

# State-Provided Growth Measures in APPR

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Board of Regents  
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# Ensuring Great Teachers and Leaders

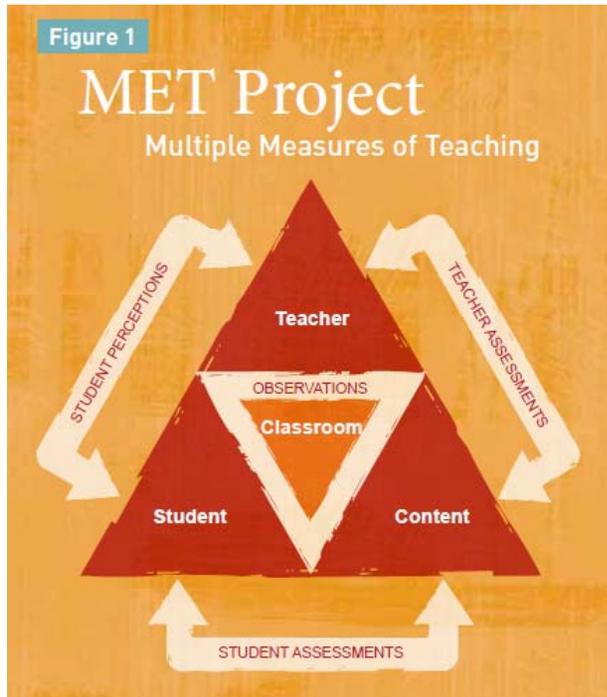
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*Frameworks for managing human capital in schools: see for example: Rachel E. Curtis, Teaching Talent: A visionary Framework for Human Capital in Education, Harvard Education Press, Chapter 9; Herbert Heneman and Anthony Milanowski, Assessing Human Resource Alignment: The Foundation for Building Total Teacher Quality Improvement.*

# National research shows how to do evaluation well

- Use research-based **observation rubrics**.
- Use **multiple observations** per teacher.  
( ideally using multiple observers)
- **Train and calibrate** all observers.
- **Value-added measures** are more predictive of future student learning than other researched measures.
- **Combining** observation measures, student feedback surveys and value-added growth results on state tests is more reliable and a better predictor of student learning than:
  - Any Measure alone
  - Graduate degrees
  - Years of teaching experience
- Combining “measures” is also a strong predictor of student performance on **other kinds of student tests**.



Measures of Effective Teaching Project; Bill and Melinda Gates Foundation

# New York State APPR design reflects latest research on effective evaluation systems.

Annual evaluations with regular feedback

- Required for all teachers and principals

Clear Rigorous Expectations

- NY State Teaching Standards
- ISLLC for principals

Multiple Measures

- 40% Student Achievement ( growth and locally-selected measures )
- 60% Other (observations, school visits, surveys, etc)

