Delaware Department of Education

# Delaware Comprehensive Assessment System

## State Summary Results of the Reading, Mathematics, Science, and Social Studies Assessment

## 2013 Administration
## Grades 3 through 10

**July 2013** **(DCAS-Alt1 updated 8/2013)**

Document No. 95-01/13/05/02

# 2013 Delaware Comprehensive System State Summary

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## LIST OF ATTACHMENTS



## List of Acronyms

| | |
|---|---|
| DCAS | Delaware Comprehensive Assessment System |
| DCAS-ALT1 | Delaware Comprehensive Assessment System- Alternate 1 |
| ELL | English Language Learner |
| SES | Socio-Economic Status |
| SWD | Student With Disabilities |

# 2013 Delaware Comprehensive Assessment System State Summary

## Overview

Delaware's Assessment System includes two primary assessments, the Delaware Comprehensive Assessment System (DCAS) and the Delaware Comprehensive Assessment System- Alternate 1 (DCAS-ALT1). This report contains the results of the DCAS and the DCAS-ALT1 in reading, mathematics, science, and social studies. The DCAS is a series of assessments designed to measure what Delaware's students know and are able to do in reading and mathematics (grades 3-10), science, (grades 5, 8 and 10) and social studies (grades 4 and 7). Each test question measures knowledge of the content standards and grade-level expectations. The DCAS-ALT1 is an assessment designed to measure what students with the most significant cognitive disabilities know and are able to do in reading and mathematics (grades 3-10), science, (grades 5, 8 and 10) and social studies (grades 4 and 7). Each test question measures knowledge of the extended content standards, which are adapted from the Delaware Content Standards specifically for this population. The DCAS and the DCAS-ALT1 satisfy the assessment requirements of Title I of the ***United States Elementary and Secondary Education Act***.

## I. Introduction to DCAS

The DCAS reading and mathematics assessments were administered during two test windows in the 2012–2013 school year in grades 3–10 (fall and spring – see the table, "DCAS Assessment Window Dates" on page 7). Each test was administered once during the fall window and up to two times during the spring window. This differed from the 2011-12 school year in which there was also a mid-year test window. Furthermore the spring 2013 window began a month earlier than the spring 2012 window. The purpose of the second testing opportunity in the spring window is to allow students a chance to demonstrate increased learning later in the school year. This report includes only the higher spring score for each student who took a reading or mathematics assessment twice during the spring window. Grade 2 students also took short practice assessments in reading and mathematics (one opportunity for each student) in the spring window. The DCAS science and social studies were administered in spring 2013 (one opportunity for each student) in grades 5, 8, and 10 (science) and grades 4 and 7 (social studies).

The DCAS scores reported in this Summary are the Accountability Scores and the Performance Levels (percent proficient) for the state, the districts, and the schools. The Accountability Scores for DCAS reading and mathematics are reported on a developmental scale for grade 3 through grade 10, ranging from approximately 200 to 1200. Student achievement for DCAS is also reported in performance levels. There are four DCAS performance levels: Well below Standard, Below Standard, Meets Standard, and Advanced. In the tables in this document, the performance level, or proficiency, is reported as the percentage of students who are proficient (percentage of students in Meets Standard and Advanced performance levels, combined).

The Standard Setting for the DCAS 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 revisit and confirm the performance standards set in August 2010 in light of the first full year of operational data that had been accumulated. Following a comprehensive review of the 2011–2012 DCAS operational results with comparison to the DCAS projected performance, panelists recommended that the interim performance levels and cut scores be made permanent. The Delaware State Board of Education approved this recommendation at its July 2011 public meeting.

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

All students with disabilities and English language learners (ELLs) are required to be included in the statewide assessment program. The "DCAS Guidelines for Inclusion of Students with Disabilities and English Language Learners," available on the DCAS Portal, describes the conditions under which such students are included in the DCAS, including descriptions of permissible test accommodations. There are a small number of accommodations that change the construct of the test, for example, reading the reading passages to a student on the reading test. Such accommodations cause a student's score to be considered "non-standard," meaning that the scores do not have the same meaning as scores obtained under standard conditions ("standard" scores) and, therefore, cannot be compared meaningfully with standard scores. Non-standard scores are only included in tables of participation rates and the summary of performance

To preserve student confidentiality, any group reported in this document that has an n count of less than 15 has been suppressed. Due to Delaware's small size, there are some state-level data regarding subgroup performance that are suppressed. Suppressed data is represented by a "-." Percentages that are greater than 95% and less than 5% are also suppressed. In tables that show change from fall to spring, the change is suppressed if either or both of the fall and spring statistics are suppressed.

**Participation Rates - Definitions and Calculations**

The following are definitions of the column names used in the participation tables in this report. The rates calculated in this report may not be calculated in the same way as rates will later be reported for State Accountability.

> **Eligible N.** "Eligible N" is the denominator of the participation rate calculation for a particular content area and 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 2013 test window were counted as eligible to take the DCAS mathematics, science, and social studies unless they (1) participated in the DCAS-ALT1 for these content areas, or (2) were granted a Special Exemption. All students enrolled in a public school for ten days or more during the spring 2013 test window are counted as eligible to take the DCAS reading unless they (1)

[1] American Institutes for Research. (2010) "Standard Setting Technical Report: Setting Performance Standards for the Computer-Adaptive Delaware Comprehensive Assessment System (DCAS)." Washington, D.C.

participated in the DCAS-ALT1 for these content areas, (2) were granted a Special Exemption, or (3) were granted an ELL Exemption.

**Tested N.** "Tested N" (referred to as "Number of Participants" on accompanying tables) is the numerator of the participation calculation. It is the number of students who received a valid Performance Level 1, 2, 3, or 4 on the DCAS in a particular content area. A small number of student scores may have been forced to a Performance Level 1 for a content area due to submission of an incomplete test. See below for more information about invalid N.

**Invalid Scores.** Students with invalid scores are counted as non-participants in the calculation of participation rates. The following reasons result in invalid scores:

1) A student received a non-standard test accommodation in a given content area. A non-standard accommodation changes the construct of the test, making the student's score not comparable to scores obtained under standard testing conditions; or

2) A student attempted to test but did not complete the entire test; or

3) Improper departures from testing procedure took place during the administration of a student's test.

**Not Tested.** Students were counted in this column if they met the requirements to be counted as "eligible" to take the DCAS but failed to test at any time during the spring test window in a given content area. Students counted in this column are counted as non-participants in the calculation of participation rates.

**Exempt N (Special Exemption and ELL Exemptions).** Students who received a special exemption from any content area test or who received an ELL exemption from the reading test are counted in the Exempt N column for the relevant content area. An exemption causes the student scores to be excluded from performance calculations and from participation rate calculations.

**Special Exemption.** Some students were granted a "special" exemption from the DCAS due to physical or mental conditions, or due to other circumstances that were beyond the control of the student and school staff.

**ELL Reading Exemption.** English language learners who were enrolled in U.S. schools less than one year and who met the criteria set forth in the 2012–2013 DCAS Guidelines for Inclusion are not required to participate in the reading assessment, per guidance from the U.S. Department of Education.

**% Tested.** The percent tested is calculated by dividing "Tested N" by "Eligible N."

**% Not Tested.** The percent tested is calculated by dividing the sum of ("Not Tested N" + the n count of "Invalid Scores") by the "Eligible N."

**Achievement Gap Analysis**

Achievement gap analysis consists of charts, tables, and graphs displaying data about the differences in average DCAS performance between the majority, or historically dominant group, and the minority, or historically non-dominant group. Many educational initiatives aim to reduce the differences in performance between these two groups. This type of analysis helps educators and the public to evaluate the degree to which these efforts are succeeding. The achievement gap can be examined from the following four different perspectives.

1. **Simple Gap Narrowing**: Have gaps in performance between student groups decreased over time?
2. **Progress for All**: Have all groups of students gained over time?
3. **Gap Size**: What is the magnitude of the gap between groups?
4. **Group Comparison across Jurisdictions**: How does each group of students currently perform relative to their counterparts in other districts?

# II. DCAS General Information

## DCAS Assessment Window Dates

| Dates of Window | Tests Administered |
|---|---|
| August 15–October 19, 2012 | **Fall Window:**<br><br>Reading/Mathematics<br>Grades 3-10 |
| January 21–May 30, 2013<br><br>April 15-June 3, 2013<br><br>May 20–June 3, 2013 | **Spring Window:**<br><br>Reading/Mathematics<br>Grades 2-10<br><br>Science<br>Grades 5, 8, and 10<br><br>Social Studies<br>Grades 4 and 7 |

## DCAS Subject Areas Test Administrations by Grade Level

| Content | Grades | Number of Times in Window Test may be Administered | |
|---|---|---|---|
| | | Fall | Spring |
| Reading | 3-10 | 1 | Up to 2 |
| Mathematics | 3-10 | 1 | Up to 2 |
| Reading & Mathematics | 2 | 0 | 1 |
| Science | 5, 8, 10 | 0 | 1 |
| Social Studies | 4, 7 | 0 | 1 |

# DCAS Cut Scores

## Reading

| Grade | Well Below Standard | Below Standard | Meets Standard | Advanced |
|---|---|---|---|---|
| 3 | 650 or less | 651-689 | 690-736 | 737 or more |
| 4 | 681 or less | 682-720 | 721-771 | 772 or more |
| 5 | 699 or less | 700-738 | 739-797 | 798 or more |
| 6 | 724 or less | 725-757 | 758-817 | 818 or more |
| 7 | 743 or less | 744-775 | 776-826 | 827 or more |
| 8 | 763 or less | 764-799 | 800-843 | 844 or more |
| 9 | 766 or less | 767-810 | 811-852 | 853 or more |
| 10 | 774 or less | 775-819 | 820-858 | 859 or more |

## Mathematics

| Grade | Well Below Standard | Below Standard | Meets Standard | Advanced |
|---|---|---|---|---|
| 3 | 592 or less | 593-658 | 659-749 | 750 or more |
| 4 | 648 or less | 649-699 | 700-792 | 793 or more |
| 5 | 689 or less | 690-731 | 732-810 | 811 or more |
| 6 | 715 or less | 716-756 | 757-835 | 836 or more |
| 7 | 739 or less | 740-778 | 779-849 | 850 or more |
| 8 | 766 or less | 767-799 | 800-861 | 862 or more |
| 9 | 774 or less | 775-811 | 812-871 | 872 or more |
| 10 | 791 or less | 792-829 | 830-896 | 897 or more |

## Science

| Grade | Well Below Standard | Below Standard | Meets Standard | Advanced |
|---|---|---|---|---|
| 5 | 351 or less | 352-399 | 400-434 | 435 or more |
| 8 | 359 or less | 360-399 | 400-434 | 435 or more |
| 10 | 380 or less | 381-399 | 400-434 | 435 or more |

## Social Studies

| Grade | Well Below Standard | Below Standard | Meets Standard | Advanced |
|---|---|---|---|---|
| 4 | 382 or less | 383-399 | 400-434 | 435 or more |
| 7 | 370 or less | 371-399 | 400-434 | 435 or more |

## III. Description of 2013 DCAS Scores and Trends

The statewide DCAS summary data, with subgroups, is presented in Attachment I.

**Reading: State-Level Results—Fall 2012 and Spring 2013**

The statewide percent proficient for the fall 2012 reading test window ranged from 33.4 in grade 3 to 50.5% in grade 10, showing a general increasing trend with increasing grade level. In the spring 2013 window, the reading percent proficient fluctuated with no apparent relationship to grade level. The low end of the range was 66.8% in grade 9, and the upper end of the range was 76.7% in grade 5.

As expected for a developmental scale, the average reading scale score in fall 2012 ranged from 654.3 in grade 3 to 814.9 in grade 10. In spring 2013, the average reading scale score was also lowest in grade 3 at 725.4 and highest in grade 10 at 852.2.

**Reading Trend within School Year—Fall 2012 to Spring 2013**

The percent proficient in reading increased from fall to spring in all grade levels as expected. In the lower grades, the increases were generally higher, and as grade level increased, the amount of gain decreased. The greatest gain was 37.2 points at third grade. The smallest gain was 19.0 points at ninth grade.

The average reading scale score also increased from fall to spring in all grade levels. The largest gains were seen at the elementary levels, and gains were smaller at upper grade levels. The largest gain was seen at grade 3 (71.1 scale score points). The smallest gain was 29.8 points at grade 9.

**Reading Trend—2011-12 School Year to 2012-13 School Year**

The data for the following trends from 2011-12 and 2012-13 compares data from both this State Summary and the State Summary from 2011-12.

**Fall 2011-12 to Fall 2012-13.** The percent proficient increased in all grades except for grade 5, which saw a drop of 2.6 points. The increases ranged from 0.6 percentage points in grade 7 to 3.5 percentage points in grade 6. The average scale scores in reading for fall decreased from the previous fall in all grades except grade 4 (5.4), grade 6 (1.9) and grade 9 (2.4). The decreases ranged from 0.3 (grade 3) to 4.4 (grade 5).

**Spring 2011-12 to Spring 2012-2013.** The changes in mean scale scores from spring 2012 to spring 2013 ranged from a drop of 9.3 points in grade 3 to a gain of 6.8 points in grade 10. Grade 4 average scale scores were less than one point apart, and grade 5 dropped by 3.1 points. All other grades gained by less than 5 points. Spring 2013 percentages proficient are about the same as the spring 2012 percent proficient in every grade except for grade 3 which showed a drop of 5 points. The differences in the other grades ranged from a drop of 1.8 to a gain of 2.13 percentage points.

**Fall to Spring 2011-12 Gains Compared to 2012-13 Gains**. Students show fall to spring reading scale score gains in school year 2012-13 that are different from fall to spring reading scale score gains of school year 2011-12 for several grades. Grades 3 and 4 showed less growth during the 2013 school year than 2012 by 9.0 and 5.2 scale score points, respectively. Grades 6 and 10 showed more growth during the 2013 school year than 2012 by 6.7 and 9.7 scale score points, respectively. Grades 5, 7, 8, and 9 showed moderately greater amounts of growth in the 2013 school year than in the 2012 school year. The 2012-13 fall to spring gains in percent proficient were smaller than or about the same as the 2011-12 fall to spring gains in percent proficient. The differences in the size of fall to spring gains in percent proficient ranged from -6.0 in grade 3 to +1.0 in grades 5 and 10.

**Mathematics: State-Level Results— Fall 2012 and Spring 2013**

The statewide mathematics percent proficient for the fall 2012 test window directly increased with grade level, ranging from 23.0% in grade 3 to 44.4% in grade 10. The spring 2013 percentage proficient in mathematics fluctuated instead of showing a consistent increasing trend with grade level. Generally, the higher percentages of scores that were proficient were associated with lower grade levels and the lower percentages were associated with higher grade levels. The range was from 65.7% in grade 6 and the upper end of the range was 73.7% in grade 4.

The average mathematics scale scores for fall 2012 were lowest in grade 3 (610.0) and highest in grade 10 (827.9). The average mathematics scale scores for spring 2013 were lowest in grade 3 (704.8) and highest in grade 10 (858.6).

**Mathematics Trend within School Year—Fall 2012 to Spring 2013**

Statewide, a higher proportion of students were proficient in spring 2013 than in fall 2012, in every grade. The math gains range from 24.8 percentage points (grade 10) to 49.9 percentage points (grade 3). The gains are generally smaller in higher grade levels.

Students in high school started the year stronger than students in elementary school, but gained less over the year. Students in grade 3, for example, began the year with far fewer students meeting the standard in math (23.0 %) than students in grade 10 (44.4 %), but by the end of the school year, the proportion of 3rd graders meeting the standard (72.9 %) was greater than the proportion of tenth graders (69.2 %).

The average math scale score also increased from fall to spring in all grade levels. The largest gains were seen at the elementary levels, and sizes of the gains were smaller in secondary grade levels. The largest gain was seen at grade 3 (94.8 scale score points). The smallest gain was 30.7 at grade10.There was a general decrease in the size of the gain between grades 3 and 10.

**Mathematics Trend—2011-12 School Year to 2012-13 School Years**

The data for the following trends from 2011-12 and 2012-13 compares data from both this State Summary and the State Summary from 2011-12.

**Fall 2011-12 to fall 2012-13.** About the same proportion of students started the year proficient as in the 2011-12 school year, with the exception of grades 3, 5, and 6. Grade 3 saw a drop of 2.7 percentage points and Grades 5 and 6 saw increases of 2.3 and 3.4 percentage points, respectively. The mean mathematics scale scores of students in fall of the 2012-13 school year were slightly lower (by 2.5 to 9.4 points) than those of students in the previous fall, in all grades except for grade 6, which stayed about the same.

**Spring 2011-2012 to Spring 2012-2013.** The math mean scale scores show decreases from spring 2012 to spring 2013 in every grade. The drops range from 7.9 (grade 3) to 1.0 (grade 9) scale score points. Spring 2013 percent proficient in math show drops from spring 2012 in all grade levels, ranging from 3.9 points (grade 3) to 1.8 points (grade 6).

