# Understanding Student Growth Percentile (SGP) from the Illinois Assessment of Readiness (IAR)

ILLINOIS
STATE BOARD OF
EDUCATION

# Proficiency/Achievement vs Growth

**Proficiency/Achievement** shows whether students have mastered grade level standards

- Is a snapshot of current achievement
- Can be influenced by prior achievement (i.e., where a student started)

**Growth** shows how much a student improved relative to their peers

- Requires information over time (prior assessments)
- Is independent of prior achievement (all students can show growth)

ILLINOIS STATE BOARD OF EDUCATION

# Growth

Growth recognizes progress towards and beyond the proficiency standard (Met Expectations), no matter where each student started in their learning.
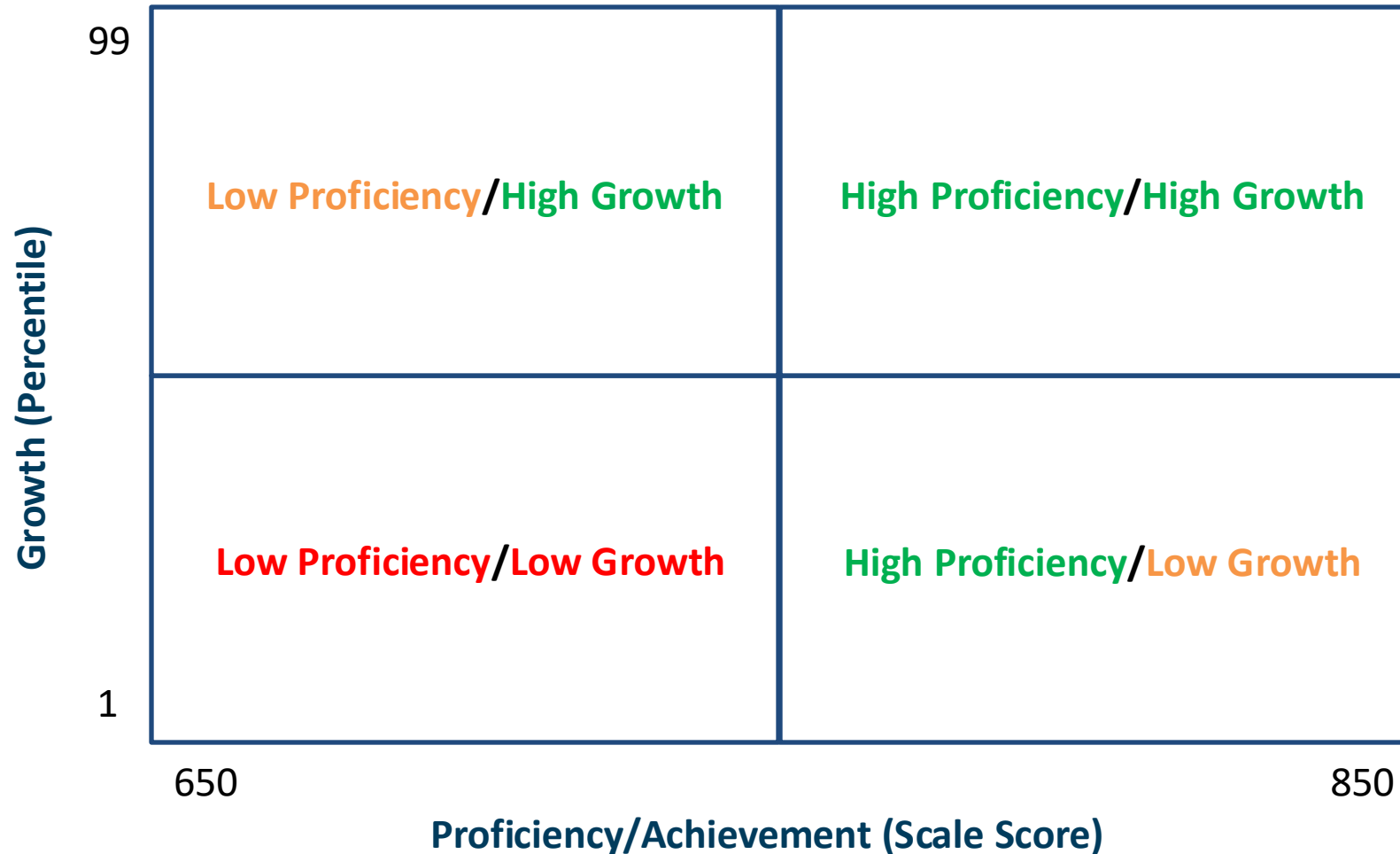
- The Student Growth Percentile (SGP) is used by Illinois as well as several other states to measure student growth.
  - Is a **percentile** not a percent – providing an indication of growth *relative to other students who started at the same place,* <u>not</u> the *amount* of growth.
  - Percentiles range from 1 to 99.

