



# **CORE Collaborative Academic Growth Data**

## **An Introduction**

San Mateo Foster City School District

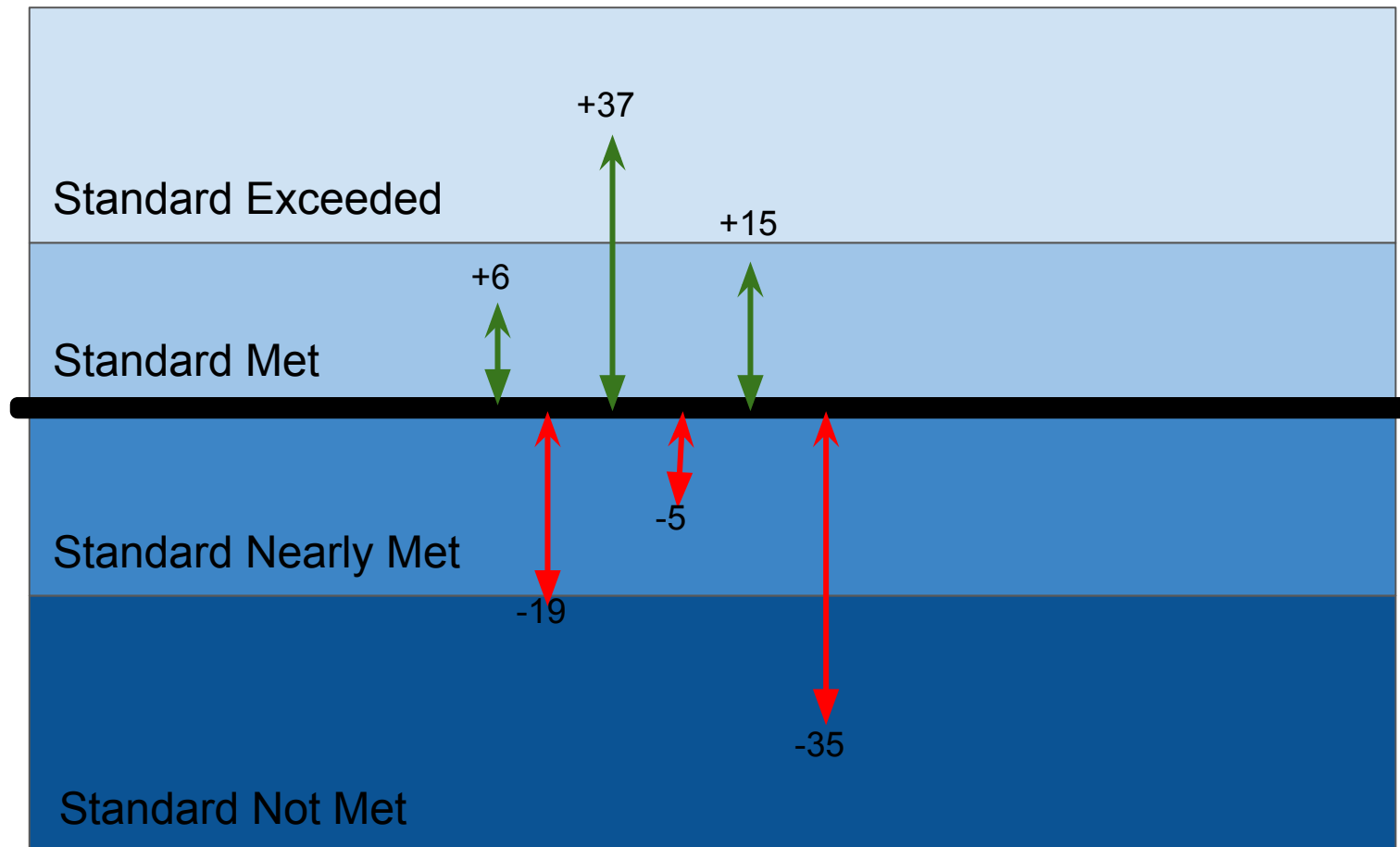
May 2019

# Goals of Tonight's Session

- Introduce the Academic Growth reports and analytics available in the CORE Data System
- Explore local data and analytics



# Quick Check for Understanding: CA's use of Above/Below Standard



# Remember SMFCSD School Targets Based on CA Dashboard

School Name: ABC Elementary School				
	LITERACY		MATHEMATICS	
	17-18 SMFCSD School Expected Targets		17-18 SMFCSD School Expected Targets	
Overall "Average Points Above Standard"	STATUS (EXPECTED LEVEL TO BE ATTAINED)	10 points above	STATUS (EXPECTED LEVEL TO BE ATTAINED)	10 points above
	GROWTH (PROGRESS EXPECTED)	8 point rise	GROWTH (PROGRESS EXPECTED)	8 point rise
SED "Average Points Above Standard"	STATUS (EXPECTED LEVEL TO BE ATTAINED)	0 points above	STATUS (EXPECTED LEVEL TO BE ATTAINED)	0 points above
	GROWTH (PROGRESS EXPECTED)	15 point rise	GROWTH (PROGRESS EXPECTED)	15 point rise
EL "Average Points Above Standard"	GROWTH (PROGRESS EXPECTED)	15 point rise	GROWTH (PROGRESS EXPECTED)	15 point rise
SwD "Average Points Above Standard"	GROWTH (PROGRESS EXPECTED)	15 point rise	GROWTH (PROGRESS EXPECTED)	15 point rise
3rd Grade "Average Points Above Standard"	STATUS (EXPECTED LEVEL TO BE ATTAINED)	10 points above	STATUS (EXPECTED LEVEL TO BE ATTAINED)	10 points above
5th Grade "Average Points Above Standard"	STATUS (EXPECTED LEVEL TO BE ATTAINED)	10 points above	STATUS (EXPECTED LEVEL TO BE ATTAINED)	10 points above
ELPAC Performance	GROWTH (PROGRESS EXPECTED)	Pending		

