

# VALUE-ADDED REPORTING IN OHIO

JOHN WHITE, PH.D., SENIOR DIRECTOR, SAS EVAAS FOR K-12  
NADJA YOUNG, NBCT, EDUCATION MANAGER, SAS STATE & LOCAL GOVERNMENT



# AGENDA

- SAS Institute overview
- SAS EVAAS overview
- Address questions from the HB 524 Sponsor Testimony
- Open Q&A

# SAS INSTITUTE

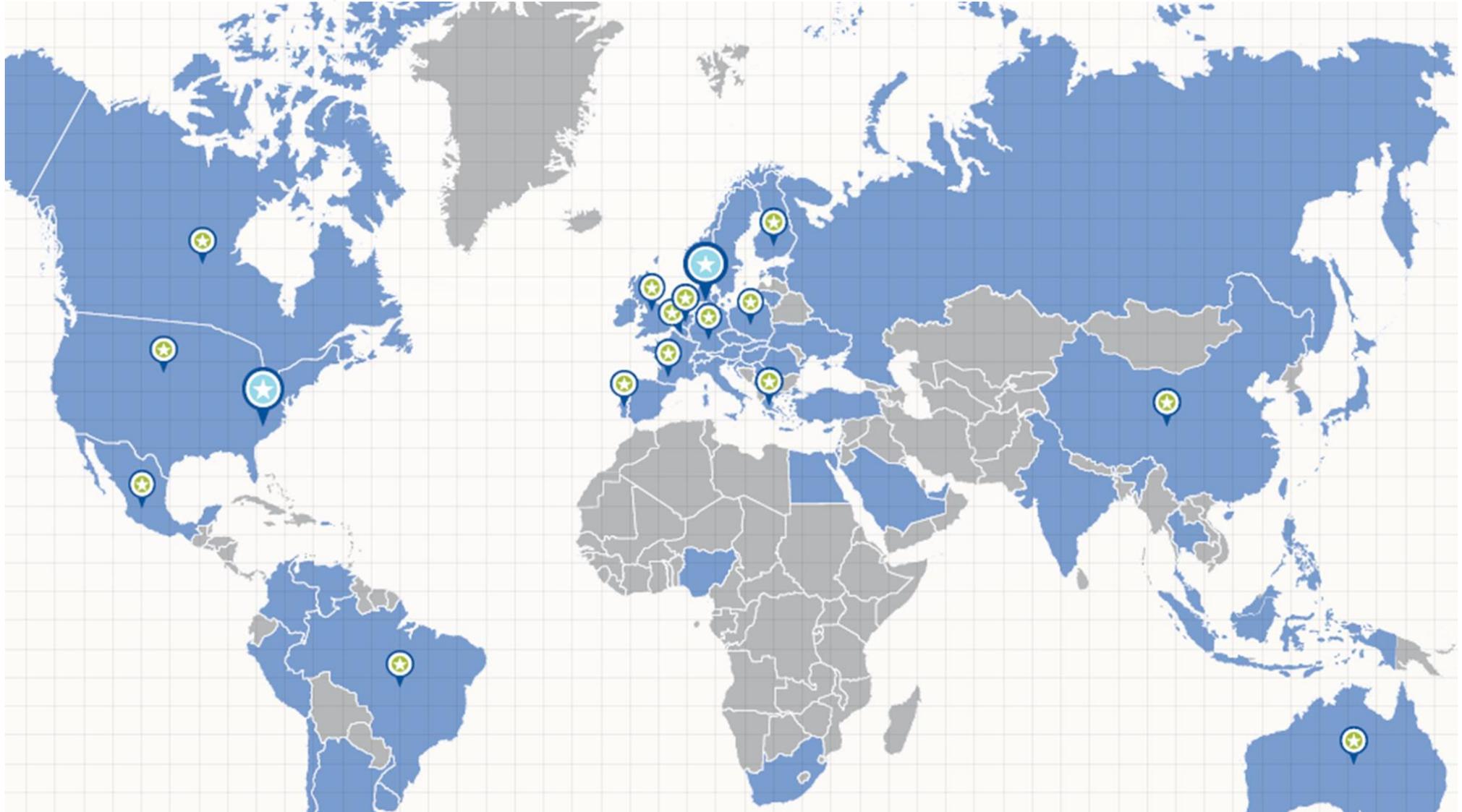


# SAS INSTITUTE



THE  
POWER  
TO KNOW.

# SAS INSTITUTE



# **SAS EVAAS** STATE AND DISTRICT PARTNERSHIPS

## **State Partners**

- Ohio
- Pennsylvania
- Tennessee
- North Carolina
- South Carolina
- Texas (Pilot)

