Update from the Student Growth Workgroup

Presentation

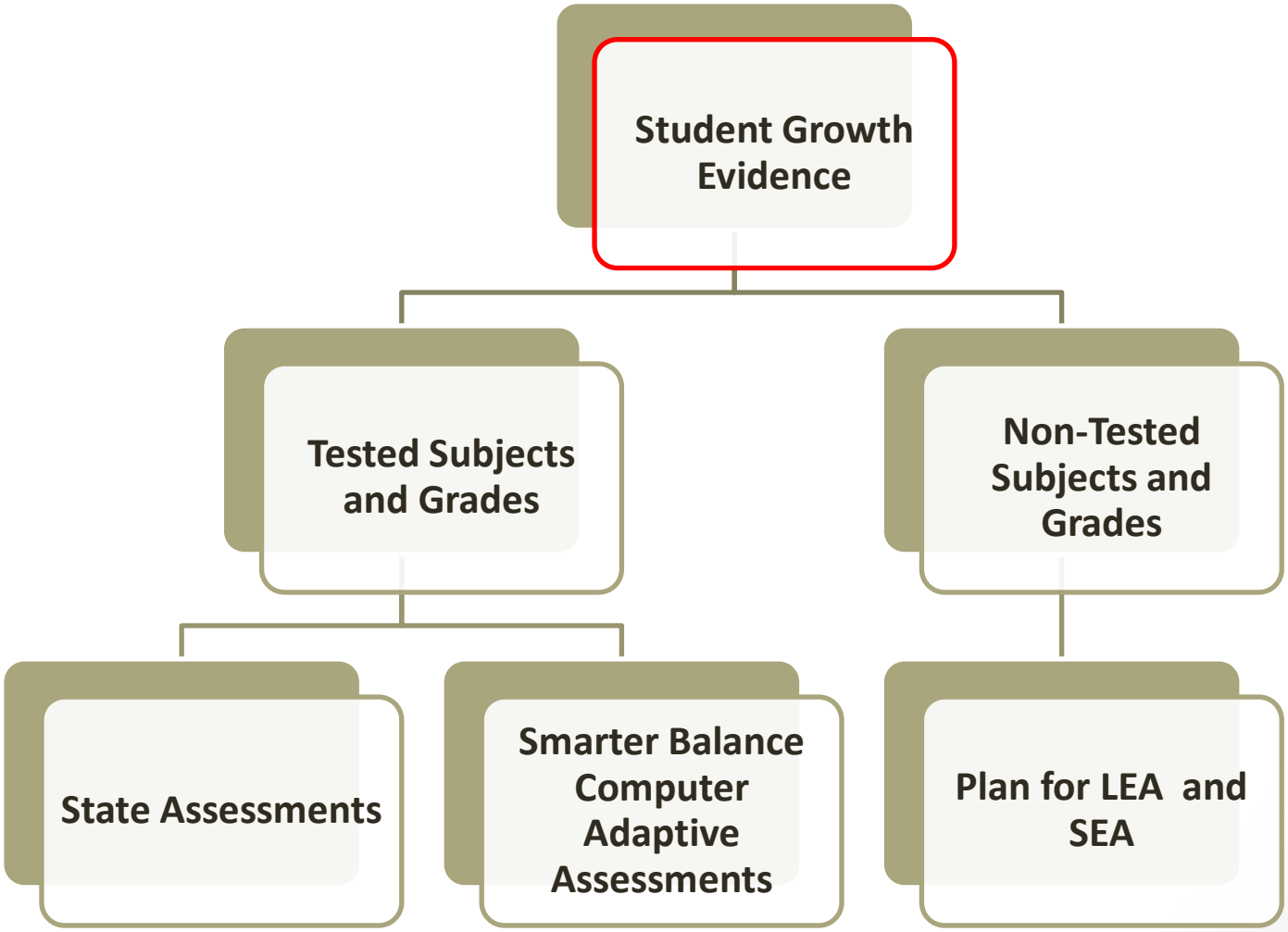
Spring Educator Evaluation Summit

April 24, 2012

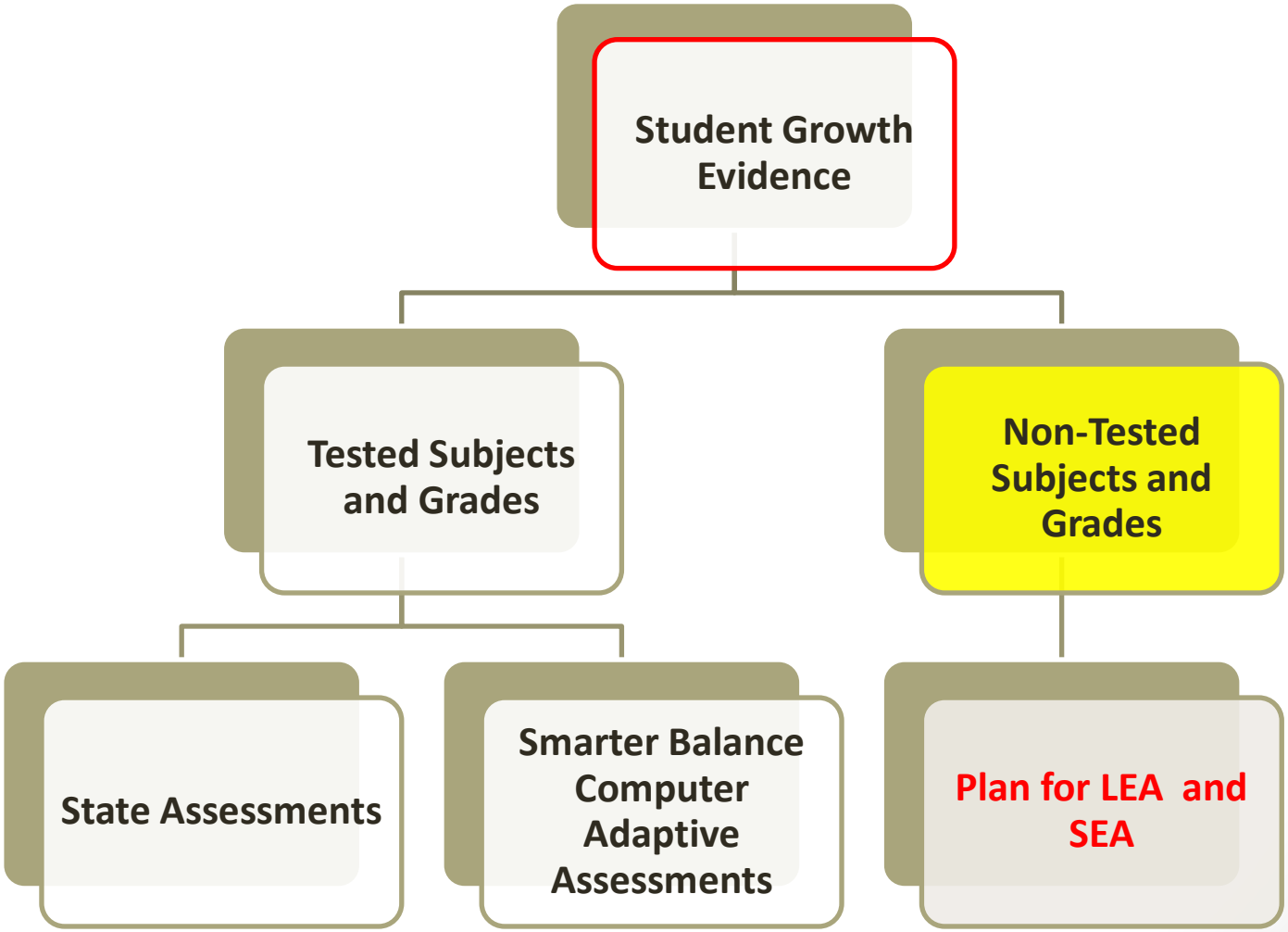
Purpose for the Student Growth Workgroup

- Overall charge: Make recommendations for student growth measurements for tested and non-tested subjects and grades and how they will be used to measure teacher and leader performance in educator evaluation systems