# Typical conversations about school performance can lead to mistaken conclusions

Common questions we ask of the data	The intended interpretation behind the question	Does the data tell us what we intend to learn by asking the question?
Which schools had the highest and lowest performance?	Where did students know the most or the least at the end of the year?	Yes – <b>STATUS</b> measures like the percentage of students meeting standards or the average distance to meeting standards tell us how much students know.
Which schools went up the most? Which schools went down the most?	Which schools are having the biggest or smallest impact on student learning?	No – <b>SIMPLE GROWTH</b> measures compare a school's performance from one year to their performance in the prior year and therefore can be misleading. Several factors influence change including student starting points. Last year's students and this year's students are different.

# Simple Growth & “Robust” Growth

Metric	Example	What it Tells You for the Example
<b>STATUS:</b> Measures performance at a particular point in time.	45% of students met grade level standards in math in 2016-17	The degree to which students know math.
<b>SIMPLE GROWTH:</b> Measures how much the average student has improved from one year to the next.	The average student improved 20 scale score points in math when we compared each individual student's 2015-16 math score to his/her 2016-17 math score.	How much math knowledge students gained in one year. But what about “different” students, not just the average student? How much are we growing different students?
<b>“ROBUST GROWTH”:</b> Compares each student's results to what we would have predicted for that student had he/she been in an average impact school.	Growth in math was at the 85th percentile, representing above average impact.	<u>The impact of a district, a school or grade level team on improving math learning.</u>

# **A little more difficult to understand ... but understand it we must!**

**Robust Growth models rely on  
statistical prediction.**



**Size of the student group is critical!**

**CORE Data Collaborative has ...**

- Dozens of CA districts, including LA, SF, Long Beach, Fresno, etc.
- Millions of students.



# Academic Growth - The Basics

## Step 1

After Spring testing is complete, EA **collects student data** from the CORE Districts & EA **determines demographic and other adjustments**



**EA = Education Analytics**

## Step 2

Each **student gets a customized statistical prediction** based on his or her characteristics

+35 Average Growth

- 3 for Econ. Disadv.

