COLORADO
Department of Education

2015 Colorado Measures of Academic Success and Colorado Alternate Assessment
Science and Social Studies Results

Colorado Measures of Academic Success (CMAS) and the Colorado Alternate Assessment (CoAlt): Science and Social Studies

Colorado's standards-based state summative assessment system is designed to provide a picture of student performance to schools, districts, educators, parents and the community. In the content areas of science and social studies, the state summative assessment system includes the Colorado Measures of Academic Success (CMAS) and the Colorado Alternate Assessment (CoAlt). Science is assessed in grades 5 and 8 while social studies is assessed in grades 4 and 7. Administration of these assessments began in the spring of 2014. CMAS replaced the Transitional Colorado Assessment Program (TCAP); however, scores on CMAS science are not comparable to previous TCAP scores.

Background

Colorado adopted the Colorado-created Colorado Academic Standards (CAS) in science and social studies in December of 2009. The CAS outline the concepts and skills, including the 21st century skills, that students need to be successful in the current grade and to make academic progress from year to year. The ultimate goal of the CAS is for all Colorado students to graduate from high school as college and career ready. School districts were required to fully implement the CAS no later than the 2013-14 school year.

Two assessments address the CAS in science and social studies: the Colorado Measures of Academic Success (CMAS) and the Colorado Alternate Assessment (CoAlt). These assessments measure student mastery of the CAS in science and social studies and were developed by the Colorado Department of Education in partnership with Colorado educators and the assessment vendor, Pearson, Inc. The vast majority of students participate in CMAS while a very small percentage of students, those with the most significant cognitive disabilities, participate in CoAlt.

Colorado Measures of Academic Success (CMAS)

CMAS is Colorado's standards-based assessment designed to measure the Colorado Academic Standards (CAS) in the content areas of science and social studies. The purpose of the CMAS assessments is to provide one measure of the degree to which students have mastered the CAS in science and social studies at the end of the tested grade level. In addition to the student level information provided, schools and districts may use the data across their schools and districts to make adjustments to instructional programming for the following year.

CMAS for science and social studies were Colorado's first state-wide computer-based assessments. The online nature of the assessments allows for new item types that were not possible under the prior paper-based system, such as science simulations. Online presentation also fosters increased student engagement. The assessments were designed to provide not only high level content area information (i.e., a science score or social studies score), but also standard-specific scores. For example, the assessments provide parents and educators with an overall social studies score as well as with subscores in the areas of history, geography, economics and civics. Districts and schools can compare performance at these levels from year to year to monitor their programs' effectiveness.

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The CAS and the corresponding CMAS assessments focus on student mastery over the concepts and skills expected in the standards at each grade level. CMAS science and social studies include the following proficiency levels:

- Distinguished Command
- Strong Command
- Moderate Command
- Limited Command

The top two levels indicate that a student is on track for being college and career ready.

Colorado Alternate Assessment (CoAlt)

CoAlt is the standards-based assessment designed specifically for students with the most significant cognitive disabilities who are unable to participate in CMAS, even with accommodations. Students must meet participation requirements to take CoAlt. CoAlt assesses the performance expectations of the CAS for students with significant cognitive disabilities as expressed in the Extended Evidence Outcomes (EEOs) of the Colorado Academic Standards (CAS). The primary purpose of the assessment program is to determine the level at which Colorado students with significant cognitive disabilities meet the EEOs of the CAS in the content areas of science and social studies at the end of the tested grade level.

The assessment involves teachers observing students as they complete assessment questions. Teachers then score student performance using the appropriate CoAlt scoring rubric and submit performance results.

The alternate assessment includes the following proficiency levels:

- Novice
- Developing
- Emerging
- Exploring

Students who do not respond to any items on the assessment receive an inconclusive designation. These students are included in the Exploring performance level.

This summary provides a brief overview of 2015 state-level performance. Results for all students are reported, as well as results based on gender, race/ethnicity, special programs status (i.e., Title I and IEP), eligibility to receive free or reduced price lunch, and English language proficiency.

2015 State Level Performance Results

With the exception of 8th grade science, overall CMAS performance in science and social studies increased across the state when compared with last year. The percentage of students performing in the Strong and Distinguished Command performance levels increased by 4.8% in 4th grade social studies, by 1.0% in 7th grade social studies, and by 1.2% in 5th grade science. The percentage of CMAS students performing in the top two performance levels decreased by 3.5% in 8th grade science.

The percentage of students with the most significant cognitive disabilities performing in the Developing and Novice performance levels on the CoAlt assessment increased by 1.6% from last year in 7th grade social studies, but decreased by 5.4% in 4th grade social studies. The percentage of CoAlt students performing in the top two levels increased by 3.4% in 5th grade science and did not change in 8th grade science. It is important to note that CoAlt performance is expected to change from year-to-year because the population is relatively small and includes considerable variance.