| 1st Percentile | Student Growth Percentile | 99th Percentile |
|---|---|---|

Least Growth → Most Growth
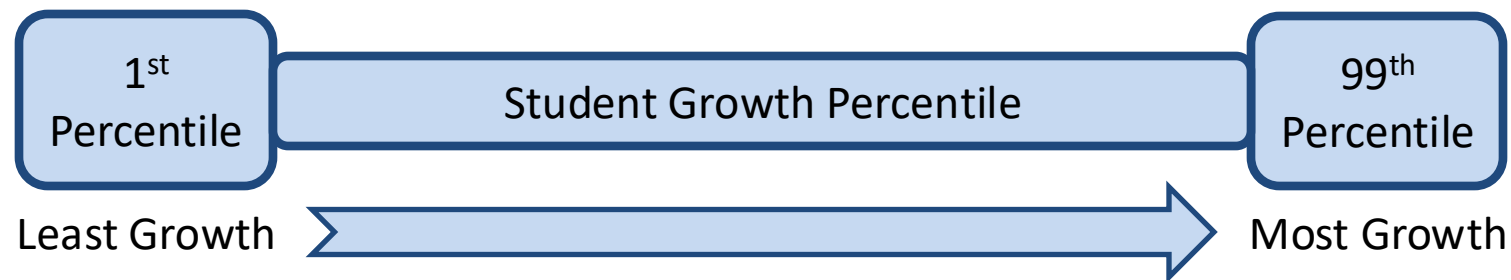
# What is Student Growth Percentile (SGP)?

- Describes how much a student grew compared to **academic peers** who **started at the same scale score,** *the previous school year(s)*, on the IAR in ELA/L and Mathematics.

- Requires the student have an IAR test score from the **prior year.**

- To calculate the SGP, a student must have, at minimum, a scale score from the previous school year in the same content area.

  - Because SGP requires information from last year's IAR, 3$^{rd}$ grade students will never have an SGP.

    - The IAR is not administered in 2$^{nd}$ grade.

  - SGP calculations will use **up to two years** of prior scores for each student, when available.

    - For example, a 5$^{th}$ grade student may have IAR scores from both the 3$^{rd}$ and 4$^{th}$ grades. Both scores will be used to calculate the student's SGP for 5$^{th}$ grade.

    - While up to two years of prior scores will be used when available, the SGP can be calculated with one prior IAR score.

**ILLINOIS STATE BOARD OF EDUCATION**

# Students can have differing levels of PROFICIENCY and GROWTH



Growth (Percentile)

99

1

Low Proficiency/High Growth

High Proficiency/High Growth

Low Proficiency/Low Growth

High Proficiency/Low Growth

650

850

Proficiency/Achievement (Scale Score)

ILLINOIS
STATE BOARD OF
EDUCATION

# What Are Academic Peers?

**Elena**

- Students who scored the **same scale score** on the prior administration(s) of the IAR in the same subject and grade level(s).