Multiple Rating Levels

- Highly Effective; Effective; Developing; Ineffective

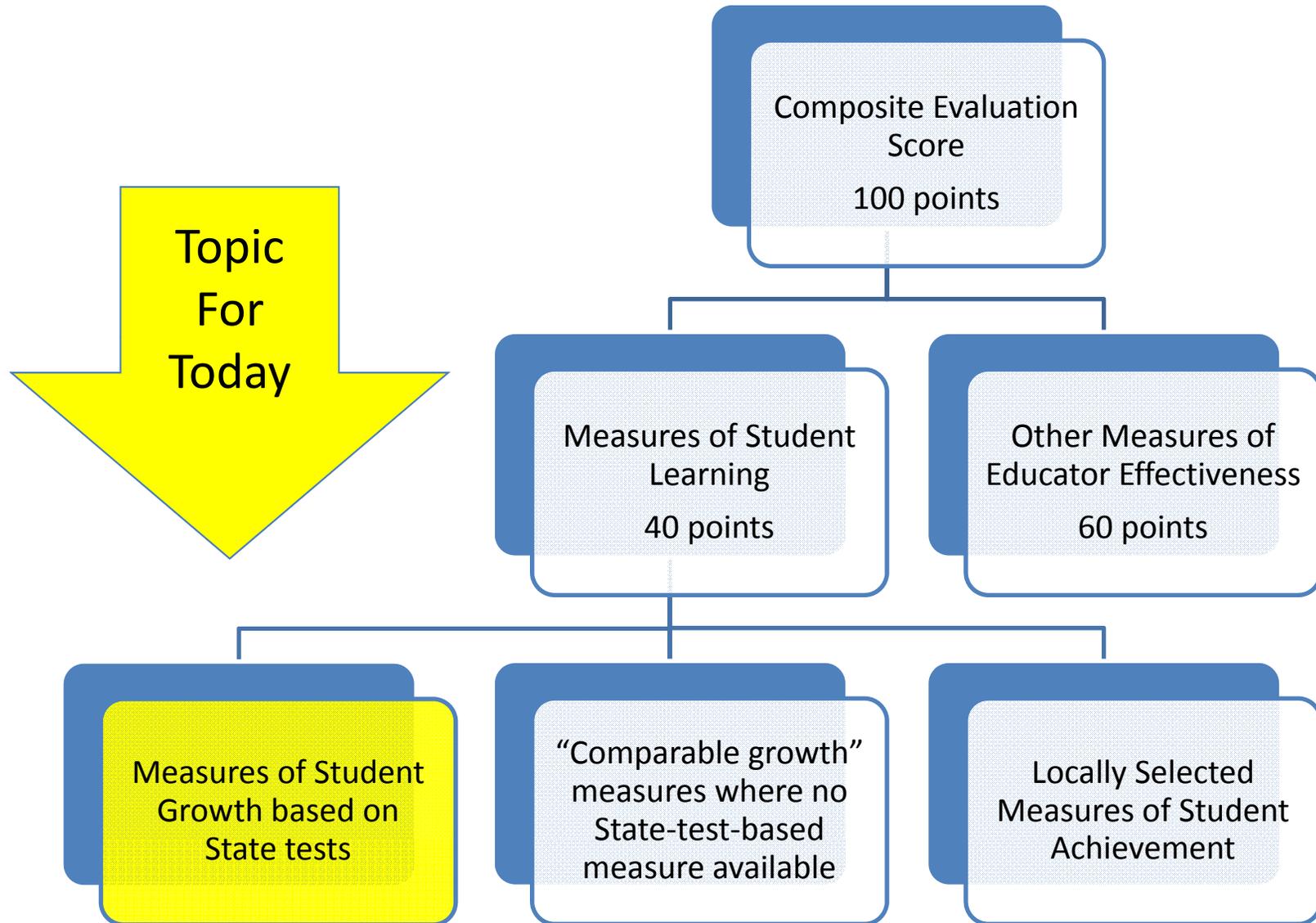
Regular Feedback

- Frequent, ongoing and linked to development opportunities

Significant

- Factors into employment decisions, supplemental compensation

# New York State Multiple Measures Evaluation System



# Reminders about growth measures for 2011-12

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- **SGP (Student Growth Percentile):**
  - The result of a statistical model that calculates each student's change in achievement between two or more points in time on a State assessment and compares each student's performance to that of similarly achieving students.
  - Results range from 1-99 for each student.
- **Similar students:**
  - Students with similar academic history (up to three years of prior State test scores in the subject measured), ELL, SWD, and poverty status.
- **MGP (Mean Growth Percentile):**
  - The average of the student growth percentiles attributed to a given educator.

# Growth Ratings Distributions in 2011-12

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Growth Score Ratings	Results compared to similar students in the State	Percent of Teacher MGPs (Grades 4-8, ELA/Math)	Percent of Principal MGPs (Grades 4-8)
Highly Effective	Well above average	7%	6%
Effective	Meets State average	77%	79%
Developing	Below average	10%	8%
Ineffective	Well-below average	6%	7%

## Key Points about New York State Growth Measures based on State tests

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- We measure student growth and not absolute levels of achievement
  - Change in student performance between two points in time.
- We measure growth compared to similar students statewide using prior test history and demographic characteristics.



Every educator has a chance to demonstrate effectiveness on these measures *regardless of the composition of his/her class or school.*

This was true in 2011-12 and will be true in 2012-13.

# Since April Board meeting:

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Feedback has been gathered about three topics presented at April Board:

- New student/teacher linkage approach
- New 9-12 principal growth measures
- Adding factors to the growth model and moving to a “Value-added” model for 25 points

Today we will :

- Describe how we will handle these topics in 2012-2013 and 2013-2014
- Ask for Board to approve a “value-added” model for 2014-15

## Move to new student/teacher linkage approach for 2012-2013 and beyond

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New York State will modify how students are attributed to teachers in grades 4-8 ELA/Math.