**Fall to Spring 2011-12 Gains Compared to 2012-13 Gains**. Some grades show smaller fall to spring math scale score gains in school year 2012-13 than in school year 2011-12, and some show larger gains. For example, students in grade 3 gained 93.3 math scale score points in school year 2011-12, but gained 94.8 math scale score points in 2012-13 (an increase of 1.4 points). Students in grade 6 gained 57.5 math scale score points in school year 2011-12, but gained 52.9 math scale score points in 2012-13 (a drop of 4.6 points). Gains in percent proficient, however, were smaller in every grade. Students in grade 6 gained 35.2 math percentage points in school year 2011-12, but gained 29.9 math percentage points in 2012-13 (a drop of 5.25 points). Students in grade 9 gained 28.5 math percentage points in school year 2011-12, but gained 26.5 math percentage points in 2012-13 (a drop of 2.0 points).

**Science: State-Level Results**

The 2013 DCAS science test results showed about half of tested students in grades 5 and 8 were proficient, and less than half of grade 10 students were proficient. In grades 5, 8, and 10, respectively, the percentages proficient were 50.3, 49.6, and 42.2.

The average scale scores, by grade, corresponded to the percent proficient. Grades 5, 8, and 10 have average scale scores of 402.6, 401.5, and 394.5. These scores are not vertically scaled. Therefore, an increasing trend with grade level, as seen in mathematics and reading, would not be expected.

The average scale scores decreased in all three grades from 2012 to 2013 (by -0.8, -1.7, and -1.8 in grades 5, 8, and 10). The percent meeting the standard also decreased from 2012 to 2013 in grades 5 and 8, but increased in grade 10 (-1.7, -1.0, and +0.6 in grades 5, 8, and 10.)

**Social Studies: State-Level Results**

On the grades 4 and 7 DCAS social studies test 68.7% and 59.6% of students were proficient.

The average scale scores for grades 4 and 7, respectively, are 413.6 and 414.6. Similar to science scores, these social studies scores are not vertically scaled, and one would not expect to see an increasing trend with grade level.

The average social studies scale scores in tested grades 4 and 7, are about the same in 2013 as in 2012 (gains of 0.0 and 1.1 in grades 4 and 7). The percentages proficient are also about the same as in 2012 (gains of 0.4 and 1.6 in grades 4 and 7).

## IV. Description of 2013 DCAS Participation Data

Participation rates were calculated for all grade levels, content areas, and subgroups and can be reviewed in Attachment I.

All grade levels met the goal of 95% participation at the state level, statewide, in reading and mathematics, with the exception of Grades 9 and 10 in Reading (94.3 and 94.4). In science, the participation rate was met in grades 5 and 8 (98.8%, 96.3%) but not in grade 10 (87.3%). In social studies, the grade 4 and 7 participation rates were 98.5% and 95.9%.

**Subgroup Participation Rates.** Participation rates were calculated for the following subgroups in all content areas and grade levels: English Language Learners, Students with Disabilities, Low Socio-Economic Status, African Americans, Hispanics, Whites, and Other Minorities. Of all the 161 grade level/content area/subgroup participation rates that were calculated, 36 did not meet the 95% target. The subgroup participation rates that were lower than the target ranged from 71.2% to 94.8%.

- The subgroup grade levels that had the lowest participation rates were the middle and high school grades.
- Science and Reading were the Subgroup content areas with the lowest participation rates.
- The subgroups with the greatest number of low participation rates were students with disabilities, English language learners, African Americans, and Low-SES students.

Students with disabilities and ELLs continue to have students who test with nonstandard accommodations in reading, causing the students to count as non-participants. This has decreased over the past several years. Nonstandard accommodations influence only the reading participation rates. There are other factors, such as truancy, that lower participation rates in all content areas.

The five lowest subgroup participation rates were for Science grade 10 in the following content areas and subgroups:

- Science grade 10, English Language Learners, 71.2%
- Science grade 10, Students with Disabilities, 77.1%
- Science grade 10, African Americans, 79.7%
- Science grade 10, Low Socio-Economic Status, 80.5%
- Science grade 10, Hispanic, 82.0%

## Summary of Invalid DCAS Scores

Below is a summary of the DCAS scores that are flagged as invalid. Invalid scores are excluded from calculations of percent meets the standard and average scale scores but are included in calculations of participation rates as non-participants (they lower the participation rate).

Invalid Score Summary, Fall and Spring DCAS

| | Fall 2012 | | | Spring 2013 | | | Fall to Spring | |
|---|---|---|---|---|---|---|---|---|
| | Number Tested | Scale Score Mean | Percent Proficient | Number Tested | Scale Score Mean | Percent Proficient | Fall to spring Scale Score | Fall to spring % Proficient |
| Mathematics | 128 | - | - | 68 | - | - | - | - |
| Grade 3 | 3 | - | - | 2 | - | - | - | - |
| Grade 4 | 7 | - | - | 2 | - | - | - | - |
| Grade 5 | 3 | - | - | 3 | - | - | - | - |
| Grade 6 | 7 | - | - | 5 | - | - | - | - |
| Grade 7 | 11 | - | - | 7 | - | - | - | - |
| Grade 8 | 8 | - | - | 7 | - | - | - | - |
| Grade 9 | 58 | - | - | 26 | - | - | - | - |
| Grade 10 | 31 | - | 2.2 | 16 | - | - | - | - |
| Reading | 418 | 449.6 | 2.2 | 364 | 499.8 | 13.7 | 50.2 | 11.5 |
| Grade 3 | 39 | 566.2 | 5.1 | 46 | 575.9 | 32.6 | 9.7 | 27.5 |
| Grade 4 | 46 | 538.1 | - | 44 | 569.6 | 11.4 | 31.5 | - |
| Grade 5 | 55 | 569.9 | 5.5 | 45 | 659.9 | 24.4 | 90.0 | 18.9 |
| Grade 6 | 49 | 432.6 | 2.0 | 32 | 509.4 | 9.4 | 76.8 | 7.4 |
| Grade 7 | 43 | 484.6 | 2.3 | 31 | 559.6 | 16.1 | 75.0 | 13.8 |
| Grade 8 | 37 | 578.6 | 5.4 | 37 | 489.7 | 10.8 | -88.9 | 5.4 |
| Grade 9 | 82 | 325.1 | - | 78 | 377.8 | 2.6 | 52.7 | - |
| Grade 10 | 67 | 293.0 | - | 51 | 381.2 | 9.8 | 88.2 | - |
| Science | NA | NA | NA | 196 | - | - | - | - |
| Grade 5 | NA | NA | NA | 14 | - | - | - | - |
| Grade 8 | NA | NA | NA | 95 | - | - | - | - |
| Grade 10 | NA | NA | NA | 87 | - | - | - | - |
| Social Studies | NA | NA | NA | 135 | - | - | - | - |
| Grade 4 | NA | NA | NA | 8 | - | - | - | - |
| Grade 7 | NA | NA | NA | 127 | - | - | - | - |

## V. Description of 2013 DCAS Achievement Gap Data

### State Level

The four achievement gap questions mentioned in the introduction are:

1. ***Simple Gap Narrowing:*** Have gaps in performance between student groups decreased over time?
2. ***Progress for All:*** Have all groups of students gained over time?
3. ***Gap Size:*** What is the magnitude of the gap between groups?
4. ***Group Comparison across Jurisdictions:*** How does each group of students currently perform relative to their counterparts in other districts?

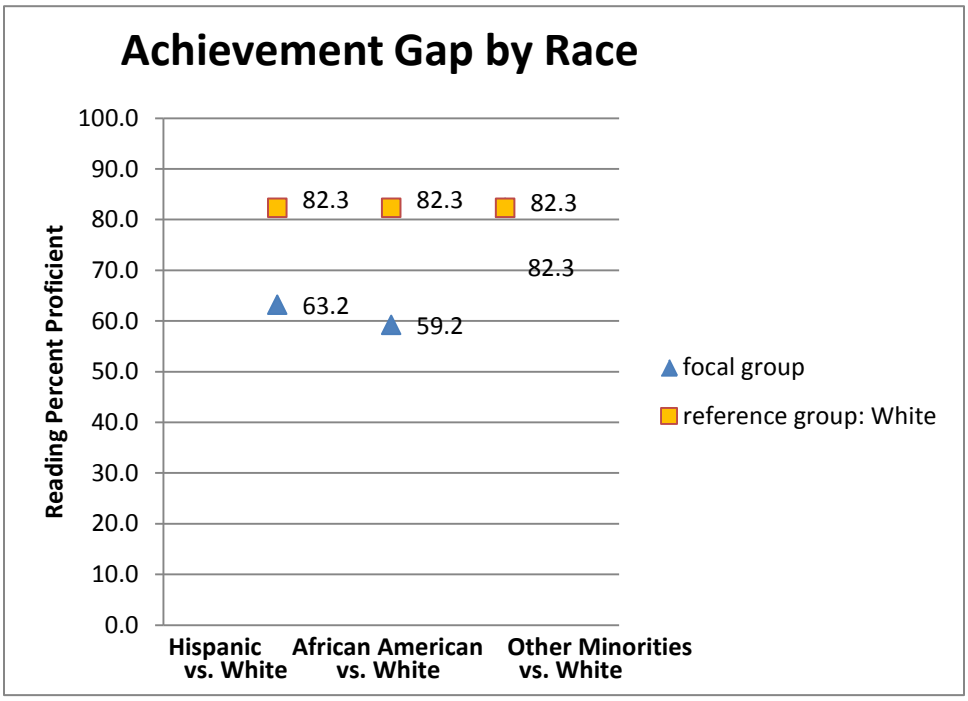
Four types of achievement gap summaries are provided in part II of this report. Each addresses one or more of the four questions above.

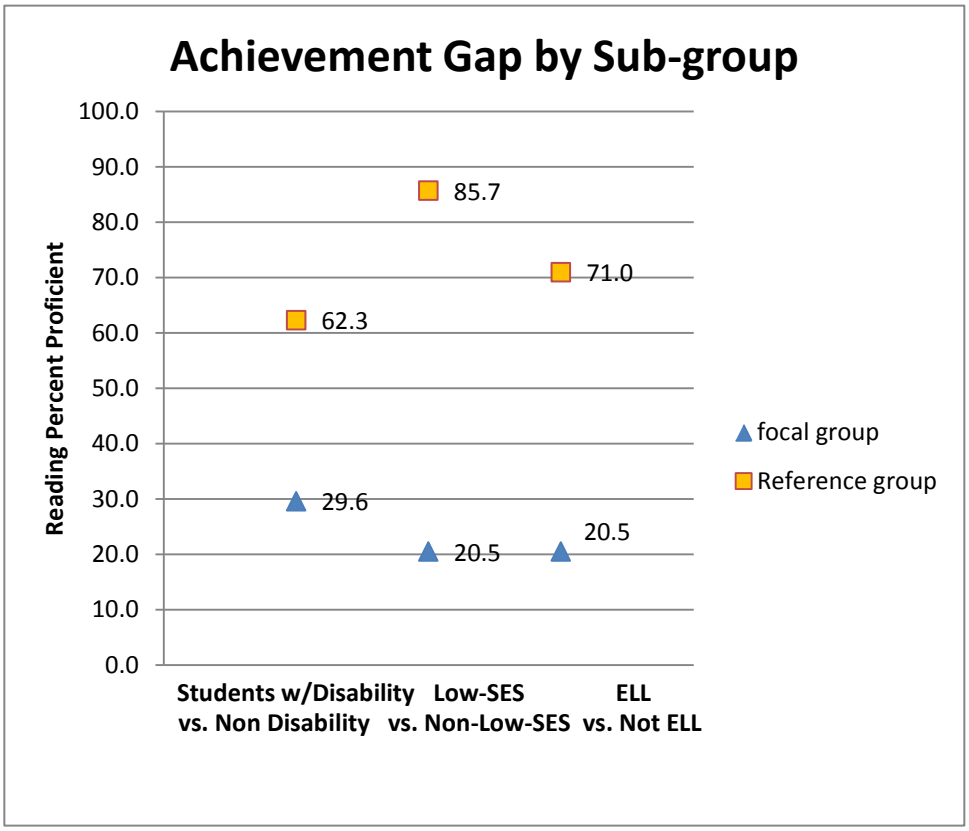
### Graphs: Statewide Achievement Gap, by Grade and Content

This section of the report (Attachment II, Pages 1-11) shows, graphically, the differences in 2013 DCAS performance between subgroups, by grade. It addresses question 3, "What is the magnitude of the gap between groups?"

Two graphs are shown in Attachment II for each grade and content area. "Achievement Gap by Race" shows the racial achievement gaps with White as the reference group. "Achievement Gap by Sub-Group" shows the ELL/Not ELL gap, Low SES/Not Low SES gap, and the Special Education/Not Special Education gap. Below each graph is a small table showing the data that are plotted on each of the graphs. The next page shows examples of these graphs, for purposes of explanation. These examples are based on all Reading data in grades 3-10.

The typical representation of the data on both the "Achievement Gap by Race" graph and the "Achievement Gap by Sub-Group" graph shows six data points: two for each gap. The majority data point is represented by a yellow square and the minority point is represented by a blue triangle. The majority data point is a yellow square.


Achievement Gap by Race
Reading Percent Proficient
100.0
90.0
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
82.3
82.3
82.3
82.3
63.2
59.2
Hispanic vs. White
African American vs. White
Other Minorities vs. White
focal group
reference group: White


Achievement Gap by Sub-group
Reading Percent Proficient
100.0
90.0
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
85.7
71.0
62.3
29.6
20.5
20.5
Students w/Disability vs. Non Disability
Low-SES vs. Non-Low-SES
ELL vs. Not ELL
focal group
Reference group

### Tables: Achievement Gap, by District by Content Area by Sub-Groups

These tables, beginning on page 12 of Attachment II, make possible a response to question 3, "How does each group of students currently perform relative to their counterparts in other districts?" It also gives a measure of how districts and charters compare to the state on subgroup performance. The tables provide the 2013 DCAS percent meeting the standard on each focal group (i.e., "SWD") and its respective reference group (i.e., "Not SWD") for all jurisdictions (Districts and Charter Schools) in all content areas, across grades (combined grades). In addition, one column provides the difference between the state percent and the reported percent for the given subgroup. The values in this column, "% Proficient District-State," show how far above or below each district/charter's subgroup performance is from the state's subgroup performance. If the value is -15 for a given district, then the subgroup at the district performed 15 percentage points lower than the state. Districts with a smaller value are closer to the state average. Finally, the right-most column, "Achievement gap in % meet," column provides the difference between the subgroup and its reference group for each district/charter.

Due to data suppression rules that protect student privacy, a particular gap is only calculated if there are 15 or more students in each group (the subgroup and the reference group). Gaps are also not calculated in the case of subgroups with less than 5% meeting the standard or greater than 95% meeting the standard. Due to these limitations, it is not possible to calculate gaps for many small schools.

### Tables: Two-Year Comparison, by Grade and Content area and Subgroup

This set of tables provides all state level DCAS data for spring 2011 and 2012, by content area and grade level, for "all students" and for each subgroup. These tables allow evaluation of question 2, "Have all student groups gained over time?"

**The evidence in this table indicates that subgroups showed growth over the past year a little less than half the time when examined by grade level.** Changes in percent proficient and average scale score from 2012 to 2013 were calculated for 146 subgroup/grade/content area combinations (ELL, Students with Disabilities, Low Socio-Economic Status, African American, Hispanic, Other Minorities, and White for grades 3-10 in Reading, Mathematics, Science, and Social Studies). Of the 146 combinations, 39 showed a positive change in the percent proficient and 41 showed a positive change in the average scale score.

The ranges of the increases in subgroup performance from 2012 to 2013 in reading were 0.1 to 6.0 for percent proficient and 0.4 to 12.5 for scale score. The ranges of the increases in math were 0.2 to 1.4 for percent proficient and 0.2 to 2.5 for scale score. The ranges of the increases in science were 0.2 to 3.6 for percent proficient and 0.4 to 0.7 for scale score. The ranges of the increases in social studies were 0.4 to 3.8 for percent proficient and 0.1 to 2.4 for scale score.

**Tables: Statewide Changes in the Achievement Gap from 2012 to 2013, by Grade and Content Area** (pages 102-110)

This set of tables allows us to evaluate changes in the achievement gap over time, and addresses questions 1, "Is the gap narrowing?" and 2, "Have all student groups gained over time?"

The changes in achievement gap that are most often remarked upon favorably are those in which the minority (focal) group performed lower than the majority (reference) group in year 1, but performed the same or higher in year 2, and in which the gap became narrower from year 1 to year 2. This indicates that the focal group went from a position of worse performance to improved performance relative to the reference group during the previous year.

