Delaware System of Student Assessments (DeSSA) Executive State Summary

2015-2016 Administration

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2016 SAT School Day State Summary
Attachment 1 – Statewide Performance & Participation
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2016 DCAS State Summary
Attachment 1 – Statewide Performance & Participation
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2016 DCAS-Alt1 State Summary
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Delaware System of Student Assessments (DeSSA) Overview

Delaware’s assessment program is called the Delaware System of Student Assessments (DeSSA). DeSSA assessments include Smarter English Language Arts/Literacy (ELA) and Mathematics assessments for grades 3-8, the SAT School Day Evidence-Based Reading and Writing and Math assessments for grade 11, the Delaware Comprehensive Assessments System (DCAS) Science and Social Studies assessments, and the Delaware Comprehensive Assessment System-Alt1 (DCAS-Alt1) for Reading, Mathematics, Science, and Social Studies assessments for students with the most significant intellectual disabilities, as well as some national assessments such as NAEP. Together, these assessments satisfy the assessment requirements of the United States Elementary and Secondary Education Act in these areas. Each assessment area provides specific information for each DeSSA assessment administered.

This report summarizes the participation and performance results of the 2016 DeSSA assessments as mentioned above. The percentages listed in each of the figures may not equal 100% at each grade level due to rounding.
I. Smarter State Assessment Summary

Smarter Overview

The Smarter assessments are designed to measure the progress of Delaware students in ELA/Literacy and Mathematics standards in grades 3-8. The first operational administration of the Smarter assessments in grades 3-8 occurred during spring 2015. Spring 2016 represents the second year of implementation of the Smarter ELA/Literacy and Smarter Mathematics assessments. See below for the assessment windows available for administration:

<table>
<thead>
<tr>
<th>Dates of Window</th>
<th>Tests Administered</th>
</tr>
</thead>
<tbody>
<tr>
<td>March 9, 2016 – June 2, 2016</td>
<td>Smarter ELA/Literacy and Mathematics grades 3-8</td>
</tr>
</tbody>
</table>

These assessments require deeper thinking and application of real world skills in English Language Arts (ELA)/Literacy and Mathematics.

The Smarter ELA/Literacy assessments include:

- Reading
- Speaking and Listening
- Writing
- Research & Inquiry

The Smarter Mathematics assessments include:

- Concepts & Procedures
- Problem Solving and Modeling & Data Analysis
- Communicating Reasoning

The Smarter assessment scores reported in this summary are based on the scale scores and the Achievement Levels for the state, the districts, and the schools. The scores are reported on a developmental scale for grades 3-8 ranging from approximately 2000 to 3100. The overall achievement was delineated into the following four levels (with the defining phrases bolded):

- The Level 4 student demonstrates **thorough understanding** of and ability to apply the English language arts and literacy (mathematics) knowledge and skills needed for success in college and career, as specified in the Common Core State Standards.
• The Level 3 student demonstrates **adequate understanding** of and ability to apply the English language arts and literacy (mathematics) knowledge and skills needed for success in college and career, as specified in the Common Core State Standards.

• The Level 2 student demonstrates **partial understanding** of and ability to apply the English language arts and literacy (mathematics) knowledge and skills needed for success in college and career, as specified in the Common Core State Standards.

• The Level 1 student demonstrates **minimal understanding** of and ability to apply the English language arts and literacy (mathematics) knowledge and skills needed for success in college and career, as specified in the Common Core State Standards.

In this report and the attachments, the achievement level is reported as the percentage of students who are proficient, that is, the percentage of students who are in Achievement Level 3 and Achievement Level 4 combined.

It is important to note that the participation rate and the percent proficient follow different business rules and are generated differently in this report than those generated for accountability purposes.

Located below are the Smarter cut scores and Achievement Levels for all grades and both contents.

**Smarter Cut Scores**

**Smarter ELA/Literacy Performance Standards**

<table>
<thead>
<tr>
<th>Grade</th>
<th>Achievement Level 1</th>
<th>Achievement Level 2</th>
<th>Achievement Level 3</th>
<th>Achievement Level 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>2366 and below</td>
<td>2367-2431</td>
<td>2432-2489</td>
<td>2490 and above</td>
</tr>
<tr>
<td>4</td>
<td>2415 and below</td>
<td>2416-2472</td>
<td>2473-2532</td>
<td>2533 and above</td>
</tr>
<tr>
<td>5</td>
<td>2441 and below</td>
<td>2442-2501</td>
<td>2502-2581</td>
<td>2582 and above</td>
</tr>
<tr>
<td>6</td>
<td>2456 and below</td>
<td>2457-2530</td>
<td>2531-2617</td>
<td>2618 and above</td>
</tr>
<tr>
<td>7</td>
<td>2478 and below</td>
<td>2479-2551</td>
<td>2552-2648</td>
<td>2649 and above</td>
</tr>
<tr>
<td>8</td>
<td>2486 and below</td>
<td>2487-2566</td>
<td>2567-2667</td>
<td>2668 and above</td>
</tr>
</tbody>
</table>

**Smarter Mathematics Performance Standards**

<table>
<thead>
<tr>
<th>Grade</th>
<th>Achievement Level 1</th>
<th>Achievement Level 2</th>
<th>Achievement Level 3</th>
<th>Achievement Level 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>2380 and below</td>
<td>2381-2435</td>
<td>2436-2500</td>
<td>2501 and above</td>
</tr>
<tr>
<td>4</td>
<td>2410 and below</td>
<td>2411-2484</td>
<td>2485-2548</td>
<td>2549 and above</td>
</tr>
<tr>
<td>5</td>
<td>2454 and below</td>
<td>2455-2527</td>
<td>2528-2578</td>
<td>2579 and above</td>
</tr>
<tr>
<td>6</td>
<td>2472 and below</td>
<td>2473-2551</td>
<td>2552-2609</td>
<td>2610 and above</td>
</tr>
<tr>
<td>7</td>
<td>2483 and below</td>
<td>2484-2566</td>
<td>2567-2634</td>
<td>2635 and above</td>
</tr>
<tr>
<td>8</td>
<td>2503 and below</td>
<td>2504-2585</td>
<td>2586-2652</td>
<td>2653 and above</td>
</tr>
</tbody>
</table>
About Achievement Level Setting

The process of Achievement Level setting, also known as standard setting, was utilized to establish threshold scores, allowing for the development of categories of performance on Smarter assessments. In April, Smarter Balanced governing states approved a three-phase plan for the Achievement Level setting process incorporating an adaptation of the Bookmark procedure (Lewis, Mitzel, Mercado, & Schulz, 2012). This plan included:

1. An Online Panel (October 6–17, 2014) allowed thousands of K-12 educators, higher education faculty, parents, and other interested parties to participate virtually in recommending Achievement Levels.
2. An In-Person Panel (October 13–19, 2014) with educators and other stakeholders working in grade-level teams deliberated and made recommendations for the threshold scores of the four Achievement Levels.
3. The Cross-Grade Review Committee, a subset of the In-Person Panel, examined recommendations across all grades to consider the reasonableness of the system of cut scores.

Delaware participants were involved in both the virtual and face-to-face achievement setting process. Additionally, on November 14, 2014, states voted to endorse an approved set of Achievement Level scores for Smarter during a meeting of chief education officials. The Delaware State Board of Education approved the Achievement Level scores at the January 2015 State Board session. The states also approved a statement on the interpretation and use of scores and Achievement Levels. The standard setting activities were conducted by contractors Measurement Incorporated (MI) and CTB/McGraw-Hill (CTB). More information about this process can be found at http://www.smarterbalanced.org/achievement-levels/. The adopted Achievement Levels will appear on score reports for assessments administered in the 2015-2016 school year.

Information about the testing conditions under which Smarter assessments were administered is available in the test administration manuals available on the DeSSA Portal (http://de.portal.airast.org/).