## **District Partners**

- Indiana
- Virginia
- Georgia
- Arkansas

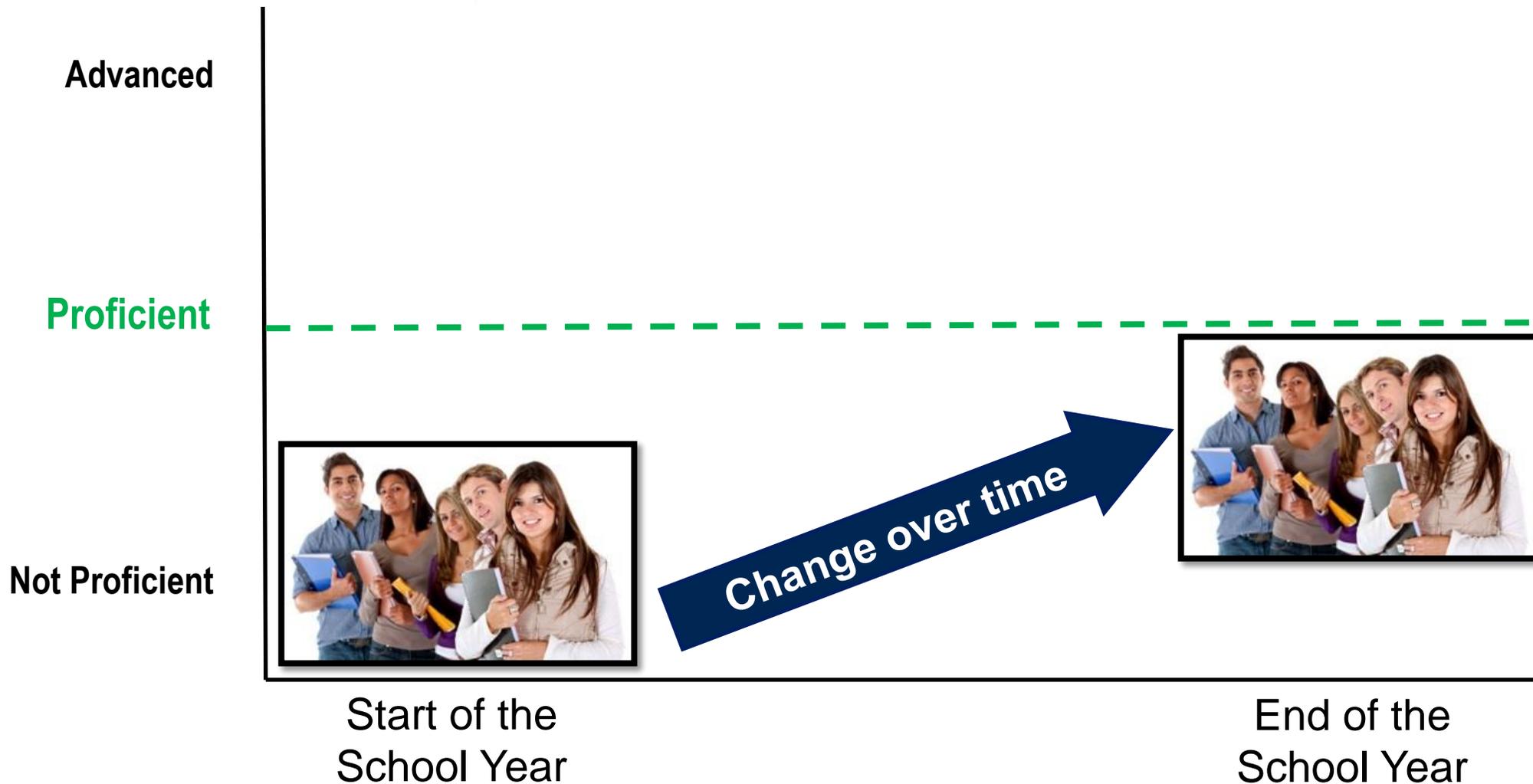
# SAS EVAAS EVOLUTION IN OHIO



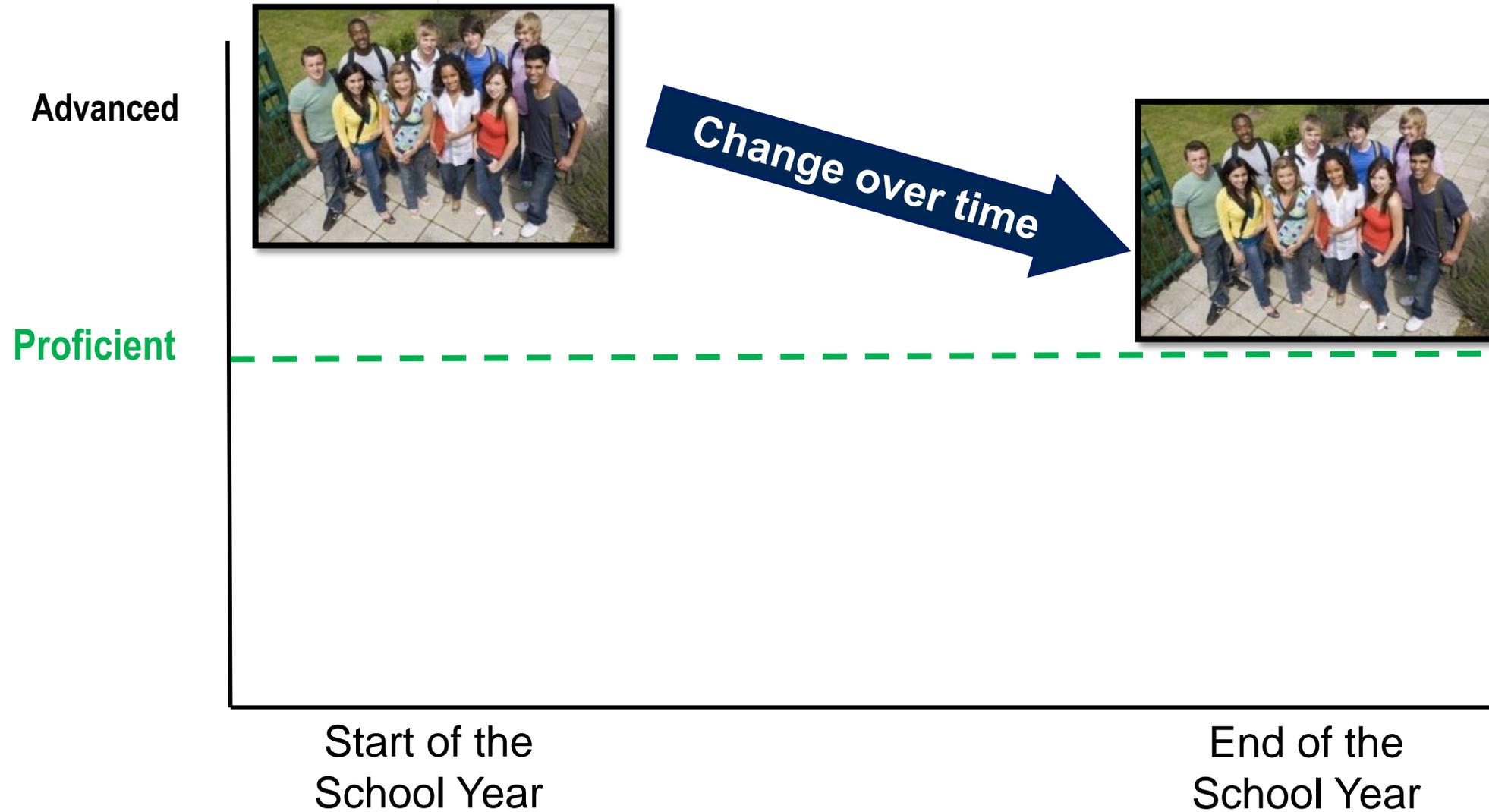
# **SAS EVAAS** 1. WHAT IS VALUE-ADDED?