- 4 for Disability

+ 2 for EL Status

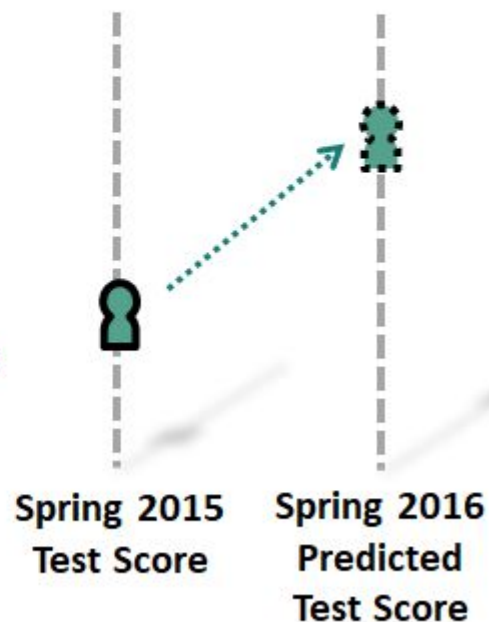
- 1 for Homeless Status

+ 1 for Foster Status

+ 2 School Averages

**+32 points**

**During the year**

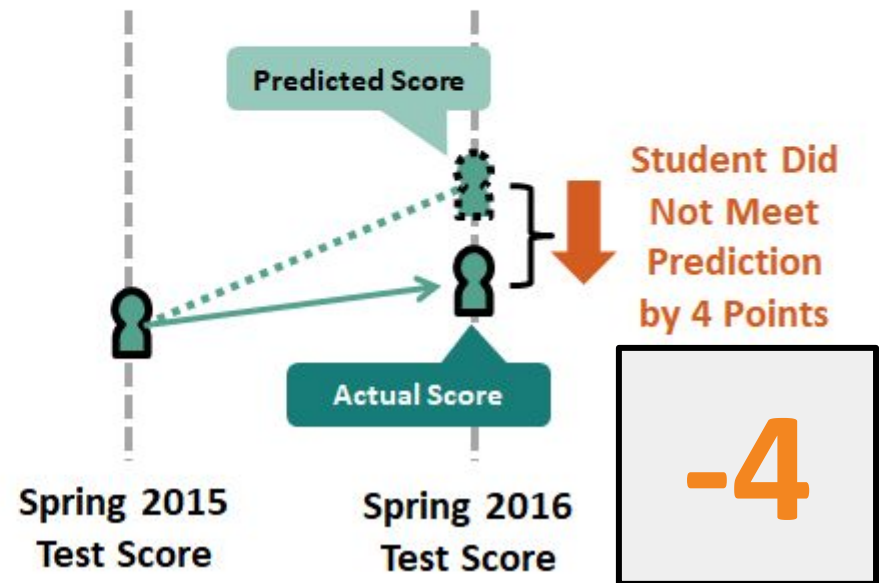
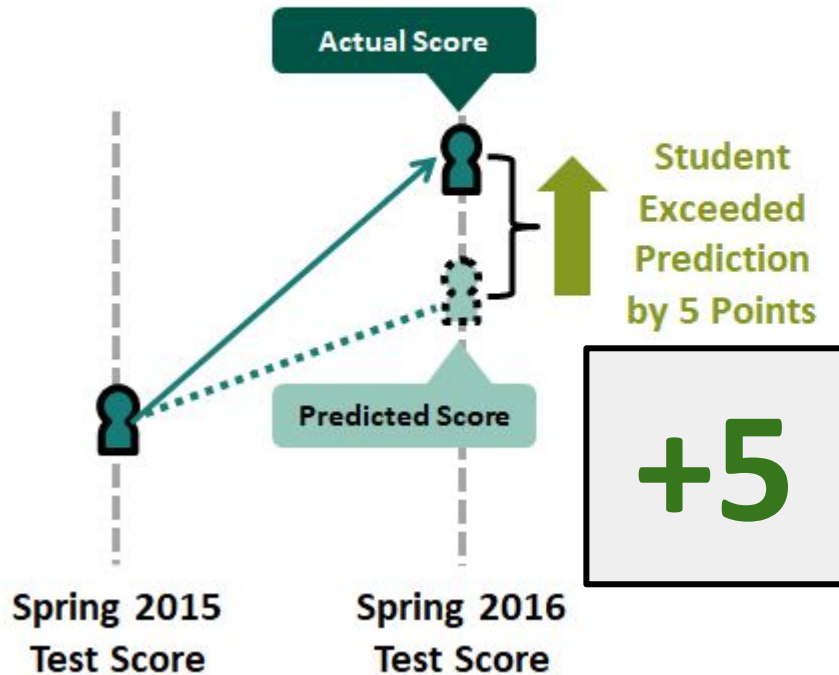




# Academic Growth - The Basics

## Step 3

- Determine whether each **student exceeded** or **did not meet prediction**, and by how much

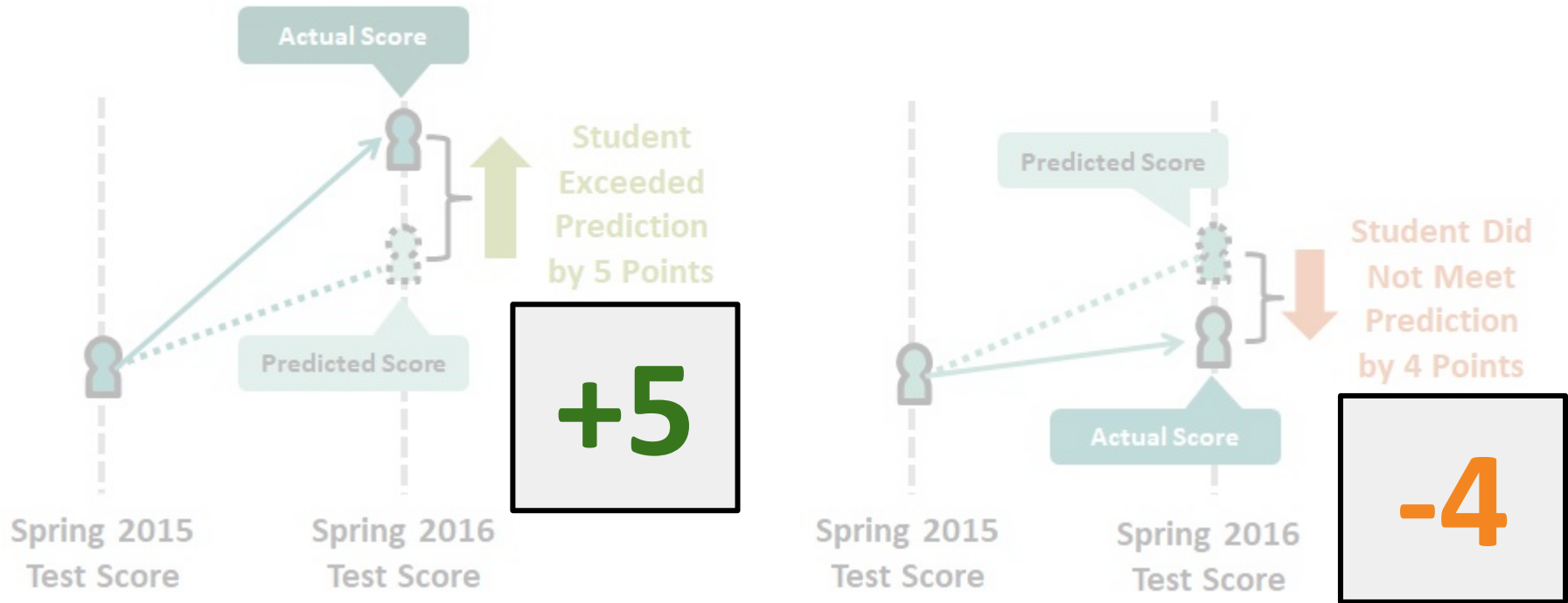


**STUDENT Score: Plus/Minus now means above or below what we predict their performance to be, not above or below standard.**