From:

- Full-year enrollment required
- No adjustment for student attendance
- Excluded 16% of eligible students in 11-12

To:

- 60% minimum enrollment required, including ~150K more students
- Weight student results by percent of time enrolled and in attendance
- Students present for less of the year count less

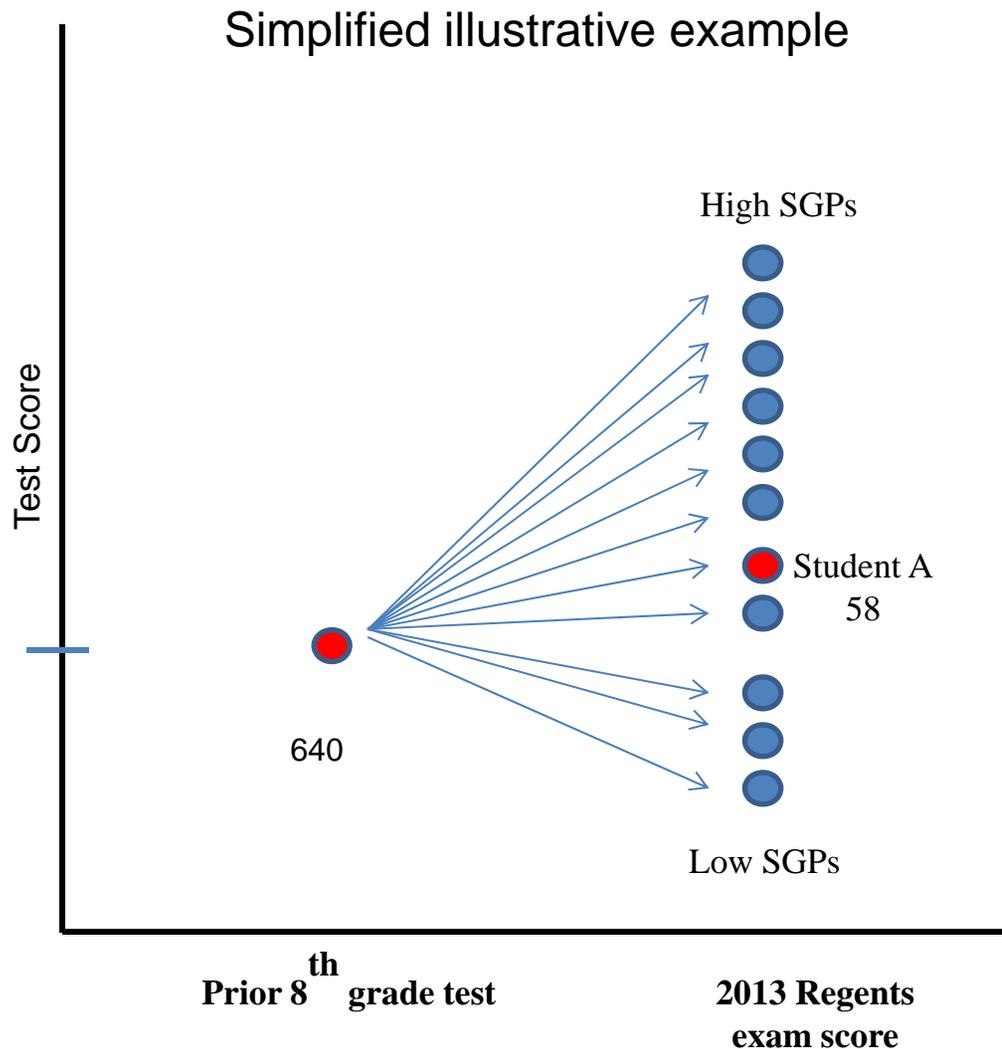
## Implement these measures of growth for Principals of 9-12 Schools in 2012-13 and beyond.

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We will adopt two High School Principal student growth measures for 2012-13. They will be combined into one growth subcomponent rating for High school principals.

- *MGP of ELA and Algebra Regents*
  - Similar to 4-8 growth measures, High School Principals will receive a mean growth percentile based on student scores on the Integrated Algebra and the ELA Regent exams compared to similar students using 7th and 8th grade tests, other Regents exams and all other factors used in 4-8 principal models.
- *Comparative Growth in Regents Exams Passed*
  - Principals receive a growth score based on how many Regents exams students pass compared to similar students, up to eight exams. The definition of similar students will be the same as MGP of ELA/Algebra measure above.

**The MGP for ELA and Algebra Regents exams uses the same approach as the 4-8 MGP measures, starting with individual student growth percentiles.**



Comparing student A's Regent Algebra exam score to other students who had the same 8<sup>th</sup> grade math score (640), she earned a **“student growth percentile” (SGP) of 45**, meaning she performed better in the current year than **45% of similar students.**

SGPs are averaged to get a **school Mean Growth Percentile**

**Comparative Growth in Regents Exams Passed:** Calculate the difference between number of Regents passed for each student and similar students.

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Simplified illustrative example

Student	Number of Regents Passed In Current Year For This Student	Number of Regents Passed This Year by Similar Students Statewide	Difference
Jessica	1	1	0
Tyler	2	2	0
Ashley	1	2	-1
Emily	3	2	1
Jacob	3	2	1
Total Difference (Sum of Differences)			1
Average Difference (Total Difference/Number of Students)			$1/5 = .2$

Principal's score on this metric is .2. Students at this school on average are passing .2 Regents more than similar students.

