

MCAS Growth Model Introduction & Overview



Presentation to the Northbridge School Committee

November 10, 2009

Past MCAS Analysis

- Snapshot in time
- Any year-to-year comparison focused on comparing within grade levels
 - Last year's 4th graders vs. this year's 4th graders
 - Difficult to compare between different sets of students

New Growth Model

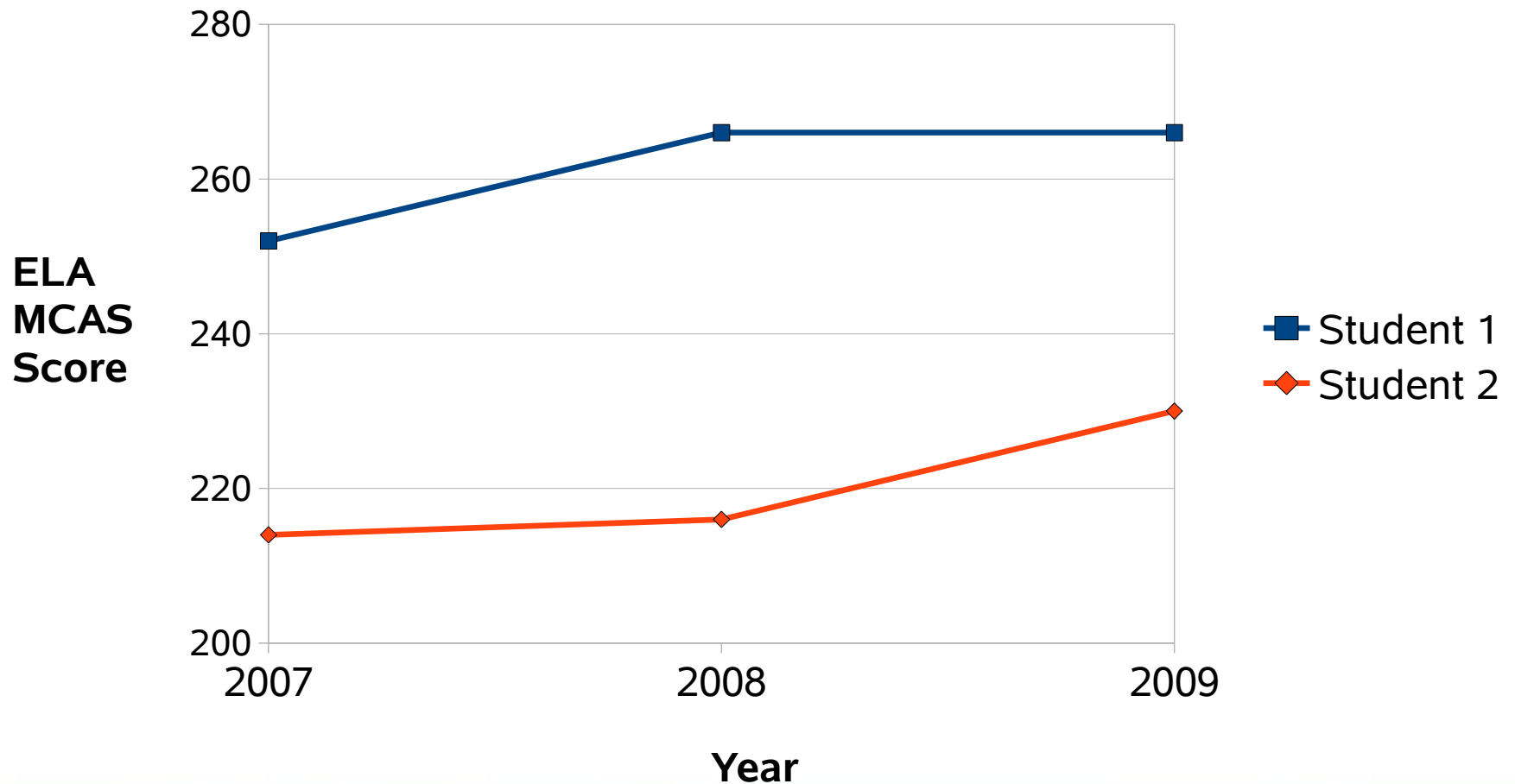
- Focuses on change in student and school performance levels
- Compares students' year-to-year progress to that of their academic peers statewide
- Peer group:
 - Students who had similar MCAS raw score histories
 - No subgroup differentiation