- A measure of student academic growth
  - For a group of students
  - Compared to an expectation based on students' prior testing performance
- Sound, reliable, statistical approach that has been in use for decades

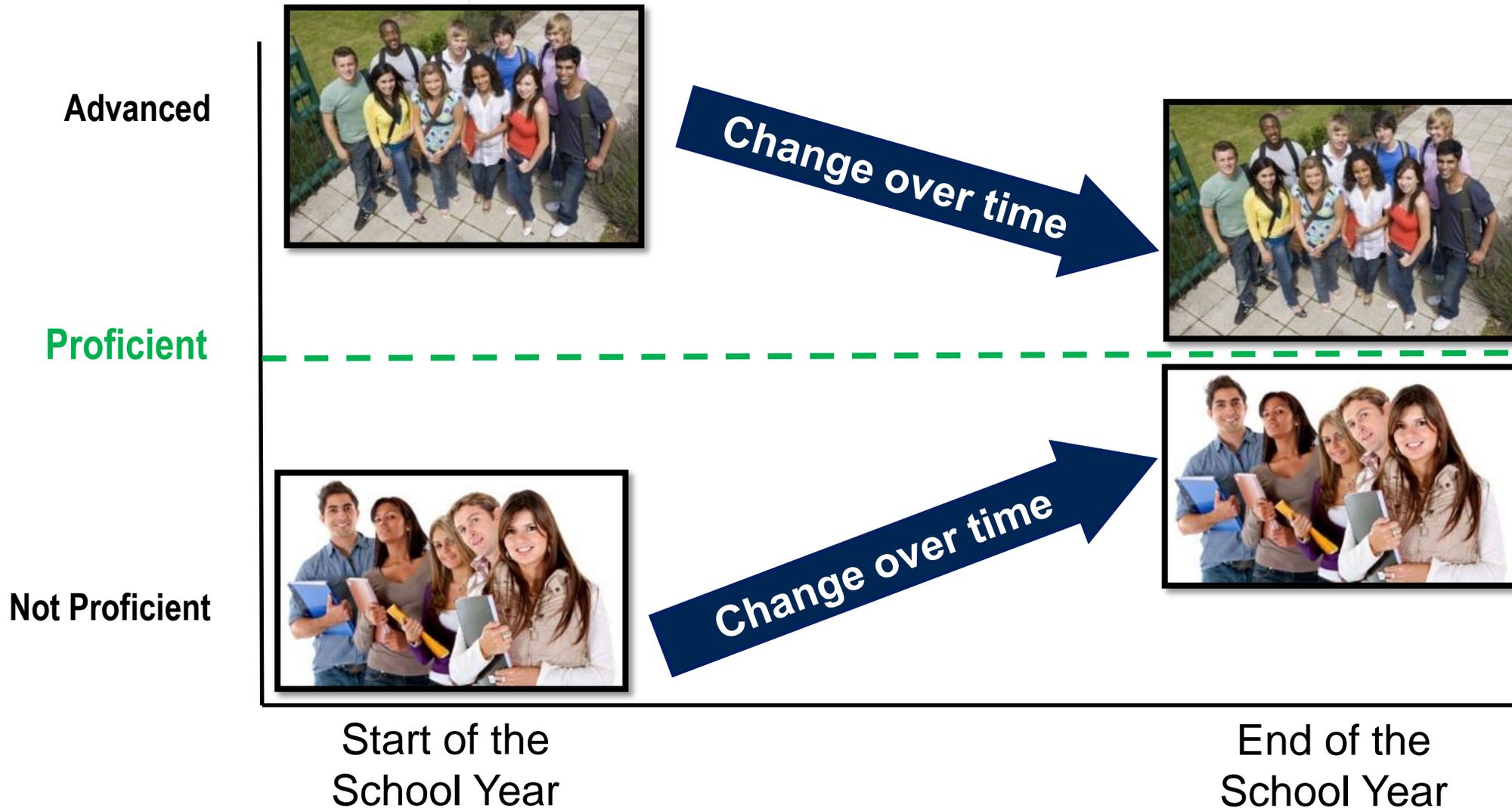
# SAS EVAAS GROWTH VERSUS ACHIEVEMENT



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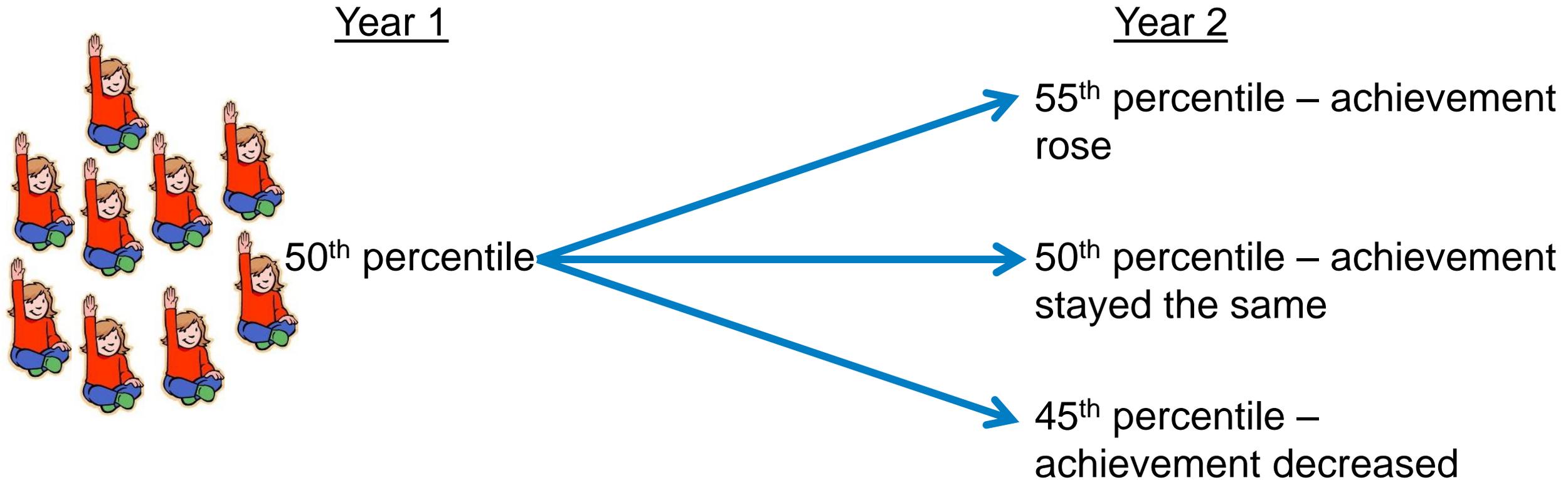
# SAS EVAAS GROWTH VERSUS ACHIEVEMENT



