Introduction to the Georgia Student Growth Model

Understanding and Using SGPs to Improve Student Performance

Why focus on student growth?

- Previously, we have focused on status…
  - What percentage of students met state expectations?
  - Did more students meet expectations this year compared to last year?
- Now, we can incorporate growth…
  - Did this student grow more or less than academically-similar students?
    - How much progress has a student made, taking their starting point into consideration?
  - Are students growing as much in math as in reading?
  - Are students on track to reach or exceed proficiency?
- The GSGM provides student-level diagnostic information, supports teaching and learning, enhances accountability (CCRPI), and serves as one of multiple indicators of educator effectiveness (TKES and LKES).

Growth Under NCLB

- How many students have made it over the proficiency bar (% Meets/Exceeds)?

School	2008	2009	2010	2011
Acme ES	80	85	91	96
Clubhouse ES	75	79	86	90
Fraggle ES	73	75	74	71

Fast growth, different starting points

No growth?

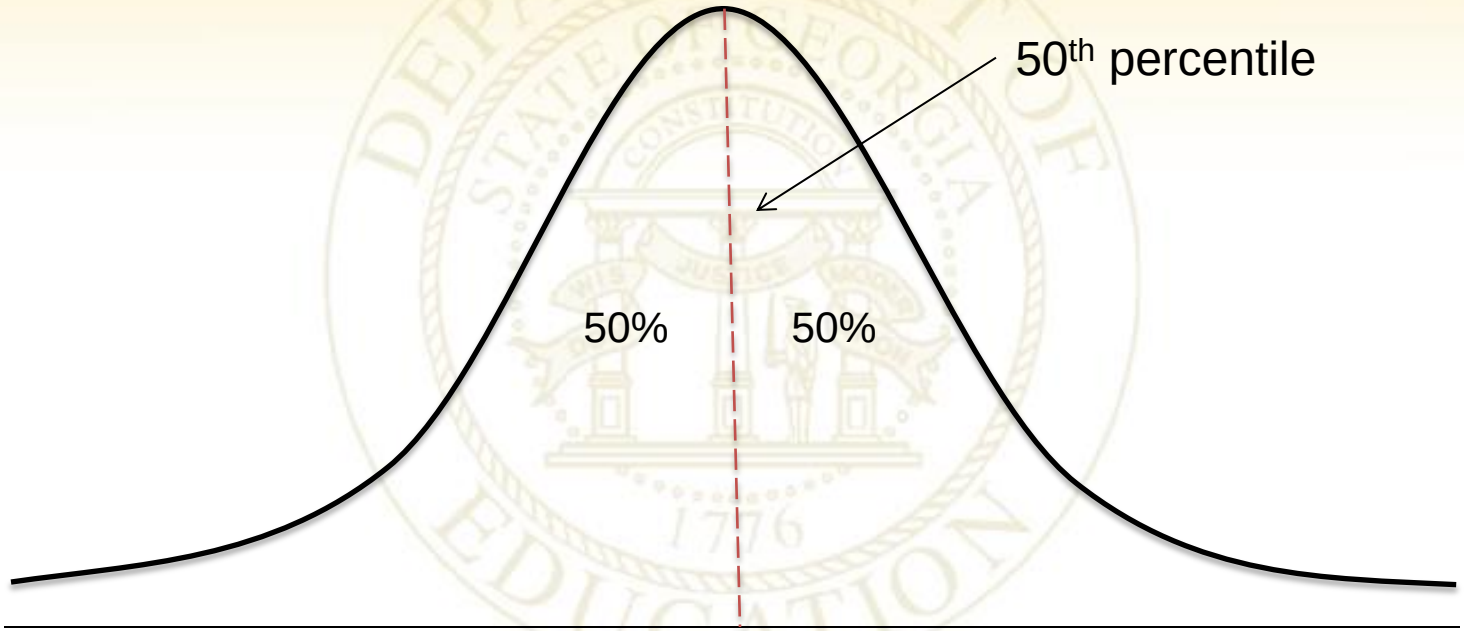
- Inferences about growth are made longitudinally across different cohorts of students

What do we know about student-level growth?

Grade	4	5	6	7	8
Marvin M.	Meets	Meets	DNM	DNM	DNM
Olive O.	Meets	Meets	Meets	Meets	Meets
Donald D.	Meets	Meets	Meets	Exceeds	Exceeds

- All information about student test performance has been collapsed into 3 criterion-referenced levels
- We cannot compare scale scores as the tests are not vertically scaled
- Leaves many important questions about progress unanswered

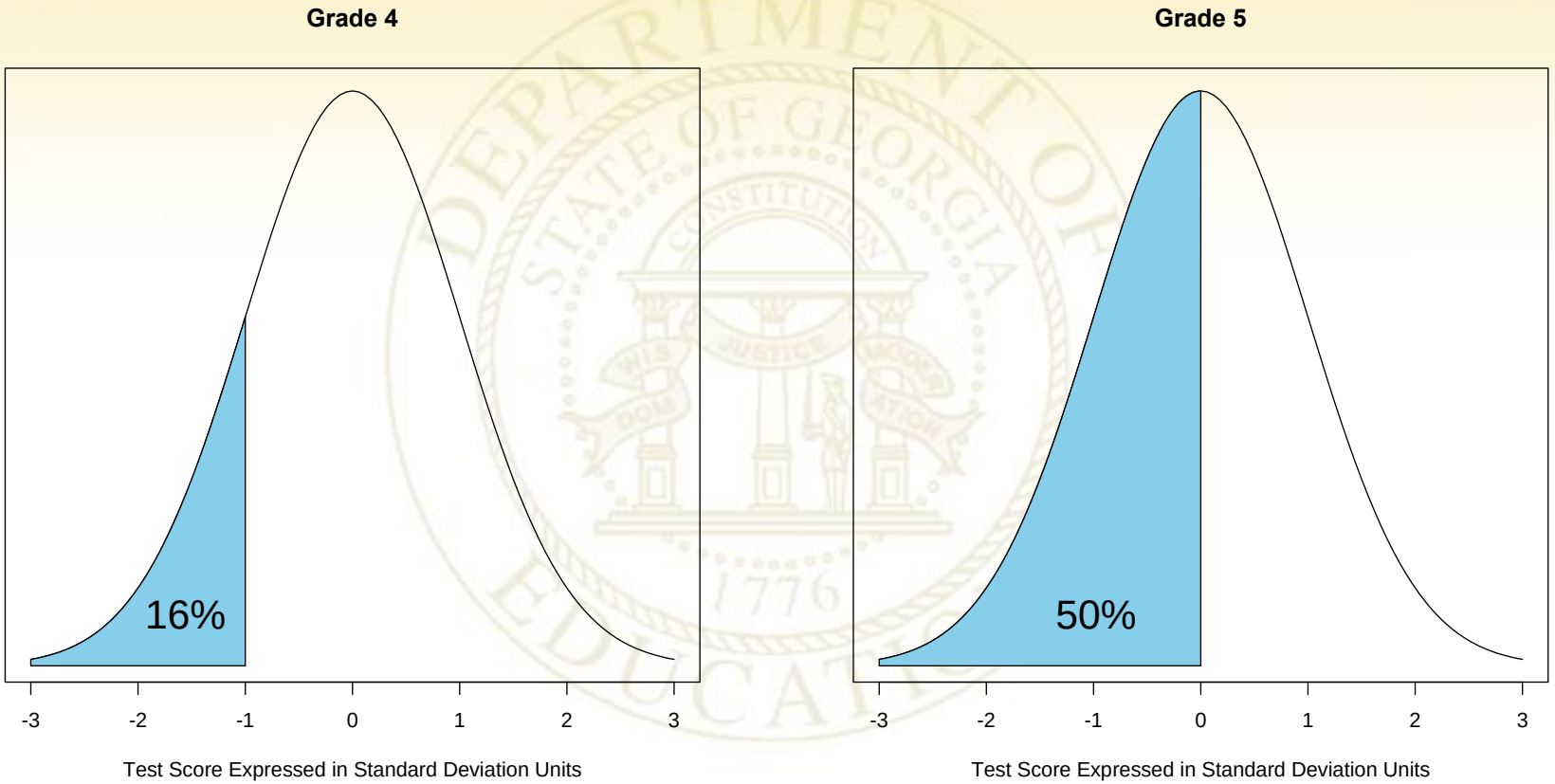
Understanding Percentiles



A distribution, for example, of height, weight, or academic growth

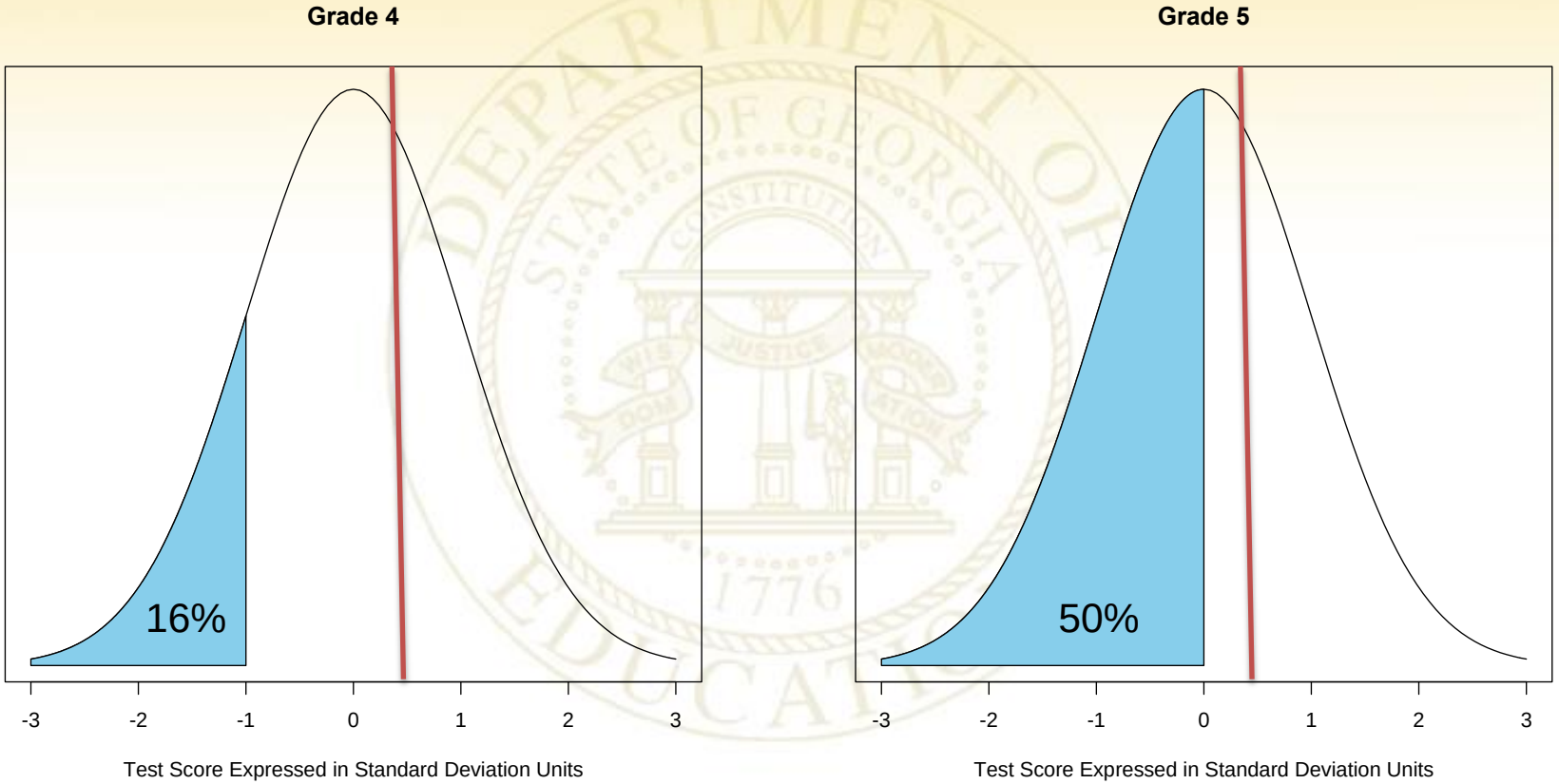
The 50th percentile is the value below which 50% of the distribution lies.

Student Change in Status



If a student goes from scoring better than 16% of all students in grade 4 to scoring better than 50% of students in grade 5, would this be evidence that growth had occurred?

