

Progress Tables (Value Tables): Another Measure of Student Growth

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Student Growth Percentiles

- For the past several years Virginia has used student growth percentiles (SGPs) as a measure of growth for its reading and mathematics tests.
- SGPs measure growth by comparing individual student performance to that of other students with similar score histories.
- Because of this comparison, SGPs must be calculated each year, and the calculations cannot be prepared until all statewide data are available. This requirement has resulted in growth information not being available to school districts until the early fall of the next school year.

Transition to Progress Tables

- Because of limitations of SGPs, Department of Education (DOE) staff have been investigating other growth models.
- The progress table model was selected because it accounts for student success in closing the achievement gap, is more understandable, and is available for more students.

Transition to Progress Tables

- In the progress table model, student growth is determined by comparing the student's test score in the current year to his/her prior test score.
- VDOE plans to transition to the use of progress tables as a growth measure in the 2015-2106 school year.

Change in ESEA Waiver

- The current ESEA waiver identifies SGPs as the growth measure used in Virginia.
- Because of the planned transition to progress tables in 2015-2016, information about the planned change is included in the current ESEA waiver application.
- In the ESEA waiver application, “progress tables” are referred to as “value tables” as this is the technical term.

Development of Progress Tables Using Performance Levels

Progress tables were developed using the performance levels established for SOL tests.

Virginia Reading SOL Cut Scores

Grade	Below Basic	Basic	Proficient	Advanced
3	0-309	310-399	400-499	500-600
4	0-302	303-399	400-499	500-600
5	0-294	295-399	400-499	500-600
6	0-316	317-399	400-499	500-600
7	0-314	315-399	400-499	500-600
8	0-316	317-399	400-499	500-600

Development of Sub-levels for Progress Tables

- Each performance level (Below Basic, Basic, Proficient, and Advanced) was divided into two sub-levels: Low and High
- Use of sub-levels allows more opportunity for students to demonstrate growth

Performance Sub-Levels

Virginia Reading SOL Cut Scores

Grade	Below Basic		Basic		Proficient		Advanced	
	Low	High	Low	High	Low	High	Low	High
3	0-280	281-309	310-361	362-399	400-438	439-499	500-511	512-600
4	0-277	278-302	303-359	360-399	400-438	439-499	500-512	513-600
5	0-270	271-294	295-360	361-399	400-438	439-499	500-512	513-600
6	0-291	292-316	317-364	365-399	400-440	441-499	500-511	512-600
7	0-291	292-314	315-365	366-399	400-440	441-499	500-511	512-600
8	0-293	294-316	317-366	367-399	400-438	439-499	500-507	508-600

Determining Growth

- Growth is measured by the number of performance sub-levels a student advances toward demonstrating proficiency of the state standards.
- For example, a student whose grade 3 Reading SOL score was in the “Below Basic – High” performance sub-level and whose grade 4 Reading SOL score was in the “Basic – High” performance sub-level improved by two sub-levels.

Progress Table Example

			Current Year								
			Below Basic		Basic		Proficient		Advanced		
			Low	High	Low	High	Low	High	Low	High	
Previous Year	Below Basic	Low									
		High									
	Basic	Low									
		High									
	Proficient	Low									
		High									
	Advanced	Low									
		High									

Progress Table Example

			Current Year								
			Below Basic		Basic		Proficient		Advanced		
			Low	High	Low	High	Low	High	Low	High	
Previous Year	Below Basic	Low									
		High									
	Basic	Low									
		High									
	Proficient	Low									
		High									
	Advanced	Low									
		High									

The table illustrates a progression path for a student. A red dashed circle highlights the 'High' level of 'Below Basic' in the current year. A red dashed arrow points from this cell to the 'High' level of 'Basic' in the current year. A red dashed arrow also points from the 'High' level of 'Basic' in the current year to the 'High' level of 'Basic' in the previous year. A red dashed arrow points from the 'High' level of 'Basic' in the previous year to the 'Low' level of 'Basic' in the previous year. A red dashed arrow points from the 'Low' level of 'Basic' in the previous year to the 'High' level of 'Basic' in the previous year. A red dashed arrow points from the 'High' level of 'Basic' in the previous year to the 'Low' level of 'Basic' in the previous year. A red dashed arrow points from the 'Low' level of 'Basic' in the previous year to the 'High' level of 'Basic' in the previous year.