All Students are required to be included in the statewide assessment program, regardless of classification. The Accessibility Guidelines for Delaware System of Student Assessments (DeSSA), available on the portal, describe the conditions under which students classified as students with disabilities, students with 504 plans, and English language learners are included, including descriptions of permissible test accommodations and supports at http://de.portal.airast.org/resources/dcas-alt1/

The Students with Disabilities subgroup includes all students who had IEPs. During the spring 2016 Smarter assessment, students who had the disability code label “Speech Only” were included in the SWDs reporting group.
To preserve student confidentiality, all Delaware Department of Education (DDOE) reports must adhere to the following suppression rules:

- For state level data:
  - If a group or subgroup count of “number tested” is between one (1) and 15, the number of students is represented by “<=15” and the percentages and averages are reported for that group.
  - If a group or subgroup count of “number tested” is zero (0), the number of students is reported as zero (0) and an asterisk (*) appears in the columns where a percentage or average would otherwise appear.

- Complementary suppression of one or more non-sensitive cells in a table may be required so that the values of the suppressed cells may not be calculated by subtracting the reported values from the row and column totals. The symbol that is used to represent data suppressed as a result of complementary data suppression is “~”.

- For district and school level data, counts for groups or subgroups are not included. If the group or subgroup has 15 or fewer students, then percentages and average scale scores are not included. If a group or subgroup has zero (0) student(s) it will be represented with a “*”.

- Any percentage above 99 or below one (1) will be reported as >99% and <1% respectively.

One of the subgroups included in each table or graph is “Student Gap Group.” The Student Gap Group is a combined, unduplicated count of students that are in groups that have historically had achievement gaps. This information is used for accountability. The groups include:

- Ethnicity/Race (African American, Hispanic, Native American)
- Students with Disabilities (SWD)
- Low Income
- English Language Learners (ELL)

The low-income reporting group used in this report is referred to as “direct-cert.” This group includes Delaware students receiving benefits from the Supplemental Nutrition Assistance Program (SNAP) and Temporary Assistance for Needy Families (TANF).

**The Hawaiian and American Indian groups are excluded from the narrative due to small numbers of students tested in these groups.**
Smarter 2016 Participation Rate

Participation Rate – Definitions and Calculations

In this section, the participation rate is reported by content area and grade level for Smarter ELA/Literacy and Mathematics. The participation rate is also reported by subgroups in the participation tables.

The following is the method used to calculate participation rate in this report. The calculation method used for this report is not the same method used for calculating participation rates for accountability purposes; therefore, the participation rates will not match those used for accountability.

\[
\text{Participation Rate} = 100 \times \frac{\text{Tested N}}{\text{Eligible N}}
\]

**Tested N** – Referred to as “Tested N,” this is the numerator of the participation rate calculation. It is the number of students who had valid scores and tested in grade level.

**Eligible N** – Referred to as “Eligible N,” this is the denominator of the participation rate calculation for a particular content area and is equal to the number of students who are eligible to test. This is equal to the sum of Tested N and Invalid.

All students enrolled in a public school for ten days or more during the spring 2016 test window for the respective content area were counted as eligible to take assessments unless they were granted an Exemption.

**Invalid Scores** – If an improper departure from testing procedures occurred during the administration of a student’s test, DOE can make the determination that it resulted in an invalid score. Students with invalid scores are counted as non-participants in the calculation of participation rates. Their scale score and Achievement Level are not included in the results tables within this report.

**Not Tested** – Students were counted as not tested if they met the requirements to be counted as “eligible” to take assessments but failed to test at any time during the spring test window in a given content area.

**Exempt** – An exemption causes the student scores to be excluded from performance calculations and from participation rate calculations. Some students were granted a “special” exemption from assessments due to physical or mental health conditions or due to other circumstances that were beyond the control of the student and school staff. Some ELL students in the U.S. for less than one year may receive an ELL exemption from the Smarter ELA/Literacy assessment.
Participation Rate – Subgroups

Participation rates can be reviewed in 2016 Smarter State Summary Attachment 1 along with the performance data. The assessment subgroup participation rates for all grade levels and content areas were calculated based on the following subgroups:

- Students with Disabilities (SWDs)
- English language learners (ELLs)
- Low-income
- White
- Hispanic/Latino
- American Indian or Alaska Native
- Black or African American
- Asian
- Native Hawaiian or Other Pacific Islander
- Two or more races
- Student Gap Group
Smarter State Level Summary Results

Smarter Participation

The overall state participation rate for Smarter ELA/Literacy and Mathematics for each grade assessed can be found in Figure 1. The combined participation rate for ELA/Literacy is 98% and for Mathematics it is also 98%. Federal reporting requires participation rates of at least 95%. All grades and content areas in Smarter assessments meet this threshold.

It is important to note that multiple factors lead to a student counting as a non-participant such as absences, truancy, not completing enough items on the assessment, and parent or student refusals to participate in the assessment.

Figure 1- Statewide Smarter Assessment Participation Rates, 2016

<table>
<thead>
<tr>
<th></th>
<th>ELA/Lit</th>
<th>Math</th>
</tr>
</thead>
<tbody>
<tr>
<td>Statewide</td>
<td>98%</td>
<td>98%</td>
</tr>
<tr>
<td>Grade 3</td>
<td>99%</td>
<td>99%</td>
</tr>
<tr>
<td>Grade 4</td>
<td>99%</td>
<td>99%</td>
</tr>
<tr>
<td>Grade 5</td>
<td>99%</td>
<td>99%</td>
</tr>
<tr>
<td>Grade 6</td>
<td>98%</td>
<td>98%</td>
</tr>
<tr>
<td>Grade 7</td>
<td>98%</td>
<td>98%</td>
</tr>
<tr>
<td>Grade 8</td>
<td>97%</td>
<td>97%</td>
</tr>
</tbody>
</table>

Smarter Proficiency

Statewide Smarter proficiency summary data may be found in Figures 2 and 3 below. These figures provide overall proficiency information for Smarter ELA/Literacy and Mathematics. Proficiency is defined as achievement levels 3 and 4 combined.

Figure 2- Statewide ELA/Literacy Percent Proficient and Achievement Levels, 2016

<table>
<thead>
<tr>
<th></th>
<th>ELA Prof%</th>
<th>AL 1</th>
<th>AL 2</th>
<th>AL 3</th>
<th>AL 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Statewide</td>
<td>55</td>
<td>22</td>
<td>24</td>
<td>32</td>
<td>23</td>
</tr>
<tr>
<td>Grade 3</td>
<td>54</td>
<td>21</td>
<td>26</td>
<td>25</td>
<td>29</td>
</tr>
<tr>
<td>Grade 4</td>
<td>56</td>
<td>24</td>
<td>20</td>
<td>26</td>
<td>31</td>
</tr>
<tr>
<td>Grade 5</td>
<td>60</td>
<td>21</td>
<td>19</td>
<td>34</td>
<td>26</td>
</tr>
<tr>
<td>Grade 6</td>
<td>52</td>
<td>21</td>
<td>27</td>
<td>33</td>
<td>19</td>
</tr>
<tr>
<td>Grade 7</td>
<td>53</td>
<td>23</td>
<td>24</td>
<td>36</td>
<td>17</td>
</tr>
<tr>
<td>Grade 8</td>
<td>54</td>
<td>20</td>
<td>25</td>
<td>38</td>
<td>16</td>
</tr>
</tbody>
</table>
In the following section, the 2016 Smarter results are summarized at the state level with the percent proficient by content, grade, and average score. Please note that, due to rounding for percentage, the total may be above or below 100%.

The state-level results are also summarized by subgroups, with summary data tables in 2016 Smarter State Summary Attachment 1. The Smarter subgroup results for all grade levels and content areas were calculated based on the following subgroups:

- Students with Disabilities (SWDs)
- English language learners (ELLs)
- Low-income
- White
- Hispanic/Latino
- American Indian or Alaska Native
- Black or African American
- Asian
- Native Hawaiian or Other Pacific Islander
- Two or more races
- Student Gap Group
**District & Charter Participation Rates for Smarter, 2016**

The participation rate is a combination of all grades for district and charter schools. Any percentage above 99 is reported as >99%.

