Ohio Key Findings

Performance

- In Ohio, 93,659 students from the 2016 graduating class took the ACT—2,052 more students than tested in 2015, a 2.2% increase. This is the largest number and the most ethnically diverse graduating class thus far in the state. Since 2006, the number of tested students has increased by 12.9%. Ohio students continue to outperform the nation and since 2012 have seen increases in the average subject and ACT composite score.
- As a result of changing demographics, the proportion of White students in the testing pool has decreased compared to the percentage tested in the 2015 class, with increases in tested students coming from the Hispanic/Latino and Asian populations.
- ACT College Readiness Benchmark attainment exceeds the overall percentages nationally: 33% of Ohio graduates met all four Benchmarks, consistent with 2015. There was a 1% drop in reading Benchmark attainment and a 2% decrease in English Benchmark attainment.
- A gender gap relative to Benchmark attainment in mathematics and science is apparent.

STEM

- Ohio graduates who took advanced science and math courses experienced higher levels of achievement:
  - Students who took physics earned significantly 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, significantly outperformed those students who did not, in both ACT mathematics scores and in Benchmark attainment.
- The Ohio average ACT STEM score remained consistent at 22.1 for the third consecutive year, even as the national average STEM score dropped to 20.9. However, the percent of students meeting the ACT STEM Benchmark fell from 25% in 2015 to 24% in 2016. This is largely due to the increase in test takers and the impact of courses taken.

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 Ohio 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 Ohio, 78% 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

• Testing patterns
  ~ Underserved populations are more likely to take their first and only test as a senior, limiting their postsecondary access and opportunities for intervention.
  ~ African American and Hispanic students do not test at the same rates as their White counterparts:
    • Hispanic—55.9% test only once and 23.7% test as seniors.
    • African American—44.7% test only once and 23.0% test as seniors.
  ~ Impact of retesting (first tested junior year and retested)
    • Hispanic—3.4 points higher than single test takers
    • African American—2.4 points higher than single test takers
• The score-sending pattern has remained consistent, with 26 of the top 30 colleges and universities receiving scores from Ohio graduates being within the state. Below are the top five score recipients:
  1. The Ohio State University
  2. University of Cincinnati
  3. Ohio University
  4. Kent State University
  5. Bowling Green State University
• ACT’s Educational Opportunity Service (EOS) continues to provide opportunities to all tested students who choose to opt in to learn about educational, enrichment, and scholarship opportunities. 73.7% of Ohio test takers opted in to EOS, compared with 73.1% of students nationally.
• ACT introduced the “Get Your Name in the Game” initiative to help improve college access and increase opportunities for underserved students. Thirty-eight Ohio postsecondary institutions have participated, reaching 26,000 Ohio 2016 graduates and 1,481,417 students nationally.
• Fee Waiver Usage
  ~ In Ohio, there were 30,921 fee waivers issued and 22,644 of those were used. This equates to a 73.2% usage rate. The national rate was 74.5%.
  ~ This means that 8,277 fee waivers went unused.
  ~ ACT provides students fee waivers to provide more access and opportunity for students.

Pipeline

• Education and computer-related jobs are among the fastest growing fields in Ohio. However, the pipeline only shows 6% of students interested in education with a 21.2 average Composite score and 4% interested in Computer Science/Mathematics with a 23.4 average Composite score, compared to the state average of 22.0.
  ~ Top planned educational majors by 2016 graduates:
    • 19% (17,751) Undecided; 22.3 average Composite score
    • 18% (16,886) Health Sciences and Technologies; 21.8 average Composite score
    • 10% (9,428) Business; 21.5 average Composite score
    • 8% (7,941) Engineering; 24.7 average Composite score
    • 7% (6,567) Social Sciences and Law; 21.9 average Composite score
• Postsecondary aspirations among students remain high, with more than 90% of graduates planning to complete some college level work and with 80,485 students indicating intentions to pursue a bachelor’s degree or higher.

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>
</thead>
<tbody>
<tr>
<td>24,099</td>
<td>58,577</td>
<td>2,235</td>
<td>2,293</td>
<td>6,885*</td>
<td>42,277</td>
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</table>
* PreACT refers to preorders for FY17.
### Percent of 2016 ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks by Subject

<table>
<thead>
<tr>
<th>Subject</th>
<th>Ohio</th>
<th>Nation</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>69%</td>
<td>52%</td>
</tr>
<tr>
<td>Reading</td>
<td>53%</td>
<td>54%</td>
</tr>
<tr>
<td>Mathematics</td>
<td>49%</td>
<td>57%</td>
</tr>
<tr>
<td>Science</td>
<td>41%</td>
<td>59%</td>
</tr>
<tr>
<td>All Four Subjects</td>
<td>36%</td>
<td>64%</td>
</tr>
</tbody>
</table>

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*

<table>
<thead>
<tr>
<th>Year</th>
<th>English</th>
<th>Reading</th>
<th>Mathematics</th>
<th>Science</th>
<th>All Four Subjects</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>71%</td>
<td>71%</td>
<td>58%</td>
<td>49%</td>
<td>34%</td>
</tr>
<tr>
<td>2013</td>
<td>71%</td>
<td>71%</td>
<td>51%</td>
<td>49%</td>
<td>31%</td>
</tr>
<tr>
<td>2014</td>
<td>72%</td>
<td>72%</td>
<td>52%</td>
<td>49%</td>
<td>44%</td>
</tr>
<tr>
<td>2015</td>
<td>71%</td>
<td>71%</td>
<td>50%</td>
<td>49%</td>
<td>45%</td>
</tr>
<tr>
<td>2016</td>
<td>69%</td>
<td>69%</td>
<td>53%</td>
<td>49%</td>
<td>45%</td>
</tr>
</tbody>
</table>

* 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 Ohio increased by 1.7%.

### 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>Ohio</td>
<td>71%</td>
<td>72%</td>
<td>72%</td>
<td>73%</td>
<td>73%</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>Ohio</td>
<td>92,121</td>
<td>92,813</td>
<td>91,089</td>
<td>91,607</td>
<td>93,659</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>
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<tr>
<td>Average English Score</td>
<td>Ohio</td>
<td>21.1</td>
<td>21.2</td>
<td>21.4</td>
<td>21.4</td>
<td>21.2</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>
</tr>
<tr>
<td>Average Reading Score</td>
<td>Ohio</td>
<td>22.1</td>
<td>22.2</td>
<td>22.4</td>
<td>22.5</td>
<td>22.5</td>
</tr>
<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>Ohio</td>
<td>21.5</td>
<td>21.5</td>
<td>21.7</td>
<td>21.7</td>
<td>21.6</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>Ohio</td>
<td>21.8</td>
<td>21.8</td>
<td>22</td>
<td>22.1</td>
<td>22</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>Ohio</td>
<td>21.8</td>
<td>21.8</td>
<td>22</td>
<td>22</td>
<td>22</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>

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There is good news in that 90% of Ohio’s 2016 ACT-tested graduates aspired to postsecondary education. Interestingly enough, 91% of Ohio’s 2015 ACT-tested graduating class aspired to enroll in postsecondary education, compared to 74% who actually did enroll. If we fully closed the aspirational gap, an additional 15,533 of the 2015 ACT-tested graduates from Ohio 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.”