The single year achievement gaps were calculated by subtracting the reference group from the focal group:

Gap = Focal Group Value – Reference Group Value

Therefore, a positive sign in a single year gap indicates that the focal group, or minority, performed better than the focal group, or minority. A negative sign in a single year gap indicates that the reference group performed better than the focal group.

**The evidence indicates that the achievement gap has narrowed from 2012 to 2013 for about a third of the subgroups examined.** The differences between one hundred six 2012 and 2013 gaps based on Percent Proficient and Average Scale Score were calculated for the following groups, at each grade level:

| Focal Group | Reference Group |
|---|---|
| African American | White |
| Hispanic | White |
| Other Minorities | White |
| ELL | Non-ELL |
| Students with Disabilities | Not Students with Disabilities |
| Low Socio-Economic Status | Not Low Socio-Economic Status |

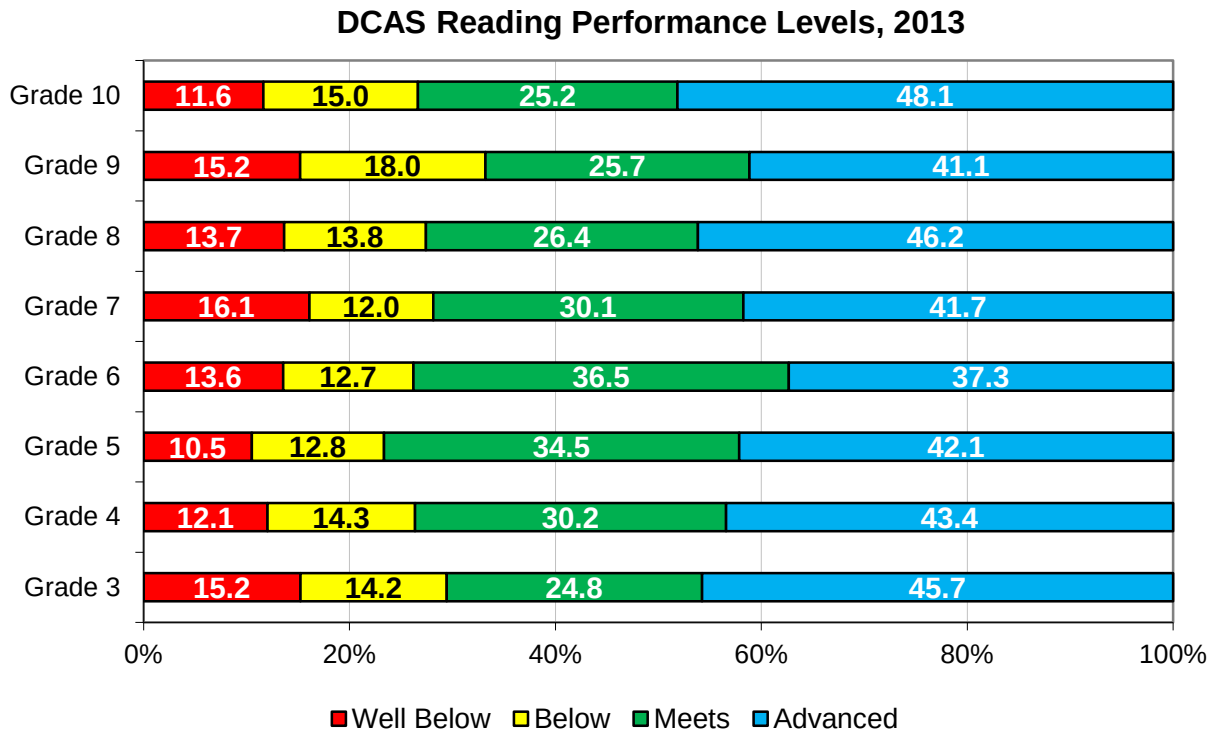
Of the 106 gaps changes for Percent Proficient, 28 gaps were characterized by lower focal group performance than reference group performance in 2012 (year 1) and by a narrower gap in 2013 than in 2012 (greater than 1.0 point difference). Of these 28 gaps, 14 were for Reading, 7 were in math, 4 were in science, and 3 were in social studies. Four were for African American/White, 10 were for ELL/Not ELL. Eight

were for Hispanic/White. Two were for Low-SES/Not Low-SES. Four were for Students with Disabilities/Not Students with Disabilities.

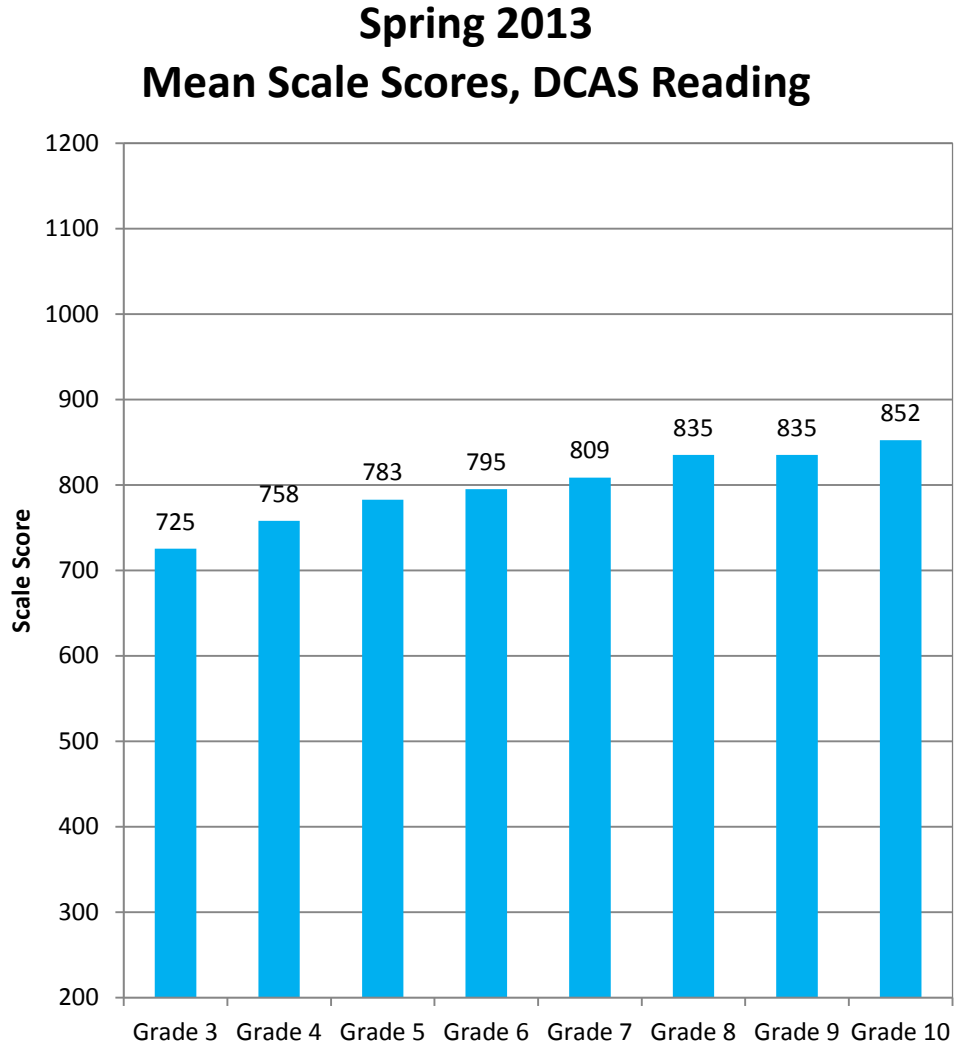
Of the 106 gaps changes for Average Scale Score, 33 gaps were characterized by lower focal group performance than reference group performance in 2012 (year 1) and by a narrower gap in 2013 than in 2012 (greater than 1.0 point difference). Of these 28 gaps, 12 were for Reading, 17 were in math, 2 were in science, and 2 were in social studies. Eight were for African American/White, 8 were for ELL/Not ELL. Ten were for Hispanic/White. Four were for Low-SES/Not Low-SES. Three were for Students with Disabilities/Not Students with Disabilities.

# VI. DCAS Performance Graphs

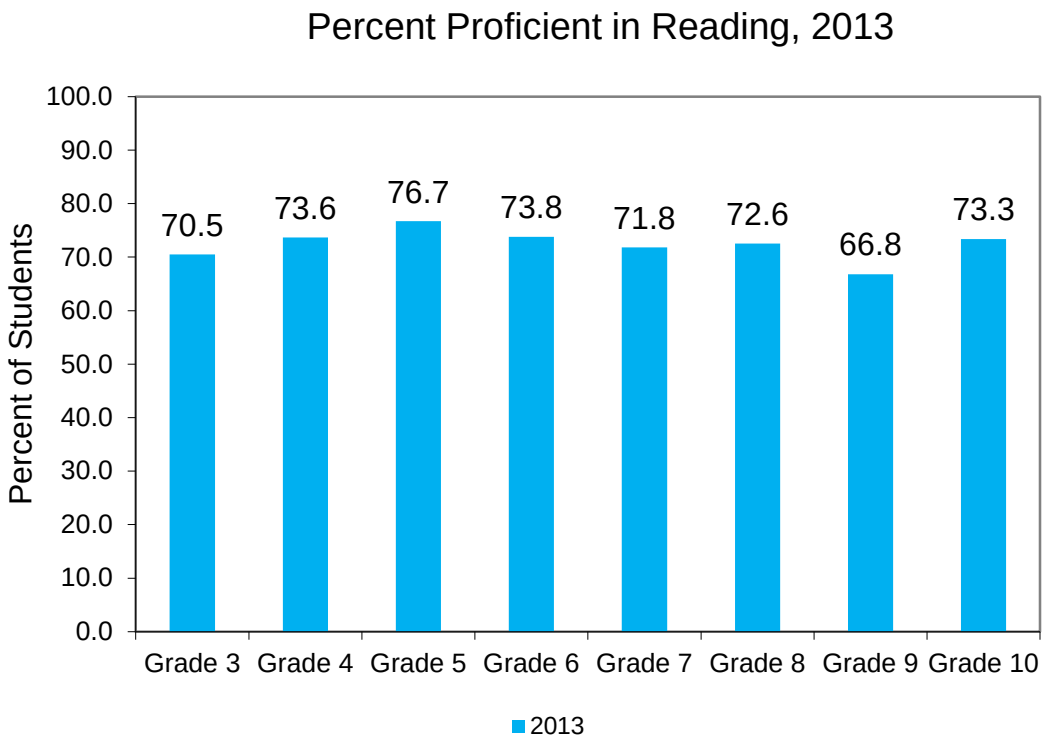
## Reading Performance Graphs



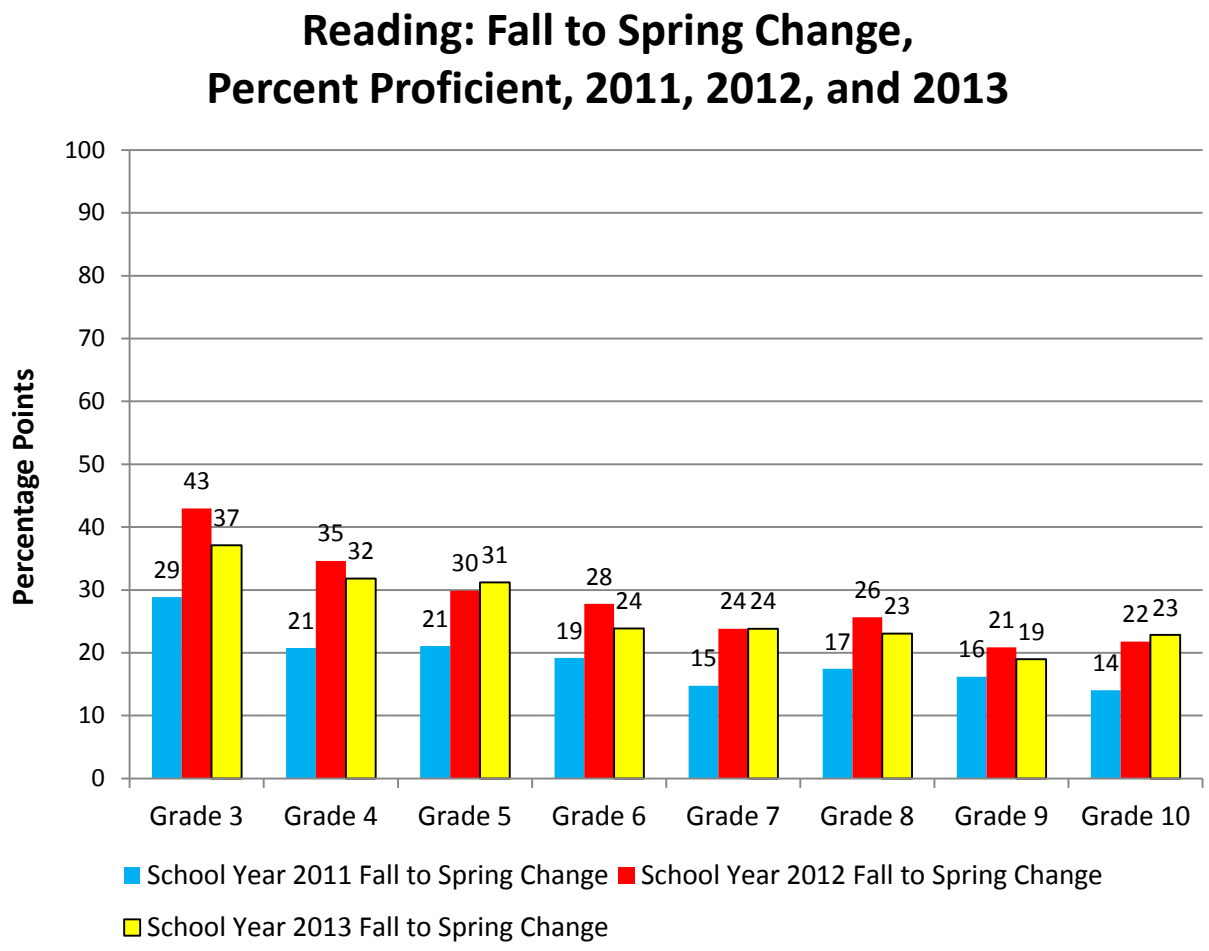

This graph shows the percentages of students in each performance level, by grade, in the spring DCAS reading window. There is no obvious trend related to grade level. Grade 7 has the greatest percentage of students performing at Well below Standard (16.1), while grade 5 has the smallest (10.5). Grade 9 has the greatest percentage of students performing at Below Standard (18.0), and grade 7 has the smallest (12.0). The greatest proportion of students performing at Meets Standard is seen at grade 6 (36.5), while the smallest is at grade 3 (24.8). At Advanced, grade 6 demonstrates the smallest proportion of students (37.3), in contrast to 48.1% at grade 10, which is the greatest proportion.




This graph shows the statewide mean reading scale score for the spring DCAS window by grade. As would be expected with a developmental scale, the average score increases with increasing grade level.

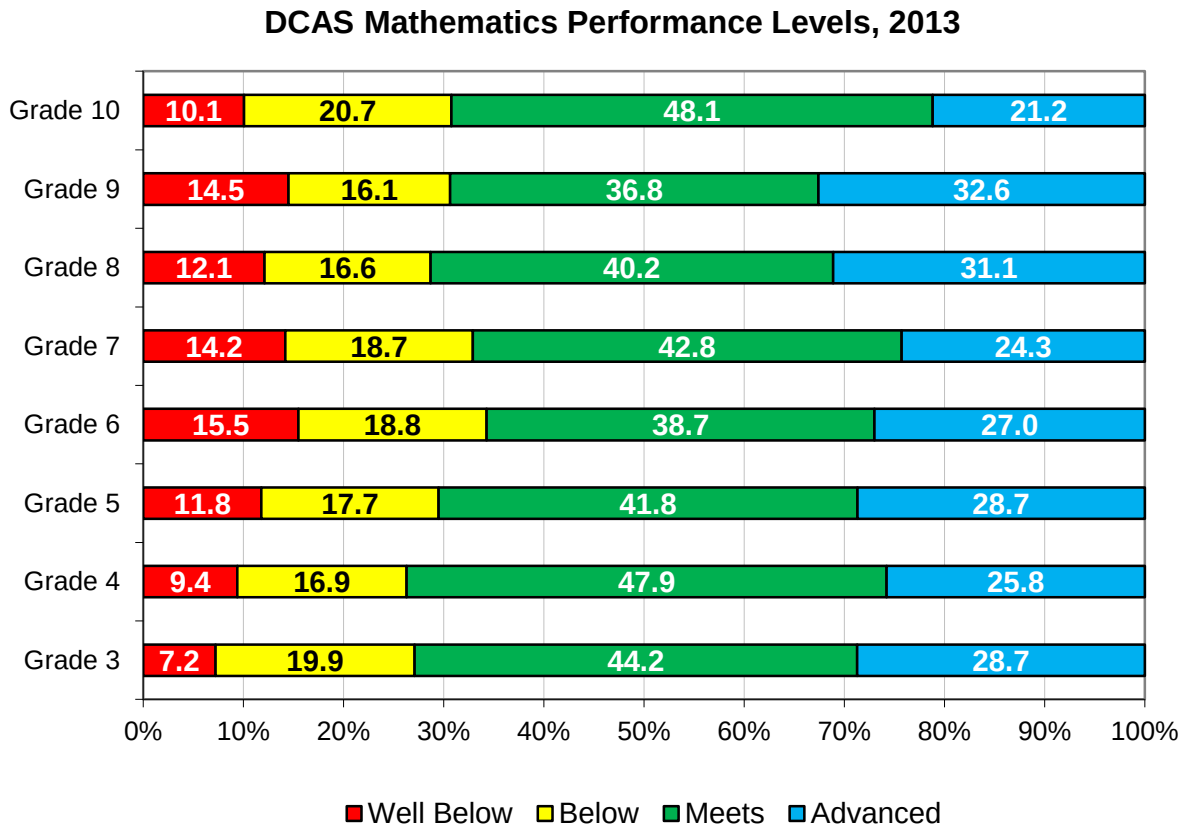



This graph shows the percentage proficient (Meets Standard and Advanced, combined), by grade in the spring DCAS reading window. There is no expected or observed relationship with grade level. Well over 60% of the students met or exceeded the standard in every grade level, with a range of 66.8 (grade 9) to 76.7 (grade 5).



