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Explaining Student Growth Scores to Teachers and Principals

Key Discussion Points

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Explaining Student Growth Scores to Teachers and Principals: Key Discussion Points

In 2012-2013, approximately 38,000 teachers in ELA/Math in grades 4-8 and 4200 principals (with ELA and Math educators in grades 4-8 as well as 9-12 principals) have a State-provided Growth Rating.

The following questions were assembled based upon inquiries made directly by principals and superintendents across the state.

Section A: Questions About How State-Provided Growth Scores and Growth Ratings are Determined for Teachers of Grades 4-8 ELA and Math and Principals in Schools with Grades 4-8 or 9-12

1. What is a State-provided Growth Rating and a Growth Score?

A State-provided Growth Rating represents how well an educator's students have performed compared to the State average for similar students statewide. There are four rating categories (scores in parentheses represent scoring ranges applicable for 2012-13 and 2013-14): *Highly Effective* (scores of 18-20), *Effective* (scores of 9-17), *Developing* (scores of 3-8), and *Ineffective* (scores of 0-2)[1]. A Growth Rating of *Highly Effective* represents results that are well above the State average for similar students, *Effective* represents results that meet the State average, *Developing* represents results that are below the State average, and *Ineffective* represents results that are well below the State average.

For the specific rules and "cut scores" used in 2012-13 for determining each State-provided Growth Rating and Growth Score point, see classification rules for teachers, available at http://www.engageny.org/resource/2012-13-classification-rules-for-growth-ratings-and-scores-teachers and for principals, available at http://www.engageny.org/resource/2012-13-classification-rules-for-growth-ratings-and-scores-principals

2. What is an SGP and where does it come from?

For each student in grades 4-8, a Student Growth Percentile (SGP) score will be calculated based on his or her ELA and math State assessment results in the current year compared to the current year results of similar students (students with similar past test scores and other student characteristics).

The student growth measures result from a statistical model that assigns a percentile ranking, also known as a Student Growth Percentile (SGP) to each student by comparing his/her performance on this year's test to that of similar students. As a simplified example of the calculation, consider a student Henry, who earned a score of 300 this year on the 5th grade ELA test of the Common Core and who earned a score of 690 on last year's 4th grade ELA test. This student will be compared only to students statewide who scored a 690 like he did on last year's test. And of those students, illustratively, Henry's result this year is better than 45% of these "similar" students so he earns an SGP of 45. Henry's SGP will be included with

[1] Pursuant to Education Law §3012-c(2)(m), the Commissioner determined the APPR plan for the NYCDOE following an arbitration proceeding. The scoring ranges for NYCDOE are contained in their APPR plan, which is available at: http://usny.nysed.gov/rttt/teachers-leaders/plans/docs/new-york-city-appr-plan.pdf.

the SGPs from the other students assigned to the teacher and will result in a Mean Growth Percentile (MGP) for the teacher. (See also video at http://www.engageny.org/resource/animated-video-student-growth-on-state-tests-2012-13)

In reality, the SGPs use more than just one year of past test history to determine who are "similar students". The characteristics used to define "similar students" have been refined for the 2012-13 and 2013-14 school years to include more information than was used for the SGPs provided in 2011-12. The table below shows the full list of characteristics that will be used for the 2012-2013 and 2013-2014 school years. These additional factors ensure that educator results are even less likely than before to be related to characteristics of classrooms and schools.

Grades 4-8 ELA/Math	**Similar Student Characteristics***
Academic History:	• Up to three years of student State exam scores, same subject • Prior year test score, different subject • Retained in grade • Average prior achievement and range around average prior score in student's class/course (same subject)
Student with Disability (SWD):	• SWD (Yes/No) • SWD spends less than 40 percent of time in general education setting for the entire day • Percentage of SWDs in student's class/course
English Language Learner (ELL):	• ELL (Yes/No) • New York State English as a Second Language Achievement Test scores • Percentage of ELLs in student's class/course
Economic Disadvantage (Poverty):	• Poverty (Yes/No) • Percentage of students in poverty in student's class/course

***** Additional characteristics may be added in the future as available and approved by the Board of Regents.

SED planned to use the academic history factor of "student new to school in a non-articulation year," if available, in the 2012-13 growth model. In production modeling, the necessary data for this factor's use in the growth model for the 2012-13 school year could not be generated. This variable and additional factors may be added in future years if available and approved by the Board of Regents.