New Growth Model

- Expressed as a percentile
 - A student with a Student Growth Percentile (SGP) of 48 scored better than 48% of students statewide with a similar score history

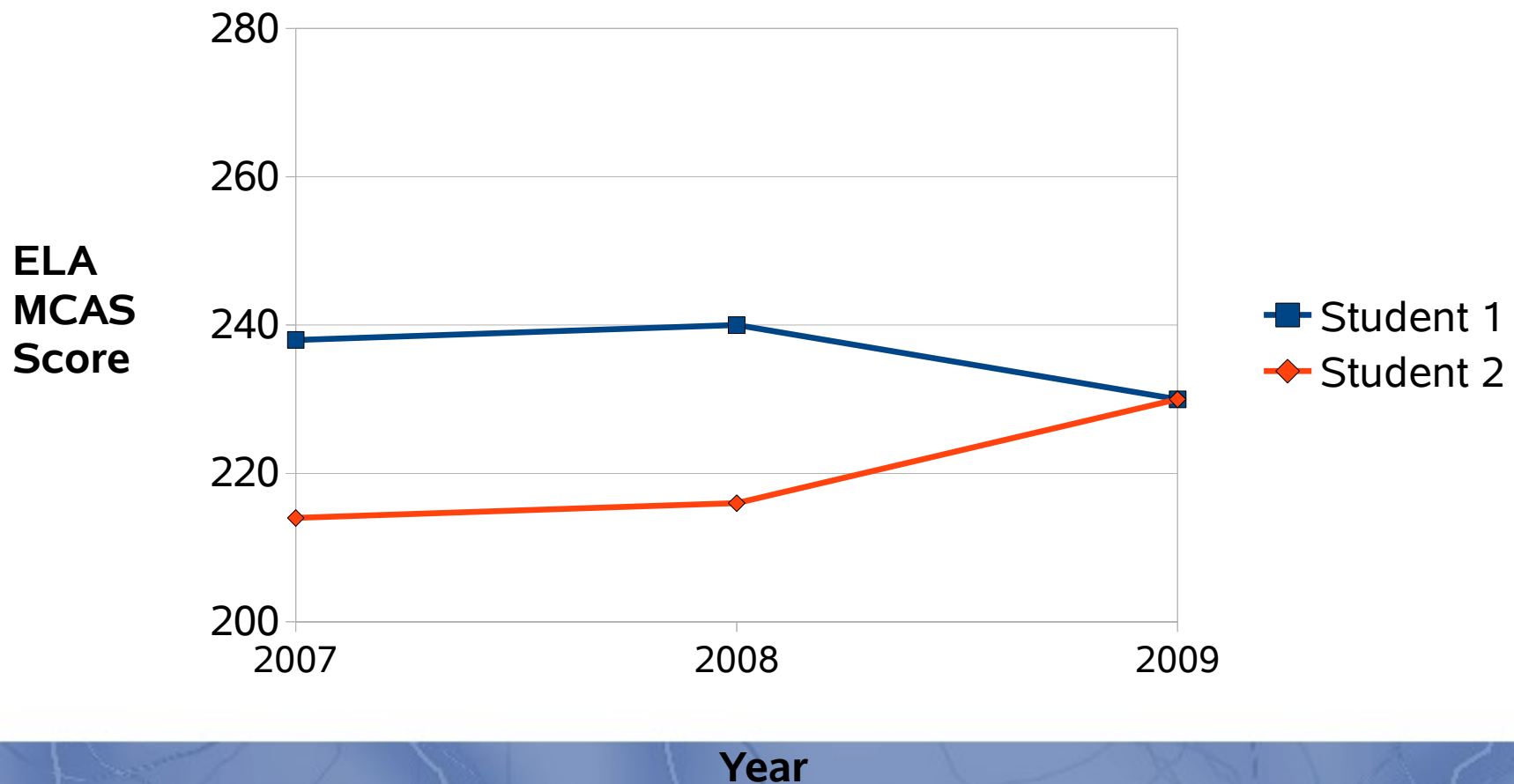
Two Students

- Both students have a 2009 Student Growth Percentile of 89



Two More Students

- Both students scored 230 on the 2009 ELA MCAS
- Student 1 has a Student Growth Percentile of 5
- Student 2 has a Student Growth Percentile of 89