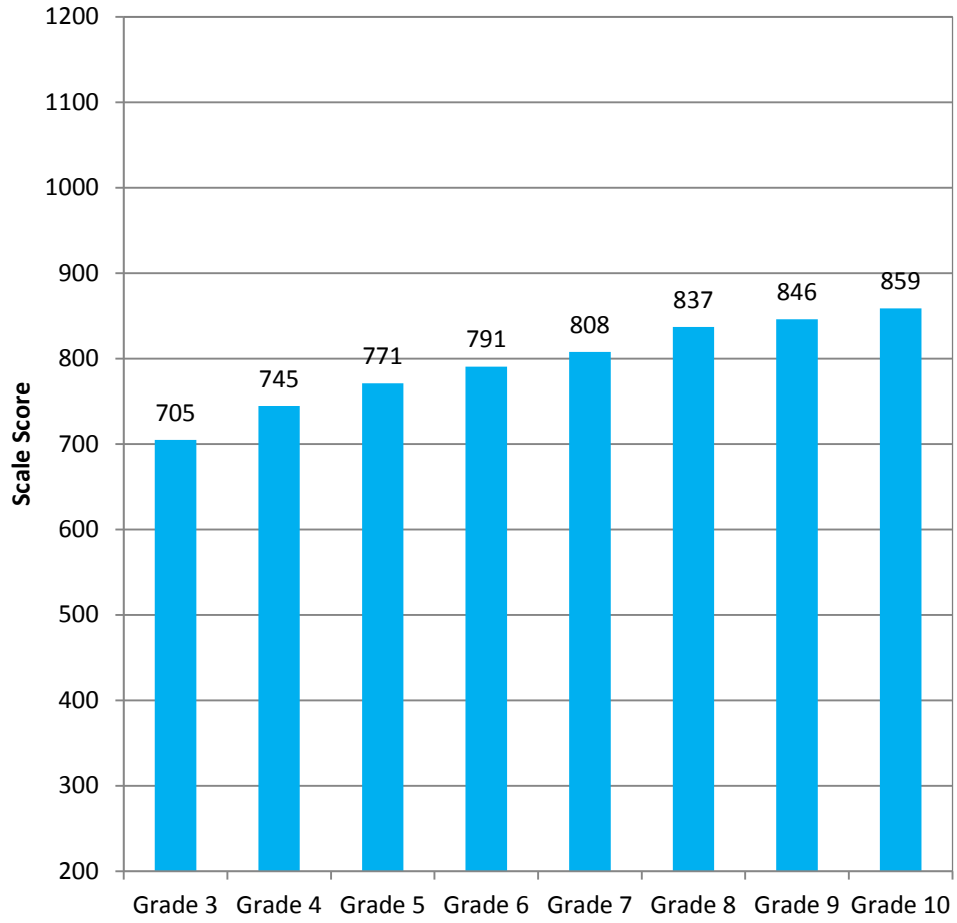

Students generally show smaller gains in school year 2013 (2012-13) than in school year 2012 (2011-12). The gains are greater in elementary and generally decrease with grade level.

## Mathematics Performance Graphs

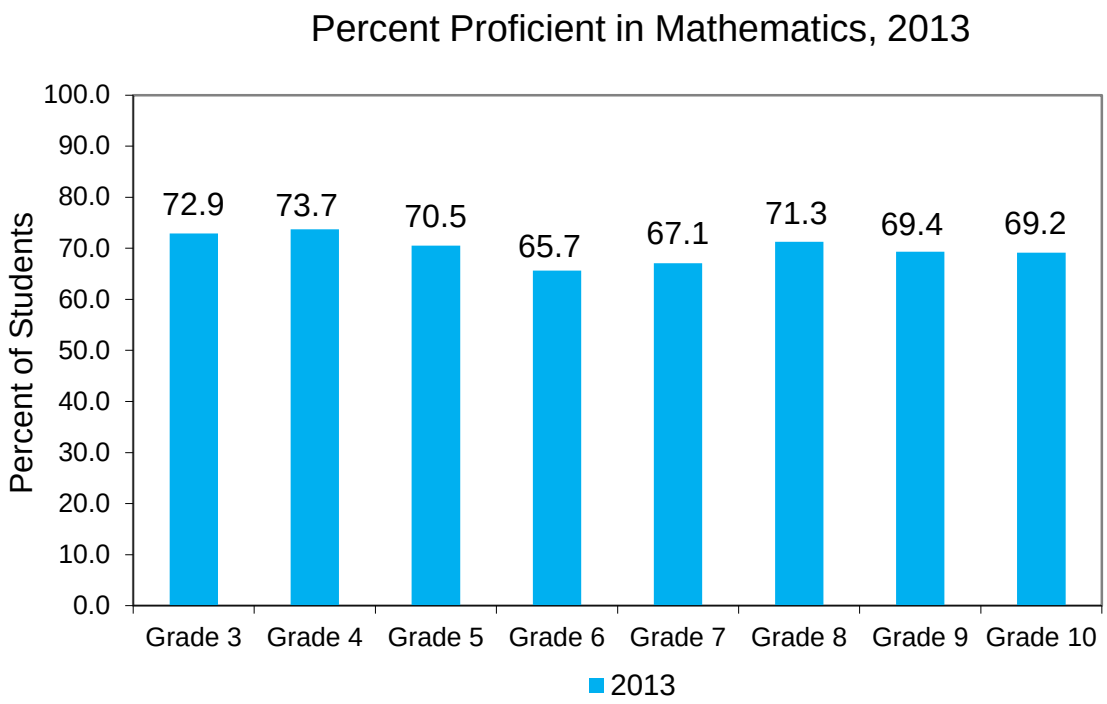



This graph displays the proportion of students in each grade performing in each performance level, by grade, for the Spring DCAS Mathematics window. The percentage of students performing at Well below Standard has a range from 7.2 in grade 3 to 14.5 in grade 9. At Below Standard, the smallest proportion is seen at grade 9 (16.1), and the largest is seen at grade 10 (20.7). The graph shows that for each grade, the largest proportion of students in each grade performed at Meets Standard, with a range from 36.8 (grade 9) to 47.9 (grade 4). The proportion of students performing advanced had a range of 21.2 (grade 10) to 32.6 (grade 9).

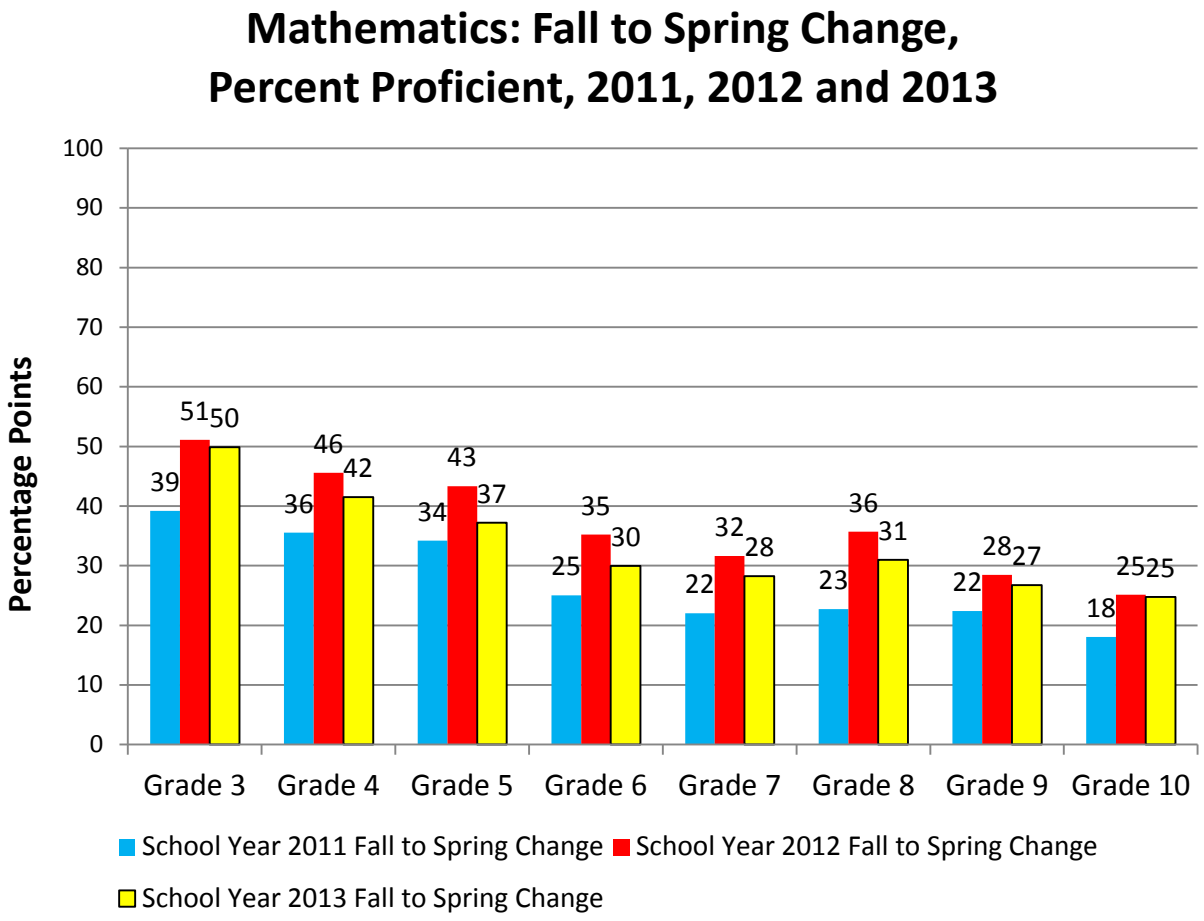
## Spring 2013
## Mean Scale Scores, DCAS Mathematics




Average scale scores, statewide, for the Spring DCAS Mathematics test, by grade, are displayed in the graph above. As with reading, these average scale scores increase with grade level, consistent with expecations for a developmental scale.

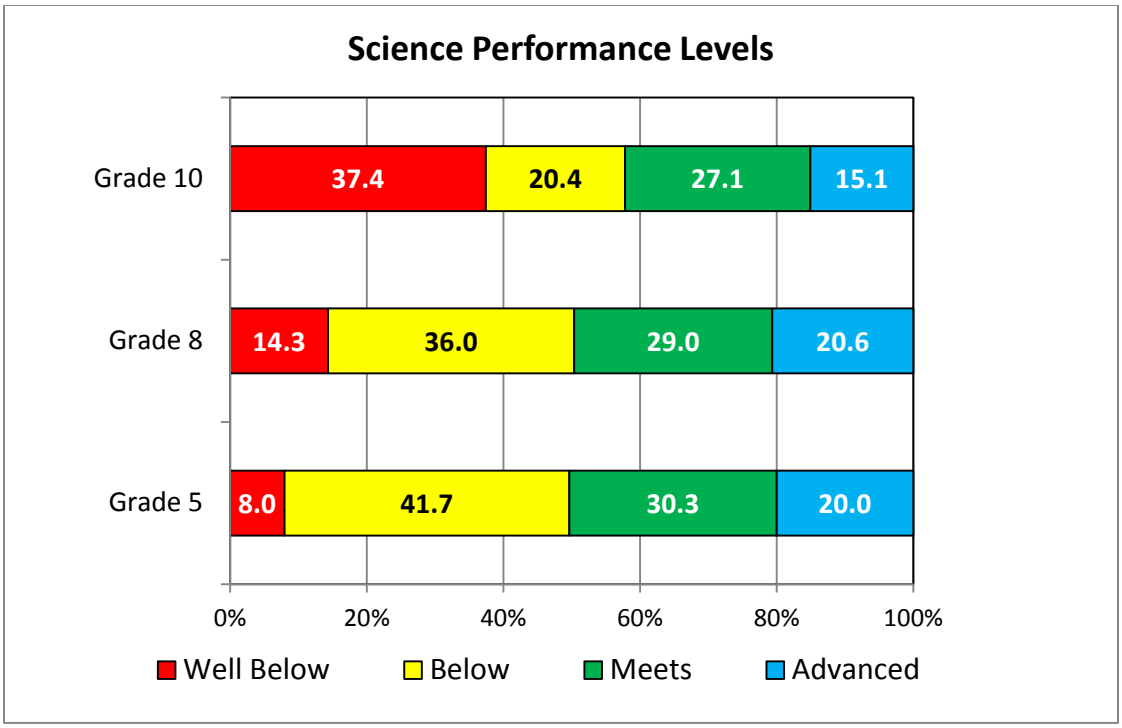



The graph above shows the percentage of students performing at Meets Standard and Advanced, combined, by grade for the Spring DCAS Mathematics test. Well over 60% in each grade are proficient.

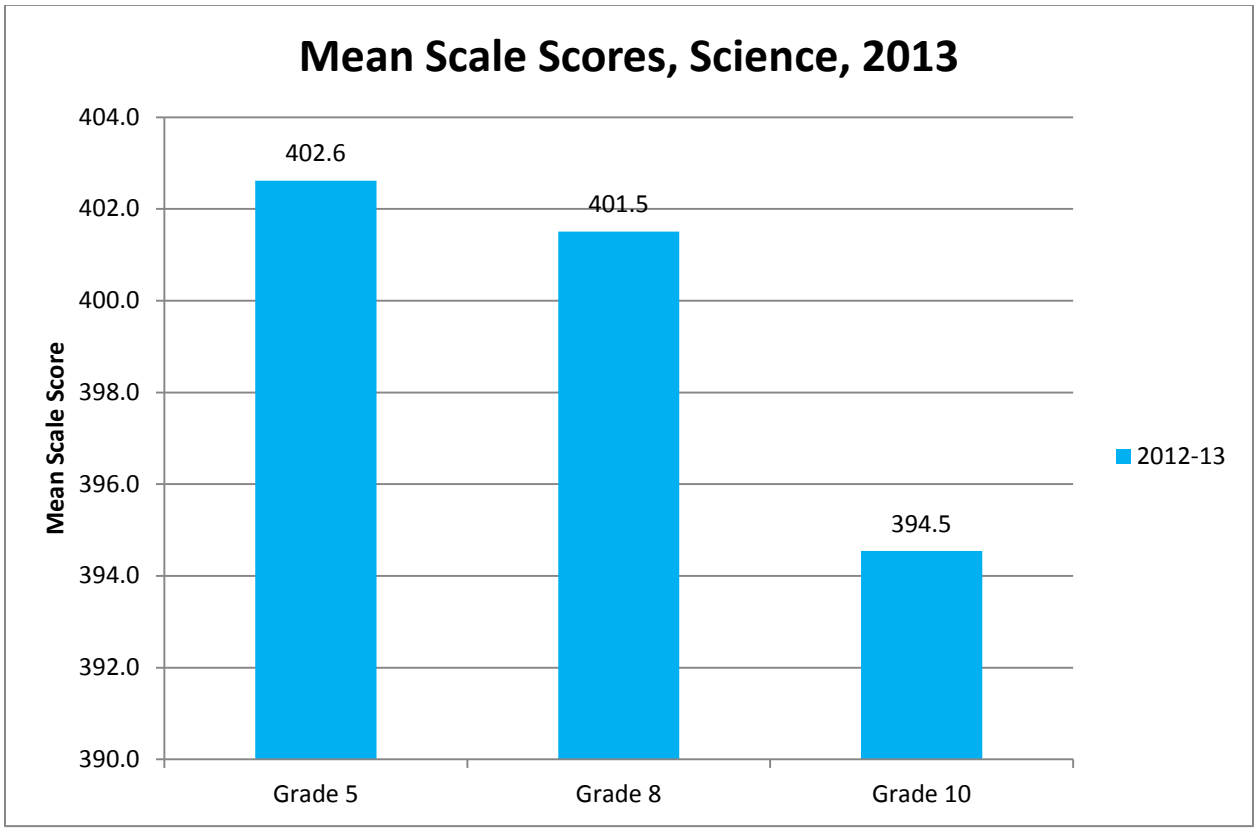



Students show smaller gains in school year 2012-13 than in school year 2011-12. The gains overall continue to be greater in elementary than secondary.

