

# Top-to-Bottom (TTB) School Rankings 2015-2016



## UNDERSTANDING THE RANKINGS

# Introduction



# Description Roadmap



- What changed vs what stayed the same
- Brief z-score refresher
- Top-to-Bottom (TTB) ranking description
- Achievement Gap ranking description
- Update on Labels

# What is New for 2015-16?



- **Priority & Focus Schools** not named by the MDE
- **Reward Schools** were named for 2015-16
- **Achievement Gap** removed from overall rankings and formally made into a separate “achievement gap ranking”
- **Component weighting** changed to 50% Achievement and 50% improvement
- **Content areas weighted** by number of students assessed
- **Improvement** component based on Student Growth Percentiles (SGPs)
- **ELA** replaced reading and writing

# What Stayed the Same?



- Only FAY students are included
- Use of Achievement, Improvement, and Graduation components
- Achievement
- Graduation
  - uses best of 4-, 5-, or 6-year cohort
  - counts for 10% of overall ranking

# Full Academic Year (FAY)



- Students present in the school for (**current year**):
  - Fall count day, Spring count day, and the assessment window enrollment snapshot
- Only FAY students will be included in overall TTB and Gap rankings.
- Limits the impact of student transiency on accountability.
- Ensures only students educated by the school count for the overall TTB and Gap rankings.

# Z-Score Refresher



# What are z-scores and why do we use them?



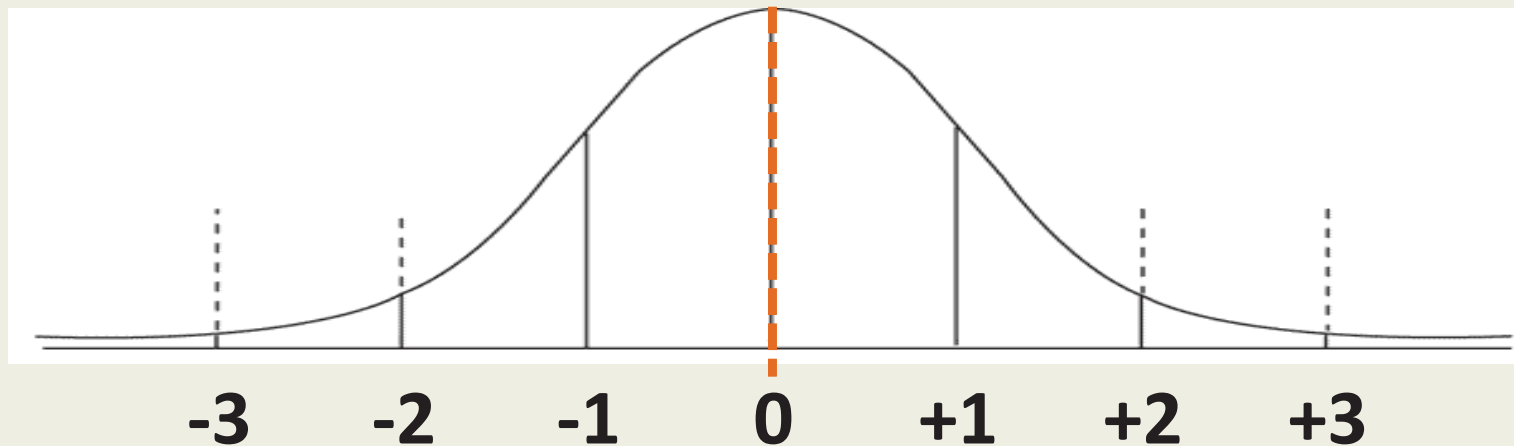
- z-scores describe how much a value is above or below the average score of the comparable group
  - Each z-score corresponds to a value in a normal distribution and describes how much a value deviates from the mean.
- z-scores “level the playing field” across grades, subjects, and components
  - By first standardizing scores (placing them in context of comparable scores) we can then combine across previously non-comparable scores (e.g., across grades, subjects, TTB components, etc.)



# Z-Score “Tip Sheet”



- z-scores are centered around zero (i.e., zero is average)
- Positive z-scores mean the score is above average
- Negative z-scores mean the score is below average