# Academic Growth - The Basics

Step 3

## KEY MOVE!!!



**STUDENT Score:**

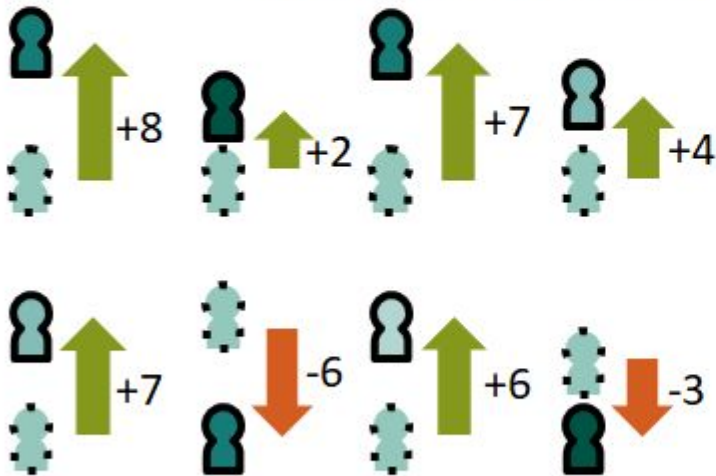
**Now can compare "Apples to Apples".  
"Controlled" for key differences among students.**

# Academic Growth - The Basics

## Step 4

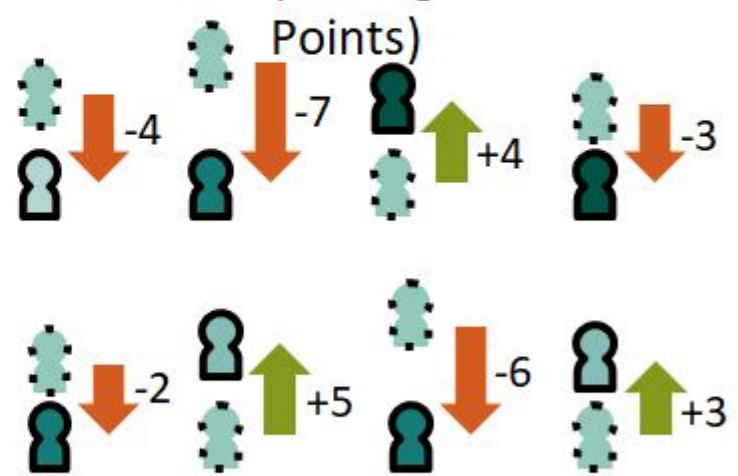
- **On average**, did a school's students tend to exceed or not meet their predictions, and by how much?

### School A (Average +3.25 Points)



Modestly Above Average Impact

### School B (Average -1.25 Points)



Modestly Below Average Impact

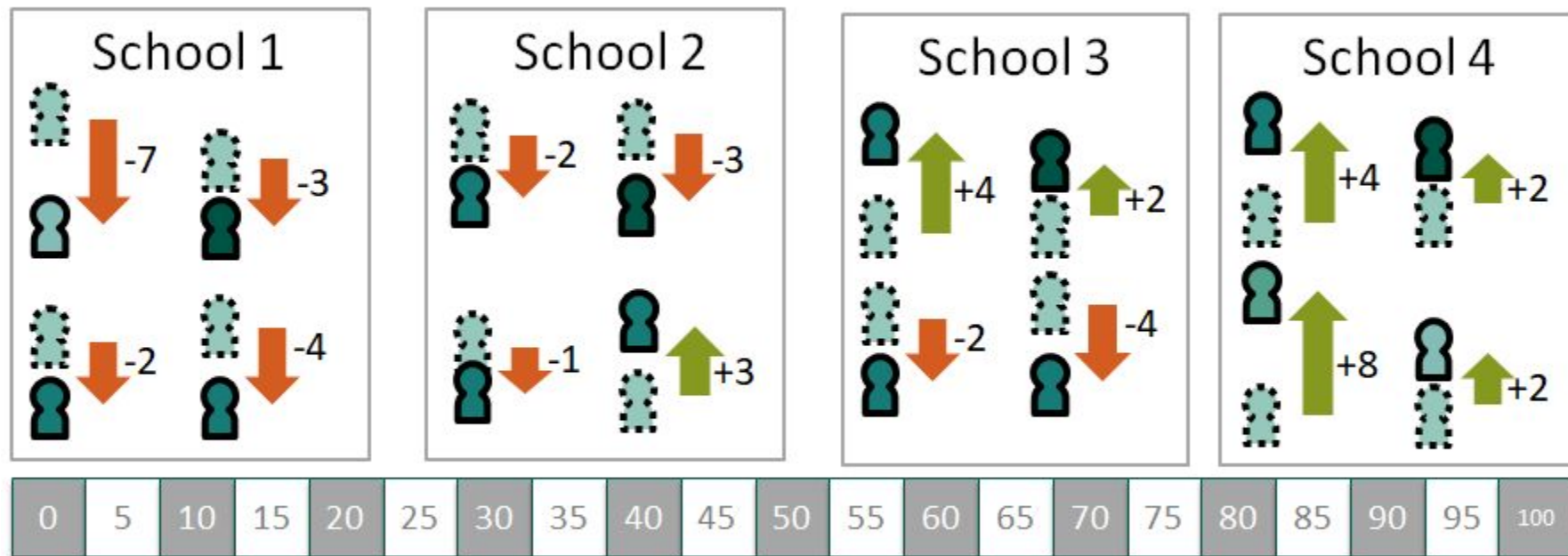
## SCHOOL Score:

Now can compare schools "Apples to Apples".  
"Controlled" for key differences among students & therefore schools.