What we miss if we focus on the proficiency bar…



If the red line marks the cut point for “Meets,” this is a student who was below “Meets” each year. But there is clear evidence that great progress has been made.

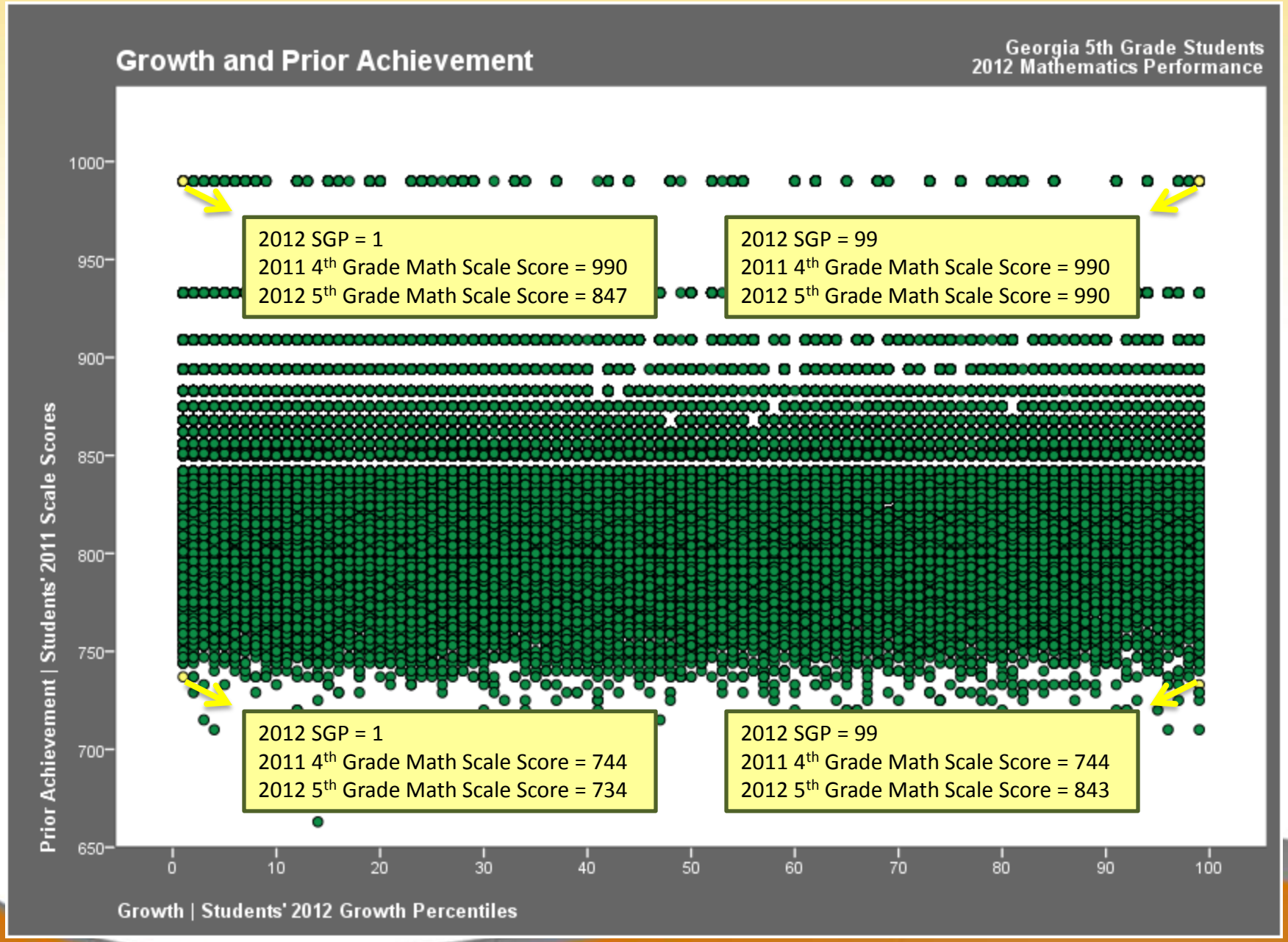
Introduction to the GSGM

Watch Video

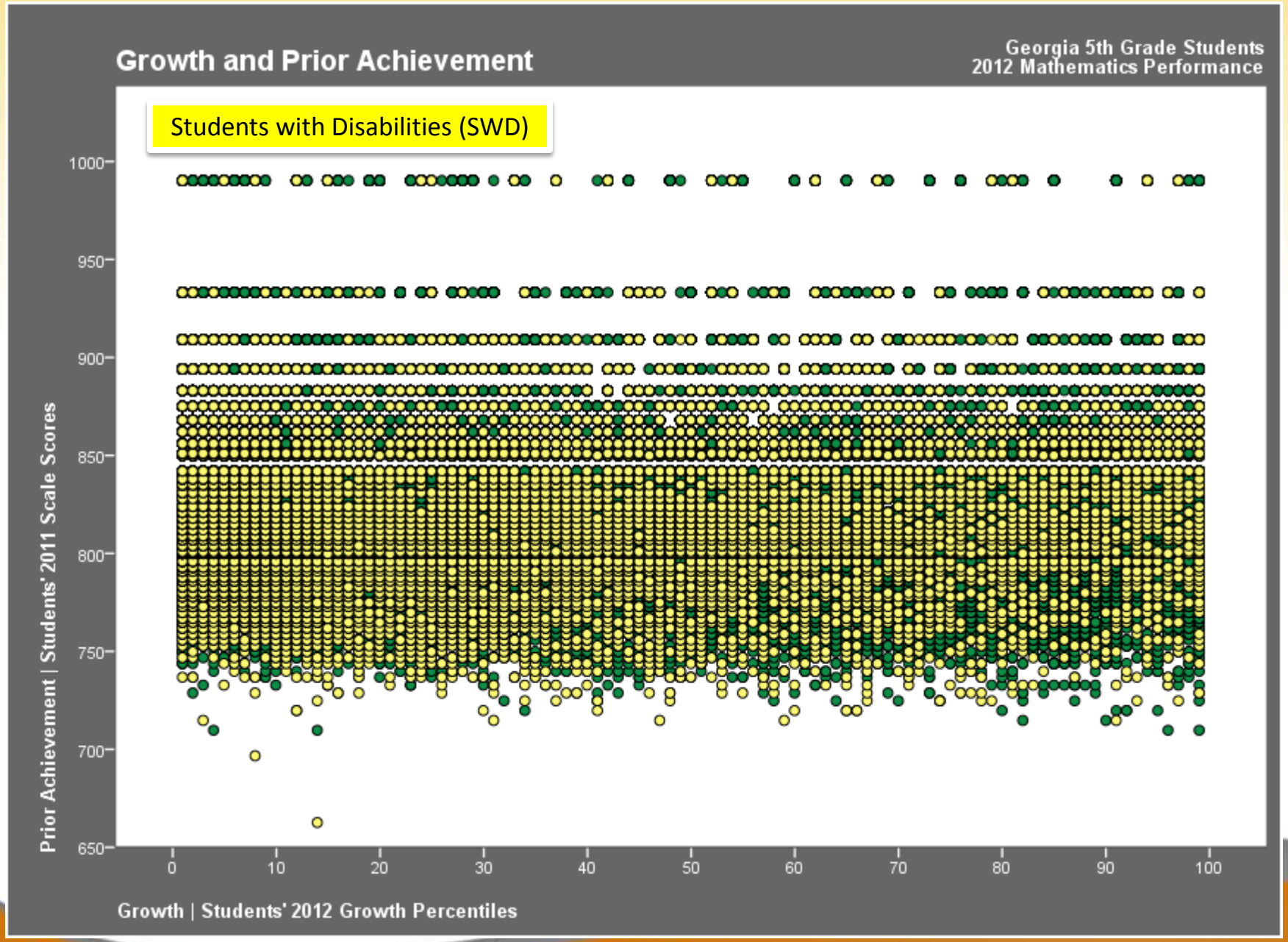
Student Growth Percentiles

- A student growth percentile (SGP) describes a student's growth relative to academic peers
  - Academic peers are other students statewide with a similar score history
  - This ensures a student's starting point is considered when measuring his or her growth
- Growth percentiles range from 1 to 99
  - Lower percentiles indicate lower academic growth and higher percentiles indicate higher academic growth
- All students, regardless of their achievement level, have the ability to demonstrate all levels of growth

All students can demonstrate all levels of growth – regardless of their achievement level



All students can demonstrate all levels of growth – regardless of their achievement level



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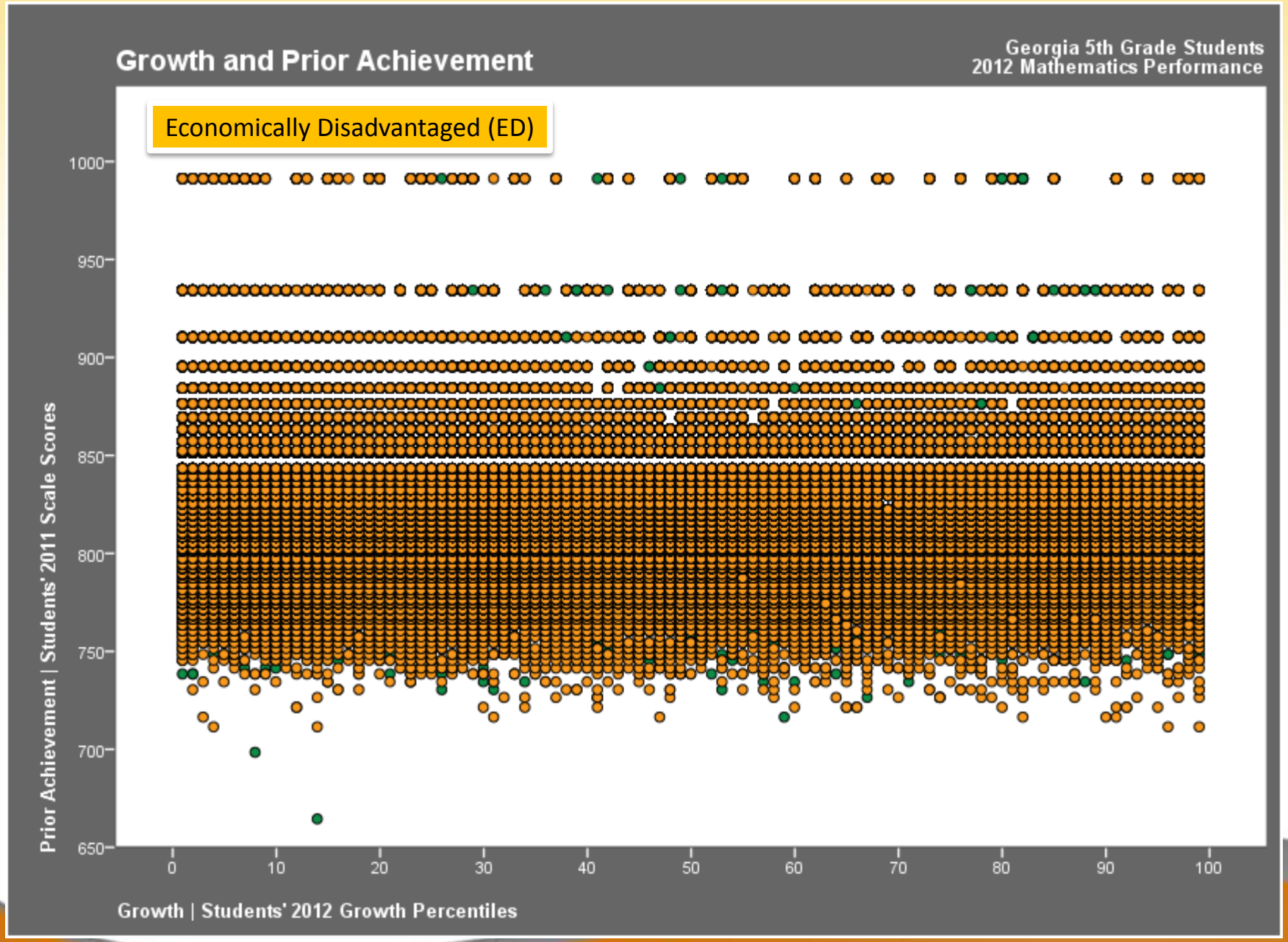