Progress Table Growth Labels

Growth is classified into four categories for students who have not demonstrated proficiency of the state standards. The Growth Labels are as follows:

- **Blue**: increased three performance sub-levels
- **Yellow**: increased two performance sub-levels
- **Green**: increased one performance sub-level
- **Gray**: maintained the same sub-performance level or did not show growth

Advantages of Progress Tables

Provide for maximum transparency and validity

- The process for determining student growth is more easily understood.
- Progress tables are meaningful at the student, group, teacher, school and division level.
- Students and teachers will know in advance what score on the current year's test will be necessary to show growth.
- Student progress is determined by comparing the student to his/her prior performance.
- Change in performance level is calculated for each student who has not demonstrated proficiency on the state standards for two consecutive years.

Advantages of Progress Tables - continued -

- Maintains rigorous standards for student growth.
- Growth data from the value tables should be available soon after the student finishes testing rather than waiting until all test data are available.

Advantages of Progress Tables - continued -

- Applicable to regular, alternate and alternative assessments:

Standards of Learning (SOL):

- Grades 3-8 Reading
- Grades 3-8 Mathematics, Algebra I (Perhaps Geometry and Algebra II, as well)

Virginia Grade Level Alternative (VGLA):

- Grades 3-8 Reading

Virginia Alternate Assessment Program (VAAP):

- Grades 3-8 Reading
- Grades 3-8 Mathematics

Potential Application to Accreditation

- The growth measure derived from the Progress Tables could be used to create an “adjusted” accreditation pass rate.
- This adjusted pass rate might be used to identify schools that eligible for a new accreditation pass rate that would recognize students who failed the tests but made significant growth toward proficiency.

Potential Application to Accreditation

- In the current calculation of the accreditation pass rate, a passing student counts as “one passer” in the numerator of the pass rate. In order to account for students working toward demonstrating proficiency, partial credit could be awarded for sub-level growth.
- For example, partial points for growth could be awarded for student progress as shown below:
 - a student who fails but progresses three sub-levels would count as 0.75,
 - a student who progresses two sub-levels would count as 0.5, and
 - a student who progresses one sub-level would count as 0.25.

Potential Application to Accreditation

Using the “partial point for growth” logic, the accreditation pass rate could be adjusted in the following manner to account for growth:

$$\text{Accreditation Pass Rate} + \frac{[(\# \text{ moving 3 levels} \times 0.75) + (\# \text{ moving 2 levels} \times 0.5) + (\# \text{ moving 1 level} \times 0.25)]}{\# \text{ of failing students}}$$

Accreditation Example

- School had an accreditation pass rate of **45%** in mathematics.
- Growth Adjustment
 - 2 failing students moved 3 sub-levels (.75 point)
 - 22 failing students moved 2 sub-levels (.5 point)
 - 57 failing students moved 1 sub-level (.25point)
- Pass rate adjusted to recognize growth is **55%**

Progress Tables and Evaluation

- Utilizing growth measures as part of the teacher evaluation process may be accomplished by calculating the aggregate growth of the students in the teacher's class.
- Similarly, growth measures may be used as part of the principal evaluation process by aggregating the growth demonstrated by students in the principal's school.

Other States

Progress tables have been used in a number of states, including:

- Arkansas
- Delaware
- Florida
- Iowa
- Michigan
- Minnesota
- New Hampshire
- Texas
- Puerto Rico

Questions?