## **SAS EVAAS** 2. WHAT DOES VALUE-ADDED MEASURE?

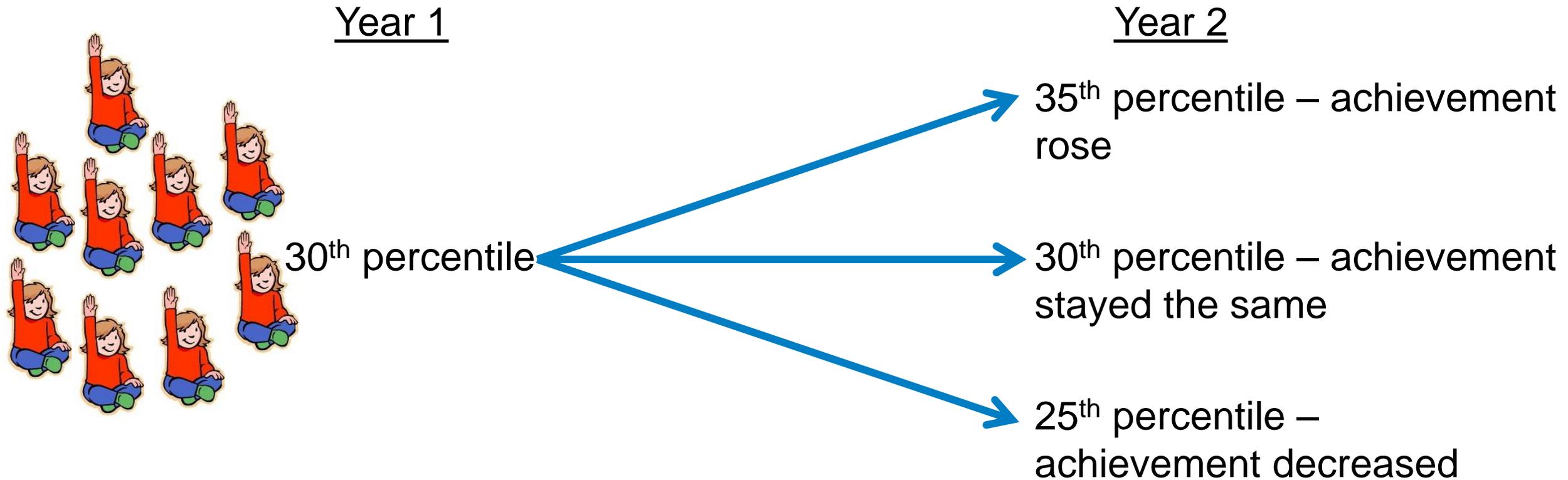
- The change in achievement
  - For a group of students
  - Compared to an expectation based on students' prior testing performance

# SAS EVAAS CONCEPTUALLY, WHAT DOES EVAAS MEASURE?



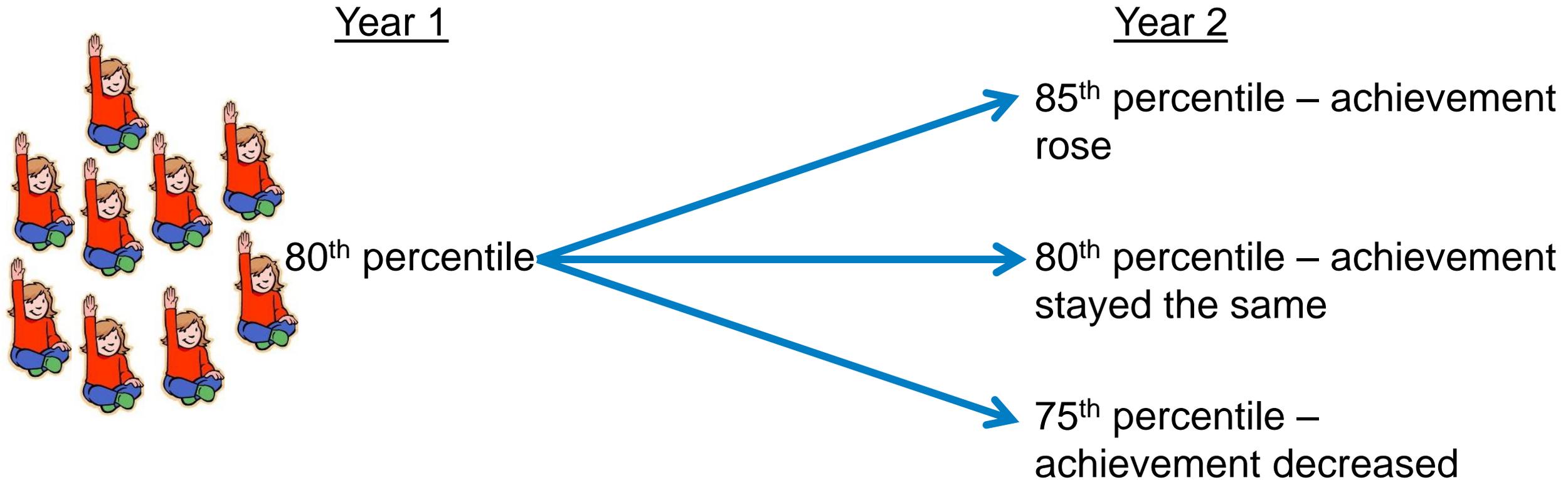
- The *change* in achievement is the *growth or value-added* measure.
- What about educators serving very high- or very low-achieving students?

# SAS EVAAS CONCEPTUALLY, WHAT DOES EVAAS MEASURE?



- Again, the *change* in achievement is the *growth or value-added* measure.

