

Rhode Island Student Growth FAQs

Revised September 2021

What is the Rhode Island Growth Model?

The Rhode Island Growth Model (RIGM) is a statistical model based on state assessment scores in English language arts and mathematics. The growth model provides an additional way of looking at student achievement by providing a measure of student growth between annual assessments.

How is growth calculated?

Student state assessment scores are used to create individual student growth percentiles (SGPs), which are then aggregated to calculate mean (average) SGPs for districts and schools.

At a minimum, two consecutive data points are required to calculate growth for a student (for example, a student's test scores from grade 4 RICAS (Rhode Island Comprehensive Assessment System) and grade 5 RICAS math tests). The model goes as far back as possible to calculate a cohort of academic peers for each student. Academic peers are all same-grade students statewide with a similar state test score history, regardless of student demographic data or program information (e.g., race/ethnicity, SES, IEP, MLL). Student demographic characteristics are not used to create a student cohort. The student's growth is compared to that of his or her academic peers and reported as a Student Growth Percentile ranging from 1-99, with an SGP of 1 indicating the lowest growth percentile and 99 representing the highest growth percentile.

In simple terms, SGPs describe the relative location of a student's current score compared to the current scores of students with similar score histories. The location in the reference group of academic peers is expressed as a percentile rank. For example, a student earning an SGP of 80 performed as well or better than 80 percent of her academic peers.

There are two approaches to defining the academic peer group. The first is a cohort referenced SGP model in which each student is compared to students in their same grade and year with similar prior scores. This comparison group changes each year. The second is the baseline-referenced model. In the baseline reference model, each student is compared to students from a stable baseline cohort in the same grade with similar prior scores. This comparison group remains the same across years. Prior to 2021, RI utilized a cohort-referenced peer group model. For the 2021 RICAS results Student Growth Percentiles were calculated using a baseline –referenced academic peer group as opposed to previous years when a cohort-referenced peer group was implemented.

Why is it useful?

The student growth percentile provides students, parents, teachers, districts, and the state additional data that contributes to a more descriptive picture of student achievement. In addition to students' proficiency levels, we can also see how much growth students are making relative to other students with similar test score histories.

The growth metric also enables districts and schools to identify promising or potentially struggling academic programs and instructional practices. It can help answer questions such as:

- How much academic progress on state assessments did a student or a group of students make in a year?
- How does an individual student's growth compare to that of students with similar state test scores from prior years?
- In which schools or districts did students demonstrate better than (or less than) typical growth as compared to students in school or districts with similar overall achievement?

While both the cohort-referenced and baseline referenced provide useful information on student academic progress, the baseline SGPs allow RI to track changes in aggregate student growth over time. By design, the statewide mean cohort referenced SGP will be 50 each year for each grade level test even if student growth at the state level changes over time because the reference group are current year peers. Utilizing baseline referenced SGP for the 2021 RICAS results helps us understand the amount of growth RI students made relative to their pre-pandemic (2019) peers who scored similarly on previous assessments. If we reported cohort referenced mean SGPs they would be 50 for each grade level test, but because RI is utilizing the baseline referenced SGP, the mean statewide SGP can be either higher or lower depending on how much growth students made relative to their pre-pandemic peers.

What are the benefits?

Because all students' scores are compared only to those of their academic peers, students at every level of proficiency can demonstrate an SGP between 1-99. Students at the bottom of the proficiency scale have an equal chance to obtain a high SGP as students at the top of the scale. This can encourage students, schools, and districts who demonstrate low proficiency but high growth. It can also discourage complacency among those with high proficiency but low growth.

What about high school growth?

High school student growth is calculated using the same model but using current year SAT scores and prior year PSAT scores. High School student growth was not calculated for the 2021 SAT scores as PSAT scores

were not available for those students due to the cancellation of those state assessments during the 2019-2020 school year.

Which grades have reported growth scores? Which grades are used in growth score calculations?

Because the student growth percentile requires at least two consecutive years of state assessment data, student growth scores can only be calculated and reported for grade 5 through 8 students for RICAS for the 2021 state assessments because RICAS assessments were not administered during the 2019-2020 school year.

Can two students have the same SGP?

Yes, two students can have the same SGP. Even when students score at different places on the proficiency scale, similar SGPs can occur because they have different scores histories and are therefore included in two distinct comparison groups with different academic peers.

How is growth calculated for a group of students (such as a district, school, or grade)?