<table>
<thead>
<tr>
<th>District/Charter</th>
<th>ELA/Literacy</th>
<th>Mathematics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appoquinimink</td>
<td>98</td>
<td>97</td>
</tr>
<tr>
<td>Brandywine</td>
<td>97</td>
<td>97</td>
</tr>
<tr>
<td>Caesar Rodney</td>
<td>99</td>
<td>99</td>
</tr>
<tr>
<td>Cape Henlopen</td>
<td>98</td>
<td>97</td>
</tr>
<tr>
<td>Capital</td>
<td>96</td>
<td>97</td>
</tr>
<tr>
<td>Christina</td>
<td>97</td>
<td>97</td>
</tr>
<tr>
<td>Colonial</td>
<td>98</td>
<td>98</td>
</tr>
<tr>
<td>Delmar</td>
<td>99</td>
<td>99</td>
</tr>
<tr>
<td>Indian River</td>
<td>99</td>
<td>99</td>
</tr>
<tr>
<td>Lake Forest</td>
<td>99</td>
<td>98</td>
</tr>
<tr>
<td>Laurel</td>
<td>99</td>
<td>99</td>
</tr>
<tr>
<td>Milford</td>
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<tr>
<td>Red Clay</td>
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<td>98</td>
</tr>
<tr>
<td>Seaford</td>
<td>99</td>
<td>99</td>
</tr>
<tr>
<td>Smyrna</td>
<td>98</td>
<td>99</td>
</tr>
<tr>
<td>Woodbridge</td>
<td>98</td>
<td>99</td>
</tr>
<tr>
<td>Academy of Dover</td>
<td>99</td>
<td>97</td>
</tr>
<tr>
<td>Las Americas Aspira Academy</td>
<td>&gt;99</td>
<td>&gt;99</td>
</tr>
<tr>
<td>Campus Community Charter School</td>
<td>&gt;99</td>
<td>&gt;99</td>
</tr>
<tr>
<td>East Side Charter School</td>
<td>99</td>
<td>99</td>
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<tr>
<td>Family Foundations Academy</td>
<td>94</td>
<td>98</td>
</tr>
<tr>
<td>Freire Charter School</td>
<td>97</td>
<td>96</td>
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<tr>
<td>Gateway Lab School</td>
<td>90</td>
<td>91</td>
</tr>
<tr>
<td>Great Oaks Charter School</td>
<td>95</td>
<td>94</td>
</tr>
<tr>
<td>Kuumba Academy</td>
<td>98</td>
<td>98</td>
</tr>
<tr>
<td>Montessori Academy</td>
<td>&gt;99</td>
<td>&gt;99</td>
</tr>
<tr>
<td>MOT Charter School</td>
<td>&gt;99</td>
<td>&gt;99</td>
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<tr>
<td>Newark Charter School</td>
<td>&gt;99</td>
<td>&gt;99</td>
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<tr>
<td>Odyssey Charter School</td>
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</tr>
<tr>
<td>Positive Outcomes Charter School</td>
<td>&gt;99</td>
<td>&gt;99</td>
</tr>
<tr>
<td>Prestige Academy</td>
<td>91</td>
<td>92</td>
</tr>
<tr>
<td>Providence Creek Academy</td>
<td>99</td>
<td>99</td>
</tr>
<tr>
<td>Sussex Academy</td>
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</tr>
<tr>
<td>Thomas Edison Charter School</td>
<td>98</td>
<td>99</td>
</tr>
<tr>
<td>DSCYF</td>
<td>98</td>
<td>98</td>
</tr>
</tbody>
</table>
Smarter ELA/Literacy Performance

Figure 4 shows the percentage of students in each Achievement Level for the spring 2016 Smarter ELA/Literacy test given in grades 3-8. Descriptions for each Achievement Level (AL) can be found beginning on page two (2) of this document. The percentages may not equal 100% at each grade level due to rounding.

Figure 4 – Smarter ELA/Literacy Achievement Levels, 2016

Grades 3, 4, and 5 show the highest percent of students who are performing at AL 4, the highest Achievement Level possible for Smarter ELA/Literacy. For AL 3, grades 5-8 were all at or above 33%, while both grades 3 and 4 were at 25%. The three grades with the lowest percent of students performing at AL 4 were in grades 6, 7 and 8, which were at 19%, 17% and 16% respectively. The number of students at AL1 ranged from a low of 20% (grades 3 and 8) to 24% (grade 4), and AL 2 ranged from 19% (grade 5) to 27% (grade 6). The results above do not have a discernable pattern; however, this is expected as the Achievement Levels were not meant to show a pattern for Smarter ELA/Literacy.

In 2016 Smarter State Summary Attachment 1 of this document shows the distribution of these Achievement Levels across the subgroups at the State Level. In 2016 Smarter State Summary Attachments 2, 3, and 4 show the distribution of Achievement Levels across subgroups at the District/Charter and School Level, with a comparison to the State Level.
Figure 5 shows the average scale score for all students in Delaware. The scale score is a measure that helps a child’s teacher and parent understand where the student’s score is within an Achievement Level. The Cut Scores for the Achievement Levels can be found on page 3 of this document. The scale scores are on a development scale (growth scale) and so it would be expected to see the scores increase with each grade. The overall range of the scale is 2000-3100.
Smarter Mathematics Performance

Figure 6 - Smarter Mathematics Achievement Levels, 2016

Figure 6 shows the percentage of students in each Achievement Level on the spring 2016 Smarter Mathematics assessment in grades 3-8. The percentages may not equal 100% at each grade level due to rounding.

The percent in AL2 fluctuates across the grades from a low of 25% in grade 3 to a high of 32% in grades 4 and 6. The percent in AL 3 decreases from grade 3 (32%) to 19% in grade 8. The percent in AL 4 also decreases from grade 3 (23%) to grade 6 (17%).
Figure 7 – Smarter Mathematics Average Scale Scores, 2015 and 2016

Figure 7 shows the 2016 average scale score per grade for all students in Delaware. The scale score is a measure that helps a child’s teacher and parent understand where the student’s score is within an Achievement Level. The Cut Scores for the Achievement Levels can be found on page 3 of this document. The scale scores are on a development scale (growth scale) and so it would be expected to see the scores increase with each grade. The overall range of the scale is 2000 to 3100.
Smarter Disaggregated Summary Results

Smarter ELA/Literacy Disaggregated Performance

Figure 8 - Smarter Grade Band 3-5 ELA Achievement Levels, Disaggregated 2016

<table>
<thead>
<tr>
<th>Gap Group</th>
<th>AL 1</th>
<th>AL 2</th>
<th>AL 3</th>
<th>AL 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multi-Racial</td>
<td>30</td>
<td>26</td>
<td>27</td>
<td>17</td>
</tr>
<tr>
<td>Hawaiian</td>
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<td>28</td>
<td>31</td>
<td>33</td>
</tr>
<tr>
<td>Asian</td>
<td>6</td>
<td>11</td>
<td>25</td>
<td>57</td>
</tr>
<tr>
<td>White</td>
<td>13</td>
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<td>39</td>
</tr>
<tr>
<td>African American</td>
<td>33</td>
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<td>15</td>
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<tr>
<td>American Indian</td>
<td>14</td>
<td>24</td>
<td>37</td>
<td>25</td>
</tr>
<tr>
<td>Hispanic/Latino</td>
<td>29</td>
<td>27</td>
<td>28</td>
<td>17</td>
</tr>
<tr>
<td>Low Income</td>
<td>33</td>
<td>27</td>
<td>26</td>
<td>14</td>
</tr>
<tr>
<td>SWD</td>
<td>56</td>
<td>24</td>
<td>14</td>
<td>6</td>
</tr>
<tr>
<td>ELL</td>
<td>47</td>
<td>31</td>
<td>16</td>
<td>5</td>
</tr>
</tbody>
</table>

In ELA/Literacy for Grade Band 3-5, the SWD group had the highest proportion of students in AL1 and AL2 combined at 80%. The Asian group had the highest proportion of students in AL3 and AL4 combined at 82% followed by White (69%). The percent in AL1 ranges from 6% (Asian) to 56% (SWD). The percent in AL2 ranges from 11% (Asian) to 31% (ELL). The percent in AL3 ranges from 14% (SWD) to 30% (White). The percent in AL4 ranges from 5% (ELL) to 57% (Asian).

