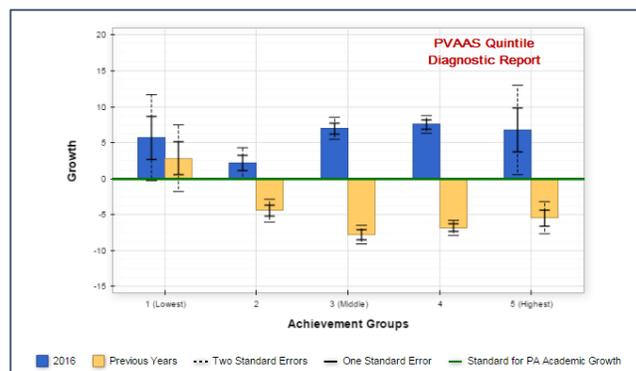
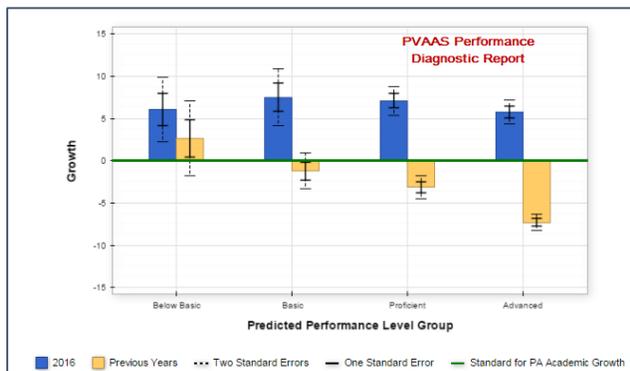


SY2014-15 PVAAS Diagnostic Reports for PSSA Math and ELA

What is the difference between the PVAAS Performance Diagnostic and Quintile Diagnostic Reports?

The PVAAS Performance Diagnostic and Quintile Diagnostic Reports are used by educators to identify patterns or trends of progress among students at different achievement levels. These reports are similar with one key difference.

In the Performance Diagnostic Report, students are assigned to Predicted Performance Level Groups based on where their predicted scores fall with regard to the state's academic performance levels. In the Quintile Diagnostic Report, students are assigned to Achievement Groups based on where they profile within the state distribution, without regard to the state's academic performance level ranges.



It is important to keep in mind when viewing and using these reports that there are NO individual student measures of growth reported in PVAAS. Rather, academic growth in PVAAS is about the progress of a group of students. An estimate of academic growth, or progress, based on only one student with two scores would have a much larger error, and therefore be considerably less precise, than when considering a group of students. One of the inherent benefits of the PVAAS analyses is that *all* scores for *all* students are included in the analyses. Simplistic approaches will be less precise and sometimes biased. While PVAAS does use individual student data to yield the PVAAS reports, there are no individual student measures of growth reported in PVAAS.

Using the PSSA Data in the Analysis of Measuring Growth

PVAAS is designed as an indicator of the academic growth of groups of students towards the mastery of the Pennsylvania academic standards. The PSSA is the common instrument in Pennsylvania that performs a universal assessment of these standards. Additionally, the PSSA assessments are aligned to the appropriate grade level standards that are sufficient for longitudinal modeling and prediction. Specifically, the PSSA meets the three criteria to be used in PVAAS analyses.

- Must be aligned to curriculum standards
- Must be reliable and valid
- Must demonstrate sufficient stretch at the extremes

The SAS® EVAAS® team performs routine checks every year to look at the stretch and stability of the scales. To look at stretch, they do two things. First, they ensure there is a sufficient number of different scale scores at the top and bottom of the scales to differentiate student achievement. The

SAS® EVAAS® team then looks at the percentage of students scoring at the top to ensure there is sufficient stretch in the assessment to measure growth. The stability of the scales is also monitored by looking at the state distributions of scale scores every year to determine if the reliability and validity requirement is met; this has been satisfied each year.

Since these conditions have been met, the power of using PSSA data lies in the fact that there are many students who take each of the PSSA exams each year. This has resulted in a very robust database of longitudinal students' performance results.

When should the Performance Diagnostic Report and the Quintile Diagnostic Report be used?

Both the Performance Diagnostic Report and the Quintile Diagnostic Report are useful when assessing patterns of growth. The Performance Diagnostic Report is useful for assessing growth with students entering the grade level at various academic performance levels (i.e., are students who are entering the grade and subject at a Proficient level meeting or exceeding the standard for PA Academic Growth?). The Quintile Diagnostic Report, however, is useful for assessing growth with students at achievement levels as compared to students at the same grade level across the state (i.e., are students who profile in the top 20% of the state distribution in terms of achievement meeting or exceeding the standard for PA Academic Growth?).