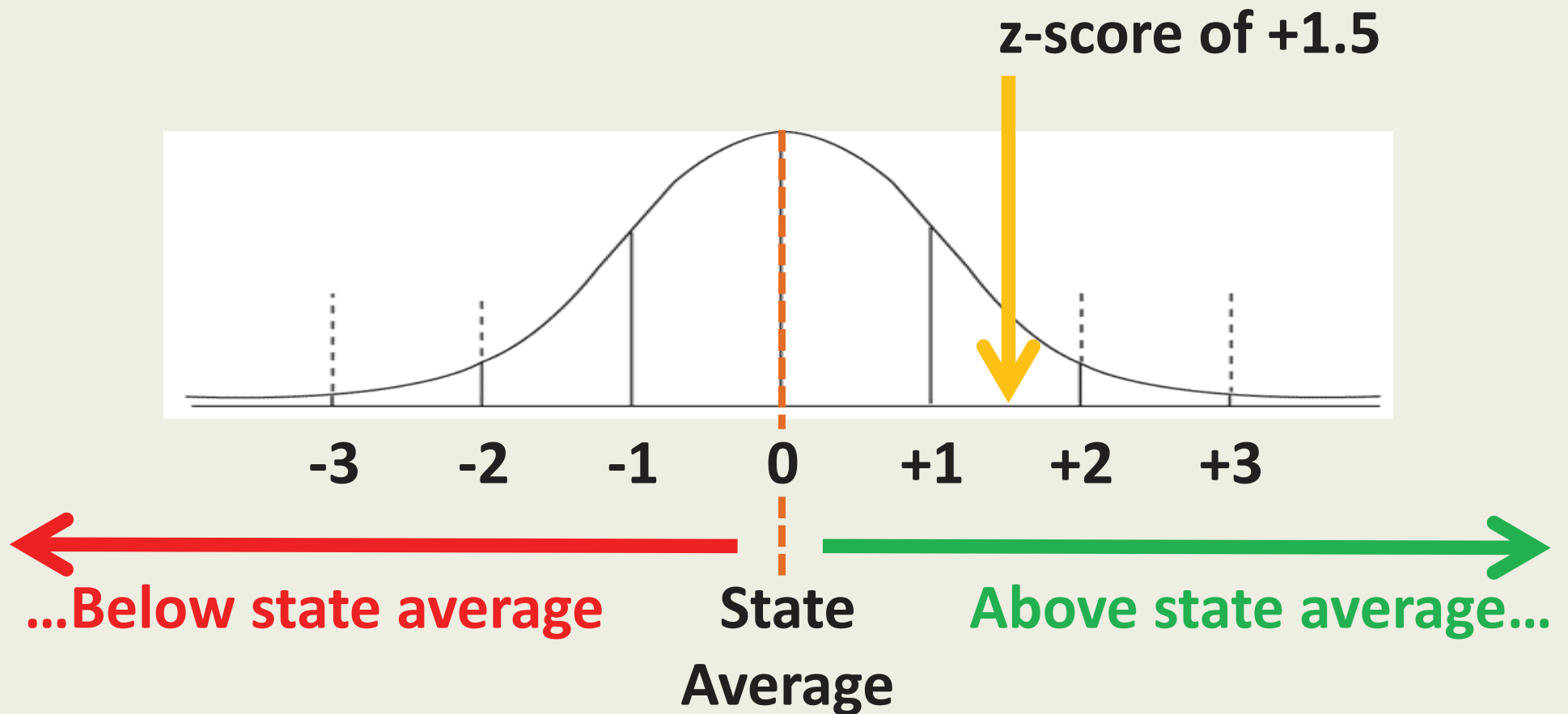


**← ...Below state average**      **State Average**      **Above state average... →**

# Z-Score Example 1



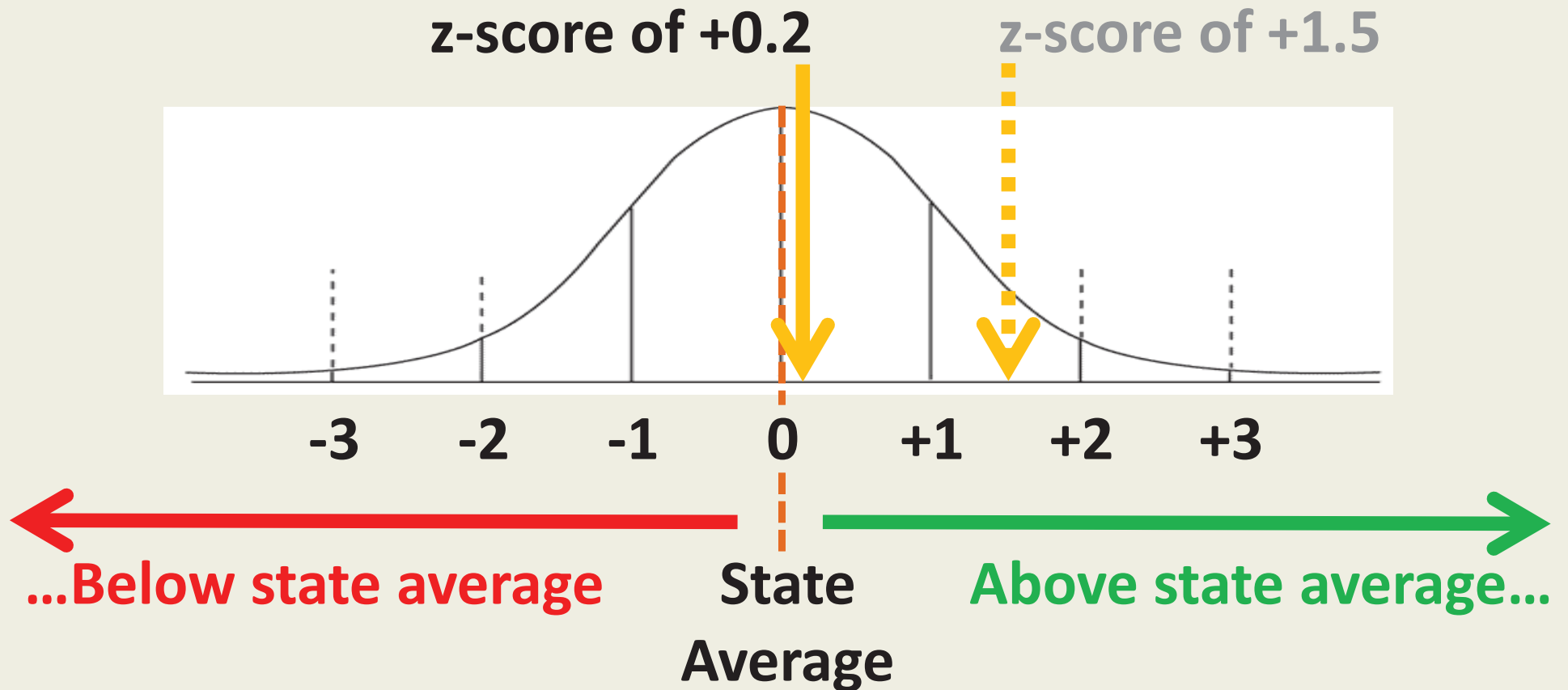
- A school with a z-score of +1.5 would be above the state average



