Measures of Learning
State Approaches for Gauging Student Growth in New Evaluation Systems
October 2013

States increasingly understand that nothing in a school impacts student learning more than effective teaching. As a consequence, they are redesigning their educator effectiveness systems to provide more information and support to improve teaching. In doing so, they are looking beyond how many students "passed" the State test to embrace different methods for measuring growth in student achievement.

Through signature initiatives like Race to the Top and ESEA flexibility, 40 States and the District of Columbia are developing teacher and principal evaluation and support systems based on multiple measures, including student growth, that meaningfully differentiate performance. These systems will provide teachers and leaders with clear, timely and useful feedback, as well as targeted supports to improve instructional and leadership practices. Both Federal initiatives require including student growth as a significant factor and basing systems on statewide assessments in reading and math for teachers of tested grades and subjects.

Strategies for Measuring Student Growth

States have introduced student growth measures into educator evaluation and support in several ways:

Value-Added Models

One common way to measure student growth is using "value-added models" (VAMs). There are many ways to construct VAMs, but they typically rely on two or more years' data from State assessments administered in consecutive grades. The Elementary and Secondary Education Act (ESEA) requires States to assess student achievement in reading and math in third through eighth grade and once in high school, and in science twice in grades four through eight, and once in high school. VAMs begin with the data from these statewide tests and, depending on the specific model, may include other factors. Using these data, VAMs predict what student growth can be expected from an average or typical teacher, and then compare actual student achievement with that prediction. A teacher's value-added score is intended to convey how much an individual teacher contributes to student learning in a particular subject in a particular year. Student characteristics are factored into value-added scores, making it possible to compare teachers whose classes have students with different characteristics. Teachers who produce more growth than a typical teacher are thought to have added greater value.

- **New York** is rolling out a VAM for use in 2014-2015. Value-added growth scores will count for 25 points of an educator's evaluation.

- **Colorado** uses a "growth model" as an alternative to VAMs, to calculate growth on State tests. While 50 percent of an educator's evaluation is based on student academic growth, school districts have significant latitude in determining how much to weight student growth scores on State tests, among multiple measures of student academic growth.
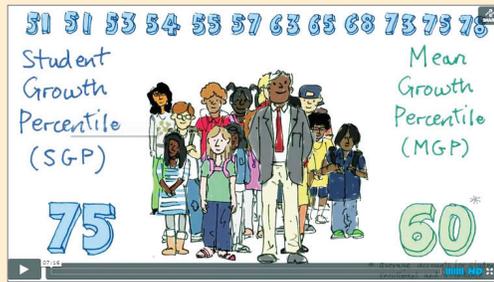
New York's **engageNY** website offers a collection of resources on growth measures including a short informative video.

Colorado's **"Measures of Student Learning"** webpage provides a host of information and resources on student growth.

Measuring Student Growth in Non-Tested Grades and Subjects

In subjects and grades without a State assessment (non-tested grades and subjects), States are working to create other options for measuring student growth, as in the following examples:

Delaware's work on assessing performance in non-tested grades and subjects is highlighted in a U.S. Department of Education **brief**.

Tennessee has developed a **Scoring Guide** for evaluating non-tested subjects.

- **Delaware** engaged 600 educators over the course of a year to develop local assessments for non-tested grades and subjects from the ground up. The State provided initial professional development, and then charged 43 working groups with creating complete assessment packages that included test items and growth goals specifying targets and evidence.

- **Tennessee** enlisted a working group of fine arts educators to develop a portfolio system as an alternative assessment to satisfy the student growth component of its evaluations. The portfolios consist of student work demonstrating growth in the arts, with the requirement that they measure college- and career-ready standards and can be compared across classrooms. The portfolios undergo review by a student's teacher and another educator who does not know the student; substantial differences in those reviews trigger more "blind" reviews.

Student Learning Objectives

Many States also are employing "student learning objectives" (SLOs) as a means to measure student growth, especially in non-tested grades and subjects. An SLO refers to a process in which teachers and principals set a specific learning goal and a specific measure of student learning used to track progress toward that goal. Progress can be measured in different ways: an end-of-course exam given by teachers, a portfolio of student work or even a State test. Many States and districts are choosing SLOs to measure student growth because they let teachers participate in determining how best to measure the learning of their specific student population, while providing a consistent process for all teachers across a State. The U.S. Department of Education has created a toolkit to help States develop an SLO approach and an online library of annotated SLOs from 12 States to allow those who are creating or who already have created SLOs to learn from each other and fine-tune their work.

- **Ohio** uses SLOs as one of three options for measuring student growth among teachers of non-tested subjects. The assessments or underlying measures for SLOs may include district-approved, locally developed assessments; pre- and post-assessments; performance-based assessments; portfolios; and commercial assessments not on the Ohio Department of Education's approved list.

