

# **2017 A-F Letter Grade Accountability System: Traditional Schools Business Rules**

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## Introduction

These business rules detail Arizona's 2017 A-F Traditional Schools Letter Grade Accountability System for educators, parents, and other stakeholders. The Arizona Department of Education's (ADE) mission is to serve Arizona's education community, ensuring every child has access to an excellent education. As a state, we are also committed to holding schools accountable to this goal using a fair accountability model that differentiates the performance of schools and Local Education Agencies (LEAs).

Using the A-F Letter Grade Accountability System, Arizona makes annual accountability determinations for schools and LEAs based on student academic outcomes, growth, acceleration readiness, graduation rate, and career and college readiness. The accountability system outlined here uses several metrics to measure student learning and growth in Arizona traditional public schools.

## Overview of the A-F Letter Grade Accountability System

As outlined by A.R.S. §15-241, the State Board of Education (SBE) determined the criteria for each school classification. The SBE created an A-F Accountability Ad Hoc Committee to develop an accountability system to recommend to the Board. The Ad Hoc Committee met 15 times, received public input, and worked closely with ADE's Accountability Advisory Group. ADE served as a liaison during this process providing impact data. On April 24<sup>th</sup>, 2017, the SBE adopted the preliminary framework for the traditional school model based on recommendations by the Committee. Additional modifications were adopted by the SBE in December, 2017 after they established a Technical Advisory Committee (TAC) to produce recommendations for changes. Details regarding A-F and the process can be found at <https://azsbe.az.gov/f-school-letter-grades>. The following outlines the approved traditional school models.

The A-F Letter Grade accountability system includes the following:

1. Percentage of proficient students on the AzMERIT grade level or end of course assessment
2. Longitudinal indicators of relative student gain and growth towards proficiency/ maintenance of high proficiency.
3. EL language proficiency and growth
4. Graduation rate for high schools only
5. Indicators to measure students' ability to accelerate beyond elementary or high school students' readiness to succeed in a career or post-secondary enrollment.

## Data Inclusion Criteria

AzMERIT, MSAA, AIMS Science, AIMS A Science and AZELLA data were used in the letter grade calculation after validation against the statewide Arizona Education Data Standards (also known as AzEDS). Using the student's AZEDS identification as the unique identifier, integrity checks consider valid student enrollment and accurate student identification on test date relevant to the grade level and subject tested.

The following criteria outline specific details and descriptions of student data included in the calculation of the A-F Letter Grades for schools and LEAs.

Full Academic Year (FAY, also known as 1-year FAY) – Students were included in the proficiency, growth, and acceleration/readiness metrics of the A-F Letter Grade models if they were enrolled within the first ten school days of the school's calendar year and continuously enrolled until the first day of the spring testing window or test date for AzMERIT and MSAA. Students were included in the EL calculations if they were enrolled within the first ten school days of the school's calendar year and continuously enrolled until the last day of the testing window or test date for AZELLA. Students with breaks in enrollment fewer than 10 days in the same school are still considered FAY.

2-year FAY – Students who are FAY two consecutive years in a row (FY16, FY17) at the same school. 2-year FAY students are not included in 1-year FAY calculations.

3-year FAY – Students who are FAY three consecutive years in a row (FY15, FY16, FY17) at the same school. 3-year FAY students are not included in 2-year FAY and 1-year FAY calculations.

English Learner (EL) – Any student identified with an ELL need (e.g., with a less than proficient score on AZELLA in the current or prior fiscal year).

Special Education Student – Any student receiving special education services on October 1, 2016. To confirm whether a student meets this criterion, schools can check their SPED73 Report in the ESS Census Application.

N-Size – the minimum number of students required for the indicator to be calculated and the school eligible to earn the points. The n-size for all indicators is 20 FAY students.

Current Year – refers to FY17

Prior Year – refers to FY16

Recently Arrived Limited English Proficient (RALEP) – A RALEP in the current year is a student who meets the following data criteria: 1) is new to Arizona schools as determined by having his/her first enrollment ever in an Arizona school and 2) is not proficient in English as determined by a less than proficient result on the AZELLA.

Chronically Absent – a student is chronically absent if that student has absences (excused and unexcused) greater than 10% of a school’s calendar (e.g., 18 days for a school meeting 5 days per week). Schools can validate how many absences a student has using the STUD10 report in the AzEDS portal on ADEConnect. Additional information on what defines an absence can be found here: <https://www.azleg.gov/viewdocument/?docName=https://www.azleg.gov/ars/15/00901.htm>.

Economically Disadvantaged – student data submitted via AzEDS in the NCLB1 and NCLB2 fields is used to define an economically disadvantaged student. A student is defined as economically disadvantaged if the school submits a 1/yes for either the NCLB1 or NCLB2 field.

Ethnicity – student data submitted via AzEDS in the ethnicity fields (i.e., White, African American, Hispanic, Native American/Alaskan Indian, Asian, or Pacific Islander) is used for the subgroup calculations.

The table below describes the grade-level and FAY requirements for each indicator of the A-F Letter Grade Accountability System.

<b>Indicator</b>	<b>Component</b>	<b>FAY</b>	<b>Grades</b>	<b>Cohort/Year (if applicable)</b>
<b>Proficiency</b>	<b>AzMERIT ELA and Math</b>	✓	3-8, EOC	
	<b>AIMS, AIMS A Science</b>	✓	4, 8, 10	
	<b>MSAA</b>	✓	3-8, EOC	
<b>Growth</b>	<b>Growth on AzMERIT ELA and Math</b>	✓	3-8, EOC	
<b>EL</b>	<b>EL Proficiency and Growth</b>	✓	ALL	
<b>Acceleration/ Readiness</b>	<b>Grades 5-8 HS EOC Math</b>	✓	5-8	
	<b>Grade 3 ELA</b>	✓	3	
	<b>Chronic Absenteeism</b>		K-8	
	<b>Subgroup Improvement</b>	✓	3-8	
	<b>Special Education Inclusion</b>	✓	K-8	
<b>Graduation Rate</b>	<b>4-year Graduation rate</b>		12	Cohort 2016, Cohort 2015
	<b>5-year Graduation rate</b>		12	Cohort 2015
	<b>6-year Graduation rate</b>		12	Cohort 2014
	<b>7-year Graduation rate</b>		12	Cohort 2013
<b>College and Career Readiness</b>	<b>Career and College Readiness Self-Report</b>		9-12	2017 graduates; Cohort 2016 and Cohort 2015 for the bonus point

Regardless of a student’s special education status, the accountability system uses all verified AZMERIT data from students enrolled the full academic year. For students who take the MSAA assessment and are enrolled the full academic year, these data are used in the percent proficient not the calculation of student growth percentiles.

Students with a performance level reported from the AZMERIT English Language Arts and Mathematics assessments, MSAA, and AIMS or AIMS A Science are utilized in certain calculations (detailed below). The department does not include AZMERIT, MSAA, AIMS or AIMS A Science test records for students where no answer items are selected and no scale score or performance level is assigned. The following table indicates the only valid performance levels on AZMERIT or MSAA at all grade levels and for all subjects.

<b>AzMERIT/MSAA Achievement Levels</b>	<b>AIMS/AIMS A Science Achievement Levels</b>
Minimally Proficient	Falls Far Below
Partially Proficient	Approaches
Proficient	Meets
Highly Proficient	Exceeds

### Data in the Growth Model

Valid student assessment results must meet four criteria for inclusion in the growth model:

1. Student enrollment generates ADM in any Arizona public school (i.e., tuition payer code equal to 1 or FTE greater than 0).
2. Student has a test record from the 2016-2017 school year.
3. Student also has a test record from the 2015-2016 school year in the same subject.
4. Each student test record assesses consecutive grades (i.e., 2015 Grade 4 ELA & 2016 Grade 5 ELA, etc.) for grades 4-8 and ELA end of course (EOC) tests. Math EOC SGP was modeled using the two most common trajectories (Algebra I, Geometry, Algebra II or Algebra I, Algebra II, Geometry). Students in grade 3 will not have a growth score as they do not have two consecutive test records.

Only FAY students contribute student growth percentile and student growth target data to the school's growth score calculation.

Only test records which can be matched to a valid student enrollment are included in the accountability system. Test records with unverifiable information such as missing AzEDS ID numbers are excluded. To build the growth model, the ADE includes test records from students considered non-FAY at the time of testing. The growth model restricts the academic peer groups as much as possible to only students who are receiving a public education from an Arizona school that teaches grade level standards.

## Timeline & Appeals

The following is the timeline for traditional school letter grades (unless dates are modified by SBE at the June meeting):

- Preliminary static files will be in ADEConnect in mid-June
- All data other than College and Career Ready, must be submitted by July 14<sup>th</sup> at 5pm
- College and Career Ready points earned must be submitted by July 15<sup>th</sup> at 5pm
- SBE discussed cut score philosophy at June meeting
- SBE set cut scores at the September 25<sup>th</sup> meeting for preliminary letter grades
- Week of September 25<sup>th</sup> letter grades issued for traditional K-8 and 9-12 schools subject to embargo
- October 9<sup>th</sup> – embargo lifted; preliminary letter grades publicly released
- March 30, 2018 – Data is available in ADEConnect for schools
- Cut scores for final letter grades are set at April SBE meeting

### Appeals:

The State Board of Education's A-F Appeals Committee evaluated appeals to preliminary letter grades based on the following: 1) environmental issues or events; 2) adverse testing conditions; 3) a school or community emergency; 4) a school tragedy; or 5) other similar substantive events. The Committee did not evaluate appeals based on disputes regarding statistical computations or data within the control of the school.