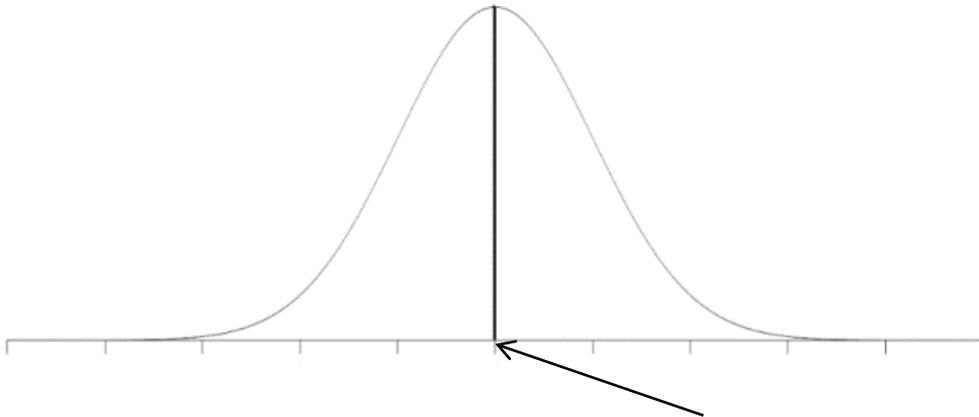
# SAS EVAAS CONCEPTUALLY, WHAT DOES EVAAS MEASURE?



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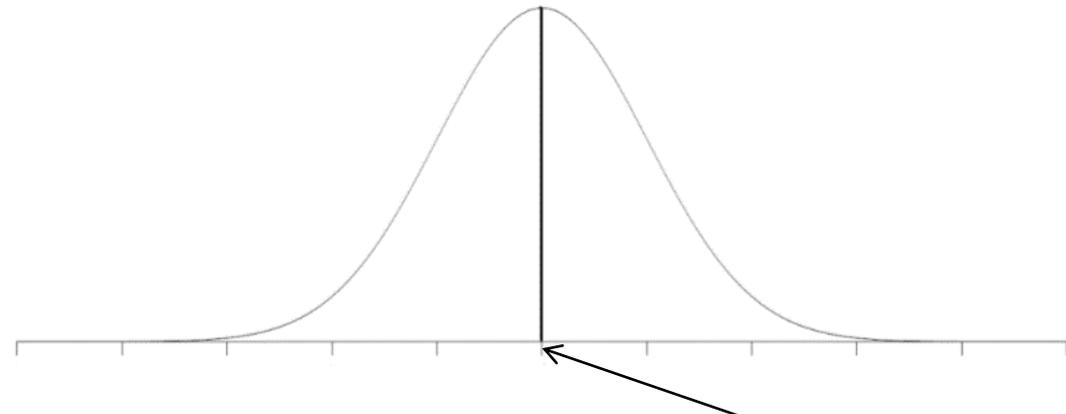
# SAS EVAAS TECHNICALLY, HOW DOES EVAAS WORK?

Statewide Distribution of Test Scores  
for Grade 4 Math in 2014



Average student scale score: 426  
Average student NCE: 50

Statewide Distribution of Test Scores  
for Grade 5 Math in 2015



Average student scale score: 738  
Average student NCE: 50

$$\text{Growth} \approx 2015 \text{ NCEs} - 2014 \text{ NCEs} \approx 50 - 50 \approx 0$$

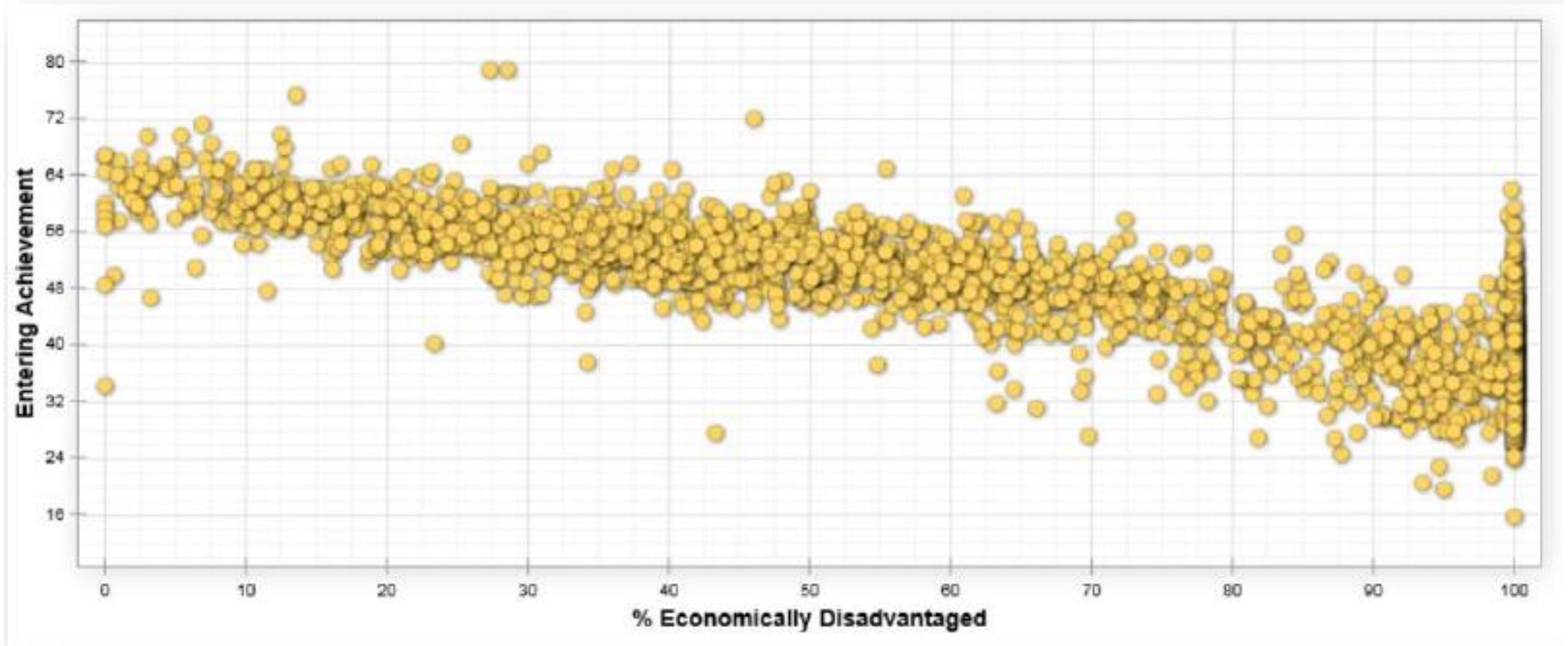
## **SAS EVAAS** 3. WHY SHOULD STATES MEASURE GROWTH?