**NOTE:** 0 means student or school achieved the average (or “effective”) result compared to similar students statewide.

# Other points about 9-12 measures

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- **Which test scores count?**

- Highest student score from any of three administrations: August of prior year, January and June until student passes.
- Regents exams taken before High School are part of academic history.

- **Which students count?**

- Student in years 1-8 of High School who have 7<sup>th</sup> or 8<sup>th</sup> grade State test scores.

- For MGP measures, an average of 43% of students in a school annually would have been included using 2011-12 data.
- For Comparative Growth in Regents an average of 84% of students would have been included.

- **How are measures combined?**

- Minimum number of student scores for each measure is 16 (MGP ELA, MGP Algebra and Growth in Regents)
- Measures are combined by weight averaging the results using number of students in each measure.

# Factors defining similar students

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At April Board we said: NYSED anticipates recommending at the June Board meeting adoption of “value-added” measures which will count for 25 points, instead of 20 points, for 4-8 ELA and Math and Principals with grades 9-12.

Feedback since that meeting has led us to plan to enhance the “growth model” for 2012-2013 and 2013-2014, keeping the 20-point weight on this subcomponent.

- We ask the Board to authorize a “value-added” model for 2014-2015, which will count for 25 points for all applicable educators.

## Criteria for including factors in the State-provided measures:

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- Data are collected Statewide and reported to SED.
- Empirical evidence demonstrates that adding the factor will improve the statistical characteristics of the model
- Inclusion promotes Regents policy objectives and minimizes unintended consequences

**Of the factors proposed in April for addition to the model, the following are consistent with our regulatory definition of “growth” and can be used to enhance the “growth model”.**

Included in Existing Growth Measures	Additional Factors for Enhanced Growth that match regulatory definition of growth.
<p><b>Academic history:</b></p> <ul style="list-style-type: none"> <li>Up to 3 years student state exam scores, same subject</li> </ul>	<p>:</p> <ul style="list-style-type: none"> <li>Prior year test score, different subject</li> <li>Retained in grade</li> <li>New to school in year other than entry year</li> <li>Average prior achievement and range around average prior score in student’s class/course (same subject)</li> </ul>
<p><b>Student With Disability (SWD)</b></p> <ul style="list-style-type: none"> <li>Yes/No</li> </ul>	<ul style="list-style-type: none"> <li>SWD spends less than 40% of time in general education setting</li> <li>Percent SWD in student’s class/course</li> </ul>
<p><b>English Language Learner</b></p> <ul style="list-style-type: none"> <li>Yes/No</li> </ul>	<ul style="list-style-type: none"> <li>NYSESLAT scores</li> <li>Percent ELL in student’s class/course</li> </ul>
<p><b>Poverty</b></p> <ul style="list-style-type: none"> <li>Yes/No</li> </ul>	<ul style="list-style-type: none"> <li>Percent poverty in student’s class/course</li> </ul>

## **Factors Listed Here Would Require a “Value-Added” Model**

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These factors that were examined are considered “other student, classroom, or teacher characteristics”:

- Student over/under age
- Class/course size

In the future, we may identify and test other factors that would only be allowable under “value-added”.

## Rationale for enhancing the growth model for 2012-13 & 2013-14

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There is wide agreement among technical experts and constituency groups that adding the proposed factors to the model enhances the statistical characteristics of the model.

- The added factors make it less likely that an individual educator's result will be related to the characteristics of his or her classroom or school.
- Statewide we expect a similar distribution of educator results in grade 4-8 across the 4 evaluation rating categories of Highly Effective, Effective, Developing and Ineffective whether or not we add factors.

# Rationale (Continued)

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Using the enhanced growth model for two consecutive years responds to constituent feedback:

- Preference for 20 point measures (as opposed to 25 point)
- Requests for stability by using the same model and weighting for two consecutive years.

NYSUT has provided assurances that Districts do not have to renegotiate their 2012-13 APPR plans based on the decision NOT to move to a value-added model this year.

- All districts have collectively negotiated charts for allocating points for the locally-selected measures subcomponent that can be converted to a 20-point chart if necessary.

# Value-added model for 2014-2015

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We ask the Board to authorize use of a value-added model in 2014-2015, which will count for 25 points for applicable educators.

- The specifics of additional factors to be used in 2014-15 will be presented to the Board by May of 2014.
- Besides class/course size and student age vs. grade, SED will consider other factors that meet our criteria for:
  - Data availability statewide
  - Empirical improvement to the model
  - Supports policy goals and does not create unintended consequences