DESE Growth Designations

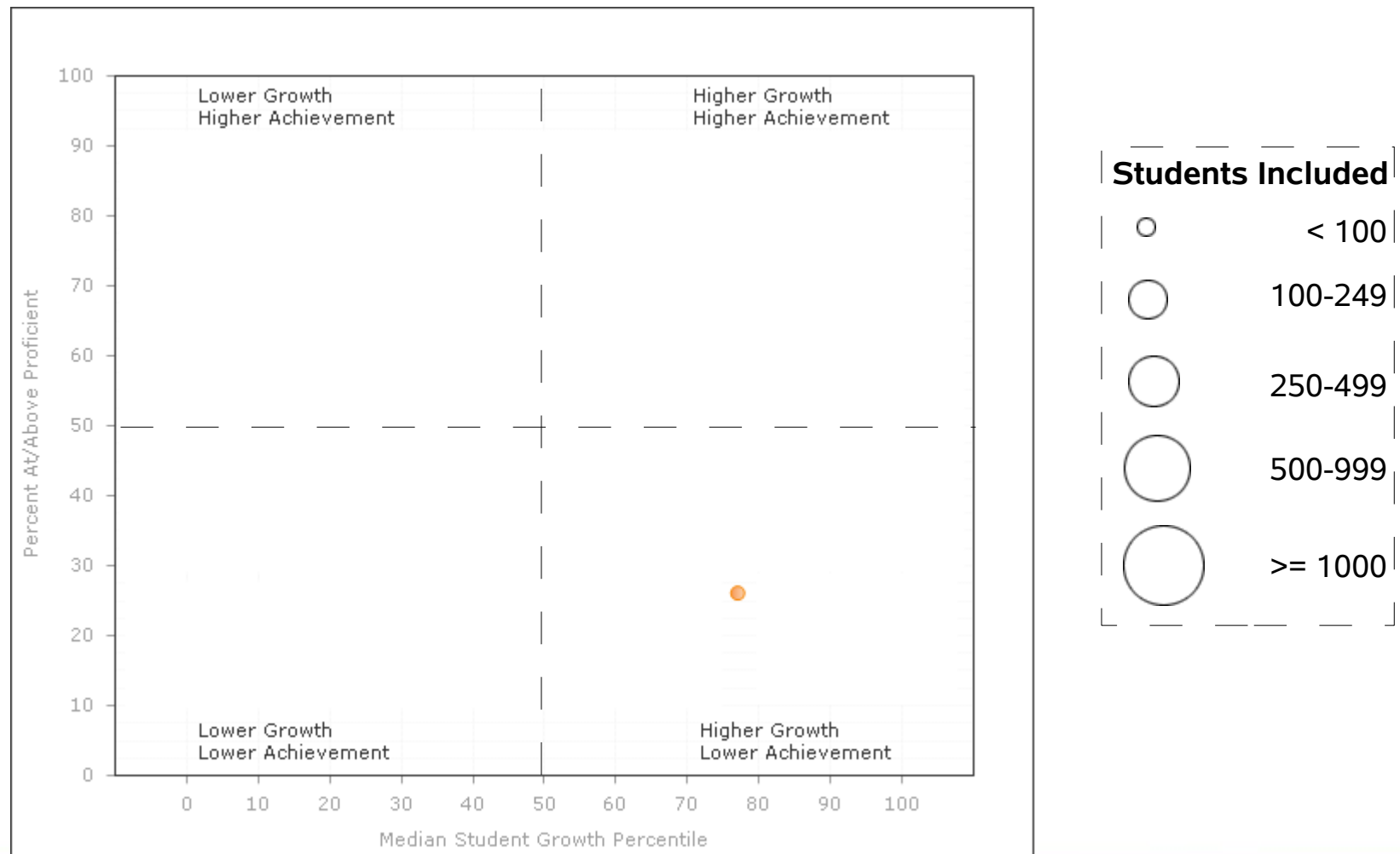
- “High growth”
 - At or above 60th percentile
- “Typical growth”
 - Between 40th and 60th percentile
- “Low growth”
 - Below the 40th percentile

