Measuring Student Growth for Institutional Accountability in New York

Student growth is calculated for institutions (e.g., schools and districts) using student test scores, and is based on changes in student performance on the state's grades 3-8 assessments in English Language Arts (ELA) and mathematics from between one and three prior years and the current year (see the table below for an example of the prior years included in each model). The growth model (computed using regression) compares each student's academic growth to the growth of students with similar prior test histories in the state.

ELA & Mathematics Model by Grade

Same Subject Prior Year Test Scores Included in the Model					
	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7
Grade 4	✓				
Grade 5	✓	✓			
Grade 6	✓	✓	✓		
Grade 7		✓	✓	✓	
Grade 8			✓	✓	✓

First, a **Student Growth Percentile (SGP)** is calculated for all possible students in the state in grades 4 through 8 depending on the available data. SGPs measure a student's improvement, or growth, relative to other students, considering the students' prior academic histories. In contrast, SGPs used for advisory purposes as part of the Annual Professional Performance Reviews for teachers and principals also considers the disability, English language learner, and economically disadvantaged status of students and their classmates. The SGP indicates whether a student grew more than or less than students with similar prior test histories in the state. For example, a student that receives an SGP of 50 in that year scored as high or higher than 50% of students in the state with similar prior test histories would be expected to score on the ELA and math assessments.

Second, the SGPs are attributed to an institution and all SGPs attributed to that institution are averaged together to create a **Mean Growth Percentile (MGP)** for that institution. The attribution of SGPs to institutions differs from the attribution of SGPs to teachers and principals. MGPs measure an institution's average growth based on the mean of the SGPs. For example, an institution that receives an MGP of 50 in that year had students that, on average, scored as high or higher than 50% of students in the state with similar prior test histories on the ELA and math assessments.

Which Students are Attributed to the Institution's MGP?

For a student to be included in an institution's MGP, the student must meet several requirements (e.g., valid current and prior year test scores, being continuously enrolled in the institution). A full list of the attribution requirements for a student to receive an SGP and for that SGP to be included in an institution's MGP can be found in the Growth Model for School Accountability 2016/17 Technical Report.

What Happens After Growth Scores are Calculated?

New York State uses institution and subgroup-level MGPs in ELA and mathematics for institutional accountability. This information is used to identify focus, priority, and reward schools as well as Focus Districts. Additional information about these designations and the methodology used to designate institutions and districts in 2016/17 can be found on the NYSED Office of Accountability website.

Why Use Growth for Institutional Accountability?

New York State's accountability system was implemented to meet the requirements of New York's Elementary and Secondary Education Act Flexibility Waiver. Using state assessments to measure each student's growth during a given school year can help illuminate the influence that a year of schooling has on student learning. By measuring academic growth, in addition to proficiency, we can identify strengths and gaps in student readiness and progress that helps teachers to better support students who have a wide range of academic needs.

What is the Future of Using Growth for Accountability?

Through the 2016-17 school year, New York State used institution- and subgroup-level MGPs in ELA and mathematics for institutional accountability. To further increase the stability and reliability of this measure, beginning with the 2017-18 school year results, New York State will, in accordance with its approved Every Student Succeeds Act Plan, use a three-year average MGP in ELA and mathematics to create the Growth Index for each subgroup in the institution. An index will be created for each subgroup when the combined total of SGPs is equal to or greater than 30 during that three-year period. Each subgroup, including the "all students" group for which a school or district is accountable for growth will receiving a rating of Level 1-4 based on the group's MGP.