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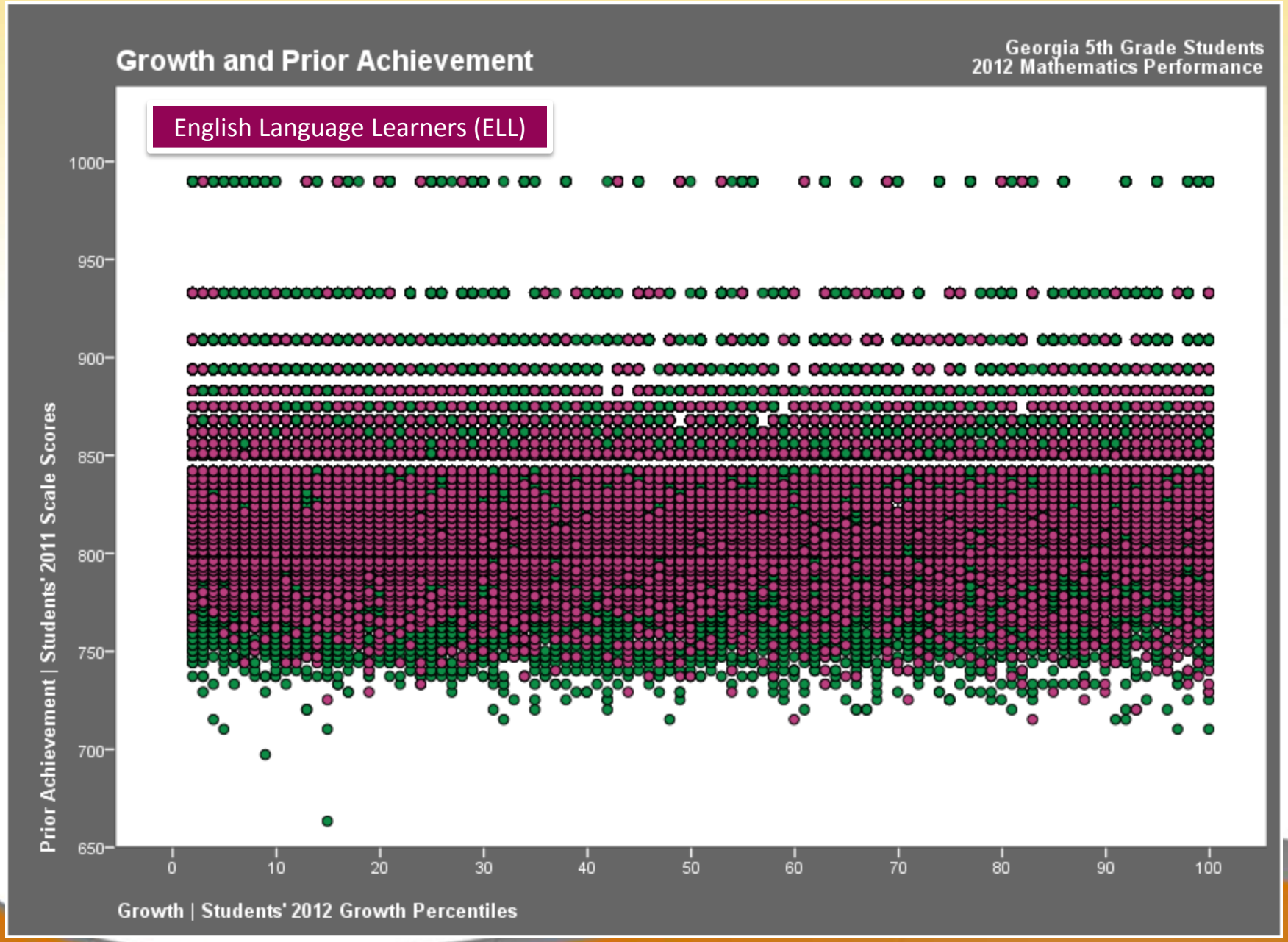
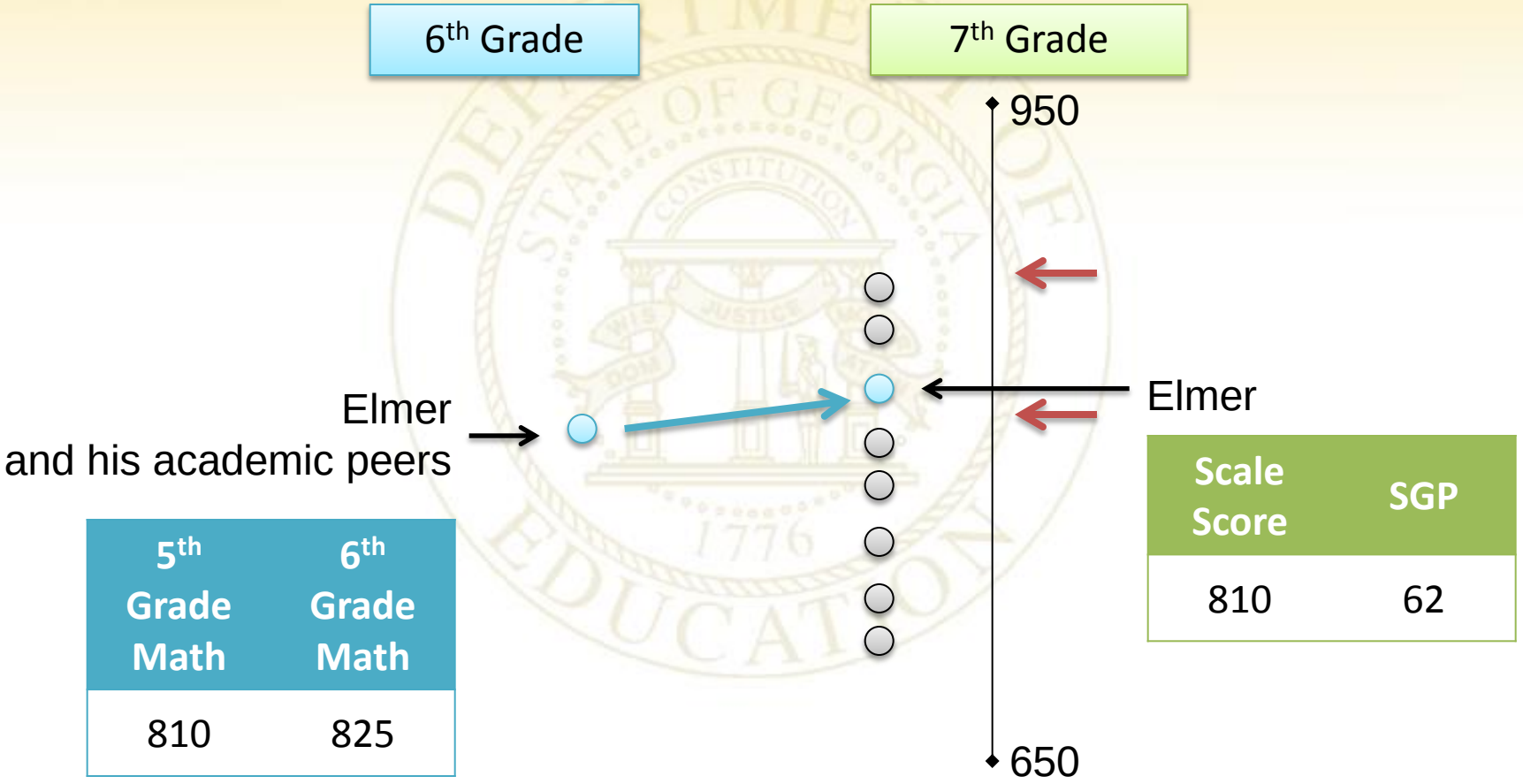


Achievement vs. Growth

- Achievement
  - How well students are meeting or exceeding state expectations
  - Snapshot look at student performance
- Growth
  - How students are progressing from year to year
  - Takes students' starting points into consideration
- GSGM ≠ gain score model
  - Georgia's assessments are vertically aligned but not vertically scaled
- Growth is independent of proficiency cuts

Achievement vs. Growth



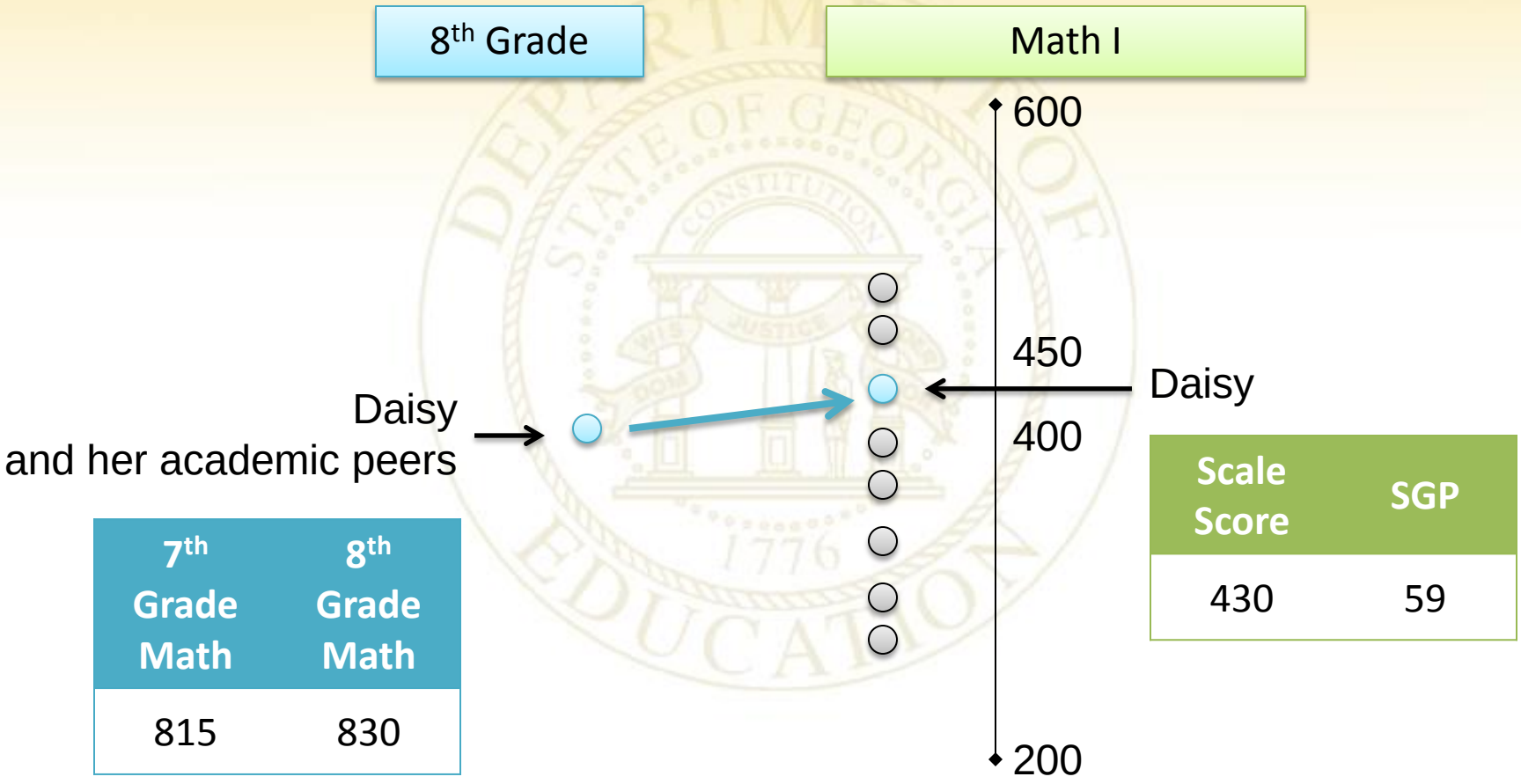
5th Grade Math	6th Grade Math
810	825

Scale Score	SGP
810	62

Transitioning to New Assessments

- What happens to SGPs when we transition to Georgia Milestones?
  - SGPs will continue to be calculated without interruption
  - Until we have enough years of implementation, baselines, targets and projections will be delayed
- CRCT/EOCT scores will be used as priors for new Milestones scores until they can be phased out
- Will SGPs go down as a result of the increased rigor of Georgia Milestones?
  - No because…