Growth is aggregated for any student group (district, school, grade, subgroup, etc.) by averaging the individual SGPs—adding all SGPs together and dividing by the total number of students to determine the average (or mean) SGP.

What are the cuts for low, typical, and high growth?

These cuts are applicable to individual student SGPs as well as mean growth percentiles for groups such as schools and districts.

Low growth: 1-34

Typical growth: 35-69

High growth: 70-99

How do we compare student growth?

The average growth percentile for a district or school can be used for comparison purposes. The data for comparisons are available using the Quick Reports file downloads on the [public RI Assessment Data Portal](#) or with the visualization tool on the [RIDE Assessment Results page](#). See more information about accessing the growth resources below.

How do I access SAT and RICAS growth data?

1) Growth data is publicly available for state subgroup, district, and school level exports using the SAT or RICAS Quick Reports on the **public reporting site**.

The **public reporting site** (www.ride.ri.gov/RIADP) is also linked at www.ride.ri.gov/Assessment-Results. The interactive dashboard and the Quick Report exports display the percentage of students with low, typical, and high growth and the average growth percentile for each subject. In public reporting, data is suppressed when the minimum reporting requirements (at least 10 students) are not met.

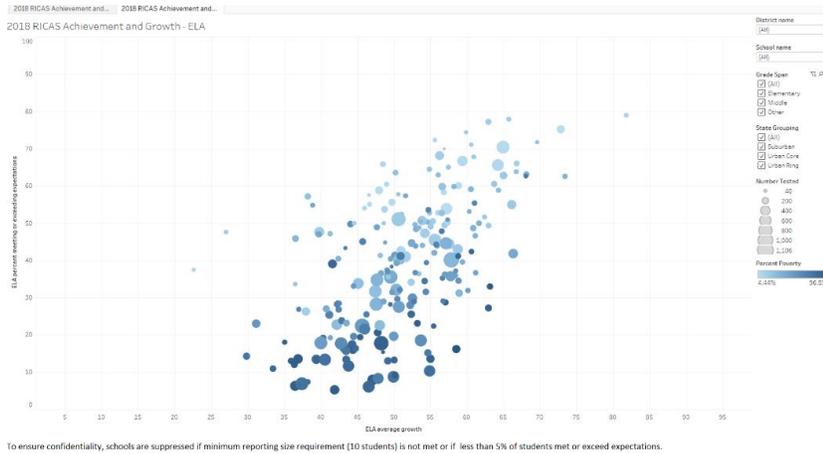
2) District and school leaders and teachers can access student growth percentiles for individual students on the confidential **Student Data Portal**, accessed through the RIDE Portal (<https://portal.ride.ri.gov>).

- **Downloadable Reports** provide individual students' SGP and SGP level.
- **Interactive Reports** display visualizations for low, typical, and high growth and enable drill-down to schools, subgroups, and student lists. The Student Listing section of the Drill-Down Report includes individual SGPs and low/medium/high growth designation for each student in ELA (English Language Arts) and math.

Name	Students Tested		Growth	Average Growth Percentile
	#	%		
2018-19 : Statewide : All Grades : All Groups	63155	98.7%	<div style="display: inline-block; width: 100%;"><div style="display: inline-block; width: 34.7%; background-color: red;"></div><div style="display: inline-block; width: 34.8%; background-color: green;"></div><div style="display: inline-block; width: 30.5%; background-color: blue;"></div></div>	50

3) Interactive visualizations (bubble charts) compare school proficiency and growth on a scatter plot.

These are available at <https://www3.ride.ri.gov/ADP/Default/Growth> for **both ELA and mathematics**. The vertical axis represents the percentage of students meeting or exceeding expectations on the SAT or RICAS assessments. The horizontal axis represents the average growth. Each bubble represents a school. The visualization includes filters for school level and suburban, urban core, and urban ring groupings, and data markers (bubbles) display school size and percent poverty.



4) Growth data is printed on hard copy RICAS individual student reports (ISR) and labels shipped to schools.

- An **annotated ISR guide** and a parent guide to growth percentiles are available at www.ride.ri.gov/Assessment-Results.
- **Translations of the ISR report shell** and other resources are also available at www.ride.ri.gov/Families.

Your Child's Overall Results	
English Language Arts Achievement Level Meeting Expectations Score 517 (Score range: 440-560) Growth Percentile 47 Details on page 2	Mathematics Achievement Level Partially Meeting Expectations Score 499 (Score range: 440-560) Growth Percentile 52 Details on page 3