3. What is an MGP and where does it come from?

An MGP, or Mean Growth Percentile (MGP), is the average of the Student Growth Percentiles (SGPs) attributed to a given educator. An educator's overall MGP across all grades and subjects is used to determine his/her State-provided Growth Rating and Growth Score. For a teacher, the MGP is a weighted average of the SGPs of the students assigned to the teacher, including consideration of student enrollment

and attendance. For a principal, the MGP is the average of the SGPs of the students enrolled in the school.

4. Which students are included in the calculation of an educator's State-provided growth score and growth rating?

NYSED used the teacher-student-course linkage information received from districts across the State in 2012-13 to determine the proportion of course time that a student was both enrolled and attended with a teacher. (See http://www.p12.nysed.gov/irs/teacher/Reporting-and-VerifyingLinkageInformation-Final2-26-13.pdf for detailed guidance on teacher-student data linkage.)

For 2012-13, a student must be enrolled in a course with a teacher of English Language Arts/Math for at least 60% of the course duration in order to be included in a teacher's MGP calculation. Any student who is not enrolled in a course for at least 60% of the course will NOT count in the calculation of the teacher's MGP. A student who has met this 60% enrollment requirement will then have her or his Student Growth Percentile (SGP) score weighted in the teacher's MGP proportional to the student's enrollment and attendance in the course. For example, a student who is enrolled for 75% of the course duration with 100% attendance is weighted 0.75 X 1.0 or 0.75; a student who is enrolled for 90% of the course duration with 90% of attendance is weighted 0.90 X 0.90 or 0.81. Subject to meeting the minimum number of 16 student scores (in both subjects combined), teachers will receive an MGP for each grade or subject they are the teacher of record for. If there is more than one MGP, the SGPs will be averaged across all grades and subjects into an overall MGP.

To be included in the State-provided Growth Score for principals in a school with grades 4-8, the student will have to be enrolled in the same school as the principal on BEDS day and during the assessment administration window (i.e., a student is attributed to the school using NYSED's rule for inclusion in institutional accountability), and the student must have an SGP calculated in either ELA or math. Each principal in these grades and subjects will receive a Mean Growth Percentile (MGP) for each grade and subject for which they are responsible. This is the simple average (or mean) of all the SGPs from students meeting the minimum enrollment rules for principals in each grade and subject. The SGPs are then combined and averaged to determine an overall MGP. A principal must have a minimum of 16 SGPs (in both subjects combined) to receive an MGP.

To be included in the State-provided Growth Score for principals in a school with all of grades 9-12, the student will have to be enrolled in the school and the student must have 7th or 8th grade NYS ELA and/or math assessment scores. Students who transfer into NYS schools in 9th grade from other states or countries will not be counted since the baseline test scores are not available. A student who is in her/his 5th through 8th year after entering high school will count in this measure.

Two measures will be used to calculate the State-provided growth score for high school principals of all grades 9-12. One of the measures is the calculation of a Mean Growth Percentile (MGP) for a principal based on student growth on the Integrated Algebra and ELA Regents exams compared to similar students. The second measure calculates for each principal the growth in the number of Regents exams passed annually starting in the year of student entry into 9th grade by her or his students compared to

similar students. These two measures will then be combined by the State into one growth score and rating to be used as the State-provided growth subcomponent score and rating for a principal's evaluation. A principal will only receive a State-provided growth score using these measures if the principal is responsible for all of grades 9-12 and if the principal has at least 16 SGPs (for the grades 9-12 MGP measure) and/or 16 students (for the Comparative Growth in Regents Exams Passed measure) attributed to her or him to calculate these measures.

Compared to 2011-12, NYSED linked about 100,000 more students in grades 4-8 to teachers, raising the inclusion rate of the students who have two consecutive valid test scores from about 83% to about 93%. For schools with grades 4-8, over 98% of students with two valid test scores are linked to schools in 2012-13, similar to the high percentage last year.