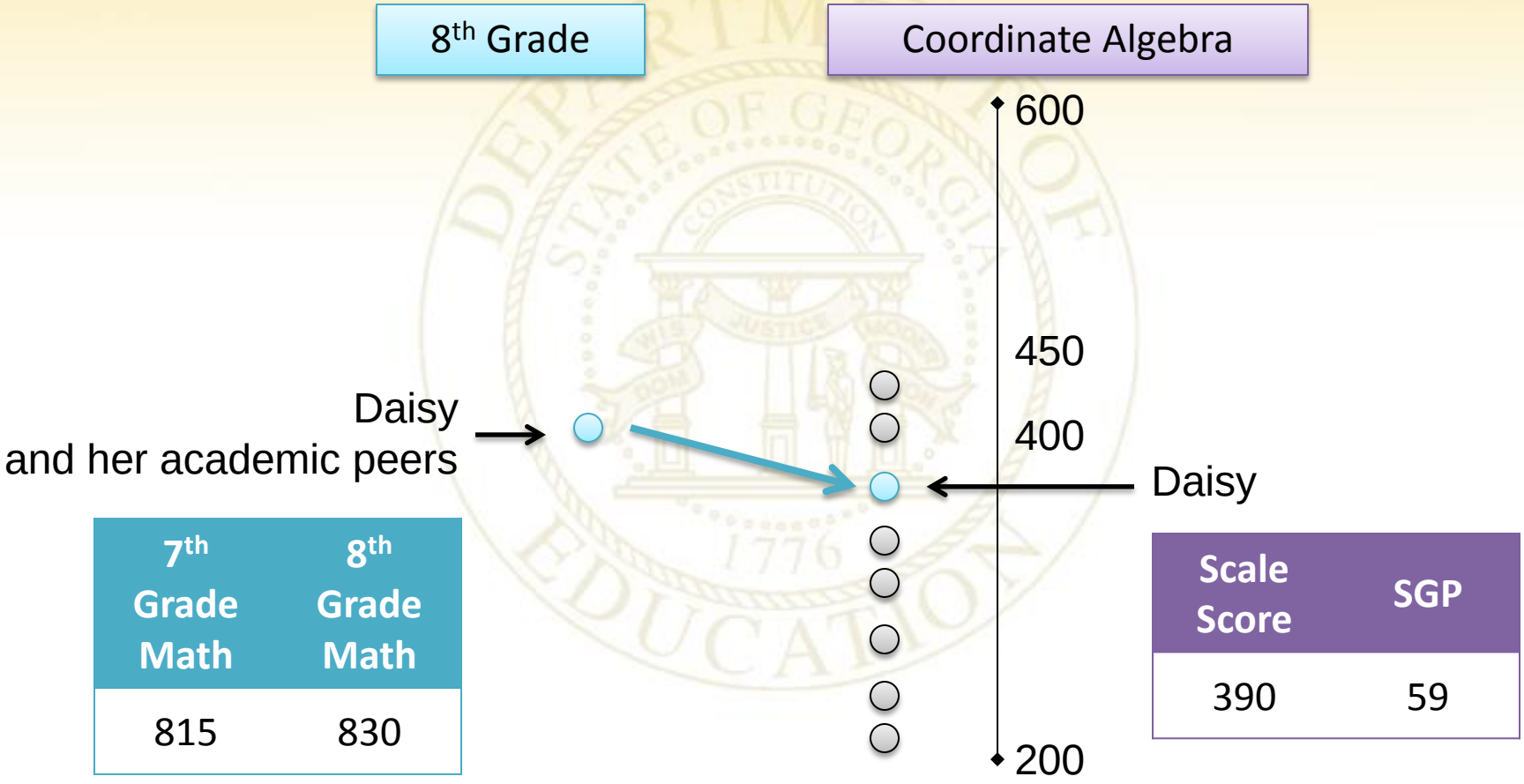
Transitioning to New Assessments



7th Grade Math	8th Grade Math
815	830

Scale Score	SGP
430	59

Transitioning to New Assessments



7th Grade Math	8th Grade Math
815	830

Scale Score	SGP
390	59

EOCT Test Progressions

- For EOCTs, both prior achievement and test sequence (including year taken) must be considered.
- While most EOCT students will receive SGPs, those participating in uncommon sequences (small N) will not receive SGPs
- Most common sequences:
  - ELA: CRCT reading/ELA → 9th Grade Lit → American Lit
  - Math: CRCT math → Coordinate Algebra → Analytic Geometry
  - Science: CRCT science → Physical Science/Biology → Biology/Physical Science
  - Social Studies: CRCT social studies → US History → Economics

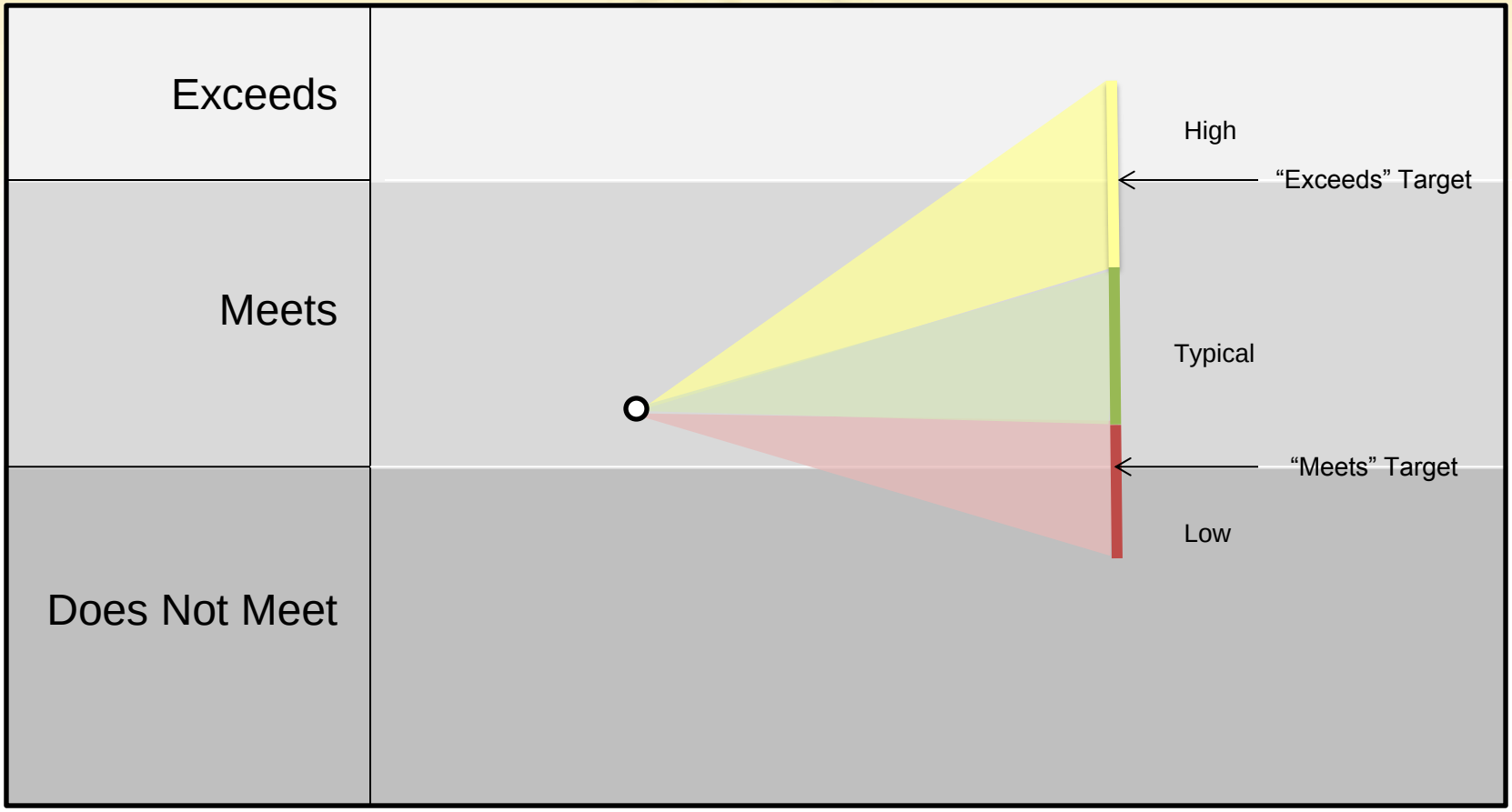
Cohort- and Baseline-Referenced SGPs

- Cohort-referenced SGPs
  - A student's growth is relative to academically-similar students in the state that year
  - Student and school growth is relative to the state
  - Can continue to be reported during an assessment transition
- Baseline-reference SGPs
  - A baseline is used as a reference point so change in statewide growth can be used from year to year
  - A student's growth is relative to academically-similar students from the baseline
  - All students can demonstrate lower or higher growth than students in the baseline
  - Cannot continue to be reported during an assessment transition

Growth to Proficiency

- How do we know if a student's growth is enough to be on track to reach or exceed proficiency?
  - SGPs analyze historical student assessment data to model how students perform on and grow in between assessments
  - This information is used to create growth projections and growth targets for each student
  - The growth projection tells us where on the assessment scale a student may score next year for all levels of possible growth (1st-99th percentile)
  - The growth target tells us, based on where students are now, how much they need to grow to reach or exceed proficiency in the future

Growth Projections and Targets



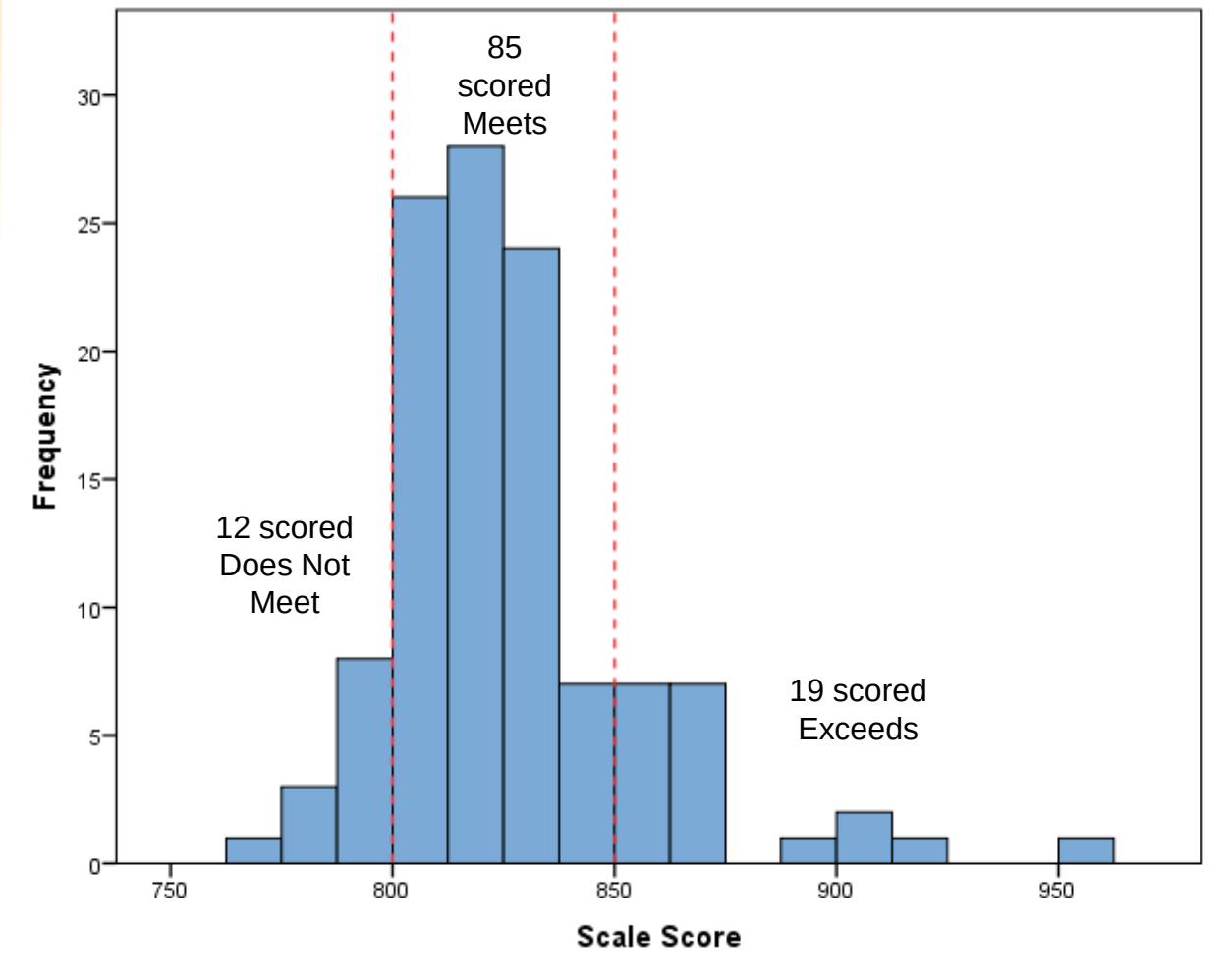
Student Growth Levels

- Low (1-34), Typical (35-65), and High (66-99)
- Levels were set using information about the interaction between student growth and status-based achievement
  - A student who demonstrates low growth generally will regress academically (i.e., not maintain his/her current level of achievement)
  - A student who demonstrates typical growth generally will maintain or improve academically
  - A student who demonstrates high growth generally will make greater improvement academically

