

Changes in Pennsylvania's State Assessment System:

Is there an Impact on PVAAS?

PDE's Executive Leadership, PDE's Bureau of Assessment and Accountability, along with the PVAAS Statewide Team, work with SAS EVAAS as any changes are considered or implemented with Pennsylvania's statewide assessment system. This work is done to ensure continued and high quality PVAAS reporting for Pennsylvania. The goal has always been, and will continue to be, to provide fair and meaningful value-added measures for Pennsylvania LEAs/districts, schools, and educators.

Pennsylvania's statewide assessment data is assessed annually to ensure the quality needed to provide value-added reporting at all levels for all students, such as reliability and sufficient stretch to measure the growth of students with higher and lower achievement.

When a gap year occurs in state assessments or a change is made in Pennsylvania's state standards or state assessments, or even if the assessment is being given for the first time in a particular subject, academic growth as measured by PVAAS can be calculated — as long as sufficient evidence exists regarding the relationships between and among the assessments, as well as the strength of these relationships. Examples of these types of scenarios include, but are not limited to:

- A gap year in state assessments occurs (e.g., with extended school closures)
- Assessments change in rigor, or have a change in level of difficulty
- Assessments are transitioned to be aligned to new academic standards
- Assessments are given for the first time statewide in a particular subject, grade level, or course
- Assessments are shortened or lengthened
- Change in modality (i.e., paper-pencil to online)

How can schools be expected to make growth if there is a gap year in state assessments, or if achievement changes significantly statewide?

When a gap occurs in state assessments, such as with extended school closures, it is still possible to measure the academic growth of groups of students in the year the assessments resume — when growth is measured using the PVAAS methodologies. Just like when other types of transitions or changes in testing occur, we may expect the achievement of students to change as a result. Even if the statewide achievement or performance changes significantly, PVAAS assesses whether a group of students exceeded, met, or fell short of the growth standard. For example, when measuring growth for PSSA Math and ELA, *the PVAAS growth models analyze whether the group of students made the same amount growth as students with the average LEA/district, school, student group, or teacher.* If the group of students makes the average amount of growth, relative to the state, then the group of students met the growth standard, even if overall achievement is lower from the prior year.

How does the PVAAS methodology for state assessments address assessment transitions?

The predictive model measures student growth by comparing their actual scores with their predicted scores. These predicted scores are based on each student's own prior test scores from all applicable assessments. This approach to measuring growth does not require consecutive grade assessments, and

it has always been the case that students might not have a prior score in the same subject area in the immediate prior year – a natural “gap year.” For example, for PSSA Science 8 growth measures, there is not a prior test score from PSSA Science 7, but students might have prior test scores from PSSA Math and ELA in grades 3 through 7 and PSSA science in grade 5. These available prior test scores are used to provide the students’ predicted scores. Students are not required to have all predictors or the same set of predictors. They just need to have the minimum required number of prior test scores to generate a predicted score.

Furthermore, the predictive model does not require prior test scores to be on the same scale, with each other or with the students’ actual scores. For example, prior test scores from the PSSA can be used to predict students’ performance on a Keystones assessment even though the scales are different. The important thing is that there is a predictive relationship between the PSSA and Keystones.

Evidence: PVAAS and Pennsylvania’s Assessment Transition in Prior Years

The pie charts on the following page illustrate the distribution of school value-added indicators over three actual school years where a change in state assessments occurred (SY13-14, SY14-15 and SY15-16). This reflects Math and Reading/ELA in grades 4-8. Despite the statewide changes in overall student proficiency from SY13-14 to SY14-15, and from SY14-15 to SY15-16, the distribution of PVAAS value-added indicators has remained consistent (red is the lowest indicator and dark blue is the highest indicator).