- To focus on students of all achievement levels
- To identify strengths and weaknesses in schools, programs, and classrooms
- Independent research shows:
  - Students with access to high value-added teachers have improved life outcomes
  - Higher rates of college completion
  - Greater lifetime earnings
  - Greater retirement savings

## 4. IS VALUE-ADDED A PROPER MEASURE OF STUDENT LEARNING AND PROGRESS?

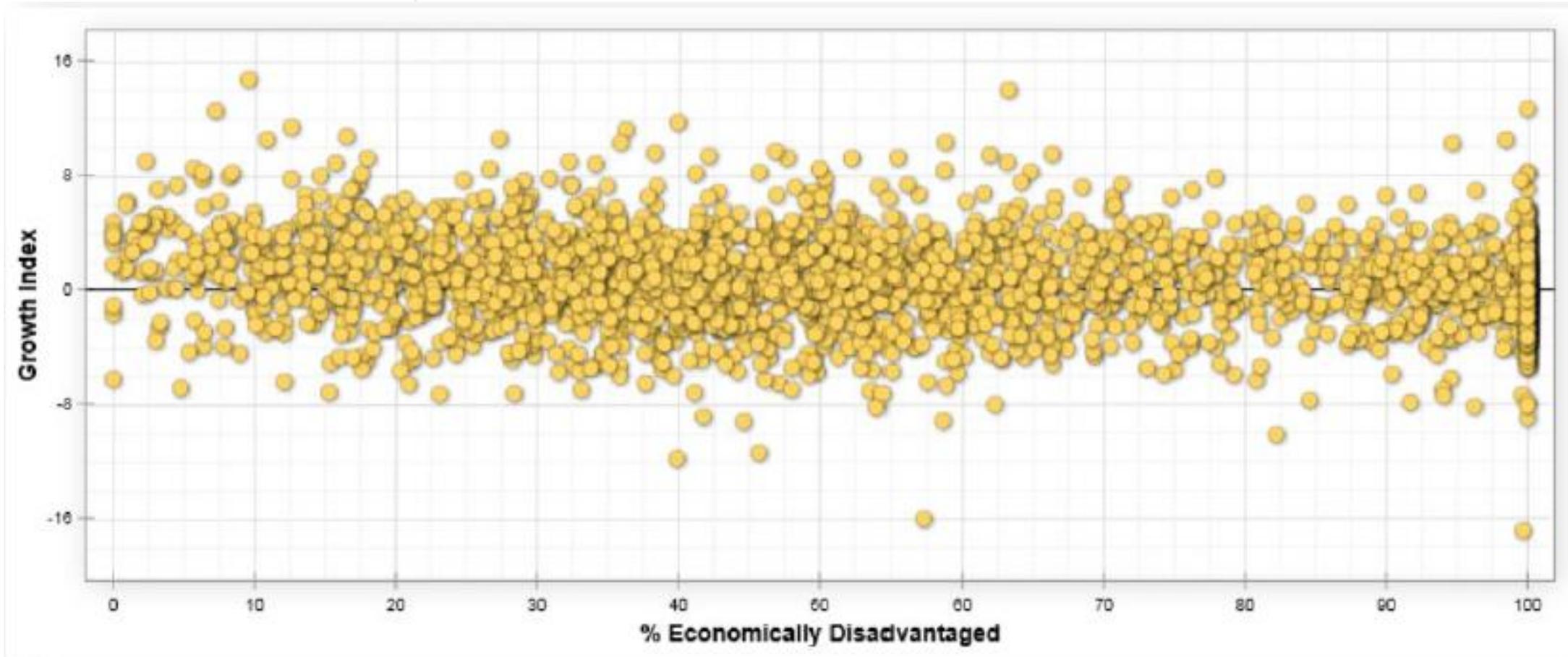
- Many ways to measure growth
- Not all value-added models accommodate:
  - Changes in assessments
  - Imperfect test scores
  - Students with missing data
  - Student mobility

## 4. IS VALUE-ADDED A PROPER MEASURE OF STUDENT LEARNING AND PROGRESS?



- Achievement, or a test score, is highly related to students' background.

## 4. IS VALUE-ADDED A PROPER MEASURE OF STUDENT LEARNING AND PROGRESS?



- Value-added typically has little or no relationship to students' background.
- It tells us something about what is going on in schools, not the home.

## 5. IS VALUE-ADDED A RELIABLE INDICATOR OF STUDENT LEARNING AND PROGRESS?

- The Brookings Institute
  - [\*Evaluating Teachers: The Important Role of Value-Added\*](#)
  - “Value-added scores for individual teachers turn out to be about as reliable as performance assessments used [in other industries] for high stakes decisions.”

# **SAS EVAAS** WHAT CAUSES CHANGES FROM YEAR TO YEAR?

- Different teachers
- Different leadership
- Different students
- Different curriculum
- Different instructional practices or lesson plans

# **SAS EVAAS** WHAT CAUSES CHANGES FROM YEAR TO YEAR?

- New standards, which cover different concepts
- New tests, which include the new standards
  - ELA test now includes writing
  - Reset growth expectation
- New policies
  - 3-yr to 1-yr average for accountability grades
  - Excluding middle school Algebra I students from the state math test

## **SAS EVAAS** | WHAT CAUSES CHANGES FROM YEAR TO YEAR?

- There are many logical reasons for changes
- These reasons affect all schools and teachers
- Regardless, value-added measures still represent the academic progress made by students as it is defined in Ohio

## 6. HOW DOES VALUE-ADDED INFORM A TEACHER'S ABILITY TO TEACH?

- EVAAS is a diagnosis tool, to be used with other data and local knowledge.
- EVAAS goes beyond a single measure of growth to provide additional insights to inform a teacher's ability to teach.

# SAS EVAAS SAMPLE TEACHER VALUE-ADDED REPORT

Teacher Value Added | Teacher Diagnostic | Teacher Custom Diagnostic

View: Value Added Graph | Student List



◇ Index    — Standard for Academic Growth

— District Average

Show:

Index Graph ▼

## Teacher Growth Measures and Standard Errors

Year	Growth Measure	Standard Error	Index	Level
2014	3.4	1.8	1.91	Above Average

Teacher growth measures are from SAS® EVAAS® multivariate, longitudinal analyses using all available data for each student (up to 5 years). The multi-year trend incorporates the most recent student data, and the previous years' gains used in that trend may have changed from what was reported in previous years. ODE has requested, for consistency, the single-year growth measures in the chart and table above/below are the same as those that have been reported in previous years.