Graphic Depiction of the Work



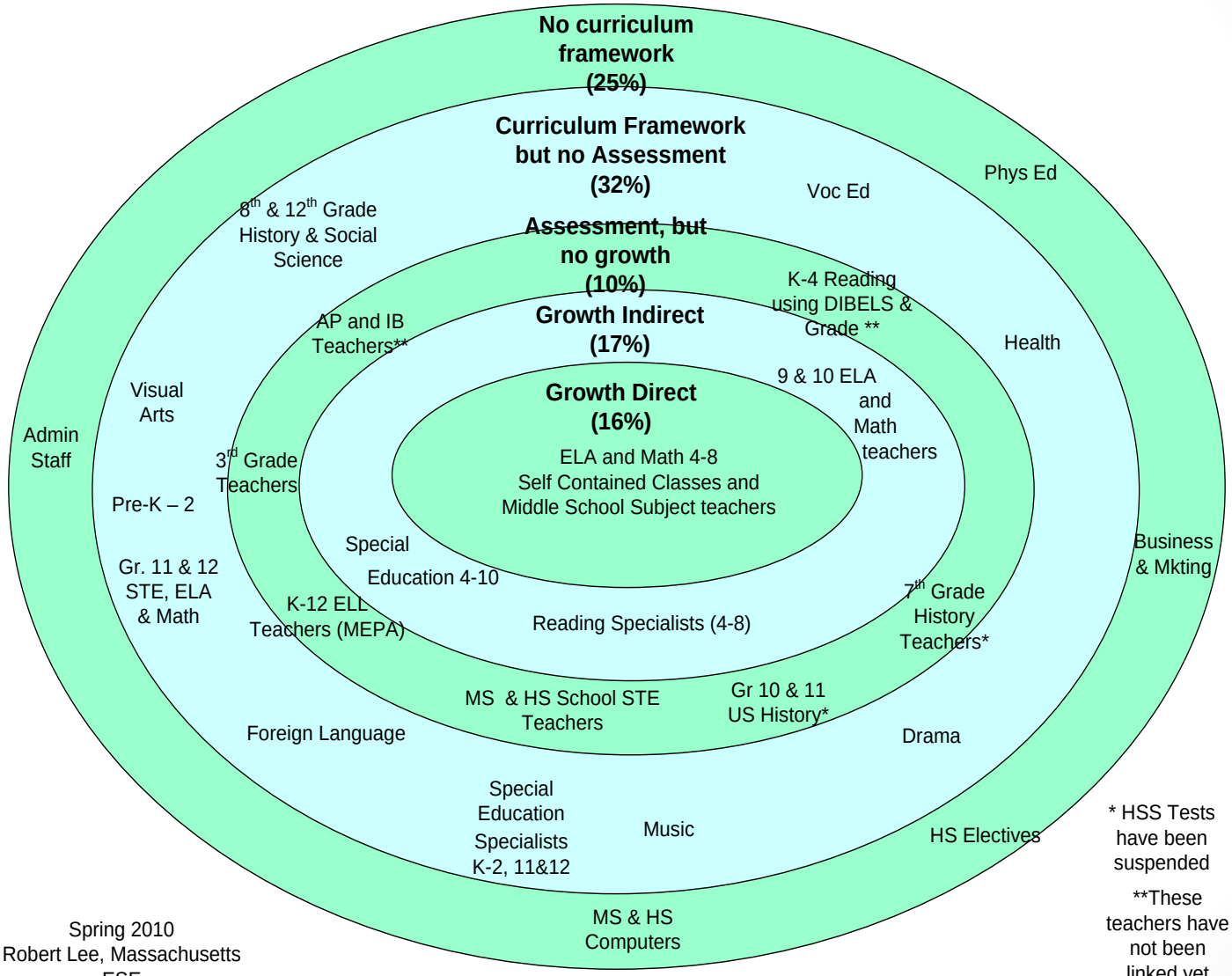
Not easy work…



Non-tested Subjects and Grades Start with a Definition

- **Non-tested subjects & grades (NTSG)**: These are all the courses, subject areas, and grade levels **without** at least two consecutive years of **state-level standardized tests** in the same content area.