# Z-Score Example 2



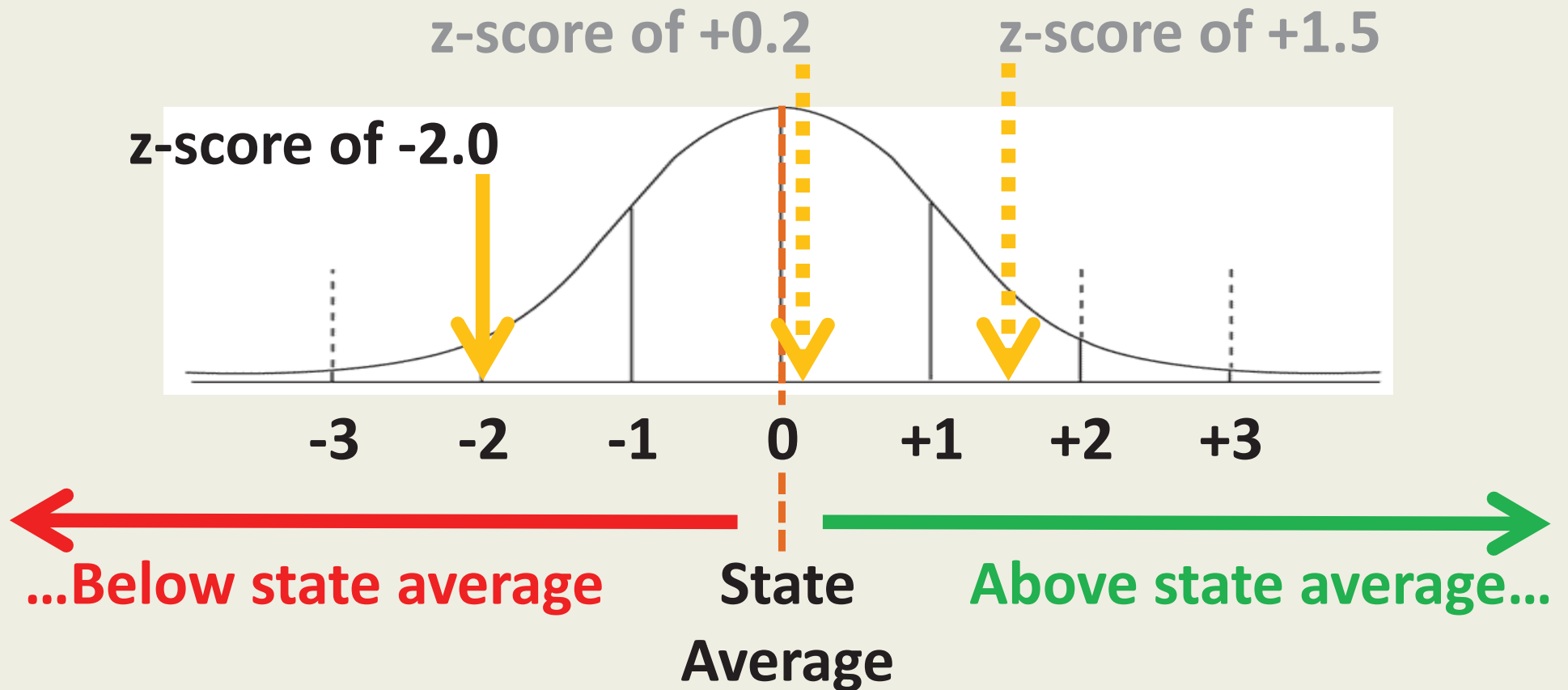
- A school with a z-score of +0.2 would also be above the state average, but only by a small margin.



# Z-Score Example 3



- A school with a z-score of -2.0 would be far below the state average.



# Top-to-Bottom School Rankings



# Top-to-Bottom Overview



- Overall statewide percentile ranking of most schools
- Includes all state assessed content areas (ELA, Math, Science, and Social Studies) and weights them equally
- Uses only Full Academic Year (FAY) students
- Uses two-year averaging for increased stability
- Used to determine Reward School labels
  - **The MDE will not be naming Priority or Focus Schools**

# Which schools receive a ranking?



- Schools with 30 or more full academic year (FAY) students in the two most recent years in at least two state-tested content areas
- Some schools do not receive a ranking if they have:
  - Too few FAY students
  - Only one year of data

# Components of TTB Rankings



- Each component applies to each subject for a school:
  - **Achievement** (aggregated student z-scores)
  - **Improvement** [aggregated Student Growth Percentiles (SGPs)]
  - **Graduation rate** (grad rate and trend of grad rate)
  - **Achievement gap** will no longer be part of TTB ranking but will be a separate ranking
- Individual components tell schools nuances about their overall performance and can be used diagnostically



# More about Graduation Rate



- Applies only to schools that graduate students
  - (i.e., 9-12, 7-12, k-12, etc.)
- Included in two ways:
  - Graduation rate
  - AND trend in graduation rate over time
- Uses the best of 4-, 5-, or 6-year cohort rate

# Achievement Component



- Step 1: For the current and previous year, create a student-level z-score for each student in each content area by comparing:
  - M-STEP to M-STEP
  - MI-Access to MI-Access
    - ✦ Participation to Participation
    - ✦ Supported Independence to Supported Independence
    - ✦ Functional Independence to Functional Independence
- Step 2: Take the average z-score of the pooled current year and previous year z-scores. This is the school's Two-Year Average Student Z-score.