- For example, take Elena, a 4$^{th}$ grade student.
  - At the end of grade 3, she took the ELA/L IAR and scored a 740.
  - To calculate the SGP in grade 4, we compare Elena to her academically similar peers, other students who had an ELA/L scale score of 740 when they tested in grade 3.
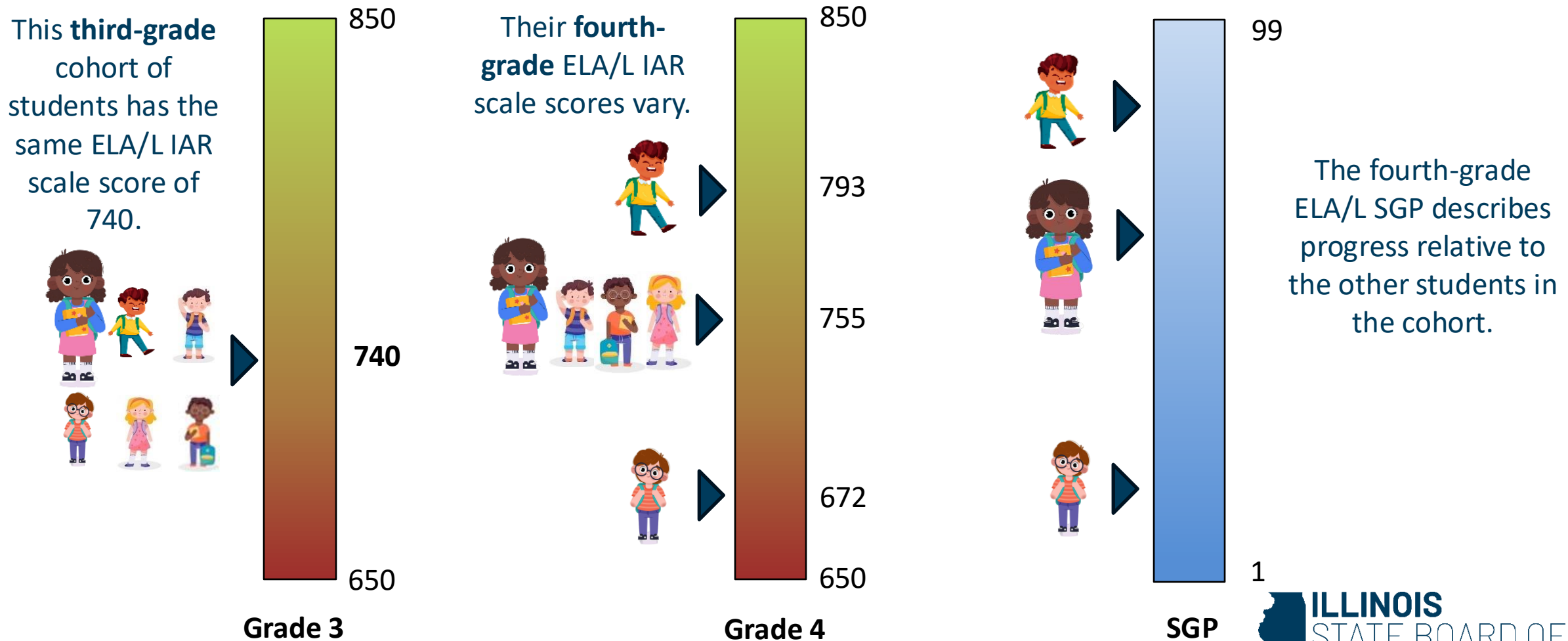
ILLINOIS STATE BOARD OF EDUCATION

# Elena: A 4th Grade Student

- Elena scored a 740 on the 3rd grade ELA/L test.

- In 4th grade, Elena scores a 755 in ELA/L.

- Elena's academic peers (who scored 740 in 3rd grade) have a wide range of 4th grade results, ranging from a low of 672 to a high of 793.

- Elena's SGP might be something like a 67.
    - She didn't grow quite as much as some of her academic peers, but she grew more than two-thirds of them!

# A Visualization of Elena's Cohort SGP Grade 4

This **third-grade** cohort of students has the same ELA/L IAR scale score of 740.