# Academic Growth - The Basics

## Step 5

- Growth result is **converted to 0-100** Student Growth Percentile (SGP)



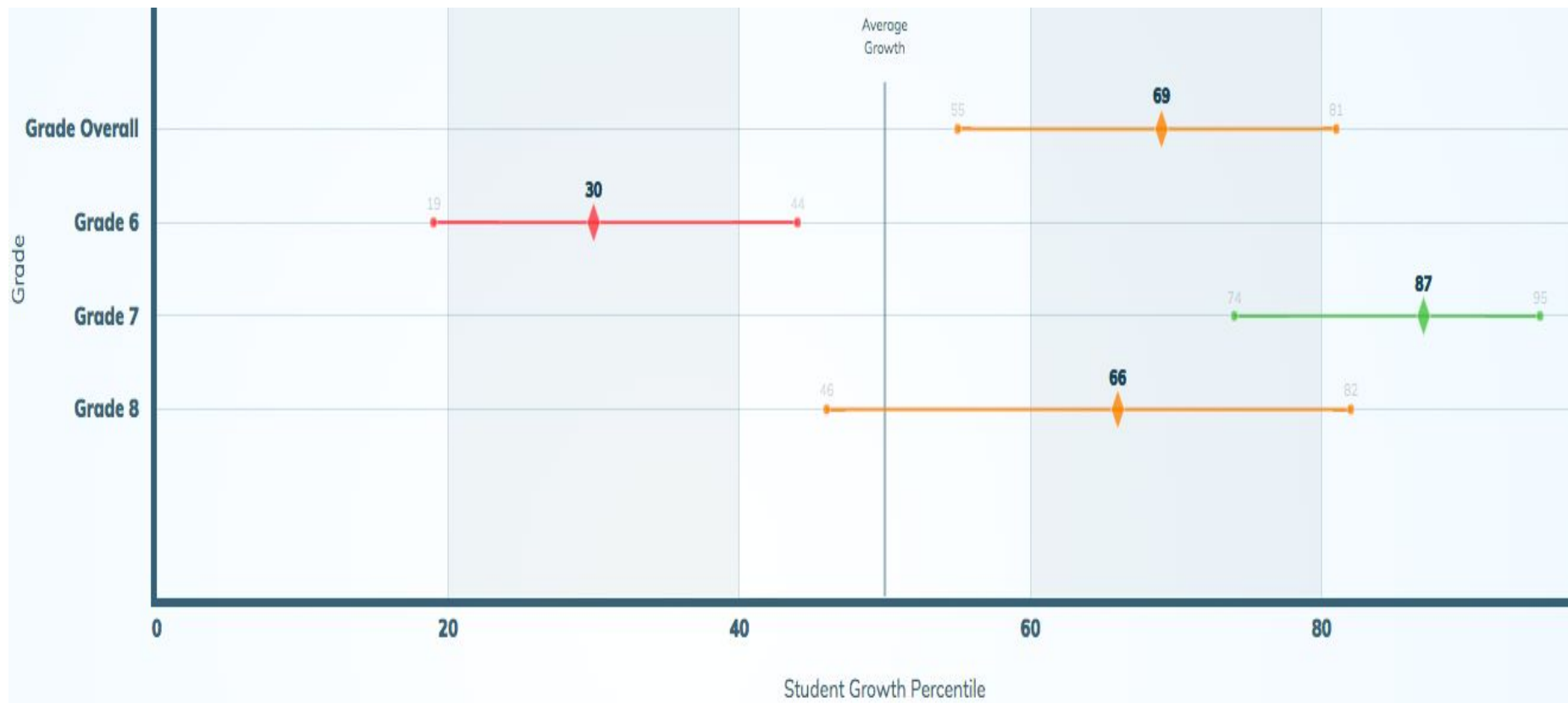
**PLOT SCHOOLS (& GRADE LEVELS) ONTO  
PERCENTILE RANK**