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Science

Grade 5:
CMAS: 34.8% of students scored in the Strong and Distinguished Command performance levels.
CoAlt: 48.0% of students scored in the Developing and Novice performance levels.

Grade 8:
CMAS: 29.0% of students scored in the Strong and Distinguished Command performance levels.
CoAlt: 40.7% of students scored in the Developing and Novice performance levels.

Social Studies

Grade 4:
CMAS: 21.8% of students scored in the Strong and Distinguished Command performance levels.
CoAlt: 35.8% of students scored in the Developing and Novice performance levels.

Grade 7:
CMAS: 17.6% of students scored in the Strong and Distinguished Command performance levels.
CoAlt: 40.4% of students scored in the Developing and Novice performance levels.

2015 CMAS Subgroup Results

The next section of this report provides state level information for several subgroup populations on CMAS (i.e., results based on gender, race/ethnicity, Title 1 status, IEP status, Free and Reduced Lunch status, and English Language Proficiency). Due to low numbers of students participating and the unique nature of the population, subgroup results for CoAlt are not provided here.

Results by Gender

Science. A higher percentage of males than females scored in the Strong and Distinguished Command performance levels in both 5th grade (35.7% to 33.8%) and 8th grade (29.5% to 28.6%). Last year, a slightly higher percentage of females scored in the Strong and Distinguished Command levels than males in both grade levels.

Social Studies. A higher percentage of females than males scored in the Strong and Distinguished Command performance levels in both 4th grade (22.8% to 20.9%) and 7th grade (20.3% to 15%). This pattern is consistent with last year's results.

Results by Ethnic Group

Across the grades and content areas, gaps were found between the highest scoring race/ethnicity subgroup and the Black and Hispanic subgroups in terms of percent of students achieving Strong or Distinguished Command.

Science. When compared to other racial/ethnic groups, the highest percentage of students achieving Strong or Distinguished Command performance levels in grade 5 were White and Asian (about 48% each). Students of two or more races were within 8 percentage points of the top performing groups (40.4%). Fewer Black (15.8%) and Hispanic

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(15.5%) students achieved the Strong or Distinguished Command performance levels; however, the number of Black and Hispanic students performing in these levels increased from last year.

In grade 8, the highest percentage of students achieving Strong or Distinguished Command performance levels (45.4%) compared to other racial/ethnic groups were Asian. Asian students were also the top performers in 8th grade science last year. White students (39.7%) and students of two or more races (35.5%) were the next top performers. Fewer Black (11.7%) and Hispanic (13.0%) students achieved the Strong or Distinguished Command performance levels. With the exception of students who were identified as Native Hawaiian or Other Pacific Islander (27.1% of students performed in the top two levels), performance decreased across all race/ethnicity groups from last year.

Social Studies. Just as last year, the percentage of students achieving Strong or Distinguished performance levels in grades 4 and 7 was highest among Asian students (33.6% and 34.9% respectively). In 4th grade, White students (30.2%) and students of two or more races (28.2%) were the next top performers. Similarly, White students (23.5%) and students of two or more races (21.6%) were the next top performers in 7th grade as well. Roughly eight to nine percent of students in both the Black and Hispanic subgroups achieved Strong or Distinguished Command in 4th and 7th grade social studies.

Results for Title I Students

The percentage of students who scored in the Strong and Distinguished Command levels was lower for students in Title I programs than for students not in Title I programs across all grades and content areas. The gap between students in Title I programs and students not in Title I programs on science was between 23 and 27 percentage points. For social studies, the gap was between 15 and 20 percentage points. These gaps are consistent with last year's results.

Results for Students with Individualized Education Plans (IEPs)

The percentage of students who scored in the Strong and Distinguished Command performance levels was lower for students with IEPs than for students without IEPs across all grades and content areas. The gap between students with IEPs and students without IEPs in science was between 27 and 30 percentage points. In social studies, the gap between these students was between 18 and 20 percentage points. These gaps are consistent with last year's results.

Results for Students Eligible for Free or Reduced Lunch

The percentage of students who scored in the Strong and Distinguished Command performance levels was lower for students eligible for free or reduced lunch than for students not eligible for free or reduced lunch across all grades and content areas. The gap between students eligible for free or reduced lunch and students not eligible for free or reduced lunch on science was between about 28 and 34 percentage points. For social studies, the gap was between 19 and 24 percentage points. These gaps are consistent with last year's results.

Results for Students Based on English Language Proficiency

The percentage of students who scored in the Strong and Distinguished Command performance levels was lower for students identified as non-English proficient/ limited English proficient (NEP/LEP) than for students for whom language proficiency was not applicable. The gap between students identified as NEP/LEP and students for whom language proficiency was not applicable on science was between 33 and 38 percentage points. For social studies, the gap was between 20 and 24 percentage points. These gaps are consistent with last year's results.

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