**The Hawaiian and American Indian groups are excluded from the narrative due to small numbers of students tested in these groups.**
Figure 9 - Smarter Grade Band 6-8 ELA Achievement Levels, Disaggregated 2016

In English Language Arts/Literacy for Grade Band 6-8, the ELL group had the highest proportion of students in AL1 and AL2 combined at 93%. The Asian group had the highest proportion of students in AL3 and AL4 combined at 82%. The percent in AL1 ranges from 6% (Asian) to 71% (ELL). The percent in AL2 ranges from 12% (Asian) to 31% (Low Income). The percent in AL3 ranges from 7% (ELL) to 41% (White). The percent in AL4 ranges from 0% (ELL) to 48% (Asian).

**The Hawaiian and American Indian groups are excluded from the narrative due to small numbers of students tested in these groups.**
Smarter Mathematics Disaggregated Performance

Figure 10 - Smarter Grade Band 3-5 Mathematics Achievement Levels, Disaggregated 2016

In Mathematics for Grade Band 3-5, the ELL, SWD, and African American groups had higher proportions of students in AL1 and AL2. The White and Asian groups had highest proportions of students in AL3 and AL4 with a range of 63% to 80% for these two combined levels. The percent in AL1 ranges from 5% (Asian Group) to 55% (SWD). The percent in AL2 ranges from 14% (Asian) to 34% (African American, Hispanic/Latino, and Low Income). The percent in AL3 ranges from 12% (SWD and ELL) to 31% (White). The percent in AL4 ranges from 6% (SWD and ELL) to 54% (Asian).

**The Hawaiian and American Indian groups are excluded from the narrative due to small numbers of students tested in these groups.**
Figure 11 - Smarter Grade Band 6-8 Mathematics Achievement Levels, Disaggregated 2016

In Mathematics for Grade Band 6-8, the SWD, ELL, Low-Income, and African American group had the highest proportion of students in AL1 and AL2 combined. The Asian group had the highest proportion of students in AL3 and AL4 combined (74%). The percent in AL1 ranges from 9% (Asian) to 77% (ELL students). The percent in AL2 ranges from 17% (Asian and ELL) to 35% (Multi-Racial). The percent in AL3 ranges from 5% (SWD and ELL students) to 31% (Gap Group). The percent in AL4 ranges from 1% (ELL) to 51% (Asian).

**The Hawaiian and American Indian groups are excluded from the narrative due to small numbers of students tested in these groups.**
SAT School Day
State Summary

2015-2016
Administration
II. SAT School Day State Assessment Summary

SAT School Day Overview

On January 6, 2016 the Department of Education announced the SAT School Day assessment would replace the Smarter Balanced Assessment in grade 11 as Delaware’s state assessment. The change originated at the request of legislators as the state continued to look for ways to reduce testing, particularly for 11th grade students who were taking both the Delaware state-funded SAT School Day assessment, as well as, the 11th grade Smarter Balanced assessment.

College Board developed the SAT to assess the critical reading, mathematical reasoning, and writing skills of students and to provide a benchmark for college and career success through a standardized assessment. In March 2016, College Board launched a redesigned SAT, aligned to the Common Core State Standards. The redesigned SAT is scheduled to be completed in 3 hours and 30 minutes with breaks included. With the optional essay included, the scheduled time is 4 hours and 22 minutes.

The SAT measures the knowledge and skills needed for students to be ready for college, career, and beyond. The Evidence-Based Reading and Writing (ERW) section of the SAT is text-based, requiring students to provide support for their responses. The Mathematics section focuses on the math that research has shown to be most useful in college and career.

In Delaware, the optional essay portion of the SAT is required for all students participating in the SAT School Day.

Information about the typical conditions under which the SAT School Day is administered is available in the test administration manuals located on the DCAS Portal (http://de.portal.airast.org/).

SAT School Day Administration Dates

<table>
<thead>
<tr>
<th>Dates of Window</th>
<th>Tests Administered</th>
</tr>
</thead>
<tbody>
<tr>
<td>April 12, 2016</td>
<td>SAT School Day</td>
</tr>
<tr>
<td>April 27, 2016</td>
<td>SAT School Day Make-Up</td>
</tr>
</tbody>
</table>

SAT School Day Achievement Level Descriptions

The SAT assessment scores reported in this summary are based on the scale scores and the Achievement Levels for the state, the districts, and the schools. The scores are reported on a combined ERW and Mathematics scale for grade 11 ranging from 400 to 1600. The overall
achievement was delineated into the following four levels (with defining phrases bolded):

- **SAT ERW – 630-800**: The level 4 student has exceeded the achievement level and demonstrates a **thorough** understanding of the knowledge and skills needed for college and career readiness and achievement relative to the Common Core ELA/Literacy Content Standards.

- **SAT Math – 650-800**: The level 4 student has exceeded the achievement level and demonstrates a **thorough** understanding of, and ability to apply the mathematics knowledge and skills needed for college and career readiness and achievement relative to the Math Content Standards.

- **SAT ERW – 480-620**: The level 3 student has met the achievement level and demonstrates **adequate** understanding of the knowledge and skills needed for college and career readiness and achievement relative to the Common Core ELA/Literacy Content Standards.

- **SAT Math – 530-640**: The level 3 student has met the achievement level and demonstrates an **adequate** understanding of, and ability to apply the mathematics knowledge and skills needed for college and career readiness and achievement relative to the Math Content Standards.

- **SAT ERW – 420-470**: The level 2 student partially meets the achievement level and demonstrates an **incomplete** understanding of the knowledge and skills needed for college and career readiness and achievement relative to the Common Core ELA/Literacy Content Standards.

- **SAT Math 420-520**: The level 2 student has partially met the achievement level and demonstrates an **incomplete** understanding of, and ability to apply the mathematics knowledge and skills needed for college and career readiness and achievement relative to the Math Content Standards.

- **SAT ERW 200-410**: The level 1 student has not met the achievement level and demonstrates a **minimal** understanding of the knowledge and skills needed for college and career readiness and achievement relative to the Common Core ELA/Literacy Content Standards.

- **SAT Math 200-410**: The level 1 student has not met the achievement level and demonstrates a **minimal** understanding of, and ability to apply the mathematics knowledge and skills needed for college and career readiness and achievement relative to the Math Content Standards.
SAT School Day Cut Scores

SAT School Day ERW Performance Standards

<table>
<thead>
<tr>
<th>Achievement Level 1</th>
<th>Achievement Level 2</th>
<th>Achievement Level 3</th>
<th>Achievement Level 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>200-410</td>
<td>420-470</td>
<td>480-620</td>
<td>630-800</td>
</tr>
</tbody>
</table>

(Approved by State Board on August 18, 2016)

SAT School Day Mathematics Performance Standards

<table>
<thead>
<tr>
<th>Achievement Level 1</th>
<th>Achievement Level 2</th>
<th>Achievement Level 3</th>
<th>Achievement Level 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>200-410</td>
<td>420-520</td>
<td>530-640</td>
<td>650-800</td>
</tr>
</tbody>
</table>

(Approved by State Board on August 18, 2016)

About Achievement Level Setting

Four achievement levels, labeled Level 1 to Level 4, are used to report student performance on SAT ERW and mathematics in conjunction with the assessment scores. The cut scores for achievement levels were recommended at the multi-state standard setting workshops on June 15-16, 2016. During this process, educators from Connecticut, Delaware, Maine, and New Hampshire reviewed item by item on the operational test form, discussed the expectations of student performance specified in the Achievement Level Descriptors (ALDs) for each achievement level and the impact data, and determined the cut points on the reporting scale based on the Modified Angoff approach.

Those recommended cut scores were reviewed by policy makers from the four participating states and agreed upon with minor adjustments. On July 14, 2016, a large group of Delaware classroom teachers, administrators, as well as representatives from Higher Ed participated in the SAT Standard Setting Review meeting to experience the process and review the adjusted recommended cut scores. The recommended cut scores were presented to the State Board for consideration on July 21, 2016, with an understanding that these cut scores would be preliminary and revisited, if approved after additional student data are available.