## 2014: Above Average

**Above Average:** Moderate evidence that the teacher's students made more progress than the state growth standard/pool average (the teacher's index is equal to or greater than 1 but less than 2).

### 2014 Distribution of Teachers

Level	No. of Teachers
Most Effective	154
Above Average	110
Average	109
Approaching Average	20
Least Effective	21

Teacher growth measures and standard errors are presented in the chart to the left. This allows each teacher to compare his or her students' progress with the state growth standard / pool average.

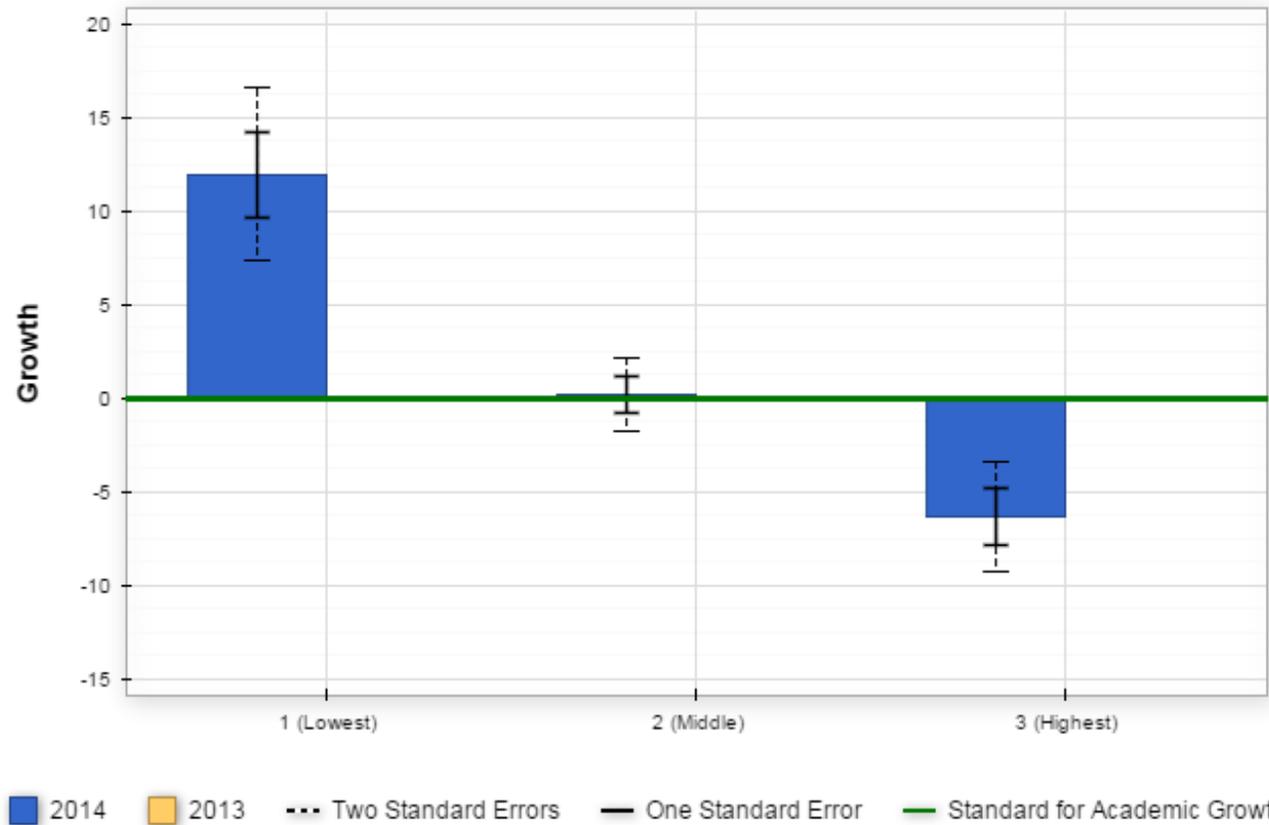
# SAS EVAAS SAMPLE TEACHER DIAGNOSTIC REPORT

