

Memorandum

To: Mr. Tom Brady, Superintendent
From: Office of Research, Assessment and Evaluation
cc: Sharon Contreras, CAO
Date: 9/21/2008
Re: Spring 2008 NECAP Science Results

Background

The New England Common Assessment Program (NECAP) Science test is a criterion-referenced test containing a mixture of multiple choice and constructed response items that is administered to students in grades 4, 8 and 11 in the Spring of the school year. It is used as a performance indicator of students, schools and districts as compared to state standards as measured by Grade Level Expectations (GLEs). Beginning with the Spring 2008 administration, the NECAP Science results will be used in the state accountability system required under No Child Left Behind (NCLB).

For the purpose of this summary report, results of the NECAP Science are presented in *Performance Level Distribution* and *Scaled Scores*.

- *Performance Levels* provide a descriptor of the general performance and are reported in terms of percentage of students performing at each level. Typically, success is identified in terms of *percent proficient*. Table 1 in the Appendix shows the designations and descriptions of the four *Performance Levels* that are used to define results on NECAP Science.
- *Scaled scores* provide additional information about the location of student performance within each achievement level and are appropriate for measuring change over time. NECAP scaled scores are reported as three-digit scores in which the first digit represents the grade level. The remaining digits range from 00 to 80. Scores of 40 and higher indicate a level of proficiency at or above the Proficient Level. Scores below 40 indicate performance below the Proficient Level. For example, scores of 340 and 540 indicate Proficient performance at grades 3 and 5 respectively.

