

## **Academic Achievement**

### **Elementary/Middle Level**

#### **What are the academic achievement indicators and what do they measure?**

The New York State ESSA accountability system uses two academic achievement indicators:  
**Weighted Average Achievement** and **Core Subject Performance**.



**Weighted Average Achievement**  
measures academic achievement  
using a denominator that **meets**  
**federal requirements**.



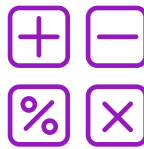
**Core Subject Performance**  
measures the academic  
achievement of **continuously**  
**enrolled students with valid**  
**assessment results**.

At the elementary/middle level, the Weighted Average Achievement and Core Subject Performance indicators measure annual student performance in three subjects.

#### **English Language Arts (ELA)**



#### **Math**



#### **Science**



Restored to calculations  
starting with 2024-2025  
school year (SY) results.

#### **What assessment data are used to calculate the academic achievement indicators?**

**Single-year results** are used from the following assessments.

##### ELA

- Grades 3-8 New York State Testing Program (NYSTP)
- New York State Alternative Assessment (NYSAA)

##### Math

- Grades 3-8 NYSTP
- NYSAA
- Regents examination taken in lieu of NYSTP in Grade 6, 7, or 8

##### Science

- Grades 5 and 8 NYSTP
- NYSAA
- Regents examination taken in lieu of NYSTP in Grade 7 or 8

Students' scale scores are converted into **accountability achievement levels** ranging from **1 to 4**.

#### **How does minimum n-size apply to the academic achievement indicators?**

- NYSED uses a minimum n-size of **20 student records** for accountability indicator calculations.
- The Weighted Average Achievement indicator will be calculated for an accountability subgroup when **the number of continuously enrolled students with valid Grades 3-8 ELA, math, and science assessment results combined or 95% of the number of continuously enrolled students in ELA, math, and science combined is greater than or equal to 20**.
- The Core Subject Performance indicator will be calculated for an accountability subgroup when the **number of continuously enrolled students with valid Grades 3-8 ELA, math, and science assessment results combined is greater than or equal to 20**.

## How are the academic achievement indicators calculated?

**Step 1: Calculate ELA, math, and science subject Performance Indices (PIs) using the formula below.**

$$PI = \frac{(\# \text{ Level 2}) + 2(\# \text{ Level 3}) + 2.5(\# \text{ Level 4})}{\text{Denominator}} \times 100$$

### Denominators

**Weighted Average Achievement:** The greater of the number of continuously enrolled students with valid test scores in ELA, math, and science combined OR 95% of all continuously enrolled students in ELA, math, and science combined, tested or untested.

**Core Subject Performance:** The number of continuously enrolled students with valid ELA, math, and science test scores.

**Step 2: Calculate the Weighted Average Achievement Index and Core Subject Performance Index using the formula below.**

$$\text{Index} = \frac{\text{ELA PI Numerator} + \text{Math PI Numerator} + \text{Science PI Numerator}}{\text{ELA PI Denominator} + \text{Math PI Denominator} + \text{Science PI Denominator}} \times 100$$

**Step 3: Assign Accountability Levels**

**Weighted Average Achievement Levels** are assigned using statewide **rank-based cut points** as seen in the table below.

**Core Subject Performance Levels** are assigned using **static cut points** established based on ranked 2023-2024 SY outcomes (ranking as seen in table below) and reestablished every three years.

Rank	Level
≤ 10%	1
10.1-50%	2
50.1-75%	3
≥ 75%	4

## What is an example of academic indicator calculations?

Let's calculate the Academic Achievement Levels for School R's All Students Group.

**1. Calculate ELA, math, and science subject PIs**

Subject	# Continuously Enrolled Students	95% Continuously Enrolled Students	# Tested Students	# Level 1	# Level 2	# Level 3	# Level 4
ELA	140	133	120	12	35	39	34

$$\text{Weighted ELA PI} = \frac{(35) + 2(39) + 2.5(34)}{133} \times 100 = 148.9$$

$$\text{Core ELA PI} = \frac{(35) + 2(39) + 2.5(34)}{120} \times 100 = 165$$

2. Calculate Weighted Average Achievement Index or Core Subject Performance Index

Subject	# Continuously Enrolled Students	95% Continuously Enrolled Students	# Tested Students	# Level 1	# Level 2	# Level 3	# Level 4	PI Numerator	Weighted PI	Core PI
ELA	140	133	120	12	35	39	34	198	148.9	165
Math	140	133	118	15	37	41	25	181.5	136.5	153.8
Science	60	57	55	10	16	17	12	80	140.4	145.5

Weighted Average Achievement Index

$$\frac{198 + 181.5 + 80}{133 + 133 + 57} \times 100 = 142.3$$

Core Subject Performance Index

$$\frac{198 + 181.5 + 80}{120 + 118 + 55} \times 100 = 156.8$$

3. Assign Weighted Average Achievement Level or Core Subject Performance Level

Rank all schools based on Weighted Average Achievement Index and assign Weighted Average Achievement Level using rank-based cut points.

Assign Core Subject Performance Levels using static cut points based on ranked outcomes from 2023-2024 SY results.

School Index	Rank
School J 62.9	1
School D 93.5	2
School P 105.7	3
School R 142.3	4
School T 168.4	5

Rank	Weighted Average Achievement Level
≤ 10%	1
10.1-50%	2
50.1-75%	3
≥ 75%	4

Core Subject Performance Index	Core Subject Performance Level
0-86.5	1
86.6-131.2	2
131.3-158.1	3
158.2-250	4

**Note:** Assume five high schools in New York State for example purposes.

**Note:** [Click here for the Core Subject Performance Level static cut points.](#)

How can these accountability indicators be used for continuous improvement?

Schools and subgroups with Weighted Average Achievement Level 1 or 2 and Core Subject Performance Level 1 may be identified for more rigorous support models.

Analyzing academic achievement indicator data can support goal-setting, instructional decision-making, and the needs assessment process.

Student level data used for calculating academic achievement indicators can be found in the SIRS 106 report.

Want to know more?

For more tools and resources about the New York State ESSA Accountability System, visit the NYSED School and District Accountability Resources and Data website.

To learn more about resources and supports for identified schools and districts, visit the NYSED Office of Accountability’s Continuous Improvement website.



<https://www.nysed.gov/accountability/school-and-district-accountability-resources-and-data>



<https://www.nysed.gov/accountability/continuous-improvement>