850

740

650

**Grade 3**

Their **fourth-grade** ELA/L IAR scale scores vary.

850

793

755

672

650

**Grade 4**

99

The fourth-grade ELA/L SGP describes progress relative to the other students in the cohort.

1

**SGP**
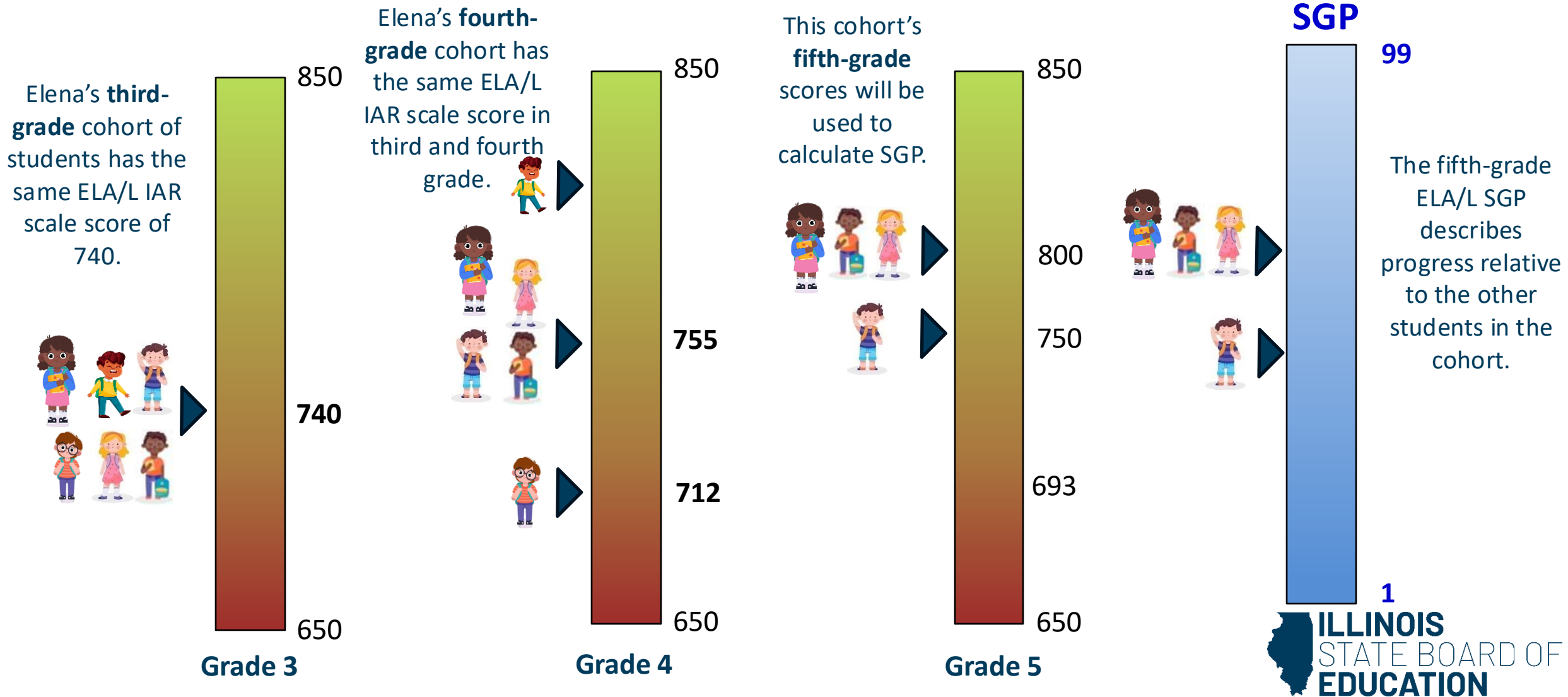
ILLINOIS
STATE BOARD OF
EDUCATION

# I've heard it's more complicated than that...

- While the statistics and algorithms behind the SGP are complex, conceptually the comparison is not.