All Students are required to be included in the statewide assessment program, regardless of classification. The Accessibility Guidelines for Delaware System of Student Assessments (DeSSA), available on the portal, describe the conditions under which students classified as students with disabilities, students with 504 plans, and English language learners are included, including descriptions of permissible test accommodations and supports at http://de.portal.airast.org/resources/dcas-alt1/.
The Students with Disabilities subgroup includes all students who had IEPs. During the spring 2016 Smarter assessment, students who had the disability code label “Speech Only” were included in the SWDs reporting group. To preserve student confidentiality, all Delaware Department of Education (DDOE) reports must adhere to the following suppression rules:

- For state level data:
  - If a group or subgroup count of “number tested” is between one (1) and 15, the number of students is represented by “<=15” and the percentages and averages are reported for that group.
  - If a group or subgroup count of “number tested” is zero (0), the number of students is reported as zero (0) and an asterisk (*) appears in the columns where a percentage or average would otherwise appear.

- Complementary suppression of one or more non-sensitive cells in a table may be required so that the values of the suppressed cells may not be calculated by subtracting the reported values from the row and column totals. The symbol that is used to represent data suppressed as a result of complementary data suppression is “~”.

- For district and school level data, counts for groups or subgroups are not included. If the group or subgroup has 15 or fewer students, then percentages and average scale scores are not included. If a group or subgroup has zero (0) students it will be represented with a “*”.

- Any percentage above 99 or below one (1) will be reported as >99% and <1% respectively.

DeSSA suppression rules and Student Gap Group apply for SAT School Day administration (see page 5 for additional details).
SAT School Day 2016 Participation Rate

Participation Rate – Definitions and Calculations

In this section, the participation rate is reported by content area and grade level for Smarter ELA/Literacy and Mathematics. The participation rate is also reported by subgroups in the participation tables.

The following is the method used to calculate participation rate in this report. The calculation method used for this report is not the same method used for calculating participation rates for accountability purposes; therefore, the participation rates will not match those used for accountability.

Participation Rate = \( \frac{100 \times \text{Tested N}}{\text{Eligible N}} \)

**Tested N** – Referred to as “Tested N,” this is the numerator of the participation rate calculation. It is the number of students who had valid scores and tested in grade level.

**Eligible N** – Referred to as “Eligible N,” this is the denominator of the participation rate calculation for a particular content area and is equal to the number of students who are eligible to test. This is equal to the sum of Tested N and Invalid.

All students enrolled in a public school for ten days or more during the spring 2016 test window for the respective content area were counted as eligible to take assessments unless they were granted an Exemption.

**Invalid Scores** – If an improper departure from testing procedures occurred during the administration of a student’s test, DOE can make the determination that it resulted in an invalid score. Students with invalid scores are counted as non-participants in the calculation of participation rates. Their scale score and Achievement Level are not included in the results tables within this report.

**Not Tested** – Students were counted as not tested if they met the requirements to be counted as “eligible” to take assessments but failed to test at any time during the spring test window in a given content area.

**Exempt** – An exemption causes the student scores to be excluded from performance calculations and from participation rate calculations. Some students were granted a “special” exemption from assessments due to physical or mental health conditions or due to other circumstances that were beyond the control of the student and school staff. Some ELL students in the U.S. for less than one year may receive an ELL exemption from the Smarter ELA/Literacy assessment.
SAT School Day State Level Summary Results

The overall state participation rates for ERW and Mathematics may be found in Figure 1 below. The participation rate for ERW is 95% and for Mathematics is 95%. Federal reporting requires the participation rate should be higher than 95%. Both ERW and Mathematics reporting sections met this requirement.

It is important to note that multiple factors lead to a student counting as a non-participant such as absences, truancy, not completing enough items on the assessment, and parent or student refusals to participate in the assessment.

**Figure 1- Statewide SAT Assessment Participation Rates, 2016**

<table>
<thead>
<tr>
<th></th>
<th>ERW</th>
<th>Math</th>
</tr>
</thead>
<tbody>
<tr>
<td>Statewide</td>
<td>95%</td>
<td>95%</td>
</tr>
</tbody>
</table>

Participation rates can be reviewed in 2016 SAT School Day Attachment 1 along with the performance data. The SAT assessment subgroup participation rates were calculated based on the following subgroups:

- Students with Disabilities (SWDs)
- English language learners (ELLs)
- Low-income
- White
- Hispanic/Latino
- American Indian or Alaska Native
- Black or African American
- Asian
- Native Hawaiian or Other Pacific Islander
- Two or more races
- Student Gap Group
SAT School Day Proficiency

Statewide SAT School Day proficiency summary data may be found in Figure 2 below. This figure provides overall proficiency information for SAT School Day for ERW and Mathematics. Proficiency is a combination of achievement levels 3 and 4 combined.

Figure 2- Statewide ERW and Mathematics Proficient and Achievement Levels, 2016

<table>
<thead>
<tr>
<th></th>
<th>Proficiency</th>
<th>AL 1</th>
<th>AL 2</th>
<th>AL 3</th>
<th>AL 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Statewide ERW</td>
<td>53%</td>
<td>26%</td>
<td>21%</td>
<td>42%</td>
<td>11%</td>
</tr>
<tr>
<td>Statewide Mathematics</td>
<td>31%</td>
<td>27%</td>
<td>42%</td>
<td>24%</td>
<td>7%</td>
</tr>
</tbody>
</table>

As with other DeSSA assessments, the 2016 SAT School Day results are summarized at the state level with the percent proficient by content and average score. Please note that, due to rounding for percentage, the total may be above or below 100%.

The state-level results are also summarized by subgroups, with summary data tables in 2016 SAT School Day Attachment 1. The subgroup results for all grade levels and content areas were calculated based on the following subgroups:

- Students with Disabilities (SWDs)
- English language learners (ELLs)
- Low-income
- White
- Hispanic/Latino
- American Indian or Alaska Native
- Black or African American
- Asian
- Native Hawaiian or Other Pacific Islander
- Two or more races
- Student Gap Group
SAT School Day ERW Performance

Figure 3 – SAT School Day ERW Achievement Levels, 2016

Figure 3 shows the percentage of students in each Achievement Level for the spring 2016 SAT School Day assessment given in grade 11. The percentages may not equal 100% due to rounding.

The highest percent of students (42%) are performing at AL 3. The next largest percentage of students were in AL 1, followed by AL 2. 11% of students performed at AL 4.

Descriptions for each Achievement Level (AL) can be found on page 21 of this document.

SAT School Day ERW Average Scale Score, 2016

The scale score is a measure that helps a student’s teacher and parent understand where a student’s score is within the range of an Achievement Level. The overall range of the scale score in each section (ERW and mathematics) of the SAT School Day is 200 to 800.

The SAT School Day ERW average scale score for 2016 was 490.

The cut scores for each Achievement Level can be found on page 22.
SAT School Day Mathematics Performance

Figure 4 – SAT School Day Mathematics Achievement Levels, 2016

Figure 4 shows the percentage of students in each Achievement Level on the spring 2016 SAT School Day assessment in grade 11. The highest percent of students (42%) are performing at AL 2. The next largest percentage of students were in AL 1, followed by AL 3. Only 7% of students performed at AL 4. The percentages may not equal 100% due to rounding.

SAT School Day Mathematics Average Scale Score, 2016

The scale score is a measure that helps a student’s teacher and parent understand where a student’s score is within the range of an Achievement Level. The overall range of the scale score in each section (ERW and mathematics) of the SAT School Day is 200 to 800.

The SAT School Day Mathematics average scale score for 2016 was 482.