**“Controlled” for key differences among students & schools.**

# Academic Growth--School Reports

**What:** Growth at school and grade level by ELA or math, and by student group.

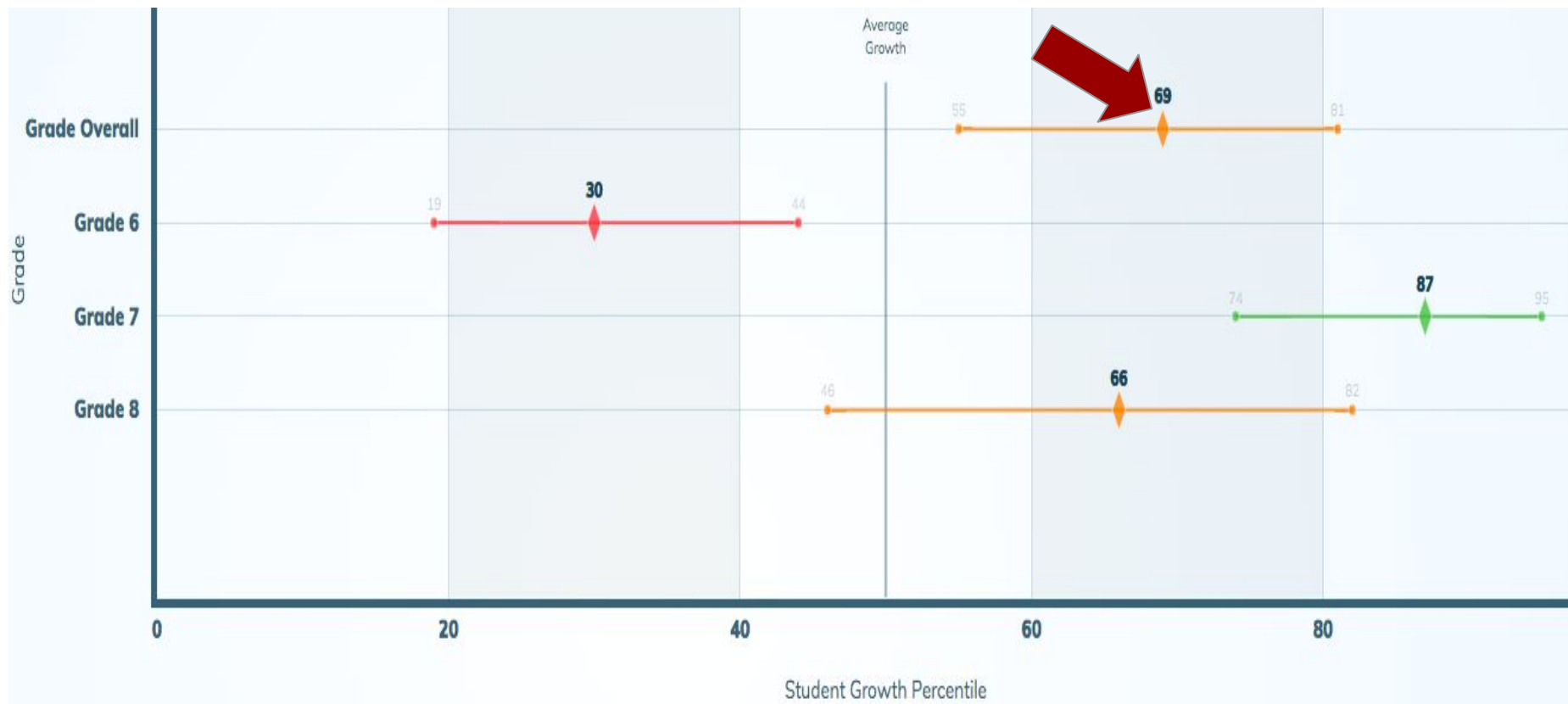
**Why of these reports:** Is this a case of above average, average or below average impact? Is the school stronger or weaker in terms of impact on ELA or math? Are some grade levels of stronger impact than others? Is impact stronger or weaker with particular student groups? What can we learn from strong impact cases? Low impact cases? Are resources being directed where they are most needed?



# Academic Growth--School Reports

**What:** Growth at school and grade level by ELA or math, and by student group.

**Why of these reports:** Is this a case of above average, average or below average impact? Is the school stronger or weaker in terms of impact on ELA or math? Are some grade levels of stronger impact than others? Is impact stronger or weaker with particular student groups? What can we learn from strong impact cases? Low impact cases? Are resources being directed where they are most needed?