- A few things to note:

  – Cohorts evolve to include students with similar prior scores each year.

  – In Elena's example, her new ELA/L cohort for grade 5 will be students who started at 740 in grade 3, then scored 755 in grade 4.

ILLINOIS
STATE BOARD OF
EDUCATION

# A Visualization of Elena's Cohort SGP Grade 5

Elena's **third-grade** cohort of students has the same ELA/L IAR scale score of 740.

Elena's **fourth-grade** cohort has the same ELA/L IAR scale score in third and fourth grade.

This cohort's **fifth-grade** scores will be used to calculate SGP.

**SGP**

The fifth-grade ELA/L SGP describes progress relative to the other students in the cohort.

**Grade 3**
- 850
- **740**
- 650

**Grade 4**
- 850
- **755**
- **712**
- 650

**Grade 5**
- 850
- 800
- 750
- 693
- 650

- 99
- 1

ILLINOIS STATE BOARD OF EDUCATION

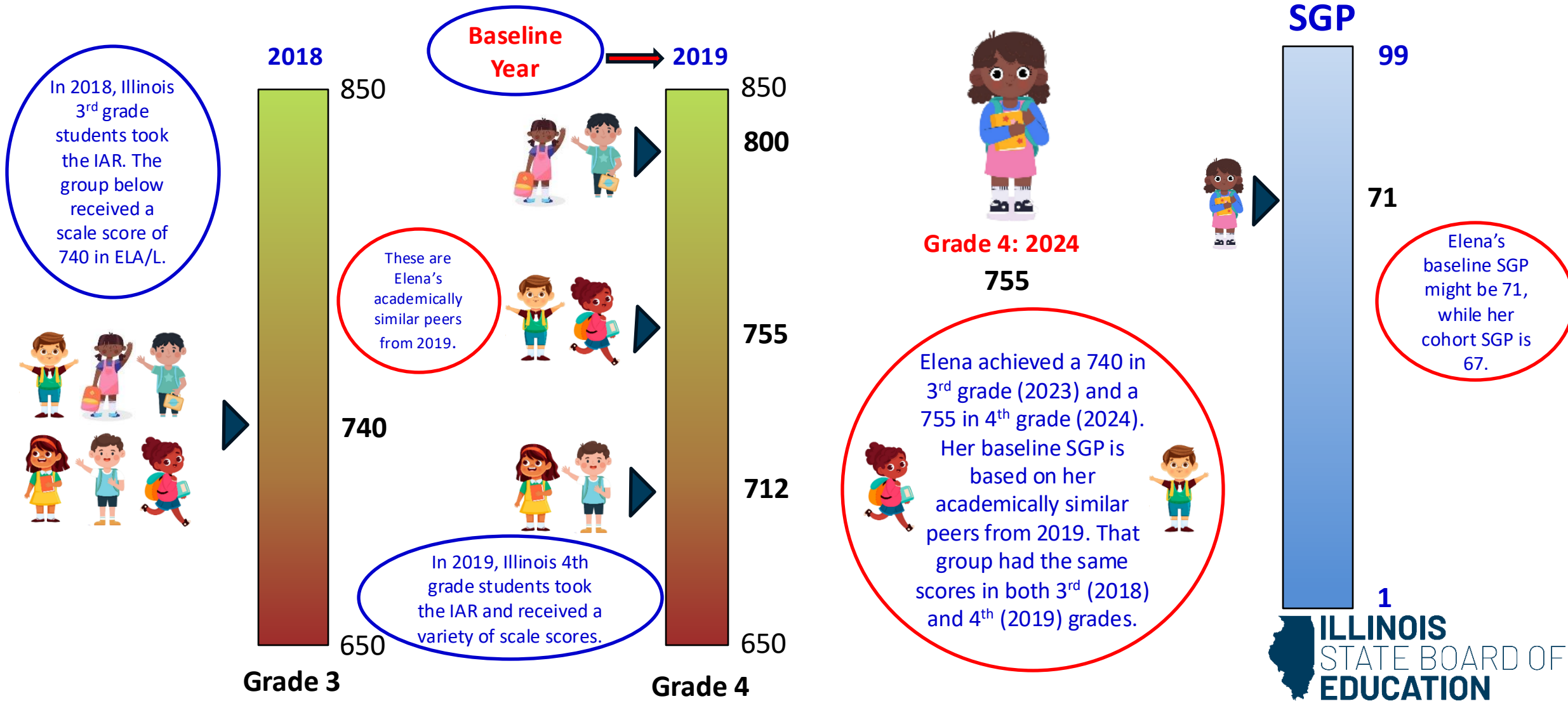# What's the difference between a *Cohort* and *Baseline* SGP?

