State Board of Education

Maryland School Assessment (MSA) 2012 Science Results

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MARYLAND STATE DEPARTMENT OF EDUCATION
Preparing World-Class Students

2012 MSA Science Results

- MSA meets requirement to test students in science at least once in elementary, middle, and high school (HSA Biology)
- Fifth reporting year
- Tests administered in grades 5 and 8
- Science results are reported and included in the School Performance Index

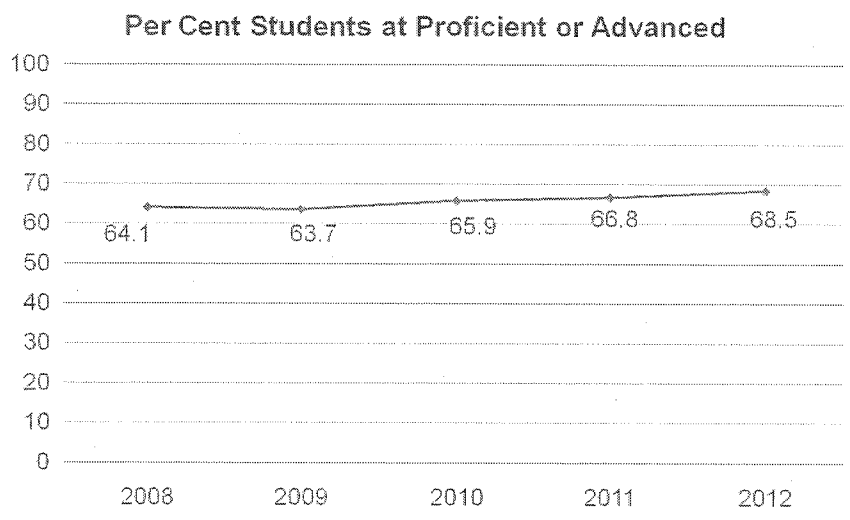
2012 MSA Science

- Multiple choice and constructed response
- On-line assessment with paper/pencil option
- 121,819 fifth and eighth graders were tested
- 53.1% of Grade 5 and 63.1% of Grade 8 tests were administered online

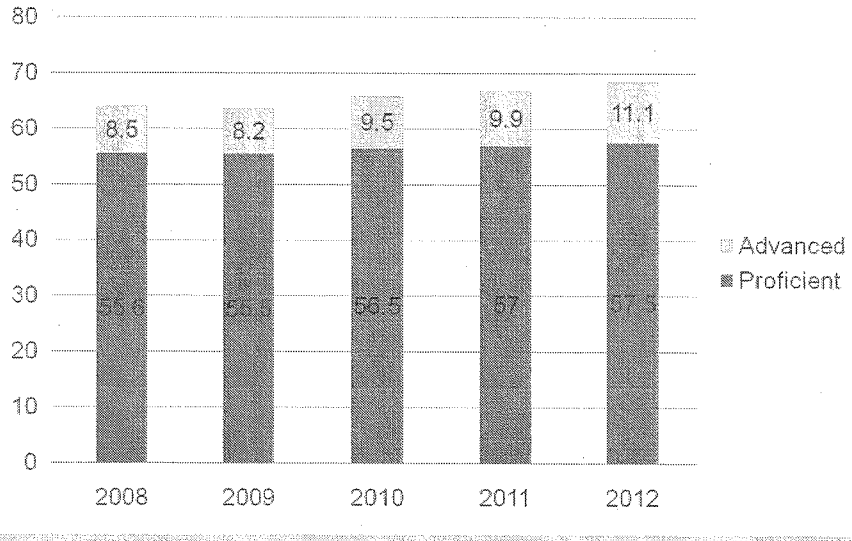
Examining the Results

- 2012 and Past Years
  - Number of Students in the aggregate and Selected Subgroups Meeting and Exceeding the Performance Standard
- Trends in Science, Reading, and Math
- Selected Gap Analyses