Schools requested either an expedited appeal (document only review) or a non-expedited appeal (document review and appearance before the Committee). The Committee consisted of three members of the Board which will evaluate each qualified appeal and submit a recommendation to the full Board based on the appeals rubric. A school's letter grade will not be published during the appeal but there will be a note indicating that the awarded letter grade is under review. For appeals that are approved, the Committee's recommendation will be used in the final letter grade. For appeals that are denied, the calculation using the original finalized data will determine the school's letter grade.

Appeals that the committee agreed to re-evaluate after final letter grades will be presented to the SBE in May, 2018.

For more information on the policies and procedures of the appeals process, including on how to file an appeal, see Appendix or visit the State Board of Education's website at <https://azsbe.az.gov/f-school-letter-grades>.



## Cut Scores

There are three types of models:

- K-8 Letter Grade model is used for schools that do not offer grade 12 (e.g., K-8, K-9, K-10, K-11, or any configuration within K-11). K-8 schools eligible for 80 or more of the 100 total points available will receive a letter grade
- 9-12 Letter Grade model is used for schools that serve grades 5 through 12 (or any configuration within that serving grade 12, i.e., 6-12, 7-12, 8-12, and 9-12). 9-12 schools eligible for 50 or more of the 100 total points available will receive a letter grade.
- Non-Typical School Configuration Letter Grade model is used for schools that serve grades K-12, 1-12, 2-12, 3-12, and 4-12. These schools are graded on both the K-8 and 9-12 Letter Grade models and then the percentage of FAY students enrolled is used to determine the weighting of the K-8 and 9-12 letter grades to assign the school one overall letter grade.
- Due to the fact that schools can earn a different amount of points, cut scores for letter grades for all models were established on percentages.  $\text{Percentage Earned} = \frac{\text{Total Points Earned (excluding bonus points)}}{\text{Total Points Eligible}}$ . The cut scores will be approved by SBE at the April 2018 Board meeting. A standard deviation approach will be utilized. This means that the mean and standard deviation for each model type was found, separately. The standard deviation is then used to determine the cut score.

K-8 model: Mean = 72.39, Standard Deviation = 12.28

K-8 Letter Grade	Percentage Earned	Standard Deviation
A	84.67-100%	+2
B	72.39-84.66%	+1
C	60.11-72.38%	-1
D	47.83-60.10%	-2
F	<47.82%	-3

9-12 model: Mean = 70.02, Standard Deviation = 13.81

9-12 Letter Grade	Percentage Earned	Standard Deviation
A	83.83-100%	+2
B	70.02-83.82%	+1
C	56.21-70.01%	-1
D	42.40-56.20%	-2
F	<42.39%	-3

Non-Typical School Configuration model: Mean = 70.02, Standard Deviation = 13.81

<b>Non-Typical School Configuration Letter Grade</b>	<b>Percentage Earned</b>	<b>Standard Deviation</b>
A	83.83-100%	+2
B	70.02-83.82%	+1
C	56.21-70.01%	-1
D	42.40-56.20%	-2
F	<42.39%	-3

In the past schools earning a D letter grade three consecutive years in a row would be labeled as an F school. Due to the new assessment and accountability system, prior letter grades will not be factored into this year's system. All schools will begin fresh with a letter grade.

Note that the models are for traditional schools only; LEA letter grades will not be awarded this year. K-2 and K-3 schools will be labeled NR (Not Rated) this year as there is no available data.

## 2017 A-F Traditional School Letter Grade Models

Two distinct traditional school models compose Arizona's 2017 A-F Letter Grade Accountability System. Each model aims to fairly and accurately depict a school's accountability determination in a manner which complies with state statute, State Board Rule, as well as other accountability requirements.

Schools that serve grades K-11 or any combination within (e.g., K-8, K-9, K-10, 6-8, K-5, etc.) will be evaluated on the K-8 model. Schools serving grades 5 through 12 (or any configuration within that serving grade 12, i.e., 6-12, 7-12, 8-12, and 9-12) will be evaluated on the 9-12 model. Non-Typical school configurations, those that serve grades K-12, 1-12, 2-12, 3-12, and 4-12, are graded on both the K-8 and 9-12 models. Small schools, fewer than 20 FAY students, or schools not eligible for enough of the total 100 points (80 for K-8 and 50 for 9-12) will be Not Rated this year. An appropriate method for calculating next year's letter grades will be developed.

### N-size

Both traditional school models require schools to have 20 FAY students in each indicator to be eligible to earn the points. Exceptions to this rule are:

- K-8 Acceleration/Readiness Grades 5-8 HS EOC metric – no minimum n required
- Graduation rate – requires 20 students (FAY and non-FAY in the 4-year cohort)
- CCRI – requires 20 graduates in the current year.

Schools that do not meet the minimum n-size of 20 FAY students cannot earn points for that indicator.

### RALEPS

Recently Arrived Limited English Proficient (RALEP) students are excluded from proficiency calculations for ELA only. This applies to both the K-8 and 9-12 traditional school models.

## K-8 Model

Weight	Indicators
30%	Proficiency, Statewide Assessment
50%	Growth, Statewide Assessment
10%	Proficiency and Growth, English Language Learners
10%	Acceleration / Readiness Measures

The K-8 model is based on a scale of 0-100 points for schools that have all available indicators; the scale is adjusted for those indicators that don't meet the n-size. All indicators must have a minimum of 20 FAY students to count, excluding the grades 5-8 HS EOC metric in the Acceleration/Readiness indicator. All indicators are capped at the total percent possible.

The following school configurations are graded on the K-8 model:

- K-8
- K-9
- K-10
- K-11
- Configurations within K-11
  - K-5
  - K-6
  - K-7
  - 6-8
  - 5-8
  - 1-4
  - Etc.

### Proficiency

Proficiency results are worth 30% of a K-8 school's letter grade. The 2017 AzMERIT or MSAA ELA, Math and AIMS or AIMS A Science scores are utilized for grades 3-8 FAY students. If a student took the same assessment twice, the higher score is utilized. Grades 5-8 students who took HS EOC ELA or Math and the grade-level assessment, the HS EOC assessment will be utilized for proficiency calculations. Invalid test records count as not tested. Proficiency points are capped at 30. The achievement levels are weighted such that students scoring highly proficient earn the most points (see below).

Achievement Level	Point Value
Minimally Proficient/Falls Far Below	0
Partially Proficient/ Approaches	0.6
Proficient/Meets	1.0
Highly Proficient/Exceeds	1.3

The following formula is used for the proficiency calculations:

**Percent Proficient**

$$= 100 \times \left( \frac{\begin{aligned} &((\text{No. of FAY students partially proficient on AzMERIT or MSAA ELA} + \text{No. of FAY students} \\ &\text{partially proficient AzMERIT or MSAA Math} + \text{No. of FAY students approaching AIMS or AIMS A} \\ &\text{Science}) \times .6) + (\text{No. of FAY students proficient on AzMERIT or MSAA ELA} + \text{No. of FAY students} \\ &\text{proficient on AzMERIT or MSAA Math} + \text{No. of FAY students meeting on AIMS or AIMS A} \\ &\text{Science}) \times 1.0) + (\text{No. of FAY students highly proficient on AzMERIT or MSAA ELA} + \text{No. of FAY} \\ &\text{students highly proficient on AzMERIT or MSAA Math} + \text{No. of FAY students exceeding on AIMS} \\ &\text{or AIMS A Science}) \times 1.3) \end{aligned}}{\begin{aligned} &(\text{No. of FAY students tested on AzMERIT or MSAA ELA} + \text{No. of FAY students tested on AzMERIT} \\ &\text{or MSAA Math} + \text{No. of FAY students tested on AIMS or AIMS A Science}) \end{aligned}} \right)$$

K-8 proficiency is calculated two ways: using a stability model and then all FAY students (1-, 2-, and 3-year). The higher of the two proficiency point totals will be used for letter grade calculations.

Stability model: This model weights student scores higher for students that have been at the same school for multiple years, and where the school has had the greatest opportunity to have the most impact, (see Table below for more detail). New schools or schools that only have one or two years of proficiency will be weighted accordingly. Schools must have a minimum of 20 FAY students for each year. If the minimum is not met, those students are added to the next year. For example, if a school has 12 3-year FAY students, 25 2-year FAY, and 20 1-year FAY students the 3-year and 2-year FAY group is merged as the minimum is not met for the 3-year. This would give the school 37 2-year FAY students and 20 1-year FAY.

Years of Data	Max Proficiency Weights		
	3 years of FAY	2 Years of FAY	1 Year of FAY
3 Years	15	10	5
2 Years (Example: only serves Grade 7-8)		18	12
1 Year (Example: New School)			30

The percent proficient for each year of FAY for which a school is eligible is then weighted accordingly using the table above to determine points earned.

All FAY students: All FAY students are used in the proficiency calculation and are weighted equally using the above formula.