## Cohort SGP

- **Compares** a student's IAR score **this year** to all other Illinois students in the same grade/content area who had the *same scale score* **the previous year.**
- Helpful in analyzing data for the same time period (e.g., 2024).
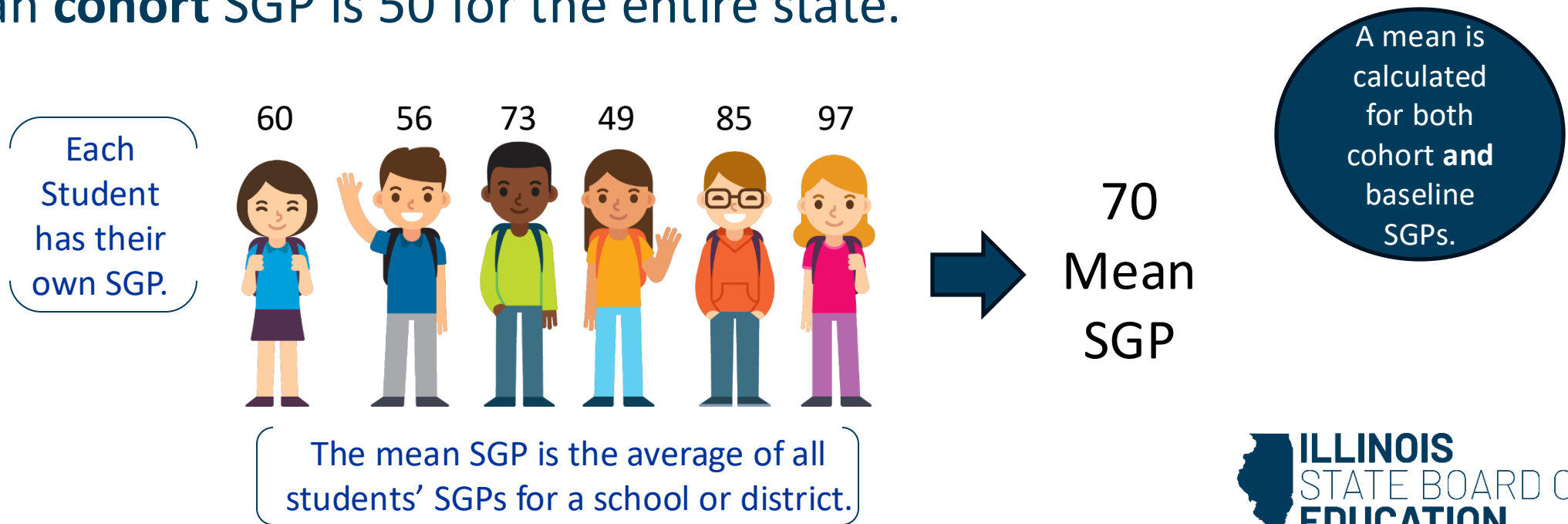
## Baseline SGP

- **Compares** a student's IAR score **this year** to all other Illinois students in the same grade/content area who had the prior grade *same scale score* in **the specified baseline year** (e.g., 2019).
- Helpful in analyzing trends over time (e.g., since 2019).