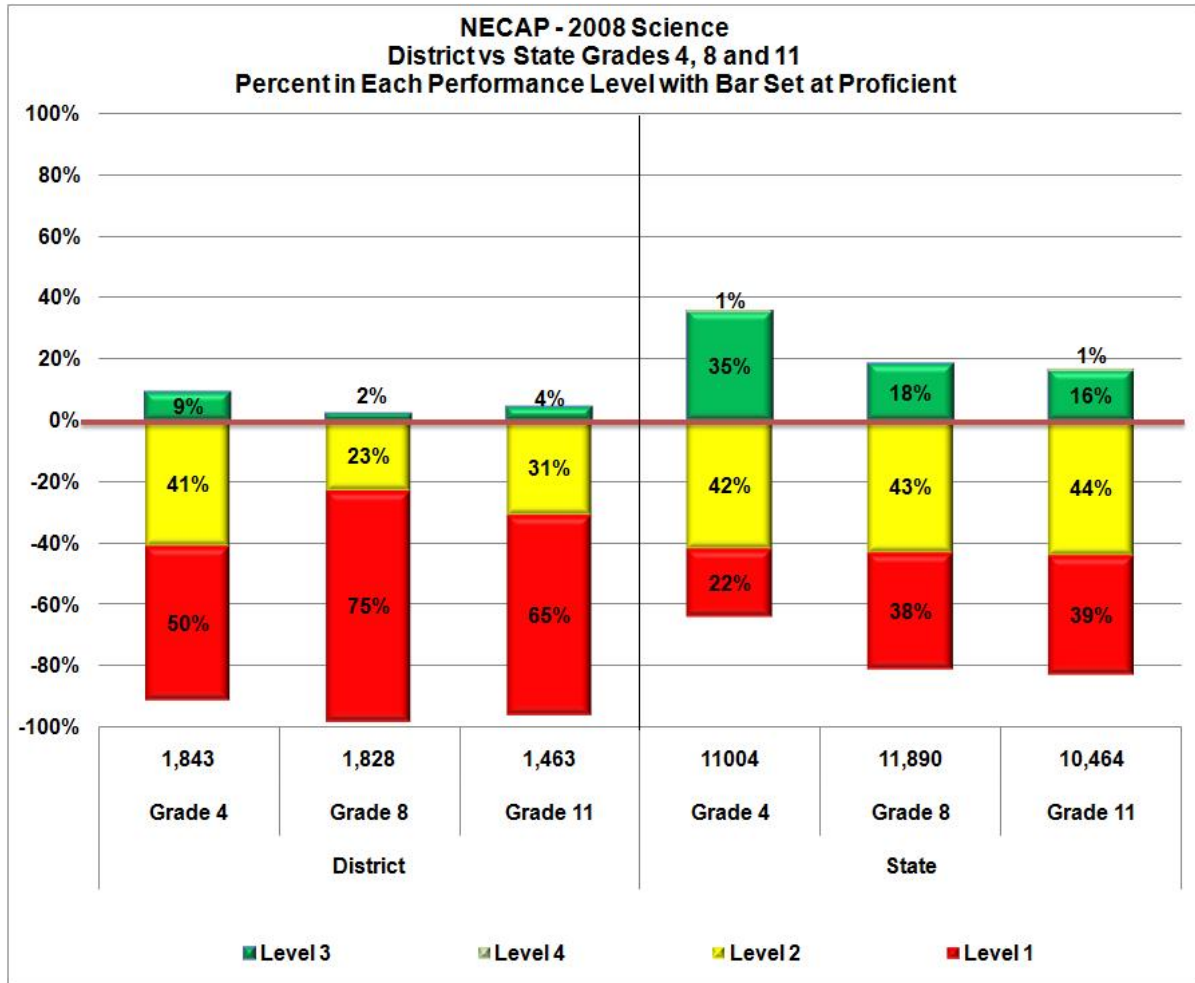
Results

Chart 1 represents the overall *Performance Level Distribution* results for the district for each of the grade levels (4, 8 and 11) participating in the NECAP science assessment. No multiyear comparisons are available as this is the first year the NECAP science assessment results are out of the pilot phase and actual figure in the accountability formula. Results in Chart 1 indicate the following:

- Notably scores were low for both state and district across all grade levels with far more students performing at below proficient levels .
- While the state showed a trend of students doing progressively worse as their grade level increased, scores in the district were flat with the general performance across grade levels. (Note: The trend observed in the state's results are opposite of the expected outcome.)
- In all three grade levels that participated in taking the assessment, less than 10% of district students demonstrated proficiency.

- No district students scored in the Proficient with Distinction (Level 4) range.
- Inversely, over 90% of the students performed at the *Partially Proficient* or the *Substantially Below Proficient Levels* across the participating grade levels (grade 4 - 91%, grade 8 - 98%, and grade 11 - 96%).
- A majority of those students performing below proficiency level, performed at the *Substantially Below Proficient Level* (grade 4 - 50%, grade 8 - 75%, and grade 11 - 65%).