School/District Growth Reports

- Aggregate of SGP for all students in school/district
- Expressed as Median SGP
- Calculated only for:
 - Students in grades 4-8 with 2+ consecutive years of MCAS results
 - Students in grade 10 who have MCAS results for grade 8

Elementary School, Worcester

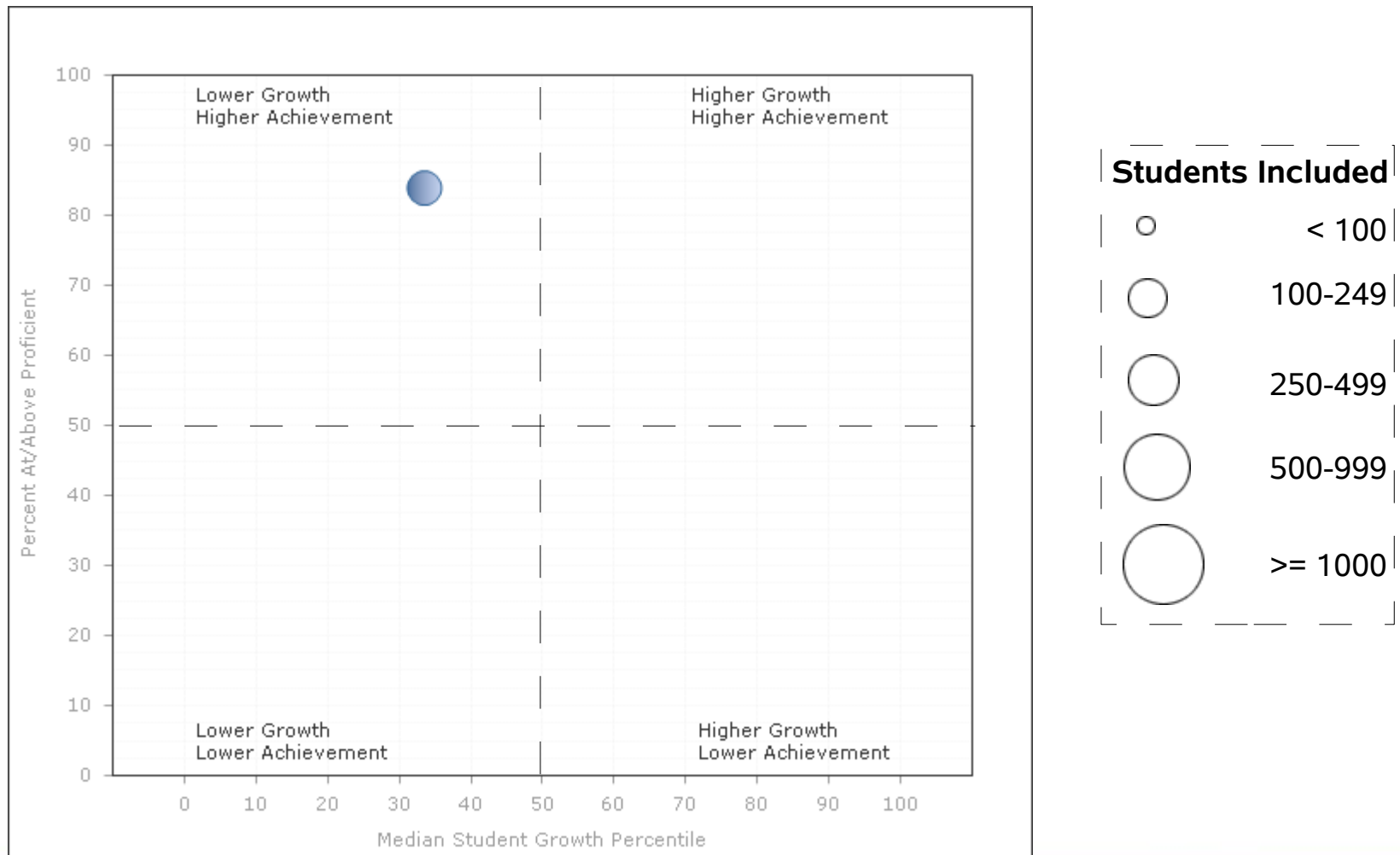
- Lower achievement, higher growth



Source: Massachusetts Department of Elementary and Secondary Education

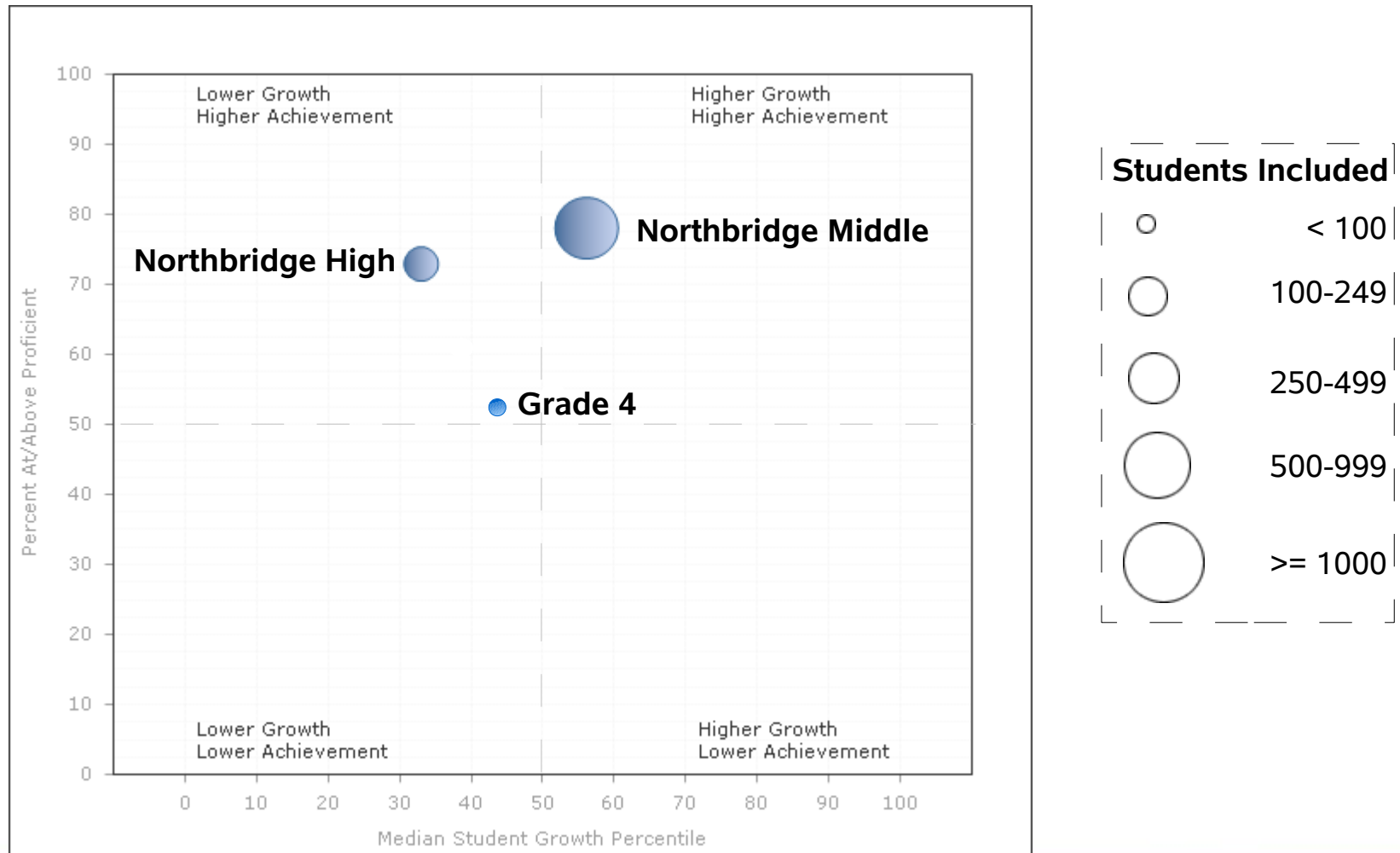