Section B: Questions About This Year's Results and the Impact of the New 3-8 ELA and Math Tests on Growth Scores

5. How do the new 2013 State assessments of the Common Core State Standards affect teacher Growth Scores?

This year's State assessments are the first for New York students to measure the Common Core State Standards. As expected, the percentage of students scoring proficient or advanced is significantly lower than in 2011-12 in math and English-language arts for grades 3-8. This change in the percent of students who earned a proficient or better score on this year's tests, which will effectively create a new baseline measurement of student learning is largely the result of the shift in the assessments to measure the Common Core State Standards, which more accurately reflect students' progress toward college and career readiness.

The State-provided Growth Scores used in teacher and principal evaluation will result in similar proportions of educators earning each rating category (Highly Effective, etc.) in 2012-13 compared to 2011-12, despite the change in the percentage of students who score at or above proficiency. This is in large part because the State's student growth model takes into consideration changes in student performance compared to "similar" students statewide (i.e., students with similar characteristics and academic histories). Therefore, all educators will have a chance to do well, regardless of the changing rigor of the test or the characteristics of the educator's students.

State-Provided Growth Rating (HEDI)	2011-12 Percent of Teacher MGPs N=33,129	2012-13 Percent of Teacher MGPs N=38,614
Highly Effective	6.7%	7.0%
Effective	77.2%	76.3%
Developing	10.1%	10.8%
Ineffective	6.0%	5.9%

6. **Even if a similar proportion of educators are effective or better this year compared to last year, how stable are an individual educator's results this year compared to last year? Some have said these Growth Scores change a lot from year to year for any one educator. Is this the case? Also, is stability negatively impacted by the new state tests?**

In 2012-13, approximately three-quarters of individual teachers will earn the same or better HEDI rating than they did in 2011-12. This is about the same percentage who earned the same or better HEDI rating between 2011-12 and the "beta test" results used in 2010-11 as the growth model was being developed. This suggests that the new tests that measure the Common Core State Standards did not change the year-to-year stability of growth ratings for individual educators.

Technical advisors to New York State on growth measures have analyzed the statistical stability of the Mean Growth Percentiles (MGPs) used to construct educator growth ratings and have determined that our results are about as stable between 2012-13 and 2011-12 as they were between 2011-12 and the beta results for 2010-11. Our results are also somewhat more stable from year to year for individual educators than has been found by The Measures of Effective Teaching Study (http://www.metproject.org/reports.php).

Section C: Questions about Communications

7. **What are the key points district and school leaders should use when talking about Growth Scores?**

The most important points to remember about educator Growth Scores used in evaluation are that:

- State-provided Growth Scores are just one of multiple measures in New York's teacher and principal evaluation system. When talking about an educator's Growth Score results, it is important to keep these results in context with the other evidence of educator effectiveness from your District's evaluation system.
- State-provided Growth Scores measure change in learning between two points in time, not just a single-point level of achievement. While educators cannot control the characteristics of students who enter their schools and classrooms, they can, and they do, influence the learning that happens over the course of the year. This is what New State provided Growth Scores measure.
- State-provided Growth Scores measure student performance in the current year compared to that of similar students statewide. By similar students, we mean students with similar prior academic history and student demographic characteristics. This ensures that all educators have a chance to do well regardless of the composition of their schools or classrooms.
- The change in New York's State tests to measure the Common Core in 2013 led to fewer students earning proficient or better scores and established a new baseline for student learning going forward. But this change in the level of student proficiency did not change the percentage of educators earning each of the four rating categories (Highly Effective, Effective, Developing and Ineffective) for their State-provided Growth Scores in 2013.
- NYSED has developed an animated video and a professional development turnkey kit for administrators to use as they explain to educators in their community how New York State

calculates student growth based on State tests for 2012-13 and 2013-14. These and other resources are available at: http://www.engageny.org/resource/resources-about-state-growth-measures.