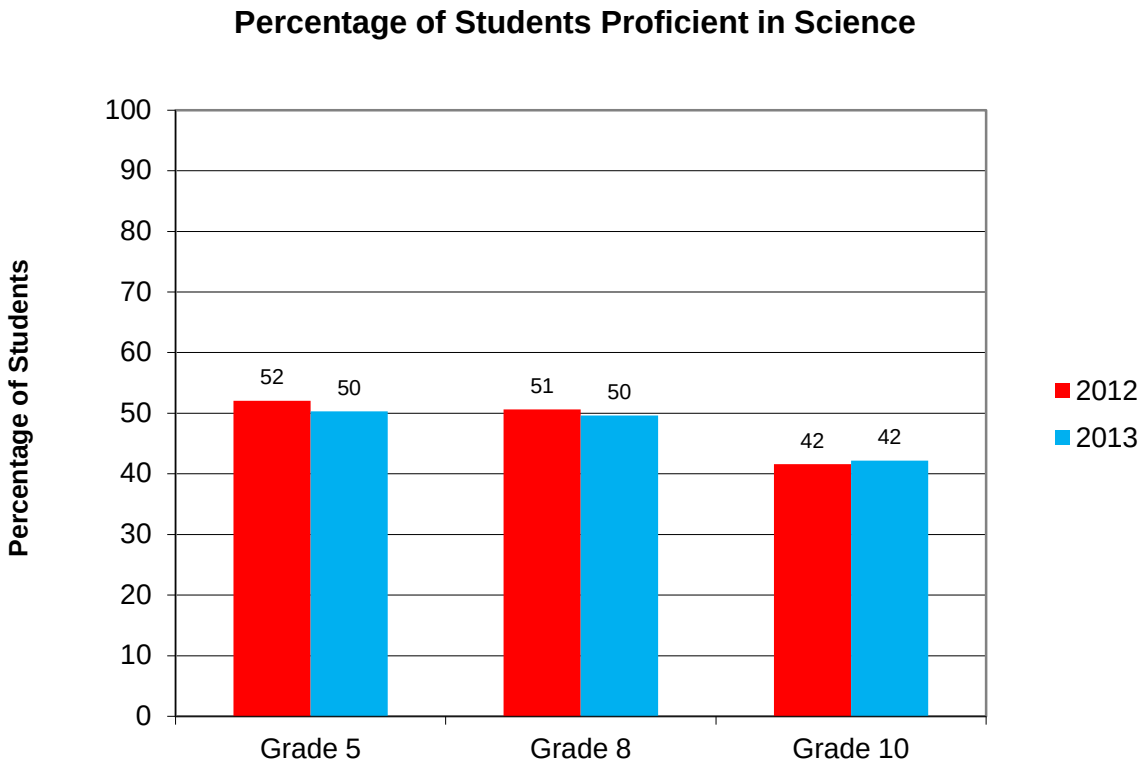
## Science Performance Graphs




The above graph shows the proportion of students performing in each performance level in the spring 2013 DCAS Science test in grades 5, 8, and 10. The proportion of students at Well below Standard is larger in grade 10 than in grades 8 and 5. In contrast, greater proportions of students performed at Below Standard in grades 5 and 8 than in grade 10. The proportions of students performing at Meets Standard and Advanced is more similar from grade to grade.

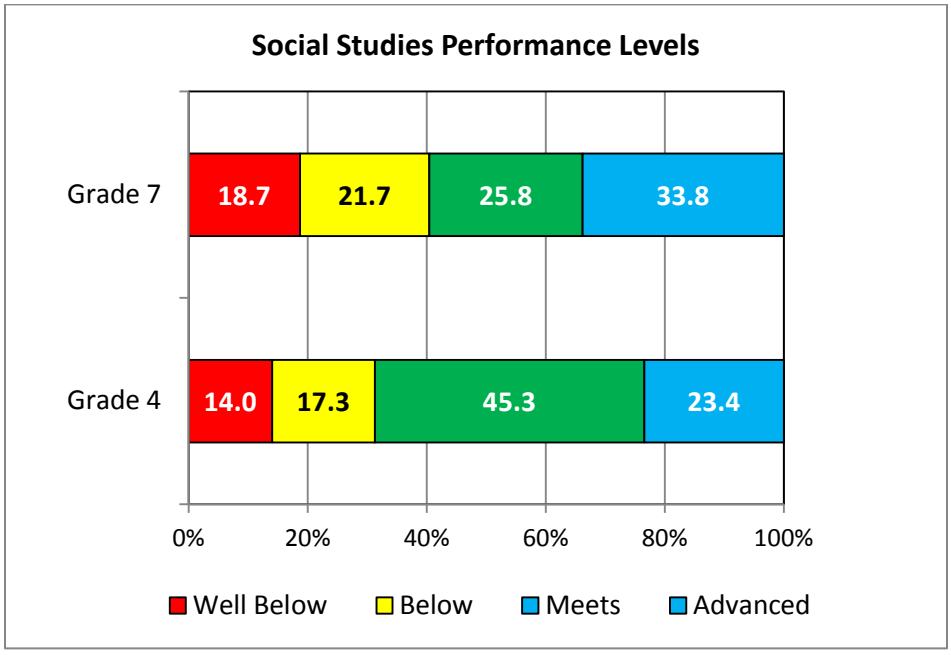



As seen in the graph above, average scale scores for the Spring 2013 DCAS Science test are lower in grade 10 than in grades 8 and 5, which are nearly the same. As the science scale is not a developmental scale but a horizontal scale, there is no reason to expect mean scores to increase with increasing grade level.

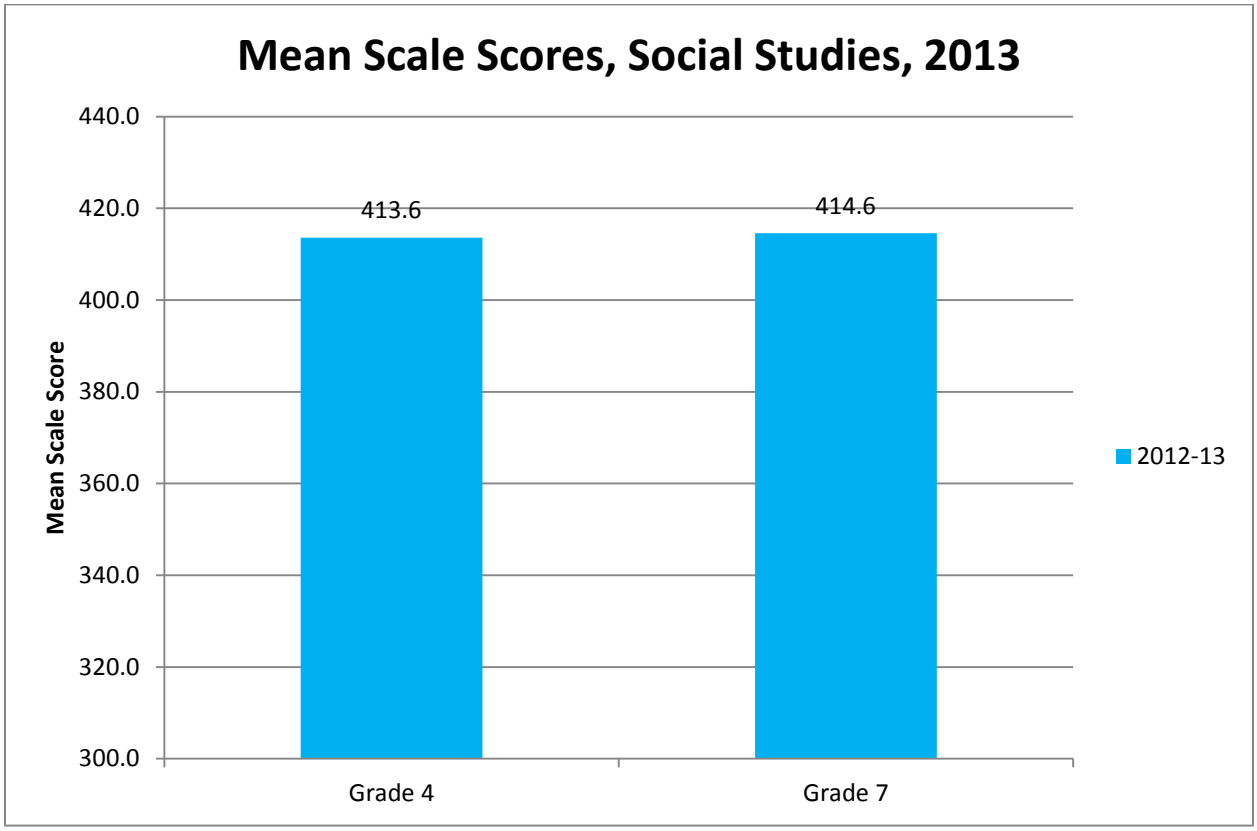



Proportions of students at proficiency (Meets Standard and Advanced performance levels, combined) for the Spring 2012 DCAS Science assessment show a similar but less dramatic pattern to the scale scores for this test. Grades 5, 8, and 10 show about the same or slightly lower proportions of students meeting or exceeding the standard.

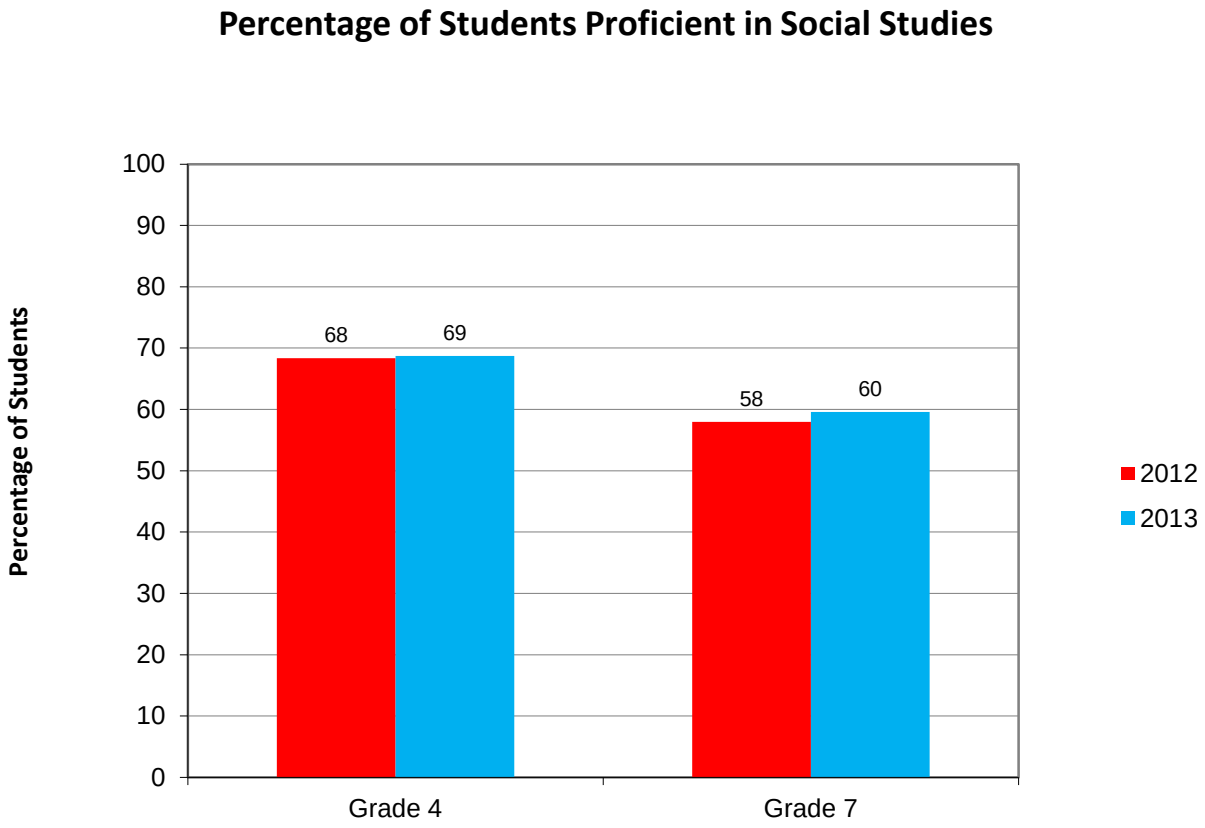
## Social Studies Performance Graphs




The graph above shows that, statewide, the distribution of student performance in grade 7 on the Spring 2012 DCAS Social Studies tests is spread about evenly across the four performance levels, with a slight increase in proportion, going from Well Below Standard to Advanced. However, the proportions of students in each performance level in grade 4 are distributed unevenly. The proportion of students in Meets Standard at grade 4 is by far the largest at 45.5%.




The above graph of mean scale scores for the Spring 2013 DCAS Social Studies test shows similar performance for the two grade levels. As the social studies scale is not a developmental scale but a horizontal scale, there is no reason to expect scores to increase with increasing grade level.




The above graph shows the statewide percentage of students meeting the standard for the 2012 DCAS Social Studies assessment. Grade 4 shows higher performance than grade 7.

## VII. Introduction to DCAS-ALT1

The DCAS reading and mathematics assessments were administered during two test windows in the 2012–2013 school year in grades 3–10 (fall and spring – see the table, "DCAS-ALT1 Assessment Window Dates" on page 37). Each test was administered once during the fall window and once during the spring window. Grade 2 students also took short practice assessments in reading and mathematics one time in the spring window. The DCAS-ALT1 science and social studies were administered in spring 2013 one time only in grades 5, 8, and 10 (science) and grades 4, 7, and 9 (social studies).

The DCAS-ALT1 scores reported in this Summary are the Accountability Scores and the Performance Levels (percent proficient) for the state and the districts. DCAS-ALT1 scores are not summarized at the school level due to prohibitively small n counts. The Accountability Scores for DCAS-ALT1 reading and mathematics are reported on a developmental scale for grade 2 through grade 10 approximately 100 to 1000. Student achievement for DCAS-ALT1 is also reported in performance levels. There are four DCAS performance levels: Well below Standard, Below Standard, Meets Standard, and Advanced. In the tables in this document, the performance level is reported as the percentage of students who are proficient (percentage of students in Meets Standard and Advanced performance levels, combined).

The interim 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 DDOE and represented a broad cross-section of special education and general education teachers, parents, and higher education leaders. The panelists were also selected to be representative by gender and race/ethnicity. 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 Alt 1)."[2] The performance standards are shown on page 37.

Information about the standard conditions under which the DCAS-ALT1 are administered is available in the test administration manuals, available on the DCAS Portal (http://de.portal.airast.org/).

All students with disabilities and English language learners (ELLs) are required to be included in the statewide assessment program, to the extent possible. The "DCAS Guidelines for Inclusion of Students with Disabilities and English Language Learners," available on the DCAS Portal, describes the participation criteria for students who are included in the DCAS-ALT1. The IEP team signs off on the participation criteria and identifies each student in a DOE database. There are no accommodations permitted on the DCAS-ALT1 which would violate the construct and cause a student's score to be classified as "nonstandard."

To preserve student confidentiality, any group reported in this document that has an n count of less than 15 has been suppressed. Due to Delaware's small size, there are some state-level data

[2] American Institutes for Research. (2011) "Standard Setting Technical Report: Setting Performance Standards for the Computer-Adaptive Delaware Comprehensive Assessment System-Alternate Assessment (DCAS-ALT1)." Washington, D.C.

regarding subgroup performance that are suppressed. Suppressed data is represented by a "-." Percentages that are greater than 95% and less than 5% are also suppressed. In tables that show change from fall to spring, the change is suppressed if either or both of the fall and spring statistics are suppressed.

**Participation Rates - Definitions and Calculations**

The following are definitions of the column names used in the participation tables in this report. The rates calculated in this report may not be calculated in the same way as rates will later be reported for State Accountability.