Mapping educators to standards, assessments & growth (Lee, 2010, based on preliminary data from MA DOE)



Spring 2010
Robert Lee, Massachusetts ESE

* HSS Tests have been suspended

**These teachers have not been linked yet

To measure student growth and learning, the workgroup recommends:

1. **Tested Subjects and Grades:** *Assess using state developed standardized assessments (such as CRTs, computer-adaptive tests, common interim assessments) and use the analytic method of* ***Student Growth Percentiles****;*

2. **Non-tested Subjects and Grades:** *Assess using individual, school or classroom –based assessments, and /or common district assessments that are summative or interim in nature and use the analytic method of* ***Student Learning Objectives.***

The rest of the time we will be discussing…

- Student Growth Percentiles
- Student Learning Objectives
- Timeframe for Implementation (and Pilot)
- The Role of the State and the Districts

Dr. Chris Domaleski, Center for Assessment

Student Growth Percentiles

An Overview and Considerations for Incorporation in Utah's Educator Evaluation System

Utah Educator Evaluation Summit

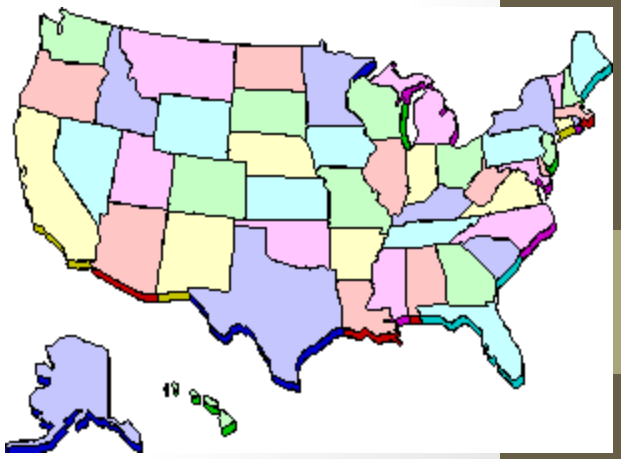
April 24, 2012

Overview of Presentation

- Provide an overview of the Student Growth Percentile (SGP)
  - What is it?
  - Why is it a promising approach for Utah?
  - How is it produced?
  - How is it properly interpreted and utilized?
- Look ahead to important considerations related to using growth as part of an educator evaluation system.
  - Addressing attribution
  - Setting performance expectations
  - Incorporating in the system
  - Evaluating outcomes

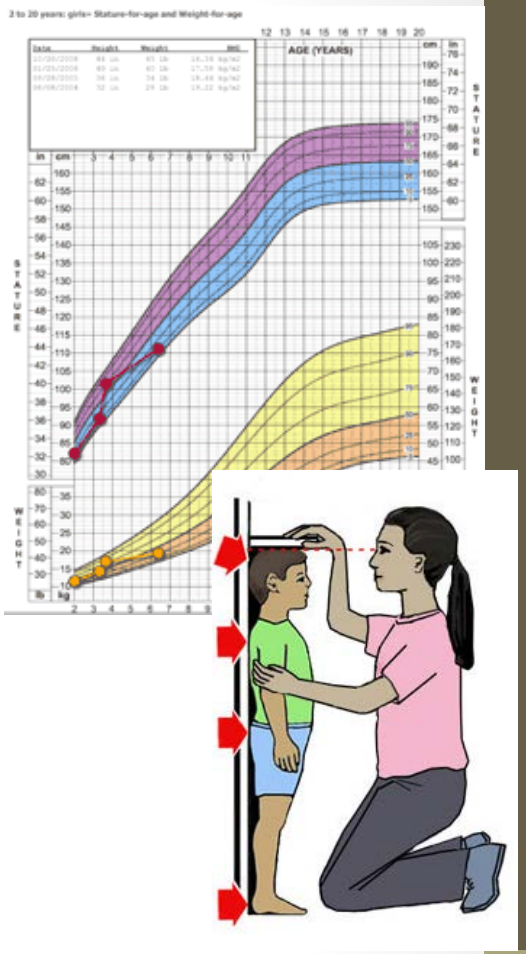
What is an SGP?

- The Student Growth Percentile (SGP) quantifies the academic progress of individual students or groups of students (median SGP).
- More formally, it is a regression based measure of growth that works by conditioning current achievement on prior achievement and describing performance relative to other students with identical prior achievement histories.



Interpreting SGPs

- Like a pediatric growth chart that indicates the probability of growth in height based on age, SGPs can be used to indicate the probability of an academic outcome (test score) based on the student's prior scores.
- A child that is in the 70th percentile in height is as tall or taller than 70% of other children of the same age. Similarly, a student growth percentile of 70 indicates the student grew more than 70% of his or her academic peers.