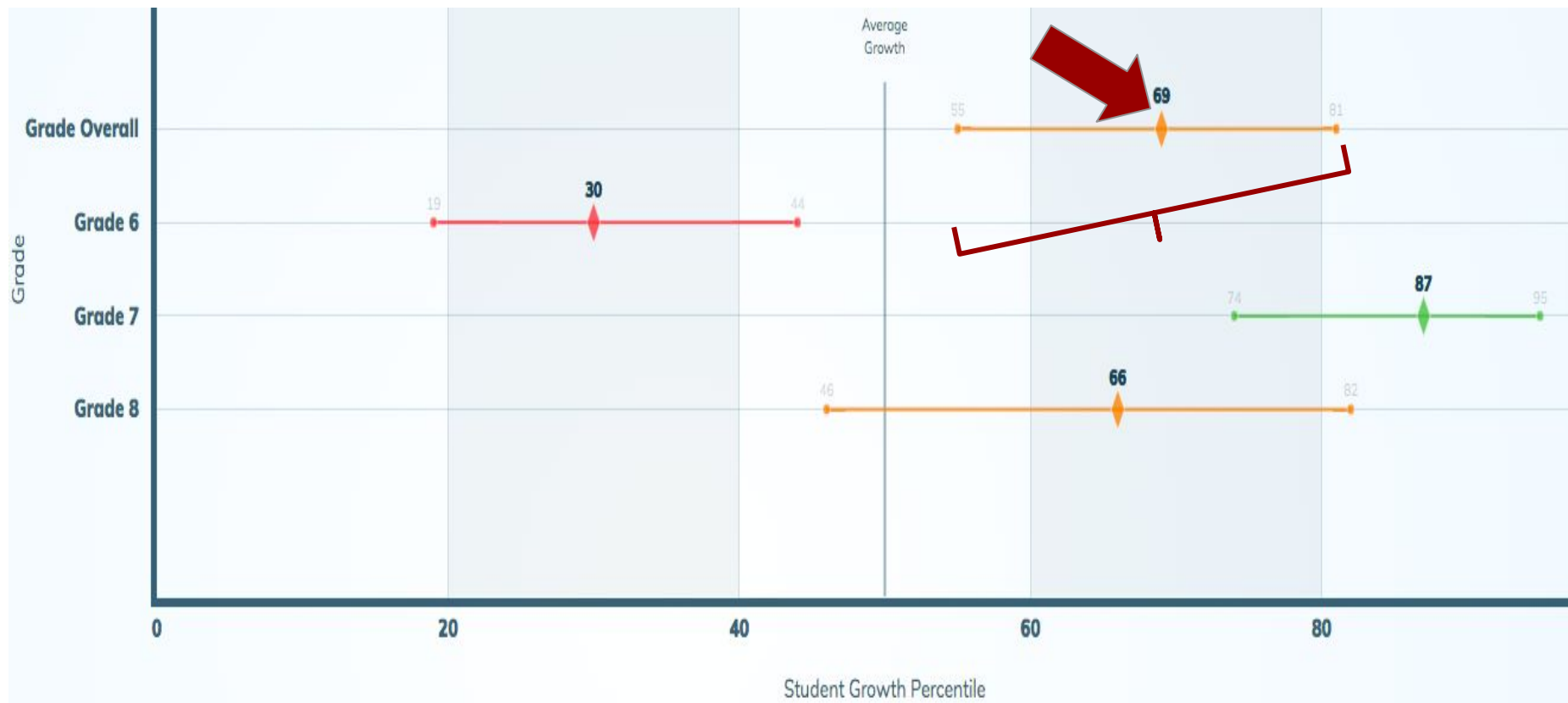




# Academic Growth--School Reports

**What:** Growth at school and grade level by ELA or math, and by student group.

**Why of these reports:** Is this a case of above average, average or below average impact? Is the school stronger or weaker in terms of impact on ELA or math? Are some grade levels of stronger impact than others? Is impact stronger or weaker with particular student groups? What can we learn from strong impact cases? Low impact cases? Are resources being directed where they are most needed?