- **Rhode Island** asks all teachers, not just teachers of non-tested grades and subjects, to create two to four SLOs. They recommend that teachers should, wherever possible, collaborate with grade, subject-area, or course colleagues to set SLOs. Teachers can choose the assessment(s) they use for SLOs as long as they meet the State's criteria for high-quality assessments. The State also provides teachers and principals with an approval checklist (page 25) and a "quality check tool" to promote consistency and rigor of the process.

Targeting Growth describes the key elements of Student Learning Objectives (SLOs) and some challenges in using them to measure student growth.

The Reform Support Network created this toolkit, which includes templates, samples and other resources, to help States and school districts create high-quality Student Learning Objectives.
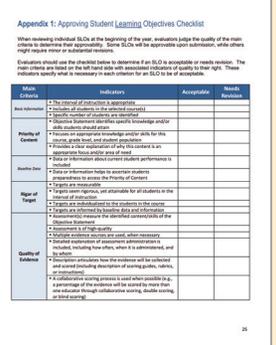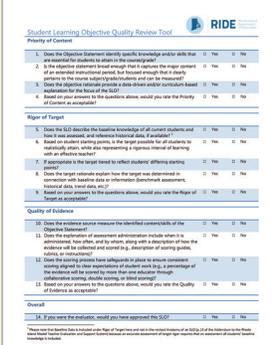

Rhode Island has created resources such as an approval checklist (left) and a "quality check tool" (right) for teachers and principals.

Communicating Student Growth Measures

Using Data to Improve Teacher Practice

States are collecting new, important data about student growth measures at the educator, school and district levels, as well as data about the new evaluation systems as a whole. The U.S. Department of Education is supporting States in these efforts. In the 2012-2013 school year, the Department brought together State education leaders and experts to analyze teacher evaluation ratings — including growth scores, ratings from two State educator evaluation and support systems — and craft a set of strategic options States can employ to boost the accuracy of their evaluations and better align their student growth data with other key measures of teacher effectiveness. These strategies include establishing a process for monitoring the correlation between student outcomes and evaluations ratings, training and retraining evaluators, and using a data dashboard to track and share evaluation data. In this vein, the Department is also working with States on a model data dashboard to increase access to the most important evaluation information — the first step in promoting its greater use.

Communicating Change

Public education systems are changing rapidly, and one place where the change is most rapid is in the way evaluation systems for teachers and principals incorporate student growth data. States can use communications and engagement strategies to create clear expectations among practitioners so that the new systems are implemented with care. To help States explain VAMs and other models of student growth, the U.S. Department of Education has created a primer that explains the basics in terms of the questions about student achievement that each model can help answer.

Measuring Teaching Matters describes the most prevalent kinds of value-added models (VAMs) being used in teacher evaluation systems and summarizes research on what VAMs offer in understanding teacher performance.

This brief developed by the Reform Support Network describes seven strategic options for States and school districts implementing new teacher evaluation systems to ensure the quality of classroom observations.

The Department also has convened State leaders and worked with States to organize a toolkit of resources that help engage educators around new evaluation systems. The tools inform teachers and create feedback loops engaging educators to share their experiences in ways that can drive improvements to new systems.
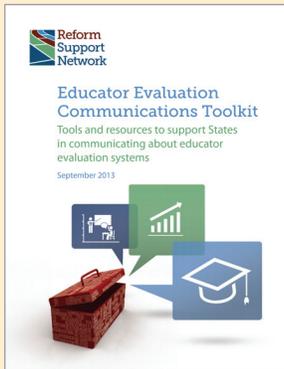
Developed by Reform Support Network experts and leaders from Race to the Top States, this toolkit offers resources to communicate about teacher evaluation systems with a range of audiences, paying special attention to teachers.

Based on a meeting of leaders from five Race to the Top States and communications experts, this brief describes content teachers need most and the ways to distribute it that they have used in pursuit of meaningful engagement.

Key Considerations in Measuring Student Growth

Measuring student growth represents an important new lens on teaching and learning, one that allows for more substantial fine-tuning of instruction than simple calculation of passing rates on State tests permits. The trend also is prompting States to develop and adopt new ways to measure student growth that go beyond large-scale assessments.

The Department has worked with States as they connect student growth and educator effectiveness. In that work, State leaders have found these key considerations helpful to explore as they refine measures and their use:

- How will student growth as a significant factor be determined for teachers of tested and non-tested grades and subjects?

- How will these measures fit within the current portfolio of assessments? Will the State create additional assessments, or aim to use measures of student growth without adding additional tests for students?

- Who will develop the new measures — individual teachers, schools, districts or States?