# Improvement Component



- Step1: For the current and previous year, calculate Student Growth Percentiles (SGPs) for each student in each content area.
  - For more information on SGPs please review the SGP supports posted on [www.mi.gov/baa-accountability](http://www.mi.gov/baa-accountability)
- Step 2: Take the average SGP of the pooled current year and previous year z-scores. This is the school's Two-Year Average SGP.

# Graduation Rate Component

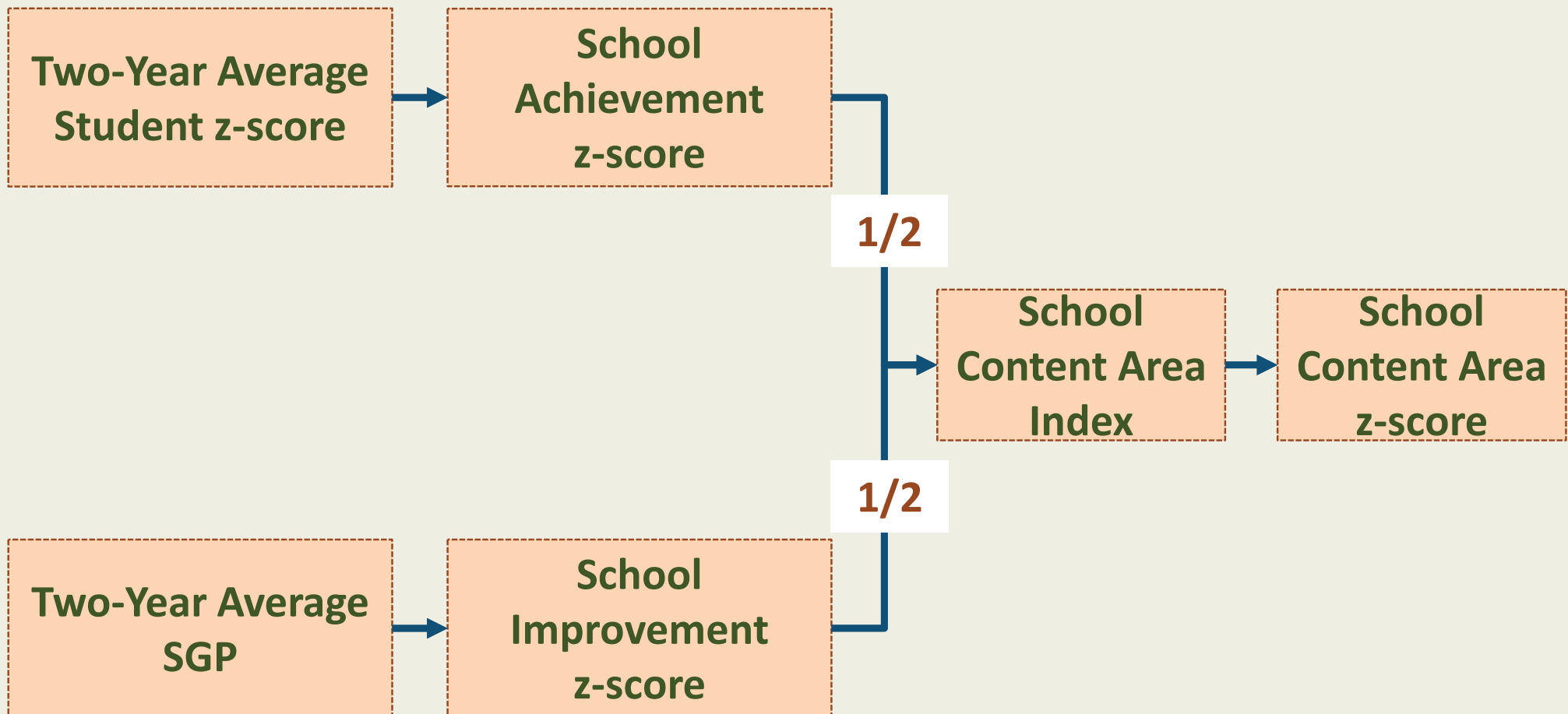


- Two-Year Average Graduation Rate
  - Step 1: Use the current and previous year to calculate 2-year average 4-, 5-, and 6-year grad rates for the school
  - Step 2: The best 2-year average will be used as the school's Two-Year Average Graduation Rate
- Graduation Rate Trend Slope
  - Step 3: Use the same cohort used for graduation rate
  - Step 4: Calculate the slope for the selected cohort using up to 4 years of data.

# How are Content Area z-scores Calculated?



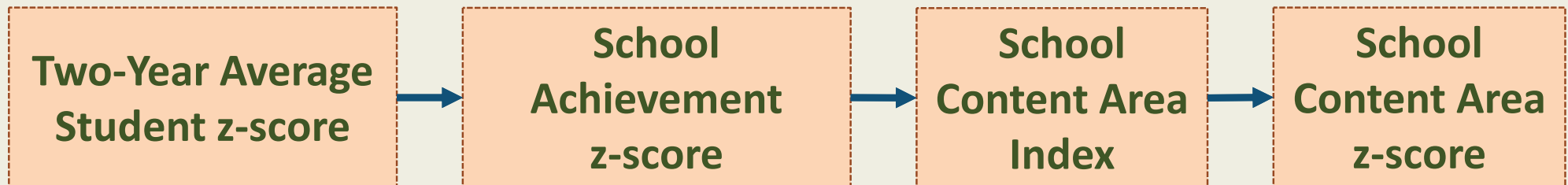
- Schools/subjects with Student Growth Percentile (SGP) data