CRCT SGP Example

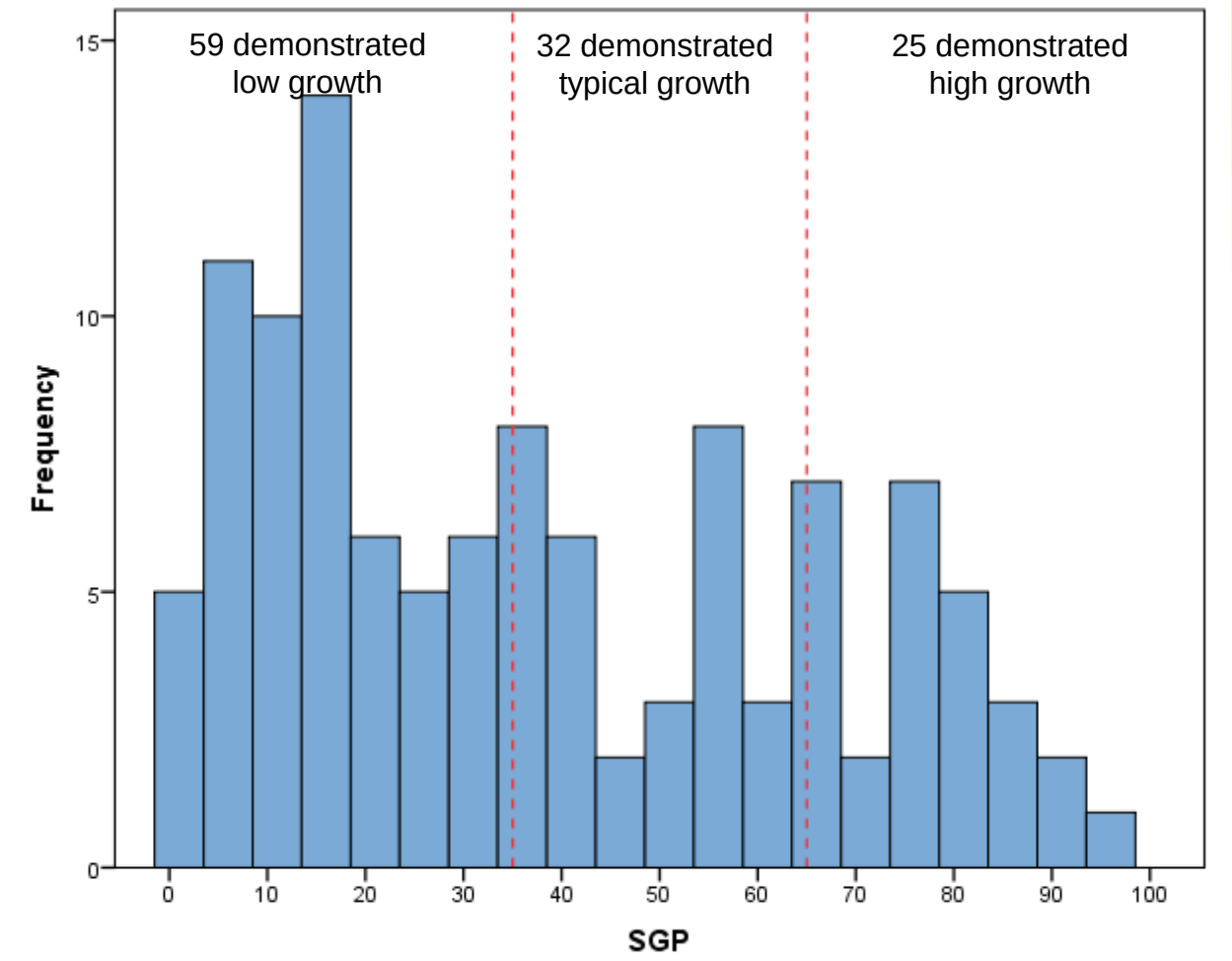
- Example 1 (real data, fake names)
  - Acme Middle School
    - Only middle school in district
    - Has 3 6th-grade mathematics teachers
  - Mr. W.E. Coyote
    - Taught 6th grade mathematics in 2012
    - Taught 116 students in 5 classes

How did Mr. Coyote's students do on the 6th grade mathematics CRCT?



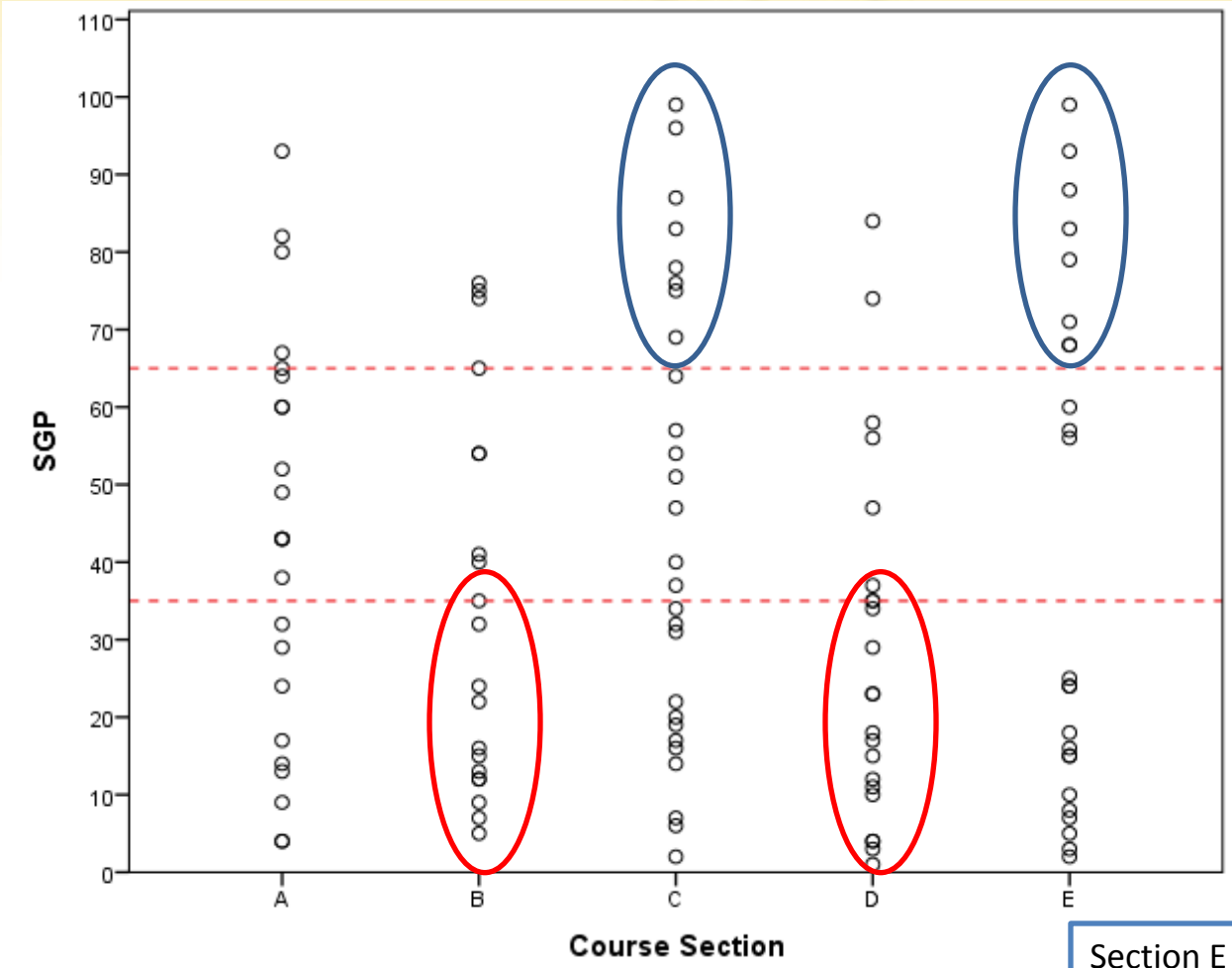
90% of students (104 of 116) met the state standard

But did these students grow?



Not really – 50% demonstrated low growth

Was there a difference across Mr. Coyote's classes?



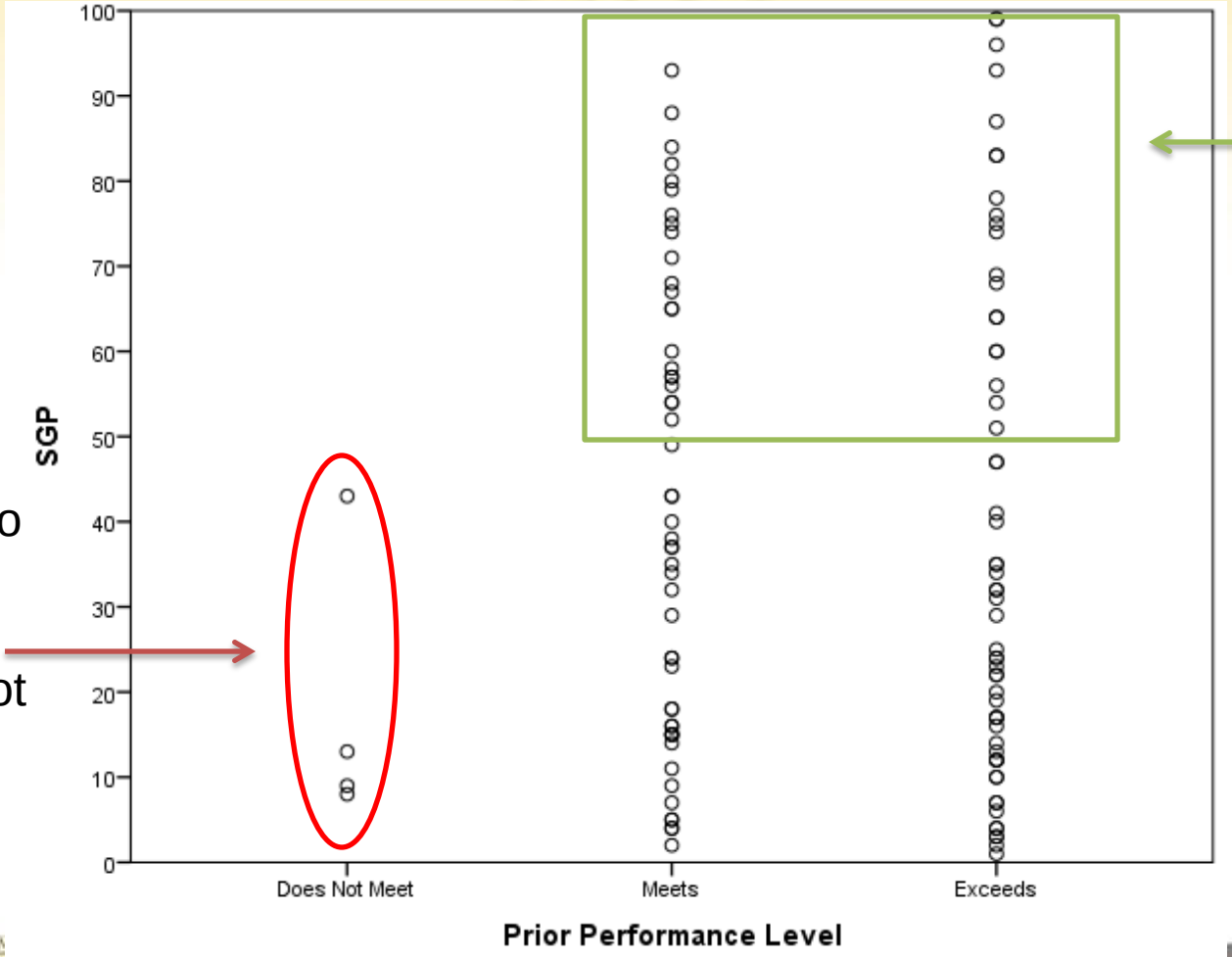
Sections C and E have some students demonstrating high growth