There is no 95% test requirement this year. It will be added into the models next year. ADE will report 95% tested along with final letter grades when they are posted in ADEConnect. The formula used is:

**Grades 3-8 Percent Tested =**

.50 (Number of students tested in ELA + Number of students tested in Math)

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.50 (Number of students enrolled on ELA test date + Number of students enrolled on Math test date)

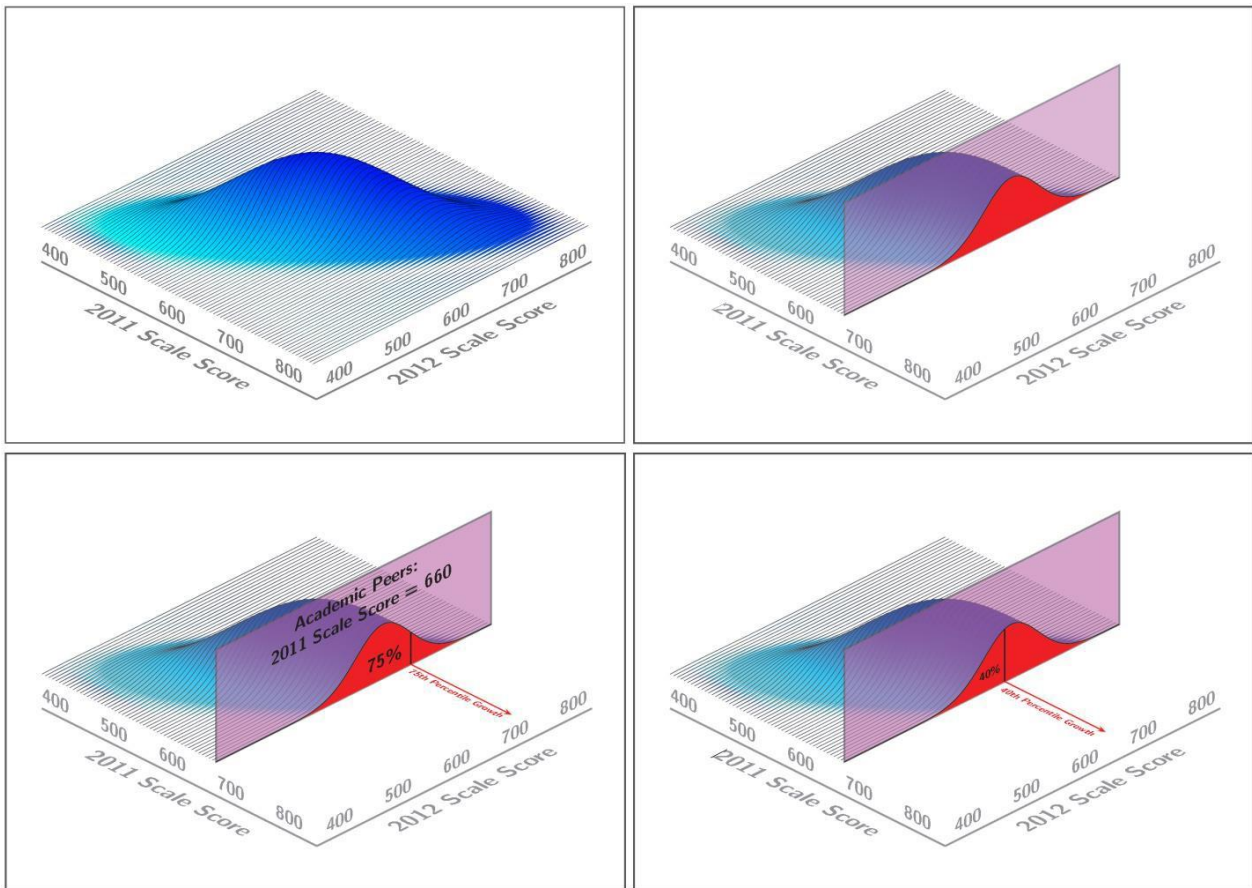
**Growth Model**

The purpose of the growth indicator is to recognize the academic growth a student has made in the past year, even if he/she has not yet reached grade-level proficiency. State statute mandates that the selected growth model measures even the lowest achieving students and the extent to which they grow academically from one year to the next. In May, 2017 the State Board of Education approved the inclusion of Student Growth Target (SGTs) in the model as well.

Growth results are worth 50% of a K-8 school's letter grade. Schools must have a minimum of 20 FAY students with an SGP and SGT in each subject, ELA and Math, to be eligible for growth points. Thus, SGP for ELA is worth 12.5%, SGP for Math is worth 12.5%, SGT for ELA is worth 12.5%, and SGT for Math is worth 12.5%. Math growth points (SGP + SGT) are capped at 25 and ELA points (SGP + SGT) are capped at 25, thus making growth points capped at 50.

**SGP**

An SGP describes how a "typical" student's current-year test score is compared with the current-year test scores of those students with the exact same prior test scores—his/her academic peers. In this sense, an SGP is a "norm-referenced quantification" (Betebenner, 2011, p. 3) of student academic growth. Comparison with academic peers is accomplished by employing quantile regression that relates the prior scores of each grade by subject cohort with their current-year scores. Each student is compared to his/her actual and conceptual academic peers. An SGP of 40 means that the student grew more than 40% of his academic peers in a year. In the event a student is without actual academic peers based on their individual data, the individual student is compared to his/her "conceptual" academic peers only. The use of this particular type of normed growth measure ensures that very low and/or high performing students can receive high growth scores relative to their peers with the same academic achievement history. The growth model includes only academic achievement data; Arizona's growth model does not control for student demographic information or subgroup membership.



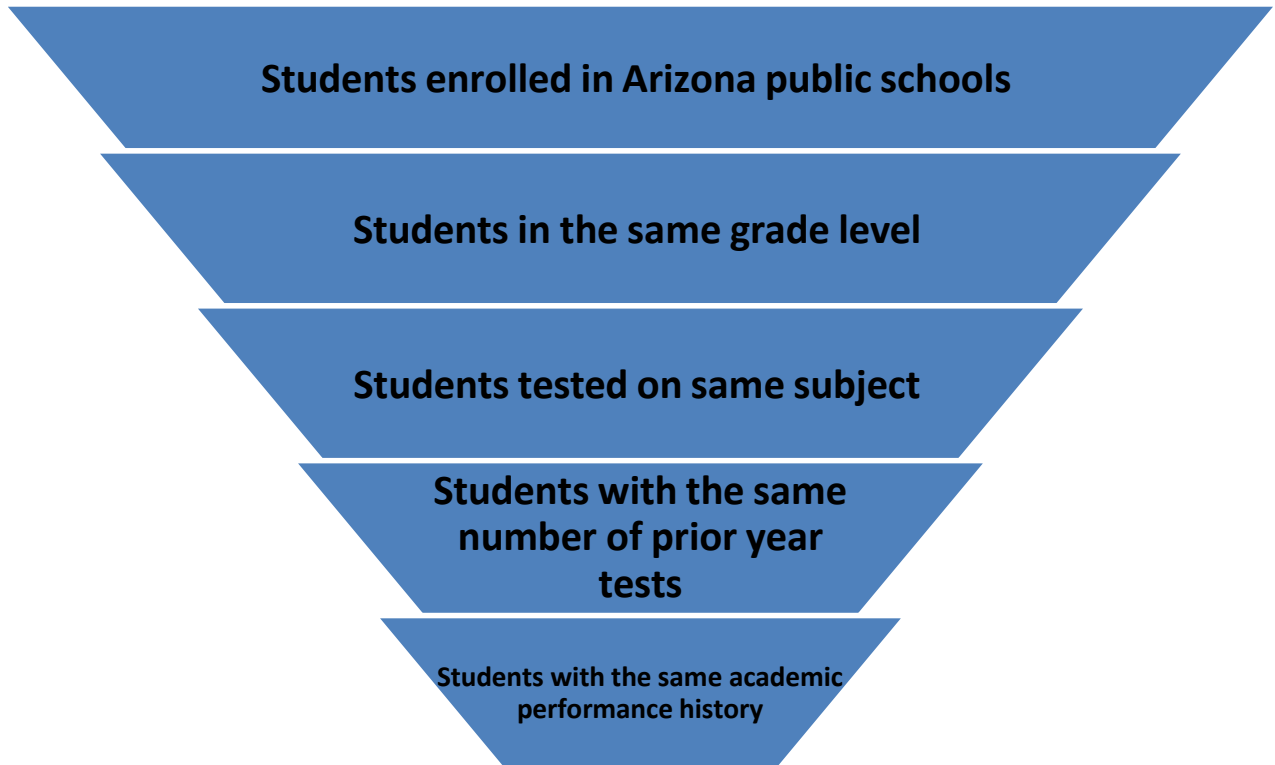
*Conceptual illustration of the current year growth percentile based on prior and current year test performance (Betebenner, 2011)*

In 2017, the AZMERIT Grades 3-12 scale scores from 2016 and 2017 will be used to calculate growth for Grades 4-12. Grade 3 is the first grade Arizona students are given a statewide standardized assessment; therefore; Grade 4 is the first possible opportunity to assess growth for a student. Students must have scores for both 2016 and 2017 and for two consecutive grade levels to receive an SGP.

The growth of all FAY students based on prior year scores comprises the school's growth calculations. Every FAY student for whom a student growth percentile (SGP) can be determined is considered in the growth of all students at a school. Students who retake the same grade level AZMERIT assessment for two consecutive years are not assigned a growth score. The growth model does not compute an SGP for any student who is missing a prior year assessment (AZMERIT) even if a student has other test history; an assessment for the year prior is required.

When available, up to three years of test history were used in the determination of a student's current year SGP. The number of years was reduced from five years after considerable research indicated diminished returns by including more than three years and more than two assessment types. If the student assesses anywhere in the state using their unique AZEDS identification number, these assessments can be linked longitudinally regardless of a new school of attendance. The growth model begins with all Arizona public school students, but academic peer groups are refined based on grade level, subject, and test history. Test history refers to the number of tests or data points available for each

student as well as a comparison of scale scores – not performance levels.