# How are Content Area z-scores Calculated?



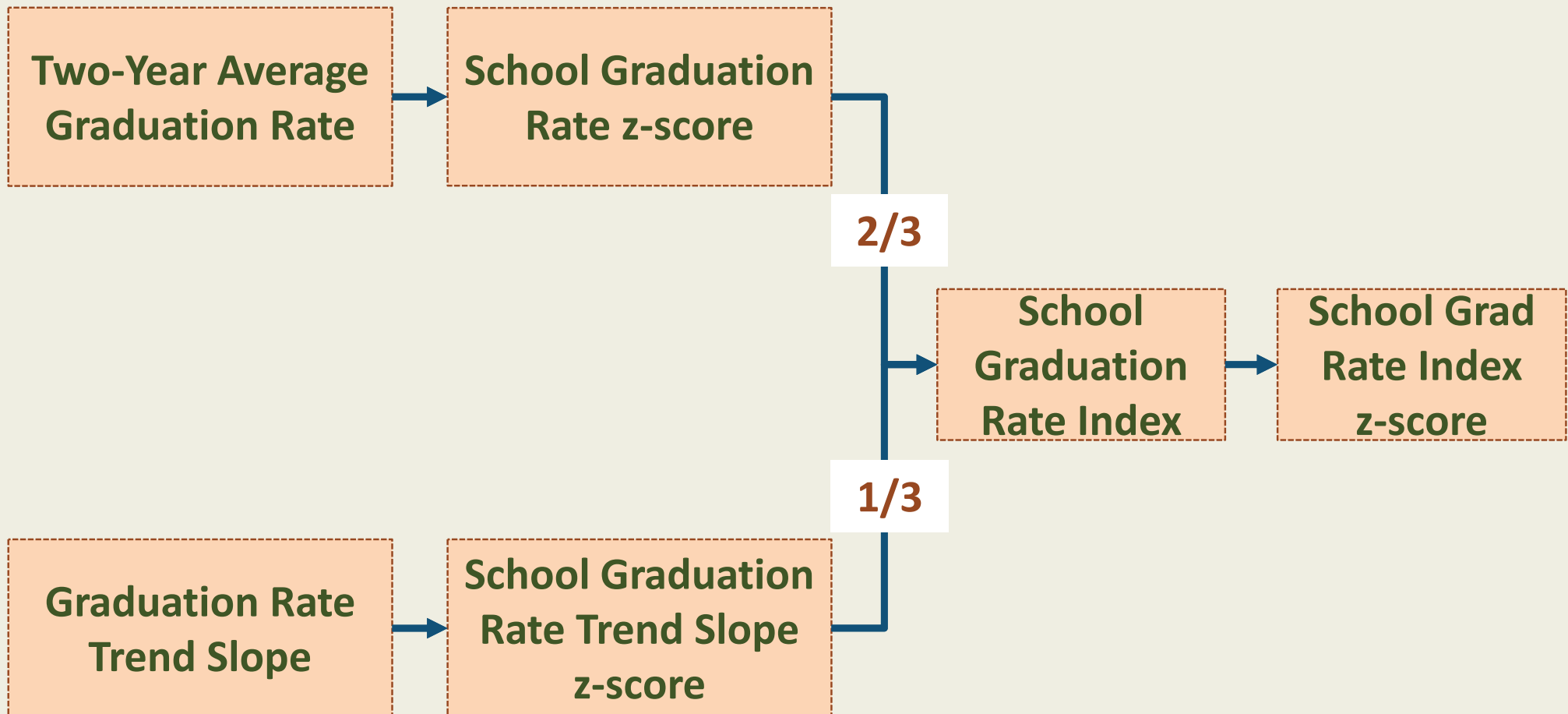
- Schools/subjects without Student Growth Percentile (SGP) data
  - Math and ELA for schools with a max grade of 3
  - Science for schools with grade 4 but not grades 7 or 11
  - Social studies for schools with grade 5 but not grades 8 or 11
  - Too few students to calculate a stable aggregate SGP



# How are Graduation z-scores Calculated?



- Schools with at least 2 years of graduation data



# Weighting Subjects by FAY Counts



- Content areas weighted by the number of FAY students tested in that content area rather than all content areas being weighted equally.
- This change was made because MDE repeatedly heard from the field that subjects which are tested more should be weighted more in the rankings.