Section D: Questions About How State-Provided Growth Scores and Growth Ratings are Determined for Grades 9-12 Principals

8. Explain the State-provided Growth Scores used for principals with grades 9-12.

For the 2012-13 and 2013-14 school years, two measures will be used to calculate the State-provided Growth Score for high school principals of schools that enroll students in grades 9-12 (inclusive of all grades).

- Measure 1: calculation of a Mean Growth Percentile (MGP) for a principal based on student growth on the Integrated Algebra and ELA Regents exams compared to similar students. This measure will compare the performance of students between 7th or 8th grade State assessments and the Integrated Algebra and Comprehensive English Regents Exams to the performance of similar students statewide. In order to receive an MGP measure, schools must have at least 16 student SGP scores between the ELA and Algebra Regents combined.

- Measure 2: calculation of student growth based on the number of Regents exams passed annually starting in the year of student entry into 9th grade, compared to similar students statewide. Up to eight Regents exams are counted in this measure and at least 16 students must be attributed to the principal for the measure to be calculated.

A grade 9-12 principal's State-provided Growth Score will be based on the combination of these two high school measures (or just one measure if one does not meet the minimum N) weighted by the number of students included in each measure. For principals in schools that enroll students in grades 9-12 (inclusive of all grades) as well as some or all of grades 4-8, the grades 9-12 State-provided Growth Score and the grades 4-8 State-provided Growth Score will be weighted based on the number of students included in each measure.

9. Which High School Principals will not have State-provided growth scores?

Principals where any of the conditions below apply will not get 9-12 Principal state-provided growth measures and should have SLOs as their "other comparable growth measure" for the State growth or other comparable measures as a subcomponent of their APPRs:

- Schools that include some but not all grades 9-12. For example, a grade 9-10 school.
- Schools with grades 9-12 that do not have 16 students included in either of the principal 9-12 measures.
- Newly-created schools planned to be 9-12 but not yet enrolling all of grades 9-12.

- Transfer high schools in which the majority of students enroll after having begun grade 9 in another school.
- Principals of BOCES programs enrolling students from other high schools. Students who take Regents exams while participating in BOCES programs will count for their home school principal for the purposes of State-provided growth measures.

10. What about the principal's practice is the State trying to measure with the grades 9-12 growth measures?

In developing the measures used to calculate State-provided Growth Scores for high school principals, NYSED considered one of the primary responsibilities of a high school principal to be graduating his or her students ready for college and career. In order to achieve that goal, principals must ensure that students are taking a sufficient number of Regents courses and exams, and passing them with sufficiently high scores to ensure they are able to enroll in college without remediation. Both of these measures work toward that goal by comparing students' annual rate of progress in passing Regents exams to that of similar students. Because NYSED analysis also shows that higher scores on the ELA and Integrated Algebra Regents correlate with college and career readiness, NYSED also measures the scale score result on these two exams compared to similar students. NYSED is NOT trying to separate the effect the principal has on student learning from the effect the teachers have. As the instructional leader in a school, the principal is responsible for developing the staff capacity to support student learning.

11. Do the 9-12 measures take into account AP exams and other forms of advanced coursework?

The results for principals of schools with grades 9-12 in 2012-13 do not take into account the very small number of students who take approved alternatives to Regents for credit toward a Regents diploma (e.g., Advanced Placement (AP), SAT and International Baccalaureate (IB) exams). NYSED has begun collecting data regarding all students who take and pass AP and IB exams and will consider, in partnership with the Metrics Group of the Regents Task Force, for the future whether and how to incorporate these into grades 9-12 principal State-provided growth measures.

Section E: Questions About Reports and Data

12. Why do some of my educators in grades 4-8 not have Growth Scores?

There are a number of possible reasons including:

- Growth scores are only provided for those teachers and principals with students in grades 4-8 ELA and math. Educators must have the minimum number of student scores (16) attributed to them to receive a growth score.
- Students must meet the minimum enrollment duration required to be attributed to a teacher (60% of the course) or a principal (enrolled on BEDS day and the first day of the 4-8 subject assessment window or Regents assessment period).
- NYSED uses data for students, assessment scores, and enrollment and attendance duration submitted by Districts and BOCES as of the deadlines set by NYSED for each data submission.