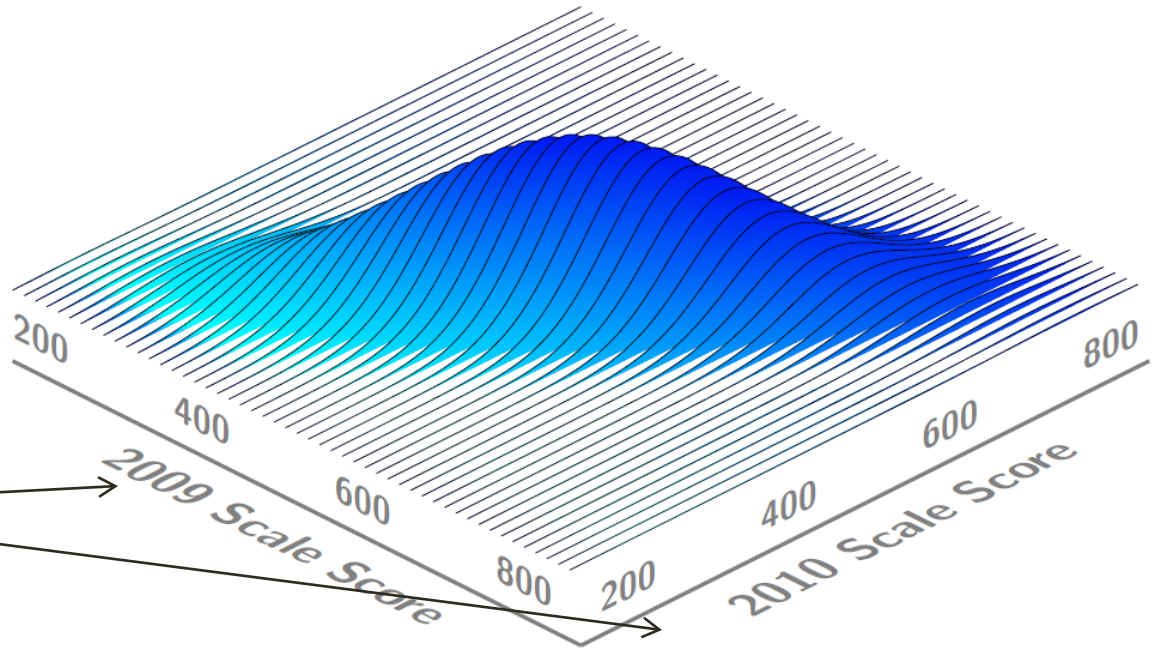
Strengths of SGP

- Relative growth - as opposed to absolute growth (e.g. ‘subtraction’) - accounts for different expectations based on starting position.
  - For example, we differently regard an one inch improvement in high jump performance for the elite athlete in contrast with a novice
- SGPs allow for meaningful differentiation of performance for students across the full distribution. For example, SGPs can account for ‘ceiling effects.’
- Based on multiple prior scores, which increases precision.
- Interpretation is straightforward (e.g. ‘years worth of growth’).
- Can be meaningfully related to ‘criterion-referenced’ expectations.

How does it work?

Think of a group of students, where each student has two test scores – one for 2009 and one for 2010.