# Weighting Subjects by FAY Counts: Example

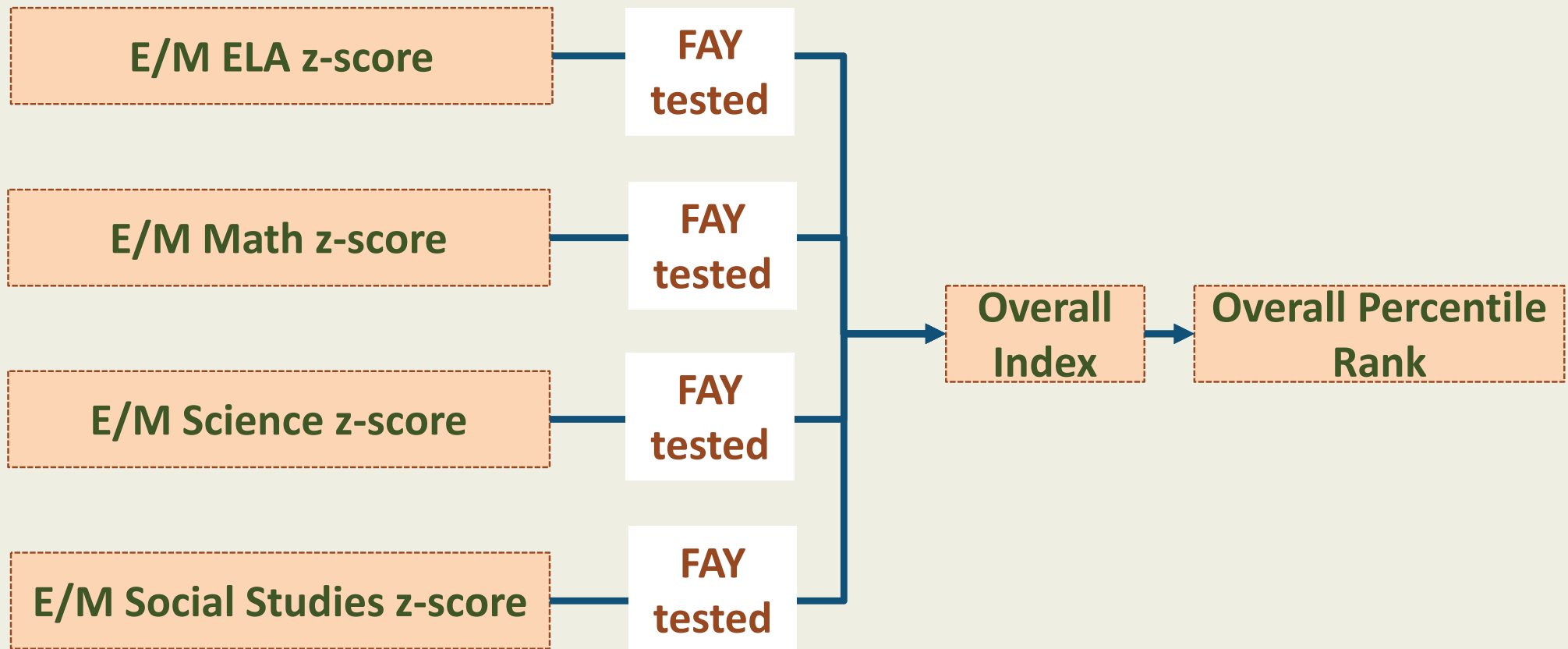


- Happy Valley School has:
  - **600 total tests given across all grades/subjects**
  - ELA: 200 students were tested
  - Math: 200 students were tested
  - Science: 150 students were tested
  - Social Studies: 50 students were tested
- Relative weights for FAY tested are:
  - ELA: 33.3% (200/600)
  - Math: 33.3% (200/600)
  - Science: 25.0% (150/600)
  - Social Studies: 8.3% (50/600)

