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Overview of PVAAS Reports for Educator Preparation Programs (EPPs)

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What is PVAAS?

- PVAAS = Pennsylvania Value-Added Assessment System.
- Statewide, PVAAS measures student growth on the PSSA- and Keystones-assessed subjects for districts, schools, and teachers.
 - Some LEAs receive student growth measures based on their locally selected assessments, but these are not part of the EPP analysis.
- PVAAS growth measures are available through a secure, hosted website, which also includes many reflective and proactive reports as well as the Act 13 roster verification application (teachers linked to their students).

What is PVAAS?

- PVAAS leverages existing student assessment data to build longitudinal databases that can be used for robust analytics, such as measuring student growth.
- In turn, the growth measures can be used alongside other data, such as the teacher's Educator Prep Program (EPP), to yield insights beyond the LEA/district, school, or classroom.

What is PVAAS?

- PVAAS model output is a measure of student academic growth
 - Based on a group of students in a district, school, or classroom
 - Compares students' predicted score to their actual score
 - Each student's predicted score is based on their full, prior testing history
- Data that are included:
 - Student assessment data
 - Verified student-teacher rosters
 - Demographics and socioeconomic flags
 - Quality checks in underlying source data and in reports

What is PVAAS?

PVAAS is more than a single number

- Analysis is not the end goal.
- However, analytics can:
 - Change the way EPPs view programs.
 - Change the way educators view student learning.
 - Identify patterns or trends across districts, schools, and classrooms by subject, grade and/or student group.
 - Identify strengths and weakness in a district, school or classroom.
 - Open the door to other analytics.
- How do we use these data to improve education?

EPPs

Linking PVAAS to Other Data

- PVAAS opens the door to a wide range of other analytics.
- Insights can be gained beyond the context of a single LEA/district, school, or classroom.
- Consider student growth in the context of:
 - Equity/distribution of teachers among different kinds of schools.
 - Higher education/teacher training programs.
 - Educators' years of experience, retention, or other characteristics.
 - Program evaluation.
 - Connecting the above range of variables, plus others.

How can PVAAS Support EPPs?

- PVAAS teacher-specific growth measures can support EPPs' insight and exploration of their recent completers' experience in classrooms.
- The most recent reports provide aggregated teacher-specific growth measures from 2024-25, 2023-24, and 2022-23 based on EPPs' recent completers.

EPPs

What data are included for each year of results?

Initial subset: EPP completers who completed their degrees within the last five years and began teaching in the last three years.



Second subset: Teachers who had teacher-specific growth measures from the current year.



Result: 3,579 recent completers with 7,251 teacher-specific growth measures in 2023, 2024, and 2025.

Reporting for PDE and EPPs

Overview of the Analysis

- Two levels of comparison:
 - Average growth data for recent completers of an EPP.
 - Average growth data for recent completers across all PA EPPs.
- Two kinds of growth measures:
 - Not adjusted for classroom-level poverty.
 - Adjusted for classroom-level poverty.
- Reported by PSSA content area (ELA, Math, and Science) or Keystone content area (Algebra I, Biology, and Literature).
- Reported for all certification areas and by certification area.

EPPs

Overview of the Analysis

- For each EPP, their completers' associated teacher-specific growth data are averaged together.
- The EPP's average growth is compared to the average growth observed in the state among all students taking a specific assessment in the current year.
 - On average, were completers from this EPP linked to students who made more than, less than, or about average growth compared to all students taking the assessment?
- The analysis is relative to all teachers in the state (not just recent completers).

EPPs

Possible Program Areas

- All program areas
- Biology 7–12
- English 7–12
- Mathematics 7–12
- Social Studies 7–12
- Grades 4–8 (all subjects 4–6, ELA/Reading 7–8)
- Grades 4–8 (all subjects 4–6, Mathematics 7–8)
- Grades 4–8 (all subjects 4–6, Science 7–8)
- Grades 4–8 (all subjects 4–6, Social Studies 7–8)
- Special Education PK–8
- Special Education PK–12
- Special Education Expansion 7–12
- PK–4

EPP Report (pages 1-2)



SAS® EVAAS
EPP ANALYSIS

[INSTITUTION NAME]

Value-Added Data for Pennsylvania Educator Preparation Programs

Since 2006, Pennsylvania educators and administrators have received measures of academic growth based on state-assessed content areas. Available through the Pennsylvania Value-Added Assessment System (PVAAS), these measures focus on the growth of a group of students linked to a specific LEA/district, school, or teacher. Depending on the assessment, growth is measured as *either* the change in achievement from one year to the next *or* the difference between students' predicted and actual scores. These growth measures also provide valuable feedback on student learning, and the impact of curriculum, assessment, and instruction. Teacher-specific growth measures are available for PSSA Mathematics and English Language Arts (ELA) in grades 4–8, PSSA Science in grades 4 and 8¹, and the Keystone content areas of Algebra I, Biology, and Literature. These measures use student-teacher linkages verified by teachers and their administrators.