To receive an SGP in English Language Arts, a student must take the test appropriate for the grade in which he is enrolled. For example, a student in Grade 5 must take the ELA Grade 5 test to receive an SGP. For Mathematics, a student in Grades 3-7 must take the test appropriate for the grade he was enrolled in. A student in Grade 8 could take either the Mathematics Grade 8 test or any of the high school end-of-course tests or both; if the student has a grade-level assessment and a high school end-of-course test both tests are counted. A student in high school must take any of the high school end-of-course tests to receive an SGP. Students who take the same test for two consecutive years are not assigned an SGP.

Only the SGPs of FAY students comprise the school's growth score. A categorical evaluation of school growth is used to obtain the growth score of all students in a school. To do this, the SGPs of FAY students are classified into three levels ranging from low to high:

L= Low (SGP 1-33)
A= Average (SGP 34-66)
H= High (SGP 67-99)

Then the percentage of students at the school level, using all grades, is calculated separately for each subject (English Language Arts and Mathematics) and for each of the categorical growth bands defined



by the students' prior-year achievement level and current-year SGP growth level. The percentages are then weighted differently in the following ways:

Current-Year Student Growth Percentile			
Prior-Year Achievement Level	Weights		
Highly Proficient (HP)	0	0.50	1.00
Proficient (P)	0	0.70	1.20
Partially Proficient (PP)	0	0.90	1.80
Minimally Proficient (MP)	0	1.00	2.00
	1-33	34-66	67-99
	Low Growth	Average Growth	High Growth

The formula for the overall score of a school for each subject is:

**The SGP points of a school for each subject** = ((Percentage of prior year MP students who are current year FAY and made high growth x 2.00) + (Percentage of prior year PP students who are current year FAY and made high growth x 1.80) + (Percentage of prior year P students who are current year FAY and made high growth x 1.20) + (Percentage of prior year HP students who are current year FAY and made high growth x 1.00) + (Percentage of prior year MP students who are current year FAY and made average growth x 1.00) + (Percentage of prior year PP students who are current year FAY and made average growth x 0.90) + (Percentage of prior year P students who are current year FAY and made average growth x 0.70) + (Percentage of prior year HP students who are current year FAY and made average growth x 0.50))

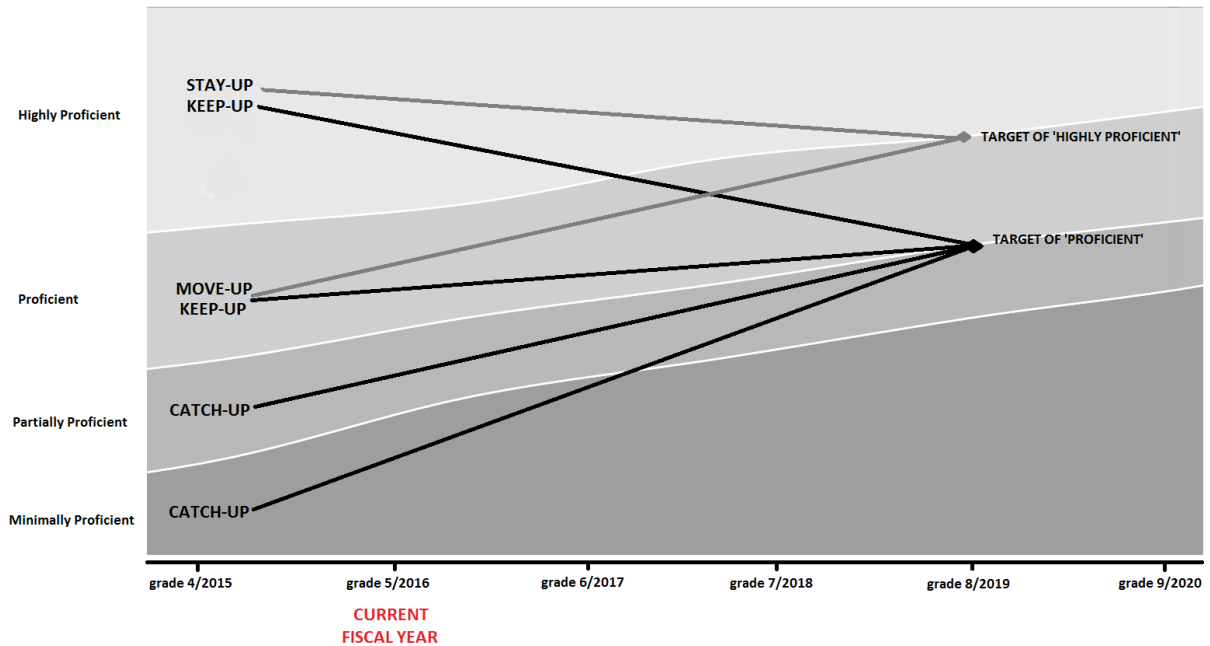
## SGT

Although the student growth percentile is a useful tool for summarizing where a student stands compared to their academic peers, no appeal is made to how much growth they must demonstrate in relation to a standard of achievement. A student's performance on the AZMERIT is categorically represented by one of the following: minimally proficient, partially proficient, proficient, and highly proficient. A few key questions then arise about a student's growth given his performance status:

- 1) Is the growth demonstrated by the student sufficient for him to be on track towards proficiency in the future if he is currently non-proficient?
- 2) Is the growth demonstrated by the student sufficient for him to remain proficient in the future if he is currently proficient?
- 3) Is the growth demonstrated by the student sufficient for him to be on track towards being highly proficient in the future if he is currently proficient?
- 4) Is the growth demonstrated by the student sufficient for him to remain highly proficient in the future if he is currently highly proficient?

To answer these questions, we compare a student's growth percentile with his growth target. A student growth target (SGT) is the minimum growth a student ought to exhibit in the year to achieve a future target. A SGT is determined by a pre-established future achievement target, a time-frame to reach the

target, and the performance level of the student in the prior year. The graphic below displays how the SGTs are determined.



There are two pre-established targets: 'Proficient' and 'Highly Proficient'. The time frame to reach the targets is determined arbitrarily as within (or across) the next three years beyond the current year or by high school graduation, whichever comes first. The four categorical performance levels are shown on the vertical axis, and the grades/years are shown along the horizontal axis.

Students who were at the 'Minimally Proficient' performance level and the 'Partially Proficient' performance level in the prior year are labeled as 'Catch-Up' students. Among these non-proficient students, it is of key importance for them to catch up with the 'Proficient' target. Their SGTs are therefore the minimum growth they need demonstrate from the prior year to the current year to be on track to reach the target of 'Proficient' within the next three years. In other words, SGT is the level of difficulty of reaching a target of proficiency represented in a percentile.

Students who fell into the 'Proficient' or 'Highly Proficient' performance levels in the prior year are labeled as "Keep-Up" students and their first SGT is the minimum growth they need to demonstrate from the prior year to the current year to remain above the target of 'Proficient' across the next three years. Students who were proficient in the prior year are also subject to the second target of 'Highly Proficient'. For the students who were currently proficient, the second SGT is the minimum growth they need to demonstrate to move up to the 'Highly Proficient' level within the next three years. They are also labeled as "Move-Up" students. For the students who were currently highly proficient, the second SGT is the minimum growth they should demonstrate to remain at the highest performance level across the next three years. They are also labeled as "Stay-Up" students.

For SGT calculations detailed below, all students were held to a proficient target (i.e., 'Catch-Up' or 'Keep-Up').

To know if a student met his/her target, we must compare the student’s actual growth (SGP) to the student’s target (SGT). Generally speaking, a student is deemed as on-track to reach the target in the time frame if his SGP is equal to or greater than his SGT. In contrast, a student is deemed as not being on-track if his SGP is less than his SGT. For the A-F calculations, three categories (see visual below) were created by comparing SGP to SGT as opposed to the two just noted to allow students more opportunities for growth points. Students who surpassed their target by more than 10 percentile points were categorized as “exceeds target.” For example, if a student had an SGP of 70 and an SGT of 50 this student grew 20 percentile points more than was needed in the current year to be on track to proficiency. Students can also be categorized as “exceeds target” if their SGP and their SGT scores are greater than or equal to 89. Students who within plus or minus 10 percentile points were categorized as “at or near target” (e.g., an SGP of 35 with an SGT of 45, an SGP of 35 with an SGT of 25, etc.). Students who were below their target by 10 or more percentile points were categorized as “below target” (e.g., an SGP of 50 with an SGT of 62).

SGP is less than SGT by more than 10 percentile points	Below Target
SGP is within + or – 10 percentile points of SGT	At or Near Target
SGP is greater than SGT by more than 10 percentile points OR SGP and SGT are greater than or equal to 89	Exceeds Target

To evaluate a school’s status in keeping its students on track towards being proficient or highly proficient, the state utilizes only four of the six student growth targets outlined above, the SGT (or the sufficient growth) for minimally proficient students to be on track to proficiency, the SGT (or the sufficient growth) for partially proficient students to be on track to proficiency, the SGT (or the sufficient growth) for proficient students to be on track to remain proficient, the SGT (or the sufficient growth) for highly proficient students to be on track to remain proficient. The percentage of FAY students in each category is calculated at the school level across all grades but separately for each subject (English Language Arts and Mathematics). These percentages are weighted differently in the following ways:

Current-Year Student Growth Target			
Prior-Year Achievement Level	Weights		
Highly Proficient (HP)	0	0.50	1.00
Proficient (P)	0	0.70	1.20
Partially Proficient (PP)	0	0.90	1.80
Minimally Proficient (MP)	0	1.00	2.00
	<10 percentile points of target	+/- 10 percentile points of target	>10 percentile points of target
	Below Target	At or Near Target	Exceeds Target

**The SGT score of a school for each subject** = ((Percentage of prior year MP students who are current year FAY and exceeded the target x 2.00) + (Percentage of prior year PP students who are current year FAY and exceeded the target x 1.80) + (Percentage of prior year P students who are current year FAY and exceeded the target x 1.20) + (Percentage of prior year HP students who are current year FAY and exceeded the target x 1.00) + (Percentage of prior year MP students who are current year FAY and are at or near the target x 1.00) + (Percentage of prior year PP students who are current year FAY and are at or near the target x 0.90) + (Percentage of prior year P students who are current year FAY and are at or near the target x 0.70) + (Percentage of prior year HP students who are current year FAY and are at or near the target x 0.50))

**Total Growth Points** = (SGP ELA x 12.5%) + (SGT ELA x 12.5%) + (SGP Math x 12.5%) + (SGT Math x 12.5%)  
 [ max 25 points ] + [ max 25 points ]

## EL Proficiency and Growth

English Learner proficiency and growth is worth 10% of a K-8 school’s letter grade. Schools must have a minimum of 20 FAY EL students to be eligible for the points. EL proficiency is worth 5% and EL growth is worth 5%.