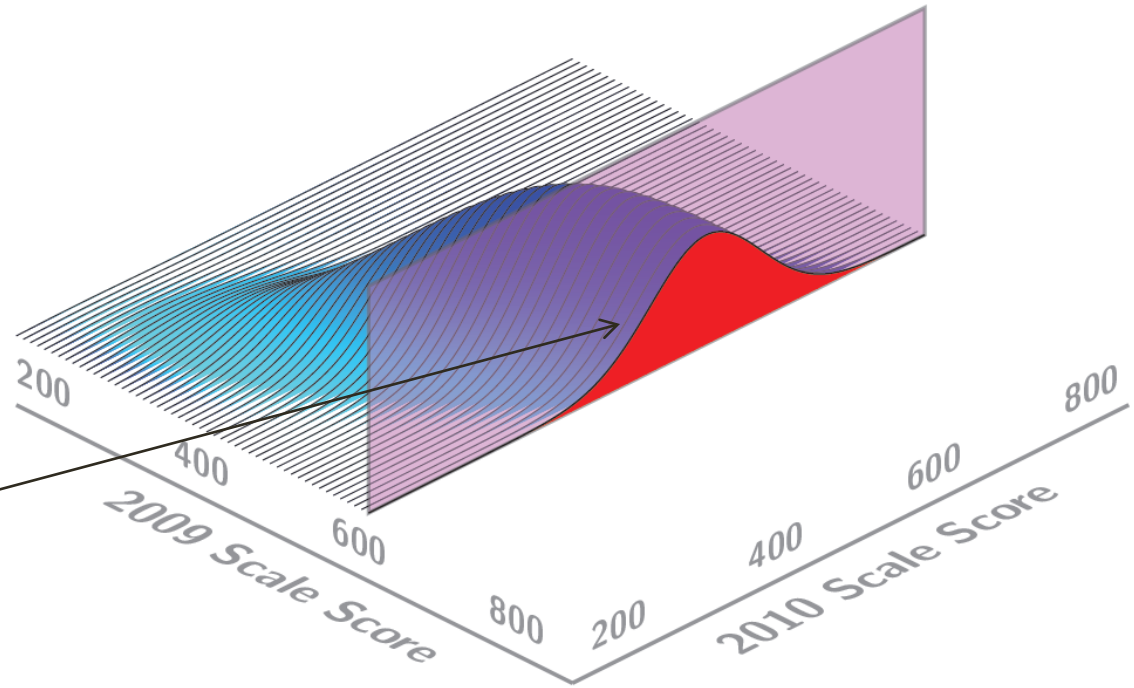
We could show the distribution of these scores at the same time as pictured.



How does it work?

We could ‘slice’ through the picture to show the 2010 distribution for just one 2009 score. This is called a conditional distribution.

The red shaded curve shows the conditional distribution in 2010 for all students who scored 600 in 2009.

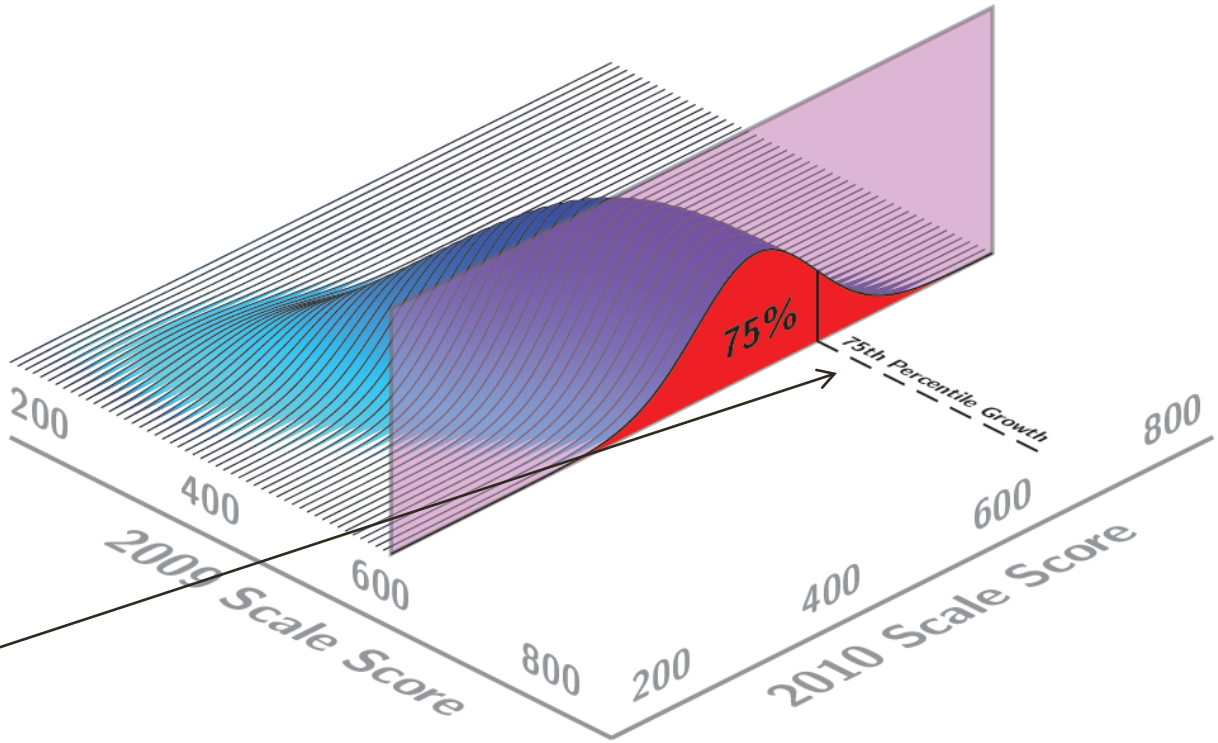


How does it work?