The cut scores for each Achievement Level can be found on page 22.
## District & Charter SAT School Day Participation Rates for 2016

(Any percentage above 99 is reported as >99%)

<table>
<thead>
<tr>
<th>Districts</th>
<th>Evidence-Based Reading and Writing (ERW)</th>
<th>Mathematics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appoquinimink</td>
<td>98</td>
<td>98</td>
</tr>
<tr>
<td>Brandywine</td>
<td>95</td>
<td>95</td>
</tr>
<tr>
<td>Caesar Rodney</td>
<td>94</td>
<td>94</td>
</tr>
<tr>
<td>Cape Henlopen</td>
<td>97</td>
<td>97</td>
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<tr>
<td>Capital</td>
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<td>94</td>
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<td>Christina</td>
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<td>85</td>
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<td>Delmar</td>
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<tr>
<td>Indian River</td>
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</tr>
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<tr>
<td>Milford</td>
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<td>NCCVT</td>
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<tr>
<td>POLYTECH</td>
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<tr>
<td>Red Clay</td>
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<td>96</td>
</tr>
<tr>
<td>Seaford</td>
<td>98</td>
<td>98</td>
</tr>
<tr>
<td>Smyrna</td>
<td>96</td>
<td>96</td>
</tr>
<tr>
<td>Sussex Tech</td>
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<td>99</td>
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<td>Woodbridge</td>
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<td>86</td>
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<tr>
<td><strong>Charters</strong></td>
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<td></td>
</tr>
<tr>
<td>DE Academy of Public Safety and Security (DAPSS)</td>
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<td>93</td>
</tr>
<tr>
<td>Newark Charter School</td>
<td>&gt;99</td>
<td>&gt;99</td>
</tr>
<tr>
<td>Positive Outcomes Charter School</td>
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<td>Sussex Academy</td>
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<td></td>
</tr>
<tr>
<td>DSCYF</td>
<td>&gt;99</td>
<td>&gt;99</td>
</tr>
</tbody>
</table>
SAT School Day Disaggregated Summary Results

SAT School Day ERW Disaggregated Performance

Figure 5 – SAT School Day ERW Achievement Levels, Disaggregated 2016

In Evidence-Based Reading and Writing, the ELL, SWD, African American and Low Income groups had higher proportions of students in AL1 and AL2 combined. The Asian, White, and Multi-Racial groups had higher proportions of students in AL3 and AL4 combined. Excluding the high performance of Asian group, the percent in AL1 ranges from 16% (White) to 81% (ELL). The percent in AL2 ranges from 12% (ELL) to 25% (African American, Low Income). The percent in AL3 ranges from 6% (ELL) to 49% (White). The percent in AL4 ranges from 0% (ELL) to 30% (Asian).

**The Hawaiian and American Indian groups are excluded from the narrative due to small numbers of students tested in these groups.**
In Mathematics, the ELL, SWD, African American, and Low Income groups had higher proportions of students in AL1 and AL2 combined. The Asian and White groups had higher proportions of students in AL3 and AL4 combined. Excluding the high performance of Asian, the percent in AL1 ranges from 17% (White) to 79% (ELL). The percent in AL2 ranges from 16% (ELL) to 46% (Hispanic/Latino). The percent in AL3 ranges from 4% (SWD) to 32% (White). The percent in AL4 ranges from 0-1% (SWD, Low Income, ELL, and African American) to 34% (Asian).

**The Hawaiian and American Indian groups are excluded from the narrative due to small numbers of students tested in these groups.**
State Summaries of Delaware Comprehensive Assessment System (DCAS) Science and Social Studies

2015-2016 Administration
III. DCAS State Assessment Summary

DCAS Overview

The administration of the DCAS for science in grades 5, 8, and 10 and social studies in grades 4 and 7 occurred during the spring 2016. See below for the assessment windows available for administration:

DCAS Assessment Window Dates:

<table>
<thead>
<tr>
<th>Dates of Window</th>
<th>Tests Administered</th>
</tr>
</thead>
<tbody>
<tr>
<td>March 8 – June 1, 2016</td>
<td>DCAS Science</td>
</tr>
<tr>
<td></td>
<td>Grades 5, 8, and 10</td>
</tr>
<tr>
<td></td>
<td>DCAS Social Studies</td>
</tr>
<tr>
<td></td>
<td>Grades 4 and 7</td>
</tr>
</tbody>
</table>

The DCAS Science and Social Studies scores reported in this summary are based on the scale scores and the achievement levels for the state, the districts, and the schools. The scores for DCAS Science and Social Studies are reported on this within grade scale ranging from approximately 15 to 650. Student achievement is reported in four performance levels:

- Advanced
- Meets Standard
- Below Standard
- Well-Below Standard

The proficiency level is reported as the percentage of students who are proficient, that is, the percentage of students in Meets Standard and Advanced performance levels combined.

It is important to note that the participation rate and the percent proficient are generated differently in this report than those generated for accountability purposes.
Located below are the DCAS cut scores and performance levels for all grades and contents:

**DCAS Cut Scores:**

### DCAS Science Performance Standards

<table>
<thead>
<tr>
<th>Grade</th>
<th>Well-Below Standard</th>
<th>Below Standard</th>
<th>Meets Standard</th>
<th>Advanced</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>351 or less</td>
<td>352-399</td>
<td>400-434</td>
<td>435 or more</td>
</tr>
<tr>
<td>8</td>
<td>359 or less</td>
<td>360-399</td>
<td>400-434</td>
<td>435 or more</td>
</tr>
<tr>
<td>10</td>
<td>380 or less</td>
<td>381-399</td>
<td>400-434</td>
<td>435 or more</td>
</tr>
</tbody>
</table>

### DCAS Social Studies Performance Standards

<table>
<thead>
<tr>
<th>Grade</th>
<th>Well-Below Standard</th>
<th>Below Standard</th>
<th>Meets Standard</th>
<th>Advanced</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>382 or less</td>
<td>383-399</td>
<td>400-434</td>
<td>435 or more</td>
</tr>
<tr>
<td>7</td>
<td>370 or less</td>
<td>371-399</td>
<td>400-434</td>
<td>435 or more</td>
</tr>
</tbody>
</table>
The preliminary standard setting for the DCAS Science and Social Studies took place in August 2010 using the Bookmark Method. Panelists were representative of Delaware educators in terms of gender, ethnicity, and geographic location. Community members and parents were also represented among the panelists. More information about the standard setting can be found in the Standard Setting Technical Report: Setting Performance Standards for the Computer-Adaptive Delaware Comprehensive Assessment System (DCAS).¹

A confirmatory standard setting for the DCAS was performed in June 2011. The purpose of the confirmatory standard setting was to review the performance standards set in August 2010 in light of the first year of operational data. Following the panel review of the 2010–2011 DCAS operational results, panelists recommended that the interim performance standards be confirmed. The Delaware State Board of Education approved this recommendation at its July 2011 public meeting.

Information about the testing conditions under which DCAS was administered is available in the test administration manuals available on the DCAS Portal (http://de.portal.airast.org/).

All Students with Disabilities (SWDs), which only includes students who have an Individualized Education Program (IEP), and English Language Learners (ELLs) are required to be included in the statewide assessment program. The Accessibility Guidelines for Delaware System of Student Assessments (DeSSA), available on the portal, describe the conditions under which such students are included, including descriptions of permissible test accommodations.

The Students with Disabilities subgroup may show increases in performance in the 2016 school year partly as a result of a change in policy. Prior to 2015, Students with Disabilities who had the disability code label “Speech Only” were not included in the SWDs reporting group. For 2016, speech only students were included in this reporting group. This could change the overall performance of the Students with Disabilities subgroup and comparisons to previous years should be made with caution.

Rules for suppression and subgroup reporting may be found on page 5 of the initial introduction of the DeSSA Overview.

The low-income reporting group used in this report is referred to as “direct-cert.” This group includes Delaware students receiving benefits from the Supplemental Nutrition Assistance Program (SNAP) and Temporary Assistance for Needy Families (TANF).
DCAS 2016 Participation Rate

Participation Rate – Definitions and Calculations

DCAS participation definitions and calculations follow the same rules as described in the Smarter State Summary section, page 6.

DCAS Science Participation Rate

Participation rates were calculated for 36 grade level/content area/subgroups in science. Of these, eight subgroups do not meet the 95% target, all of which are in grade 10. The subgroups that had 16 or more students in the cell in grade 10 with participation rates below 95% are SWDs at 87%, ELLs at 85%, Low-Income at 88%, Hispanic at 90%, African American at 89%, American Indian at 89%, Two or more races at 93%, and the Gap Group at 89%.

Figure 1 - Statewide DCAS Science Participation Rates, 2016

<table>
<thead>
<tr>
<th>Grade</th>
<th>Science Participation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade 5</td>
<td>99%</td>
</tr>
<tr>
<td>Grade 7</td>
<td>97%</td>
</tr>
<tr>
<td>Grade 10</td>
<td>92%</td>
</tr>
</tbody>
</table>

DCAS Social Studies Participation Rate

Participation rates were calculated for 24 grade level/content area/subgroups in social studies. Of all the subgroup participation rates that were calculated for the assessments by grade and subgroup, only one (1) did not meet the 95% target (SWD at 94% in grade 7).