Through a collaboration between the Pennsylvania Department of Education and PVAAS-provider EVAAS, educator preparation programs (EPPs) across the commonwealth can review aggregated teacher-specific growth measures based on their programs' recent completers. *The information for your institution starts on page 4.*

Data and Methodology

What data is used for the EPP analysis?

This analysis uses teacher-specific single-year growth measures from the 2022-23, 2023-24, and 2024-25 school years. The teacher-specific growth measures are based on value-added models that accommodate intricate student and teacher data. In general, the average change in achievement for a group of students provides the *growth measure*, and this is reported alongside its *standard error*, which indicates the statistical certainty that the growth measure is more than or less than the *growth standard*. This standard is the observed average growth statewide for the students taking a state assessment in the current subject/grade/year (for PSSA) or subject/year (for Keystone). Dividing the growth measure by its standard error provides the *teacher-specific growth index*, which provides a consistent interpretation across different types of assessments and scaling units because it is based on statistical evidence rather than the size of the growth measure. More information about PVAAS and teacher-specific growth reporting is available at <https://pvaas.sas.com>.

Which teachers are included in the EPP analysis?

The 2024-25 single-year EPP analysis uses teacher-specific growth indices for teachers in the Teacher Identification Management System (TIDS) who are EPP completers who completed their degrees within the last five years (2025, 2024, 2023, 2022, or 2021), and have one to three years of experience (in other words, began teaching in 2025, 2024, or 2023).

The 2022-23 and 2023-24 single-year EPP analysis are defined analogously to above. Teachers who did not receive any PVAAS teacher-specific growth measures in the 2022-23, 2023-24, or 2024-25 school year are not included in this analysis. With these conditions, the EPP analysis includes [insert number] teacher-specific growth indices for individual subjects/grades/years (for PSSA) or subjects/years (for Keystone). This represents [insert number] individual teachers, as teachers receive more than one value-added measure if they taught more than one assessed area (such as Mathematics and ELA in grade 5) or if they taught in more than one LEA/district in the school year.

¹ For the purpose of these reports, PSSA Science grade 4 and 8 measures from 2022-23 and 2023-24 will be included. Note that in the 2024-25 school year, there were no growth measures produced for PSSA Science due to field testing for the new grade 5 and 8 assessments.

What comparisons are available?

The EPP analysis provides two types of comparisons: average growth data for recent completers of *your institution* as well as average growth data for recent completers across *all Pennsylvania institutions*. In each comparison, the applicable teacher-specific growth data is compared to the growth standard.

What results are available for each comparison?

The EPP analysis provides two sets of growth data: one that *is not* adjusted for classroom poverty level (defined as the percentage of students who are linked to a specific teacher and are considered economically disadvantaged) and one that *is* adjusted for classroom poverty level. While educators and administrators currently receive only the *unadjusted* growth data in PVAAS, the EPP analysis provides both. The adjusted growth data controls for systematic differences among EPPs in terms of the types of schools their completers tend to teach in. The adjusted growth indices are compared to the growth standard. Both sets of growth data answer the following question: how did students whose teachers are linked to my EPP perform relative to the growth standard? Both sets might be useful in understanding students' growth and the types of student populations that are served by recent graduates of your EPP.

Results

What tables are available?

The tables below provide aggregated teacher-specific growth information for recent completers. As a reference, the first table shows recent completers across all institutions in Pennsylvania, including all programs. The second table shows recent completers of your institution, including all programs. Additional tables show recent completers of your institution by program if sufficient data is available. For all tables, the growth information for each assessed content area is listed separately for 2022-23, 2023-24, and 2024-25.

What information is in the tables?

The Number of Growth Measures column in each table provides the number of teacher-specific growth indices included in the analysis for each assessed area. For example, in the first table, [insert number] teacher-specific growth indices in Algebra I were linked to recent completers across all institutions in 2023, [insert number] teacher-specific growth indices in Biology were linked to recent completers across all institutions in 2023, and so on.

The next two columns provide the average of the completers' teacher-specific growth indices in each assessed area. One column is not adjusted for classroom poverty level, and the other is.