ILLINOIS STATE BOARD OF EDUCATION

# A Visualization of Elena's **Baseline** SGP Grade 4



**2018**

850

In 2018, Illinois 3rd grade students took the IAR. The group below received a scale score of 740 in ELA/L.

**740**

650

**Grade 3**

**Baseline Year** → **2019**

850

**800**

These are Elena's academically similar peers from 2019.

**755**

**712**

In 2019, Illinois 4th grade students took the IAR and received a variety of scale scores.

650

**Grade 4**

**Grade 4: 2024**

**755**

Elena achieved a 740 in 3rd grade (2023) and a 755 in 4th grade (2024). Her baseline SGP is based on her academically similar peers from 2019. That group had the same scores in both 3rd (2018) and 4th (2019) grades.

**SGP**

99

71

Elena's baseline SGP might be 71, while her cohort SGP is 67.

1

ILLINOIS STATE BOARD OF EDUCATION

# What is an average or mean SGP?

- A school or district's average SGP reflects all students enrolled and tested in the school or district and is a simple mathematical mean.

- The mean **cohort** SGP is 50 for the entire state.

A mean is calculated for both cohort **and** baseline SGPs.

60    56    73    49    85    97

Each Student has their own SGP.

70 Mean SGP

The mean SGP is the average of all students' SGPs for a school or district.

**ILLINOIS STATE BOARD OF EDUCATION**

# How should I interpret my school's or district's SGP?

**Suppose your school has a mean SGP in mathematics of 41...**

**What it means:**

- On average, students at your school grew more than 41% of their academically similar peers from across Illinois.

- It's an average – it will be important to look at your student groups to see if there are differences, as some students likely grew more and others less.

**What it does not mean:**

- 41% of students in the school grew.
  - Likely all students grew, it's a question of how much relative to others.

- 41% of students did better than last year.

- Students grew by 41%.

ILLINOIS
STATE BOARD OF
EDUCATION

# How should I interpret my school's or district's SGP?

- The SGP is a **percentile** which means it is **relative.**

- SGP does not tell us the amount of growth, just how the students' growth compares to their academically similar peers across the state.

**ILLINOIS**
STATE BOARD OF
**EDUCATION**

# Interpreting SGPs

**STRONG**

SGPs above 60 indicate STRONG growth – the student has made good progress compared to their academic peers.

Students who have strong growth are gaining ground/catching up to their higher achieving peers.

**AVERAGE**

SGPs between 40 and 60 indicate AVERAGE growth – the student has made adequate progress compared to their academic peers.

Students who have average growth are generally maintaining their achievement relative to their peers.

**LOWER**

SGPs below 40 indicate LOWER growth – the student has not made as much progress compared to their academic peers.

Students who have lower growth may not be gaining ground/catching up to their peers.

ILLINOIS STATE BOARD OF EDUCATION

# Students can have differing levels of PROFICIENCY and GROWTH

**Growth (Percentile)**

99

**Low Proficiency**/**High Growth**

- Student grew well relative to academically similar peers
- Student is not meeting standards but is now gaining ground/closing the gap

**High Proficiency**/**High Growth**

- Student grew well relative to academically similar peers
- Student is meeting standards and is gaining ground

**Low Proficiency**/**Low Growth**

- Student did not grow well relative to academically similar peers
- Student is not meeting standards and is not gaining ground

**High Proficiency**/**Low Growth**

- Student did not grow well relative to academically similar peers
- Student is meeting standards but is not progressing as much as others

1

650                                                    850

**Proficiency/Achievement (Scale Score)**

When considering the range of SGPs for students in a class, school, or district, reflect on the opportunity to learn provided to students who demonstrated strong, average, or lower growth. Were different students given different exposure to lessons and activities?

ILLINOIS STATE BOARD OF EDUCATION

# thank you

## Have a question?

**Please contact ISBE Assessment Department at [assessment@isbe.net](mailto:assessment@isbe.net).**

Student graphics designed by Freepik.

https://www.isbe.net/reportcard

ILLINOIS
STATE BOARD OF
EDUCATION