

Achievement Gap Metric Updated February 2016

Georgia's Achievement Gap Metric, utilized in the College and Career Ready Performance Index (CCRPI) and Leader Keys Effectiveness System (LKES), measures the gap between schools' lowest-achieving students and the state average and the extent to which the lowest-achieving students are making academic progress. Due to the implementation of a new assessment system in 2014-2015, the achievement gap metric has been modified. The metric will continue to measure gap size (the gap between schools' lowest-achieving students and the state average) but the gap change (now gap progress) metric will utilize student growth percentiles (to measure the extent to which the lowest-achieving students are making academic progress).

Gap progress will measure the current year progress demonstrated by the school's lowest 25% of achievers based on *prior* scores by content area. **Gap size** will measure the size of the gap between the school's lowest 25% of achievers based on *current* scores by content area and the state average. The inclusion of both components allows the metric to measure both the progress made in closing the gap as well as the size of the gap that remains. This document outlines the calculation of the achievement gap metric. This calculation applies beginning with the 2014-2015 data.

1. In order to compare scale scores across grade levels and content areas, all scale scores will be converted to standardized scores (z scores). For all 24 Georgia Milestones EOGs (each grade by content area) and 8 Georgia Milestones EOCs, every student's scale score is converted to a z score using the equation

$$z = \frac{x - \mu}{\sigma}$$

where x is the student's scale score, μ is the state mean for that EOG or EOC, and σ is the state standard deviation for that EOG or EOC. Assessment scores from the Georgia Milestones EOGs and EOCs will be included. Retests will also be included, with the higher of the main and retest score being utilized.

2. In order to create comparable and stable comparisons across years, a baseline will be utilized. The statewide means and standard deviations from 2015 will be used to calculate the Georgia Milestones z scores in 2015, 2016, and subsequent years.¹ This ensures that the scale score to z score conversions remain the same each year and are unaffected by changes in the overall score distribution. Additionally, in order to ensure schools are being measured against a stable target, the z score at the 50th percentile, 0, will be used for the statewide reference group each subsequent year.

¹ 2014 state means and standard deviations will be used for all CRCT and EOCT scale score to z score conversions. These assessments will be utilized to identify the lowest 25% of students based on prior achievement until all students have Georgia Milestones prior scores.

3. Gap Progress

To measure the progress made by the lowest 25% of achievers based on prior scores, student growth percentiles will be utilized. SGPs describe a student's progress relative to academically-similar students from across Georgia. The mean student growth percentile of the lowest 25% of achievers for each content area based on their prior scores² will be utilized. The meanGP will yield a score of 0-3 using the following rubric:

Gap Progress	Score
meanGP < 35	0
35 ≤ meanGP < 50	1
50 ≤ meanGP ≤ 65	2
meanGP > 65	3

4. Gap Size

To measure the size of the current gap, the average z score of the lowest 25% of achievers based on current scores for each content area (across grade levels and across EOCs within the same content area) will be compared to the state mean (0). The magnitude of those gaps will yield a score of 0-3 using the following rubric:

Gap Size	Score
1.2 or greater	0
0.9 – 1.19	1
0.5 – 0.89	2
Less than 0.5	3

5. Final Content Area Scores

For each content area, each school's final score will be the greater of the gap size rubric score and the gap progress rubric score. This enables schools to earn points by either having a high-achieving lowest 25% or by making significant progress with their lowest 25% based on prior scores.

6. Final Achievement Gap Score

A ratio of the total points earned out of points possible (12) will be calculated. That percentage will be multiplied by 10 to determine the points (of 10) earned for the CCRPI achievement gap. For LKES, rubric scales of 1-4 will be utilized instead of 0-3. The final achievement gap score will be the average of the content area scores.

² This is the prior score that is utilized to calculate student SGPs. For example, a 6th grade math SGP uses a 5th grade math score as the most recent prior score. While the gap progress calculation is based on students currently enrolled in a school (utilizing their current SGPs), the students' prior scores may come from other schools. For example, a 6th grade student's 5th grade prior score may come from his or her elementary school and not the middle school in which he or she is currently enrolled.