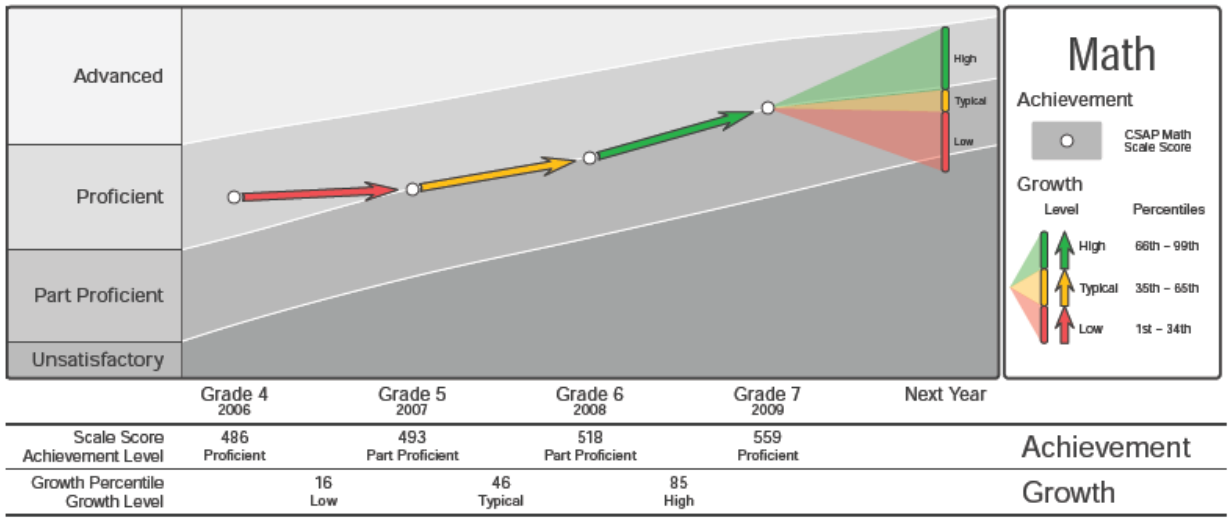
Assume we are interested in just one score, 650, in 2010.

We could ask, what percentage of students who scored 600 in 2009 scored at or below a 650 in 2010?

In this case, that turns out to be 75%. In other words, a score of 650 is at the 75th percentile.



Interpretation and Use



Importantly, SGPs should facilitate meaningful conversations about the student's prior achievement and how to support target outcomes. For example, a teacher might ask:

- Did my students make sufficient growth toward meeting state standards?
- Did my students make as much progress as students in other classrooms within my school or across schools?
- Did my students learn as much in mathematics as they did in reading?
- Are there students with unusually low growth who need special attention?

Incorporating Growth in Educator Evaluation

- Importantly, identifying an analytic approach to growth is a small part of a much larger initiative.
- Moving forward a number of considerations must be addressed to include:
  - Addressing attribution
  - Setting performance expectations
  - Incorporating in the full system
  - Evaluating outcomes

Attribution

- Attribution: linking outcomes to classes
  - Data system requirements
  - Defining ‘teacher of record’
    - E.g. Multiple educators contributing to instruction
  - Dealing with student mobility
  - Limited grades/ subject areas covered by state tests

Performance Expectations

- How will growth be used to inform decisions about educators?
  - What is ‘good enough’ growth?
  - What level of precision/ consistency will be required to support decisions?
  - What additional evidence will be necessary to support/ confirm outcomes?

Incorporating in the Full System

- A comprehensive and defensible system incorporates multiple measures that go beyond student performance on state tests.
  - What evidence will be used?
    - Observations
    - Stakeholder input
    - Student Learning Objectives (SLO)
  - How will each component be valued (e.g. weighted)?
  - How will multiple (sometimes different) sources of evidence be combined to support an overall summative rating?