Data submitted or changed after the deadline will not be included in the current-year growth scores

- For additional information and detail about this topic, please see the APPR guidance document, available at http://www.engageny.org/resource/appr-planning

NYSED recommends that **all** educators with students close to the minimum "n" size also set SLOs for comparable growth measures, in case there are not enough students, not enough scores or are unforeseen issues with the data that might prevent the generation of a State-provided growth score.

13. Why do the school-level reports list the school name and not the building principal's name?

The school-level reports included in this distribution do not list the building principal's name because 2012-13 was the first year that staff assignment records (detailing the grade levels assigned to a particular principal) were submitted by BOCES and districts to NYSED. The use of these data to attribute students to principals will be beta-modeled for use in future years to allow for identification of building principals by name within the Growth Reporting System.

14. What if there are errors in the district data provided to the State for inclusion in Growth Scores? What if principals or teachers find errors in the data included in the report?

State-provided Growth Scores are calculated using student assessment, linkage, enrollment, and attendance data provided by Districts to NYSED as of the various deadlines established by NYSED. Districts, BOCES, and charter schools were required to certify the accuracy of the data submitted to NYSED to meet the June 14 deadline. Section 30-2.3 of the Rules of the Board of Regents require teachers to be part of this data verification process.

As with all other school data, if the information displayed in the reports is incomplete or inaccurate, the data should be corrected in the local source system (e.g., the student management system) and submitted again to NYSED. State-provided Growth Scores will not be re-calculated for 2012-13, but if errors in data are changed and verified by the district, these changes will be included in the data delivery to the growth model vendor for inclusion in the 2013-14 data analysis and calculation.

If educators find errors in the data included in the report, they should contact their school-level data administrator.

As explained in Executive Director Julia Rafal-Baer's May 22, 2013 memorandum (see: http://usny.nysed.gov/rttt/teachers-leaders/docs/critical-updates-on-reporting-and-verifying-tsdl-information.pdf), the failure to submit complete and accurate data on or before the June 14, 2013 verification deadline is **not** a valid basis for an appeal of the State-provided Growth Score to the State. Districts must consult with their local counsel on how to address the issue locally, consistent with Education Law §3012-c.

15. Where can I get help answering questions about these data?

NYSED has provided a variety of materials to help districts and educators understand and use the State-provided Growth Scores. The growth model vendor (American Institutes for Research—AIR) recorded a webinar that gives specifics about how Growth Scores and Ratings are determined. The slides and links for these webinars are available on the 'Resources about State Growth' page on EngageNY: http://engageny.org/resource/resources-about-state-growth-measures/. Educator-specific brochures are also available on this site. Additional materials including a tutorial and a user guide for AIR's Growth Reporting System will be made available on this page. Section D of the "Guidance on New York State's Annual Professional Performance Review For Teachers and Principals to Implement Education Law §3012-c and the Commissioner's Regulations" (see: http://www.engageny.org/resource/guidance-on-new-york-s-annual-professional-performance-review-law-and-regulations/) contains additional information about these measures. If districts have questions about access to, navigation, and information/data in AIR's Growth Reporting System please send an email to NYGrowth@air.org or call 1-866-821-6426 (8:30 a.m. to 4:30 p.m., Mon-Fri—except holidays). In addition, districts can send an email to dataquest@mail.nysed.gov with questions about data collection or educatoreval@mail.nysed.gov with questions about APPR. A technical report from AIR will be published later this fall and will document the statistical and technical details of NYSED's educator growth measures.

In addition, participants in New York's Network Team Institute had the opportunity to attend an in-person training sessions about the 2012-2013 Growth Scores in July 2013. Your network team members are therefore a source of information and further training.

Note: For more detailed FAQs about teacher and principal Growth Scores for use in educator evaluation, please see Section D of the APPR Guidance Document, available at http://www.engageny.org/resource/guidance-on-new-york-s-annual-professional-performance-review-law-and-regulations/

NOTE: If there are any discrepancies between language in these materials and Statute, Regulations, or APPR Guidance, the Statute, Regulations or APPR Guidance must prevail.