EL calculations include students in grades K-8 with an ELL need (e.g., with a less than proficient score on AZELLA in the current or prior fiscal year), including recent arrivals. EL students must also be FAY on AZELLA. To be included in the EL growth calculations, two test records are required. Invalid test records count as not tested. Schools with less than 20 FAY EL students are not eligible for these points. There is no 95% test requirement this year.

EL proficiency calculates the proficiency percentage of EL students. The following formula is used.

$$\text{EL Proficiency Percentage} = \frac{100 \times (\text{No. of FAY students proficient on AZELLA})}{(\text{No. of FAY students tested with an EL need, including parent withdrawals, who had a valid current year AZELLA proficiency level})}$$

To earn proficiency points, the school’s EL proficiency percentage is compared to the State’s current year proficiency percentage.

$$\text{EL Statewide Current Year Percent Proficient} = \frac{100 \times (\text{No. of current year FAY students proficient on AZELLA})}{(\text{No. of FAY current year students tested with an ELL need, including parent withdrawals, who had a valid prior year AZELLA proficiency level})}$$

Up to 5 points are awarded for proficiency using the following system:

- If a school’s EL Proficiency is greater than or equal to the EL Statewide Current Year Percent Proficient = 5 points
- If a school’s EL Proficiency standard deviation compared to the EL Statewide Current Year Percent Proficient is between -0.01 and -0.50 = 4 points
- If a school’s EL Proficiency standard deviation compared to the EL Statewide Current Year Percent Proficient is between -0.51 and -1.00 = 3 points
- If a school’s EL Proficiency standard deviation compared to the EL Statewide Current Year Percent Proficient is between -1.01 and -2.00 = 2 points
- If a school’s EL Proficiency standard deviation compared to the EL Statewide Current Year Percent Proficient is between -2.01 and -4.00 = 1 point
- If a school’s EL Proficiency is 0% = 0 points

EL growth calculates the growth percentage of EL students using their current year compared to prior year AZELLA results, unless they are kindergarten students in which case the placement test is compared to the current year reassessment. The table below shows how many points each level of growth is worth.

Prior Year Achievement Level (or Placement Test for kindergarten students)	Current Year Achievement Level	Point Value
Basic/Intermediate	Intermediate	1
Pre-Emergent/Emergent	Basic	
Basic	Intermediate	
Intermediate	Proficient	
Pre-Emergent/Emergent	Intermediate	2
Basic/Intermediate	Proficient	
Basic	Proficient	
Pre-Emergent/Emergent	Proficient	3

The following formula is used to calculate growth:

$$\text{EL Growth} = 100 \times ((\text{No. of FAY students who increased one proficiency level} \times 1.0) + (\text{No. of FAY students who increased two proficiency levels} \times 2.0) + (\text{No. of FAY students who increased three proficiency levels} \times 3.0))$$

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$$\frac{\quad}{(\text{No. of FAY students tested with an EL need, including parent withdrawals with a valid current and prior year AZELLA proficiency level})}$$

To earn growth points, the school’s EL growth percentage is compared to the State’s current year growth percentage.

**EL Statewide Current Year Growth Percent** =  $100 \times ((\text{No. of current year FAY students who increased one proficiency level} \times 1.0) + (\text{No. of current year FAY students who increased two proficiency levels} \times 2.0) + (\text{No. of current year FAY students who increased three proficiency levels} \times 3.0))$

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(No. of FAY students tested with an EL need, including parent withdrawals with a valid current and prior year AZELLA proficiency level)

Up to 5 points are awarded for growth using the following system:

- If a school's EL Growth is greater than or equal to the EL Statewide Current Year Percent Growth = 5 points
- If a school's EL Growth standard deviation compared to the EL Statewide Current Year Percent Growth is between -0.01 and -0.50 = 4 points
- If a school's EL Growth standard deviation compared to the EL Statewide Current Year Percent Growth is between -0.51 and -1.00 = 3 points
- If a school's EL Growth standard deviation compared to the EL Statewide Current Year Percent Growth is between -1.01 and -2.00 = 2 points
- If a school's EL Growth standard deviation compared to the EL Statewide Current Year Percent Growth is between -2.01 and -4.00 = 1 point
- If a school's EL growth is 0% = 0 points

## Acceleration/Readiness

The acceleration/readiness indicator is worth 10% of a K-8 school's letter grade. Not all schools are eligible for each metric. New schools are ineligible for acceleration/readiness points and will only be evaluated on proficiency, growth, and ELL points, where applicable. Acceleration/Readiness points are capped at 10. The following will be utilized in the Acceleration/Readiness indicator to determine eligibility and points:

<b>Metric</b>	<b>N-size of 20 or more FAY students to be eligible</b>	<b>Points Available to Earn</b>
<b>Grades 5, 6, 7, 8 HS EOC Math</b>		5
<b>Grade 3 ELA Minimally Proficient</b>	✓	5
<b>Chronic Absenteeism</b>	✓	2
<b>Subgroup Improvement</b>	✓ By subgroup	2 points per subgroup up to 6 points total
<b>Special Education Inclusion</b>	✓	2

## Grades 5-8 HS EOC Math Increase

The intent of this metric is for schools to annually increase their percent proficient of grades 5-8 students taking HS EOC math. The Grades 5-8 HS EOC Math calculations include any FAY student in Grade 5, 6, 7, and 8 that takes a HS EOC Math AzMERIT assessment – Algebra 1, Geometry, Algebra 2. There is no minimum n-size applied to this metric. Schools can earn five points three different ways:

1. Increasing the percentage of students who take the test and pass HS EOC math
2. Maintaining a current and prior year percentage of 100%
3. The current year Grade 8 percent proficient is greater than 25%

The following formulas are used to calculate proficiency percentages for current year, prior year, and Grade 8 only students. The same weighting system used in proficiency calculations is applied to these calculations.

### Grades 5, 6, 7, and 8 HS EOC Math School Level

**Current Year Proficiency Percentage** =  $100 * \left( \frac{\text{The number of current year Grades 5, 6, 7, and 8 FAY students that are proficient or highly proficient on AzMERIT HS EOC Math}}{\text{Total current year FAY enrollment for Grades 5, 6, 7, 8}} \right)$

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(Total current year FAY enrollment for Grades 5, 6, 7, 8)

### Grades 5, 6, 7, and 8 HS EOC Math School Level

**Prior Year Proficiency Percentage** =  $100 * \left( \frac{\text{The number of prior year Grades 5, 6, 7, and 8 FAY students that are proficient or highly proficient on AzMERIT HS EOC Math}}{\text{Total current year FAY enrollment for Grades 5, 6, 7, 8}} \right)$

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(Total current year FAY enrollment for Grades 5, 6, 7, 8)

**Grade 5, 6, 7, and 8 HS EOC Math Percent Proficient Increase** = (Grades 5, 6, 7, 8 Current Year Proficiency Percentage - Grades 5, 6, 7, 8 Prior Year Proficiency Percentage)

### Grade 8 HS EOC Math School Level

**Current Year Proficiency Percentage** =  $100 * \left( \frac{\text{The number of current year Grade 8 FAY students that are proficient or highly proficient on AzMERIT HS EOC Math}}{\text{Total current year FAY enrollment for Grade 8}} \right)$

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(Total current year FAY enrollment for Grade 8)

The following details how points are earned. These are all or nothing points.

### Grades 5-8 HS EOC Math Points (0 or 5 points)

- A school's current year percentage of students who take the test and pass HS EOC math is greater than the school's prior year percentage of students who take the test and pass HS EOC math = 5 points
- A school's current year and prior year percentage of students who take the test and pass HS EOC math equals 100 = 5 points

- A school’s current year Grade 8 percentage of students who take the test and pass HS EOC math is greater than 25% = 5 points
- A school’s current year percentage of students who take the test and pass HS EOC math is less than or equal to the school’s prior year percentage of students who take the test and pass HS EOC math AND a school’s current year Grade 8 percentage of students who take the test and pass HS EOC math is less than 25% = 0 points

### Grade 3 ELA Reduction in FAY Minimally Proficient

The intent of this metric is to reduce the percentage of grade 3 students who are minimally proficient on AzMERIT ELA from prior year to current year. To be eligible for these points, a school must meet the minimum n-size of 20 FAY students. Schools can earn five points two different ways:

1. Decreasing the school’s prior year percent minimally proficient
2. Maintaining a current and prior year percentage of 0%

Below are the formulas used to calculate the percentages:

#### Grade 3 ELA Current Year

$$\text{Minimally Proficient Percentage} = 100 * \frac{\text{(The number of current year Grade 3 ELA FAY students who were minimally proficient)}}{\text{(Total current year Grade 3 ELA FAY students with a valid test score)}}$$

#### Grade 3 ELA Prior Year

$$\text{Minimally Proficient Percentage} = 100 * \frac{\text{(The number of prior year Grade 3 ELA FAY students who were minimally proficient)}}{\text{(Total prior year Grade 3 ELA FAY students with a valid test score)}}$$

$$\text{Grade 3 ELA Reduction in FAY Minimally Proficient} = (\text{Grade 3 ELA Current Year Minimally Proficient Percentage} - \text{Grade 3 ELA Prior Year Minimally Proficient Percentage})$$

The following details how points are earned. These are all or nothing points.