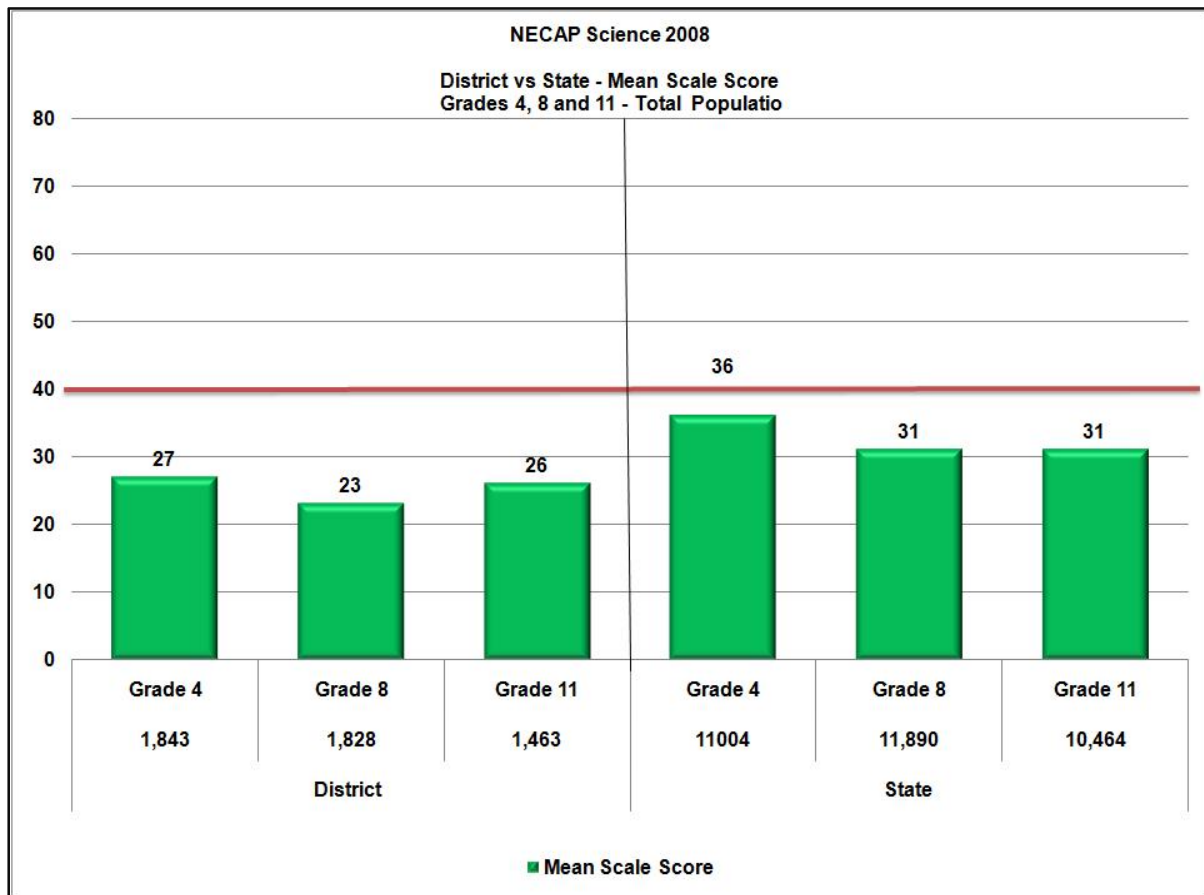
Chart 1: NECAP Science Percent in Each Performance Level



Charts 2 represents the overall Mean Scaled Score results for the district for each of the grade levels (4, 8 and 11) participating in the group, multiple choice element of the SAT RF NECAP science assessment. No multiyear comparisons are available as this is the first year the NECAP science assessment results are out of the pilot phase and actual figure in the accountability formula. Results in Chart 2 indicate the following:

- The mean scaled score for all grade levels in the district are below proficiency level; a mean scaled score of 40 is proficient.
- While the mean scaled scores are expected to improve as students go from 4th to 11th grade (as their experience grows within the content), no consistent pattern across grade levels emerges for the district (or for the state).

Chart 2: NECAP Science Mean Scaled Score Results



Initial Findings

The results on the NECAP science at both the state and district level demonstrated that student performance as compared to the state defined Grade Level Expectations was below levels of expected proficiency. Certainly this was the case for a large majority of the students in Providence Public Schools (well over 90% at all three grade levels that participated in the assessment).

Initial investigations into the disaggregated data support that for certain subgroups the results were even more severe with 100% of the subgroup failing to achieve a level of proficiency on the NECAP science (see attached charts for additional disaggregated data).

Initial exploration of the four science domains (physical science, earth space science, life science, and inquiry) addressed by the NECAP Science assessment for possible problem areas suggests that all areas may prove to be low. However, exploring these at a school level along with other school specific data may prove to be more illuminating.

Appendix

Table 1: Performance Levels as Reported on NECAP Science

Level	Description
Proficient with Distinction (Level 4)	Students performing at this level demonstrate the knowledge and skills as described in the content standards for this grade span. Errors made by these students are few and minor and do not reflect gaps in knowledge and skills.
Proficient (Level 3)	Students performing at this level demonstrate the knowledge and skills as described in the content standards for this grade span with only minor gaps. It is likely that any gaps in knowledge and skills demonstrated by these students can be addressed by the classroom teacher during the course of classroom interaction.
Partially Proficient (Level 2)	Students performing at this level demonstrate gaps in knowledge and skills as described in the content standards for this grade span. Additional instructional support may be necessary for these students to achieve proficiency on the content standards.
Substantially Below Proficient (Level 1)	Students performing at this level demonstrate extensive and significant gaps in knowledge and skills as described in the content standards for this grade span. Additional instructional support is necessary for these students to achieve proficiency on the content standards.