

Measuring Student Growth for Institutional Accountability in New York

Student growth is calculated for institutions (e.g., public 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 public school students in the state in grades 4 through 8 with a current and prior year test score in the same subject. SGPs measure a student's improvement, or growth, relative to other students, considering the students' prior academic histories. The SGP indicates whether a student grew more than or less than students in the State with similar prior test histories. For example, a student who receives an SGP of 70 in that year scored as high or higher than 70% of students in the state with similar prior test histories.



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. MGPs measure an institution's average growth based on the mean of the SGPs. For example, an institution that receives an MGP of 70 in that year had students that, on average, scored as high or higher than 70% of students in the State with similar prior test histories on the ELA and math assessments.

Why Use Growth for Institutional Accountability?

New York State’s accountability system was implemented to meet the requirements of New York’s Every Student Succeeds Act (ESSA). 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.

Institutional Accountability’s Three-Year Growth Measure

To further increase the stability and reliability of this measure, beginning with the 2017-18 school year results, New York State, in accordance with its approved Every Student Succeeds Act Plan, uses a three-year average MGP (or Growth index) using both ELA and mathematics SGPs for each accountability subgroup in the institution. For the 2018-19 institutional accountability measure, this means using student growth results from 2016-17, 2017-18, and 2018-19.

Which Students are Attributed to the Institution’s Growth Index?

Students must be continuously enrolled in a school (i.e., they are enrolled on BEDS Day in the fall and assessment day in the spring) in order for their SGPs to be included in their institution’s Growth Index. For the 2018-19 institutional accountability calculation, district-verified rosters were available for the 2017-18 and 2018-19 school years to attribute SGPs to institutions. For future institutional accountability calculations, this district-verified roster will be used to attribute SGPs in additional years. Because of this, the institutional accountability roster may differ from the student roster used for the calculation of 2017-18 and 2018-19 State-provided growth results that were provided to educators for informational purposes.

If a school was closed in 2018-19 but has SGPs attributed to it for the 2016-17 or 2017-18 school years, the institution will not receive a Growth Index but its SGPs will be included in the district’s Growth Index.

How are School and District Growth Indices and Levels Calculated?

Once the three-year roster of continuously enrolled students is identified, a Growth Index (i.e., Mean Growth Percentile or “MGP”) is created for each subgroup for which the count of SGPs is greater than or equal to 30 during that three-year period. The Growth Indices are then used to assign one of four levels based on the cut points described in the table below.

Growth Index	Growth Level
45 or Less	1
45.1 to 50	2
50.1 to 54	3
Greater than 54	4

What Happens After Growth Scores are Calculated?

New York State uses institution and subgroup-level Growth Indices in ELA and mathematics for institutional accountability. This information is used to identify Comprehensive Support and Improvement schools, Targeted Support and Improvement schools, Target Districts, Schools in Good Standing, and Recognition Schools. Additional information about these designations and the methodology used to designate institutions and districts in 2018-19 can be found on the [NYSED Office of Accountability website](#).