**Eligible N.** "Eligible N" is the denominator of the participation rate calculation for a particular content area and is equal to the sum of Tested N and Invalid. All students who were formally identified to participate in the DCAS-ALT1 and who were enrolled in a public school for ten days or more during the spring 2013 test window were counted as eligible to take the DCAS-ALT1 mathematics, science, and social studies unless they were granted a Special Exemption. All students who were formally identified to participate in the DCAS-ALT1 and who were enrolled in a public school for ten days or more during the spring 2013 test window are counted as eligible to take the DCAS reading unless they (1) were granted a Special Exemption, or (2) were granted an ELL Exemption.

**Tested N.** "Tested N" (referred to as "Number of Participants" on accompanying tables) is the numerator of the participation calculation. It is the number of students who received a valid Performance Level 1, 2, 3, or 4 on the DCAS-ALT1 in a particular content area.

**Invalid Scores.** Students with invalid scores are counted as non-participants in the calculation of participation rates. The only reason that could result in invalid DCAS-ALT1 scores is an improper departure from testing procedure took place during the administration of a student's test.

**Not Tested.** Students were counted in this column if they met the requirements to be counted as "eligible" to take the DCAS-ALT1 but failed to test at any time during the spring test window in a given content area. Students counted in this column are counted as non-participants in the calculation of participation rates.

**Exempt N (Special Exemption and ELL Exemptions).** Students who received a special exemption from any content area test or who received an ELL exemption from the reading test are counted in the Exempt N column for the relevant content area. An exemption causes the student scores to be excluded from performance calculations and from participation rate calculations.

**Special Exemption.** Some students were granted a "special" exemption from the DCAS-ALT1 due to physical or mental conditions, or due to other circumstances that were beyond the control of the student and school staff.

**ELL Reading Exemption.** English language learners who were enrolled in U.S. schools less than one year and who met the criteria set forth in the 2012–2013

DCAS Guidelines for Inclusion are not required to participate in the reading assessment, per guidance from the U.S. Department of Education.

**% Tested.** The percent tested is calculated by dividing "Tested N" by "Eligible N."

**% Not Tested.** The percent tested is calculated by dividing the sum of ("Not Tested N" + the n count of "Invalid Scores") by the "Eligible N."

**Achievement Gap Analysis**

Achievement gap analysis consists of charts, tables, and graphs displaying data about the differences in average DCAS performance between the majority, or historically dominant group, and the minority, or historically non-dominant group. Many educational initiatives aim to reduce the differences in performance between these two groups. This type of analysis helps educators and the public to evaluate the degree to which these efforts are succeeding. The Education Trust recommends that the achievement gap be examined at least from the following four different perspectives.[3]

5. **Simple Gap Narrowing**: Have gaps in performance between student groups decreased over time?
6. **Progress for All**: Have all groups of students gained over time?
7. **Gap Size**: What is the magnitude of the gap between groups?
8. **Group Comparison across Jurisdictions**: How does each group of students currently perform relative to their counterparts in other districts?

[3] Education Trust. (2010) "Gauging the Gap." Education Trust (press release (1/7/10) http://www.edtrust.org/dc/press-room/press-release/achievement-gap-analysis-shows-some-states-may-be-better-positioned-for-

# VIII. DCAS-ALT1 General Information

### DCAS-ALT1 Assessment Window Dates

| Dates of Window | Tests Administered |
|---|---|
| September 24–November 8, 2012 | **Fall Window:**<br><br>Reading/Mathematics<br>Grades 3-10 |
| April 8-May 30, 2013 | **Spring Window:**<br><br>Reading/Mathematics<br>Grades 3-10<br><br>Science<br>Grades 5, 8, and 10<br><br>Social Studies<br>Grades 4, 7, and 9 |

### DCAS ALT1 Subject Areas Test Administrations by Grade Level

| Content | Grades | Number of Times in Window Test is Administered | |
|---|---|---|---|
| | | Fall | Spring |
| Reading | 3-10 | 1 | 1 |
| Mathematics | 3-10 | 1 | 1 |
| Science | 5, 8, 10 | 0 | 1 |
| Social Studies | 4, 7, 9 | 0 | 1 |

# DCAS-ALT1 Cut Scores

## Reading

| Grade | Well Below Standard | Below Standard | Meets Standard | Advanced |
|---|---|---|---|---|
| 3-5 | 629 or less | 630 | 673 | 725 |
| 6-8 | 639 or less | 640 | 700 | 779 |
| 9-10 | 649 or less | 650 | 740 | 817 |

## Mathematics

| Grade | Well Below Standard | Below Standard | Meets Standard | Advanced |
|---|---|---|---|---|
| 3-5 | 624 or less | 625 | 676 | 724 |
| 6-8 | 641 or less | 642 | 700 | 773 |
| 9-10 | 656 or less | 657 | 724 | 802 |

# IX. Description of 2013 DCAS-ALT1 Scores and Trends

The 2012-13 school year was the second year for the DCAS-ALT1, the assessment for the 1% of students with the most significant cognitive disabilities. Students were selected to participate in the DCAS-ALT1 According to the participation criteria in the DCAS Guidelines for Inclusion of Students with Disabilities and English Language Learners. About 1,182 students participated in the DCAS-ALT1 Reading, 1,191 participated in the DCAS-ALT1 Math, 411 participated in the DCAS-ALT1 Science, and 404 participated in the DCAS-ALT1 Social Studies.

**Description of 2012 DCAS-ALT1 Scores and Trends**

The statewide DCAS-ALT1 summary tables, with subgroups, are presented in Attachment IV.

**Reading: State-Level Results—Fall 2012 and Spring 2013**

The fall DCAS-ALT1 reading scale scores increase with grade level up to grade 6, show a small decline at grade 7, then an increase to grade 8, then declines in grades 9 and 10. The scores ranged from 641.9 in grade 3 to 722.9 in grade 8. These scores for each grade level do not increase monotonically as do DCAS scale scores.

The fall DCAS-ALT1 reading percentage proficient fluctuates with grade level. They range from 28.4 in grade 3 to 66.2 in grade 8.

The spring DCAS-ALT1 reading scale scores have a similar trend to that in fall, also fluctuating with grade level. The scores ranged from 668.9 in grade 3 to 742.4 in grade 8.

The spring DCAS-ALT1 reading percentages proficient fluctuate with grade level. They range from 46.9 in grade 9 to 68.0 in grade 8.

The Fall to spring change in reading scale score was smallest at 13.6 in grade 6 and largest at 29.7 in grade 9. The Fall to spring change in reading percentage proficient was greatest in grade 3 (18.5 points) and smallest at grade 8 (1.8 points.).

Spring 2012 to spring 2013 changes in reading scale score ranged from a drop of 21.5 points at grade 10 to an increase of 21.5 points at grade 8. The spring 2012 to spring 2013 change in reading percentage proficient ranged from a drop of 6.2 at grade 10 to an increase of 13.0 at grade 9.

**Mathematics: State-Level Results—Fall 2012 and Spring 2013**

The fall DCAS-ALT1 mathematics scale scores increase with grade level up to grade 6, show a small decline at grade 7, then an increase to grade 8, then declines in grades 9 and 10, as seen in reading. The scores ranged from 640.3 in grade 3 to 732.3 in grade 8.

The fall DCAS-ALT1 mathematics percent proficient have no apparent trend and range from 26.6 in grade 3 to 54.8 in grade 8.

The spring DCAS-ALT1 mathematics scale scores increase with grade level up to grade 8, then decline in grades 9 and 10. The scores ranged from 631.3 in grade 3 to 678.2 in grade 7. Scores in grade 8 and 9 were a bit lower (693.1 and 677.5) but then rose again in grade 10 to 705.1.

The spring DCAS-ALT1 mathematics percentages proficient range from 32.7 in grade 3 to 68.0 in grade 8.

The Fall to spring change in mathematics scale score was smallest at 15.1 in grade 6 and largest at 46.9 in grade 9. Fall to spring change in mathematics percentage proficient was greatest in grade 9 (16.2 points) and smallest at grades 3 and 5 (6.1 points).

Spring 2012 to spring 2013 changes in mathematics scale score ranged from a drop of 12.5 points at grade 7 to an increase of 39.2 points at grade 8. The spring 2012 to spring 2013 change in mathematics percentage proficient ranged from a drop of 2.2 at grade 3 to an increase of 15.9 at grade 8.

**Science**
**State-Level Results—Spring 2013**
The spring DCAS-ALT1 science scale scores decrease with grade level. The scores ranged from 386.7 in grade 10 to 396.0 in grade 5. The fall DCAS-ALT1 science percentage proficient have no apparent trend and range 46.1 in grade 10 to 52.1 in grade 8.

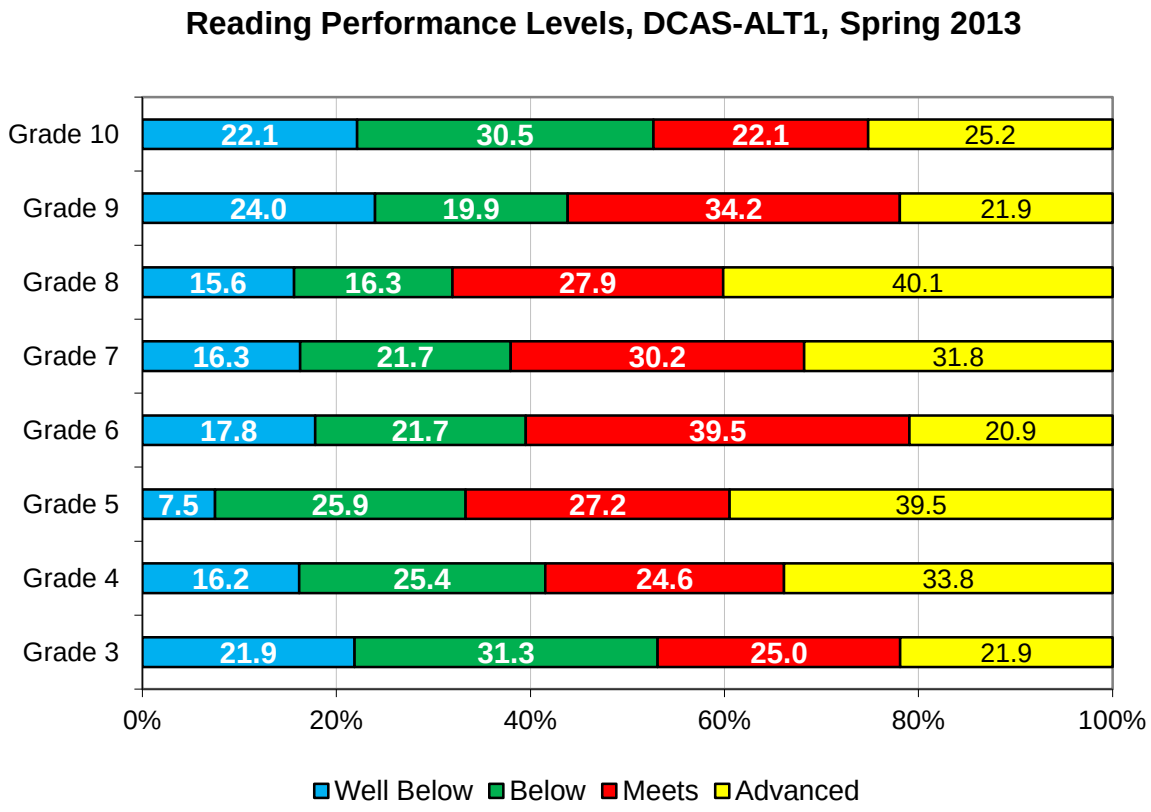
**Spring 2012 to Spring 2013 Change**
The spring to spring change in DCAS-ALT1 science scale scores ranged from a drop of 6.4 in grade 10 to an increase of 13.1 in grade 8. The spring to spring change in DCAS-ALT1 science percentage proficient range from a low of -9.4 in grade 5 to a high of 11.6 in grade 8.

**Social Studies:**
**State-Level Results—Spring 2013**
The spring DCAS-ALT1 social studies scale scores fluctuate with grade level. The scores range from 378.3 in grade 7 to 407.9 in grade 9. The spring DCAS-ALT1 social studies percentage proficient increase with grade level and range from 50.0 in grade 4 to 51.2 in grade 9.

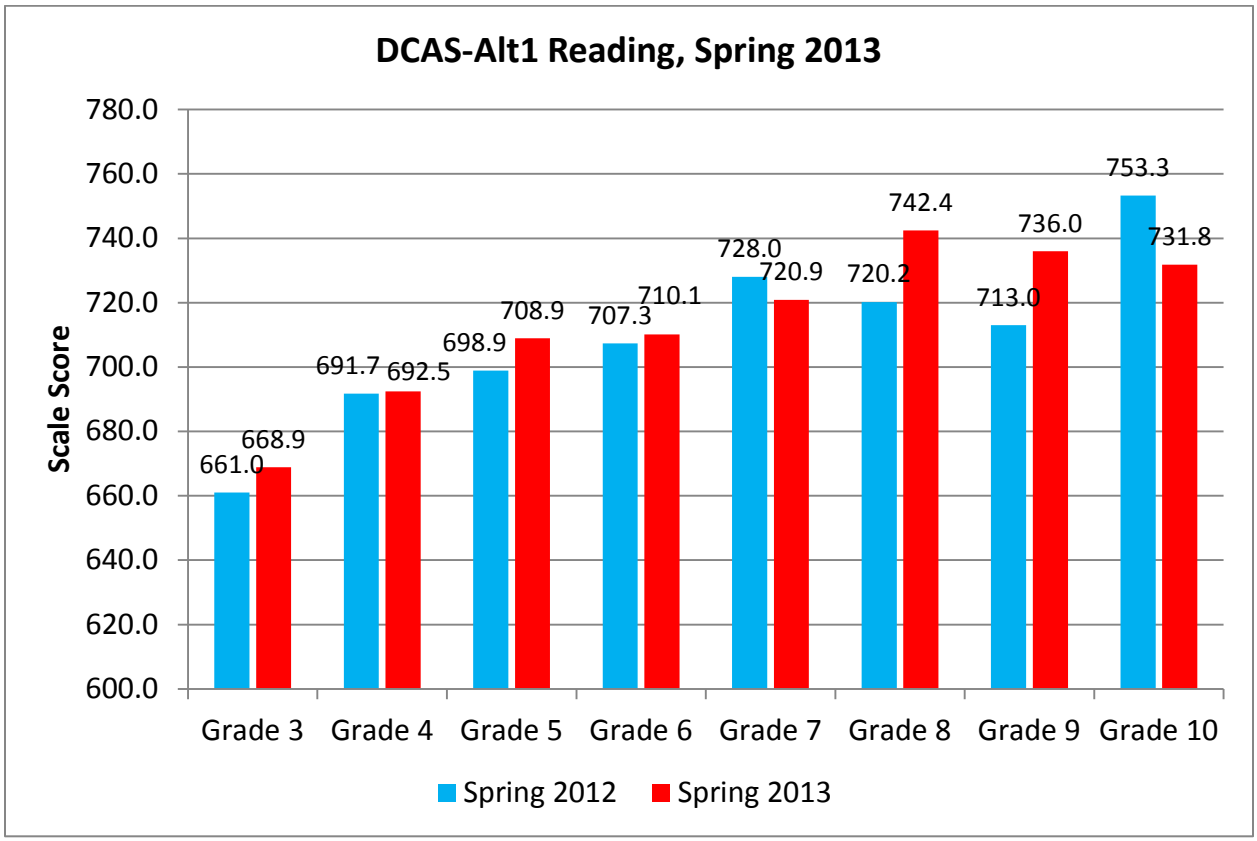
**Spring 2012 to Spring 2013 Change**
The spring to spring change in DCAS-ALT1 social studies scale scores ranged from a drop of 9.8 in grade 7 to an increase of 6.5 in grade 9. The spring to spring change in DCAS-ALT1 social studies percentage proficient range from a low of -10.5 in grade 7 to a high of 5.6 in grade 9.