Regional HS

- Higher achievement, lower growth



Northbridge English/Language Arts

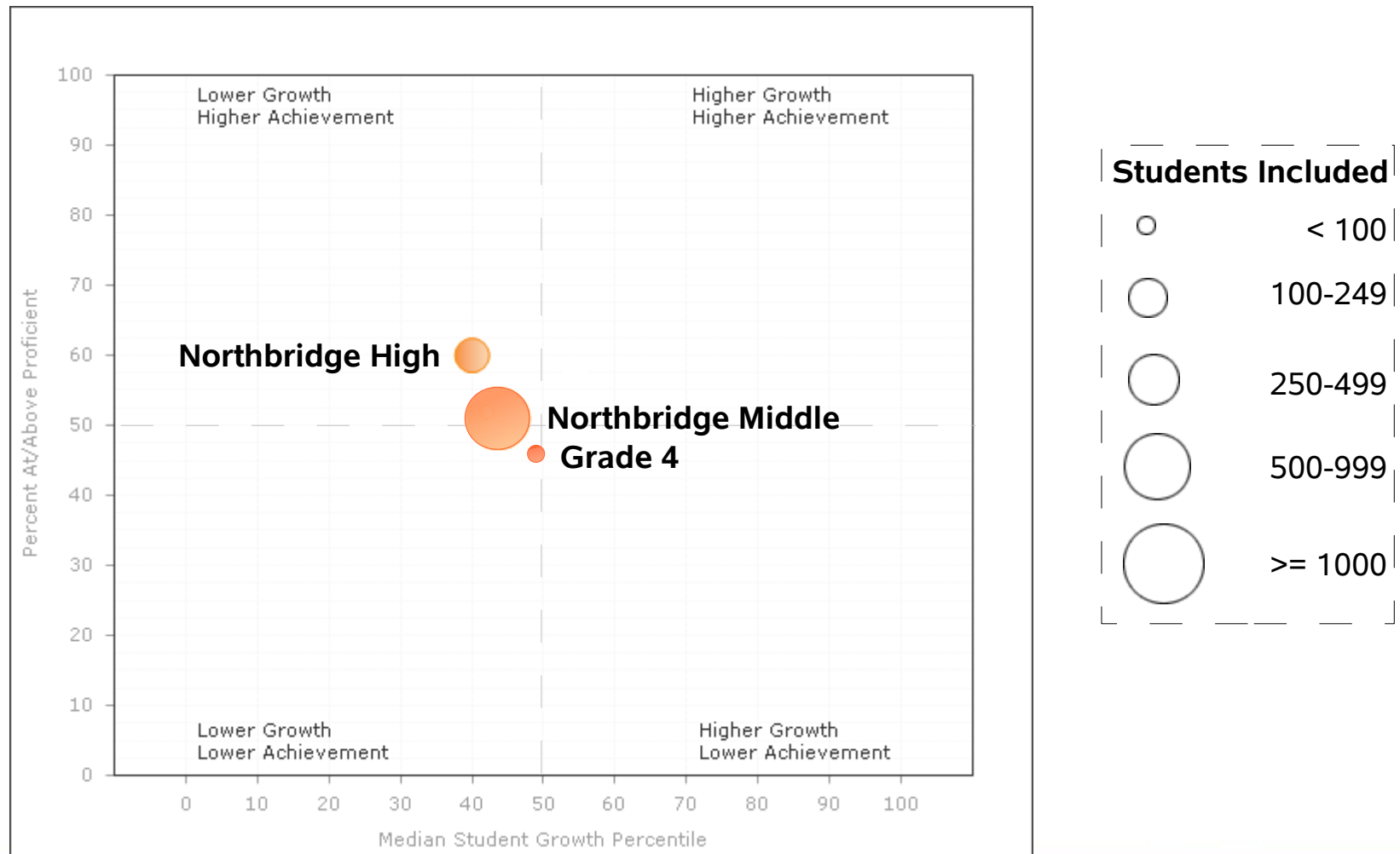
2009



Source: Massachusetts Department of Elementary and Secondary Education

Northbridge Mathematics

2009

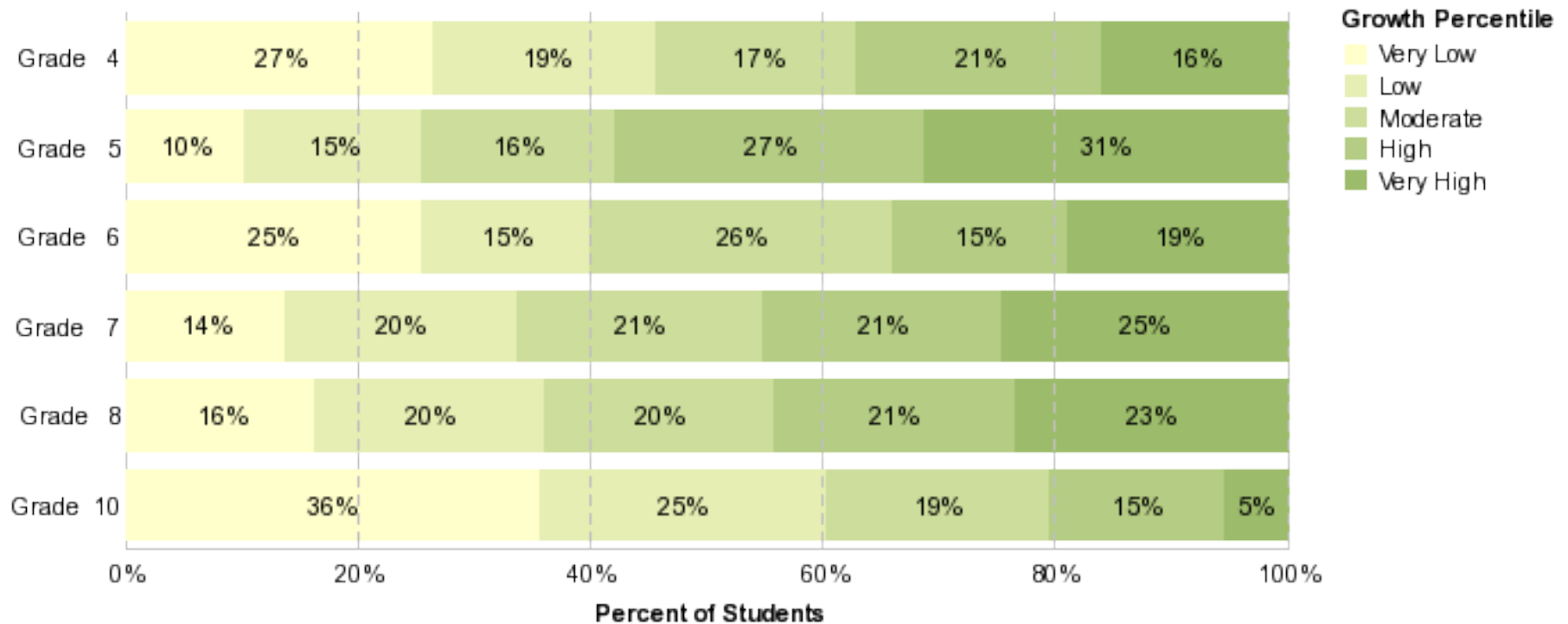


Source: Massachusetts Department of Elementary and Secondary Education

Northbridge English/Language Arts

Student Distribution Growth by Grade