But Sections B and D have more students demonstrating low growth

Section E is particularly interesting – students either grew very little or a lot

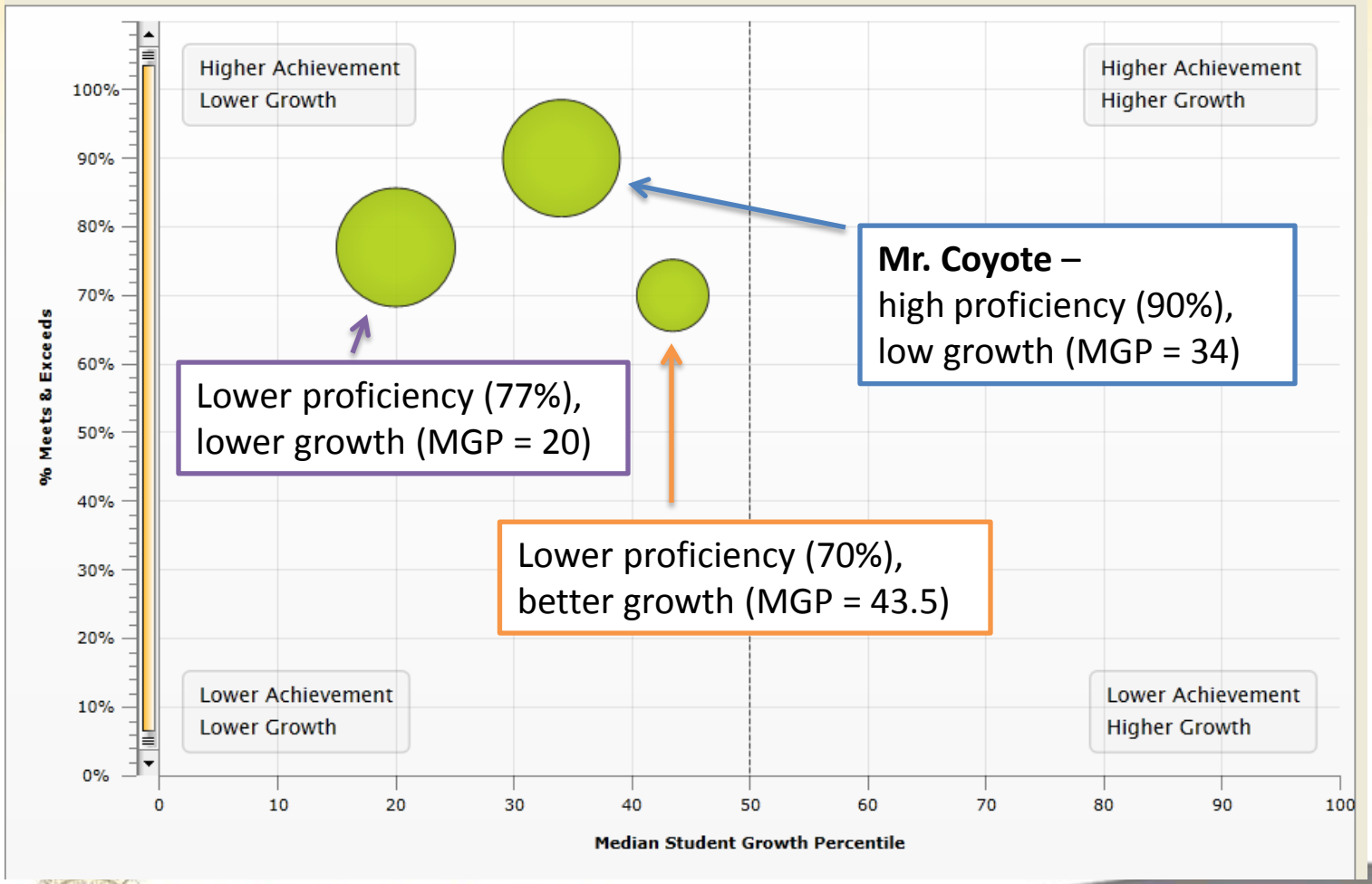
Was there a difference across student performance levels?

Why did students who started the year below standards not grow much with this teacher?

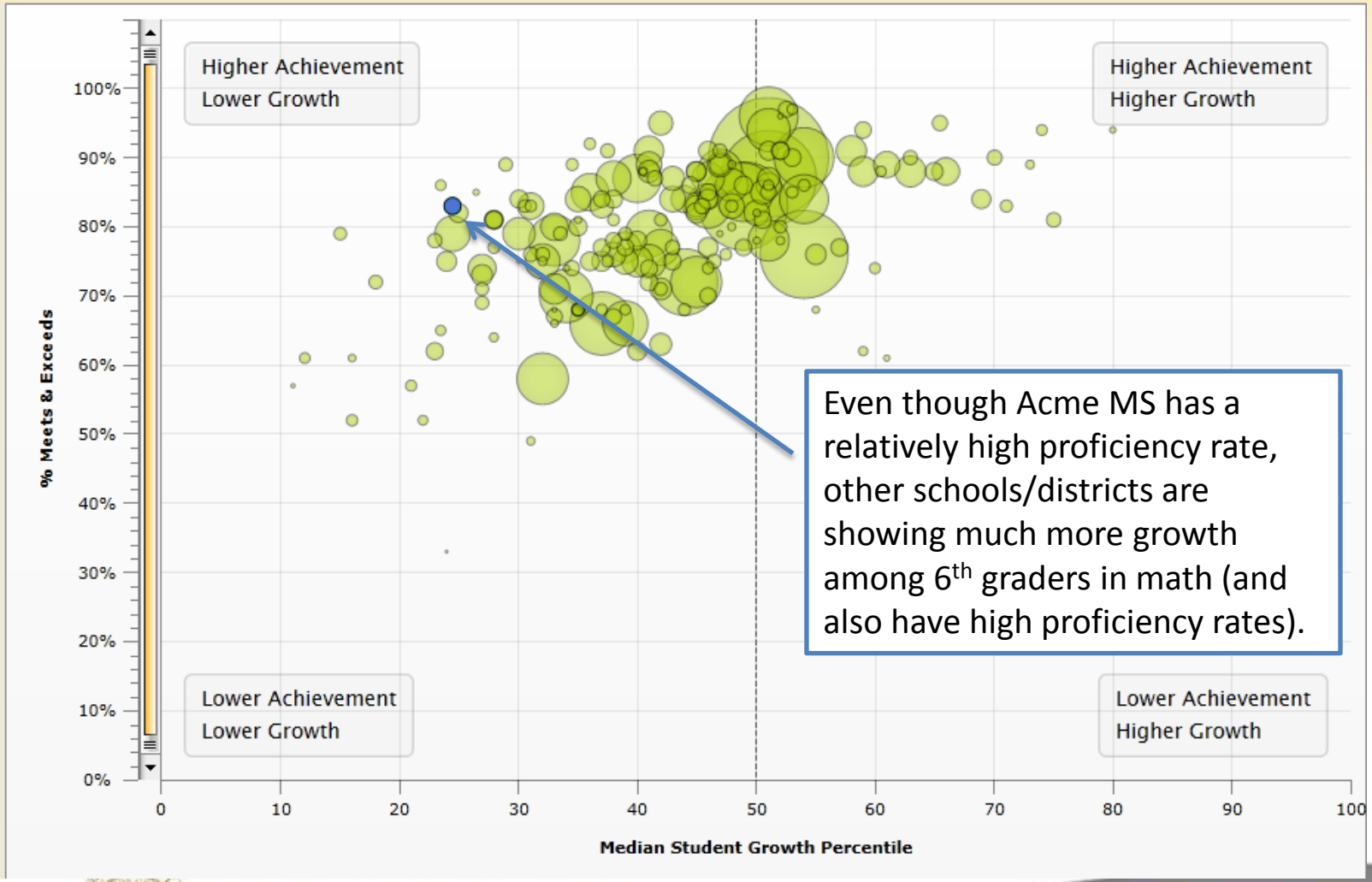


Why did these students grow more than other students with the same prior performance level?

What about the other 6th grade math teachers in the school?



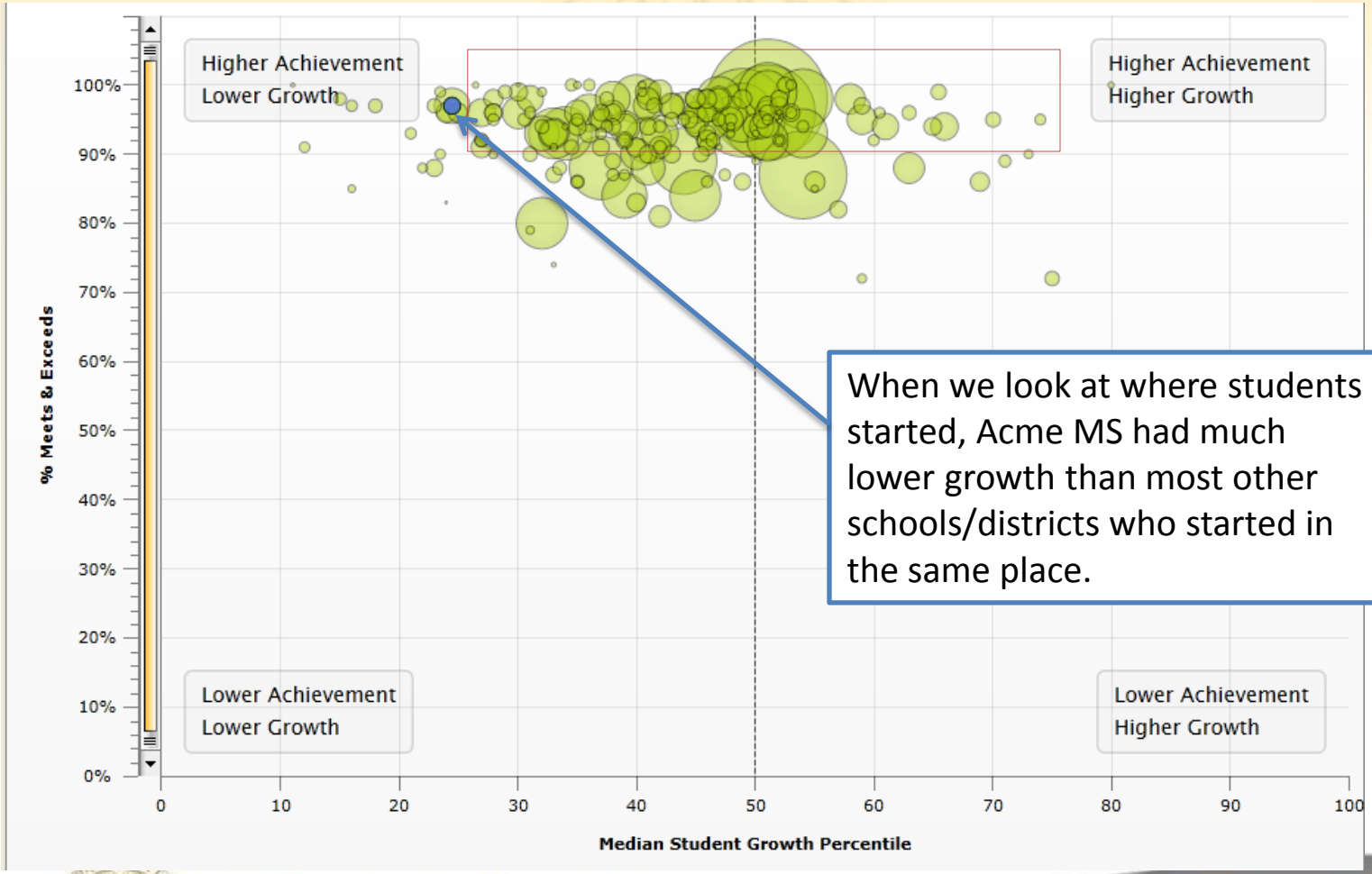
What about other schools/districts?