**Participation**

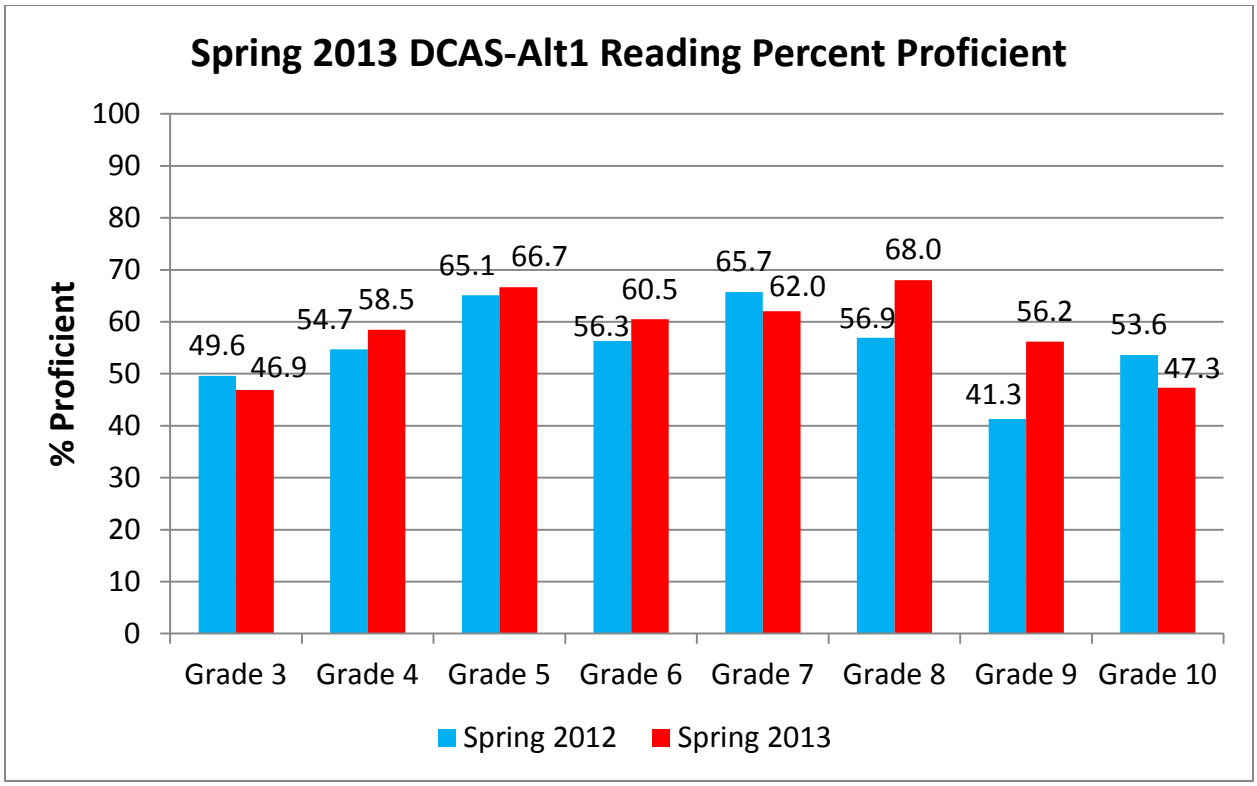
The participation target of 95% was not met for grade 6 in both reading and math, grade 7 in math and grades 4 and 7 in social studies. The reading grades that met the 95% target were grades 6 (95.9%) and 8 (96.6%). In math, the only grade that met the target was grade 8.



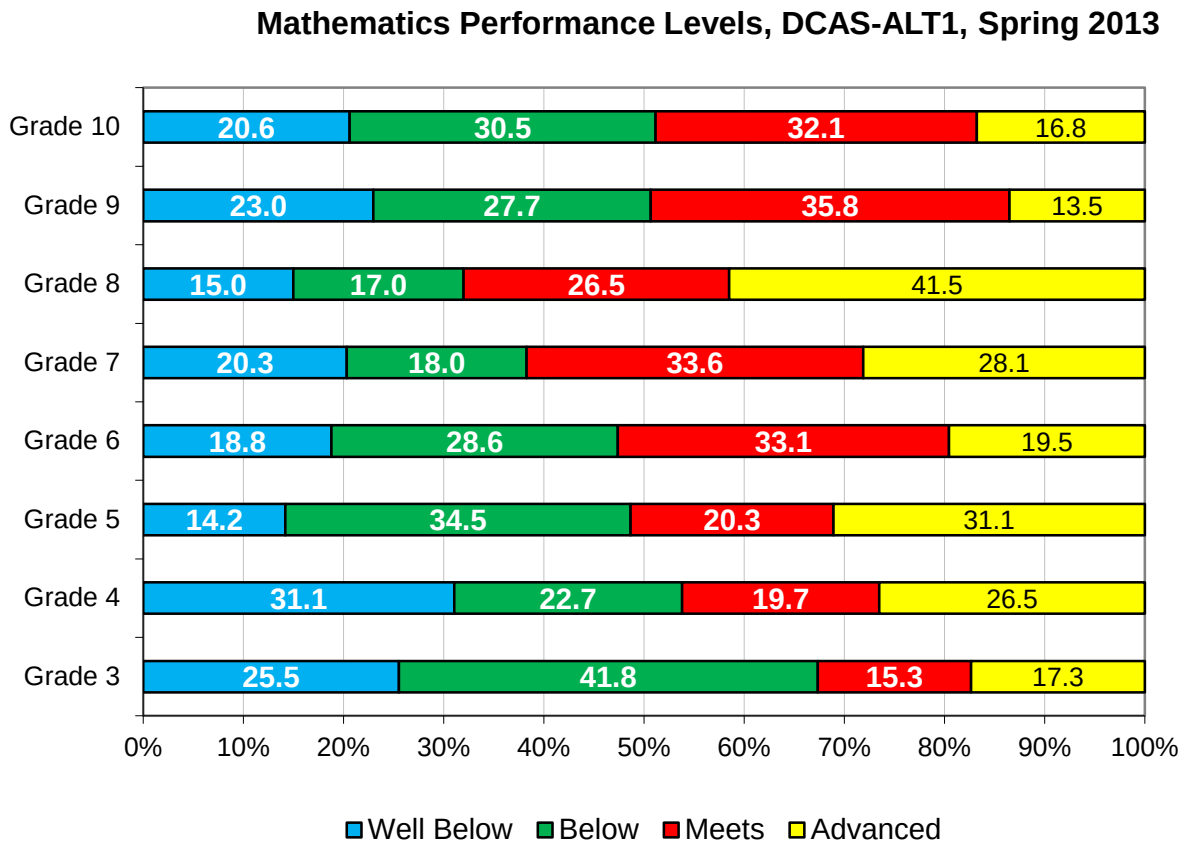

This graph shows the percentages of students in each performance level, by grade, in the spring DCAS-ALT1 reading window. There is no obvious trend related to grade level. Grade 9 has the greatest percentage of students performing at Well below Standard (24.0), while grade 5 has the smallest (7.5). Grade 10 has the greatest percentage of students performing at Below Standard (30.5), and grade 8 has the smallest (16.3). The greatest proportion of students performing at Meets Standard is seen at grade 6 (39.5), while the smallest is at grade 10 (22.1). At Advanced, grade 6 demonstrates the smallest proportion of students (20.9), in contrast to 39.5% at grade 5, which is the greatest proportion.



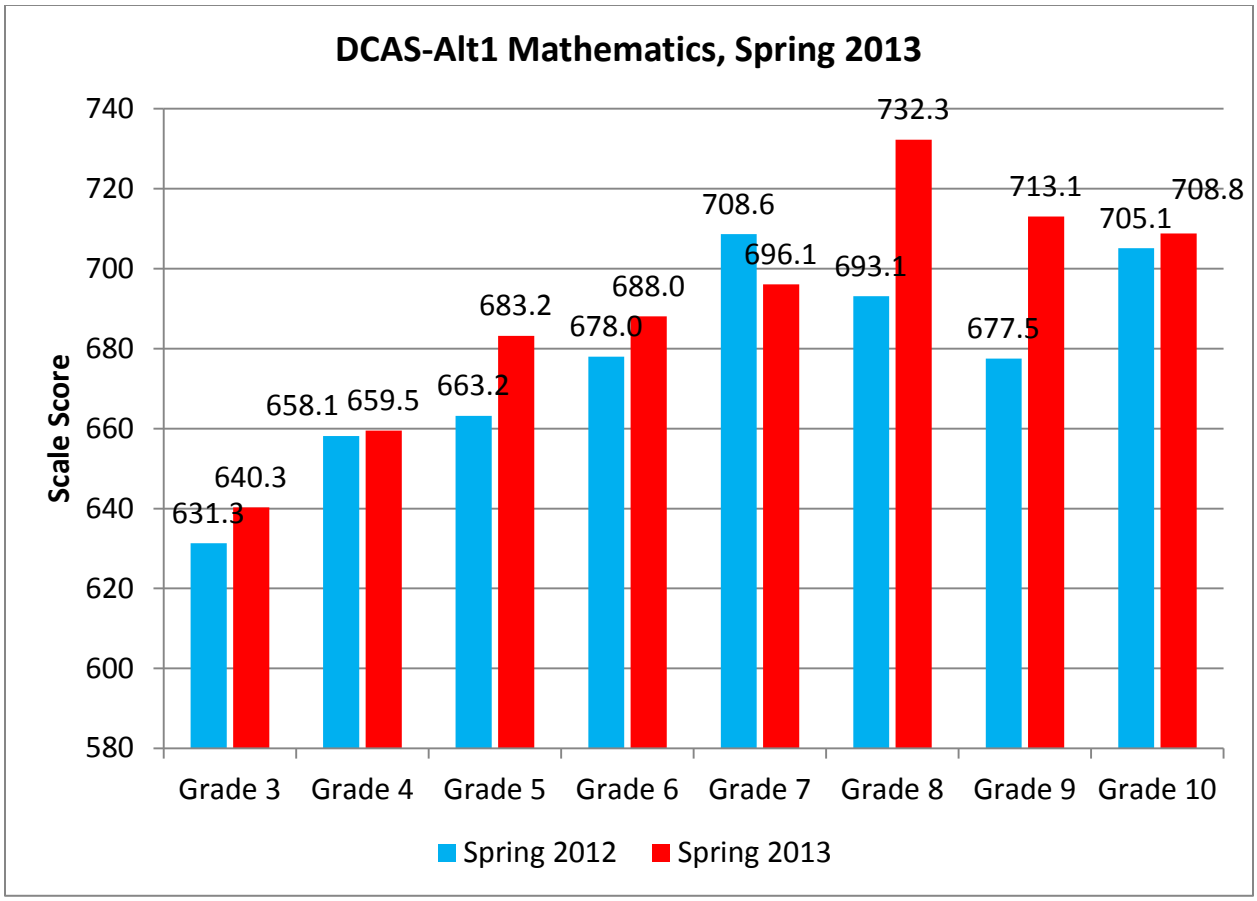

The spring DCAS-ALT1 reading scale scores fluctuate with grade level. The 2013 scores ranged from 668.9 in grade 3 to 742.4 in grade 8.



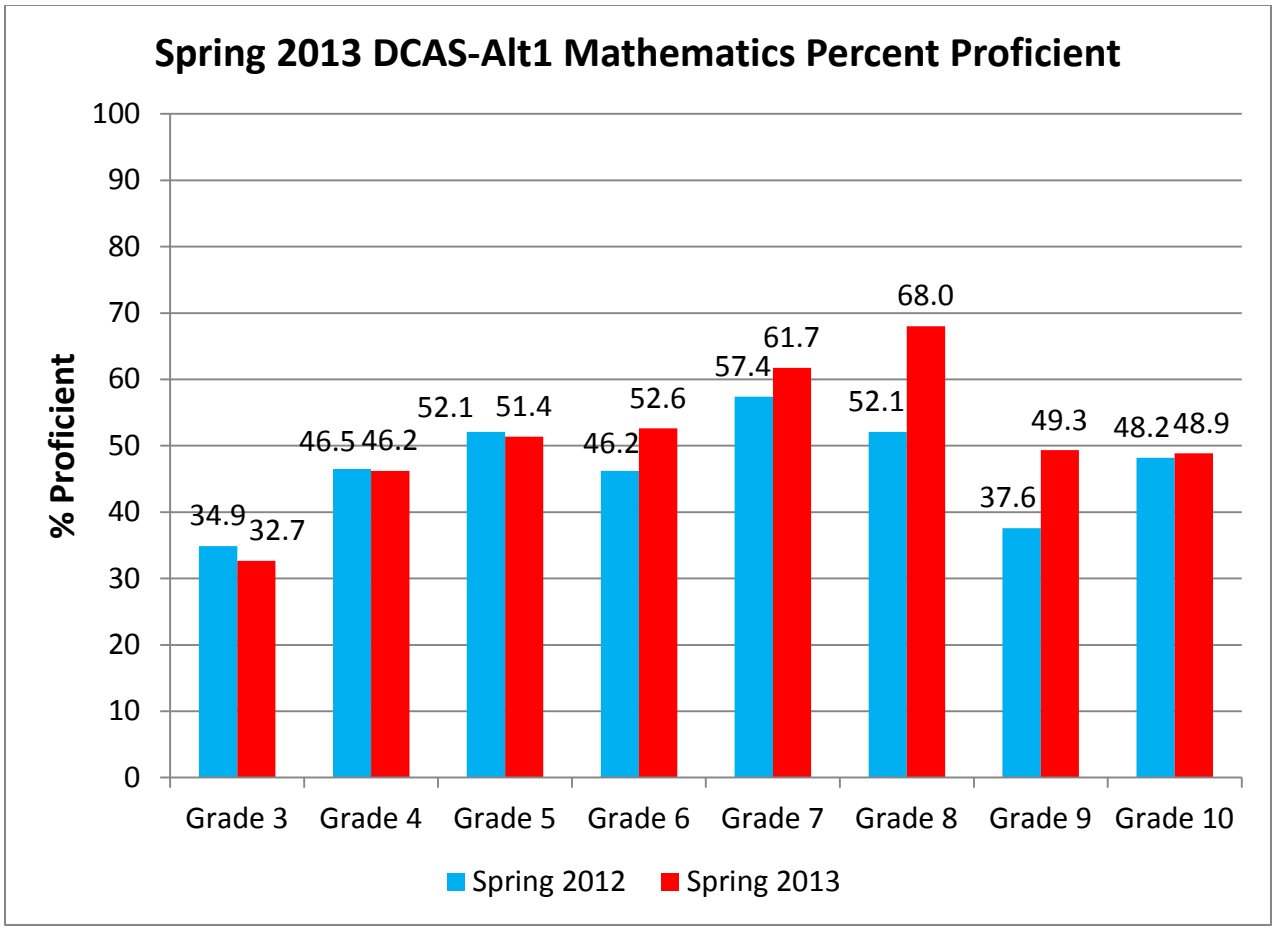

The spring 2013 DCAS-ALT1 reading percentages proficient fluctuate with grade level. They range from 46.9 in grade 9 to 68.0 in grade 8.



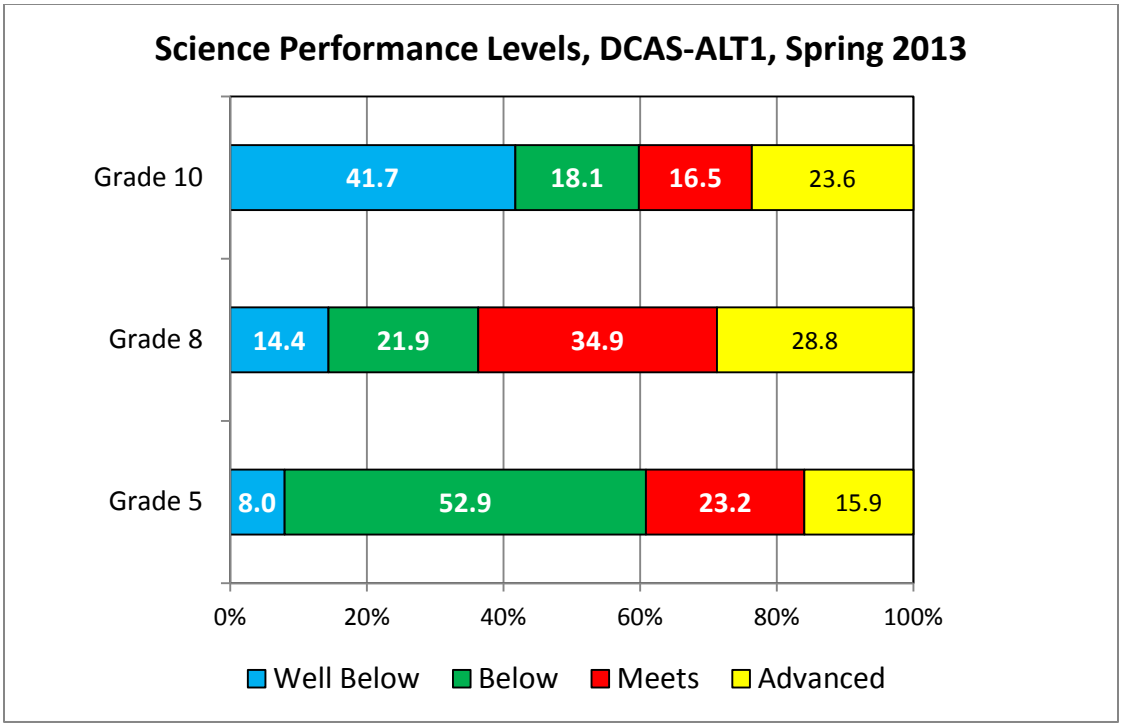

This graph displays the proportion of students in each grade performing in each performance level, by grade, for the Spring DCAS-ALT1 Mathematics window. The percentage of students performing at Well below Standard has a range from 15.0 in grade 8 to 25.5 in grade 3. At Below Standard, the smallest proportion is seen at grade 8 (17.0), and the largest is seen at grade 3 (41.8). The proportion of students performing at Meets Standard had a range of 15.3 (grade 3) to 35.8 (grade 9). The proportion of students performing at advanced had a range of 13.5 (grade 9) to 41.5 (grade 8).