#### Grades 3 ELA Reduction Points (0 or 5 points)

- A school’s current year minimally proficient percentage is less than the school’s prior year minimally proficient percentage = 5 points
- A school’s current year and prior year minimally proficient percentage equals 0 = 5 points
- A school’s current year minimally proficient percentage is greater than the school’s prior year minimally proficient percentage = 0 points



## Reduction in Chronic Absenteeism

The intent of this metric is to reduce the school's chronic absenteeism percentage from prior year to current year. This calculation includes grades K-8 students. To be eligible for these points, a school must meet the minimum n-size of 20 FAY students. Schools can earn two points two different ways:

1. Decreasing the school's prior year chronic absenteeism percentage
2. Maintaining a current and prior year percentage of 0%

Below are the formulas used to calculate the percentages:

**Current Year Chronic Absenteeism Percentage** =  $100 * \frac{\text{(The number of current year students who have greater than 10\% absences)}}{\text{(The number of current year students)}}$

**Prior Year Chronic Absenteeism Percentage** =  $100 * \frac{\text{(The number of prior year students who have greater than 10\% absences)}}{\text{(The number of prior year students)}}$

**Chronic Absenteeism Reduction** = (Current Year Chronic Absenteeism Percentage - Prior Year Chronic Absenteeism Percentage)

The following details how points are earned. These are all or nothing points.

### Reduction in Chronic Absenteeism Points (0 or 2 points)

- A school's current year chronic absenteeism percentage is less than the school's prior year chronic absenteeism percentage = 2 points
- A school's current year and prior year chronic absenteeism percentage equals 0 = 2 points
- A school's current year chronic absenteeism percentage is greater than or equal to the school's prior year chronic absenteeism percentage AND a school's current year and prior year chronic absenteeism percentage does not equal 0 = 0 points

## Subgroup Improvement

The intent of this metric is to see annual improvement in subgroup proficiency in AzMERIT ELA and Math. The following subgroups are evaluated by test subject (ELA, Math):

1. White
2. Hispanic
3. Native American/Alaskan Indian
4. Asian
5. African American
6. Pacific Islander
7. Two or More Races
8. English Learner
9. Special Education

## 10. Economically Disadvantaged

To be eligible, each subgroup must have a least 20 FAY students at the school level. If a school meets the n-size for all subgroups, they'd have 20 chances (10 subgroups times 2 subjects) to earn 6 points with each subgroup worth 2 points.

The formulas below are calculated for each subgroup and subject (ELA and Math). The same weighting system used in proficiency calculations is applied to these calculations.

$$\text{Subgroup Current Year Proficiency Percentage} = 100 * \left( \frac{\text{(The number of current year FAY students in the subgroup that are partially proficient on AzMERIT or MSAA x .6) + (The number of current year FAY students in the subgroup that are proficient on AzMERIT or MSAA x 1.0) + (The number of current year FAY students in the subgroup that are highly proficient on AzMERIT or MSAA x 1.3)}}{\text{(Total current year FAY students in the subgroup who took the test)}} \right)$$

$$\text{Subgroup Prior Year Proficiency Percentage} = 100 * \left( \frac{\text{(The number of prior year FAY students in the subgroup that are partially proficient on AzMERIT or MSAA x .6) + (The number of prior year FAY students in the subgroup that are proficient on AzMERIT or MSAA x 1.0) + (The number of prior year FAY students in the subgroup that are highly proficient on AzMERIT or MSAA x 1.3)}}{\text{(Total prior year FAY students in the subgroup who took the test)}} \right)$$

**Subgroup Improvement** = (Subgroup Current Year Proficiency Percentage - Subgroup Prior Year Proficiency Percentage)

The following details how points are earned. These points are incremental, such that a school can earn 2, 4, or 6 points.

### **Subgroup Improvement Points (Up to 6 points; each subgroup and subject is worth 2 points)**

- Each subgroup and subject is evaluated separately
- If eligibility is met:
  - A school's subgroup current year proficiency percentage is greater than the school's subgroup prior year proficiency percentage = 2 points
  - A school's current year subgroup proficiency percentage is less than or equal to the school's subgroup prior year proficiency percentage = 0 points

## Special Education Inclusion

The intent of this metric is to reward schools that have greater than the state average (7%) of special education kids in general education classroom at least 80% of the day. This calculation includes grades K-8 students. To be eligible for these points, a school must meet the minimum n-size of 20 FAY

students.

### School Level FAY Special

**Education Inclusion Percentage** = Number of FAY SPED students spending 80% or more of their day in the general education classroom

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(Total current year FAY enrollment)

### Special Education Inclusion Points (0 or 2 points)

- Schools with 7% or more of their FAY population in special education and with students in special education spending 80%+ of their day in the general education classroom receive points

## Bonus Points

Schools with greater than or equal to 80% of the current year state average of FAY students enrolled in special education will earn 2 bonus points. Schools had to have greater than or equal to 8.9% to receive the bonus points.

The following formulas are used for the calculations:

### School Level Current Year FAY Special Education Program

**Enrollment Percentage** =  $100 * (\text{The number of current year FAY students who are enrolled in a special education program})$

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(Total current year FAY enrollment)

### Statewide Current Year FAY Special Education Program

**Enrollment Percentage** =  $100 * (\text{The number of current year FAY students who are enrolled in a special education program})$

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(Total current year FAY enrollment)

**80% of statewide percentage** =  $80% * \text{Statewide Current Year FAY Special Education Program Enrollment Percentage}$

**FAY Special Education Program Enrollment Bonus Points** = (School Level Current Year FAY Special Education Program Enrollment Percentage - 80% of statewide percentage)

### FAY Special Education Program Enrollment Bonus Points (0 or 2 points)

- A school's current year FAY special education program enrollment percentage is greater than or equal to 80% of the statewide percentage = 2 points
- A school's current year FAY special education program enrollment percentage is less than 80% of the statewide percentage = 0 points

## Calculating Total Points

**Schools that meet the n-size for every indicator can earn up to 100 points:**

$$\text{Letter grade} = [(\text{Percent Proficient} \times .30) + (\text{Growth} \times .50) + (\text{ELL Proficiency Points}) + (\text{ELL Growth Points}) + (\text{Acceleration/Readiness Points})] + \text{Bonus Points}$$

**Schools that meet the n-size for every indicator except for EL Proficiency and Growth can earn up to 90 points:**

$$\text{Letter grade} = [(\text{Percent Proficient} \times .30) + (\text{Growth} \times .50) + (\text{Acceleration/Readiness Points})] + \text{Bonus Points}$$

**Schools that do not meet the n-size EL Proficiency and Growth and do not qualify for any acceleration/readiness indicators (i.e., do not meet the n-size of 20 FAY students or is not eligible) can earn up to 80 points:**

$$\text{Letter grade} = [(\text{Percent Proficient} \times .30) + (\text{Growth} \times .50)] + \text{Bonus Points}$$

**Schools without enough students to be eligible for 80 points will be not rated in FY17.**

## 9-12 Model

Weight	Indicators
30%	Proficiency, Statewide Assessment
20%	Growth, Statewide Assessment
10%	Proficiency and Growth, English Language Learners
20%	Graduation Rate
20%	College and Career Readiness

The 9-12 model is based on a scale of 0-100 points for schools that have all available indicators; the scale is adjusted for those indicators that don't meet the n-size. All indicators must have a minimum of 20 FAY students to count. All indicators are capped at the total percent possible.

The following school configurations are graded on the 9-12 model:

- 5-12
- 6-12
- 7-12
- 8-12
- 9-12

### Proficiency

Proficiency results are worth 30% of a 9-12 school's letter grade. The 2017 AzMERIT or MSAA ELA, Math and AIMS or AIMS A Science scores are utilized for grades 9-12 FAY students. Unlike the K-8 model, only 1-year FAY is utilized. If a student took the same assessment twice, the higher score is utilized. Both fall and spring assessments are utilized. Invalid test records count as not tested. Proficiency points are capped at 30. The achievement levels are weighted such that students scoring highly proficient earn the most points (see below).