# How are Components Combined?



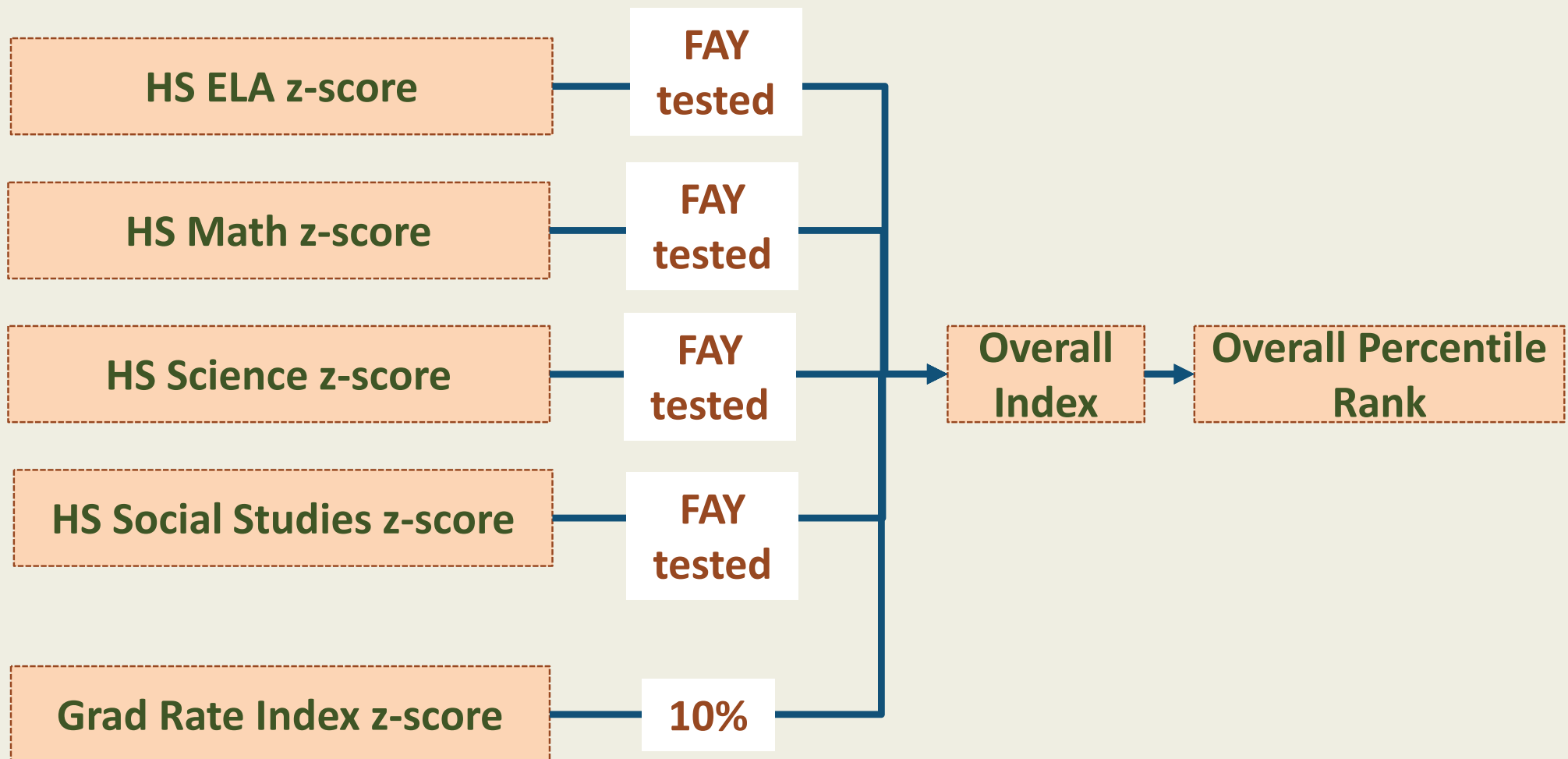
- Elementary/Middle schools



# How are Components Combined?



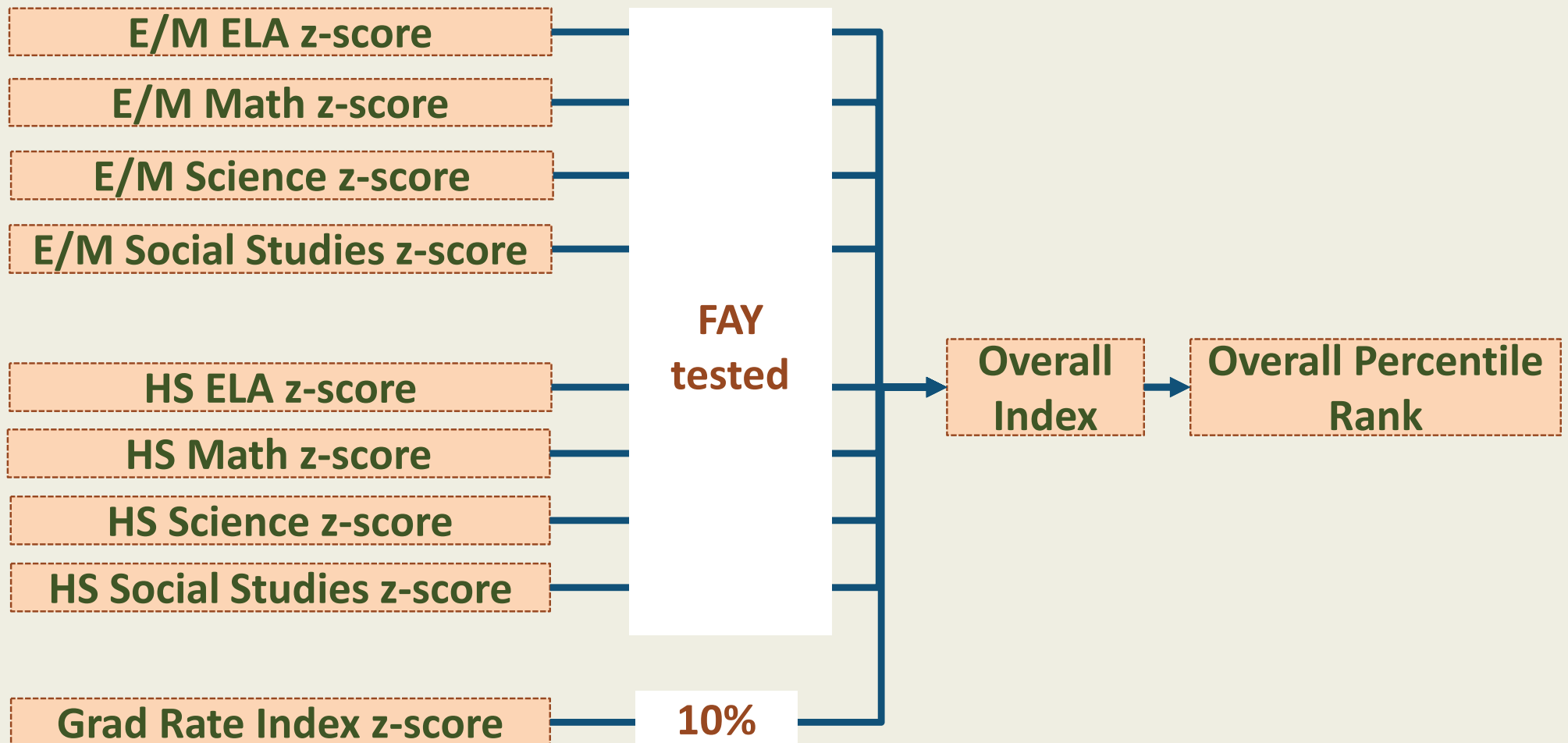
- High schools



# How are Components Combined?



- Schools serving both Elem./Middle and High



# Achievement Gap Ranking



# Reasons for A Separate Gap Ranking



- Produces a separate gap ranking by capturing the composite achievement gap among all tested subjects to a percentile rank.
- Schools where nearly all students had low achievement and low improvement were sometimes not identified as Priority schools because since nearly all students had low achievement and low improvement their gap was small and their TTB rank was artificially inflated.

