



UNDERSTANDING THE 2015 PSSA AND CUT SCORE CHANGES

August 12, 2015

In July 2015, the Pennsylvania State Board of Education adopted cut scores for the newly redesigned PSSA that will result in significant changes to the percent of students in grades 3 to 8 scoring at each of the four performance levels¹ on the mathematics and English language arts (ELA) assessments. The new PSSAs and related cut scores are explicitly designed to be more rigorous, making it noticeably harder for students to achieve advanced and proficient scores on the new PSSA in 2015 than on the previous test administered in 2014.

The lower percent of students scoring proficient or advanced on the new 2015 PSSA compared to 2014 is substantial as demonstrated in the chart below.

Percent of Students Scoring Basic and Below Basic on 2013-14 PSSAs and Redesigned 2014-15 PSSAs

Grade	Reading 2013-14	ELA 2014-15	ELA Difference 2013-14 to 2014-15	Math 2013-14	Math 2014-15	Math Difference 2013-14 to 2014-15
3	29.7	37.9	-8.2	24.9	51.5	-26.6
4	31.3	41.4	-10.1	23.7	55.5	-31.8
5	39.4	38	1.4	22.8	57.2	-34.4
6	35.5	40.2	-4.7	28	60.2	-32.2
7	27.9	41.4	-13.5	23.3	66.9	-43.6
8	20.4	41.7	-21.3	26.4	70.1	-43.7
Average Difference			-9.4			-35.4

PDE has been clear that the lower proficiency rates in 2015 are a result of new tests and new cut scores, not lower rates of student learning. Pennsylvania’s students and teachers haven’t changed; the assessment has changed. PSEA strongly agrees with this interpretation of the 2015 results.

Why Did Pennsylvania Adopt New Cut Scores?

When the State Board of Education adopted the new PA Core Standards in ELA and mathematics, it set in motion a series of related changes, including the creation of a new PSSA.² Whenever a new standardized test is created, the test must undergo a “cut score setting process” to determine what score ranges on the

¹ The four performance levels on the PSSA are below basic, basic, proficient, and advanced.

² The PSSA must be rewritten any time the state adopts new standards because the PSSA must be aligned to whatever standards are adopted.

test correspond with specific performance levels defined by the state. In Pennsylvania, the cut score setting process was used to determine what scores on the new PSSA reflect what students should be able to do at the below basic, basic, proficient, and advanced performance levels according to the new standards. This is an expected practice in the field of test design.

How Did the State Adopt New Cut Scores?

Pennsylvania used the “bookmark method” to set the new cut scores, which is currently one of the most popular methods for setting cut scores on large-scale standardized tests. In the bookmark method, groups of educators are presented with all of the test questions sorted by difficulty from easiest to hardest. Using “performance level descriptors”³ as their guide, educators place a bookmark at the point in the ordered test item booklet between the two test items that they believe reflect the cut between what a student of one level should know and be able to do and what a student of the next higher performance level should know and be able to do.⁴

After each rater has placed bookmarks to divide each of the performance levels, the item difficulties for each rater’s cut scores are averaged, raters discuss the results, and then raters may repeat the process for greater consensus. When raters agree that they have zeroed in on the cut point between different performance levels, the cut scores are calculated.

In Pennsylvania, 58 teachers were assigned to one of twelve cut score groups.⁵ The groups completed three rounds of cut score setting, after which a cut score was determined from the group median of the dividing point between each of the four performance levels. A review committee of building and district administrators reviewed the recommendations of the rating panels and then forwarded revised recommendations to the State Board of Education for approval in July 2015.

Why Are the 2015 Student Achievement Results So Different from 2014?

The 2015 cut scores are based upon a new PSSA based upon the PA Core Standards. The PA Core Standards are generally considered more challenging than Pennsylvania’s previous Academic Content Standards. Because student achievement is now being assessed against more challenging standards, a smaller percentage of students will score proficient. However, lower proficiency rates are not an indicator that students are learning less or teachers are teaching less. *The PSSA scores from 2014 and 2015 are not*

³ Pennsylvania’s new performance level descriptors, adopted by the State Board in July 2015 and based on the PA Core Standards, are available online for [mathematics](#) and [English language arts](#).

⁴ The bookmark method requires that students take the new test before any new cut scores can be set. This is because the foundation of the bookmark method is the test item booklet that ranks individual test items according to their difficulty. In order to rank test items according to difficulty, the test items need to be administered to students so that psychometricians can use data about student performance on each item to rank questions by difficulty.

⁵ Twelve cut score groups were necessary because each cut score group bookmarks for a single test. Because bookmarks were set in both ELA and mathematics at 6 different grade levels, the process required twelve groups.

comparable because the student proficiency rates are derived from two very different tests that are based on two different sets of standards.

What Will Be the Impact of The New Cut Scores?

The new test and cut scores have implications for elementary and middle schools, students, and educators.

- Fewer elementary and middle school students will score proficient in 2015 than in 2014. This will leave students and their parents disappointed and confused. PDE has developed resources to help school districts explain the changes in scoring to parents. Educators will need to reassure students that lower test scores reflect changes in the test, not in the student.
- Schools will receive lower scores on School Performance Profiles (SPP). Because a significant portion of the SPP calculation is based on student test scores, elementary and middle schools may see a substantial decline in their SPP score. PDE has developed resources to help district administrators explain score differences to the school community, media, and general public.
- Schools that currently have a school improvement plan will find that the PSSA-based improvement targets set in their plan do not relate to the new cut scores.
- Educators working in elementary and middle schools can expect to see lower SPP scores included in their annual ratings.
- For the purposes of evaluation, ELA and mathematics teachers in grades 3 to 8 can expect lower percentages of students scoring proficient or advanced on the PSSA, as recorded in the teacher specific portion of the PDE 82-1 summative rating form.⁶

PSEA Advocacy

PSEA is aware of the serious implications these new cut scores have for students, schools, and educators and is advocating on behalf of members with legislators and policymakers to minimize negative consequences. In particular, *PSEA is seeking a moratorium on the use of the new scores for three years.* During this time schools and districts will have an opportunity to align their curriculum to the PA Core Standards. Teachers will have an opportunity to design instruction based on the new curriculum, and students will have the opportunity to receive instruction on the content tested. Also during this time, the state will have an opportunity to review its testing and accountability policies and examine their appropriateness for each of the purposes for which they are used.

⁶ PDE has been assured by SAS, Inc., the company that calculates PVAAS scores, that the new PSSA and related cut scores will not impact PVAAS scores for teachers or schools. PSEA has concerns about this assumption and is prepared to test this claim when scores are released.

PSEA also continues to advocate for common-sense changes to the ways in which Pennsylvania implements any federal mandates related to testing and to call on legislators and policymakers to resist the temptation to expand the use of tests for high stakes consequences for which they were not designed and have not been shown to be valid.

Both PSEA and NEA continue to monitor and encourage possible changes to ESEA that will make it easier for states to develop school accountability and teacher evaluation systems that support rather than punish educators.

For More Information

For more information about the PSSA cut score setting process and its consequences, PSEA members may contact Chris Clayton (cclayton@psea.org) or Carla Claycomb (cclaycomb@psea.org) in the Education Services Department.