Achievement Level	Point Value
Minimally Proficient/Falls Far Below	0
Partially Proficient/ Approaches	0.6
Proficient/Meets	1.0
Highly Proficient/Exceeds	1.3

The following formula is used for the proficiency calculations:

**Percent Proficient**

$$= 100 \times \left( \frac{\begin{aligned} &(\text{No. of FAY students partially proficient on AzMERIT or MSAA ELA} + \text{No. of FAY students} \\ &\text{partially proficient AzMERIT or MSAA Math} + \text{No. of FAY students approaching AIMS or AIMS} \\ &\text{A Science}) \times .6 + (\text{No. of FAY students proficient on AzMERIT or MSAA ELA} + \text{No. of FAY} \\ &\text{students proficient on AzMERIT or MSAA Math} + \text{No. of FAY students meeting on AIMS or} \\ &\text{AIMS A Science}) \times 1.0 + (\text{No. of FAY students highly proficient on AzMERIT or MSAA ELA} + \\ &\text{No. of FAY students highly proficient on AzMERIT or MSAA Math} + \text{No. of FAY students} \\ &\text{exceeding on AIMS or AIMS A Science}) \times 1.3 \end{aligned}}{\begin{aligned} &(\text{No. of FAY students tested on AzMERIT or MSAA ELA} + \text{No. of FAY students tested on} \\ &\text{AzMERIT or MSAA Math} + \text{No. of FAY students tested on AIMS or AIMS A Science}) \end{aligned}} \right)$$

There is no 95% test requirement this year. It will be added into the models next year. ADE will report 95% tested along with final letter grades when they are posted in ADEConnect. 95% tested is more complicated at the high school level as students can take end of course assessments in any grade. Thus, if a student tested on one ELA and one Math during high school they will count as tested. Given that we only have three years of AzMERIT data, percent tested may be skewed as students may not have needed to take an AzMERIT assessment in the last three years (e.g., students who already completed math coursework beyond Algebra 2 and Geometry prior to FY 15, etc.). The following steps are used this year to determine if a student counts as tested:

- Step 1: Pull all FAY Grade 12 students from the current year.
- Step 2: Pull AzMERIT assessment data for FY 15, FY 16, and FY 17.
- Step 3: Merge the assessment data results to the list of seniors.
- Step 4: Determine if the student took a Math or ELA assessment.
  - If the student took any Math HS EOC (i.e., Algebra 1, 2, or Geometry) over the last three years of AzMERIT data then the student counts as tested in Math.
  - If the student took any ELA HS EOC (i.e., ELA Grade 9, ELA Grade 10, or ELA Grade 11) over the last three years of AzMERIT data then the student counts as tested in ELA.

The below formula is used:

**Grades 9-12 Percent Tested =**

$$\frac{.50 (\text{Number of current year FAY Grade 12 students tested at least once in ELA over the last three years} + \text{Number of current year FAY Grade 12 students tested at least once in Math over the last three years})}{\text{(Number of FAY Grade 12 students)}}$$

## Growth Model

The same growth models used in K-8 are used in 9-12. Growth results are worth 20% of a 9-12 school's letter grade. Schools must have a minimum of 20 FAY students with an SGP and SGT in each subject, ELA and Math, to be eligible for growth points. Thus, SGP for ELA is worth 5%, SGP for Math is worth 5%, SGT for ELA is worth 5%, and SGT for Math is worth 5%. Math growth points (SGP + SGT) are capped at 10 and ELA growth points (SGP + SGT) are capped at 10, thus making growth points capped at 20. Both fall and spring assessments are utilized. For more details on the calculations, see pages 14-19.

## SGP

To receive an SGP in English Language Arts, a student must take the test appropriate for the grade he is enrolled in. For example, a student in Grade 11 who took the ELA Grade 11 test will receive an SGP. For Mathematics, a student in high school must take any of the high school math end-of-course tests to receive an SGP. Students who take the same test for two consecutive years are not assigned an SGP. SGP was modelled for the two most common math trajectories: Algebra I, Geometry, Algebra II and Algebra I, Algebra II, and Geometry.

Only the SGPs of FAY students comprise the school's growth score. A categorical evaluation of school growth is used to obtain the growth score of all students in a school. To do this, the SGPs of FAY students are classified into three levels ranging from low to high:

L= Low (SGP 1-33)
A= Average (SGP 34-66)
H= High (SGP 67-99)

Then the percentage of students at the school level, using all grades, is calculated separately for each subject (English Language Arts and Mathematics) and for each of the categorical growth bands defined by the students' prior-year achievement level and current-year SGP growth level. The percentages are then weighted differently in the following ways:

Current-Year Student Growth Percentile			
Prior-Year Achievement Level	Weights		
Highly Proficient (HP)	0	0.50	1.00
Proficient (P)	0	0.70	1.20
Partially Proficient (PP)	0	0.90	1.80
Minimally Proficient (MP)	0	1.00	2.00
	1-33	34-66	67-99
	Low Growth	Average Growth	High Growth

The formula for the overall score of a school for each subject is:

**The SGP score of a school for each subject** = ((Percentage of prior year MP students who are current year FAY and made high growth x 2.00) + (Percentage of prior year PP students who are current year FAY and made high growth x 1.80) + (Percentage of prior year P students who are current year FAY and made high growth x 1.20) + (Percentage of prior year HP students who are current year FAY and made high growth x 1.00) + (Percentage of prior year MP students who are current year FAY and made average growth x 1.00) + (Percentage of prior year PP students who are current year FAY and made average growth x 0.90) + (Percentage of prior year P students who are current year FAY and made average growth x 0.70) + (Percentage of prior year HP students who are current year FAY and made average growth x 0.50))

## SGT

To know if a student met his/her target, we must compare the student’s actual growth (SGP) to the student’s target (SGT). Three categories (see visual below) were created by comparing SGP to SGT as opposed to the two just noted to allow students more opportunities for growth points. Students who surpassed their target by more than 10 percentile points were categorized as “exceeds target.” For example, if a student had an SGP of 70 and an SGT of 50 this student grew 20 percentile points more than was needed in the current year to be on track to proficiency. Students who within plus or minus 10 percentile points were categorized as “at or near target” (e.g., an SGP of 35 with an SGT of 45, an SGP of 35 with an SGT of 25, etc.). Students who were below their target by 10 or more percentile points were categorized as “below target” (e.g., an SGP of 50 with an SGT of 62).

To evaluate a school’s status in keeping its students on track towards being proficient or highly proficient, the state utilizes only four of the six student growth targets outlined above, the SGT (or the sufficient growth) for minimally proficient students to be on track to proficiency, the SGT (or the sufficient growth) for partially proficient students to be on track to proficiency, the SGT (or the sufficient growth) for proficient students to be on track to remain proficient, the SGT (or the sufficient growth) for highly proficient students to be on track to remain proficient. The percentage of FAY students in each category is calculated at the school level across all grades but separately for each subject (English Language Arts and Mathematics). These percentages are weighted in the following ways:

SGP is less than SGT by more than 10 percentile points	Below Target
SGP is within + or – 10 percentile points of SGT	At or Near Target
SGP is greater than SGT by more than 10 percentile points OR SGP and SGT are greater than or equal to 89	Exceeds Target



Current-Year Student Growth Target			
Prior-Year Achievement Level	Weights		
Highly Proficient (HP)	0	0.50	1.00
Proficient (P)	0	0.70	1.20
Partially Proficient (PP)	0	0.90	1.80
Minimally Proficient (MP)	0	1.00	2.00
	<10 percentile points of target	+/- 10 percentile points of target	>10 percentile points of target
	Below Target	At or Near Target	Exceeds Target

**The SGT score of a school for each subject** = ((Percentage of prior year MP students who are current year FAY and exceeded the target x 2.00) + (Percentage of prior year PP students who are current year FAY and exceeded the target x 1.80) + (Percentage of prior year P students who are current year FAY and exceeded the target x 1.20) + (Percentage of prior year HP students who are current year FAY and exceeded the target x 1.00) + (Percentage of prior year MP students who are current year FAY and are at or near the target x 1.00) + (Percentage of prior year PP students who are current year FAY and are at or near the target x 0.90) + (Percentage of prior year P students who are current year FAY and are at or near the target x 0.70) + (Percentage of prior year HP students who are current year FAY and are at or near the target x 0.50))

**Total Growth Points** = (SGP ELA x 5%) + (SGT ELA x 5%) + (SGP Math x 5%) + (SGT Math x 5%)  
 [ max 10 points ] + [ max 10 points ]

## EL Proficiency and Growth

English Learner proficiency and growth is worth 10% of a 9-12 school's letter grade. Schools must have a minimum of 20 FAY EL students to be eligible for the points. EL proficiency is worth 5% and EL growth is worth 5%. See pages 20-22 for details on EL proficiency and growth calculations.

## Graduation Rate

The graduation rate indicator is worth 20% of a 9-12 school's letter grade. Schools must have a minimum of 20 students in the 4-year cohort to be eligible for points. Graduation rate points include two measures each worth 10%: 1) a 4-, 5-, 6-, and 7-year calculation and 2) an improvement calculation.

4-, 5-, 6-, and 7-year calculation (10%)

The intent of the multiple year calculation is to hold schools accountable to multiple cohorts. The cohorts are weighted accordingly with the greatest emphasis on the 4-year cohort (see below). These points are capped at 10.

Graduation Rate	Cohort	Weight
4-year	2016	5%
5-year	2015	4%
6-year	2014	2.5%
7-year	2013	.05%

The following formula displays the 4-, 5-, 6-, and 7-year graduation rate calculation:

$$\text{4-, 5-, 6-, and 7-year Rate Points} = ((\text{Cohort 2016 4-year graduation rate} \times .05) + (\text{Cohort 2015 5-year graduation rate} \times .04) + (\text{Cohort 2014 6-year graduation rate} \times .025) + (\text{Cohort 2013 7-year graduation rate} \times .005))$$

Improvement Calculation (10%)

The intent of the improvement calculation is for schools to increase their 4-year graduation rate compared to prior year or maintain a current year 4-year graduation rate of 90% or higher.

$$\text{Improvement Rate Points} = (\text{Current Year 4-year graduation rate} - \text{Prior Year 4-year graduation rate})$$

**Improvement Rate Points (0, 5, or 10 points)**

- A school's Cohort 2016 4-year graduation rate is greater than or equal to 90% = 10 points
- The difference between a school's Cohort 2016 4-year graduation rate and Cohort 2015 4-year graduation rate is greater than 2 points = 10 points
- The difference between a school's Cohort 2016 4-year graduation rate and Cohort 2015 4-year graduation rate is greater than or equal to -2 points and less than or equal to 2 points = 5 points
- The difference between a school's Cohort 2016 4-year graduation rate and Cohort 2015 4-year graduation rate is less than -2 points = 0 points

$$\text{Graduation Rate Points} = \text{4-, 5-, 6-, and 7-year Rate Points} + \text{Improvement Rate Points}$$

## College and Career Ready

The College and Career Ready indicator is worth 20% of a 9-12 school's letter grade. College and Career Ready points are self-reported through ADEConnect. Schools must have 20 students in the current year with a G or W7 to be eligible for these points. Schools can download the student level spreadsheet to assist with the calculations outlined below. Schools should look over each student's high school experience to determine how each student performed on the metrics outlined below. Schools will then submit their total points earned to ADE through ADEConnect. The total Earned Points were scaled to the

20% weighting adopted by SBE and capped at 22.