Figure 2 - Statewide DCAS Social Studies Participation Rates, 2016

<table>
<thead>
<tr>
<th>Grade</th>
<th>Social Studies Participation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade 4</td>
<td>99%</td>
</tr>
<tr>
<td>Grade 7</td>
<td>97%</td>
</tr>
</tbody>
</table>
DCAS State Level Performance Results

The statewide DCAS summary data, with subgroups, is presented in 2016 DCAS State Summary Attachment 1.

In the following section, the 2016 DCAS results are summarized at the state level with the percent proficient by content, grade, and average score. A comparison from spring 2015 through spring 2016 is also provided with the average scale score and the percentage of proficient by content area and grade level. Please note that, due to rounding for percentage, the total may be above or below 100%.

The state-level results are also summarized by subgroups. The DCAS subgroup results for all grade levels and content areas were calculated based on the following subgroups:

- Students with Disabilities (SWDs)
- English language learners (ELLs)
- Low-income
- White
- Hispanic/Latino
- Black or African American
- Asian
- Native Hawaiian or Other Pacific Islander
- American Indian or Alaska Native
- Two or more races
- Student Gap Group
DCAS Science Performance

Figure 1 – DCAS Science Performance Levels, 2016

![DCAS Science Performance Levels, 2016](image)

Figure 1 shows the percentage of students in each performance level on the spring 2016 DCAS Science assessment in grades 5, 8, and 10.

The results indicate that about 47% of the students in grade 5, 48% in grade 8, and 44% in grade 10 performed at the Meets Standard and Advanced levels.

Over half of the students, however, in grade 5 (53%), grade 8 (51%), and grade 10 (57%) performed at the levels of Below Standard and Well-Below Standard.
As seen in Figure 2 above, the average scale scores for spring 2016 DCAS Science are 395, 396, and 391 respectively, in grades 5, 8 and 10. Compared with student performance in 2012, the 2016 average scale scores have decreased between five (5) to eight (8) score points across grades.
The results of the five year comparison (Figure 3) show a slight decrease in the percentage of students proficient over time in grades 5 and 8. Although the percent proficient in grade 10 dropped 3% from 2014 to 2016, results from 2016 are 1% higher than results from 2012 and 2013.
DCAS Social Studies Performance

Figure 4 - DCAS Social Studies Performance Levels, 2016

Figure 4 shows the percentage of students in each performance level on the spring 2016 DCAS Social Studies assessment in grades 4 and 7. The results indicate that about 59% of students in grade 4 and 57% in grade 7 performed at the Meet Standard and Advanced levels. 41-43% of the students performed at the levels of Below Standard and Well-Below Standard.
As seen in Figure 5 above, the average scale scores for spring 2016 DCAS Social Studies are 407 and 412 respectively in grades 4 and 7. Compared with student performance from 2015, the average scale scores dropped by one (1) score point in grade 4 and by two (2) score points in grade 7. The data suggests that student performance is stable over time in grade 7. However, over a five-year period, the grade 4 scale scores have declined by seven (7) points.
The results of the five-year comparison (Figure 6) suggest a consistent decrease in the percentage of students proficient from year-to-year in grade 4. The percentage of proficient students in grade 7 remains stable with very slight fluctuation from year-to-year.
State Summaries of Delaware Comprehensive Assessment System Alt1 (DCAS-Alt1)
Reading, Mathematics, Science, & Social Studies

2015-2016 Administration
IV. DCAS-Alt1 State Assessment Summary

DCAS-Alt1 Overview

There was one opportunity for the DCAS-Alt1 during the spring 2016 administration for reading and mathematics in grade 3-11 and for science in grades 5, 8, and 10 and social studies in grades 4, 7, and 9. The DCAS-Alt1 Reading and Mathematics assessments parallel the Smarter ELA/Literacy and Mathematics assessments administered to students taking the general assessment (grades 3-8) and the PSAT and SAT (grades 9-11). See below for the assessment windows that were available for the administration of the DCAS-Alt1. Three tasks were previously released in each grade band to provide teachers with resources to use with students who may not be familiar with the assessment.

<table>
<thead>
<tr>
<th>Dates of Window</th>
<th>Tests Administered</th>
</tr>
</thead>
<tbody>
<tr>
<td>March 9 - June 2, 2016</td>
<td>DCAS-Alt1 Reading and Mathematics Grades 3-11</td>
</tr>
<tr>
<td></td>
<td>DCAS-Alt1 Science Grades 5, 8, and 10</td>
</tr>
<tr>
<td></td>
<td>DCAS-Alt1 Social Studies Grades 4, 7, and 9</td>
</tr>
</tbody>
</table>

DCAS-Alt1 scores are not summarized at the school level due to the prohibitively of small numbers of students. The scale scores for DCAS-Alt1 Reading and Mathematics are reported on a developmental scale for grade 3 through grade 11, ranging from approximately 100 to 1000.

Student achievement for DCAS-Alt1 is also reported in performance levels.

There are four performance levels:
- Advanced
- Meets Standard
- Below Standard
- Well-Below Standard
DCAS-Alt1 Standard Setting

The preliminary standard setting for the DCAS-Alt1 Reading and Mathematics took place in July 2011. There were 47 panelists working with data from the reading and mathematics DCAS-Alt1 field test of spring 2011. The panelists were selected by Department of Education (DOE) and represented a broad cross-section of special education and general education teachers, parents, and higher education leaders. Gender and ethnicity/race were also considered to ensure a representative selection within the panel.

A confirmatory standard setting took place July 9–11, 2012. More information about the standard setting can be found in the *Standard Setting Technical Report: Setting Performance Standards for the Delaware Comprehensive Assessment System – Alternate Assessment (DCAS-Alt1).*

The standard setting for the DCAS-Alt1 Science and Social Studies took place July 9-10, 2012. There were 44 panelists consisting of teachers, parents, and higher education leaders to recommend performance standards for science (grade 5, 8, and 10) and social studies (grade 4, 7, and 9).

The reading, mathematics, science and social studies cut scores developed from the DCAS-Alt1 Standard Setting are located below:

### DCAS-Alt1 Cut Scores:

#### DCAS-Alt1 Reading Performance Standards

<table>
<thead>
<tr>
<th>Grade</th>
<th>Well-Below Standard</th>
<th>Below Standard</th>
<th>Meets Standard</th>
<th>Advanced</th>
</tr>
</thead>
<tbody>
<tr>
<td>3–5</td>
<td>629 or less</td>
<td>630</td>
<td>673</td>
<td>725</td>
</tr>
<tr>
<td>6–8</td>
<td>639 or less</td>
<td>640</td>
<td>700</td>
<td>779</td>
</tr>
<tr>
<td>9–11</td>
<td>649 or less</td>
<td>650</td>
<td>740</td>
<td>817</td>
</tr>
</tbody>
</table>

#### DCAS-Alt1 Mathematics Performance Standards

<table>
<thead>
<tr>
<th>Grade</th>
<th>Well-Below Standard</th>
<th>Below Standard</th>
<th>Meets Standard</th>
<th>Advanced</th>
</tr>
</thead>
<tbody>
<tr>
<td>3–5</td>
<td>624 or less</td>
<td>625</td>
<td>676</td>
<td>724</td>
</tr>
<tr>
<td>6–8</td>
<td>641 or less</td>
<td>642</td>
<td>700</td>
<td>773</td>
</tr>
<tr>
<td>9–11</td>
<td>656 or less</td>
<td>657</td>
<td>724</td>
<td>802</td>
</tr>
</tbody>
</table>

#### DCAS-Alt1 Science Performance Standards

<table>
<thead>
<tr>
<th>Grade</th>
<th>Well-Below Standard</th>
<th>Below Standard</th>
<th>Meets Standard</th>
<th>Advanced</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>346 or less</td>
<td>347</td>
<td>400</td>
<td>435</td>
</tr>
<tr>
<td>8</td>
<td>365 or less</td>
<td>366</td>
<td>400</td>
<td>435</td>
</tr>
<tr>
<td>10</td>
<td>368 or less</td>
<td>369</td>
<td>400</td>
<td>435</td>
</tr>
</tbody>
</table>

#### DCAS-Alt1 Social Studies Performance Standards
<table>
<thead>
<tr>
<th>Grade</th>
<th>Well-Below Standard</th>
<th>Below Standard</th>
<th>Meets Standard</th>
<th>Advanced</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>369 or less</td>
<td>370</td>
<td>400</td>
<td>435</td>
</tr>
<tr>
<td>7</td>
<td>325 or less</td>
<td>326</td>
<td>400</td>
<td>435</td>
</tr>
<tr>
<td>9</td>
<td>372 or less</td>
<td>373</td>
<td>400</td>
<td>435</td>
</tr>
</tbody>
</table>

Information about the typical conditions under which the DCAS-Alt1 is administered is available in the test administration manuals located on the DCAS Portal (http://de.portal.airast.org/).