MSA Grade 5: Historical Performance

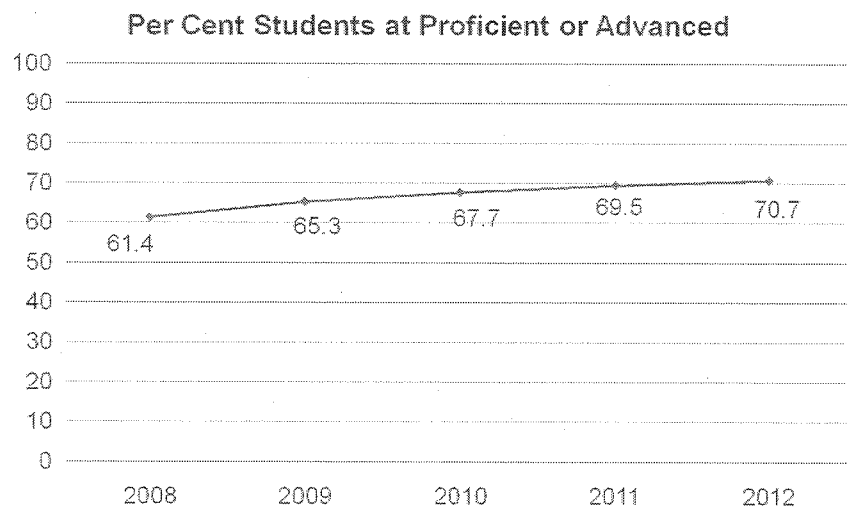


MSA Science: Grade 5

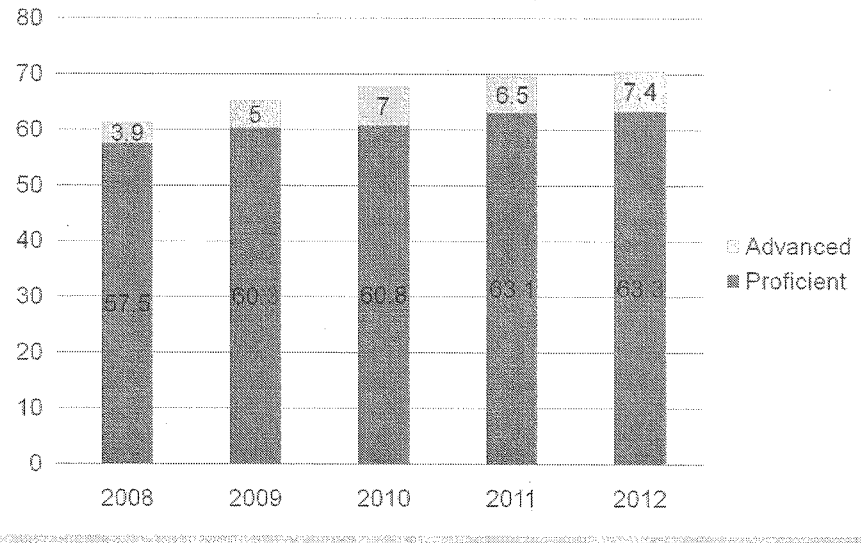


Percentages cannot be added

MSA Grade 8: Historical Performance



MSA Science: Grade 8



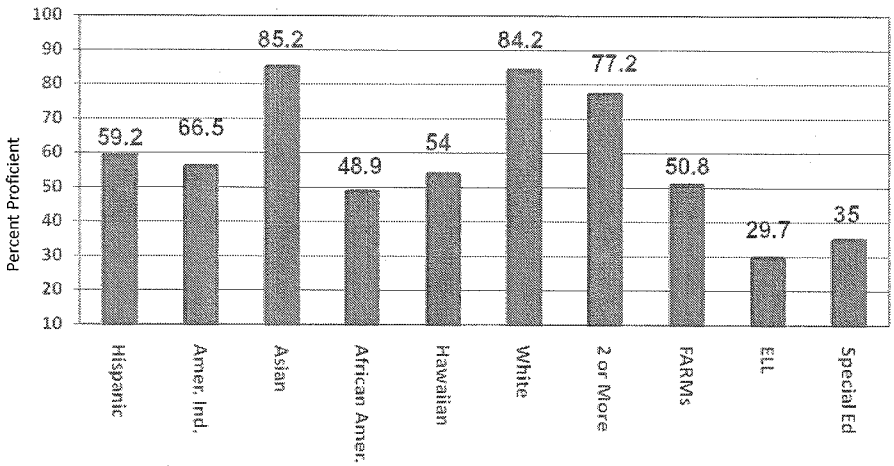
Note: Percentages cannot be added

Looking at MSA Science in the Aggregate

- Grade 8 proficiency increased by 9.3 points between 2008 and 2012 compared to a 4.4 point increase for Grade 5
- There has been a slow but steady increase in proficiency at Grade 8 and an increase for 4 out of the 5 reporting years at Grade 5
- The per cent of Advanced scores for both grades has increased since 2008