# Achievement Gap Ranking Overview



- Statewide percentile ranking of most schools
- Includes content areas of ELA and Math
- Uses only Full Academic Year (FAY) students
- Uses two-year averaging for increased stability

# Which schools receive a ranking?



- Schools with 30 or more full academic year (FAY) students in the two most recent years in at least two state-tested content areas
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# Achievement Gap Components



- Achievement Gap ranking has only one component:  
Within-School Achievement Gap
- This is a measure of the average gap between the schools Bottom 30% and Top 30% of students

# How are Content Area Gap z-scores Calculated?



- Current and previous year student z-scores are pooled and then rank ordered within each content area
- Identify the Bottom 30% and Top 30%
- Calculate 2-year average z-score for Bottom 30% and Top 30%
- The gap index is the difference between the Bottom 30% 2-year average z-score and Top 30% 2-year average z-score
- Content area z-scores are calculated by comparing the content area gap index to the statewide mean of gap indices for that content area.

# How are Content Area Gap z-scores Calculated?



Student	z-score
Tommy	2.0
Sally	2.0
Maura	1.9
Fred	1.5
Elias	1.0
Bickford	-0.5
Silas	-0.7
Francine	-1.2
Joey	-1.9
William	-2.0

**Top 30%  
Average:  
+1.97**

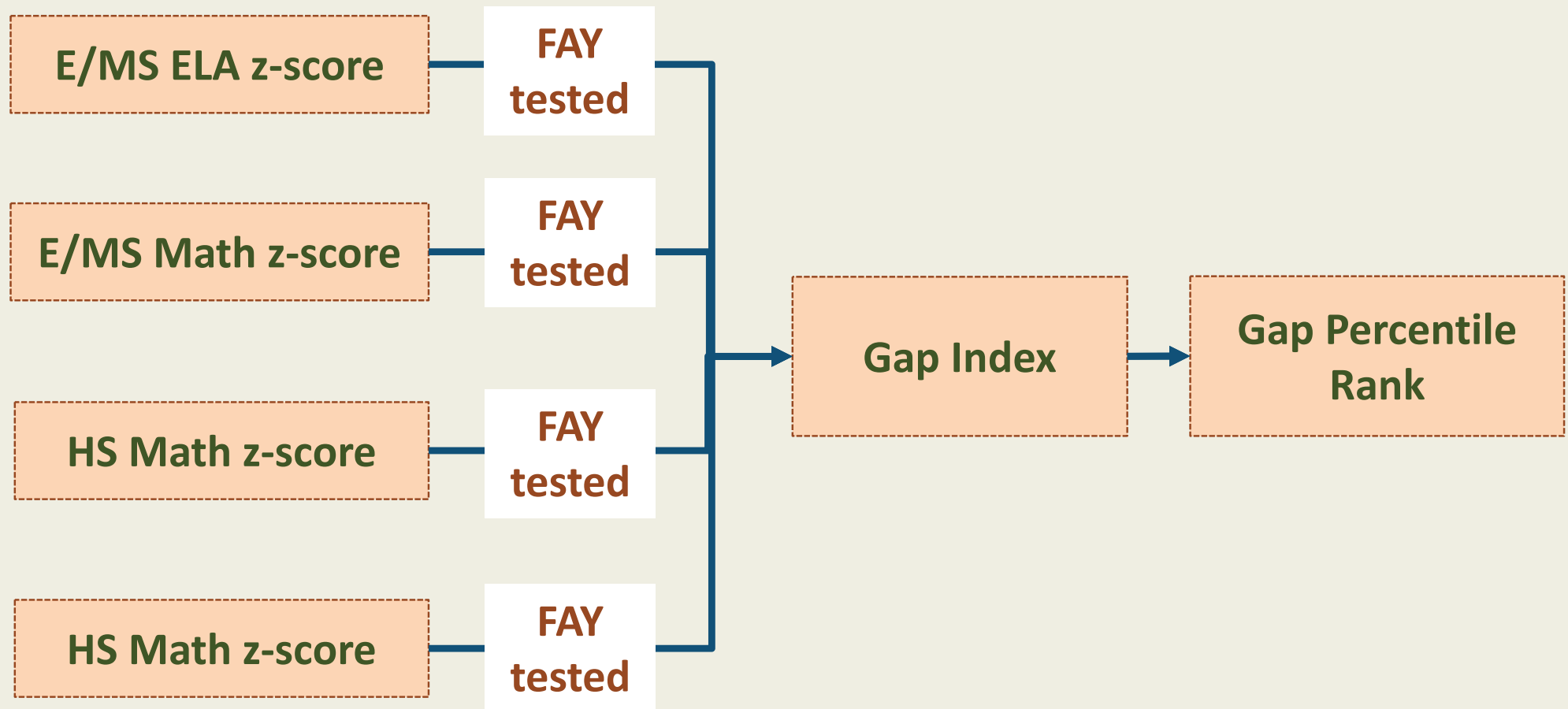
**Gap Index**

$$\begin{aligned} &= -1.70 - 1.97 \\ &= -3.67 \end{aligned}$$

**Content Area  
z-score**

**Bottom 30%  
Average:  
-1.70**

# How are Content Area z-scores Combined?



# Helpful Links



- [www.mi.gov/ttb](http://www.mi.gov/ttb) - Historical lists/data, presentations, and documentation for TTB, Priority, Focus, Reward.
- [www.mi.gov/baa-accountability](http://www.mi.gov/baa-accountability) - Student Growth Percentile (SGP) and general accountability supports..
- [www.mi.gov/schoolscorecard](http://www.mi.gov/schoolscorecard) - Scorecard guide, FAQs, proficiency targets, and historical lists/data.
- <http://www.mi.gov/baa-secure> - New Secure Site. Available to authorized users only.
- <https://www.mischooldata.org> - Public portal.

# Questions? Comments?



We're here to help!

Ask us today by contacting:

[MDE-Accountability@Michigan.gov](mailto:MDE-Accountability@Michigan.gov)

-OR- (877) 560-8378