Teacher Value Added

Teacher Diagnostic

Teacher Custom Diagnostic

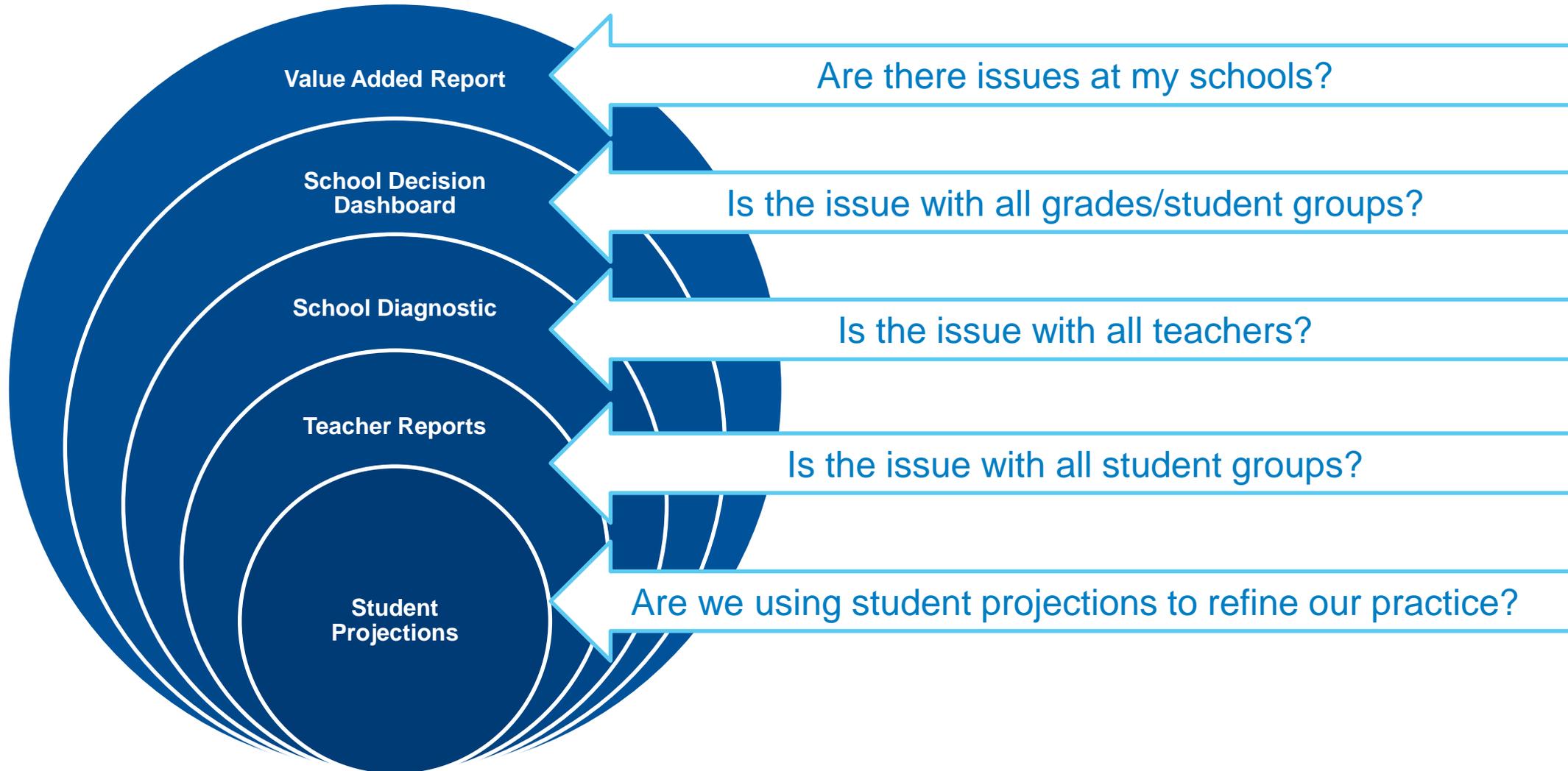
Filter By: Subgroup



## 2014 Achievement Groups (92)

- ▶ 1 (Lowest) (42)
- ▶ 2 (Middle) (32)
- ▶ 3 (Highest) (12)
- ▶ Students Not Used in Report (4)
- ▶ Students Not Used in Analysis (2)

# SAS EVAAS HOW DOES EVAAS HELP DISTRICTS, SCHOOLS & TEACHERS?

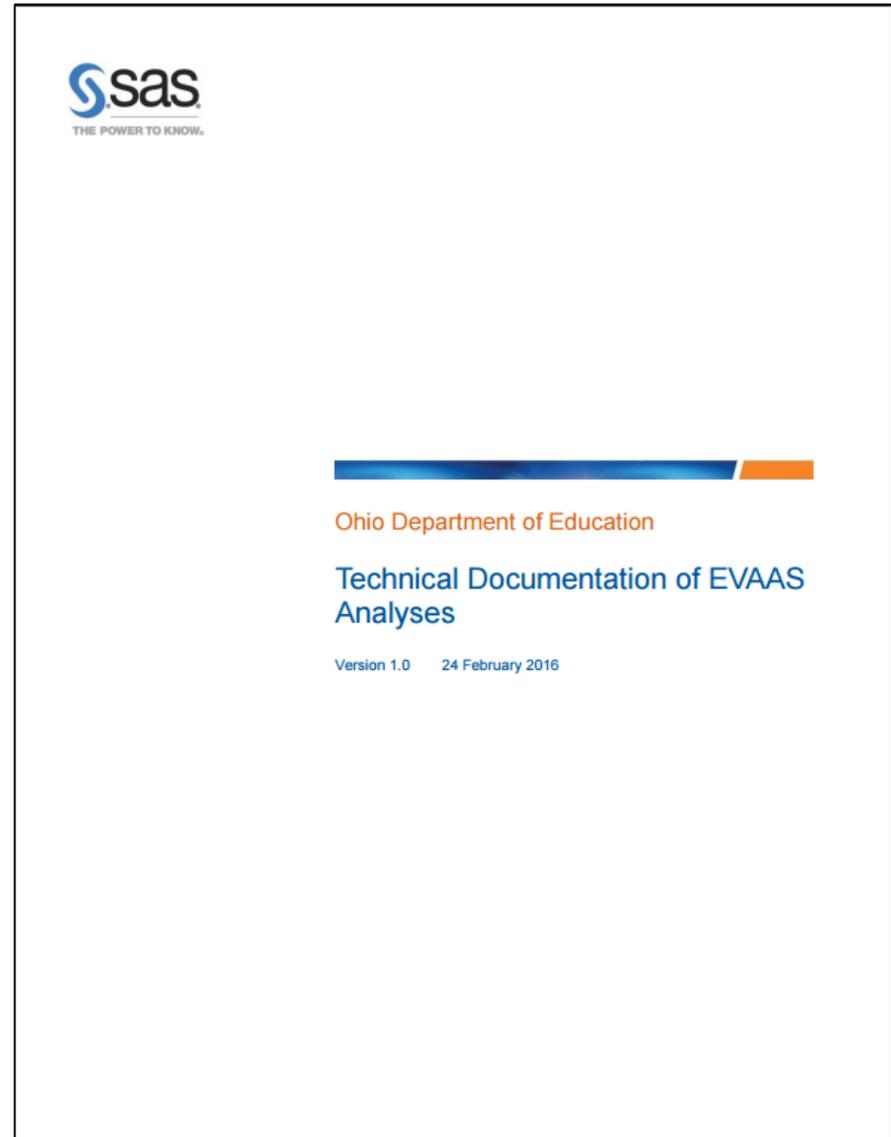


## 7. IS VALUE-ADDED AN APPROPRIATE MEASURE FOR ALL SCHOOLS?

- Policy question for the State of Ohio
- Ohio has many different types of schools
- EVAAS follows the same individual students
- EVAAS is flexible enough to adapt to policy changes over time

## SAS EVAAS OPENING THE “BLACK BOX”

- EVAAS uses established statistical models
- Applied in many industries with large, complex datasets
- Ohio’s precise modeling and business rules are publicly available on ODE’s website
- Web reporting provides ultimate accountability
- Only coding algorithms are proprietary
- External validation
  - RAND
  - WestEd



<http://education.ohio.gov/getattachment/Topics/Data/Report-Card-Resources/Ohio-Report-Cards/Value-Added-Technical-Reports-1/Technical-Documentation-of-EVAAS-Analysis.pdf.aspx>

**QUESTIONS?**