All SWDs and ELLs are required to be included in the statewide assessment program, to the extent possible. The **Accessibility Guidelines for Delaware System of Student Assessments (DeSSA)**, available on the DeSSA Portal, describe the participation criteria for students who are included in the DCAS-Alt1. The IEP team approves the participation criteria and identifies each student in the Test Information Distribution Engine (vendor database).

To preserve student confidentiality, all reports adhere to the data suppression rules described in the Smarter State Summary Achievement Level Setting found on page 5.

In 2015, a new rule was created allowing students with intense communication needs taking the DCAS-Alt1 to conclude after the first task if they meet specific criteria. Fewer than 20 submissions were received by the Department for students meeting the identified criteria. These students were counted as participants for the purpose of this report, and the scores for these students were counted as a performance level 1 with a scale score of 99.

DCAS-Alt1 2016 Participation Rate

Participation Rate – Definitions and Calculations

DCAS participation definitions and calculations follow the same rules as described in the Smarter State Summary section, page 6.

DCAS-Alt1 Reading Participation Rate
All grades met the goal of at least 95% participation for DCAS-Alt1 Reading, except Grade 8 (94%). The other grades participation rates ranged from 95% to 98%.

DCAS-Alt1 Mathematics Participation Rate
All grades met the goal of at least 95% participation for DCAS-Alt1 Math, except Grade 8 (94%). The other grades participation rates ranged from 95% to 99%.

DCAS-Alt1 Science Participation Rate
Grades 5 and 10 both met the participation rate threshold with each at 95%. However, grade 8 (94%) did not.

DCAS-Alt1 Social Studies Participation Rate
All grades 4, 7, and 9 met the participation rate threshold with grade 4 at 98%, grade 7 at 97%, and grade 9 at 98%.
DCAS-Alt1 State Level Summary Results

The statewide DCAS-Alt1 summary data, with subgroups, is presented in 2016 DCAS-Alt1 State Summary Attachment 1.

In this section, student achievement on DCAS-Alt1 is summarized by each performance level, content area, and grade level for reading, mathematics, science and social studies. Please note that, due to rounding for percentages, the total may be above or below 100%. The results of the 2016 DCAS-Alt1 are also compared with results from other years in terms of average scores and percent proficient for each content area.

The state-level results are summarized by subgroups. The DCAS-Alt1 subgroup results for all grade levels and content areas were calculated based on the following subgroups:

- Students with Disabilities (SWDs)
- English language learners (ELLs)
- Low-income
- White
- Hispanic/Latino
- Black or African American
- Asian
- Native Hawaiian or Other Pacific Islander
- American Indian or Alaska Native
- Two or more races
DCAS-Alt1 Reading Performance

Figure 7 – DCAS-Alt1 Reading Performance Levels, 2016

Figure 7 shows the percentage of students in each performance level for reading by grade for the spring 2016 DCAS-Alt1 administration.

Grade 5 has the highest percentage of students who are in the Advanced performance level in reading at 41%, while grade 9 has the lowest at 18%. Grades 5 and 8 show the highest proficiency rates (Meets and Advanced levels combined) at 66% and 67% respectively. Grade 11 has a proficiency rate of 56%. The proficiency rate for grade 10 of 53% for grades 9 and 10 essentially the same with rounding%.

Grade 10 has the highest percentage of students in Below and Well-Below at 48%, followed closely by grade 9 with 47%. 
Figure 8 shows the statewide average scale score for DCAS-Alt1 reading by grade from spring 2014 through spring 2016.

Changes from year to year within each grade vary. Grades 6 and 10 show increases from 2014 to 2015, but grades 3, 4, 5, 7, 8, and 9 show decreases. There is no discernable pattern in these increases and decreases. This is likely due to the small number of students and heterogeneous population tested in this assessment.
The percent proficient in grades 3, 6, and 8 in spring 2016 is above the baseline established in spring 2014. In 2016, grades 4, 5, 10, and 11 decreased slightly, with ranges between 1% (grade 11) and 9% (grade 10). It is important to be cautious in the interpretation of cross-year comparison due to the small number of students and heterogeneous population tested in this assessment.
DCAS-Aalt1 Mathematics Performance Results

Figure 10 – DCAS-Aalt1 Mathematics Performance Levels, 2016

Figure 10 displays the percentage of students in each performance level, by grade, for the spring 2016 DCAS-Aalt1 Mathematics.

The proportion of students performing at Meets or Exceeds Standard ranges from 40% at grade 3 to 61% at grades 5 and 8. The proportion of students performing at Advanced level has a range of 9% in grade 9 to 33% in grade 8. Grades 5 and 8 have the highest proficiency level with 61%. Grade 6 is next with a proficiency level at 58%.

The percentage of students performing at Well-Below Standard has a range of 13% in grade 8 to 35% in grade 3. At Below Standard, the smallest percentage is seen in grade 11 with 17%, and the largest is seen in grade 9 with 32%.

DeSSA 2016 Executive State Summary
With the exception of grades 6, 8, and 10, most grades show an overall decrease in spring 2016 DCAS-Alt1 Mathematics scale scores compared to 2014. Grade 11 was not implemented until spring 2015.
DCAS-Alt1 Mathematics percentages for proficiency show mixed results from 2015 to 2016 with grades 4, 5, 6, 7, and 11 showing an increase in proficient numbers ranging from 1% to 9%. Grades 3, 8, 9, and 10 show a decrease ranging from 1% to 9%. For the last three years, grade 4 has been very consistent in percent proficiency with no change in spring 2016 when compared to spring 2013.
DCAS-Alt1 Science Performance Results

Figure 13 – DCAS-Alt1 Science Performance Levels, 2016

Figure 13 displays the percentage of students in each performance level by grade for the spring DCAS-Alt1 2016 Science. The proportion of students at Meets Standard has a range of 38% in grade 8 to 29% in grade 5. The proportion of students performing at Advanced level has a range of 11% in grade 10 to 25% in grade 5. Grade 8 has the highest proficiency level with 61%.

The percentage of students performing at Well-Below Standard has a range of 10% in grade 8 to 29% in grade 10. At Below Standard, the smallest percentage is seen at grade 8 with 28%.
Figure 14 – DCAS-Alt1 Science Average Scale Scores, 2014-2016

The spring DCAS-Alt 1 Science scale scores for grade 5, 8 and 10 show decreases of 8, 2, and 9 points respectively from 2015 to 2016.

Figure 15 – DCAS-Alt1 Science Percentage of Students Proficient, 2014-2016

The DCAS-Alt1 Science percent proficient have decreased in all three grades from 2015 to 2016, dropping by 1% in grade 5, by 6% in grade 8 and by 11% in grade 10. Grade 5 remains the most stable.
DCAS-Alt1 Social Studies Performance Results

Figure 16 – DCAS-Alt1 Social Studies Performance Levels, 2016

In Figure 16 above, grade 9 students performed with a percent proficient of 64%. In grade 7, a large proportion of students performed Below Standard at 55%. In grade 4, about the same percentage of students performed at each level.

Figure 17– DCAS-Alt1 Social Studies Average Scale Scores, 2014-2016

Overall, there is a mixed trend for the three grades in 2016 with grades 7 and 9 decreasing slightly and grade 4 increasing slightly. All grades tested remain relatively stable for the three consecutive years from 2014 to 2016.
The spring 2016 DCAS-Alt1 Social Studies percent proficient ranges from 46% in grade 7 to 63% in grade 9. Grades 4 and 7 show increases from 2015, especially for grade 7 with an 11% rise. Grade 9 remains stable at 63% and significantly higher than the other grades across the 3-year period.