6th Grade Proficiency

6th Grade Growth

What if we consider where our students started?



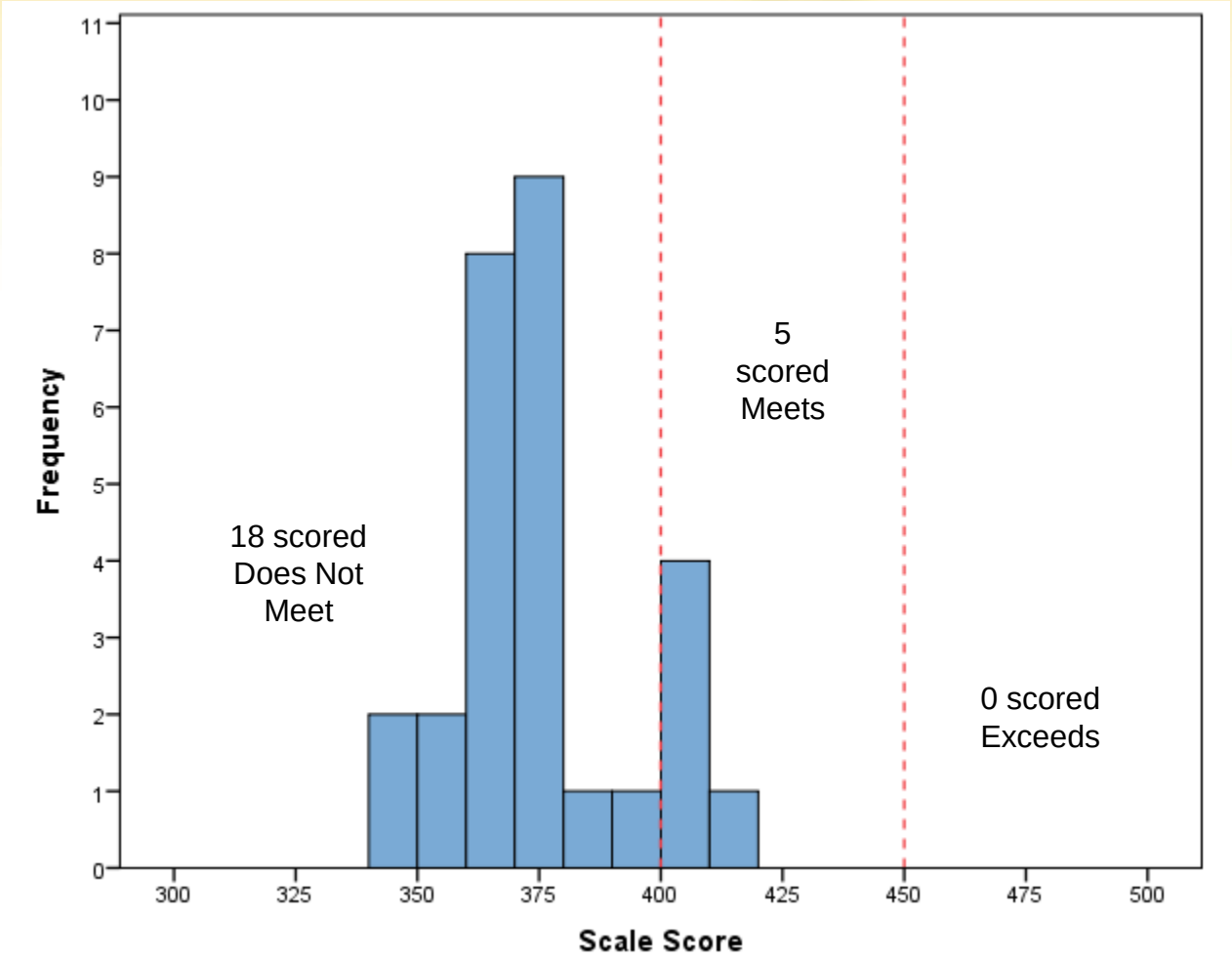
5th Grade Proficiency

6th Grade Growth

EOCT SGP Example

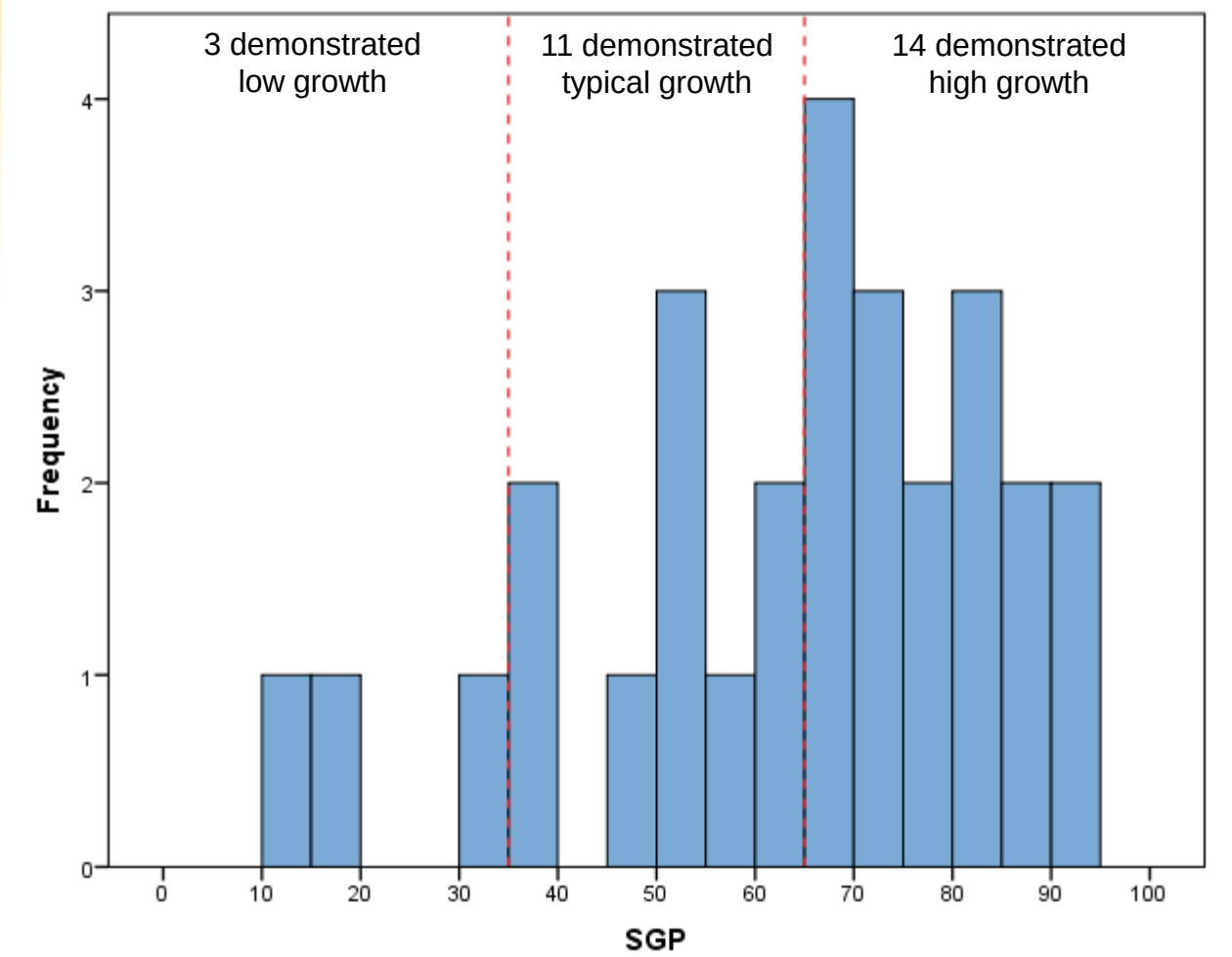
- Example 2 (real data, fake names)
  - Clubhouse High School
    - Urban
    - One of many high schools in district
    - Has 12 9th-Grade Literature teachers in 2012
  - Ms. M. Mouse
    - Taught 9th Grade Literature in 2012
    - Taught 28 students in 3 classes

How did Ms. Mouse's students do on the 9th Grade Lit EOCT?



18% of students (5 of 23) met the state standard

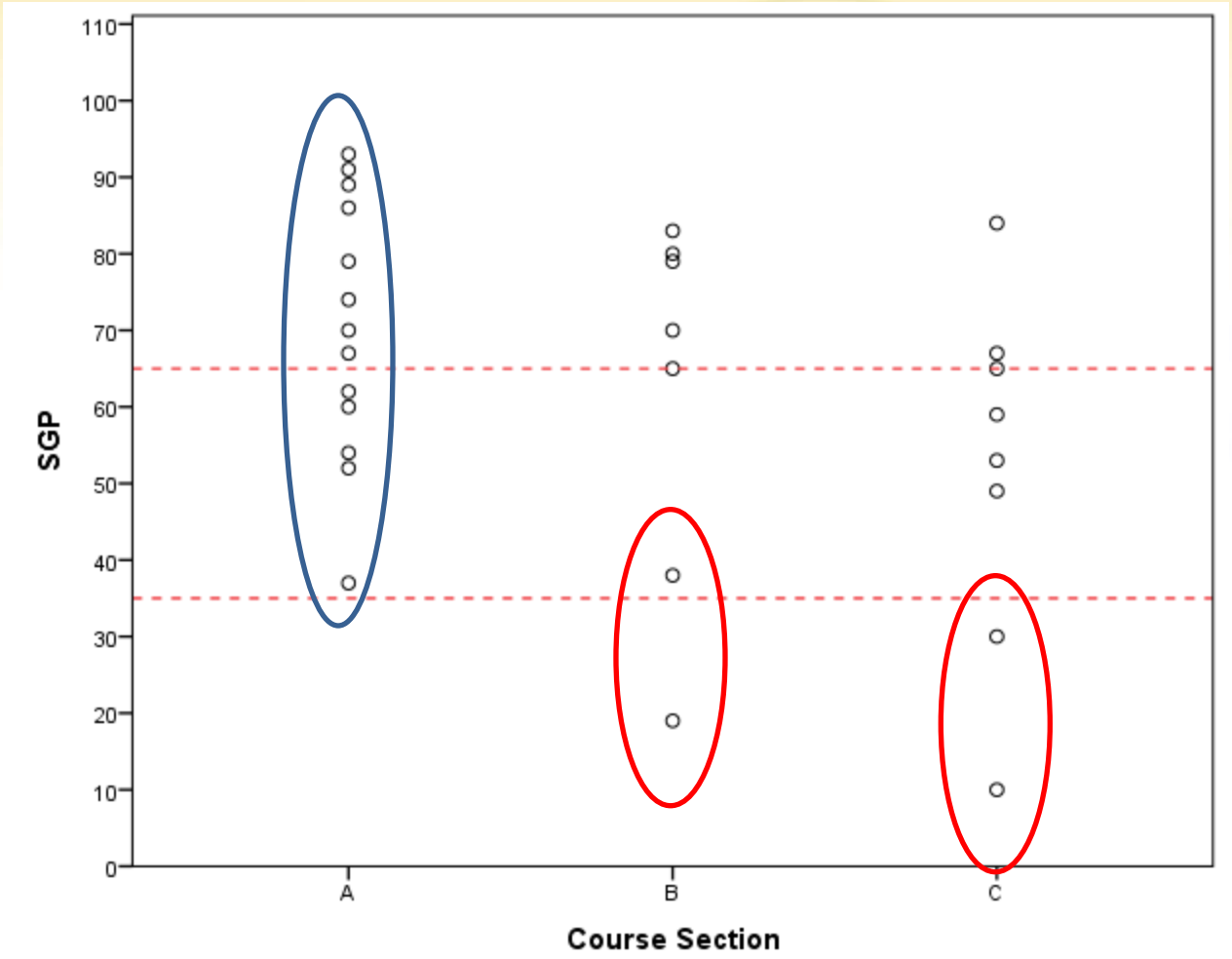
But did these students grow?