Northbridge - 2009 MCAS Grade 4, 5, 6, 7, 8, 10 English

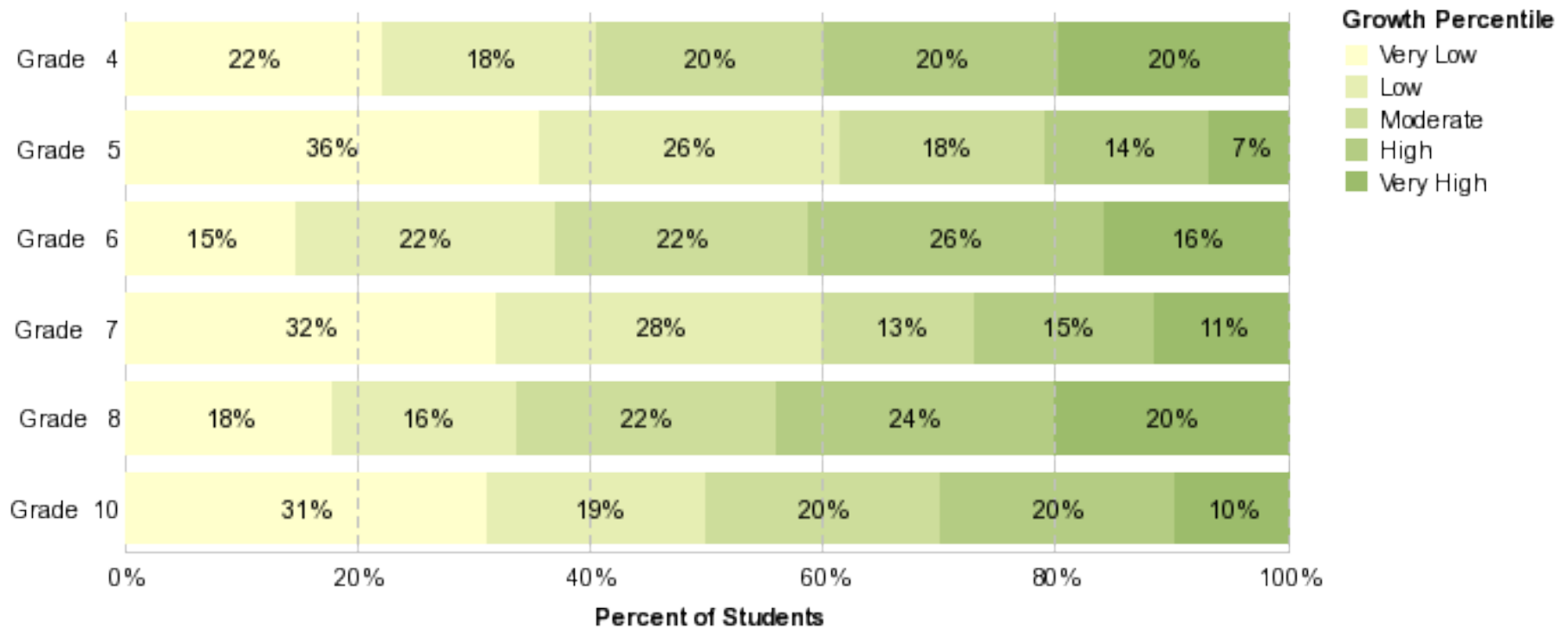


Vertical lines at 20%, 40%, 60%, 80% and 100% represent the Statewide distribution for very low, low, moderate, high and very high growth.

Northbridge Mathematics

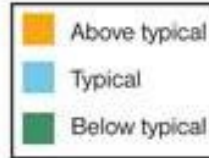
Student Distribution Growth by Grade

Northbridge - 2009 MCAS Grade 4, 5, 6, 7, 8, 10 Math



Central Mass. Comparison

Comparing student academic growth



Growth percentiles work by comparing students against their academic peers, a group of students statewide who scored similarly on MCAS tests in past years. The growth percentiles show how students scored on the most recent test compared to their academic peers. For instance, if John improved more than 65% of his academic peers, then his student growth percentile would be 65. To get the growth percentile of a school or district, the state takes the median student growth percentile, the point at which half of the students have a higher growth percentile and half lower. Typical student growth percentiles are between 40 and 59.



Source: Worcester Telegram & Gazette

Grading on a Curve

- Future Growth Percentile data will be dependent upon student performance statewide
- If students statewide improve more next year than this year, a given increase in a student's score would result in a lower growth percentile than the same increase this year