Monitoring and Evaluation

- Establish criteria to determine if results are reasonable.
- Safeguards against unintended consequences.
- Develop methods and standards to assess the precision and stability of results.
- Ongoing data collection and review for continuous improvement.

The Basics of SLOs

- Teachers, along with principals (or others), establish goals for each student or the class as a whole
- A measurement or assessment process is established to determine the extent to which students meet the goals set by the teacher
- Teachers are then judged according to this measurement/assessment process

- Sounds simple, right?

What are Student Learning Objectives?

- SLOs:
  - Content- and grade/course-specific measurable learning objectives that are used to document learning over a defined period
  - They are a means for educators to establish learning goals for individual students or groups of students
  - With the SLO, you can monitor students' progress toward the goals and finally evaluate the degree to which students achieved these goals
  - This documentation is then part of the educator's evaluation

How would SLOs work? Let's break them down!

- Participatory method in which teachers collaborate with other teachers and the principal
- Set expectations for learning, then set measureable objectives based on the standards (like SMART goals)
- Goals can be for individual students, groups of students, by class, by subject or from the school improvement plan or district initiative
- Determine baseline performance of students and determine mastery / proficiency level
- Develop assessments (e.g., developed by teacher, collaboration team, grade, department, school, district)
- Measure growth or proficiency during the course of instruction

Who will do SLOs?

- The workgroup is recommending that educators teaching NTSG are evaluated using SLOs;
- We are recommending that a teacher that teaches both tested and non-tested subjects and grades would be assessed using SLOs for the non-tested SG as well as the SGP measures for the tested SG;
- We are also recommending to leave it up to the districts to have teachers of tested subjects and grades do SLOs and SGPs.

What are the advantages of SLOs?

- SLOs:
  - Involve teachers and leaders throughout the learning process
  - Incentivize good teaching practices
  - Increase the likelihood that high quality instruction will be in every classroom

SLO Theory of Action

- Educators set goals for students,
- Work collaboratively on learning opportunities for students,

IF

And if

- Educators assess students on the goals,

- SLOs will improve the quality of instruction and increase student growth and achievement.

Then

But there are challenges to SLOs

- Guide and monitor the quality?
- Limit the range and variability for efficacy?
- Assessment tools capable of validly measuring?
- Narrow the goals to pass the assessments?

SLOs as a framework for NTSG and possibly Tested Subjects/Grades

- In spite of these challenges, SLOs probably offer the best starting point
- Paraphrasing what Churchill said about democracy…

SLOs are the worst possible approach, except for all of the others…

Table Activity

Discussion Questions:

1. Identify aspects of these exemplar SLOs that you think reflect high quality instruction and best – practices for assessment?

2. Discuss how the use of such SLOs can lead to improved teaching and learning in your school or district

SLO Process:
USOE Role and LEA Role

USOE Role:

- Develop clear guidance for creating local SLO process
- Establish a subgroup of the State PEER Advisory Committee to support and review the SLO process in districts and State
- Develop a resource bank of exemplar SLOs and assessment tools
- Plan a model for PD that LEAs can use on the development of SLOs

LEA Role:

- Discuss the SLO process and what needs you have
- Begin to develop a plan for SLO comparability, rigor and accountability
- Design a structure and process for PD on the development of SLOs for educators
- Assist with the collection of exemplar SLOs and assessments in content areas

TIMEFRAME

2011-12	Recommend analytic approaches for Tested and Non-tested Subjects and Grades (SGP/SLO)
2012-13	Develop SLOs and provide Professional Learning on SLO process Plan Pilot processes
2013-14	Conduct Pilot(s) and determine weights, shared attribution Continue Professional Learning
2014-15	Implement SGPs and SLOs into evaluation system statewide Continue to create a bank of exemplars and assessment measures

What can you expect **NEXT** from the USOE

- Professional Learning on SLO process
- Quality Criteria for SLOs and a Template that LEAs can use
- BANK of Exemplar SLOs in content areas for both tested and non-tested subjects
- Appropriate assessments for SLOs
- Implementation plan for including SLOs and SGPs in educator evaluation
- Educational leaders and SLOs

Finally… you can expect:

- Information about the progress we are making toward the Pilot(s) and what LEAs need to do to be involved in 2013-14

- Information about the formula for determining educator influence on student learning after the Pilots