

TO : Commissioner Steiner
FROM : David Liebowitz & Dan Koretz
CC : John King
SUBJECT : Issues Emerging from Technical Memos Related to the Setting of Grades 3-8 Cut Scores
DATE : July 20, 2010

This memo details technical issues related to data analysis performed in the June 20, July 1 and July 2 technical memos presented by the TAG to Commissioner David Steiner.

- 1. Why was Integrated Algebra not chosen as the target for setting the Grades 3-8 scores?**
 - a. Integrated Algebra was first given in 2008 to 8th-10th graders. The first students to take Integrated Algebra are only now graduating from high school, and almost none of these students have entered college. Therefore, we used the most recent Regents exam, Math A, which current college students took to connect Regents and college performance.
 - b. Only about two-thirds of this year's graduating cohort took Integrated Algebra—that cohort could choose between taking Math A and Integrated Algebra.
 - c. The last administration of Math A was January 2009. The 2009-2010 school year is the first year for which Integrated Algebra replaced Math A as the required Math examination all students must pass for graduation (although it is technically true that students may take Geometry and/or Algebra II/Trigonometry, the courses are sequential and it is highly likely they would take the Integrated Algebra first). All of the information above indicates that whether we were to use 2008 or 2009 data, we would not have a fully representative sample for the Integrated Algebra test.
 - d. Finally, fewer students score an 80 or above on the Integrated Algebra exam than the Math A exam. If we were to use Integrated Algebra as our benchmark, the eighth grade cut scores associated with various probabilities of achieving an 80 would be higher than if we were to use Math A—in fact, nearly as high as the current Level 4.
- 2. Why was Math B not chosen as the target for setting the Grades 3-8 scores?**
 - a. The Math B Regents is not a graduation requirement and not an introductory math course. Only about 1/3 of students state-wide take it. Therefore, it is not an appropriate test against which to benchmark college-readiness for all students
- 3. The June 20 memo makes the argument that so many students score at or above 65 that there is only a weak relationship between 8th grade scores and passing the Regents. Does that mean that Regents scores and 8th grade scores are poorly related?**
 - a. No. Scores on the 8th-grade mathematics test are strongly related to scores on the Math A Regents exam. The issue is the particular score examined. A score of 65 on the Math A exam is quite low, in that most students exceed it. Therefore, reaching that score tells one little about performance on the Regents or college readiness. In contrast, reaching a higher score, such as an 80, provides more useful information because many students do not achieve an 80 and those who do are on track for college success.
- 4. Will the suggested cut scores in the July 2 memo match the cut scores that will ultimately be used to set the Proficiency standard?**

- a. No. The data in the July 2 memo do not include a time adjustment of 1 point in Math and 2 in ELA. Because the tests were administered at a later date, NYSED's test vendor, CTB-McGraw Hill, had to adjust all scores by a small amount to reflect that students should have learned more since the test occurred at a later date.
- 5. Why are there differences in the numbers describing how Regents scores are associated with placement in remedial courses and SAT scores in the July 1 memo and the presentation *A New Proficiency Standard*?**
- a. These differences result from different Regents thresholds used and rounding in the July 1 memo. For instance, the July 1 memo compares SAT performance above and below an English Regents score of 80 and remedial course placement above and below a Math Regents score of 75. Based on the technical research, an English score of 75 and a Math score of 80 were more appropriate thresholds for college readiness; thus the slightly different numbers.
- 6. Why is the total number of observations (student records used in the calculations) different in the figures than in the tables in the July 2 memo?**
- a. The observations used to generate the figures were all students who took the 8th-grade mathematics and ELA assessments and later took the Math A and English Regents. The observations used to generate the tables were all students who took the 8th-grade mathematics and ELA assessments. These numbers are different due to dropouts, students leaving the state, and a small number of advanced students in this cohort who took Integrated Algebra.