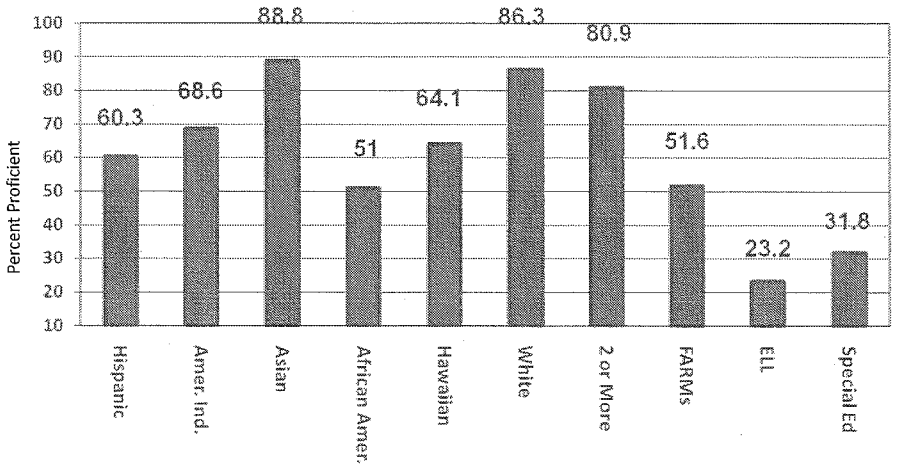
2012 Grade 5 Science Results

All Subgroups



2012 Grade 8 Science Results

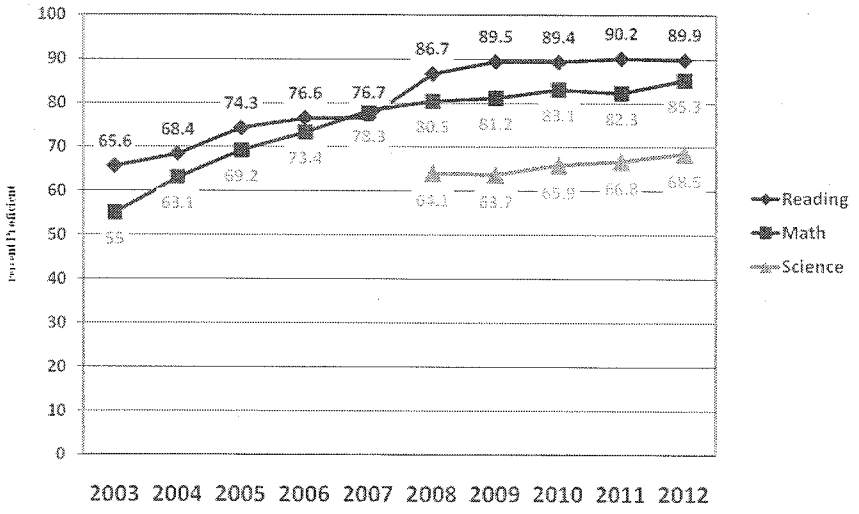
All Subgroups



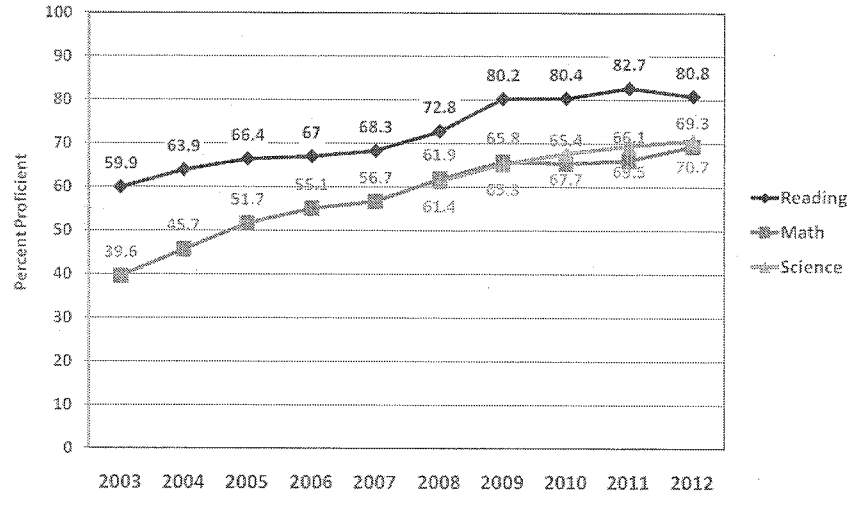
Looking at MSA Science by Subgroup

- There are sharp differences in achievement among subgroups
- Most subgroups performed somewhat better on the 8th grade test compared to the 5th grade test; however, the pattern of differences among the subgroups is similar in grades 5 and 8

Content Area Proficiency Trend Comparison
Grade 5



Content Area Trend Comparison
Grade 8



School System Observations

- Compared to 2011
  - 18 systems improved or remained the same at Grade 5
  - 15 systems improved or remained the same at Grade 8
  - 14 systems improved or remained the same at Grade 5 and Grade 8
- 13 school systems tested more than 90 percent of both fifth and eighth graders on-line

Summary

- Scores for elementary and middle school performance edged up in 2012.
- Elementary scores: The proficiency rate for fifth graders in science remains lower than in reading and mathematics
- Middle school scores: The science proficiency rate for eighth graders nearly equaled mathematics in 2009 and then edged above it in 2010 and has remained higher. But both math and science proficiency remains below reading
- Some race-ethnicity subgroups and all special services subgroups continue to lag behind students in the aggregate

How is MSDE supporting local school system efforts to improve teaching and learning in science?

Questions & Discussion

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