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Frequently Asked Questions about Student Growth Percentiles

The Virginia Department of Education (VDOE) calculates student growth percentiles for students who take reading and mathematics Standards of Learning (SOL) tests in grades 4-8 and for students tested in Algebra I before grade 10. School divisions are given access to three reports through a secure VDOE web portal:

- Growth Measure Summary Report — Aggregate student growth percentile and proficiency data for all subgroups by school year, division, school and subject area.
- Student-Level Growth by School — Data organized by school year, school division, grade standard, school name and subject area (reports do not include teacher data).
- Student-Level Growth by Teacher — Student-level growth data linked to teachers through the Master Schedule Collection.

Student growth percentile reports are available to teachers as authorized locally.

Why did VDOE calculate student growth percentiles?

Analysis of student growth percentile data can help educators identify best practices, evaluate teacher effectiveness and plan data-driven professional development that meets the needs of educators and students. The Board of Education's guidance for the evaluation of teachers and principals recommends the use of student growth percentile data when available and appropriate, as determined by the division. According to the board's guidance, use of student growth percentiles is appropriate if:

- Data from at least 40 students are available;
- Data are from students representative of those taught by the teacher; and
- Data from at least two years are available with the use of data from three years recommended whenever possible.

In addition, education-related provisions of the federal American Recovery and Reinvestment Act of 2009, required states to provide student growth data to help school divisions quantify the impact of individual teachers on student achievement. And the appropriate use of student growth percentiles in evaluations — as determined by divisions following state law and guidance — is required under Virginia's federal Elementary and Secondary Education Act flexibility waiver.

What is a student growth percentile?

A growth percentile expresses how much progress a student has made in either reading or mathematics relative to the progress of students whose achievement was similar on previous assessments.

There are many different sources of information that must be considered when evaluating school and teacher quality. Student growth percentile data represent only one component and should not be used in isolation from other indicators and contextual factors.

Student growth percentiles are calculated by identifying all students in the state whose previous SOL scaled scores in a subject are statistically similar and, then, comparing the achievement of these students on the next grade-level test. The achievement of each student relative to that of the other students in the group is expressed as a percentile.

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Student growth percentiles range from 1 to 99, and represent the percent of students who had similar prior academic achievement (based on SOL tests) and earned lower scores on the most recent test in the content area. Higher numbers represent higher growth and lower numbers represent lower growth. For example, a student with a student growth percentile of 65 demonstrated more growth than 65 percent of students who had similar prior achievement, while a classmate with a student growth percentile of 13 showed more growth than 13 percent of students with similar achievement histories.

Why do some students have student growth percentiles and others do not?

Student growth percentiles are only calculated for students who take reading and mathematics SOL tests in grades 4-8 and for students tested in Algebra I before grade 10. Because of this, results are available for fewer than 30 percent of Virginia's teachers. Also, a student must have at least two years of consecutive SOL scores in a subject area in order to have a growth percentile. High-achieving students with two or more consecutive years of SOL scores in the advanced proficient range do not receive growth percentiles.

Why didn't VDOE release student growth percentile data to the public?

Student-Level Growth by School reports and Student-Level Growth by Teacher reports available to school divisions include personally identifiable student information, including names and demographic characteristics, and were considered scholastic records, and exempt from release under the Virginia Freedom of Information Act.

The commonwealth's open records law also includes an exemption for personnel records, such as information used to evaluate the performance of individual teachers and principals.

In addition, before using Student-Level Growth by Teacher reports in evaluations, school divisions must review the data and verify that the reports match students to the correct teachers.

Why is VDOE adopting another measure for student growth for 2015-2016?

Since VDOE began calculating student growth percentiles in 2011, several limitations to the usefulness of these reports have become apparent.

- Because student growth percentiles compare individual student performance with the achievement of students with similar score histories, reports cannot be prepared until all statewide reading and mathematics SOL data are available in August.
- As a result, student growth percentiles are not available to divisions until the following school year — too late for teacher and principal evaluations, which typically take place in early spring.
- Because student growth percentiles provide a norm-referenced measure of growth, teachers and students are not aware in advance of scores required for students to be considered as having made growth during the school year.
- Student growth percentiles cannot be calculated for Virginia's alternate assessments.

After researching other growth models, VDOE has determined that [value tables](#) (also known as progress tables) would provide teachers and principals with more useful growth data. Value tables, unlike student growth percentiles, are based solely on individual student performance from one year to the next and account for each student advancing toward proficiency in reading or mathematics.

Virginia plans to begin using value tables as a measure of student growth in 2015-2016.