Scoring:

- A student who accumulates at least 1 indicator point will generate 7.5 CCR points
- A student who accumulates at least 2 indicator points will generate 15 CCR points
- A student who accumulates at least 1 indicator point of **Red** indicators and at least 1 indicator point of **Blue** indicators will generate 17 CCR points
- Schools that increase their prior year post-secondary and military enrollment percentage or have 85% enrollment earn one bonus point

Value	Indicators
1.25 <b>Blue</b>	Earns a Grand Canyon Diploma or International Baccalaureate Diploma
1.25 <b>Red</b>	Completes a CTE sequence and passes the Arizona Technical Skills Assessment for that sequence
.5 per exam <b>Blue</b>	Passing score on AzMERIT Algebra 2 or ELA 11
.35 per exam <b>Blue</b>	Meets cut score on ACT English, math, reading or science exam
.5 per exam <b>Blue</b>	Meets cut score on SAT English or math exam
.5 per exam <b>Blue</b>	Meets cut score on any AP exam
.3 <b>Red or Blue</b>	Completes the FAFSA
.5 per course <b>Red</b>	Passes a college level career pathway (CTE) course for which college credit can be earned with an A, B, or C (i.e. dual enrollment and concurrent enrollment)
.5 per course <b>Blue</b>	Passes a college level English, math, science, social studies, or foreign language course for which college credit can be earned with an A, B, or C (i.e. dual enrollment and concurrent enrollment)
.25 per course <b>Red</b>	Completes a CTE course with an A, B, or C (outside of completed sequence referenced above) –
.5 <b>Red</b>	Meets benchmarks for ASVAB
.5 <b>Red</b>	Meets benchmarks for ACT WorkKeys
.35 per exam <b>Blue</b>	Meets cut score on ACCUPLACER, ALEKS, COMPASS (or any nationally recognized college placement exam currently used by an Arizona institution), or Cambridge IGCSE English, reading, writing, math, social studies, science, or foreign language exam
.5 per exam <b>Blue</b>	Meets cut score on CLEP, Cambridge A or AS, or IB English, math, social studies, science, or foreign language exam

.5 per credential, certificate, or license <b>Red</b>	Earns an Industry-Recognized Credential, Certificate, or License <b>No more than one point may be awarded in this indicator.</b>
1 <b>Red</b>	Completes well-defined Work-Based Learning (i.e. internship) of at least 120 hours
1 <b>Blue</b>	Meets all 16 Arizona Board of Regents program of study requirements – an A, B, or C is earned in the 16 core courses

## COLLEGE AND CAREER READINESS RUBRIC CREDENTIALS

### Credentials for Inclusion in A-F in the Current School Year

1. Aircraft Mechanics: FAA Certifications in Airframe Mechanic or Power Plant Mechanic
2. Automotive Collision Repair and Automotive Technologies: ASE Student Certifications (There are many different certifications, ranging from paint and refinishing to engine repair, brakes, and electrical/electronic systems.
3. Business Management and Administrative Services: A “bundle” of certifications showing digital literacy, such as the Microsoft Office Specialist (including Excel, PowerPoint and Word)
4. Cabinetmaking, Carpentry: NCCER Carpentry/Cabinetmaking certifications
5. Cosmetology: Arizona Board of Cosmetology/ Licensed Aesthetician
6. Dental Assisting: Dental Assisting National Board certification
7. Diesel Engine Repair: ASE Medium/Heavy Truck Student Certification
8. Early Childhood Education: Child Development Associate Credential
9. Education Professions: Certifications required to work as a para-professional
10. Electronic Technologies: FCC License
11. Emergency Medical Services: National Registry of Emergency Medical Technicians/ EMT/ EMR or State of Arizona certification
12. HVAC: NCCER HVAC certifications
13. Heavy Equipment Operators: NCCER Heavy Equipment Operators
14. Laboratory Assisting: American Society of Phlebotomy Technicians or National Phlebotomy Association/Certified Phlebotomy Technician
15. Law, Public Safety and Security: Arizona Department of Public Safety/Security Guard Certificate
16. Mechanical Drafting: Autodesk Certified user, including AutoCAD
17. Nursing Services: CNA or LNA
18. Pharmacy Support Services; Pharmacy Technician Certification Board/ Certified Pharmacy Technicians
19. Therapeutic Massage: Registered Massage Therapist; Arizona State Board of Massage Therapy/ Licensed Massage Therapist
20. Welding Technologies: American Welding Society Certification (AWSC)

### SCORING

- A student would receive 0.5 points for each credential/ certificate or license earned
- A student could earn a maximum of 1.0 points in this category

## Bonus Points

Schools with greater than or equal to 80% of the current year state average of FAY students enrolled in special education will earn 2 bonus points. Schools had to have greater than or equal to 8.3% to receive the bonus points.

The following formulas are used for the calculations:

### School Level Current Year FAY Special Education Program

**Enrollment Percentage** =  $100 * \left( \frac{\text{The number of current year FAY students who are enrolled in a special education program}}{\text{Total current year FAY enrollment}} \right)$

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(Total current year FAY enrollment)

### Statewide Current Year FAY Special Education Program

**Enrollment Percentage** =  $100 * \left( \frac{\text{The number of current year FAY students who are enrolled in a special education program}}{\text{Total current year FAY enrollment}} \right)$

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(Total current year FAY enrollment)

**80% of statewide percentage** =  $80% * \text{Statewide Current Year FAY Special Education Program Enrollment Percentage}$

**FAY Special Education Program Enrollment Bonus Points** = (School Level Current Year FAY Special Education Program Enrollment Percentage - 80% of statewide percentage)

### FAY Special Education Program Enrollment Bonus Points (0 or 2 points)

- A school's current year FAY special education program enrollment percentage is greater than or equal to 80% of the statewide percentage = 2 points
- A school's current year FAY special education program enrollment percentage is less than 80% of the statewide percentage = 0 points

## Calculating Total Points

**Schools that meet the n-size for every indicator can earn up to 100 points:**

$$\text{Letter grade} = [(\text{Percent Proficient} \times .30) + (\text{Growth} \times .20) + (\text{ELL Proficiency Points}) + (\text{ELL Growth Points}) + (\text{Graduation Rate Points}) + (\text{College and Career Ready Points})] + \text{Bonus Points}$$

**Schools that meet the n-size for every indicator except for EL Proficiency can earn up to 90 points:**

$$\text{Letter grade} = [(\text{Percent Proficient} \times .30) + (\text{Growth} \times .20) + (\text{Graduation Rate Points}) + (\text{College and Career Ready Points})] + \text{Bonus Points}$$

**Schools that meet the n-size for every indicator except for EL Proficiency and College and Career Ready Points can earn up to 70 points:**

$$\text{Letter grade} = [(\text{Percent Proficient} \times .30) + (\text{Growth} \times .20) + (\text{Graduation Rate Points})] + \text{Bonus Points}$$

**Schools that meet the n-size for every indicator except for EL Proficiency, College and Career Ready Points, and Graduation Rate can earn up to 50 points:**

$$\text{Letter grade} = [(\text{Percent Proficient} \times .30) + (\text{Growth} \times .20)] + \text{Bonus Points}$$

**Schools without enough students to be eligible for 50 points will be not rated in FY17.**

## Non-Typical School Configurations

Schools that serve grades K-12, 1-12, 2-12, 3-12, and 4-12 utilize both the K-8 and 9-12 models. Students in grades K-8 are used to determine the K-8 total points earned and students in grades 9-12 the 9-12 total points earned. The percentage of FAY students enrolled determines the weighting of the K-8 and 9-12 letter grades to assign the school one overall percentage. To obtain one letter grade the following calculation is done:

Non-Typical School

$$\text{Configuration Letter Grade} = \frac{((\text{K-8 Total Points} * \text{K-8 FAY enrollment percentage} + \text{9-12 Total Points} * \text{9-12 FAY enrollment percentage}))}{((\text{K-8 Total Points Eligible} * \text{K-8 FAY enrollment percentage} + \text{9-12 Total Points Eligible} * \text{9-12 FAY enrollment percentage}))}$$

For example, a K-12 school earns 72 points out of 90 on the K-8 model and 22 points out of 50 on the 9-12 model. 58% of the school's students are enrolled in grades K-8 and 42% are enrolled in grades 9-12.

Non-Typical School

$$\begin{aligned} \text{Configuration Letter Grade} &= ((72 * .58) + (22 * .42)) / ((90 * .58) + (50 * .42)) \\ &= (41.76 + 9.24) / (52.2 + 21) \\ &= (51) / (73.2) \\ &= 69.67\% \end{aligned}$$