In general, schools will want to view both types of reports depending on the question they wish to address (see above paragraph). Because the ranges of scores that define the various performance levels have a range of achievement scores, schools may sometimes find that the Quintile Diagnostic Report allows schools to identify differences in academic growth for students at different achievement levels more effectively.

The diagrams on the last two pages of this document provide visuals of the percentile cut points for the student groups on the PVAAS Performance Diagnostic and Quintile Diagnostic Reports across subjects and grades in the areas of Math and ELA. General information on the history of Pennsylvania's state assessment system, along with the development of the academic performance levels, can be found below.

What do the PA Academic Performance Levels mean, and how were they developed?

In 1999, as part of Chapter 4 regulations, the State Board of Education adopted the Pennsylvania Academic Standards for mathematics and for reading, writing, speaking, and listening. In 2000 with the State Board of Education's adoption of the Pennsylvania Academic Standards, the Pennsylvania System of School Assessment (PSSA) became a standards-based, criterion-referenced assessment measuring student attainment of the Academic Standards while simultaneously determining the extent to which school programs enabled students to achieve proficiency of the Academic Standards. Proficiency levels for Advanced, Proficient, Basic, and Below Basic were also defined in 2000. In 2001 and 2004, the reading and mathematics assessments underwent various content enhancements to improve alignment to the 1999 Academic Standards. Then, in 2004–2005, the PSSA Assessment Anchors and Eligible Content were developed to clarify content structure and improve articulation between assessment and instruction. By 2006, the operational mathematics and reading assessments incorporated grades 3 through 8 and 11. In 2007, the PSSA and the PSSA Assessment Anchors and Eligible Content underwent additional content enhancements. Starting with the 2013 field test, PSSA began a multi-year transition of Pennsylvania's Academic Standards. In 2015, new PSSA assessments in Mathematics and English Language Arts aligned to the new Pennsylvania Core Standards were administered to all students in grades 3 through 8.

The items on the PSSA assessments are written by trained and experienced content experts, field-tested by Pennsylvania students, and scored by teams of experienced trained readers with at least a four-year degree and a strong content-specific background. All items are reviewed by committees of Pennsylvania teachers to determine their appropriateness for each grade level. Items are chosen based on professional experience and knowledge of the most commonly made mistakes by students at each level. A Technical Advisory Committee (TAC), composed of the leading assessment experts in the country, assists in the development and format of the assessments.