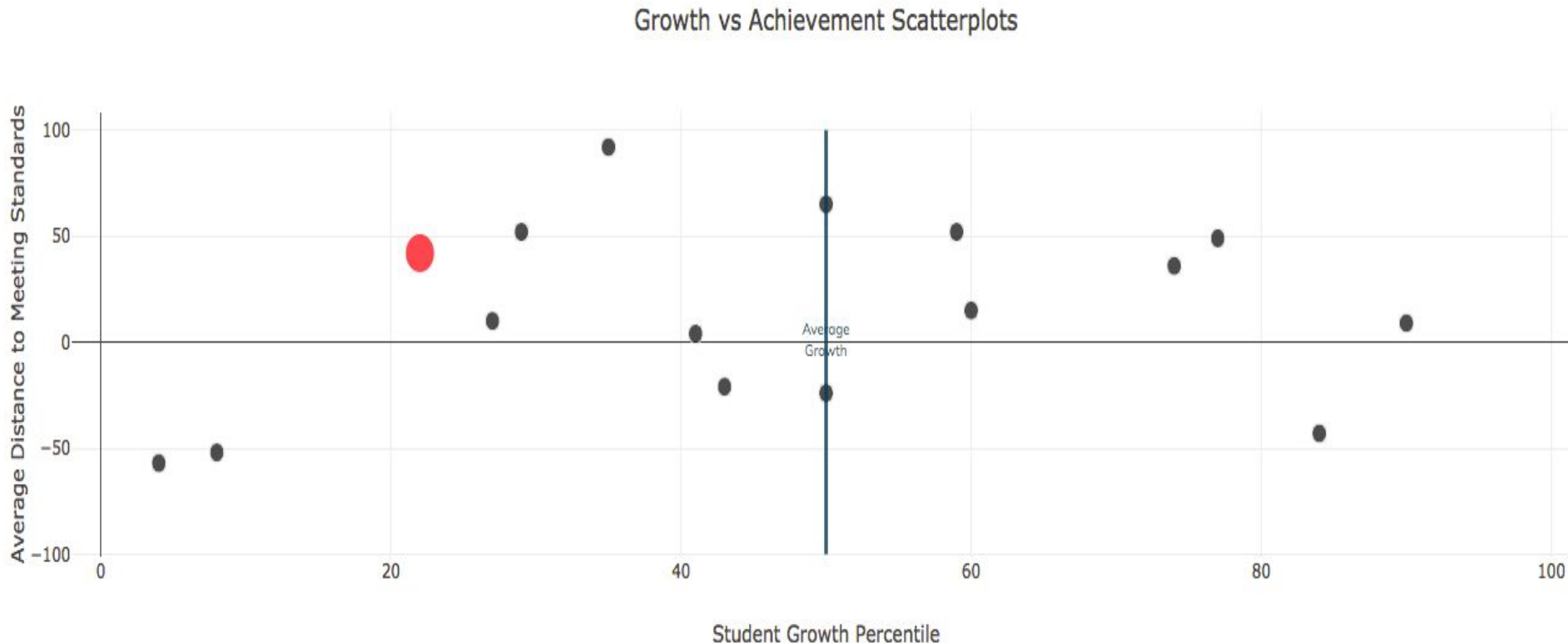




# Academic Growth - Scatterplots

**What:** Growth versus status in ELA or math. Each dot is a school. Growth is on the x-axis and status on the y-axis.

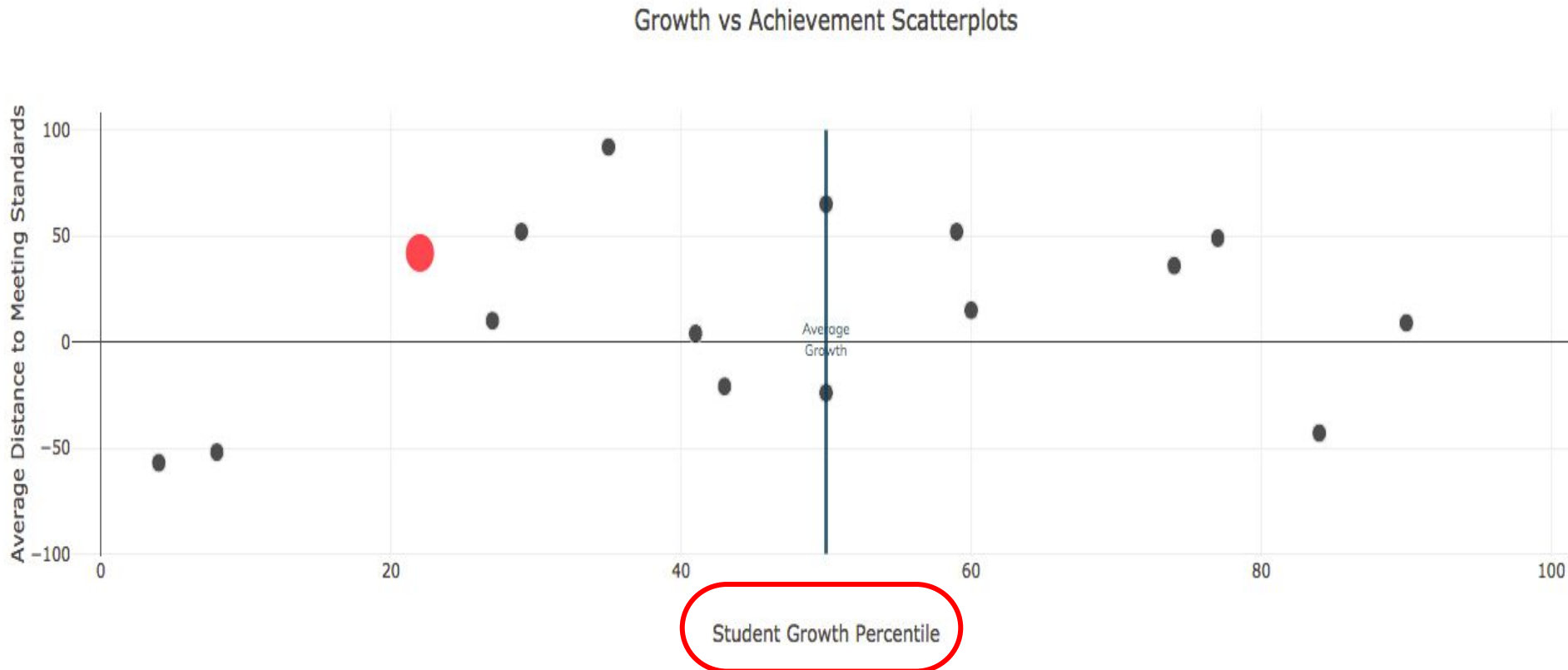
**Why of these reports:** What is the distribution of schools in terms of status (how much students know at each school) and growth (the impact of schools on student learning)? Are there high growth/high status schools? High growth/low status? Low growth/high status? Low growth/low status? What kinds of support are needed depending on status and growth?



# Academic Growth - Scatterplots

**What:** Growth versus status in ELA or math. Each dot is a school. Growth is on the x-axis and status on the y-axis.

**Why of these reports:** What is the distribution of schools in terms of status (how much students know at each school) and growth (the impact of schools on student learning)? Are there high growth/high status schools? High growth/low status? Low growth/high status? Low growth/low status? What kinds of support are needed depending on status and growth?



# Academic Growth - Scatterplots

**What:** Growth versus status in ELA or math. Each dot is a school. Growth is on the x-axis and status on the y-axis.

**Why of these reports:** What is the distribution of schools in terms of status (how much students know at each school) and growth (the impact of schools on student learning)? Are there high growth/high status schools? High growth/low status? Low growth/high status? Low growth/low status? What kinds of support are needed depending on status and growth?



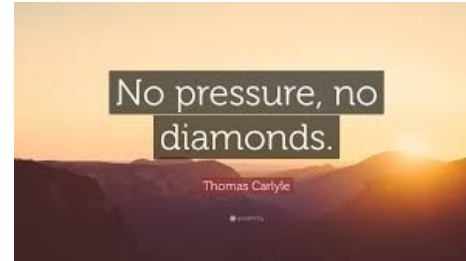
# Academic Growth - Scatterplots

**What:** Growth versus status in ELA or math. Each dot is a school. Growth is on the x-axis and status on the y-axis.

**Why of these reports:** What is the distribution of schools in terms of status (how much students know at each school) and growth (the impact of schools on student learning)? Are there high growth/high status schools? High growth/low status? Low growth/high status? Low growth/low status? What kinds of support are needed depending on status and growth?



# As we look at this data ...



## How are we developing as a District in our use of data?

### Focus on:

- Inquiry & Continuous Improvement
  - Providing supports that enable students/teachers/schools to be successful



*Things get done only if the data we gather  
can inform and inspire those in a position  
to make a difference.*

...

*In a healthy system, there is no blame.*

*Michael Schmoker*