To be included in the growth data, an institution must have at least five teacher-specific growth indices in the assessed area. If that number is not met, the measure is not included.

How can this information be interpreted?

A positive value for growth (unadjusted for poverty or adjusted for poverty) suggests that, on average, recent completers in the assessed area have a higher teacher-specific growth index than the growth standard, which is zero. A negative value for growth (unadjusted for poverty or adjusted for poverty) suggests that, on average, recent completers in the assessed area have a lower teacher-specific growth index than the growth standard.

What is the statistical significance of this information?

Asterisks indicate whether the average growth index is considered statistically significant in terms of being above or below the growth standard. This designation depends on the magnitude of the average growth index as well as on the number of recent completers included in that average and the variability of individual teacher-specific growth indices within the average.

In all the tables, statistical significance of the p-values is indicated by * for $p < 0.10$, ** for $p < 0.05$, and *** for $p < .001$.



EPP Report (pages 3-4)

Growth Across Institutions by Content Area for All Program Areas

Year	Content Area	Number of Growth Measures	Growth Unadjusted for Poverty	Growth Adjusted for Poverty
2023	Algebra I	X	X	X
	Biology	X	X	X
	ELA 4-8	X	X	X
	Literature	X	X	X
	Math 4-8	X	X	X
	Science 4 and 8	X	X	X
2024	Algebra I	X	X	X
	Biology	X	X	X
	ELA 4-8	X	X	X
	Literature	X	X	X
	Math 4-8	X	X	X
	Science 4 and 8	X	X	X
2025	Algebra I	X	X	X
	Biology	X	X	X
	ELA 4-8	X	X	X
	Literature	X	X	X
	Math 4-8	X	X	X
	Science 5 and 8 ¹	N/A	N/A	N/A

The following tables provide information based on recent completers of *your institution only* for the following program areas:

- All program areas
- Biology 7-12
- English 7-12
- Mathematics 7-12
- Social Studies 7-12
- Grades 4-8 (all subjects 4-6, ELA/Reading 7-8)
- Grades 4-8 (all subjects 4-6, Mathematics 7-8)
- Grades 4-8 (all subjects 4-6, Science 7-8)
- Grades 4-8 (all subjects 4-6, Social Studies 7-8)
- Special Education PK-8
- Special Education PK-12
- Special Education Expansion 7-12
- PK-4

If a table for a program area listed above does not appear for your institution, then there was not sufficient data in any content area (Algebra I, Biology, ELA 4-8, Literature, Math 4-8 and Science 4 and 8). Note that a teacher's program area at their EPP might not always align with the content area for which they receive growth measures. For example, it is possible for your institution to have five or more teachers graduate from a program area like Social Studies 7-12 who all now teach and receive growth results for the ELA 4-8 content area.

Growth at Your Institution by Content Area for [insert program area]

Year	Content Area	Number of Growth Measures	Growth Unadjusted for Poverty	Growth Adjusted for Poverty
2023	X	X	X	X
2024	X	X	X	X
2025	X	X	X	X

EPPs

Template for Growth Across Institutions

Growth Across Institutions by Content Area for All Program Areas

Year	Content Area	Number of Growth Measures	Growth Unadjusted for Poverty	Growth Adjusted for Poverty
2023	Algebra I	X	X	X
	Biology	X	X	X
	ELA 4-8	X	X	X
	Literature	X	X	X
	Math 4-8	X	X	X
	Science 4 and 8	X	X	X
2024	Algebra I	X	X	X
	Biology	X	X	X
	ELA 4-8	X	X	X
	Literature	X	X	X
	Math 4-8	X	X	X
	Science 4 and 8	X	X	X
2025	Algebra I	X	X	X
	Biology	X	X	X
	ELA 4-8	X	X	X
	Literature	X	X	X
	Math 4-8	X	X	X
	Science 5 and 8 ¹	N/A	N/A	N/A

The following tables provide information based on recent completers of *your institution only* for the following program

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Template for Growth at an EPP for a specific program area

Growth at Your Institution by Content Area for [insert program area]

Year	Content Area	Number of Growth Measures	Growth Unadjusted for Poverty	Growth Adjusted for Poverty
2023	X	X	X	X
2024	X	X	X	X
2025	X	X	X	X

EPPs

Distribution of the Reports

- SAS annually provides the EPP reports to PDE to distribute to the EPPs.
 - Report includes their specific data as well as an overview of the data, methods, and output.
 - Analysis is refreshed each year after new teacher-specific growth data becomes available.
- Over the years, SAS has provided both webinars and in-person sessions with EPPs to explain the report and answer questions.

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Any questions?