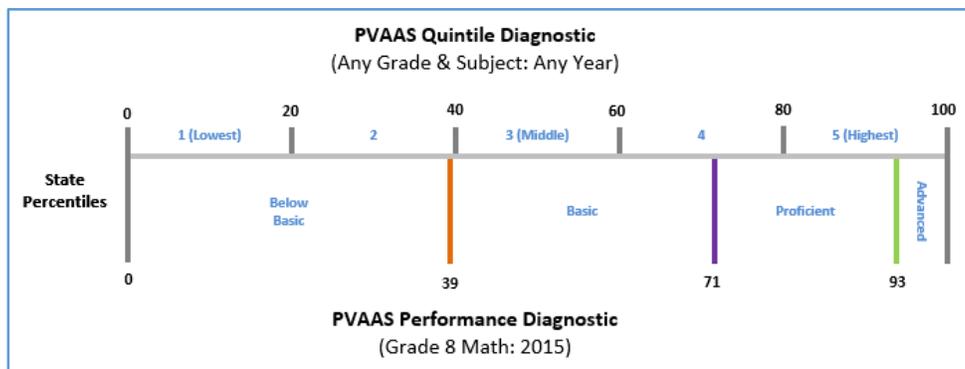
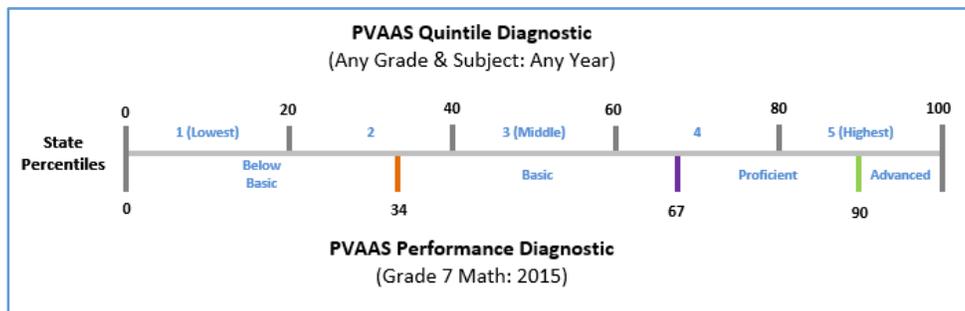
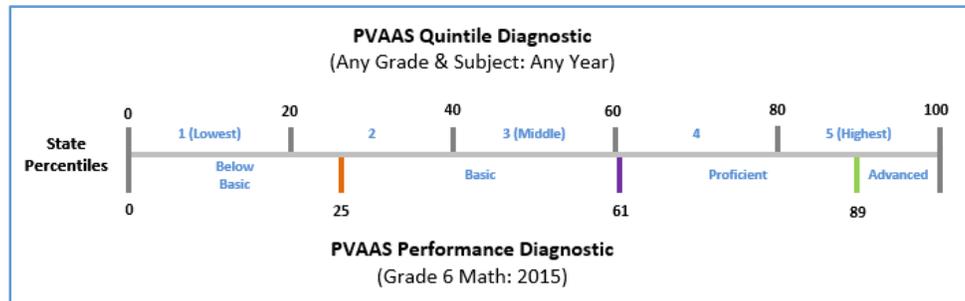
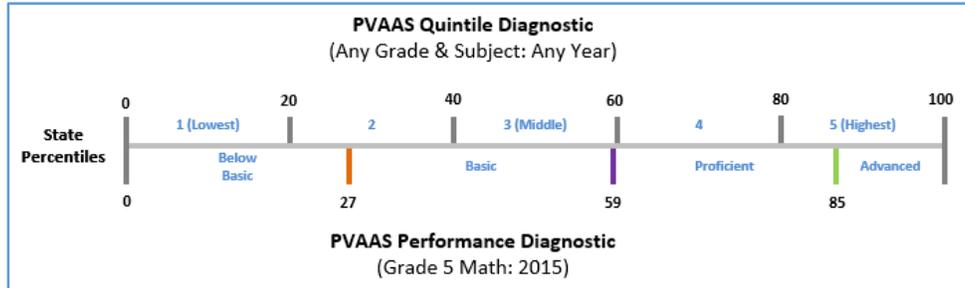
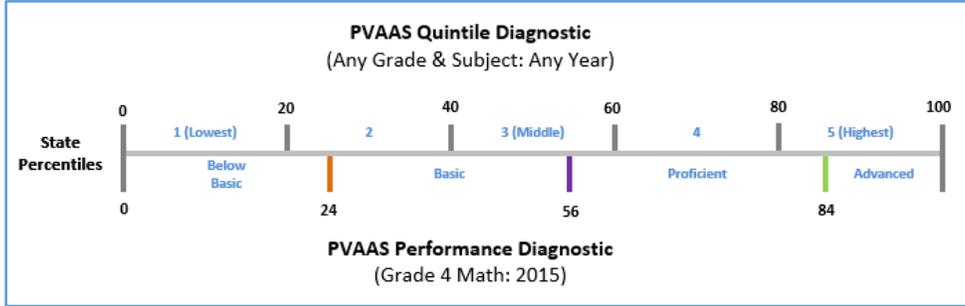
Pennsylvania has identified four levels of academic performance.

- The **Advanced** level reflects superior academic performance. **Advanced** work indicates an in-depth understanding and exemplary display of the skills included in the Assessment Anchors.
- The **Proficient** level reflects satisfactory academic performance. **Proficient** work indicates a solid understanding and adequate display of the skills included in the Assessment Anchors.
- The **Basic** level reflects marginal academic performance. **Basic** work indicates a partial understanding and limited display of the skills included in the Assessment Anchors. This work is approaching but not reaching satisfactory performance. There is a need for additional instructional opportunities and/or increased student academic commitment to achieve the Proficient level.
- The **Below Basic** level reflects inadequate academic performance. **Below Basic** work indicates little understanding and minimal display of the skills included in the Assessment Anchors. There is a major need for additional instructional opportunities and/or increased student academic commitment to achieve the Proficient level.

The validation of performance levels for Mathematics and ELA, utilizing the Bookmark method, took place during the summer of 2015. This validation process involved Pennsylvania teachers, higher education representatives, and members of educational and assessment organizations, such as the National Center for the Improvement of Education Assessment (NCIEA).

Additional information on the PSSA and Pennsylvania's Academic Performance Levels and Performance Level Descriptors can be found on the Pennsylvania Department of Education's Bureau of Assessment and Accountability website, [http://www.education.pa.gov/K-12/Assessment and Accountability](http://www.education.pa.gov/K-12/Assessment%20and%20Accountability).

PSSA Mathematics



PSSA English Language Arts