Yes – 89% demonstrated typical or high growth

MGP = 66

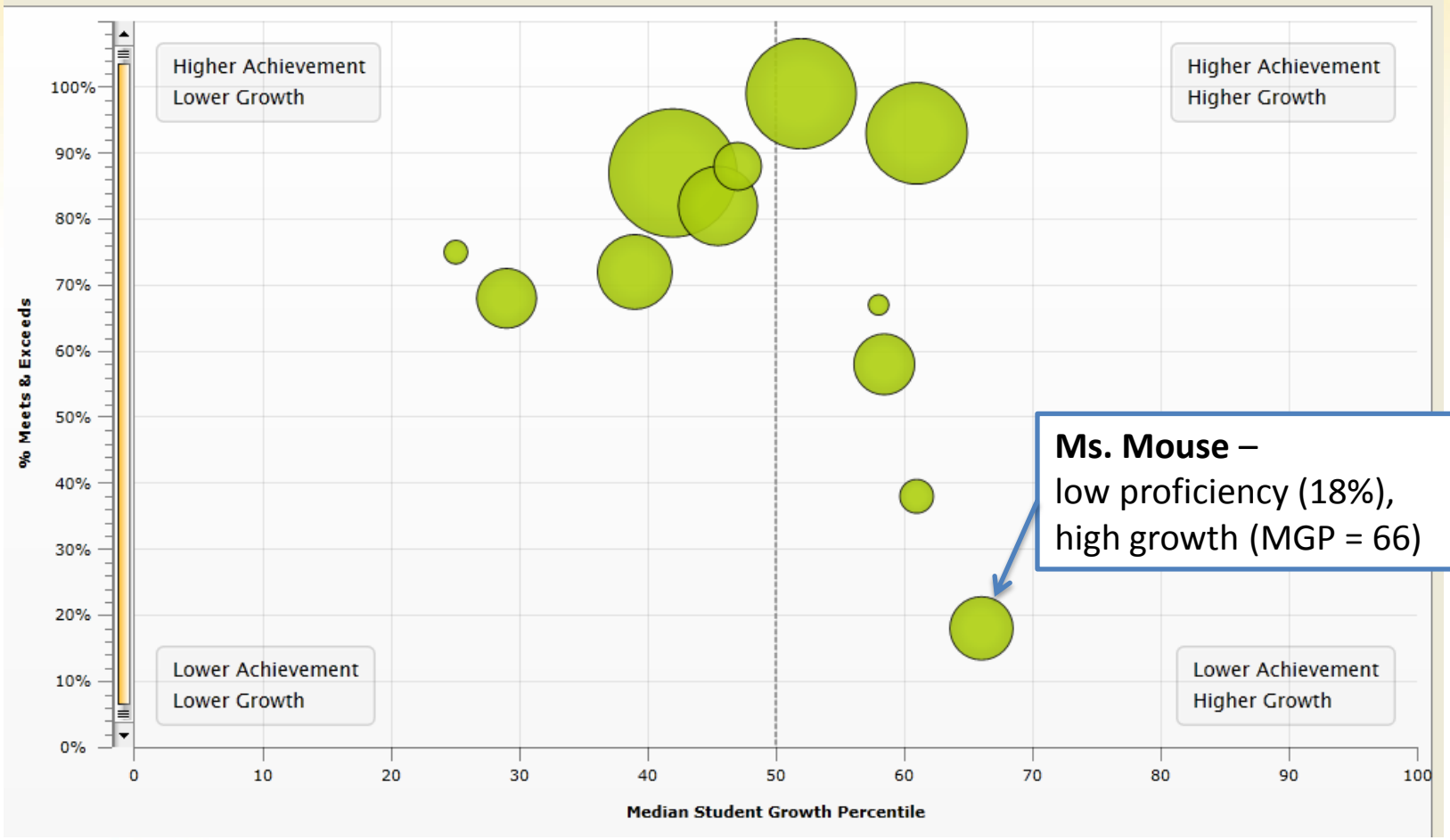
Was there a difference across Ms. Mouse's classes?



All students in Section A demonstrate typical or high growth

Some students in Sections B and C didn't grow quite as much

What about the other 9th Grade Lit teachers in the school?

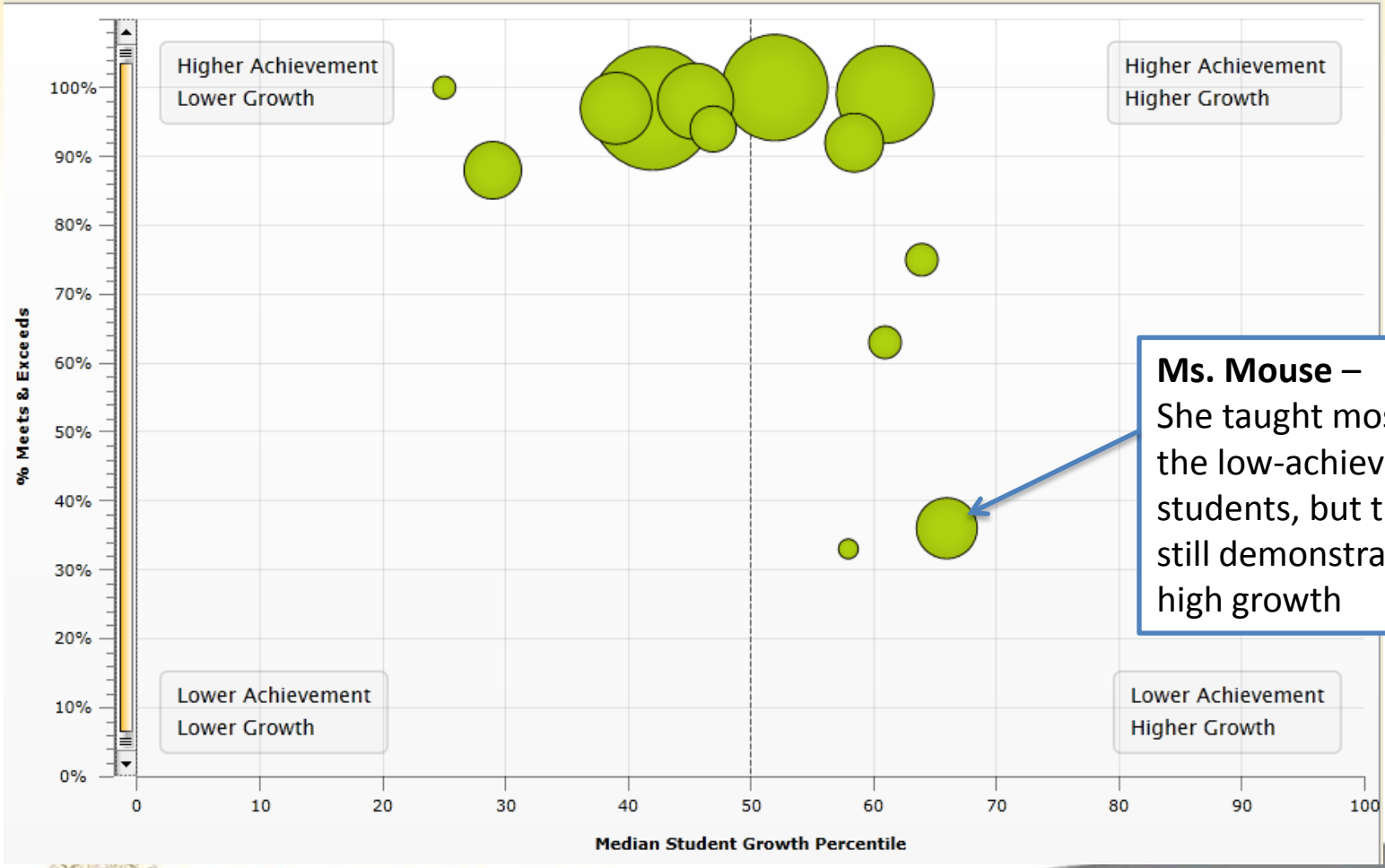


9th Grade Lit Proficiency

Ms. Mouse –
low proficiency (18%),
high growth (MGP = 66)

9th Grade Lit Growth

What if we consider where students started?

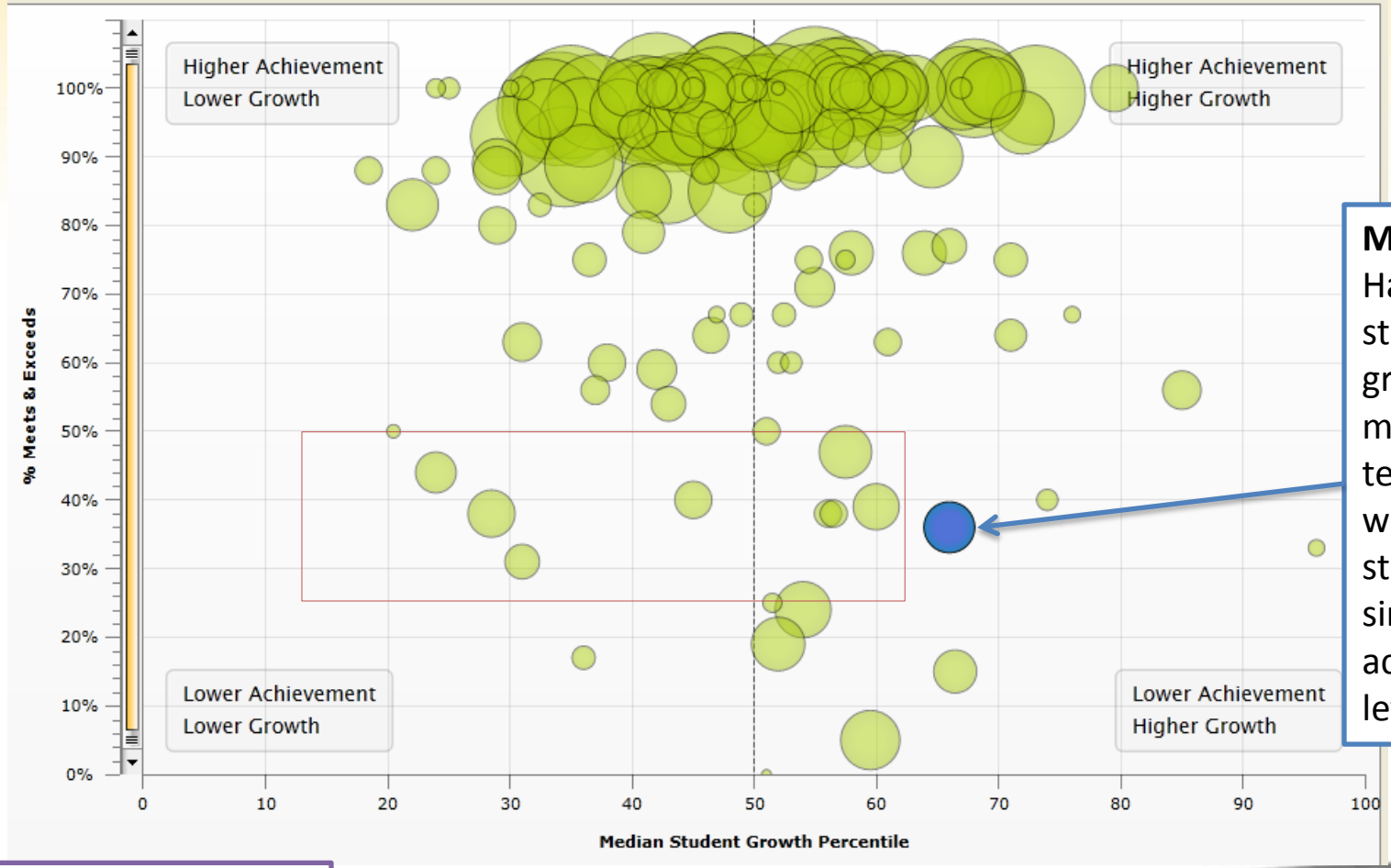


8th Grade Proficiency

Ms. Mouse –
She taught most of the low-achieving students, but they still demonstrated high growth

9th Grade Lit Growth

What if we consider where students started – across the district?



8th Grade Proficiency

9th Grade Lit Growth

Ms. Mouse – Had more student growth than most other teachers with students of similar prior achievement levels

All 9th Grade Lit teachers in this district

Resources

- Introduction to SGPs video
- GSGM Visualization Tool (SLDS)
  - Information restricted based on role
  - Additional enhancements in development
- Student growth reports for parents
  - Sample reports
  - Sample letter
  - Interpretation videos
- GSGM tutorial series
- Coming soon – public visualization tool (school- and district-level results only)

Questions?

- For questions regarding the Georgia Student Growth Model, please contact:

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