduates who aspire to a graduate degree earn an average Composite score of 24.4.
  - Graduates who aspire to a bachelor’s degree earn an average Composite score of 21.1.
  - Graduates who aspire to an associate’s degree earn an average Composite score of 17.2.

ACT Footprint

<table>
<thead>
<tr>
<th>ACT Aspire* Summative</th>
<th>ACT Aspire* Periodic</th>
<th>ACT Engage®</th>
<th>ACT QualityCore®</th>
<th>PreACT®</th>
<th>ACT WorkKeys®</th>
</tr>
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<tr>
<td>3,836</td>
<td>1,294</td>
<td>6</td>
<td>–</td>
<td>603*</td>
<td>1,522</td>
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</table>

| * PreACT refers to preorders for FY17. |

These are the number of each of these assessments delivered in the state and not reflective of the 2016 ACT-tested graduating class.

Special State Talking Points

- In 2016, ACT honored exemplars in 41 states as part of our College & Career Readiness Campaign. In Maryland, these honorees include:
  - Student—Adedoyin Olateru-Olagbegi, North County High School
  - High School—Westlake High School
  - Two-Year School—Carroll Community College
  - Career/Workforce—Northrop Grumman Corporation
- To be compliant with the Maryland College and Career Readiness and College Completion Act mandate, ACT offers the State and District Testing program, administered on a school day, to ensure that every student has taken a college entrance exam. The data from that testing can be used to inform instruction.
Your State College and Career Readiness
Attainment, Participation, and Opportunity
Maryland

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

<table>
<thead>
<tr>
<th>Subject</th>
<th>Maryland</th>
<th>Nation</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>74%</td>
<td>61%</td>
</tr>
<tr>
<td>Reading</td>
<td>59%</td>
<td>44%</td>
</tr>
<tr>
<td>Mathematics</td>
<td>57%</td>
<td>41%</td>
</tr>
<tr>
<td>Science</td>
<td>51%</td>
<td>36%</td>
</tr>
<tr>
<td>All Four Subjects</td>
<td>41%</td>
<td>26%</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Year</th>
<th>English</th>
<th>Reading</th>
<th>Mathematics</th>
<th>Science</th>
<th>All Four Subjects</th>
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<tbody>
<tr>
<td>2012</td>
<td>72</td>
<td>58</td>
<td>53</td>
<td>37</td>
<td>33</td>
</tr>
<tr>
<td>2013</td>
<td>73</td>
<td>54</td>
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<tr>
<td>2014</td>
<td>73</td>
<td>55</td>
<td>55</td>
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<tr>
<td>2015</td>
<td>73</td>
<td>57</td>
<td>55</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>2016</td>
<td>74</td>
<td>59</td>
<td>57</td>
<td>51</td>
<td>51</td>
</tr>
</tbody>
</table>

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

* 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 Maryland increased by 25.8%.

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

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Cohort</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent Tested</td>
<td>Maryland</td>
<td>21%</td>
<td>21%</td>
<td>22%</td>
<td>25%</td>
<td>27%</td>
</tr>
<tr>
<td></td>
<td>Nation</td>
<td>52%</td>
<td>54%</td>
<td>57%</td>
<td>59%</td>
<td>64%</td>
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<tr>
<td>N Tested</td>
<td>Maryland</td>
<td>13,334</td>
<td>13,820</td>
<td>14,080</td>
<td>15,753</td>
<td>16,769</td>
</tr>
<tr>
<td></td>
<td>Nation</td>
<td>1,666,017</td>
<td>1,799,243</td>
<td>1,845,787</td>
<td>1,924,436</td>
<td>2,090,342</td>
</tr>
<tr>
<td>Average English Score</td>
<td>Maryland</td>
<td>21.6</td>
<td>21.8</td>
<td>22.1</td>
<td>22.3</td>
<td>22.6</td>
</tr>
<tr>
<td></td>
<td>Nation</td>
<td>20.5</td>
<td>20.2</td>
<td>20.3</td>
<td>20.4</td>
<td>20.1</td>
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<tr>
<td>Average Reading Score</td>
<td>Maryland</td>
<td>22.3</td>
<td>22.7</td>
<td>23</td>
<td>23.2</td>
<td>23.6</td>
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<tr>
<td></td>
<td>Nation</td>
<td>21.3</td>
<td>21.1</td>
<td>21.3</td>
<td>21.4</td>
<td>21.3</td>
</tr>
<tr>
<td>Average Mathematics Score</td>
<td>Maryland</td>
<td>22.2</td>
<td>22.3</td>
<td>22.5</td>
<td>22.5</td>
<td>22.7</td>
</tr>
<tr>
<td></td>
<td>Nation</td>
<td>21.1</td>
<td>20.9</td>
<td>20.9</td>
<td>20.8</td>
<td>20.6</td>
</tr>
<tr>
<td>Average Science Score</td>
<td>Maryland</td>
<td>21.7</td>
<td>21.9</td>
<td>22.2</td>
<td>22.5</td>
<td>22.8</td>
</tr>
<tr>
<td></td>
<td>Nation</td>
<td>20.9</td>
<td>20.7</td>
<td>20.8</td>
<td>20.9</td>
<td>20.8</td>
</tr>
<tr>
<td>Average Composite Score</td>
<td>Maryland</td>
<td>22.1</td>
<td>22.3</td>
<td>22.6</td>
<td>22.7</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>Nation</td>
<td>21.1</td>
<td>20.9</td>
<td>21</td>
<td>21</td>
<td>20.8</td>
</tr>
</tbody>
</table>
There is good news in that 87% of Maryland’s 2016 ACT-tested graduates aspired to postsecondary education. Interestingly enough, 86% of Maryland’s 2015 ACT-tested graduating class aspired to enroll in postsecondary education, compared to 84% who actually did enroll. If we fully closed the aspirational gap, an additional 398 of the 2015 ACT-tested graduates from Maryland 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.

Enhancements to ACT Score Reports starting in September 2016

Introduction of ACT Kaplan Online Prep Live in September 2016

New Score Reports

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

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

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

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

www.act.org/condition2016
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.”