The spring 2013 DCAS-ALT1 mathematics scale scores increase with grade level up to grade 8, then decline in grades 9 and 10. The scores ranged from 631.3 in grade 3 to 678.2 in grade 7. Scores in grade 8 and 9 were a bit lower (693.1 and 677.5) but then rose again in grade 10 to 705.1

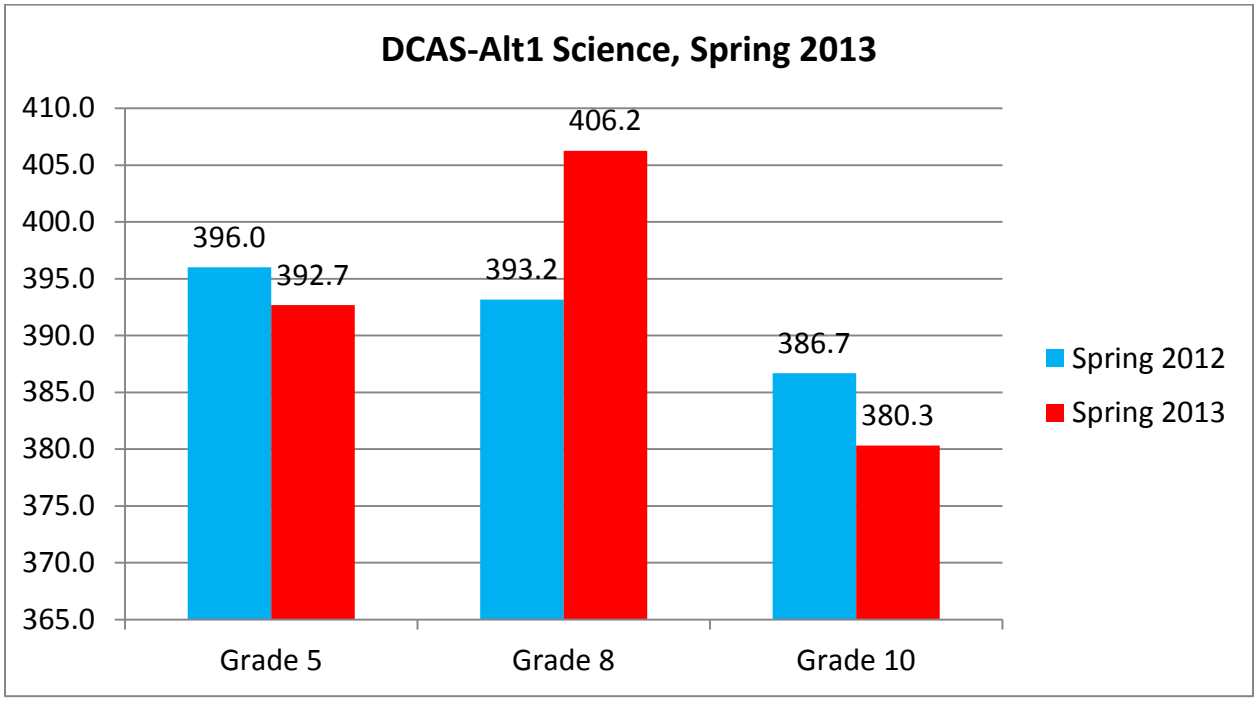



The spring DCAS-ALT1 mathematics percentages proficient increase with grade level from grades 3 to grade 8, then decline in grades 9 and 10. They range from 32.7 in grade 3 to 68.0 in grade 8.

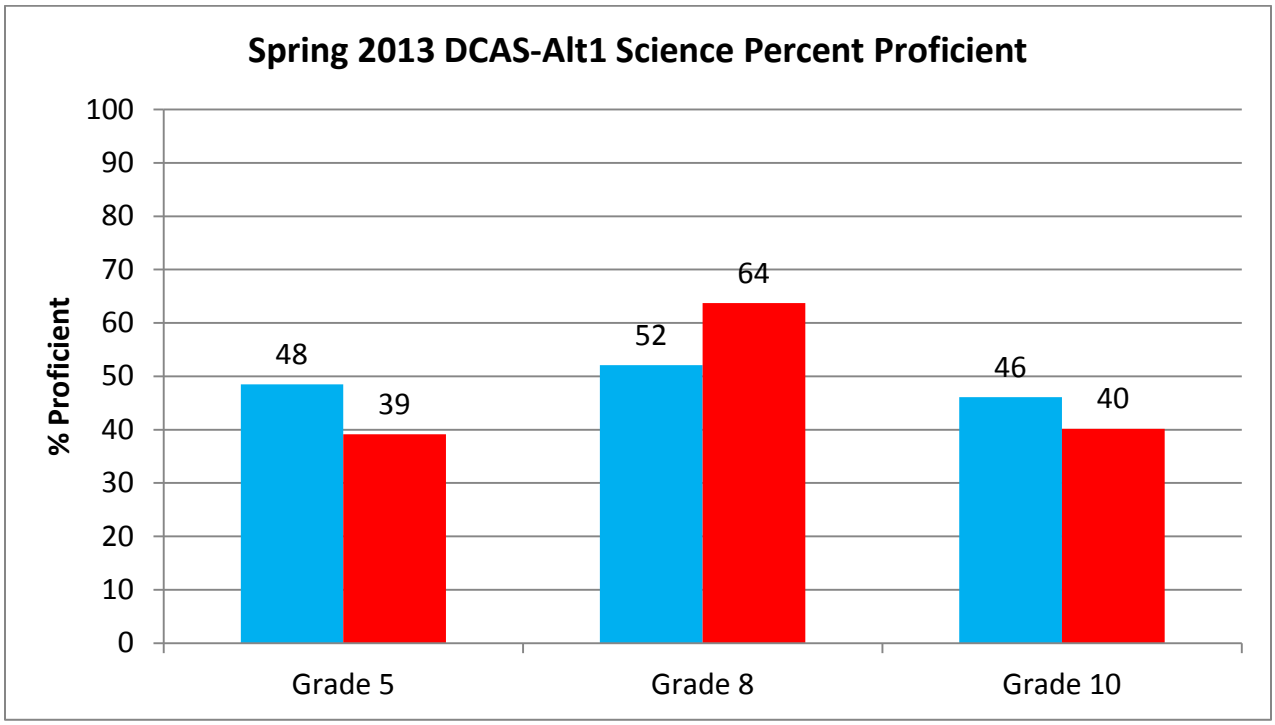



The above graph shows the proportion of students performing in each performance level in the spring 2013 DCAS-ALT1 Science test in grades 5, 8, and 10. The proportion of students at Well below Standard is larger in grade 10 than in grades 8 and 5. In contrast, greater proportions of students performed at Below Standard in grades 5 and 8 than in grade 10. The proportions of students performing at Meets Standard is greatest at grade 8 (34.9) and least at grade 10 (16.5). A greater proportion of students performed at Advanced in grade 8 (28.8) than in grades 10 (23.6) and 5 (15.9).

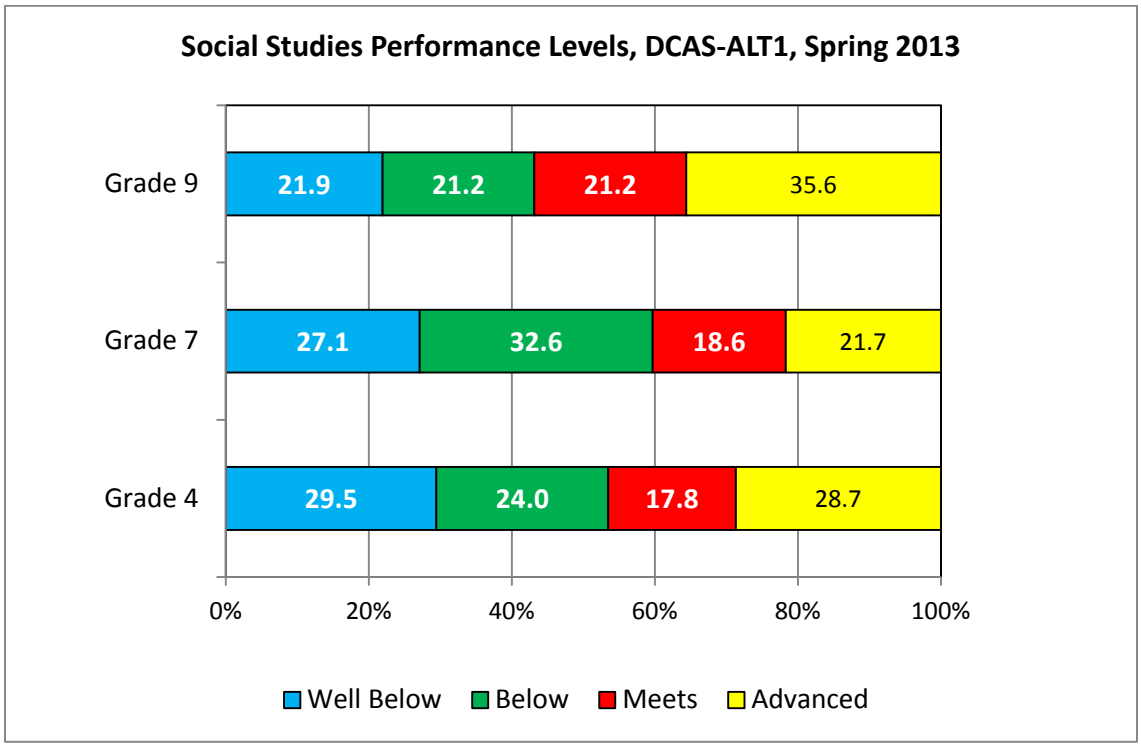
Science mean scale score



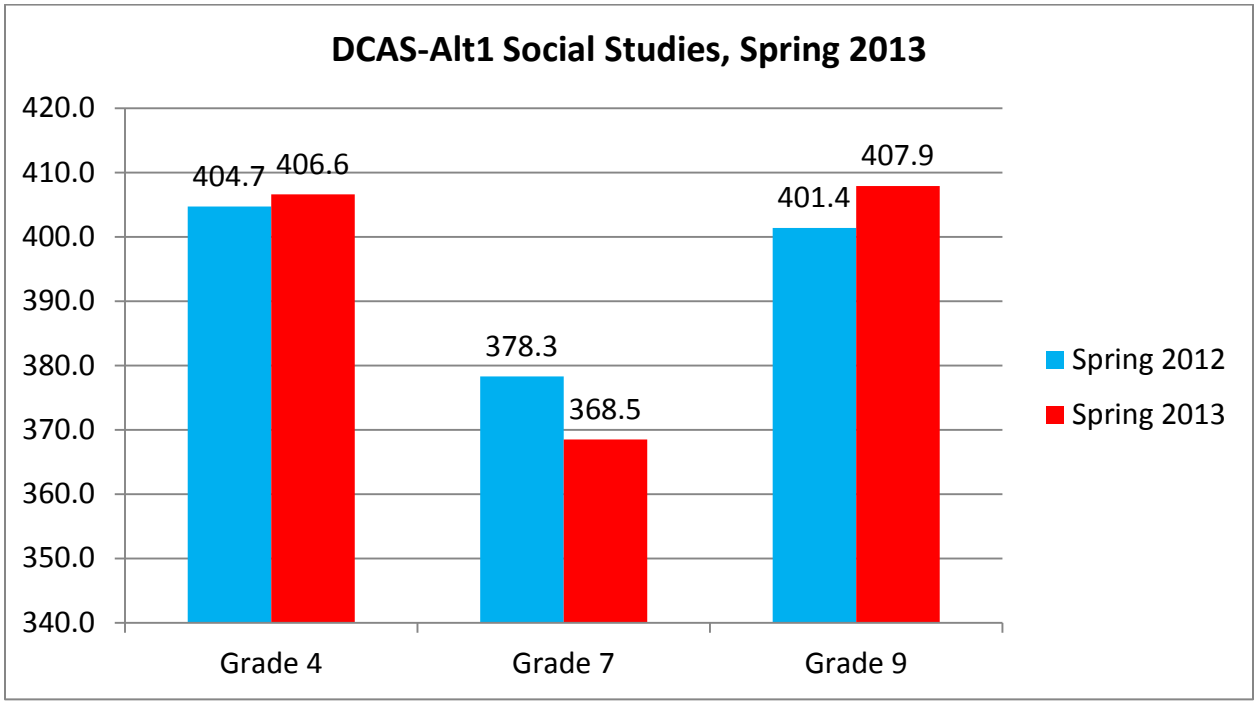

The spring 2013 DCAS-ALT1 science scale scores decrease with grade level. The scores ranged from 386.7 in grade 10 to 396.0 in grade 5.



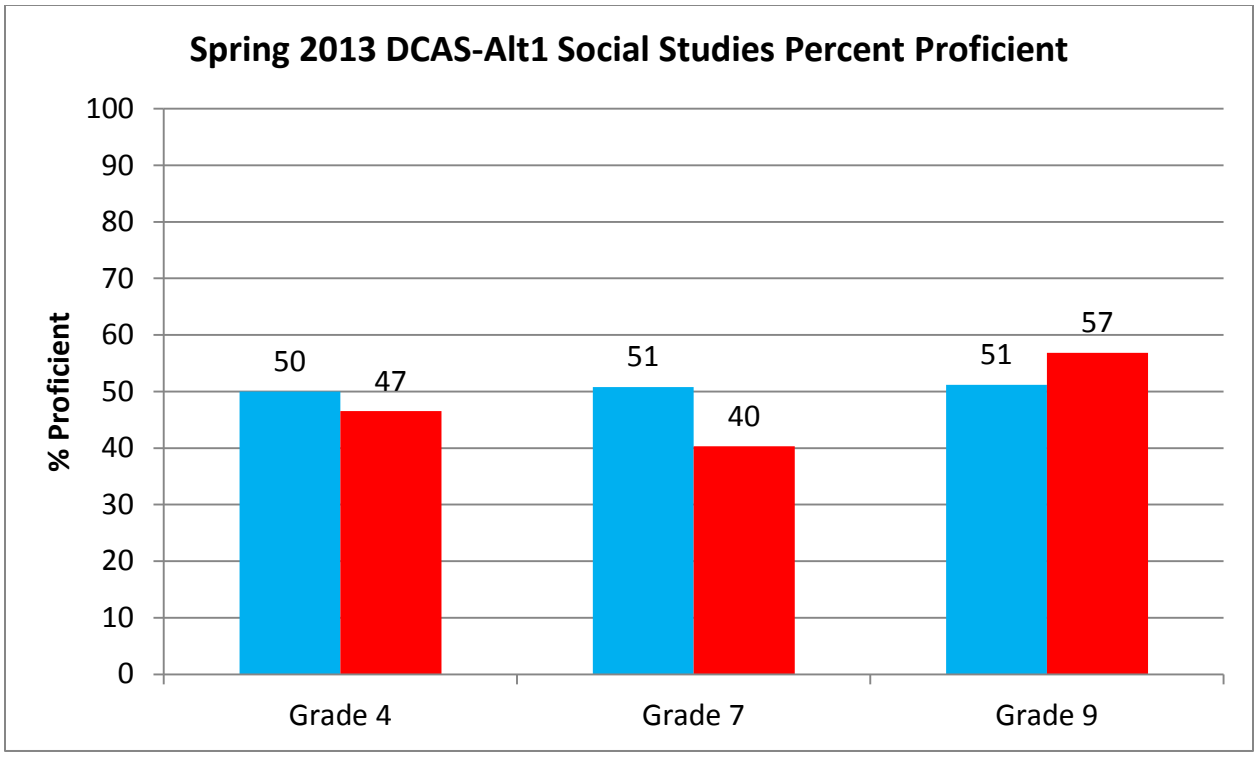

The spring DCAS-ALT1 science percentage proficient have no apparent trend and range 46.1 in grade 10 to 52.1 in grade 8.




The graph above shows that, statewide, in grade 9, about equal proportions of students performed at Well Below, Below, and Meets, while the greateds proportion of grade 9 students performed at Advanced (35.6). In grade 7, the greatest proportion of students performed at Below standard (32.6) and the smallest proportion of students performed at Meets (18.6). Grade 4 students were about as likely to perform at Well below as at Advanced, while a greater proportion of students were Below standard than Meeting standard.




The spring 2013 DCAS-ALT1 social studies scale scores fluctuate with grade level. The scores range from 378.3 in grade 7 to 407.9 in grade 9.




The spring DCAS-ALT1 social studies percentage proficient increase with grade level and range from 50.0 in grade 4 to 51.2 in grade 9